



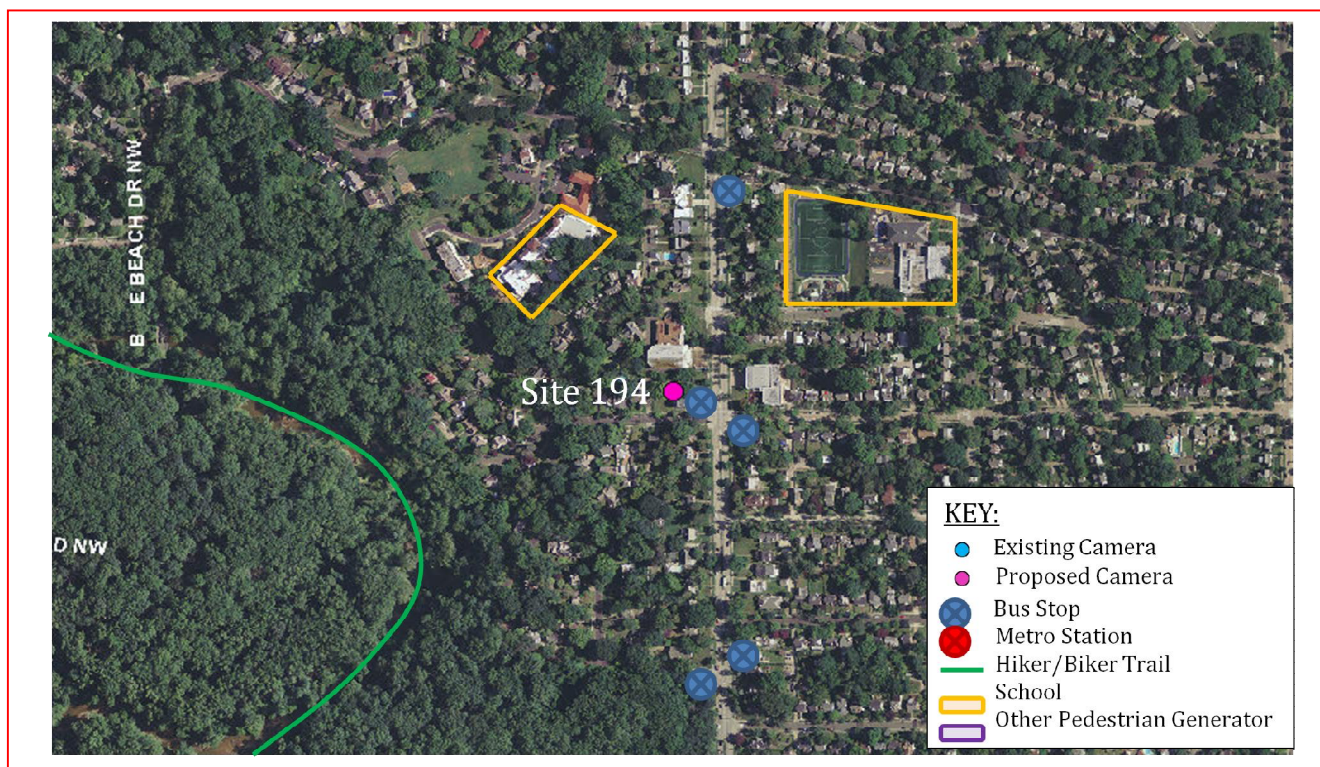
District Department of Transportation

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

7700 Block 16th Street NW

Study Area and Location

District	PSA	Ward	ANC	Phase	Description
4	401	1	41	Proposed	7700 Block 16 th Street Northwest, Southbound



The *proposed* speed camera will be located in Ward 1 at the 7700 block of 16th Street Northwest in the southbound direction. 16th Street Northwest runs between Eastern Avenue Northwest to the north and H Street Northwest to the south. The posted speed limit is 30 MPH.

W4 - 214





District Department of Transportation

7700 Block 16th Street NW

Field Assessment Summary

16th Street Northwest is assumed to run in a north-south direction, and is classified as a principal arterial. 16th Street Northwest has two travel lanes in each direction with short left turn bays at the intersections with Juniper Street, Jonquil Street and Kalmia Road. This site has the following characteristics:

- This is a residential area with houses on both sides of the street.
- There are two schools in the area: Shepherd Elementary School and Lowell School.
- The Ohev Sholom National Synagogue and Tifereth Israel Congregation are located along this block.
- There are sidewalks on both sides of the street and crosswalks at Juniper Street, Jonquil Street and Kalmia Road.
- The pavement is in good condition and there is curb and gutter with drainage inlets.
- There are several bus stops in the area that generate pedestrian traffic.
- There are brick medians with curb and gutter in the center of the block.
- There are multiple bus stops in the area.



Looking Southbound



District Department of Transportation

7700 Block 16th Street NW



Looking Northbound

Speed Data Analysis

Posted Speed Limit (MPH)	30
Mean Speed (MPH)	23
85th Percentile Speed (MPH)	32
10 MPH Pace Speed	25-34
ADT	13,071

The mean speed is 7 MPH lower than the posted speed limit, and the 85th percentile speed is 2 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 11 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 (5 crashes) and Side Swipe and Fixed Object with two crashes. The other collision types had one crash or less each.

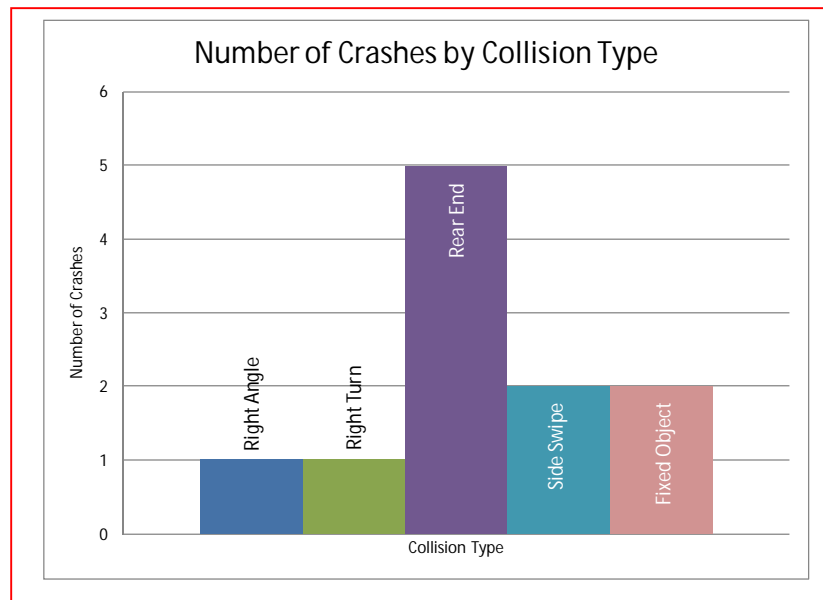
W4 - 216



District Department of Transportation

7700 Block 16th Street NW

Severity			Weather			Surface condition			Light Condition		
Total	11										
Fatal	0	0.0%	Clear	10	90.9%	Dry	8	72.7%	Day	5	45.5%
Injury	3	27.3%	Rain	1	9.1%	Wet	1	9.1%	Night	4	36.4%
Taxi	1	9.1%	Snow	0	0.0%	Snow/Ice	0	0.0%			
Bus	0	0.0%									



The 16th Street Corridor is listed as one of the top ten high frequency crash corridors from 2009 to 2011, according to the report *TRAFFIC SAFETY STATISTICS REPORT FOR THE DISTRICT OF COLUMBIA (2009-2011)*¹.

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 higher than the posted speed limit at this location.
2. Crash Data – There were three injury-related crashes reported. The 16th Street Corridor is listed as one of the top ten high frequency crash corridors from 2009 to 2011.
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 houses on both sides of the street.

¹ DDOT, *TRAFFIC SAFETY STATISTICS REPORT FOR THE DISTRICT OF COLUMBIA (2009-2011)*, pg.80.



District Department of Transportation

7700 Block 16th Street NW

- b. There are two schools in the area: Shepherd Elementary School and Lowell School.
- c. The Ohev Sholom National Synagogue and Tifereth Israel Congregation are located along this block.
- d. There are multiple bus stops in the area which generate pedestrian activity.

Due to the elevated 85th percentile speed, the number of injury –related crashes, the specific site characteristics of a residential neighborhood, 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

7700 block of 16th St NW SB Speed

SB

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
11/11/13	0	0	11	30	31	7	1	1	0	0	0	0	0	0	81
01:00	0	2	5	21	20	3	0	0	0	0	0	0	0	0	51
02:00	1	0	2	19	17	5	3	0	0	0	0	0	0	0	47
03:00	0	0	3	24	22	9	2	1	0	0	0	0	0	0	61
04:00	2	0	6	56	59	26	11	2	0	0	0	0	0	0	162
05:00	2	0	11	136	202	92	23	9	0	1	0	0	0	0	476
06:00	22	10	80	415	384	96	16	3	0	0	0	0	0	0	1026
07:00	21	12	264	758	363	53	3	0	0	0	0	0	0	0	1474
08:00	56	83	257	535	256	47	5	0	0	0	0	0	0	0	1239
09:00	59	50	173	340	271	66	17	1	0	0	0	0	0	0	977
10:00	48	25	52	252	277	77	11	2	1	0	0	0	0	0	745
11:00	42	6	57	280	218	47	15	1	1	0	0	0	0	0	667
12 PM	123	11	50	234	170	56	11	6	0	0	0	0	0	0	661
13:00	118	2	50	268	190	51	9	4	1	0	0	0	0	0	693
14:00	174	2	38	235	153	66	5	2	2	0	0	0	0	0	677
15:00	270	5	30	153	104	37	8	0	0	0	0	0	0	0	607
16:00	248	5	56	191	134	36	6	2	0	0	0	0	0	0	678
17:00	224	10	91	241	114	28	4	0	0	0	0	0	0	0	712
18:00	221	17	82	234	93	17	1	0	0	0	0	0	0	0	665
19:00	303	12	34	50	10	2	0	0	0	0	0	0	0	0	411
20:00	274	0	0	0	0	0	0	0	0	0	0	0	0	0	274
21:00	233	1	1	3	1	0	0	0	0	0	0	0	0	0	239
22:00	196	2	5	15	30	6	3	2	0	0	0	0	0	0	259
23:00	115	2	11	17	15	5	2	0	0	0	0	0	0	0	167
Total	2752	257	1369	4507	3134	832	156	36	5	1	0	0	0	0	13049

SAMMAT ENGINEERING SERVICES, LLC

1515 RISING RIDGE ROAD
MOUNT AIRY, MD 21771

www.sammateng.com

7700 block of 16th St NW SB Speed

SB

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
11/12/13	17	0	1	1	2	1	0	0	0	0	0	0	0	0	22
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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	17	0	1	1	2	1	0	0	0	0	0	0	0	0	22
Grand Total	2769	257	1370	4508	3136	833	156	36	5	1	0	0	0	0	13071

15th Percentile : 7 MPH
 50th Percentile : 25 MPH
 85th Percentile : 32 MPH
 95th Percentile : 36 MPH

Stats
 Mean Speed(Average) : 23 MPH
 10 MPH Pace Speed : 25-34 MPH
 Number in Pace : 5998
 Percent in Pace : 45.9%
 Number of Vehicles > 30 MPH : 3673
 Percent of Vehicles > 30 MPH : 28.1%

SAMMAT ENGINEERING SERVICES, LLC

1515 RISING RIDGE ROAD
MOUNT AIRY, MD 21771

www.sammateng.com

7700 block of 16th 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	*	165	22	*	*	*	22	165
12:15	39	185	*	*	*	*	39	185
12:30	20	147	*	*	*	*	20	147
12:45	22	164	*	*	*	*	22	164
01:00	13	179	*	*	*	*	13	179
01:15	11	158	*	*	*	*	11	158
01:30	15	181	*	*	*	*	15	181
01:45	12	175	*	*	*	*	12	175
02:00	8	170	*	*	*	*	8	170
02:15	16	206	*	*	*	*	16	206
02:30	16	170	*	*	*	*	16	170
02:45	7	131	*	*	*	*	7	131
03:00	21	135	*	*	*	*	21	135
03:15	11	168	*	*	*	*	11	168
03:30	16	142	*	*	*	*	16	142
03:45	13	162	*	*	*	*	13	162
04:00	25	165	*	*	*	*	25	165
04:15	37	166	*	*	*	*	37	166
04:30	53	167	*	*	*	*	53	167
04:45	47	180	*	*	*	*	47	180
05:00	83	183	*	*	*	*	83	183
05:15	114	178	*	*	*	*	114	178
05:30	126	176	*	*	*	*	126	176
05:45	153	175	*	*	*	*	153	175
06:00	197	186	*	*	*	*	197	186
06:15	242	146	*	*	*	*	242	146
06:30	305	153	*	*	*	*	305	153
06:45	282	180	*	*	*	*	282	180
07:00	359	180	*	*	*	*	359	180
07:15	385	83	*	*	*	*	385	83
07:30	385	84	*	*	*	*	385	84
07:45	345	64	*	*	*	*	345	64
08:00	350	69	*	*	*	*	350	69
08:15	318	74	*	*	*	*	318	74
08:30	326	65	*	*	*	*	326	65
08:45	245	66	*	*	*	*	245	66
09:00	263	65	*	*	*	*	263	65
09:15	258	67	*	*	*	*	258	67
09:30	233	52	*	*	*	*	233	52
09:45	223	55	*	*	*	*	223	55
10:00	209	66	*	*	*	*	209	66
10:15	201	70	*	*	*	*	201	70
10:30	168	68	*	*	*	*	168	68
10:45	167	55	*	*	*	*	167	55
11:00	165	42	*	*	*	*	165	42
11:15	171	49	*	*	*	*	171	49
11:30	183	38	*	*	*	*	183	38
11:45	148	38	*	*	*	*	148	38
Total	7006	6043	22	0	0	0	7028	6043
Combined Total	13049		22		0		13071	
Peak	07:00	01:30					07:00	01:30
Vol.	1474	732					1474	732
P.H.F.	0.957	0.888					0.957	0.888
ADT	ADT 13,071		AADT 13,071					

DC Department of Transportation - Traffic Accident Reporting and Analysis System

Accident Summary Report (R-8)

Corridor: 16TH ST,NW From JONQUIL ST,NW TO IRIS ST,NW

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

Prepared By: Rahul Jain

Prepared Date: 9/15/2013

		Collision Type	#ACC	%	Collision Type	#ACC	%
Total Number of Accident:	11	Right Angle:	1	9.1%	Fixed Object:	2	18.2%
Total Number of Fatalities:	0	Left Turn:	0	0.0%	Ran Off Road:	0	0.0%
Total Number of Injuries:	3	Right Turn:	1	9.1%	Ped. Involved:	0	0.0%
Total Number of Disabling Injuries:	0	Rear End:	5	45.5%	Backing:	0	0.0%
Total Number of NonDisabling Injuries:	0	Side Swiped:	2	18.2%	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	%
07:30 ~ 09:30:	0	0.0%
09:30 ~ 11:30:	1	9.1%
11:30 ~ 13:30:	0	0.0%
13:30 ~ 16:00:	1	9.1%
16:00 ~18:30:	2	18.2%
18:30 ~ 07:30:	7	63.6%
Unspecified:	0	0.0%

Day o fweek	#ACC	%
Sunday:	0	0.0%
Monday:	0	0.0%
Tuesday:	1	9.1%
Wednesday:	4	36.4%
Thursday:	1	9.1%
Friday:	3	27.3%
Saturday:	2	18.2%

Weather Condition	#ACC	%
Clear:	10	90.9%
Rain:	1	9.1%
Snow:	0	0.0%
Sleet/Hail:	0	0.0%
Fog/Mist:	0	0.0%
Crosswind/Blowing Sand:	0	0.0%
Unspecified:	0	0.0%

Surface Condition	#ACC	%
Dry:	8	72.7%
Wet:	1	9.1%
Snow/Ice:	0	0.0%
Slush:	1	9.1%
Water/Sand:	1	9.1%
Repairing:	0	0.0%
Unspecified:	0	0.0%

Type of Vehicle	#VEH	%
Passenger Car:	15	71.4%
Bus:	0	0.0%
Truck:	3	14.3%
Taxi:	1	4.8%
Minivan:	0	0.0%
Police/Emergency Vehicle:	1	4.8%
Motorcycle/Moped:	0	0.0%
Bicycle:	0	0.0%
Fixed Object:	0	0.0%
Unspecified:	1	4.8%

Accident Severity Type	#ACC	%
Fatal Collision:	0	0.0%
Injury Collision:	3	27.3%
PDO Collision:	8	72.7%

Light Condition	#ACC	%
Daylight:	5	45.5%
Dawn/Dusk:	2	18.2%
Dark(Lighted):	4	36.4%
Dark(Not Lighted):	0	0.0%
Dark(Unknown Lighting):	0	0.0%
Unspecified:	0	0.0%

Contributing Factor	#VEH	%
Driver: Speed:	0	0.0%
Driver: Alcohol/Drug:	0	0.0%
Driver: Electronic Device:	1	4.8%
Driver: Others:	2	9.5%
Vehicle:	0	0.0%
Roadway:	1	4.8%
Unspecified:	17	81.0%

Pedestrian Actions	#ACC	%
In Crosswalk with Signal:	0	0.0%
In Crosswalk against Signal:	0	0.0%
In Crosswalk no Signal:	0	0.0%
In Unmarked Crosswalk:	0	0.0%
Not in Crosswalk:	0	0.0%
From Between Parked Cars:	0	0.0%
Unspecified:	0	0.0%

7 Records are not approved as of 9/15/2013 12:46:09 PM