



District Department of Transportation

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

700 Block Harvard Street NW

Study Area and Location

District	PSA	Ward	ANC	Phase	Description
3	302/304	1	1B	Proposed	700 Block Harvard Street Northwest



This *proposed* speed camera will be located in Ward 1 at the 700 block of Harvard Street Northwest. Harvard Street runs from North Road Northwest in the west to 5th Street Northwest in the east. The posted speed limit is 25 MPH.

W1 - 133





District Department of Transportation
700 Block Harvard Street NW

Field Assessment Summary

Harvard Street is assumed to run in the East-West direction and is classified as a minor arterial. Harvard Street has one travel lane in the eastbound direction only. This site has the following characteristics:

- This site is located in a residential area with houses and alleys on both sides of the street.
- There are sidewalks with curb and gutter on both sides of the street.
- There is on-street parking on north side of the street.
- The existing pavement is in fair condition.
- There are two schools in the area: Howard University and Cesar Chavez Public Charter School.
- There is one other pedestrian generator in the area: Bruce Monroe Community Park.



Looking Eastbound



District Department of Transportation
700 Block Harvard Street NW



Looking Westbound

Speed Data Analysis

Posted Speed Limit (MPH)	25
Mean Speed (MPH)	23
85th Percentile Speed (MPH)	32
10 MPH Pace Speed	22-31
ADT	6,369

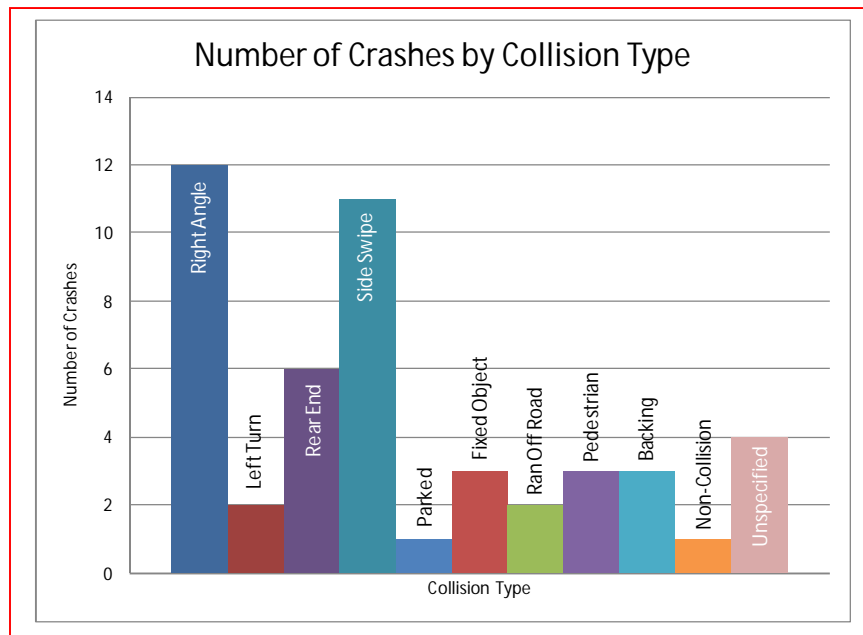
The mean speed is 2 MPH lower than the posted speed limit, and the 85th percentile speed is 7 MPH higher than the posted speed limit.

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 48 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 Right Angle (12 crashes), Side Swipe (11 crashes), and Rear End (6 crashes). Furthermore, this site experienced a high frequency (19 crashes) of injury-related crashes.



Severity		Weather			Surface condition			Light Condition		
Total	48									
Fatal	0 0.0%	Clear	39	81.3%	Dry	38	79.2%	Day	24	50.0%
Injury	19 39.6%	Rain	5	10.4%	Wet	7	14.6%	Night	22	45.8%
Truck	7 14.6%	Snow	2	4.2%	Slush	1	2.1%			
Bus	3 6.3%									



There were an elevated number of speed-related crashes at this location, including rear end and side swipe crashes. The AASHTO Highway Safety Manual lists “assuming the lead driver will go through a green or yellow light, but the lead driver stops” and “changing lanes to avoid a slowing or stopped vehicle”¹ as two errors leading to sideswipe crashes. Both of these errors can be decreased with a decrease in travel speed.

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.

¹ AASHTO Highway Safety Manual, 1st Edition, 2010; Volume 1, page 2-13



District Department of Transportation
700 Block Harvard Street NW

2. Crash Data – There were an elevated number of speed-related crashes at this location, including right angle and side swipe crashes, as well as a high frequency (19 crashes) of injury related crashes.
3. Field Assessment – The following site characteristics suggest a need for a safer travel environment:
 - a. Located in a residential area with houses and alleys on both sides of the street.
 - b. There are two schools in this area: Howard University and Cesar Chavez Public Charter School.
 - c. The Bruce Monroe Community Park is in the area which generates pedestrian activity.
 - d. There are multiple bus stops which generate pedestrian activity.

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.

SAMMAT ENGINEERING SERVICES, LLC

1515 RISING RIDGE ROAD
MOUNT AIRY, MD 21771

www.sammateng.com

700 block of Harvard St NW Speed

EB

Start Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total
11/04/13	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	2	1	2	10	6	4	2	0	0	0	0	0	0	0	27
02:00	1	1	7	9	2	7	1	1	0	0	0	0	0	0	29
03:00	2	0	3	5	5	7	0	1	0	0	0	0	0	0	23
04:00	0	0	1	4	7	7	2	0	0	0	0	0	0	0	21
05:00	1	3	8	43	26	5	5	0	1	2	0	0	0	0	94
06:00	18	26	54	97	43	14	3	2	1	0	0	0	0	0	258
07:00	99	81	102	89	33	11	1	0	1	0	0	0	0	0	417
08:00	102	65	100	91	44	16	7	0	0	0	0	0	0	0	425
09:00	43	21	54	89	63	33	9	0	0	0	0	0	0	0	312
10:00	34	32	65	96	64	20	5	3	0	0	0	0	0	0	319
11:00	71	42	86	95	47	12	5	1	0	0	0	0	0	0	359
12 PM	66	32	72	83	52	18	4	1	0	0	0	0	0	0	328
13:00	69	51	103	78	54	14	5	1	0	0	0	0	0	0	375
14:00	51	68	110	87	35	11	2	1	1	0	0	0	0	0	366
15:00	67	50	93	99	72	30	6	1	0	0	0	0	0	0	418
16:00	85	50	63	110	77	53	19	9	4	0	0	1	1	0	472
17:00	139	80	114	73	52	31	9	2	1	0	0	0	0	0	501
18:00	46	38	84	112	80	51	19	9	2	0	0	0	0	0	441
19:00	16	7	73	115	55	30	8	1	0	0	0	0	0	0	305
20:00	16	12	64	95	35	11	2	1	0	0	0	0	0	0	236
21:00	5	15	29	85	49	20	1	0	0	0	0	0	0	0	204
22:00	10	7	52	71	56	6	1	3	0	0	0	0	0	0	206
23:00	4	3	14	60	41	16	5	0	0	0	0	0	0	0	143
Total	947	685	1353	1696	998	427	121	37	11	2	0	1	1	0	6279

Daily

15th Percentile : 9 MPH
 50th Percentile : 23 MPH
 85th Percentile : 32 MPH
 95th Percentile : 37 MPH

Mean Speed(Average) : 23 MPH
 10 MPH Pace Speed : 22-31 MPH
 Number in Pace : 2488
 Percent in Pace : 39.6%
 Number of Vehicles > 25 MPH : 2768
 Percent of Vehicles > 25 MPH : 44.1%

SAMMAT ENGINEERING SERVICES, LLC

1515 RISING RIDGE ROAD
MOUNT AIRY, MD 21771

www.sammateng.com

700 block of Harvard St NW 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	5	3	4	21	15	13	4	1	0	0	0	0	0	0	66
01:00	8	0	0	4	6	3	2	1	0	0	0	0	0	0	24
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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	13	3	4	25	21	16	6	2	0	0	0	0	0	0	90

Daily

15th Percentile : 9 MPH
 50th Percentile : 28 MPH
 85th Percentile : 37 MPH
 95th Percentile : 41 MPH

Mean Speed(Average) : 27 MPH
 10 MPH Pace Speed : 27-36 MPH
 Number in Pace : 38
 Percent in Pace : 42.2%
 Number of Vehicles > 25 MPH : 60
 Percent of Vehicles > 25 MPH : 66.2%

Grand Total	960	688	1357	1721	1019	443	127	39	11	2	0	1	1	0	6369
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Overall

15th Percentile : 9 MPH
 50th Percentile : 23 MPH
 85th Percentile : 32 MPH
 95th Percentile : 37 MPH

Mean Speed(Average) : 23 MPH
 10 MPH Pace Speed : 22-31 MPH
 Number in Pace : 2516
 Percent in Pace : 39.5%
 Number of Vehicles > 25 MPH : 2827
 Percent of Vehicles > 25 MPH : 44.4%

SAMMAT ENGINEERING SERVICES, LLC

1515 RISING RIDGE ROAD
MOUNT AIRY, MD 21771

www.sammateng.com

700 block of Harvard St NW Volume

Start Time	04-Nov-13		05-Nov-13		06-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	*	75	23	*	*	*	23	75
12:15	*	90	19	*	*	*	19	90
12:30	*	86	12	*	*	*	12	86
12:45	*	77	12	*	*	*	12	77
01:00	*	93	10	*	*	*	10	93
01:15	*	98	14	*	*	*	14	98
01:30	11	89	*	*	*	*	11	89
01:45	16	95	*	*	*	*	16	95
02:00	9	99	*	*	*	*	9	99
02:15	15	94	*	*	*	*	15	94
02:30	4	82	*	*	*	*	4	82
02:45	1	91	*	*	*	*	1	91
03:00	6	97	*	*	*	*	6	97
03:15	10	94	*	*	*	*	10	94
03:30	3	116	*	*	*	*	3	116
03:45	4	111	*	*	*	*	4	111
04:00	2	107	*	*	*	*	2	107
04:15	1	120	*	*	*	*	1	120
04:30	9	120	*	*	*	*	9	120
04:45	9	125	*	*	*	*	9	125
05:00	11	121	*	*	*	*	11	121
05:15	17	122	*	*	*	*	17	122
05:30	26	145	*	*	*	*	26	145
05:45	40	113	*	*	*	*	40	113
06:00	51	118	*	*	*	*	51	118
06:15	59	115	*	*	*	*	59	115
06:30	77	105	*	*	*	*	77	105
06:45	71	103	*	*	*	*	71	103
07:00	102	83	*	*	*	*	102	83
07:15	97	82	*	*	*	*	97	82
07:30	106	74	*	*	*	*	106	74
07:45	112	66	*	*	*	*	112	66
08:00	118	56	*	*	*	*	118	56
08:15	104	66	*	*	*	*	104	66
08:30	104	62	*	*	*	*	104	62
08:45	99	52	*	*	*	*	99	52
09:00	78	66	*	*	*	*	78	66
09:15	81	48	*	*	*	*	81	48
09:30	78	46	*	*	*	*	78	46
09:45	75	44	*	*	*	*	75	44
10:00	86	53	*	*	*	*	86	53
10:15	84	63	*	*	*	*	84	63
10:30	76	39	*	*	*	*	76	39
10:45	73	51	*	*	*	*	73	51
11:00	81	42	*	*	*	*	81	42
11:15	93	42	*	*	*	*	93	42
11:30	96	34	*	*	*	*	96	34
11:45	89	25	*	*	*	*	89	25
Total	2284	3995	90	0	0	0	2374	3995
Combined Total	6279		90		0		6369	
Peak	07:30	04:45	12:00				07:30	04:45
Vol.	440	513	66				440	513
P.H.F.	0.932	0.884	0.717				0.932	0.884
ADT	ADT 6,369		AADT 6,369					

DC Department of Transportation - Traffic Accident Reporting and Analysis System

Accident Summary Report (R-8)

Corridor: HARVARD ST,NW From FIFTH ST,NW TO SHERMAN AVE,NW

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:	48	Right Angle:	12	25.0%	Fixed Object:	3	6.3%
Total Number of Fatalities:	0	Left Turn:	2	4.2%	Ran Off Road:	2	4.2%
Total Number of Injuries:	24	Right Turn:	0	0.0%	Ped. Involved:	3	6.3%
Total Number of Disabling Injuries:	2	Rear End:	6	12.5%	Backing:	3	6.3%
Total Number of NonDisabling Injuries:	9	Side Swiped:	11	22.9%	Non Collision:	1	2.1%
Total Number of Pedestrians Involved:	2	Head On:	0	0.0%	Under/Over Ride:	0	0.0%
Total Number of Bicycles Involved:	3	Parked:	1	2.1%	Unspecified:	4	8.3%
Total Number of Motorcycles Involved:	2						

Time of Day	#ACC	%	Day o fweek	#ACC	%
07:30 ~ 09:30:	4	8.3%	Sunday:	11	22.9%
09:30 ~ 11:30:	3	6.3%	Monday:	12	25.0%
11:30 ~ 13:30:	3	6.3%	Tuesday:	6	12.5%
13:30 ~ 16:00:	8	16.7%	Wednesday:	7	14.6%
16:00 ~18:30:	7	14.6%	Thursday:	3	6.3%
18:30 ~ 07:30:	23	47.9%	Friday:	3	6.3%
Unspecified:	0	0.0%	Saturday:	6	12.5%

Weather Condition	#ACC	%	Surface Condition	#ACC	%
Clear:	39	81.3%	Dry:	38	79.2%
Rain:	5	10.4%	Wet:	7	14.6%
Snow:	2	4.2%	Snow/Ice:	0	0.0%
Sleet/Hail:	0	0.0%	Slush:	1	2.1%
Fog/Mist:	0	0.0%	Water/Sand:	0	0.0%
Crosswind/Blowing Sand:	0	0.0%	Repairing:	0	0.0%
Unspecified:	2	4.2%	Unspecified:	2	4.2%

Type of Vehicle	#VEH	%	Accident Severity Type	#ACC	%
Passenger Car:	69	73.4%	Fatal Collision:	0	0.0%
Bus:	3	3.2%	Injury Collision:	19	39.6%
Truck:	7	7.4%	PDO Collision:	29	60.4%
Taxi:	2	2.1%	Light Condition	#ACC	%
Minivan:	0	0.0%	Daylight:	24	50.0%
Police/Emergency Vehicle:	1	1.1%	Dawn/Dusk:	0	0.0%
Motorcycle/Moped:	2	2.1%	Dark(Lighted):	22	45.8%
Bicycle:	3	3.2%	Dark(Not Lighted):	0	0.0%
Fixed Object:	0	0.0%	Dark(Unknown Lighting):	0	0.0%
Unspecified:	7	7.4%	Unspecified:	2	4.2%

Contributing Factor	#VEH	%	Pedestrian Actions	#ACC	%
Driver: Speed:	4	4.3%	In Crosswalk with Signal:	2	100.0%
Driver: Alcohol/Drug:	1	1.1%	In Crosswalk against Signal:	0	0.0%
Driver: Electronic Device:	0	0.0%	In Crosswalk no Signal:	0	0.0%
Driver: Others:	25	26.6%	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:	64	68.1%	Unspecified:	0	0.0%

32 Records are not approved as of 9/16/2013 1:03:27 PM