



District Department of Transportation

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

5500 Block East Capitol Street NE

Study Area and Location

District	PSA	Ward	ANC	Phase	Description
6	604/608	7	7C/7E	Proposed	5500 Block East Capitol Street Northeast, Westbound



This *proposed* speed camera will be located in Ward 7 at the 5500 block of East Capitol Street Northeast in the westbound direction. East Capitol Street Northeast runs between Southern Avenue Southeast to the east and C Street Northeast to the west. The posted speed limit is 35 MPH.

W7 - 570





District Department of Transportation

5500 Block East Capitol Street NE

Field Assessment Summary

East Capitol Street Northeast is assumed to run in the east-west direction and is classified as a principal arterial. East Capitol Street Northeast has three travel lanes in each direction and a left turn bay westbound at 55th Street. This site has the following characteristics:

- This is a residential area with houses and driveways.
- There are three schools in the area: Richardson Elementary School, Maya Angelou Public Charter School/Evans Middle School and Shadd Elementary School.
- The Evans Recreational Center and the East Capitol Community Center are also in the area and generate pedestrian and bicycle activity.
- There are several bus stops near the site that generate pedestrian activity.
- There is a concrete median and sidewalk on both sides of the street.
- There are traffic signals, pedestrian signals, and crosswalks at 55th Street and 56th Place.
- There is on-street parking on both sides of the street.
- The pavement is in good condition and there is curb and gutter with drainage inlets.



Looking Eastbound

W7 - 571



District Department of Transportation

5500 Block East Capitol Street NE



Looking Westbound

Speed Data Analysis

	Eastbound	Westbound
Posted Speed Limit (MPH)	35	35
Mean Speed (MPH)	25	27
85th Percentile Speed (MPH)	31	33
10 MPH Pace Speed	22-31	24-33
Sample Size	8,710	8,489
ADT	17,199	

The mean speed is lower than the posted speed limit by 10 MPH in the eastbound direction and 8 MPH in the westbound direction. The 85th percentile speed is lower than the posted speed limit by 4 MPH in the eastbound direction and 2 MPH in the westbound direction 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 13 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 types of collision at this location were Rear End (7 crashes), Right Angle and Side Swipe (2 crashes each). The other collision types had 1 crash or less each. There

W7 - 572

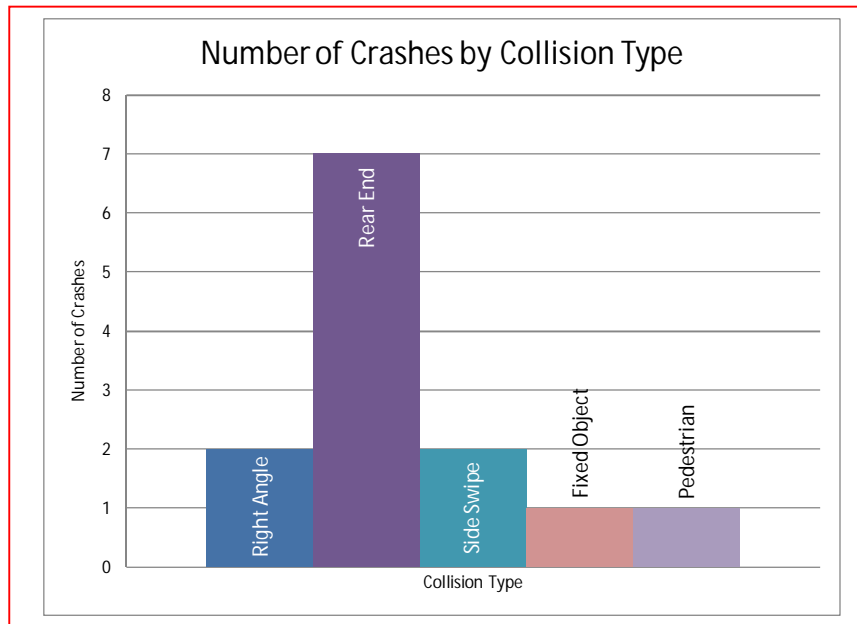


District Department of Transportation

5500 Block East Capitol Street NE

were 3 crashes where vehicular speeding was the contributing factor. Furthermore, the site experienced 9 injury-related crashes.

Severity			Weather			Surface condition			Light Condition		
Total	13										
Fatal	0	0.0%	Clear	12	92.3%	Dry	12	92.3%	Day	6	46.2%
Injury	9	69.2%	Rain	1	7.7%	Wet	1	7.7%	Night	6	46.2%
Emergency	1	7.7%	Snow	0	0.0%	Snow/Ice	0	0.0%			
Bus	0	0.0%									



Safety Nexus

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

1. Speed Data – The speed data analysis shows travel speeds being lower than the posted speed limit.
2. Crash Data – This site experienced 9 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 three schools in the area: Richardson Elementary School, Maya Angelou Public Charter School/Evans Middle School and Shadd Elementary School.

W7 - 573



District Department of Transportation

5500 Block East Capitol Street NE

- c. The Evans Recreational Center and the East Capitol Community Center are also in the area and generate pedestrian and bicycle activity.
- d. There are several bus stops in the area which generate pedestrian activity.
- e. There is on-street parking on both sides of the street.

Although the speed data analysis showed the mean and 85th percentile speeds to be lower than the posted speed limit, due to the elevated number of 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.

W7 - 574

SAMMAT ENGINEERING SERVICES, LLC

1515 RISING RIDGE ROAD
MOUNT AIRY, MD 21771

www.sammateng.com

5500 block of East Capitol St NE Speed

EB

Start Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total
11/19/13	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	0	1	6	6	14	5	0	1	0	0	0	0	0	0	33
03:00	1	1	1	8	7	4	1	0	0	0	0	0	0	0	23
04:00	2	1	11	10	7	1	0	0	0	0	0	0	0	0	32
05:00	2	3	24	37	18	1	0	0	1	1	0	0	0	0	87
06:00	15	10	27	56	33	8	4	0	0	0	0	0	0	0	153
07:00	47	39	72	87	25	4	0	0	0	0	0	0	0	0	274
08:00	27	54	99	88	26	6	1	1	0	0	0	0	0	0	302
09:00	10	17	84	117	50	13	4	1	0	0	0	0	0	0	296
10:00	7	9	79	111	64	17	7	1	0	0	0	0	0	0	295
11:00	20	44	87	112	53	14	1	1	0	0	0	0	0	0	332
12 PM	12	46	86	115	75	26	7	0	0	0	0	0	0	0	367
13:00	22	17	96	148	82	28	6	1	0	0	0	0	0	0	400
14:00	19	60	110	154	75	20	1	0	0	0	0	0	0	0	439
15:00	60	120	322	214	42	11	2	1	0	0	0	0	0	0	772
16:00	72	82	400	372	113	10	0	1	0	0	0	0	0	0	1050
17:00	67	36	390	476	134	17	4	0	0	0	0	0	0	0	1124
18:00	61	27	326	461	100	7	2	0	0	0	0	0	0	0	984
19:00	31	19	128	232	97	18	4	0	0	0	0	0	0	0	529
20:00	14	4	78	174	85	20	3	0	0	0	0	0	0	0	378
21:00	14	4	63	134	73	19	3	0	0	0	0	0	0	0	310
22:00	5	3	39	91	59	13	2	1	0	0	0	0	0	0	213
23:00	5	4	24	74	45	14	4	5	0	1	0	1	0	1	178
Total	513	601	2552	3277	1277	276	56	14	1	2	0	1	0	1	8571

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EB

Start Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total
11/20/13	4	7	16	34	24	7	2	1	0	0	0	0	0	0	95
01:00	0	1	9	17	9	7	1	0	0	0	0	0	0	0	44
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	4	8	25	51	33	14	3	1	0	0	0	0	0	0	139
Grand Total	517	609	2577	3328	1310	290	59	15	1	2	0	1	0	1	8710

15th Percentile : 16 MPH
 50th Percentile : 25 MPH
 85th Percentile : 31 MPH
 95th Percentile : 35 MPH

Stats
 Mean Speed(Average) : 25 MPH
 10 MPH Pace Speed : 22-31 MPH
 Number in Pace : 5074
 Percent in Pace : 58.3%
 Number of Vehicles > 35 MPH : 453
 Percent of Vehicles > 35 MPH : 5.2%

SAMMAT ENGINEERING SERVICES, LLC

1515 RISING RIDGE ROAD
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5500 block of East Capitol St NE Speed

WB

Start Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total
11/19/13	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	0	1	3	11	8	4	1	0	0	0	0	0	0	0	28
03:00	0	0	2	18	8	1	3	0	2	0	0	0	0	0	34
04:00	0	1	14	40	32	19	5	3	0	0	0	0	0	0	114
05:00	12	9	73	95	97	67	14	4	1	0	0	0	0	0	372
06:00	63	15	213	353	137	44	13	1	0	0	0	0	0	0	839
07:00	128	139	265	232	61	17	3	0	0	0	0	0	0	0	845
08:00	67	75	347	314	96	11	0	1	0	0	0	0	0	0	911
09:00	35	14	113	303	120	23	2	0	0	0	1	0	0	0	611
10:00	10	9	68	183	143	36	15	2	0	0	0	0	0	0	466
11:00	12	2	72	145	88	22	2	0	0	0	0	0	0	0	343
12 PM	13	8	94	140	67	21	3	0	0	0	0	0	0	0	346
13:00	12	3	72	155	84	25	4	1	0	0	0	0	0	0	356
14:00	12	11	49	153	128	46	5	1	0	0	0	0	0	0	405
15:00	10	5	45	139	110	56	12	4	1	0	0	0	0	0	382
16:00	12	4	52	156	139	32	11	0	0	0	0	0	0	0	406
17:00	15	1	26	192	135	46	6	0	1	0	1	0	0	0	423
18:00	10	0	27	156	124	34	5	0	0	0	0	0	0	0	356
19:00	8	1	64	155	73	9	2	0	0	0	0	0	0	0	312
20:00	1	6	39	145	86	12	3	0	0	0	0	0	0	0	292
21:00	6	1	40	112	70	4	4	0	0	0	0	0	0	0	237
22:00	0	1	18	91	60	11	4	0	0	0	0	0	0	0	185
23:00	0	1	11	65	35	8	1	1	1	0	0	0	0	0	123
Total	426	307	1707	3353	1901	548	118	18	6	0	2	0	0	0	8386

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WB

Start Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total
11/20/13	0	1	7	17	23	14	5	0	0	0	0	0	0	0	67
01:00	0	0	6	7	15	6	1	1	0	0	0	0	0	0	36
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	0	1	13	24	38	20	6	1	0	0	0	0	0	0	103
Grand Total	426	308	1720	3377	1939	568	124	19	6	0	2	0	0	0	8489

15th Percentile : 19 MPH
 50th Percentile : 27 MPH
 85th Percentile : 33 MPH
 95th Percentile : 37 MPH

Stats
 Mean Speed(Average) : 27 MPH
 10 MPH Pace Speed : 24-33 MPH
 Number in Pace : 4940
 Percent in Pace : 58.2%
 Number of Vehicles > 35 MPH : 835
 Percent of Vehicles > 35 MPH : 9.8%

SAMMAT ENGINEERING SERVICES, LLC

1515 RISING RIDGE ROAD
MOUNT AIRY, MD 21771

www.sammateng.com

5500 block of East Capitol St NE Volume

Start Time	19-Nov-13		EB		WB		Combined		20-Nov- Wed	EB		WB		Combined											
	Tue		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	*		*	82	*	83	*	165		27	*	28	*	55	*										
12:15	*		*	95	*	88	*	183		27	*	11	*	38	*										
12:30	*		*	94	*	84	*	178		27	*	14	*	41	*										
12:45	*		*	96	*	91	*	187		14	*	14	*	28	*										
01:00	*		*	104	*	88	*	192		10	*	9	*	19	*										
01:15	*		*	102	*	92	*	194		19	*	15	*	34	*										
01:30	*		*	86	*	100	*	186		7	*	4	*	11	*										
01:45	*		*	108	*	76	*	184		8	*	8	*	16	*										
02:00		12		104		6		99	18					*	*										
02:15		5		116		4		105	9					*	*										
02:30		10		105		7		111	17					*	*										
02:45		6		114		11		90	17					*	*										
03:00		6		138		9		101	15					*	*										
03:15		6		166		7		99	13					*	*										
03:30		6		203		7		95	13					*	*										
03:45		5		265		11		87	16					*	*										
04:00		9		248		17		95	26					*	*										
04:15		8		266		29		101	37					*	*										
04:30		11		245		27		120	38					*	*										
04:45		4		291		41		90	45					*	*										
05:00		11		264		59		100	70					*	*										
05:15		19		279		87		127	106					*	*										
05:30		24		291		110		101	134					*	*										
05:45		33		290		116		95	149					*	*										
06:00		24		287		186		92	210					*	*										
06:15		41		244		191		90	232					*	*										
06:30		40		258		227		101	267					*	*										
06:45		48		195		235		73	283					*	*										
07:00		59		154		245		81	304					*	*										
07:15		50		138		247		83	297					*	*										
07:30		78		129		156		80	234					*	*										
07:45		87		108		197		68	284					*	*										
08:00		87		99		199		73	286					*	*										
08:15		61		105		247		90	308					*	*										
08:30		88		80		248		80	336					*	*										
08:45		66		94		217		49	283					*	*										
09:00		87		85		188		64	275					*	*										
09:15		72		76		159		69	231					*	*										
09:30		57		77		122		54	179					*	*										
09:45		80		72		142		50	222					*	*										
10:00		71		61		103		52	174					*	*										
10:15		76		70		136		47	212					*	*										
10:30		85		45		119		37	204					*	*										
10:45		63		37		108		49	171					*	*										
11:00		89		48		74		43	163					*	*										
11:15		96		44		92		36	188					*	*										
11:30		72		38		80		24	152					*	*										
11:45		75		48		97		20	172					*	*										
Total		1827		6744		4563		3823		6390		10567		139		0		103		0		242		0	
Day Total				8571				8386				16957				139			103				242		
% Total		10.8%		39.8%		26.9%		22.5%				57.4%		0.0%		42.6%			0.0%						
Peak		10:30		05:15		06:30		04:30		07:45		05:15		12:00		12:00			12:00						
Vol.		333		1147		954		437		1214		1562		95		67			162						
P.H.F.		0.867		0.985		0.966		0.860		0.903		0.962		0.880		0.598			0.736						

ADT ADT 17,199 AADT 17,199

Accident Summary Report (R-8)

Corridor: EAST CAPITOL ST,BN From FIFTY FOURTH ST,BN TO FIFTY SIXTH PL,BN

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

Prepared By: Rahul Jain

Prepared Date: 11/25/2012

Total Number of Accident:	13	Collision Type	#ACC	%	Collision Type	#ACC	%
Total Number of Fatalities:	0	Right Angle:	2	15.4%	Fixed Object:	1	7.7%
Total Number of Injuries:	12	Left Turn:	0	0.0%	Ran Off Road:	0	0.0%
Total Number of Disabling Injuries:	1	Right Turn:	0	0.0%	Ped. Involved:	1	7.7%
Total Number of NonDisabling Injuries:	0	Rear End:	7	53.8%	Backing:	0	0.0%
Total Number of Pedestrians Involved:	1	Side Swiped:	2	15.4%	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 of week	
07:30 ~ 09:30:				2	15.4%	Sunday:	
09:30 ~ 11:30:				1	7.7%	Monday:	
11:30 ~ 13:30:				0	0.0%	Tuesday:	
13:30 ~ 16:00:				1	7.7%	Wednesday:	
16:00 ~ 18:30:				2	15.4%	Thursday:	
18:30 ~ 07:30:				7	53.8%	Friday:	
Unspecified:				0	0.0%	Saturday:	
Weather Condition				#ACC	%	Surface Condition	
Clear:				12	92.3%	Dry:	
Rain:				1	7.7%	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:				21	91.3%	Fatal Collision:	
Bus:				0	0.0%	Injury Collision:	
Truck:				0	0.0%	PDO Collision:	
Taxi:				0	0.0%		
Minivan:				0	0.0%	Light Condition	
Police/Emergency Vehicle:				1	4.3%	Daylight:	
Motorcycle/Moped:				0	0.0%	Dawn/Dusk:	
Bicycle:				0	0.0%	Dark(Lighted):	
Fixed Object:				0	0.0%	Dark(Not Lighted):	
Unspecified:				1	4.3%	Dark(Unknown Lighting):	
						Unspecified:	
Contributing Factor				#VEH	%	Pedestrian Actions	
Driver: Speed:				3	13.0%	In Crosswalk with Signal:	
Driver: Alcohol/Drug:				1	4.3%	In Crosswalk against Signal:	
Driver: Electronic Device:				0	0.0%	In Crosswalk no Signal:	
Driver: Others:				4	17.4%	In Unmarked Crosswalk:	
Vehicle:				0	0.0%	Not in Crosswalk:	
Roadway:				0	0.0%	From Between Parked Cars:	
Unspecified:				15	65.2%	Unspecified:	

9 Records are not approved as of 11/25/2013 1:28:06 PM