



District Department of Transportation

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

1700 Block Rhode Island Avenue NE

Study Area and Location

District	PSA	Ward	ANC	Phase	Description
5	504	5	5B	Proposed	1700 Block Rhode Island Avenue Northeast



This *proposed* speed camera will be located in Ward 5 at the 1700 block of Rhode Island Avenue Northeast. Rhode Island Avenue Northeast runs between North Capitol Street Northeast to the west and to Eastern Avenue Northeast where it becomes US 1 to the east. The posted speed limit is 30 MPH.

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District Department of Transportation

1700 Block Rhode Island Avenue NE

Field Assessment Summary

Rhode Island Avenue Northeast is assumed to run in the east-west direction, and is classified as a principal arterial. Rhode Island Avenue Northeast has three lanes in each direction. This site has the following characteristics:

- The site is located in a residential and commercial area with houses, stores, and driveways on both sides of the street.
- There are two schools in this area: Langdon Education Campus and Center City Public Charter School. The Woodridge Regional Public Library and Langdon Park are also in the area.
- There are sidewalks with curb and gutter on both sides of the street, and a grassy median with curb and gutter in the center of the street.
- There is on-street parking on the north side of the street.
- There is an existing traffic signal and crosswalks with pedestrian signals at the intersection of 18th Street Northeast and there are crosswalks at the intersection of 17th Street Northeast.
- The existing pavement is in fair condition.
- One existing bus stop is located on the north end of the block as well as others in the surrounding area.



Looking Northeast-bound

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District Department of Transportation

1700 Block Rhode Island Avenue NE



Looking Southwest-bound

Speed Data Analysis

Posted Speed Limit (MPH)	30
Mean Speed (MPH)	27
85th Percentile Speed (MPH)	33
10 MPH Pace Speed (MPH)	24-33
ADT	11,486

The mean speed is 3 MPH lower than the posted speed limit, and the 85th percentile is 3 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 24 crashes at this location. A breakdown of collision type can be found in the chart on the next page. The most common types of collision at this location were Right Angle (4 crashes), Rear End (4 crashes), and Side Swipe (4 crashes). Furthermore, this site experienced a high frequency (9 crashes) of injury-related crashes.

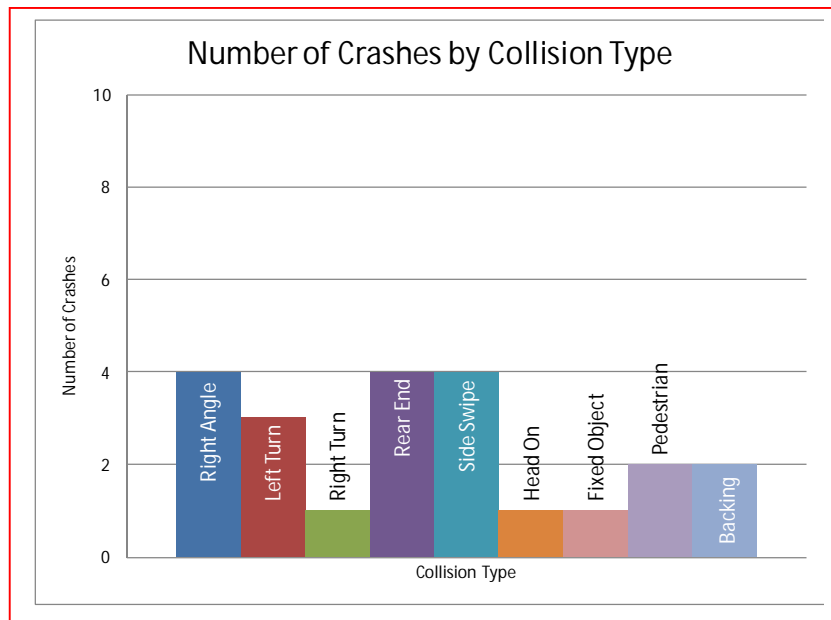
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District Department of Transportation

1700 Block Rhode Island Avenue NE

Severity			Weather			Surface condition			Light Condition		
Total	24										
Fatal	0	0.0%	Clear	17	70.8%	Dry	18	75.0%	Day	17	70.8%
Injury	9	37.5%	Rain	4	16.7%	Wet	4	16.7%	Night	7	29.2%
Poice/EMS	11	45.8%	Snow	1	4.2%	Snow/Ice	1	4.2%			
Truck	3	12.5%									



The Rhode Island Avenue 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 support the nexus between traffic safety and the speed camera:

1. Speed Data – The 85th percentile speed is higher than the posted speed limit at this location.
2. Crash Data – This site experienced a high frequency (9 crashes) of injury-related crashes. The Rhode Island Avenue Corridor is listed as one of the top ten high frequency crash corridors from 2009 to 2011.

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



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1700 Block Rhode Island Avenue NE

3. Field Assessment- The following site characteristics suggest a need for a safer travel environment:
 - a. This site is in a residential and commercial area with houses, stores, and driveways on both sides of the street.
 - b. There are two schools in this area: Langdon Education Campus and Center City Public Charter School.
 - c. The Woodbridge Regional Public Library and Langdon Park are also in the area which generates pedestrian activity.
 - d. There are multiple bus stops in the area which generate pedestrian activity.
 - e. There is on-street parking on the north side of the street.

Due to the speed data analysis, the elevated number of 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.

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SAMMAT ENGINEERING SERVICES, LLC

1515 RISING RIDGE ROAD
MOUNT AIRY, MD 21771

www.sammateng.com

1700 Block of Rhode Island Ave NE NEB Speed

NEB															
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
11/13/13	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
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	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	16	5	43	203	149	29	1	0	0	0	0	0	0	0	446
22:00	6	1	26	126	134	36	2	0	0	0	0	0	0	0	331
23:00	4	1	40	74	110	37	3	0	0	0	0	0	0	0	269
Total	26	7	109	403	393	102	6	0	0	0	0	0	0	0	1046

SAMMAT ENGINEERING SERVICES, LLC

1515 RISING RIDGE ROAD
MOUNT AIRY, MD 21771

www.sammateng.com

1700 Block of Rhode Island Ave NE NEB Speed

NEB															
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
11/14/13	4	1	14	57	74	14	4	1	0	0	0	0	0	0	169
01:00	6	3	13	37	38	9	0	1	0	0	0	0	0	0	107
02:00	0	2	7	20	23	8	0	1	0	0	0	0	0	0	61
03:00	5	0	8	10	11	8	3	0	0	0	0	0	0	0	45
04:00	2	0	9	19	22	7	0	1	0	0	0	0	0	0	60
05:00	1	5	20	28	33	7	0	0	0	0	0	0	0	0	94
06:00	4	3	31	72	63	13	2	1	0	0	0	0	0	0	189
07:00	19	10	64	130	91	22	3	2	0	0	0	0	0	0	341
08:00	30	37	115	160	87	17	5	0	0	0	1	0	0	0	452
09:00	31	38	121	144	91	13	1	2	0	0	0	0	0	0	441
10:00	23	25	98	183	135	39	5	2	0	0	0	0	0	0	510
11:00	26	33	128	220	141	44	5	1	0	0	0	0	0	0	598
12 PM	45	40	154	212	150	50	5	2	0	0	0	0	0	0	658
13:00	83	61	125	236	168	46	14	0	0	0	0	0	0	0	733
14:00	79	33	120	330	170	37	10	2	0	0	0	0	0	0	781
15:00	55	29	180	406	204	34	7	1	0	0	0	0	0	0	916
16:00	71	13	114	447	298	59	2	3	1	0	0	0	0	0	1008
17:00	72	18	185	546	217	39	3	0	0	0	0	0	0	0	1080
18:00	61	29	175	478	185	31	2	0	0	0	0	0	0	0	961
19:00	33	28	119	289	191	27	3	0	0	0	0	0	0	0	690
20:00	15	13	83	231	158	43	1	2	0	0	0	0	0	0	546
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	665	421	1883	4255	2550	567	75	22	1	0	1	0	0	0	10440
Grand Total	691	428	1992	4658	2943	669	81	22	1	0	1	0	0	0	11486

15th Percentile : 18 MPH
 50th Percentile : 27 MPH
 85th Percentile : 33 MPH
 95th Percentile : 36 MPH

Stats
 Mean Speed(Average) : 27 MPH
 10 MPH Pace Speed : 24-33 MPH
 Number in Pace : 6769
 Percent in Pace : 58.9%
 Number of Vehicles > 30 MPH : 3677
 Percent of Vehicles > 30 MPH : 32.0%

SAMMAT ENGINEERING SERVICES, LLC

1515 RISING RIDGE ROAD
MOUNT AIRY, MD 21771

www.sammateng.com

1700 Block of Rhode Island Ave NE NEB Volume

Start Time	Wed	13-Nov-13		Thu	14-Nov-13		Fri	15-Nov-13		Daily Average	
	A.M.		P.M.	A.M.		P.M.	A.M.		P.M.	A.M.	P.M.
12:00	*		*	59		155	*		*	59	155
12:15	*		*	48		166	*		*	48	166
12:30	*		*	35		176	*		*	35	176
12:45	*		*	27		161	*		*	27	161
01:00	*		*	37		184	*		*	37	184
01:15	*		*	20		175	*		*	20	175
01:30	*		*	28		184	*		*	28	184
01:45	*		*	22		190	*		*	22	190
02:00	*		*	18		197	*		*	18	197
02:15	*		*	21		195	*		*	21	195
02:30	*		*	7		173	*		*	7	173
02:45	*		*	15		216	*		*	15	216
03:00	*		*	11		200	*		*	11	200
03:15	*		*	5		236	*		*	5	236
03:30	*		*	13		249	*		*	13	249
03:45	*		*	16		231	*		*	16	231
04:00	*		*	16		267	*		*	16	267
04:15	*		*	13		245	*		*	13	245
04:30	*		*	15		259	*		*	15	259
04:45	*		*	16		237	*		*	16	237
05:00	*		*	18		233	*		*	18	233
05:15	*		*	23		282	*		*	23	282
05:30	*		*	21		304	*		*	21	304
05:45	*		*	32		261	*		*	32	261
06:00	*		*	35		249	*		*	35	249
06:15	*		*	46		243	*		*	46	243
06:30	*		*	46		246	*		*	46	246
06:45	*		*	62		223	*		*	62	223
07:00	*		*	76		191	*		*	76	191
07:15	*		*	75		160	*		*	75	160
07:30	*		*	99		181	*		*	99	181
07:45	*		*	91		158	*		*	91	158
08:00	*		*	134		145	*		*	134	145
08:15	*		*	105		151	*		*	105	151
08:30	*		*	96		128	*		*	96	128
08:45	*		*	117		122	*		*	117	122
09:00	*		126	120		*	*		*	120	126
09:15	*		114	109		*	*		*	109	114
09:30	*		108	102		*	*		*	102	108
09:45	*		98	110		*	*		*	110	98
10:00	*		96	125		*	*		*	125	96
10:15	*		78	120		*	*		*	120	78
10:30	*		88	132		*	*		*	132	88
10:45	*		69	133		*	*		*	133	69
11:00	*		74	147		*	*		*	147	74
11:15	*		74	149		*	*		*	149	74
11:30	*		71	160		*	*		*	160	71
11:45	*		50	142		*	*		*	142	50
Total	0		1046	3067		7373	0		0	3067	8419
Combined Total		1046			10440		0				11486
Peak		09:00		11:00		05:15				11:00	05:15
Vol.		446		598		1096				598	1096
P.H.F.		0.885		0.934		0.901				0.934	0.901
ADT		ADT 11,486		AADT 11,486							

DC Department of Transportation - Traffic Accident Reporting and Analysis System

Accident Summary Report (R-8)

Corridor: RHODE ISLAND AVE,NW,NE From GIRARD ST,NE TO EIGHTEENTH ST,NE

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:	24	Right Angle:	4	16.7%	Fixed Object:	1	4.2%
Total Number of Fatalities:	0	Left Turn:	3	12.5%	Ran Off Road:	0	0.0%
Total Number of Injuries:	13	Right Turn:	1	4.2%	Ped. Involved:	2	8.3%
Total Number of Disabling Injuries:	0	Rear End:	4	16.7%	Backing:	2	8.3%
Total Number of NonDisabling Injuries:	3	Side Swiped:	4	16.7%	Non Collision:	0	0.0%
Total Number of Pedestrians Involved:	2	Head On:	1	4.2%	Under/Over Ride:	0	0.0%
Total Number of Bicycles Involved:	2	Parked:	2	8.3%	Unspecified:	0	0.0%
Total Number of Motorcycles Involved:	0						

Time of Day	#ACC	%	Day of week	#ACC	%
07:30 ~ 09:30:	4	16.7%	Sunday:	0	0.0%
09:30 ~ 11:30:	1	4.2%	Monday:	3	12.5%
11:30 ~ 13:30:	4	16.7%	Tuesday:	4	16.7%
13:30 ~ 16:00:	3	12.5%	Wednesday:	6	25.0%
16:00 ~ 18:30:	3	12.5%	Thursday:	2	8.3%
18:30 ~ 07:30:	9	37.5%	Friday:	3	12.5%
Unspecified:	0	0.0%	Saturday:	6	25.0%

Weather Condition	#ACC	%	Surface Condition	#ACC	%
Clear:	17	70.8%	Dry:	18	75.0%
Rain:	4	16.7%	Wet:	4	16.7%
Snow:	1	4.2%	Snow/Ice:	1	4.2%
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:	2	8.3%	Unspecified:	1	4.2%

Type of Vehicle	#VEH	%	Accident Severity Type	#ACC	%
Passenger Car:	31	62.0%	Fatal Collision:	0	0.0%
Bus:	1	2.0%	Injury Collision:	9	37.5%
Truck:	3	6.0%	PDO Collision:	15	62.5%
Taxi:	2	4.0%			
Minivan:	0	0.0%	Light Condition	#ACC	%
Police/Emergency Vehicle:	11	22.0%	Daylight:	17	70.8%
Motorcycle/Moped:	0	0.0%	Dawn/Dusk:	0	0.0%
Bicycle:	2	4.0%	Dark(Lighted):	6	25.0%
Fixed Object:	0	0.0%	Dark(Not Lighted):	1	4.2%
Unspecified:	0	0.0%	Dark(Unknown Lighting):	0	0.0%
			Unspecified:	0	0.0%

Contributing Factor	#VEH	%	Pedestrian Actions	#ACC	%
Driver: Speed:	1	2.0%	In Crosswalk with Signal:	1	50.0%
Driver: Alcohol/Drug:	1	2.0%	In Crosswalk against Signal:	0	0.0%
Driver: Electronic Device:	0	0.0%	In Crosswalk no Signal:	0	0.0%
Driver: Others:	8	16.0%	In Unmarked Crosswalk:	1	50.0%
Vehicle:	0	0.0%	Not in Crosswalk:	0	0.0%
Roadway:	0	0.0%	From Between Parked Cars:	0	0.0%
Unspecified:	40	80.0%	Unspecified:	0	0.0%

15 Records are not approved as of 9/15/2013 1:33:11 PM