



District Department of Transportation

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

1500 Block Monroe Street NE

Study Area and Location

District	PSA	Ward	ANC	Phase	Description
5	302	1	1A	Proposed	1500 Block Monroe St Northeast, Eastbound



The *proposed* speed camera will be located in Ward 1 at the 1500 block of Monroe Street Northeast in the eastbound direction. Monroe Street runs between Eastern Avenue to the east and Michigan Avenue to the west. The posted speed limit is 25 MPH.

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District Department of Transportation

1500 Block Monroe Street NE

Field Assessment Summary

Monroe Street is assumed to run in an east-west direction, and is classified as a minor arterial. Monroe Street has one travel lane in each direction. This site has the following characteristics:

- This is a residential area with houses and driveways.
- There are four schools in the area: St. Anthony Catholic School, Elsie Whitlow Stokes Public Charter School, Perry Street Preparatory School, and Burroughs Education Campus
- There is sidewalk on both sides of the street and on-street parking on the south side of the street. There are crosswalks at 15th Street and 16th Street and a four way stop at 15th Street.
- The pavement is in fair condition and there is curb and gutter with drainage ditches. There is a slope downgrade in the eastbound direction.
- There is a bus stop eastbound before 16th Street.



Looking Eastbound



District Department of Transportation

1500 Block Monroe Street NE



Looking Westbound

Speed Data Analysis

Posted Speed Limit (MPH)	25
Mean Speed (MPH)	29
85th Percentile Speed (MPH)	34
10 MPH Pace Speed	26-35
ADT	3,434

The mean speed and 85th percentile speed are both higher than the posted speed limit at this location. The 85th percentile speed is 9 MPH higher than the posted speed limit.

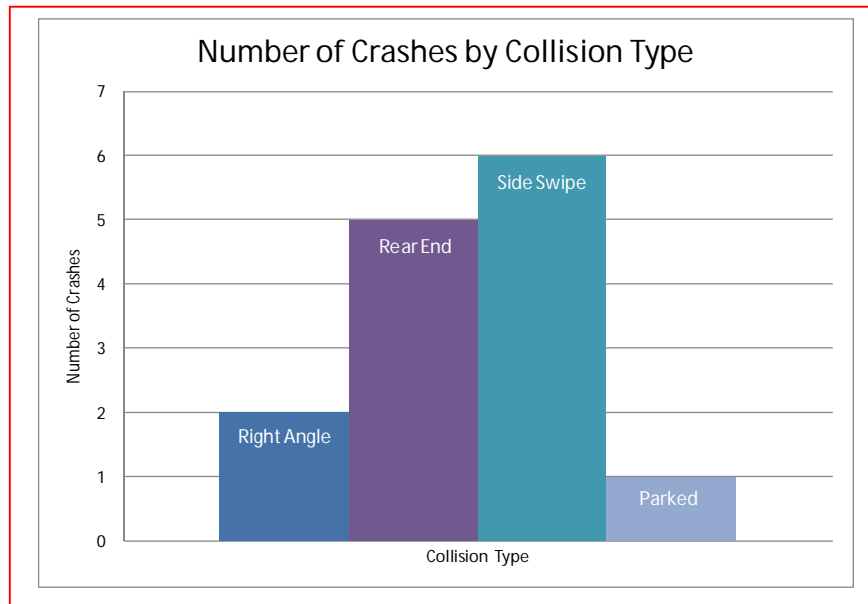
Crash Data Analysis

From the Accident Summary Report provided for the dates between January 1, 2010 and December 31, 2012, there were a total of 14 crashes at this location. A breakdown of collision type can be found in the chart on the next page. The most common types of collision at this location were Side Swiped (6 crashes) and Rear End (5 crashes). The other collision types had two crashes or less. Furthermore, this location experienced six injury-related crashes.



1500 Block Monroe Street NE

Severity			Weather			Surface condition			Light Condition		
Total	14										
Fatal	0	0.0%	Clear	9	64.3%	Dry	10	71.4%	Day	12	85.7%
Injury	6	42.9%	Rain	2	14.3%	Wet	2	14.3%	Night	1	7.1%
Police/EMS	2	14.3%	Crosswind	1	7.1%	Water/Sand	1	7.1%			
Bus	1	7.1%									



Safety Nexus

This site presents the following safety considerations which may establish a 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 – There was an elevated number of speed related crashes at this location, including side swipe and rear end collisions, as well as six injury-related crashes.
3. Field Assessment – The following site characteristics suggest a need for a safer travel environment:
 - a. This is a residential area with houses and driveways.
 - b. There are four schools in the area: St. Anthony Catholic School, Elsie Whitlow Stokes Public Charter School, Perry Street Preparatory School, and Burroughs Education Campus.
 - c. There are several bus stops in the area which generate pedestrian activity.
 - d. There is on-street parking on the south side of the road.



District Department of Transportation

1500 Block Monroe Street NE

Due to the speed data analysis, the elevated number of speed-related crashes and injury-related crashes, the specific site characteristics, the proximity of schools to the site, and other pedestrian generators, there is a nexus between traffic safety and the speed camera at this location.

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SAMMAT ENGINEERING SERVICES, LLC

1515 RISING RIDGE ROAD
MOUNT AIRY, MD 21771

www.sammateng.com

1500 Block of Monroe St NE Speed

EB

Start Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total
11/04/13	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	13	0	0	0	1	0	1	0	0	0	0	0	0	0	15
02:00	1	0	0	2	4	1	1	0	0	0	0	0	0	0	9
03:00	0	0	1	5	0	4	0	0	0	0	0	0	0	0	10
04:00	6	0	0	1	1	1	0	0	0	0	0	0	0	0	9
05:00	1	0	0	3	12	2	3	1	0	0	0	0	0	0	22
06:00	1	3	3	20	33	10	2	0	0	0	0	0	0	0	72
07:00	4	2	20	53	62	18	2	0	0	0	0	0	0	0	161
08:00	6	3	10	30	66	36	1	0	0	0	0	0	0	0	152
09:00	2	1	6	30	53	25	0	0	0	0	0	0	0	0	117
10:00	2	4	7	46	63	11	0	1	0	0	0	0	0	0	134
11:00	3	1	11	56	74	16	1	0	0	0	0	0	0	0	162
12 PM	2	4	28	68	52	7	4	0	0	0	0	0	0	0	165
13:00	2	5	15	52	77	17	0	0	0	0	0	0	0	0	168
14:00	7	3	35	90	83	12	1	0	0	0	0	0	0	0	231
15:00	7	3	47	127	115	9	1	0	0	0	0	0	0	0	309
16:00	13	5	55	164	137	25	3	0	0	0	0	0	0	0	402
17:00	1	5	31	192	168	24	1	0	0	0	0	0	0	0	422
18:00	7	3	17	107	97	13	1	1	0	0	0	0	0	0	246
19:00	0	4	11	69	88	20	0	0	0	0	0	0	0	0	192
20:00	4	4	7	56	76	13	2	0	0	0	0	0	0	0	162
21:00	4	1	4	28	44	13	0	0	0	0	0	0	0	0	94
22:00	3	0	7	25	25	7	0	0	0	0	0	0	0	0	67
23:00	1	0	3	27	48	5	1	0	0	0	0	0	0	0	85
Total	90	51	318	1251	1379	289	25	3	0	0	0	0	0	0	3406

SAMMAT ENGINEERING SERVICES, LLC

1515 RISING RIDGE ROAD
MOUNT AIRY, MD 21771

www.sammateng.com

1500 Block of Monroe St NE Speed

EB

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total
11/05/13	0	0	0	6	6	4	1	0	0	0	0	0	0	0	17
01:00	10	0	0	1	0	0	0	0	0	0	0	0	0	0	11
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	10	0	0	7	6	4	1	0	0	0	0	0	0	0	28
Grand Total	100	51	318	1258	1385	293	26	3	0	0	0	0	0	0	3434

15th Percentile : 23 MPH
 50th Percentile : 29 MPH
 85th Percentile : 34 MPH
 95th Percentile : 37 MPH

Stats
 Mean Speed(Average) : 29 MPH
 10 MPH Pace Speed : 26-35 MPH
 Number in Pace : 2328
 Percent in Pace : 67.8%
 Number of Vehicles > 25 MPH : 2767
 Percent of Vehicles > 25 MPH : 80.6%

SAMMAT ENGINEERING SERVICES, LLC

1515 RISING RIDGE ROAD
MOUNT AIRY, MD 21771

www.sammateng.com

1500 Block of Monroe St NE Volume

Start Time	Mon	04-Nov-13	Tue	05-Nov-13	Wed	06-Nov-13	Daily Average	
	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.
12:00	*	45	6	*	*	*	6	45
12:15	*	46	6	*	*	*	6	46
12:30	*	40	3	*	*	*	3	40
12:45	*	34	2	*	*	*	2	34
01:00	*	42	1	*	*	*	1	42
01:15	*	49	10	*	*	*	10	49
01:30	13	42	*	*	*	*	13	42
01:45	2	35	*	*	*	*	2	35
02:00	2	49	*	*	*	*	2	49
02:15	2	62	*	*	*	*	2	62
02:30	1	59	*	*	*	*	1	59
02:45	4	61	*	*	*	*	4	61
03:00	0	67	*	*	*	*	0	67
03:15	4	68	*	*	*	*	4	68
03:30	2	82	*	*	*	*	2	82
03:45	4	92	*	*	*	*	4	92
04:00	2	84	*	*	*	*	2	84
04:15	2	124	*	*	*	*	2	124
04:30	2	95	*	*	*	*	2	95
04:45	3	99	*	*	*	*	3	99
05:00	5	108	*	*	*	*	5	108
05:15	3	106	*	*	*	*	3	106
05:30	3	99	*	*	*	*	3	99
05:45	11	109	*	*	*	*	11	109
06:00	8	97	*	*	*	*	8	97
06:15	16	67	*	*	*	*	16	67
06:30	13	33	*	*	*	*	13	33
06:45	35	49	*	*	*	*	35	49
07:00	21	41	*	*	*	*	21	41
07:15	50	44	*	*	*	*	50	44
07:30	44	64	*	*	*	*	44	64
07:45	46	43	*	*	*	*	46	43
08:00	40	38	*	*	*	*	40	38
08:15	40	47	*	*	*	*	40	47
08:30	36	30	*	*	*	*	36	30
08:45	36	47	*	*	*	*	36	47
09:00	28	26	*	*	*	*	28	26
09:15	30	31	*	*	*	*	30	31
09:30	25	16	*	*	*	*	25	16
09:45	34	21	*	*	*	*	34	21
10:00	30	15	*	*	*	*	30	15
10:15	42	19	*	*	*	*	42	19
10:30	30	16	*	*	*	*	30	16
10:45	32	17	*	*	*	*	32	17
11:00	39	27	*	*	*	*	39	27
11:15	34	24	*	*	*	*	34	24
11:30	45	19	*	*	*	*	45	19
11:45	44	15	*	*	*	*	44	15
Total	863	2543	28	0	0	0	891	2543
Combined Total	3406		28		0		3434	
Peak	07:15	04:15	12:00				07:15	04:15
Vol.	180	426	17				180	426
P.H.F.	0.900	0.859	0.708				0.900	0.859
ADT	ADT 3,434		AADT 3,434					

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1500 Block of Monroe St NE Volume

Start Time	Mon	04-Nov-13	Tue	05-Nov-13	Wed	06-Nov-13	Daily Average	
	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.
12:00	*	45	6	*	*	*	6	45
12:15	*	46	6	*	*	*	6	46
12:30	*	40	3	*	*	*	3	40
12:45	*	34	2	*	*	*	2	34
01:00	*	42	1	*	*	*	1	42
01:15	*	49	10	*	*	*	10	49
01:30	13	42	*	*	*	*	13	42
01:45	2	35	*	*	*	*	2	35
02:00	2	49	*	*	*	*	2	49
02:15	2	62	*	*	*	*	2	62
02:30	1	59	*	*	*	*	1	59
02:45	4	61	*	*	*	*	4	61
03:00	0	67	*	*	*	*	0	67
03:15	4	68	*	*	*	*	4	68
03:30	2	82	*	*	*	*	2	82
03:45	4	92	*	*	*	*	4	92
04:00	2	84	*	*	*	*	2	84
04:15	2	124	*	*	*	*	2	124
04:30	2	95	*	*	*	*	2	95
04:45	3	99	*	*	*	*	3	99
05:00	5	108	*	*	*	*	5	108
05:15	3	106	*	*	*	*	3	106
05:30	3	99	*	*	*	*	3	99
05:45	11	109	*	*	*	*	11	109
06:00	8	97	*	*	*	*	8	97
06:15	16	67	*	*	*	*	16	67
06:30	13	33	*	*	*	*	13	33
06:45	35	49	*	*	*	*	35	49
07:00	21	41	*	*	*	*	21	41
07:15	50	44	*	*	*	*	50	44
07:30	44	64	*	*	*	*	44	64
07:45	46	43	*	*	*	*	46	43
08:00	40	38	*	*	*	*	40	38
08:15	40	47	*	*	*	*	40	47
08:30	36	30	*	*	*	*	36	30
08:45	36	47	*	*	*	*	36	47
09:00	28	26	*	*	*	*	28	26
09:15	30	31	*	*	*	*	30	31
09:30	25	16	*	*	*	*	25	16
09:45	34	21	*	*	*	*	34	21
10:00	30	15	*	*	*	*	30	15
10:15	42	19	*	*	*	*	42	19
10:30	30	16	*	*	*	*	30	16
10:45	32	17	*	*	*	*	32	17
11:00	39	27	*	*	*	*	39	27
11:15	34	24	*	*	*	*	34	24
11:30	45	19	*	*	*	*	45	19
11:45	44	15	*	*	*	*	44	15
Total	863	2543	28	0	0	0	891	2543
Combined Total	3406		28		0		3434	
Peak	07:15	04:15	12:00				07:15	04:15
Vol.	180	426	17				180	426
P.H.F.	0.900	0.859	0.708				0.900	0.859
ADT	ADT 3,434		AADT 3,434					

Accident Summary Report (R-8)

Corridor: MONROE ST,NE From FOURTEENTH ST,NE TO SIXTEENTH ST,NE

Time Period Covered: From 01/01/2010 To 12/31/2012 **Prepared By:** Rahul Jain

Prepared Date: 9/15/2013

		Collision Type	#ACC	%	Collision Type	#ACC	%
Total Number of Accident:	14	Right Angle:	2	14.3%	Fixed Object:	0	0.0%
Total Number of Fatalities:	0	Left Turn:	0	0.0%	Ran Off Road:	0	0.0%
Total Number of Injuries:	8	Right Turn:	0	0.0%	Ped. Involved:	0	0.0%
Total Number of Disabling Injuries:	0	Rear End:	5	35.7%	Backing:	0	0.0%
Total Number of NonDisabling Injuries:	0	Side Swiped:	6	42.9%	Non Collision:	0	0.0%
Total Number of Pedestrians Involved:	0	Head On:	0	0.0%	Under/Over Ride:	0	0.0%
Total Number of Bicycles Involved:	0	Parked:	1	7.1%	Unspecified:	0	0.0%
Total Number of Motorcycles Involved:	0						

Time of Day	#ACC	%	Day o fweek	#ACC	%
07:30 ~ 09:30:	4	28.6%	Sunday:	1	7.1%
09:30 ~ 11:30:	1	7.1%	Monday:	1	7.1%
11:30 ~ 13:30:	1	7.1%	Tuesday:	2	14.3%
13:30 ~ 16:00:	2	14.3%	Wednesday:	4	28.6%
16:00 ~18:30:	3	21.4%	Thursday:	2	14.3%
18:30 ~ 07:30:	3	21.4%	Friday:	2	14.3%
Unspecified:	0	0.0%	Saturday:	2	14.3%

Weather Condition	#ACC	%	Surface Condition	#ACC	%
Clear:	9	64.3%	Dry:	10	71.4%
Rain:	2	14.3%	Wet:	2	14.3%
Snow:	0	0.0%	Snow/Ice:	0	0.0%
Sleet/Hail:	0	0.0%	Slush:	0	0.0%
Fog/Mist:	0	0.0%	Water/Sand:	1	7.1%
Crosswind/Blowing Sand:	1	7.1%	Repairing:	0	0.0%
Unspecified:	2	14.3%	Unspecified:	1	7.1%

Type of Vehicle	#VEH	%	Accident Severity Type	#ACC	%
Passenger Car:	23	74.2%	Fatal Collision:	0	0.0%
Bus:	1	3.2%	Injury Collision:	6	42.9%
Truck:	0	0.0%	PDO Collision:	8	57.1%
Taxi:	0	0.0%			
Minivan:	0	0.0%	Light Condition	#ACC	%
Police/Emergency Vehicle:	2	6.5%	Daylight:	12	85.7%
Motorcycle/Moped:	0	0.0%	Dawn/Dusk:	0	0.0%
Bicycle:	0	0.0%	Dark(Lighted):	1	7.1%
Fixed Object:	0	0.0%	Dark(Not Lighted):	0	0.0%
Unspecified:	5	16.1%	Dark(Unknown Lighting):	0	0.0%
			Unspecified:	1	7.1%

Contributing Factor	#VEH	%	Pedestrian Actions	#ACC	%
Driver: Speed:	0	0.0%	In Crosswalk with Signal:	0	0.0%
Driver: Alcohol/Drug:	0	0.0%	In Crosswalk against Signal:	0	0.0%
Driver: Electronic Device:	0	0.0%	In Crosswalk no Signal:	0	0.0%
Driver: Others:	3	9.7%	In Unmarked Crosswalk:	0	0.0%
Vehicle:	0	0.0%	Not in Crosswalk:	0	0.0%
Roadway:	0	0.0%	From Between Parked Cars:	0	0.0%
Unspecified:	28	90.3%	Unspecified:	0	0.0%

9 Records are not approved as of 9/15/2013 10:17:04 PM