



District Department of Transportation

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

DC 295 NE at 8.2 Mile Marker NE/B

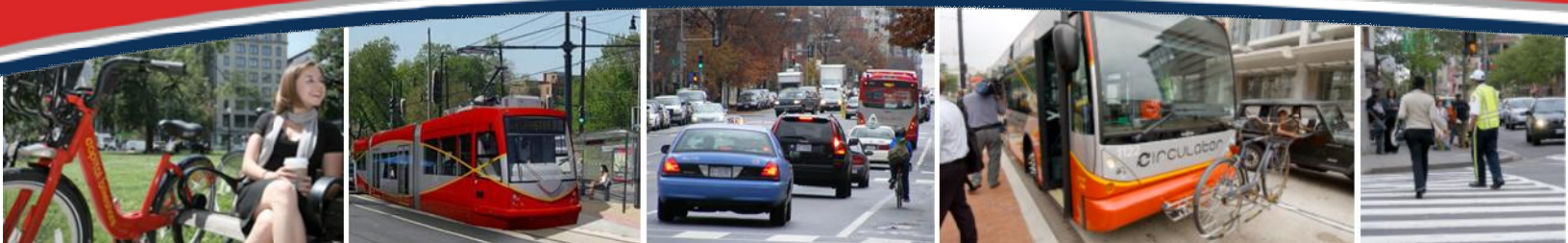
Study Area and Location

District	PSA	Ward	ANC	Phase	Description
6	602	7	7C/7D	Proposed	DC 295 at 8.2 Mile Marker, Northeast-bound



This *proposed* speed camera is located in Ward 7 on DC 295 Northeast at the 8.2 mile marker in the northeast-bound direction. DC 295 runs between the Baltimore-Washington Parkway to the north and I-295 to the south. The posted speed limit is 45 MPH.

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DC 295 NE at 8.2 Mile Marker NE/B

Field Assessment Summary

DC 295 is assumed to run in the northeast-southwest direction, and is classified as a freeway. DC 295 has three travel lanes in each direction. This site has the following characteristics:

- There are residential and commercial areas off of the freeway.
- The Minnesota Avenue Metrorail Station is on the east side of the freeway.
- The Aquatic Gardens are nearby.
- There is a concrete barrier separating northbound and southbound traffic.
- There is a pedestrian bridge over DC 295 near the Metrorail station.
- The pavement is in good condition and there is curb and gutter with drainage inlets.



Looking Northeast-bound

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DC 295 NE at 8.2 Mile Marker NE/B



Looking Northeast-bound

Speed Data Analysis¹

	Northeast-Bound
Posted Speed Limit (MPH)	45
Mean Speed (MPH)	47
85th Percentile Speed (MPH)	51
10 MPH Pace Speed	43-52
ADT	40,798

The mean speed is 2 MPH higher than the posted speed limit, and the 85th percentile speed is 6 MPH higher than the posted speed limit at this location.

Crash Data Analysis

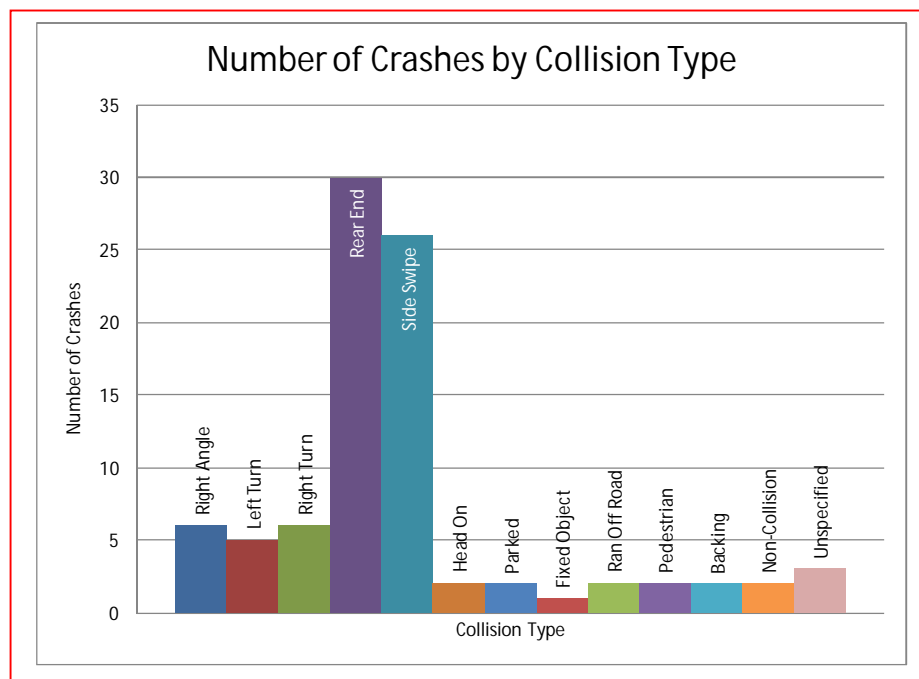
¹ A spot speed analysis was performed for this location on January 15, 2014. The ADT was taken from a previous tube count on December 2013.



DC 295 NE at 8.2 Mile Marker NE/B

From the Accident Summary Report provided for the dates between January 1, 2010 and December 31, 2012 there were a total of 89 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 crashes at this location were Rear End (30 crashes) and Side Swipe (26 crashes). Furthermore, this site experienced a high frequency (23 crashes) of injury-related crashes.

Severity			Weather			Surface condition			Light Condition		
Total	89										
Fatal	0	0.0%	Clear	75	84.3%	Dry	74	83.1%	Day	57	64.0%
Injury	28	31.5%	Rain	11	12.4%	Wet	13	14.6%	Night	30	33.7%
Bus	23	25.8%	Crosswind	1	1.1%	Snow/Ice	1	1.1%			
Taxi	6	6.7%									



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”² as two errors

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



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DC 295 NE at 8.2 Mile Marker NE/B

leading to rear-end and side swipe 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 safety nexus between the speed camera and safety.

1. Speed Data – The 85th percentile speed is higher than the posted speed limit at this location.
2. Crash Data – There were an elevated number of speed-related crashes at this location, including rear end and side swipe crashes, as well as a high frequency (23 crashes) of injury-related crashes.
3. Field Assessment – The following site characteristics suggest a need for a safer travel environment:
 - a. There are residential and commercial areas nearby and a pedestrian bridge.
 - b. The Aquatic Gardens are nearby.

Due to the elevated travel speeds, the elevated number of speed-related crashes and injury-related crashes, and the specific site characteristics, there is a nexus between traffic safety and the speed camera at this location.

GOVERNMENT OF THE DISTRICT OF COLUMBIA
D.C. Department of Transportation

**SPOT SPEED STUDY
SUMMARY SHEET**

===== Road Name DC 295 NE at 8.2 mile marker NEB From : To : Surface : Dry SpeedLimit: 50 =====	===== Date : 01/15/2014 Time : 10:30-11:19 Direction: Northbound Weather Sunny Recorder Ola and Astewa =====
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SPEED DISTRIBUTION

Measured Vehicle	No of Vehicles	Accum. Total vehicles	Percnt of Total	Accum. Total Percent
15	0	0	0.00%	0.00%
16	0	0	0.00%	0.00%
17	0	0	0.00%	0.00%
18	0	0	0.00%	0.00%
19	0	0	0.00%	0.00%
20	0	0	0.00%	0.00%
21	0	0	0.00%	0.00%
22	0	0	0.00%	0.00%
23	0	0	0.00%	0.00%
24	0	0	0.00%	0.00%
25	0	0	0.00%	0.00%
26	0	0	0.00%	0.00%
27	0	0	0.00%	0.00%
28	0	0	0.00%	0.00%
29	0	0	0.00%	0.00%
30	0	0	0.00%	0.00%
31	0	0	0.00%	0.00%
32	0	0	0.00%	0.00%
33	1	1	0.31%	0.31%
34	1	2	0.31%	0.62%
35	0	2	0.00%	0.62%
36	1	3	0.31%	0.92%
37	5	8	1.54%	2.46%
38	5	13	1.54%	4.00%
39	7	20	2.15%	6.15%
40	8	28	2.46%	8.62%
41	14	42	4.31%	12.92%
42	9	51	2.77%	15.69%
43	17	68	5.23%	20.92%
44	20	88	6.15%	27.08%
45	33	121	10.15%	37.23%
46	15	136	4.62%	41.85%
47	46	182	14.15%	56.00%
48	27	209	8.31%	64.31%
49	22	231	6.77%	71.08%
50	25	256	7.69%	78.77%
51	20	276	6.15%	84.92%
52	13	289	4.00%	88.92%
53	12	301	3.69%	92.62%
54	9	310	2.77%	95.38%
55	6	316	1.85%	97.23%
56	0	316	0.00%	97.23%
57	1	317	0.31%	97.54%
58	1	318	0.31%	97.85%
59	1	319	0.31%	98.15%
60	1	320	0.31%	98.46%
61	0	320	0.00%	98.46%
62	1	321	0.31%	98.77%
63	1	322	0.31%	99.08%
64	0	322	0.00%	99.08%
65	1	323	0.31%	99.38%
66	1	324	0.31%	99.69%
73	1	325	0.31%	100.00%
TOTALS	325	325	100.00%	100.00%

85th Percentile Speed:	51	MPH Speed Below Which 85% Operate
Modal Speed :	47	MPH Speed Most Frequently Logged
Mean Speed :	47	MPH Average Speed Of Vehicles
10 MPH Pace Range :	43 to 52	MPH Speed Range Of Most Vehicles
Percent in Pace :	73	% Of Vehicles In 10MPH Pace Range
Percent Enforceable :	2	% Of Sample Are Citable Offenders

SAMMAT ENGINEERING SERVICES, LLC

1515 RISING RIDGE ROAD
MOUNT AIRY, MD 21771

www.sammateng.com

DC295 NE at 8.2 Mile Marker NEB Volume

Start Time	Tue	03-Dec-1	Wed	04-Dec-1	Thu	05-Dec-1	Daily Average		
	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	
12:00	*	692	244	*	*	*	244	692	
12:15	*	641	200	*	*	*	200	641	
12:30	*	609	154	*	*	*	154	609	
12:45	*	683	148	*	*	*	148	683	
01:00	*	657	111	*	*	*	111	657	
01:15	*	705	117	*	*	*	117	705	
01:30	*	734	99	*	*	*	99	734	
01:45	*	753	86	*	*	*	86	753	
02:00	*	772	86	*	*	*	86	772	
02:15	*	815	87	*	*	*	87	815	
02:30	*	900	89	*	*	*	89	900	
02:45	*	905	64	*	*	*	64	905	
03:00	79	839	0	*	*	*	40	839	
03:15	64	960	*	*	*	*	64	960	
03:30	92	882	*	*	*	*	92	882	
03:45	110	944	*	*	*	*	110	944	
04:00	120	998	*	*	*	*	120	998	
04:15	144	965	*	*	*	*	144	965	
04:30	202	685	*	*	*	*	202	685	
04:45	239	108	*	*	*	*	239	108	
05:00	309	121	*	*	*	*	309	121	
05:15	396	99	*	*	*	*	396	99	
05:30	511	102	*	*	*	*	511	102	
05:45	513	210	*	*	*	*	513	210	
06:00	562	157	*	*	*	*	562	157	
06:15	614	204	*	*	*	*	614	204	
06:30	572	117	*	*	*	*	572	117	
06:45	637	104	*	*	*	*	637	104	
07:00	693	86	*	*	*	*	693	86	
07:15	616	104	*	*	*	*	616	104	
07:30	663	138	*	*	*	*	663	138	
07:45	652	130	*	*	*	*	652	130	
08:00	675	125	*	*	*	*	675	125	
08:15	589	134	*	*	*	*	589	134	
08:30	644	142	*	*	*	*	644	142	
08:45	622	143	*	*	*	*	622	143	
09:00	592	479	*	*	*	*	592	479	
09:15	563	498	*	*	*	*	563	498	
09:30	578	461	*	*	*	*	578	461	
09:45	588	514	*	*	*	*	588	514	
10:00	622	500	*	*	*	*	622	500	
10:15	561	488	*	*	*	*	561	488	
10:30	590	428	*	*	*	*	590	428	
10:45	453	358	*	*	*	*	453	358	
11:00	439	348	*	*	*	*	439	348	
11:15	483	373	*	*	*	*	483	373	
11:30	627	286	*	*	*	*	627	286	
11:45	602	240	*	*	*	*	602	240	
Total	17016	22336	1485	0	0	0	18462	22336	
Combined Total	39352		1485		0		40798		
Peak Vol.	07:00 2624	03:30 3789	-	12:00 746	-	-	-	07:00 2624	03:30 3789
P.H.F.	0.947	0.949		0.764				0.947	0.949
ADT	ADT 40,798		AADT 40,798						

DC Department of Transportation - Traffic Accident Reporting and Analysis System

Accident Summary Report (R-8)

Corridor: KENILWORTH AVE,NE From POLK ST,NE TO EASTERN AVE,NE

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

Prepared By: Rahul Jain

Prepared Date: 12/31/2012

		Collision Type	#ACC	%	Collision Type	#ACC	%
Total Number of Accident:	89	Right Angle:	6	6.7%	Fixed Object:	1	1.1%
Total Number of Fatalities:	0	Left Turn:	5	5.6%	Ran Off Road:	2	2.2%
Total Number of Injuries:	46	Right Turn:	6	6.7%	Ped. Involved:	2	2.2%
Total Number of Disabling Injuries:	3	Rear End:	30	33.7%	Backing:	2	2.2%
Total Number of NonDisabling Injuries:	15	Side Swiped:	26	29.2%	Non Collision:	2	2.2%
Total Number of Pedestrians Involved:	3	Head On:	2	2.2%	Under/Over Ride:	0	0.0%
Total Number of Bicycles Involved:	0	Parked:	2	2.2%	Unspecified:	3	3.4%
Total Number of Motorcycles Involved:	1						

Time of Day	#ACC	%	Day of week	#ACC	%
07:30 ~ 09:30:	7	7.9%	Sunday:	12	13.5%
09:30 ~ 11:30:	3	3.4%	Monday:	16	18.0%
11:30 ~ 13:30:	6	6.7%	Tuesday:	16	18.0%
13:30 ~ 16:00:	17	19.1%	Wednesday:	13	14.6%
16:00 ~ 18:30:	22	24.7%	Thursday:	5	5.6%
18:30 ~ 07:30:	34	38.2%	Friday:	15	16.9%
Unspecified:	0	0.0%	Saturday:	12	13.5%

Weather Condition	#ACC	%	Surface Condition	#ACC	%
Clear:	75	84.3%	Dry:	74	83.1%
Rain:	11	12.4%	Wet:	13	14.6%
Snow:	0	0.0%	Snow/Ice:	1	1.1%
Sleet/Hail:	0	0.0%	Slush:	0	0.0%
Fog/Mist:	0	0.0%	Water/Sand:	0	0.0%
Crosswind/Blowing Sand:	1	1.1%	Repairing:	1	1.1%
Unspecified:	2	2.2%	Unspecified:	0	0.0%

Type of Vehicle	#VEH	%	Accident Severity Type	#ACC	%
Passenger Car:	122	67.0%	Fatal Collision:	0	0.0%
Bus:	6	3.3%	Injury Collision:	28	31.5%
Truck:	23	12.6%	PDO Collision:	61	68.5%
Taxi:	6	3.3%			
Minivan:	0	0.0%	Light Condition	#ACC	%
Police/Emergency Vehicle:	2	1.1%	Daylight:	57	64.0%
Motorcycle/Moped:	2	1.1%	Dawn/Dusk:	2	2.2%
Bicycle:	0	0.0%	Dark(Lighted):	29	32.6%
Fixed Object:	0	0.0%	Dark(Not Lighted):	1	1.1%
Unspecified:	21	11.5%	Dark(Unknown Lighting):	0	0.0%
			Unspecified:	0	0.0%

Contributing Factor	#VEH	%	Pedestrian Actions	#ACC	%
Driver: Speed:	7	3.8%	In Crosswalk with Signal:	0	0.0%
Driver: Alcohol/Drug:	1	0.5%	In Crosswalk against Signal:	0	0.0%
Driver: Electronic Device:	1	0.5%	In Crosswalk no Signal:	1	50.0%
Driver: Others:	33	18.1%	In Unmarked Crosswalk:	0	0.0%
Vehicle:	1	0.5%	Not in Crosswalk:	1	50.0%
Roadway:	2	1.1%	From Between Parked Cars:	0	0.0%
Unspecified:	137	75.3%	Unspecified:	0	0.0%

57 Records are not approved as of 12/31/2013 3:11:40 PM