



District Department of Transportation

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

400 Block Warder Street NW

Study Area and Location

District	PSA	Ward	ANC	Phase	Description
3	302	1	1A	Proposed	400 Block Warder Street Northwest, Eastbound



This *proposed* camera will be located in Ward 1 at the 400 block of Warder Street Northwest in the eastbound direction. Warder Street Northwest is a north-south street which could otherwise be called 5th Street Northwest. The 400 block is between Park Road and Manor Place. Warder Street Northwest runs from Rock Creek Church Road Northwest from the north to Hobart Place Northwest to the south. The posted speed limit is 25 MPH.

W1 - 34





District Department of Transportation

400 Block Warder Street NW

Field Assessment Summary

Warder Street NW is a one-way road with one travel lane in the northbound direction. The roadway is classified as a collector. This site has the following characteristics:

- This site is located in a residential area with houses and driveways on both sides of the street.
- There are four schools in the area: Park View Elementary School, E.L. Haynes Public Charter School, Raymond Elementary School, and Howard University.
- There is on-street parking and sidewalks with curb and gutter on both sides of the street.
- There is a bicycle lane on the east side of the street.



Looking North



District Department of Transportation

400 Block Warder Street NW



Looking South

Speed Data Analysis

Posted Speed Limit (MPH)	25
Mean Speed (MPH)	14
85th Percentile Speed (MPH)	23
10 MPH Pace Speed (MPH)	5-14
ADT	3,912

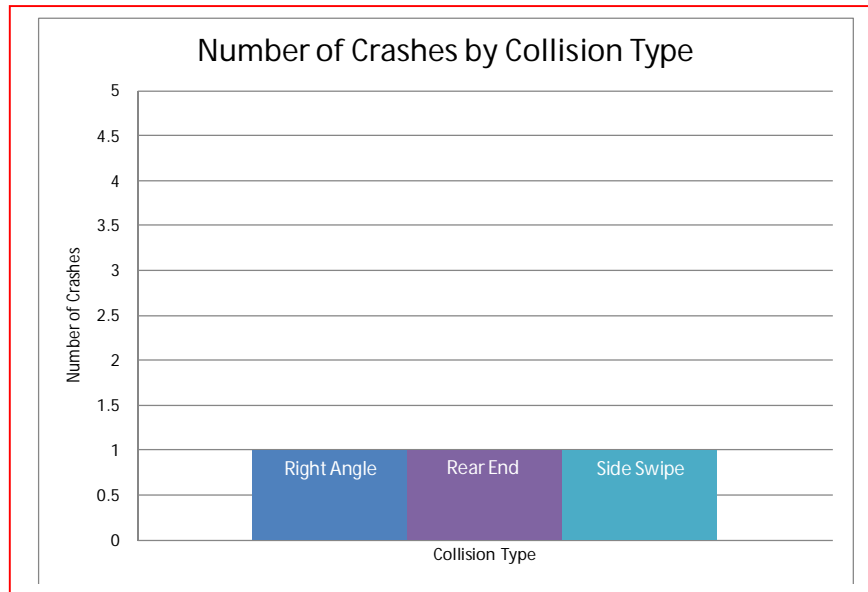
The mean speed is lower than the posted speed limit by 11 MPH and the 85th percentile speed is lower than the posted speed by 2 MPH at this location.

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. One crash for each collision type for right angle, rear end, and side swiped. The breakdown of crashes by collisions type are shown in the chart on the next page.



Severity			Weather			Surface condition			Light Condition		
Total	3										
Fatal	0	0.0%	Clear	2	66.7%	Dry	2	66.7%	Day	3	100.0%
Injury	0	0.0%	Rain	0	0.0%	Wet	0	0.0%	Night	0	0.0%
Bus	0	0.0%	Snow	1	33.3%	Snow/Ice	1	33.3%			
Police/EMS	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 speed study shows 85th percentile speed is lower than the posted speed limit at this location.
2. Crash Data – The crash data analysis shows a low number of crashes over a three year period.
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 many apartment buildings and houses on both sides of the street and in the surrounding area.
 - b. There are three schools in the area: Park View Elementary School, E.L. Haynes Public Charter school, Raymond Elementary School and Howard University.
 - c. There is on street parking at this location.
 - d. There is a bicycle lane along the east side of the street.



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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 revealed a low number of crashes in the area over a three-year period, safety is still a factor at this location. Warder Street provides an important access connection to Howard University, which is a major pedestrian generator. The roadway is one-way in the northbound direction and has parking on both sides of the street. Too, there were resident complaints with regards to speeding in this location. As noted in the photos, rumble strips were placed on the street as a traffic calming measure. Because of these factors, the specific site characteristics of a residential area, 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

400 Blk of WArder Street NW, EB Volume

Start Time	Wed	11-Dec-13	Thu	12-Dec-13	Fri	13-Dec-13	Daily Average	
	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.
12:00	*	*	11	55	*	*	11	55
12:15	*	*	8	46	*	*	8	46
12:30	*	*	12	46	*	*	12	46
12:45	*	*	8	62	*	*	8	62
01:00	*	*	3	42	*	*	3	42
01:15	*	*	7	44	*	*	7	44
01:30	*	*	5	57	*	*	5	57
01:45	*	*	6	54	*	*	6	54
02:00	*	*	4	49	*	*	4	49
02:15	*	*	2	46	*	*	2	46
02:30	*	*	5	76	*	*	5	76
02:45	*	*	6	82	*	*	6	82
03:00	*	*	1	83	*	*	1	83
03:15	*	*	3	98	*	*	3	98
03:30	*	*	3	90	*	*	3	90
03:45	*	*	5	96	*	*	5	96
04:00	*	*	3	109	*	*	3	109
04:15	*	*	1	103	*	*	1	103
04:30	*	*	4	115	*	*	4	115
04:45	*	*	5	124	*	*	5	124
05:00	*	0	4	7	*	*	4	4
05:15	*	0	6	*	*	*	6	0
05:30	*	86	5	*	*	*	5	86
05:45	*	137	9	*	*	*	9	137
06:00	*	104	15	*	*	*	15	104
06:15	*	79	8	*	*	*	8	79
06:30	*	68	19	*	*	*	19	68
06:45	*	86	23	*	*	*	23	86
07:00	*	59	24	*	*	*	24	59
07:15	*	70	41	*	*	*	41	70
07:30	*	47	54	*	*	*	54	47
07:45	*	49	73	*	*	*	73	49
08:00	*	47	97	*	*	*	97	47
08:15	*	47	68	*	*	*	68	47
08:30	*	33	74	*	*	*	74	33
08:45	*	27	46	*	*	*	46	27
09:00	*	39	49	*	*	*	49	39
09:15	*	39	37	*	*	*	37	39
09:30	*	42	34	*	*	*	34	42
09:45	*	35	49	*	*	*	49	35
10:00	*	26	39	*	*	*	39	26
10:15	*	22	40	*	*	*	40	22
10:30	*	19	35	*	*	*	35	19
10:45	*	23	40	*	*	*	40	23
11:00	*	26	37	*	*	*	37	26
11:15	*	15	37	*	*	*	37	15
11:30	*	22	48	*	*	*	48	22
11:45	*	16	55	*	*	*	55	16
Total	0	1263	1168	1484	0	0	1168	2744
Combined Total	1263		2652		0		3912	
Peak		05:30	07:45	04:00			07:45	04:00
Vol.		406	312	451			312	451
P.H.F.		0.741	0.804	0.909			0.804	0.909
ADT		ADT 3,912	AADT 3,912					

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400 Blk of WArder Street NW, EB 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
12/11/13	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
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	31	63	98	28	3	0	0	0	0	0	0	0	0	0	223
18:00	16	72	157	79	13	0	0	0	0	0	0	0	0	0	337
19:00	13	50	95	54	12	1	0	0	0	0	0	0	0	0	225
20:00	20	34	65	27	7	1	0	0	0	0	0	0	0	0	154
21:00	136	3	10	6	0	0	0	0	0	0	0	0	0	0	155
22:00	90	0	0	0	0	0	0	0	0	0	0	0	0	0	90
23:00	74	0	4	1	0	0	0	0	0	0	0	0	0	0	79
Total	380	222	429	195	35	2	0	0	0	0	0	0	0	0	1263

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EB

Start Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total
12/12/13	39	0	0	0	0	0	0	0	0	0	0	0	0	0	39
01:00	21	0	0	0	0	0	0	0	0	0	0	0	0	0	21
02:00	17	0	0	0	0	0	0	0	0	0	0	0	0	0	17
03:00	12	0	0	0	0	0	0	0	0	0	0	0	0	0	12
04:00	13	0	0	0	0	0	0	0	0	0	0	0	0	0	13
05:00	24	0	0	0	0	0	0	0	0	0	0	0	0	0	24
06:00	65	0	0	0	0	0	0	0	0	0	0	0	0	0	65
07:00	192	0	0	0	0	0	0	0	0	0	0	0	0	0	192
08:00	80	68	83	46	6	1	1	0	0	0	0	0	0	0	285
09:00	67	23	43	28	7	1	0	0	0	0	0	0	0	0	169
10:00	154	0	0	0	0	0	0	0	0	0	0	0	0	0	154
11:00	177	0	0	0	0	0	0	0	0	0	0	0	0	0	177
12 PM	209	0	0	0	0	0	0	0	0	0	0	0	0	0	209
13:00	197	0	0	0	0	0	0	0	0	0	0	0	0	0	197
14:00	80	29	91	46	7	0	0	0	0	0	0	0	0	0	253
15:00	81	73	137	73	3	0	0	0	0	0	0	0	0	0	367
16:00	43	116	207	72	13	0	0	0	0	0	0	0	0	0	451
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	1471	309	561	265	36	2	1	0	0	0	0	0	0	0	2645
Grand Total	1851	531	990	460	71	4	1	0	0	0	0	0	0	0	3908

15th Percentile : 5 MPH
 50th Percentile : 11 MPH
 85th Percentile : 23 MPH
 95th Percentile : 27 MPH

Stats
 Mean Speed(Average) : 14 MPH
 10 MPH Pace Speed : 5-14 MPH
 Number in Pace : 1984
 Percent in Pace : 50.8%
 Number of Vehicles > 25 MPH : 414
 Percent of Vehicles > 25 MPH : 10.6%

Accident Summary Report (R-8)

Corridor: WARDER ST,NW From PARK RD,NW TO MANOR PL,NW

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

Prepared By: Rahul Jain

Prepared Date: 12/17/2012

		Collision Type	#ACC	%	Collision Type	#ACC	%
Total Number of Accident:	3	Right Angle:	1	33.3%	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:	0	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:	1	33.3%	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:	0	0.0%	Unspecified:	0	0.0%
Total Number of Motorcycles Involved:	0						

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

Weather Condition	#ACC	%	Surface Condition	#ACC	%
Clear:	2	66.7%	Dry:	2	66.7%
Rain:	0	0.0%	Wet:	0	0.0%
Snow:	1	33.3%	Snow/Ice:	1	33.3%
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%

Type of Vehicle	#VEH	%	Accident Severity Type	#ACC	%
Passenger Car:	6	100.0%	Fatal Collision:	0	0.0%
Bus:	0	0.0%	Injury Collision:	0	0.0%
Truck:	0	0.0%	PDO Collision:	3	100.0%
Taxi:	0	0.0%			
Minivan:	0	0.0%	Light Condition	#ACC	%
Police/Emergency Vehicle:	0	0.0%	Daylight:	3	100.0%
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:	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:	0	0.0%	In Unmarked Crosswalk:	0	0.0%
Vehicle:	0	0.0%	Not in Crosswalk:	0	0.0%
Roadway:	1	16.7%	From Between Parked Cars:	0	0.0%
Unspecified:	5	83.3%	Unspecified:	0	0.0%

1 Records are not approved as of 12/17/2013 12:44:46 PM