



District Department of Transportation

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

4th Street SB at E Street SE

Study Area and Location

District	PSA	Ward	ANC	Phase	Description
1	107	6	6B	Proposed	4 th Street Southbound at E Street Southeast



The *proposed* speed camera will be located at the intersection of 4th Street at E street Southeast for the southbound traffic. 4th Street runs from Florida Avenue Northeast in the north to Water Street Southeast in the south. The posted speed limit is 25 MPH.

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4th Street SB at E Street SE

Field Assessment Summary

4th Street is assumed to run in a south direction and is classified as a collector road. 4th Street is a one lane road and has parking on both sides of the street. This site has the following characteristics:

- This site is located in a residential area with street parking on both sides of the road.
- There are sidewalks on both sides of the street and pedestrian crosswalks across all legs of the intersection.
- There are several bus stops and 2 Metrorail Stations close to the site that generate pedestrian activity.
- There is a bicycle lane on the roadway.
- There are 6 schools in the area: Capitol Hill Day School, St. Peter's School, Brent Elementary School, The Hill Preschool, Giddings School and Hine Junior High School.
- Garfield Park, Providence Park, Folger Park and Marion Park are close the site.



Looking Northbound

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4th Street SB at E Street SE



Looking Southbound

Speed Data Analysis

Posted Speed Limit (MPH)	25
Mean Speed (MPH)	10
85th Percentile Speed (MPH)	13
10 MPH Pace Speed	4-13
ADT	3,924

The mean speed is lower than the posted speed limit by 15 MPH and the 85th percentile speed is lower than the posted speed by 12 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 seven 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 crashes were Side Swipe (3 crashes), Right Angle (2 crashes) and Head On (2 crashes).

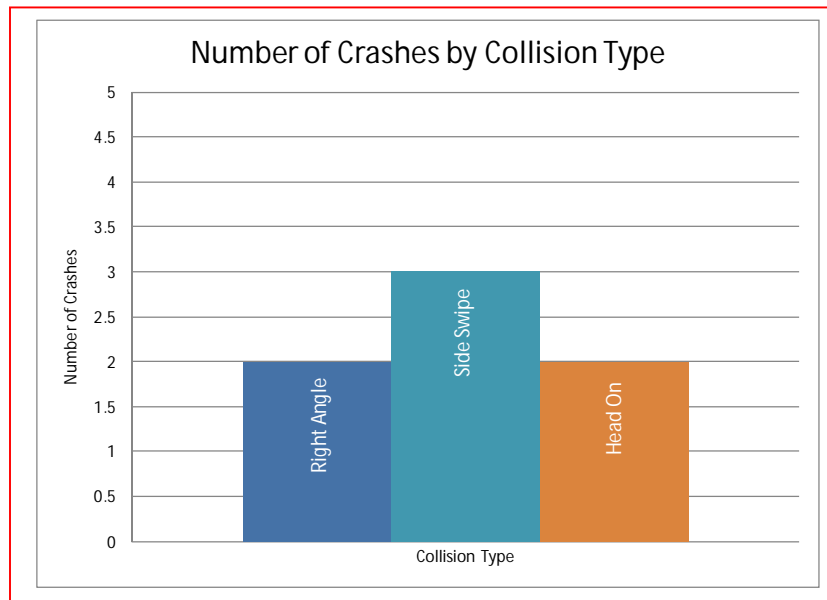
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District Department of Transportation

4th Street SB at E Street SE

Severity			Weather			Surface condition			Light Condition		
Total	7										
Fatal	0	0.0%	Clear	6	85.7%	Dry	6	85.7%	Day	6	85.7%
Injury	2	28.6%	Rain	0	0.0%	Wet	0	0.0%	Night	0	0.0%
Police/EMS	3	42.9%	Snow	0	0.0%	Snow/Ice	0	0.0%			
Taxi	1	14.3%									



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 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 site is located in a residential area with street parking on both sides of the road.
 - b. There are sidewalks on both sides of the street and pedestrian crosswalks across all legs of the intersection.
 - c. There are several bus stops and two Metrorail stations close to the site that generate pedestrian activity.
 - d. There is a bicycle lane on the roadway.

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4th Street SB at E Street SE

- e. There are 6 schools in the area: Capitol Hill Day School, St. Peter's School, Brent Elementary School, The Hill Preschool, Giddings School and Hine Junior High School.

Although the speed data analysis showed lower travel speed and the crash data analysis showed low crash results for this location, this area still has safety considerations. There are six schools zones near the proposed camera site, all of which generate pedestrian traffic. Too, 4th Street has bicycle lanes, which show a multimodal transportation option available in the area. Thus, due to the specific site characteristics of a residential neighborhood, the proximity of schools to the site, the multimodal transportation options available 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

4th St SB at E St SE Speed

SB

Start Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total
11/18/13	18	5	0	0	0	0	0	0	0	0	0	0	0	0	23
01:00	10	0	0	0	0	0	0	0	0	0	0	0	0	0	10
02:00	2	1	0	0	0	0	0	0	0	0	0	0	0	0	3
03:00	7	0	0	0	0	0	0	0	0	0	0	0	0	0	7
04:00	17	1	1	0	0	0	0	0	0	0	0	0	0	0	19
05:00	54	5	1	0	0	0	0	0	0	0	0	0	0	0	60
06:00	152	19	0	0	0	0	0	0	0	0	0	0	0	0	171
07:00	316	23	3	1	0	0	0	0	0	0	0	0	0	0	343
08:00	353	25	5	1	0	0	0	0	0	0	0	0	0	0	384
09:00	208	16	1	0	0	0	0	0	0	0	0	0	0	0	225
10:00	168	22	2	0	0	0	0	0	0	0	0	0	0	0	192
11:00	207	30	3	1	0	0	0	0	0	0	0	0	0	0	241
12 PM	232	22	0	0	0	0	0	0	0	0	0	0	0	0	254
13:00	253	17	2	1	0	0	0	0	0	0	0	0	0	0	273
14:00	219	19	3	0	0	0	0	0	0	0	0	0	0	0	241
15:00	237	13	1	0	0	0	0	0	0	0	0	0	0	0	251
16:00	227	11	4	0	0	0	0	0	0	0	0	0	0	0	242
17:00	274	16	5	2	1	0	0	0	0	0	0	0	0	0	298
18:00	258	14	5	2	1	0	0	0	0	0	0	0	0	0	280
19:00	160	8	1	0	0	0	0	0	0	0	0	0	0	0	169
20:00	27	19	19	15	19	11	3	0	0	0	0	0	0	0	113
21:00	5	0	4	17	17	14	1	0	0	0	0	0	0	0	58
22:00	0	1	0	3	21	10	1	0	0	0	0	0	0	0	36
23:00	3	0	3	6	8	8	2	1	0	0	0	0	0	0	31
Total	3407	287	63	49	67	43	7	1	0	0	0	0	0	0	3924
Grand Total	3407	287	63	49	67	43	7	1	0	0	0	0	0	0	3924

15th Percentile : 4 MPH
 50th Percentile : 8 MPH
 85th Percentile : 13 MPH
 95th Percentile : 18 MPH

Stats
 Mean Speed(Average) : 10 MPH
 10 MPH Pace Speed : 4-13 MPH
 Number in Pace : 2903
 Percent in Pace : 74.0%
 Number of Vehicles > 25 MPH : 97
 Percent of Vehicles > 25 MPH : 2.5%

SAMMAT ENGINEERING SERVICES, LLC

1515 RISING RIDGE ROAD
MOUNT AIRY, MD 21771

www.sammateng.com

4th St SB at E St SE Volume

Start Time	18-Nov-13		19-Nov-13		20-Nov-13		Daily Average	
	Mon A.M.	P.M.	Tue A.M.	P.M.	Wed A.M.	P.M.	A.M.	P.M.
12:00	7	70	*	*	*	*	7	70
12:15	5	64	*	*	*	*	5	64
12:30	8	53	*	*	*	*	8	53
12:45	3	67	*	*	*	*	3	67
01:00	1	69	*	*	*	*	1	69
01:15	2	80	*	*	*	*	2	80
01:30	4	64	*	*	*	*	4	64
01:45	3	60	*	*	*	*	3	60
02:00	0	64	*	*	*	*	0	64
02:15	1	78	*	*	*	*	1	78
02:30	0	48	*	*	*	*	0	48
02:45	2	51	*	*	*	*	2	51
03:00	1	65	*	*	*	*	1	65
03:15	2	70	*	*	*	*	2	70
03:30	2	62	*	*	*	*	2	62
03:45	2	54	*	*	*	*	2	54
04:00	4	50	*	*	*	*	4	50
04:15	5	64	*	*	*	*	5	64
04:30	5	55	*	*	*	*	5	55
04:45	5	73	*	*	*	*	5	73
05:00	12	89	*	*	*	*	12	89
05:15	21	61	*	*	*	*	21	61
05:30	10	76	*	*	*	*	10	76
05:45	17	72	*	*	*	*	17	72
06:00	36	70	*	*	*	*	36	70
06:15	37	90	*	*	*	*	37	90
06:30	41	68	*	*	*	*	41	68
06:45	57	52	*	*	*	*	57	52
07:00	79	55	*	*	*	*	79	55
07:15	92	49	*	*	*	*	92	49
07:30	84	38	*	*	*	*	84	38
07:45	88	27	*	*	*	*	88	27
08:00	102	71	*	*	*	*	102	71
08:15	112	16	*	*	*	*	112	16
08:30	90	18	*	*	*	*	90	18
08:45	80	8	*	*	*	*	80	8
09:00	92	13	*	*	*	*	92	13
09:15	52	10	*	*	*	*	52	10
09:30	48	15	*	*	*	*	48	15
09:45	33	20	*	*	*	*	33	20
10:00	53	16	*	*	*	*	53	16
10:15	59	6	*	*	*	*	59	6
10:30	39	8	*	*	*	*	39	8
10:45	41	6	*	*	*	*	41	6
11:00	53	4	*	*	*	*	53	4
11:15	69	10	*	*	*	*	69	10
11:30	60	10	*	*	*	*	60	10
11:45	59	7	*	*	*	*	59	7
Total	1678	2246	0	0	0	0	1678	2246
Combined Total	3924		0		0		3924	
Peak	07:45	05:30					07:45	05:30
Vol.	392	308					392	308
P.H.F.	0.875	0.856					0.875	0.856
ADT	ADT 3,924		AADT 3,924					

Accident Summary Report (R-8)

Corridor: 4TH ST,NE,SE From E ST,SE TO E ST,SE

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

Prepared By: Rahul Jain

Prepared Date: 9/16/2013

Total Number of Accident:	7		Collision Type	#ACC	%	Collision Type	#ACC	%
Total Number of Fatalities:	0		Right Angle:	2	28.6%	Fixed Object:	0	0.0%
Total Number of Injuries:	5		Left Turn:	0	0.0%	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:	2		Rear End:	0	0.0%	Backing:	0	0.0%
Total Number of Pedestrians Involved:	0		Side Swiped:	3	42.9%	Non Collision:	0	0.0%
Total Number of Bicycles Involved:	0		Head On:	2	28.6%	Under/Over Ride:	0	0.0%
Total Number of Motorcycles Involved:	0		Parked:	0	0.0%	Unspecified:	0	0.0%
Time of Day			Day of week					
	#ACC	%		#ACC	%		#ACC	%
07:30 ~ 09:30:	1	14.3%	Sunday:	0	0.0%			
09:30 ~ 11:30:	1	14.3%	Monday:	1	14.3%			
11:30 ~ 13:30:	0	0.0%	Tuesday:	1	14.3%			
13:30 ~ 16:00:	1	14.3%	Wednesday:	1	14.3%			
16:00 ~ 18:30:	4	57.1%	Thursday:	2	28.6%			
18:30 ~ 07:30:	0	0.0%	Friday:	1	14.3%			
Unspecified:	0	0.0%	Saturday:	1	14.3%			
Weather Condition			Surface Condition					
	#ACC	%		#ACC	%		#ACC	%
Clear:	6	85.7%	Dry:	6	85.7%			
Rain:	0	0.0%	Wet:	0	0.0%			
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:	0	0.0%			
Crosswind/Blowing Sand:	0	0.0%	Repairing:	0	0.0%			
Unspecified:	1	14.3%	Unspecified:	1	14.3%			
Type of Vehicle			Accident Severity Type					
	#VEH	%		#ACC	%		#ACC	%
Passenger Car:	9	64.3%	Fatal Collision:	0	0.0%			
Bus:	0	0.0%	Injury Collision:	2	28.6%			
Truck:	0	0.0%	PDO Collision:	5	71.4%			
Taxi:	1	7.1%						
Minivan:	0	0.0%	Light Condition				#ACC	%
Police/Emergency Vehicle:	3	21.4%	Daylight:	6	85.7%			
Motorcycle/Moped:	0	0.0%	Dawn/Dusk:	0	0.0%			
Bicycle:	0	0.0%	Dark(Lighted):	0	0.0%			
Fixed Object:	0	0.0%	Dark(Not Lighted):	0	0.0%			
Unspecified:	1	7.1%	Dark(Unknown Lighting):	0	0.0%			
			Unspecified:	1	14.3%			
Contributing Factor			Pedestrian Actions					
	#VEH	%		#ACC	%		#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	7.1%	In Unmarked Crosswalk:	0	0.0%			
Vehicle:	0	0.0%	Not in Crosswalk:	0	0.0%			
Roadway:	2	14.3%	From Between Parked Cars:	0	0.0%			
Unspecified:	11	78.6%	Unspecified:	0	0.0%			

5 Records are not approved as of 9/16/2013 2:31:44 PM