



District Department of Transportation

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

### 5100 Block 13th Street NW

### Study Area and Location

District	PSA	Ward	ANC	Phase	Description
4	401	4	4A	Proposed	5100 Block 13 <sup>th</sup> Street Northwest Southbound



The *proposed* speed camera will be located in Ward 4 at the 5100 block of 13<sup>th</sup> Street Northwest in the southbound direction. 13<sup>th</sup> Street Northwest runs between Eastern Avenue Northwest to the north and Pennsylvania Avenue Northwest to the south. The posted speed limit is 25 MPH.

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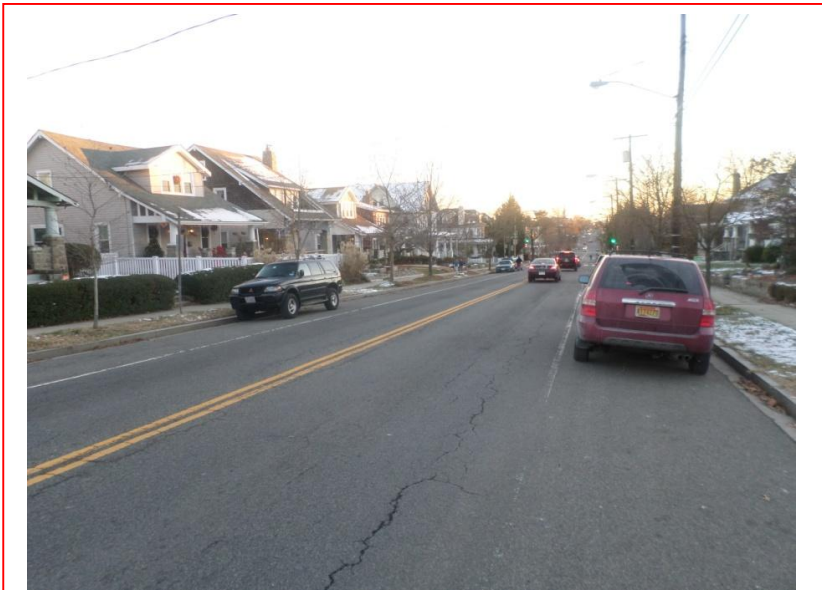
District Department of Transportation

5100 Block 13th Street NW

## Field Assessment Summary

13<sup>th</sup> Street Northwest is assumed to run in a northeast-southwest direction, and is classified as a minor arterial. 13<sup>th</sup> Street Northwest has one travel lane in each direction. This site has the following characteristics:

- This is a residential area with houses on both sides of the street.
- There are three schools in the area: West Education Campus, the Kingsbury Center, and Truesdell Elementary School.
- The Washington DC Fire and EMS Station is located to the east.
- There are sidewalks on both sides of the street and crosswalks at Gallatin Street and Hamilton Street.
- There is a traffic signal with pedestrian signals at Gallatin Street.
- The pavement is in fair condition and there is curb and gutter with drainage inlets.
- There is on-street parking in each direction.
- There are multiple bus stops in the vicinity.



Looking Southbound

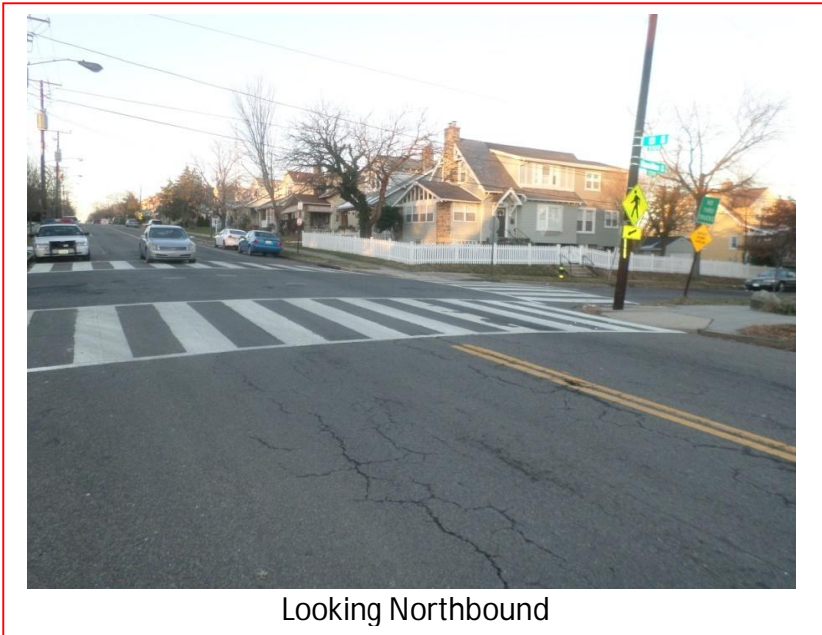
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5100 Block 13th Street NW



Looking Northbound

## Speed Data Analysis

Posted Speed Limit (MPH)	25
Mean Speed (MPH)	25
85th Percentile Speed (MPH)	34
10 MPH Pace Speed	26-35
ADT	4,397

The 85<sup>th</sup> percentile speed is 9 MPH higher than the posted speed limit and the mean speed is the same as 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 15 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 and Right Angle (4 crashes), Head On (3 crashes) and Parked (2 crashes). The other collision types had one crash or less each. Furthermore, this site experienced six injury-related crashes.

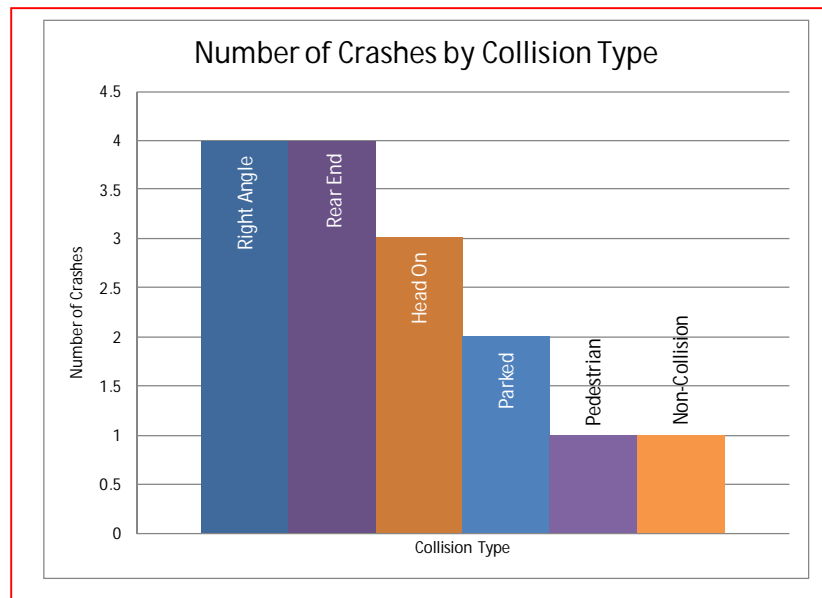
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5100 Block 13th Street NW

Severity			Weather			Surface condition			Light Condition		
Total	15										
Fatal	0	0.0%	Clear	13	86.7%	Dry	13	86.7%	Day	11	73.3%
Injury	6	40.0%	Rain	1	6.7%	Wet	2	13.3%	Night	4	26.7%
Taxi	0	0.0%	Snow	1	6.7%	Snow/Ice	0	0.0%			
Bus	0	0.0%									



## 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 – This site experienced 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 on both sides of the street.
  - b) There are three schools in the area: West Education Campus, the Kingsbury Center, and Truesdell Elementary School.
  - c) The Washington DC Fire and EMS Stations are located to the east.
  - d) There is on-street parking in each direction.
  - e) The presence of crosswalks suggests a pedestrian environment.

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5100 Block 13th Street NW

Due to the speed data analysis, the number of injury-related crashes, the specific site characteristics of a residential neighborhood, the proximity of schools to the site, and the pedestrian environment, 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](http://www.sammateng.com)

## 5100 block of 13th St NW SB Speed

SB

Start Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total
11/11/13	3	1	11	7	7	3	1	0	0	0	0	0	0	0	33
01:00	1	2	3	5	11	1	0	0	0	0	0	0	0	0	23
02:00	0	0	2	5	3	2	1	0	0	0	0	0	0	0	13
03:00	0	1	1	3	5	1	2	0	0	0	0	0	0	0	13
04:00	0	0	5	22	8	13	1	0	0	1	0	0	0	0	50
05:00	4	9	13	21	62	24	6	1	0	0	0	0	0	0	140
06:00	17	19	30	49	96	51	7	0	0	0	0	0	0	0	269
07:00	47	27	37	89	125	55	2	0	0	0	0	0	0	0	382
08:00	21	21	42	66	116	56	4	0	0	0	0	0	0	0	326
09:00	26	20	32	54	113	50	3	0	0	0	0	0	0	0	298
10:00	6	8	29	61	98	31	1	1	0	0	0	0	0	0	235
11:00	3	3	16	82	100	26	1	0	0	0	0	0	0	0	231
12 PM	4	5	18	78	110	30	6	0	0	0	0	0	0	0	251
13:00	7	11	34	96	83	16	6	0	0	0	0	0	0	0	253
14:00	50	30	43	72	64	19	3	0	0	0	0	0	0	0	281
15:00	71	42	51	48	32	6	2	0	0	0	0	0	0	0	252
16:00	88	63	58	46	25	9	1	0	0	0	0	0	0	0	290
17:00	69	47	56	76	27	12	2	0	0	0	0	0	0	0	289
18:00	53	34	51	58	21	9	0	0	0	0	0	0	0	0	226
19:00	1	8	25	58	63	12	1	0	0	0	0	0	0	0	168
20:00	3	6	19	42	30	9	0	0	0	0	0	0	0	0	109
21:00	3	3	6	42	45	9	2	0	0	0	0	0	0	0	110
22:00	2	2	10	34	39	12	3	0	1	0	0	0	0	0	103
23:00	2	0	5	15	14	14	2	0	0	0	0	0	0	0	52
Total	481	362	597	1129	1297	470	57	2	1	1	0	0	0	0	4397
Grand Total	481	362	597	1129	1297	470	57	2	1	1	0	0	0	0	4397

15th Percentile : 11 MPH  
 50th Percentile : 27 MPH  
 85th Percentile : 34 MPH  
 95th Percentile : 37 MPH

Stats  
 Mean Speed(Average) : 25 MPH  
 10 MPH Pace Speed : 26-35 MPH  
 Number in Pace : 2005  
 Percent in Pace : 45.6%  
 Number of Vehicles > 25 MPH : 2563  
 Percent of Vehicles > 25 MPH : 58.3%

# SAMMAT ENGINEERING SERVICES, LLC

1515 RISING RIDGE ROAD  
MOUNT AIRY, MD 21771

[www.sammateng.com](http://www.sammateng.com)

## 5100 block of 13th St NW SB Volume

Start Time	11-Nov-13		12-Nov-13		13-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	13	56	*	*	*	*	13	56
12:15	5	55	*	*	*	*	5	55
12:30	9	77	*	*	*	*	9	77
12:45	6	63	*	*	*	*	6	63
01:00	7	66	*	*	*	*	7	66
01:15	5	55	*	*	*	*	5	55
01:30	6	55	*	*	*	*	6	55
01:45	5	77	*	*	*	*	5	77
02:00	3	68	*	*	*	*	3	68
02:15	6	60	*	*	*	*	6	60
02:30	3	88	*	*	*	*	3	88
02:45	1	65	*	*	*	*	1	65
03:00	0	60	*	*	*	*	0	60
03:15	1	72	*	*	*	*	1	72
03:30	5	66	*	*	*	*	5	66
03:45	7	54	*	*	*	*	7	54
04:00	14	73	*	*	*	*	14	73
04:15	12	58	*	*	*	*	12	58
04:30	9	<b>74</b>	*	*	*	*	9	<b>74</b>
04:45	15	<b>85</b>	*	*	*	*	15	<b>85</b>
05:00	24	<b>85</b>	*	*	*	*	24	<b>85</b>
05:15	27	<b>95</b>	*	*	*	*	27	<b>95</b>
05:30	53	55	*	*	*	*	53	55
05:45	36	54	*	*	*	*	36	54
06:00	66	53	*	*	*	*	66	53
06:15	75	62	*	*	*	*	75	62
06:30	67	62	*	*	*	*	67	62
06:45	61	49	*	*	*	*	61	49
07:00	69	47	*	*	*	*	69	47
07:15	86	42	*	*	*	*	86	42
07:30	<b>112</b>	39	*	*	*	*	<b>112</b>	39
07:45	<b>115</b>	40	*	*	*	*	<b>115</b>	40
08:00	<b>83</b>	29	*	*	*	*	<b>83</b>	29
08:15	<b>91</b>	23	*	*	*	*	<b>91</b>	23
08:30	87	25	*	*	*	*	87	25
08:45	65	32	*	*	*	*	65	32
09:00	84	32	*	*	*	*	84	32
09:15	64	32	*	*	*	*	64	32
09:30	81	19	*	*	*	*	81	19
09:45	69	27	*	*	*	*	69	27
10:00	54	27	*	*	*	*	54	27
10:15	61	20	*	*	*	*	61	20
10:30	54	41	*	*	*	*	54	41
10:45	66	15	*	*	*	*	66	15
11:00	63	19	*	*	*	*	63	19
11:15	56	14	*	*	*	*	56	14
11:30	52	9	*	*	*	*	52	9
11:45	60	10	*	*	*	*	60	10
Total	2013	2384	0	0	0	0	2013	2384
Combined Total	4397		0		0		4397	
Peak	07:30	04:30					07:30	04:30
Vol.	401	339					401	339
P.H.F.	0.872	0.892					0.872	0.892
ADT	ADT 4,397		AADT 4,397					

DC Department of Transportation - Traffic Accident Reporting and Analysis System

## Accident Summary Report (R-8)

**Corridor:** 13TH ST,NW From HAMILTON ST,NW TO FARRAGUT ST,NW

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

**Prepared Date:** 9/15/2013

		<b>Collision Type</b>	<b>#ACC</b>	<b>%</b>	<b>Collision Type</b>	<b>#ACC</b>	<b>%</b>
Total Number of Accident:	15	Right Angle:	4	26.7%	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:	7	Right Turn:	0	0.0%	Ped. Involved:	1	6.7%
Total Number of Disabling Injuries:	0	Rear End:	4	26.7%	Backing:	0	0.0%
Total Number of NonDisabling Injuries:	1	Side Swiped:	0	0.0%	Non Collision:	1	6.7%
Total Number of Pedestrians Involved:	1	Head On:	3	20.0%	Under/Over Ride:	0	0.0%
Total Number of Bicycles Involved:	1	Parked:	2	13.3%	Unspecified:	0	0.0%
Total Number of Motorcycles Involved:	0						

<b>Time of Day</b>	<b>#ACC</b>	<b>%</b>	<b>Day o fweek</b>	<b>#ACC</b>	<b>%</b>
07:30 ~ 09:30:	1	6.7%	Sunday:	2	13.3%
09:30 ~ 11:30:	1	6.7%	Monday:	2	13.3%
11:30 ~ 13:30:	1	6.7%	Tuesday:	3	20.0%
13:30 ~ 16:00:	3	20.0%	Wednesday:	3	20.0%
16:00 ~18:30:	5	33.3%	Thursday:	0	0.0%
18:30 ~ 07:30:	4	26.7%	Friday:	4	26.7%
Unspecified:	0	0.0%	Saturday:	1	6.7%

<b>Weather Condition</b>	<b>#ACC</b>	<b>%</b>	<b>Surface Condition</b>	<b>#ACC</b>	<b>%</b>
Clear:	13	86.7%	Dry:	13	86.7%
Rain:	1	6.7%	Wet:	2	13.3%
Snow:	1	6.7%	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:	0	0.0%	Unspecified:	0	0.0%

<b>Type of Vehicle</b>	<b>#VEH</b>	<b>%</b>	<b>Accident Severity Type</b>	<b>#ACC</b>	<b>%</b>
Passenger Car:	22	68.8%	Fatal Collision:	0	0.0%
Bus:	0	0.0%	Injury Collision:	6	40.0%
Truck:	3	9.4%	PDO Collision:	9	60.0%
Taxi:	0	0.0%			
Minivan:	0	0.0%	<b>Light Condition</b>	<b>#ACC</b>	<b>%</b>
Police/Emergency Vehicle:	0	0.0%	Daylight:	11	73.3%
Motorcycle/Moped:	0	0.0%	Dawn/Dusk:	0	0.0%
Bicycle:	1	3.1%	Dark(Lighted):	3	20.0%
Fixed Object:	0	0.0%	Dark(Not Lighted):	1	6.7%
Unspecified:	6	18.8%	Dark(Unknown Lighting):	0	0.0%
			Unspecified:	0	0.0%

<b>Contributing Factor</b>	<b>#VEH</b>	<b>%</b>	<b>Pedestrian Actions</b>	<b>#ACC</b>	<b>%</b>
Driver: Speed:	0	0.0%	In Crosswalk with Signal:	1	100.0%
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:	6	18.8%	In Unmarked Crosswalk:	0	0.0%
Vehicle:	0	0.0%	Not in Crosswalk:	0	0.0%
Roadway:	2	6.3%	From Between Parked Cars:	0	0.0%
Unspecified:	24	75.0%	Unspecified:	0	0.0%

10 Records are not approved as of 9/15/2013 12:20:46 PM