



District Department of Transportation

Speed Limit and Safety Nexus Studies for Automated Enforcement Locations in the District of Columbia 3800 Block Eastern Avenue NE

Study Area and Location

District	PSA	Ward	ANC	Phase	Description
5	503	5	5A	Proposed	3800 Block Eastern Avenue Northeast Southeast-bound



This *proposed* speed camera will be located in Ward 5 at the 3800 block of Eastern Avenue Northeast in the southeast-bound direction. Eastern Avenue runs between Fort Lincoln Drive Northeast to the east and Gallatin Street Northeast to the west and also from Southern Avenue Northeast to the east and Kenilworth Avenue Northeast to the west. The posted speed limit is 25 MPH.

W5 - 413





District Department of Transportation

3800 Block Eastern Avenue NE

Field Assessment Summary

Eastern Avenue is assumed to run in the southeast-northwest direction, and is classified as a minor arterial. Eastern Avenue has one travel lane in each direction. This site has the following characteristics:

- This is a residential area with houses.
- There is one school in the area: Mt Rainier Elementary School.
- There is sidewalk and on-street parking on both sides of the street.
- The pavement is in good condition and there is curb and gutter with drainage inlets.
- There are bus stops southeast-bound at Randolph Street and Perry Street.



Looking Southeast-bound

W5 - 414



District Department of Transportation

3800 Block Eastern Avenue NE



Looking Northwest-bound

Speed Data Analysis

Posted Speed Limit (MPH)	25
Mean Speed (MPH)	13
85th Percentile Speed (MPH)	18
10 MPH Pace Speed (MPH)	9-18
ADT	7,764

The mean speed is lower than the posted speed limit by 12 MPH and the 85th percentile speed is lower than the posted speed by 7 MPH at this location.

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 three crashes at this location. The collision types that occurred were Left Turn, Rear End, and Parked vehicle with one crash each.

W5 - 415



District Department of Transportation

3800 Block Eastern Avenue NE

Severity			Weather			Surface condition			Light Condition		
Total	3										
Fatal	0	0.0%	Clear	1	33.3%	Dry	1	33.3%	Day	2	66.7%
Injury	1	33.3%	Rain	0	0.0%	Wet	1	33.3%	Night	1	33.3%
Truck	1	33.3%	Fog/Mist	1	33.3%	Snow/Ice	1	33.3%			
Bus	1	33.3%									

Safety Nexus

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

1. Speed Data – The speed data analysis shows travel speeds being lower than the posted speed limit.
2. Crash Data – The crash data analysis shows a low number of crashes at this location.
3. Field Assessment – the following site characteristics suggest a need for a safer travel environment:
 - a. This is a residential area with houses.
 - b. There is one school in the area: Mt Rainier Elementary School.
 - c. There are multiple bus stops in the area which generate pedestrian activity.
 - d. There is on-street parking in both directions.

Although the speed data analysis showed the mean and 85th percentile speeds to be lower than the posted speed limit, and the crash data analysis showed a low number of crashes, there is still a safety concern at this location. The residential area coupled with the pedestrian generation of the bus stops provides multiple opportunities for vehicle-pedestrian conflicts. Thus, due to the specific site characteristics, and the pedestrian generators, there is a nexus between traffic safety and the speed camera at this location.

SAMMAT ENGINEERING SERVICES, LLC

1515 RISING RIDGE ROAD
MOUNT AIRY, MD 21771

www.sammateng.com

3800 BLOCK OF EASTERN AVENUE NE SEB SPEED

SEB															
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
11/16/13	9	7	3	0	0	0	0	0	0	0	0	0	0	0	19
01:00	10	28	1	0	0	0	0	0	0	0	0	0	0	0	39
02:00	7	21	5	0	0	0	0	0	0	0	0	0	0	0	33
03:00	7	16	3	1	0	0	0	0	0	0	0	0	0	0	27
04:00	5	39	14	1	1	0	0	0	0	0	0	0	0	0	60
05:00	39	100	29	3	0	0	0	0	0	0	0	0	0	0	171
06:00	37	182	43	4	0	0	0	0	0	0	0	0	0	0	266
07:00	171	257	29	1	0	0	0	0	0	0	0	0	0	0	458
08:00	144	263	28	1	0	0	0	0	0	0	0	0	0	0	436
09:00	166	184	16	1	0	0	0	0	0	0	0	0	0	0	367
10:00	119	178	29	1	0	0	0	0	0	0	0	0	0	0	327
11:00	72	221	33	0	0	0	0	0	0	0	0	0	0	0	326
12 PM	197	239	21	1	0	0	0	0	0	0	0	0	0	0	458
13:00	187	244	22	0	0	0	0	0	0	0	0	0	0	0	453
14:00	224	213	32	0	0	0	0	0	0	0	0	0	0	0	469
15:00	262	251	16	2	0	0	0	0	0	0	0	0	0	0	531
16:00	446	152	4	1	0	0	0	0	0	0	0	0	0	0	603
17:00	515	88	5	0	0	0	0	0	0	0	0	0	0	0	608
18:00	409	163	4	0	0	0	0	0	0	0	0	0	0	0	576
19:00	189	251	16	1	0	0	0	0	0	0	0	0	0	0	457
20:00	136	170	13	1	0	0	0	0	0	0	0	0	0	0	320
21:00	90	160	11	0	0	0	0	0	0	0	0	0	0	0	261
22:00	74	122	11	1	0	0	0	0	0	0	0	0	0	0	208
23:00	98	106	12	3	0	0	0	0	0	0	0	0	0	0	219
Total	3613	3655	400	23	1	0	0	0	0	0	0	0	0	0	7692

SAMMAT ENGINEERING SERVICES, LLC

1515 RISING RIDGE ROAD
MOUNT AIRY, MD 21771

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3800 BLOCK OF EASTERN AVENUE NE SEB SPEED

SEB															
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
11/17/13	34	33	4	1	0	0	0	0	0	0	0	0	0	0	72
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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	34	33	4	1	0	0	0	0	0	0	0	0	0	0	72
Grand Total	3647	3688	404	24	1	0	0	0	0	0	0	0	0	0	7764

15th Percentile : 5 MPH
 50th Percentile : 12 MPH
 85th Percentile : 18 MPH
 95th Percentile : 20 MPH

Stats
 Mean Speed(Average) : 13 MPH
 10 MPH Pace Speed : 9-18 MPH
 Number in Pace : 4549
 Percent in Pace : 58.6%
 Number of Vehicles > 25 MPH : 44
 Percent of Vehicles > 25 MPH : 0.6%

SAMMAT ENGINEERING SERVICES, LLC

1515 RISING RIDGE ROAD
MOUNT AIRY, MD 21771

www.sammateng.com

3800 BLOCK OF EASTERN AVENUE NE SEB VOLUME

Start Time	16-Nov-13		17-Nov-13		18-Nov-13		Daily Average	
	Sat A.M.	P.M.	Sun A.M.	P.M.	Mon A.M.	P.M.	A.M.	P.M.
12:00	*	109	30	*	*	*	30	109
12:15	*	105	42	*	*	*	42	105
12:30	11	124	*	*	*	*	11	124
12:45	8	120	*	*	*	*	8	120
01:00	21	96	*	*	*	*	21	96
01:15	5	106	*	*	*	*	5	106
01:30	8	146	*	*	*	*	8	146
01:45	5	105	*	*	*	*	5	105
02:00	9	95	*	*	*	*	9	95
02:15	8	142	*	*	*	*	8	142
02:30	8	118	*	*	*	*	8	118
02:45	8	114	*	*	*	*	8	114
03:00	6	116	*	*	*	*	6	116
03:15	6	119	*	*	*	*	6	119
03:30	5	150	*	*	*	*	5	150
03:45	10	146	*	*	*	*	10	146
04:00	8	155	*	*	*	*	8	155
04:15	13	134	*	*	*	*	13	134
04:30	12	159	*	*	*	*	12	159
04:45	27	155	*	*	*	*	27	155
05:00	37	154	*	*	*	*	37	154
05:15	30	167	*	*	*	*	30	167
05:30	52	139	*	*	*	*	52	139
05:45	52	148	*	*	*	*	52	148
06:00	58	157	*	*	*	*	58	157
06:15	57	133	*	*	*	*	57	133
06:30	64	139	*	*	*	*	64	139
06:45	87	147	*	*	*	*	87	147
07:00	87	142	*	*	*	*	87	142
07:15	132	106	*	*	*	*	132	106
07:30	125	102	*	*	*	*	125	102
07:45	114	107	*	*	*	*	114	107
08:00	123	93	*	*	*	*	123	93
08:15	102	79	*	*	*	*	102	79
08:30	111	77	*	*	*	*	111	77
08:45	100	71	*	*	*	*	100	71
09:00	100	74	*	*	*	*	100	74
09:15	89	68	*	*	*	*	89	68
09:30	92	57	*	*	*	*	92	57
09:45	86	62	*	*	*	*	86	62
10:00	87	61	*	*	*	*	87	61
10:15	72	58	*	*	*	*	72	58
10:30	94	48	*	*	*	*	94	48
10:45	74	41	*	*	*	*	74	41
11:00	77	43	*	*	*	*	77	43
11:15	84	58	*	*	*	*	84	58
11:30	73	56	*	*	*	*	73	56
11:45	92	62	*	*	*	*	92	62
Total	2529	5163	72	0	0	0	2601	5163
Combined Total	7692		72		0		7764	
Peak	07:15	04:30					07:15	04:30
Vol.	494	635					494	635
P.H.F.	0.936	0.951					0.936	0.951
ADT	ADT 7,764		AADT 7,764					

Accident Summary Report (R-8)

Corridor: EASTERN AVE,NW,NE From THIRTIETH ST,NE TO PERRY ST,NE

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

Prepared Date: 9/16/2013

		Collision Type	#ACC	%	Collision Type	#ACC	%
Total Number of Accident:	3	Right Angle:	0	0.0%	Fixed Object:	0	0.0%
Total Number of Fatalities:	0	Left Turn:	1	33.3%	Ran Off Road:	0	0.0%
Total Number of Injuries:	2	Right Turn:	0	0.0%	Ped. Involved:	0	0.0%
Total Number of Disabling Injuries:	0	Rear End:	1	33.3%	Backing:	0	0.0%
Total Number of NonDisabling Injuries:	0	Side Swiped:	0	0.0%	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	33.3%	Unspecified:	0	0.0%
Total Number of Motorcycles Involved:	0						

Time of Day	#ACC	%	Day o fweek	#ACC	%
07:30 ~ 09:30:	2	66.7%	Sunday:	0	0.0%
09:30 ~ 11:30:	0	0.0%	Monday:	1	33.3%
11:30 ~ 13:30:	0	0.0%	Tuesday:	0	0.0%
13:30 ~ 16:00:	0	0.0%	Wednesday:	0	0.0%
16:00 ~18:30:	0	0.0%	Thursday:	1	33.3%
18:30 ~ 07:30:	1	33.3%	Friday:	0	0.0%
Unspecified:	0	0.0%	Saturday:	1	33.3%

Weather Condition	#ACC	%	Surface Condition	#ACC	%
Clear:	1	33.3%	Dry:	1	33.3%
Rain:	0	0.0%	Wet:	1	33.3%
Snow:	0	0.0%	Snow/Ice:	1	33.3%
Sleet/Hail:	0	0.0%	Slush:	0	0.0%
Fog/Mist:	1	33.3%	Water/Sand:	0	0.0%
Crosswind/Blowing Sand:	0	0.0%	Repairing:	0	0.0%
Unspecified:	1	33.3%	Unspecified:	0	0.0%

Type of Vehicle	#VEH	%	Accident Severity Type	#ACC	%
Passenger Car:	7	77.8%	Fatal Collision:	0	0.0%
Bus:	1	11.1%	Injury Collision:	1	33.3%
Truck:	1	11.1%	PDO Collision:	2	66.7%
Taxi:	0	0.0%			
Minivan:	0	0.0%	Light Condition	#ACC	%
Police/Emergency Vehicle:	0	0.0%	Daylight:	2	66.7%
Motorcycle/Moped:	0	0.0%	Dawn/Dusk:	0	0.0%
Bicycle:	0	0.0%	Dark(Lighted):	1	33.3%
Fixed Object:	0	0.0%	Dark(Not Lighted):	0	0.0%
Unspecified:	0	0.0%	Dark(Unknown Lighting):	0	0.0%
			Unspecified:	0	0.0%

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:	1	11.1%	In Unmarked Crosswalk:	0	0.0%
Vehicle:	0	0.0%	Not in Crosswalk:	0	0.0%
Roadway:	1	11.1%	From Between Parked Cars:	0	0.0%
Unspecified:	7	77.8%	Unspecified:	0	0.0%

2 Records are not approved as of 9/16/2013 9:47:18 AM