



District Department of Transportation

Speed Limit and Safety Nexus Studies for Automated Enforcement Locations in the District of Columbia

2500 Block North Capitol Street NE

Study Area and Location

| District | PSA | Ward | ANC | Phase | Description |
|----------|-----|------|-----|----------|------------------------------------------------|
| 5 | 502 | 5 | 5C | Proposed | 2500 North Capitol Street Northeast Northbound |



This *proposed* speed camera will be located in Ward 5 on the 2500 block of North Capitol Street Northeast in the northbound direction. North Capitol Street runs between Eastern Avenue Northwest to the north and D Street Northeast to the south. The posted speed limit is 25 MPH.

W5 - 333





District Department of Transportation

2500 Block North Capitol Street NE

Field Assessment Summary

North Capitol Street is assumed to run in the north-south direction, and is classified as a principal arterial. North Capitol Street has three travel lanes in each direction. This site has the following characteristics:

- This site is located in a residential area with houses on the east side of the street.
- There is a concrete median in the road.
- There is sidewalk with curb, gutter, and drainage inlets on both sides of the street and crosswalks at Channing Street Northwest and Douglas Street Northeast.
- There is on-street parking on the east side of the street.
- There is a traffic signal and crosswalks with pedestrian signals at Channing Street Northwest.
- There is a steep bank along the west side of the street.
- The existing pavement is in good condition.
- There is a bus stop on the southbound side of the street just before Channing Street Northwest.



Looking Northbound

W5 - 334



District Department of Transportation

2500 Block North Capitol Street NE



Looking Northbound

Speed Data Analysis

| | |
|-----------------------------|--------|
| Posted Speed Limit (MPH) | 25 |
| Mean Speed (MPH) | 41 |
| 85th Percentile Speed (MPH) | 57 |
| 10 MPH Pace Speed (MPH) | 41-50 |
| ADT | 18,330 |

Both the mean speed and the 85th percentile speed are higher than the posted speed limit. The 85th percentile speed is 32 MPH higher than the posted speed limit. Due to the residential nature, this location may benefit from additional speed enforcement.

Crash Data Analysis

From the Accident Summary Report provided for the dates between January 1, 2010 and December 31, 2012, there were a total of 10 crashes at this location. A breakdown of number of crashes by collision type can be found in the chart on the next page. The most common type of collision at this location was Side Swipe with five crashes. Furthermore, this site experienced three injury-related crashes.

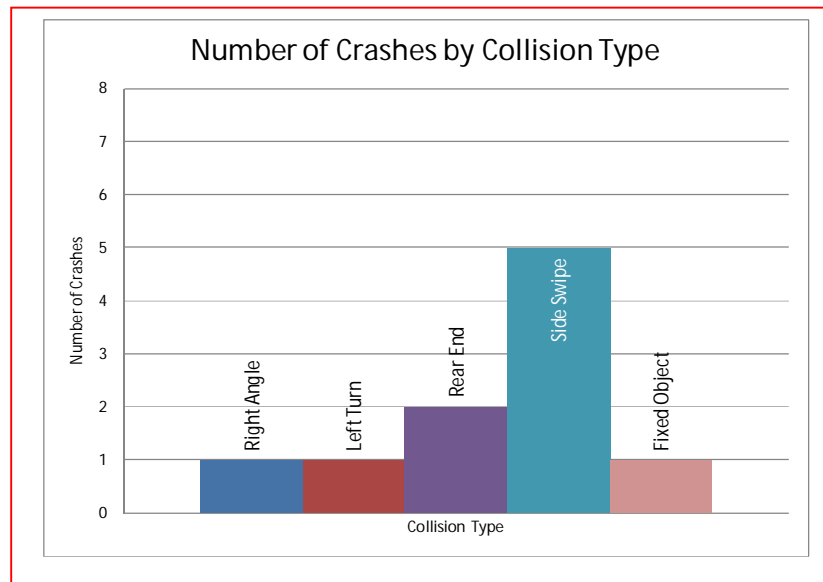
W5 - 335



District Department of Transportation

2500 Block North Capitol Street NE

| Severity | | | Weather | | | Surface condition | | | Light Condition | | |
|----------|----|-------|---------|---|-------|-------------------|---|-------|-----------------|---|-------|
| Total | 10 | | | | | | | | | | |
| Fatal | 0 | 0.0% | Clear | 9 | 90.0% | Dry | 9 | 90.0% | Day | 5 | 50.0% |
| Injury | 3 | 30.0% | Rain | 1 | 10.0% | Wet | 1 | 10.0% | Night | 4 | 40.0% |
| Bus | 3 | 30.0% | Snow | 0 | 0.0% | Snow/Ice | 0 | 0.0% | | | |
| Truck | 2 | 20.0% | | | | | | | | | |



Safety Nexus

This site presents the following safety considerations which may support the nexus between the speed camera and traffic safety:

1. Speed Data – The 85th percentile speed is much higher than the posted speed limit at this location.
2. Crash Data – The crash data analysis shows a low number of crashes at this location, including three injury-related crashes.
3. Field Assessment – The following site characteristics suggest a need for a safer travel environment:
 - a. Located in a residential area with houses on the east side of the street.
 - b. There is on-street parking on the east side of the street.
 - c. There are several bus stops in the area which generate pedestrian activity.

W5 - 336



District Department of Transportation

2500 Block North Capitol Street NE

Although the crash data analysis showed a low number of crashes at this location, due to the speed data analysis, the specific site characteristics and pedestrian generators, there is a nexus between traffic safety and the speed camera at this location.

W5 - 337

SAMMAT ENGINEERING SERVICES, LLC

1515 RISING RIDGE ROAD
MOUNT AIRY, MD 21771

www.sammateng.com

2500 block of North Capitol St NE NB Speed

NB

| Start Time | 1 15 | 16 20 | 21 25 | 26 30 | 31 35 | 36 40 | 41 45 | 46 50 | 51 55 | 56 60 | 61 65 | 66 70 | 71 75 | 76 999 | Total |
|------------|---------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|-------|
| 11/13/13 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 01:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 02:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 03:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 04:00 | 10 | 0 | 0 | 0 | 0 | 1 | 3 | 5 | 4 | 3 | 4 | 3 | 2 | 3 | 38 |
| 05:00 | 19 | 0 | 1 | 0 | 2 | 2 | 14 | 31 | 51 | 76 | 44 | 42 | 29 | 68 | 379 |
| 06:00 | 41 | 2 | 4 | 10 | 10 | 48 | 118 | 138 | 133 | 104 | 83 | 67 | 34 | 52 | 844 |
| 07:00 | 90 | 2 | 13 | 33 | 40 | 73 | 151 | 188 | 194 | 125 | 84 | 48 | 23 | 93 | 1157 |
| 08:00 | 55 | 2 | 4 | 18 | 25 | 72 | 107 | 156 | 179 | 133 | 81 | 54 | 46 | 85 | 1017 |
| 09:00 | 52 | 7 | 11 | 37 | 41 | 59 | 130 | 128 | 148 | 104 | 59 | 34 | 29 | 40 | 879 |
| 10:00 | 70 | 1 | 6 | 49 | 88 | 146 | 124 | 121 | 101 | 59 | 47 | 26 | 12 | 12 | 862 |
| 11:00 | 49 | 1 | 10 | 14 | 67 | 113 | 125 | 130 | 97 | 69 | 43 | 32 | 19 | 26 | 795 |
| 12 PM | 62 | 3 | 16 | 48 | 114 | 149 | 146 | 136 | 84 | 59 | 31 | 28 | 16 | 20 | 912 |
| 13:00 | 72 | 4 | 12 | 45 | 110 | 136 | 183 | 137 | 103 | 58 | 36 | 26 | 17 | 17 | 956 |
| 14:00 | 90 | 4 | 30 | 49 | 89 | 166 | 162 | 158 | 100 | 78 | 62 | 38 | 14 | 30 | 1070 |
| 15:00 | 113 | 14 | 16 | 70 | 127 | 186 | 215 | 164 | 134 | 99 | 49 | 34 | 23 | 22 | 1266 |
| 16:00 | 121 | 3 | 21 | 36 | 84 | 132 | 141 | 192 | 170 | 102 | 77 | 43 | 31 | 42 | 1195 |
| 17:00 | 125 | 4 | 7 | 38 | 88 | 128 | 155 | 169 | 160 | 115 | 59 | 48 | 28 | 41 | 1165 |
| 18:00 | 130 | 12 | 35 | 62 | 137 | 216 | 184 | 162 | 109 | 73 | 54 | 24 | 11 | 14 | 1223 |
| 19:00 | 244 | 43 | 65 | 69 | 84 | 118 | 112 | 68 | 50 | 33 | 19 | 6 | 4 | 12 | 927 |
| 20:00 | 93 | 1 | 0 | 2 | 32 | 110 | 171 | 135 | 106 | 70 | 34 | 29 | 7 | 20 | 810 |
| 21:00 | 59 | 0 | 3 | 17 | 50 | 135 | 172 | 134 | 103 | 61 | 42 | 24 | 15 | 12 | 827 |
| 22:00 | 33 | 1 | 2 | 14 | 44 | 82 | 134 | 118 | 119 | 67 | 33 | 27 | 17 | 25 | 716 |
| 23:00 | 23 | 0 | 1 | 3 | 21 | 54 | 101 | 78 | 83 | 64 | 35 | 23 | 16 | 37 | 539 |
| Total | 1551 | 104 | 257 | 614 | 1253 | 2126 | 2648 | 2548 | 2228 | 1552 | 976 | 656 | 393 | 671 | 17577 |

SAMMAT ENGINEERING SERVICES, LLC

1515 RISING RIDGE ROAD
MOUNT AIRY, MD 21771

www.sammateng.com

2500 block of North Capitol St NE NB Speed

NB

| Start Time | 1 15 | 16 20 | 21 25 | 26 30 | 31 35 | 36 40 | 41 45 | 46 50 | 51 55 | 56 60 | 61 65 | 66 70 | 71 75 | 76 999 | Total |
|-------------|---------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|-------|
| 11/14/13 | 14 | 0 | 2 | 0 | 4 | 6 | 32 | 56 | 48 | 50 | 32 | 28 | 16 | 25 | 313 |
| 01:00 | 5 | 0 | 1 | 0 | 1 | 6 | 6 | 20 | 23 | 24 | 21 | 16 | 9 | 19 | 151 |
| 02:00 | 6 | 0 | 0 | 0 | 5 | 8 | 10 | 19 | 17 | 15 | 6 | 13 | 7 | 16 | 122 |
| 03:00 | 3 | 0 | 0 | 0 | 0 | 0 | 5 | 16 | 13 | 14 | 9 | 9 | 5 | 8 | 82 |
| 04:00 | 3 | 0 | 1 | 0 | 0 | 4 | 2 | 10 | 12 | 18 | 10 | 11 | 4 | 10 | 85 |
| 05:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 06:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 07:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 08:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 09:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 10:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 11:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 12 PM | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 13:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 14:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 15:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 16:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 17:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 18:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 19:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 20:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 21:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 22:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 23:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| Total | 31 | 0 | 4 | 0 | 10 | 24 | 55 | 121 | 113 | 121 | 78 | 77 | 41 | 78 | 753 |
| Grand Total | 1582 | 104 | 261 | 614 | 1263 | 2150 | 2703 | 2669 | 2341 | 1673 | 1054 | 733 | 434 | 749 | 18330 |

15th Percentile : 14 MPH
 50th Percentile : 43 MPH
 85th Percentile : 57 MPH
 95th Percentile : 65 MPH

Stats
 Mean Speed(Average) : 41 MPH
 10 MPH Pace Speed : 41-50 MPH
 Number in Pace : 4945
 Percent in Pace : 28.1%
 Number of Vehicles > 25 MPH : 14476
 Percent of Vehicles > 25 MPH : 82.3%

SAMMAT ENGINEERING SERVICES, LLC

1515 RISING RIDGE ROAD
MOUNT AIRY, MD 21771

www.sammateng.com

2500 block of North Capitol St NE NB Volume

| Start Time | Wed 13-Nov-13 | | Thu 14-Nov-13 | | Fri 15-Nov-13 | | Daily Average | |
|----------------|---------------|------------|---------------|------|---------------|------|---------------|------------|
| | A.M. | P.M. | A.M. | P.M. | A.M. | P.M. | A.M. | P.M. |
| 12:00 | * | 232 | 103 | * | * | * | 103 | 232 |
| 12:15 | * | 238 | 90 | * | * | * | 90 | 238 |
| 12:30 | * | 228 | 59 | * | * | * | 59 | 228 |
| 12:45 | * | 214 | 61 | * | * | * | 61 | 214 |
| 01:00 | * | 221 | 42 | * | * | * | 42 | 221 |
| 01:15 | * | 256 | 35 | * | * | * | 35 | 256 |
| 01:30 | * | 242 | 42 | * | * | * | 42 | 242 |
| 01:45 | * | 237 | 32 | * | * | * | 32 | 237 |
| 02:00 | * | 254 | 30 | * | * | * | 30 | 254 |
| 02:15 | * | 259 | 37 | * | * | * | 37 | 259 |
| 02:30 | * | 264 | 27 | * | * | * | 27 | 264 |
| 02:45 | * | 293 | 28 | * | * | * | 28 | 293 |
| 03:00 | * | 301 | 19 | * | * | * | 19 | 301 |
| 03:15 | * | 323 | 23 | * | * | * | 23 | 323 |
| 03:30 | * | 306 | 12 | * | * | * | 12 | 306 |
| 03:45 | * | 336 | 28 | * | * | * | 28 | 336 |
| 04:00 | * | 304 | 21 | * | * | * | 21 | 304 |
| 04:15 | * | 270 | 36 | * | * | * | 36 | 270 |
| 04:30 | * | 293 | 28 | * | * | * | 28 | 293 |
| 04:45 | 38 | 328 | * | * | * | * | 38 | 328 |
| 05:00 | 54 | 316 | * | * | * | * | 54 | 316 |
| 05:15 | 73 | 278 | * | * | * | * | 73 | 278 |
| 05:30 | 123 | 291 | * | * | * | * | 123 | 291 |
| 05:45 | 129 | 280 | * | * | * | * | 129 | 280 |
| 06:00 | 144 | 290 | * | * | * | * | 144 | 290 |
| 06:15 | 186 | 298 | * | * | * | * | 186 | 298 |
| 06:30 | 252 | 318 | * | * | * | * | 252 | 318 |
| 06:45 | 262 | 317 | * | * | * | * | 262 | 317 |
| 07:00 | 276 | 321 | * | * | * | * | 276 | 321 |
| 07:15 | 288 | 210 | * | * | * | * | 288 | 210 |
| 07:30 | 301 | 201 | * | * | * | * | 301 | 201 |
| 07:45 | 292 | 195 | * | * | * | * | 292 | 195 |
| 08:00 | 260 | 187 | * | * | * | * | 260 | 187 |
| 08:15 | 264 | 208 | * | * | * | * | 264 | 208 |
| 08:30 | 244 | 213 | * | * | * | * | 244 | 213 |
| 08:45 | 249 | 202 | * | * | * | * | 249 | 202 |
| 09:00 | 228 | 218 | * | * | * | * | 228 | 218 |
| 09:15 | 208 | 193 | * | * | * | * | 208 | 193 |
| 09:30 | 231 | 192 | * | * | * | * | 231 | 192 |
| 09:45 | 212 | 224 | * | * | * | * | 212 | 224 |
| 10:00 | 216 | 240 | * | * | * | * | 216 | 240 |
| 10:15 | 244 | 172 | * | * | * | * | 244 | 172 |
| 10:30 | 205 | 160 | * | * | * | * | 205 | 160 |
| 10:45 | 197 | 144 | * | * | * | * | 197 | 144 |
| 11:00 | 172 | 187 | * | * | * | * | 172 | 187 |
| 11:15 | 215 | 147 | * | * | * | * | 215 | 147 |
| 11:30 | 214 | 112 | * | * | * | * | 214 | 112 |
| 11:45 | 194 | 93 | * | * | * | * | 194 | 93 |
| Total | 5971 | 11606 | 753 | 0 | 0 | 0 | 6724 | 11606 |
| Combined Total | 17577 | | 753 | | 0 | | 18330 | |
| Peak | 07:00 | 03:15 | 12:00 | | | | 07:00 | 03:15 |
| Vol. | 1157 | 1269 | 313 | | | | 1157 | 1269 |
| P.H.F. | 0.961 | 0.944 | 0.760 | | | | 0.961 | 0.944 |
| ADT | ADT 18,330 | | AADT 18,330 | | | | | |

DC Department of Transportation - Traffic Accident Reporting and Analysis System

Accident Summary Report (R-8)

Corridor: NORTH CAPITOL ST,BN From CRITTENDEN ST,BN TO BUCHANAN ST,BN

Time Period Covered: From 01/01/2010 To 12/31/2012

Prepared By: Rahul Jain

Prepared Date: 9/16/2013

| | | | | | | | |
|----------------------------------------|----|-----------------------|-------------|-------------|-----------------------|-------------------------------|----------|
| Total Number of Accident: | 10 | Collision Type | #ACC | % | Collision Type | #ACC | % |
| Total Number of Fatalities: | 0 | Right Angle: | 1 | 10.0% | Fixed Object: | 1 | 10.0% |
| Total Number of Injuries: | 4 | Left Turn: | 1 | 10.0% | Ran Off Road: | 0 | 0.0% |
| Total Number of Disabling Injuries: | 0 | Right Turn: | 0 | 0.0% | Ped. Involved: | 0 | 0.0% |
| Total Number of NonDisabling Injuries: | 1 | Rear End: | 2 | 20.0% | Backing: | 0 | 0.0% |
| Total Number of Pedestrians Involved: | 0 | Side Swiped: | 5 | 50.0% | Non Collision: | 0 | 0.0% |
| Total Number of Bicycles Involved: | 0 | Head On: | 0 | 0.0% | Under/Over Ride: | 0 | 0.0% |
| Total Number of Motorcycles Involved: | 0 | Parked: | 0 | 0.0% | Unspecified: | 0 | 0.0% |
| Time of Day | | | | #ACC | % | Day o fweek | |
| 07:30 ~ 09:30: | | | | 1 | 10.0% | Sunday: | |
| 09:30 ~ 11:30: | | | | 0 | 0.0% | Monday: | |
| 11:30 ~ 13:30: | | | | 1 | 10.0% | Tuesday: | |
| 13:30 ~ 16:00: | | | | 2 | 20.0% | Wednesday: | |
| 16:00 ~18:30: | | | | 3 | 30.0% | Thursday: | |
| 18:30 ~ 07:30: | | | | 3 | 30.0% | Friday: | |
| Unspecified: | | | | 0 | 0.0% | Saturday: | |
| Weather Condition | | | | #ACC | % | Surface Condition | |
| Clear: | | | | 9 | 90.0% | Dry: | |
| Rain: | | | | 1 | 10.0% | Wet: | |
| Snow: | | | | 0 | 0.0% | Snow/Ice: | |
| Sleet/Hail: | | | | 0 | 0.0% | Slush: | |
| Fog/Mist: | | | | 0 | 0.0% | Water/Sand: | |
| Crosswind/Blowing Sand: | | | | 0 | 0.0% | Repairing: | |
| Unspecified: | | | | 0 | 0.0% | Unspecified: | |
| Type of Vehicle | | | | #VEH | % | Accident Severity Type | |
| Passenger Car: | | | | 16 | 72.7% | Fatal Collision: | |
| Bus: | | | | 3 | 13.6% | Injury Collision: | |
| Truck: | | | | 2 | 9.1% | PDO Collision: | |
| Taxi: | | | | 0 | 0.0% | Light Condition | |
| Minivan: | | | | 0 | 0.0% | Daylight: | |
| Police/Emergency Vehicle: | | | | 0 | 0.0% | Dawn/Dusk: | |
| Motorcycle/Moped: | | | | 0 | 0.0% | Dark(Lighted): | |
| Bicycle: | | | | 0 | 0.0% | Dark(Not Lighted): | |
| Fixed Object: | | | | 0 | 0.0% | Dark(Unknown Lighting): | |
| Unspecified: | | | | 1 | 4.5% | Unspecified: | |
| Contributing Factor | | | | #VEH | % | Pedestrian Actions | |
| Driver: Speed: | | | | 1 | 4.5% | In Crosswalk with Signal: | |
| Driver: Alcohol/Drug: | | | | 0 | 0.0% | In Crosswalk against Signal: | |
| Driver: Electronic Device: | | | | 0 | 0.0% | In Crosswalk no Signal: | |
| Driver: Others: | | | | 5 | 22.7% | In Unmarked Crosswalk: | |
| Vehicle: | | | | 0 | 0.0% | Not in Crosswalk: | |
| Roadway: | | | | 0 | 0.0% | From Between Parked Cars: | |
| Unspecified: | | | | 16 | 72.7% | Unspecified: | |

4 Records are not approved as of 9/16/2013 8:33:55 AM