



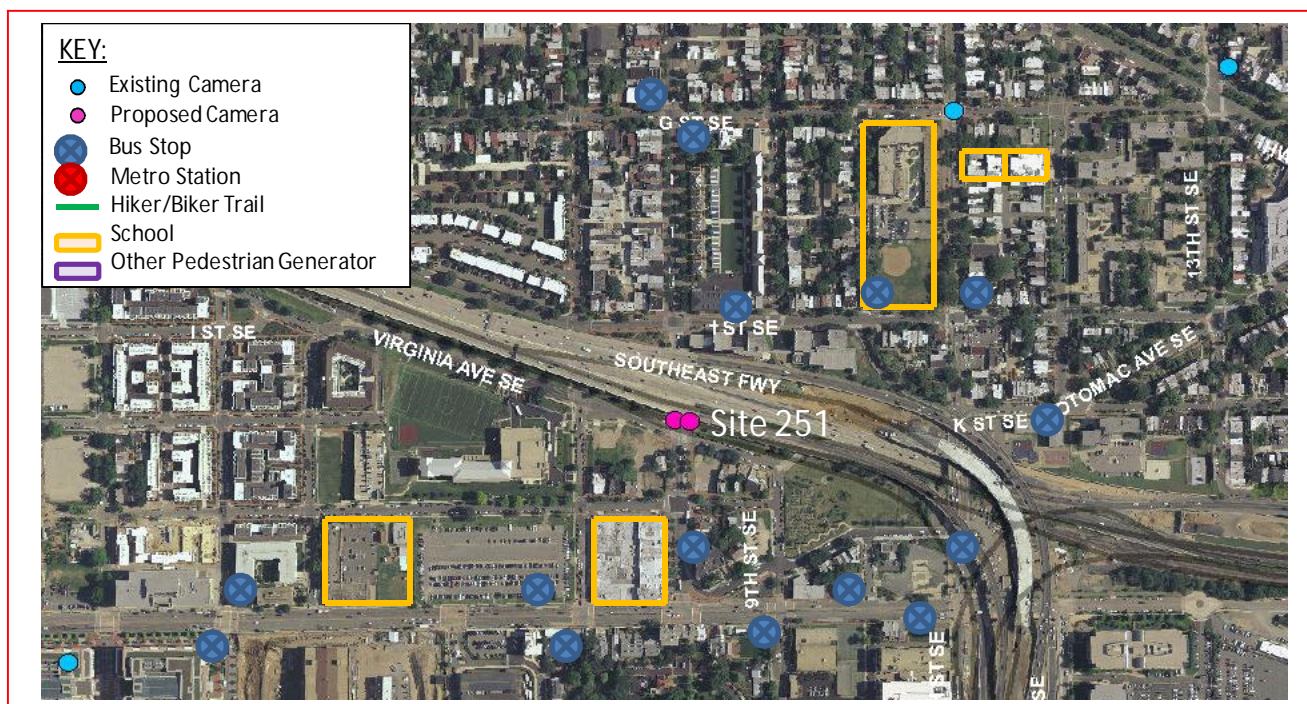
District Department of Transportation

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

SE-SW Freeway at 9th Street Entrance

Study Area and Location

District	PSA	Ward	ANC	Phase	Description
1	101/103/105	6	6D	Proposed	Southeast-Southwest Freeway at 9 th Street Entrance Southeast Eastbound



The *proposed* speed camera is located in Ward 6 along the Southeast-Southwest Freeway at the 9th Street entrance ramp looking eastbound. The Southeast-Southwest Freeway, also known as I-695, runs from I-395 then across the 11th Street Bridges to the I-295 / DC 295 junction in the Southeast. The posted speed limit is 35 MPH.

W6 - 325





District Department of Transportation

SE-SW Freeway at 9th Street Entrance

Field Assessment Summary

The Southeast-Southwest Freeway is assumed to run in an east-west direction and is classified as an interstate (I-695). The Southeast Southwest Freeway has two lanes of travel in the westbound direction. This site has the following characteristics:

- This site is located in a construction work zone. The ramp is currently under construction.
- There are several bus stops in the surrounding area.

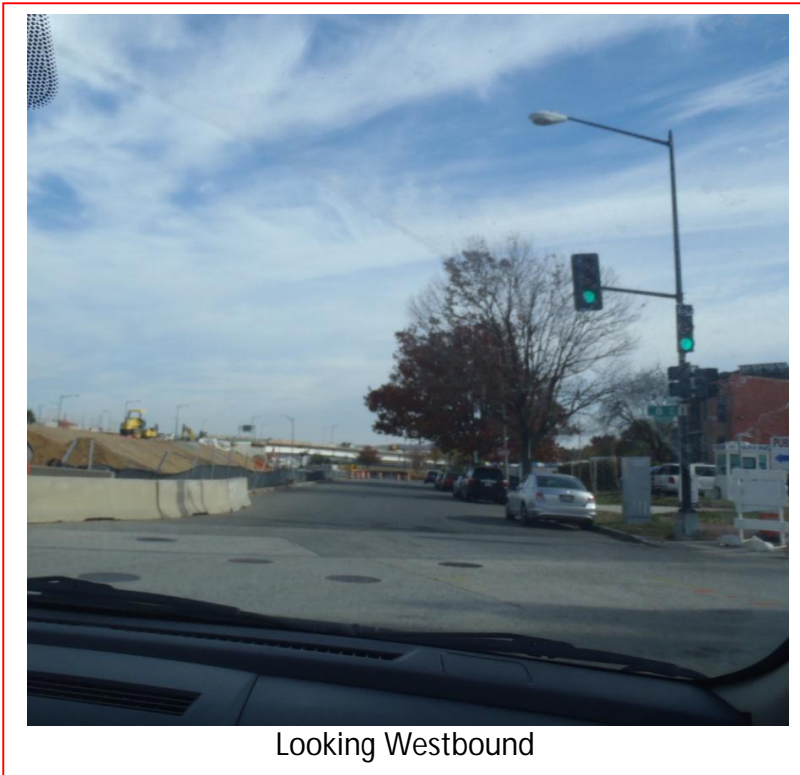


Looking Eastbound



District Department of Transportation

SE-SW Freeway at 9th Street Entrance



Looking Westbound

Speed Data Analysis

	Northwest-Bound
Posted Speed Limit (MPH)	35
Mean Speed (MPH)	33
85th Percentile Speed (MPH)	44
10 MPH Pace Speed	36-45
ADT	39,317

The mean speed is lower than the posted speed limit in both directions and the 85th percentile speed is higher than the posted speed limit 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 7 crashes at this location. A breakdown of number of crashes by collision type can be

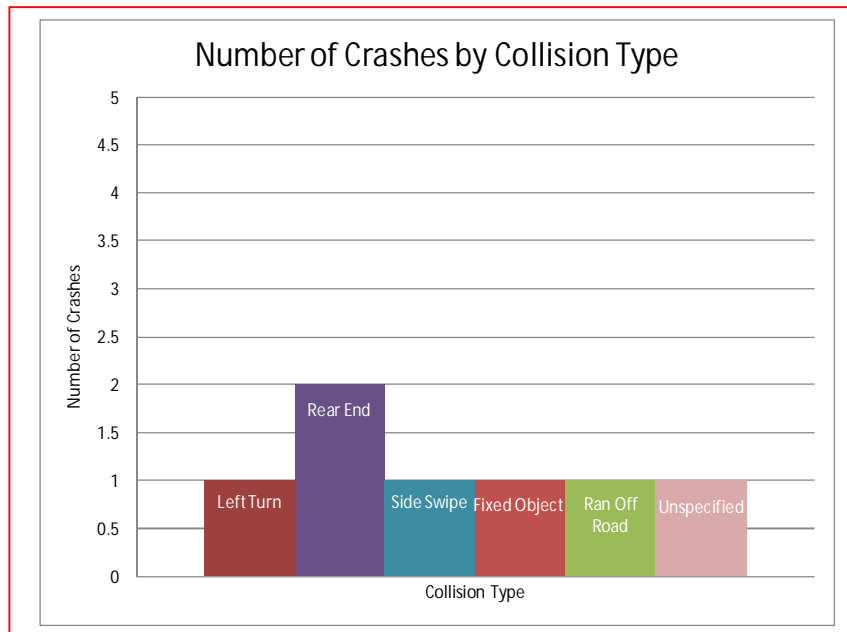
W6 - 327



SE-SW Freeway at 9th Street Entrance

found in the chart on the next page. The most common type of collision at this location was Rear End (2 crashes). The other collision types had one crash or less each.

Severity			Weather			Surface condition			Light Condition		
Total	7										
Fatal	0	0.0%	Clear	6	85.7%	Dry	6	85.7%	Day	4	57.1%
Injury	3	42.9%	Rain	1	14.3%	Wet	1	14.3%	Night	2	28.6%
Truck	2	28.6%	Snow	0	0.0%	Snow/Ice	0	0.0%			
Police/EMS	1	14.3%									



Safety Nexus

This site presents the following safety considerations which may establish a safety 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.
2. Crash Data – The crash data analysis shows a low number of crashes at this location.
3. Field Assessment – The following site characteristics suggest a need for a safer travel environment:
 - a. This site is located in a construction work zone.



District Department of Transportation

SE-SW Freeway at 9th Street Entrance

Due to a construction work zone in the area, the speed limits in the zone are lower than the posted speed limit, and lower speed limits are desired to create a safe environment for construction workers. Further speed analysis is recommended once the freeway construction has been completed.

Although the crash data analysis revealed a low number of crashes in this area, due to the 85th percentile speeds and the proximity of the construction work zone, there is a nexus between traffic safety and the speed camera at this location.

W6 - 329

SAMMAT ENGINEERING SERVICES, LLC

1515 RISING RIDGE ROAD
MOUNT AIRY, MD 21771

www.sammateng.com

SE/SW Frwy at 9th St Entrance SE EB Speed

EB

Start Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total
12/03/13	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	1	0	0	2	14	68	89	66	18	4	3	0	0	0	265
04:00	3	0	0	0	17	115	222	132	42	8	2	0	0	0	541
05:00	40	0	0	1	24	310	643	342	71	14	0	0	0	0	1445
06:00	110	0	0	3	149	641	808	359	61	6	0	1	0	0	2138
07:00	142	0	0	17	158	703	851	404	54	7	0	0	0	0	2336
08:00	106	0	0	12	157	591	809	423	74	9	2	0	0	0	2183
09:00	104	0	11	40	222	541	578	289	66	4	0	1	0	0	1856
10:00	93	0	0	30	230	633	617	273	48	3	0	0	0	0	1927
11:00	132	4	7	43	251	661	657	251	43	4	1	0	0	0	2054
12 PM	131	1	10	45	283	731	742	273	45	2	0	0	0	0	2263
13:00	169	1	4	37	253	890	877	271	39	2	0	0	0	0	2543
14:00	369	2	13	43	386	1068	619	130	10	1	1	0	1	0	2643
15:00	424	30	49	33	116	201	55	18	2	0	0	0	0	0	928
16:00	422	27	38	59	155	167	41	7	0	0	0	0	0	0	916
17:00	435	16	37	49	185	211	46	10	0	0	0	0	0	0	989
18:00	549	3	5	41	488	699	129	16	0	1	0	0	0	0	1931
19:00	535	1	1	13	250	994	517	80	8	1	0	0	0	0	2400
20:00	419	2	1	16	172	824	683	155	14	1	0	0	0	0	2287
21:00	456	0	1	3	124	875	717	163	20	2	2	0	0	0	2363
22:00	341	0	2	8	130	635	674	205	32	5	0	0	1	0	2033
23:00	268	2	0	4	62	418	548	190	35	2	0	1	0	0	1530
Total	5249	89	179	499	3826	11976	10922	4057	682	76	11	3	2	0	37571

SAMMAT ENGINEERING SERVICES, LLC

1515 RISING RIDGE ROAD
MOUNT AIRY, MD 21771

www.sammateng.com

SE/SW Frwy at 9th St Entrance SE EB Speed

EB

Start Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total
12/04/13	131	0	0	0	46	213	372	144	33	4	0	0	0	0	943
01:00	33	0	0	1	24	84	137	97	21	4	0	0	0	0	401
02:00	34	0	0	4	35	98	145	64	20	1	0	1	0	0	402
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	198	0	0	5	105	395	654	305	74	9	0	1	0	0	1746
Grand Total	5447	89	179	504	3931	12371	11576	4362	756	85	11	4	2	0	39317

15th Percentile : 9 MPH
 50th Percentile : 37 MPH
 85th Percentile : 44 MPH
 95th Percentile : 48 MPH

Stats
 Mean Speed(Average) : 33 MPH
 10 MPH Pace Speed : 36-45 MPH
 Number in Pace : 19847
 Percent in Pace : 50.5%
 Number of Vehicles > 35 MPH : 25319
 Percent of Vehicles > 35 MPH : 64.4%

SAMMAT ENGINEERING SERVICES, LLC

1515 RISING RIDGE ROAD
MOUNT AIRY, MD 21771

www.sammateng.com

SE/SW Frwy at 9th St Entrance SE EB Volume

Start Time	Tue 03-Dec-13		Wed 04-Dec-13		Thu 05-Dec-13		Daily Average	
	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.
12:00	*	540	312	*	*	*	312	540
12:15	*	568	258	*	*	*	258	568
12:30	*	568	200	*	*	*	200	568
12:45	*	587	173	*	*	*	173	587
01:00	*	604	110	*	*	*	110	604
01:15	*	619	127	*	*	*	127	619
01:30	*	635	86	*	*	*	86	635
01:45	*	685	78	*	*	*	78	685
02:00	*	689	114	*	*	*	114	689
02:15	*	691	102	*	*	*	102	691
02:30	*	651	109	*	*	*	109	651
02:45	*	612	77	*	*	*	77	612
03:00	65	545	*	*	*	*	65	545
03:15	47	134	*	*	*	*	47	134
03:30	65	147	*	*	*	*	65	147
03:45	88	102	*	*	*	*	88	102
04:00	96	94	*	*	*	*	96	94
04:15	123	135	*	*	*	*	123	135
04:30	148	215	*	*	*	*	148	215
04:45	174	472	*	*	*	*	174	472
05:00	249	491	*	*	*	*	249	491
05:15	380	282	*	*	*	*	380	282
05:30	393	112	*	*	*	*	393	112
05:45	423	104	*	*	*	*	423	104
06:00	521	342	*	*	*	*	521	342
06:15	509	464	*	*	*	*	509	464
06:30	509	554	*	*	*	*	509	554
06:45	599	571	*	*	*	*	599	571
07:00	583	569	*	*	*	*	583	569
07:15	604	634	*	*	*	*	604	634
07:30	569	588	*	*	*	*	569	588
07:45	580	609	*	*	*	*	580	609
08:00	593	573	*	*	*	*	593	573
08:15	580	556	*	*	*	*	580	556
08:30	526	592	*	*	*	*	526	592
08:45	484	566	*	*	*	*	484	566
09:00	437	603	*	*	*	*	437	603
09:15	461	561	*	*	*	*	461	561
09:30	459	602	*	*	*	*	459	602
09:45	499	597	*	*	*	*	499	597
10:00	466	570	*	*	*	*	466	570
10:15	489	522	*	*	*	*	489	522
10:30	479	468	*	*	*	*	479	468
10:45	493	473	*	*	*	*	493	473
11:00	519	508	*	*	*	*	519	508
11:15	491	391	*	*	*	*	491	391
11:30	518	359	*	*	*	*	518	359
11:45	526	272	*	*	*	*	526	272
Total	14745	22826	1746	0	0	0	16491	22826
Combined Total	37571		1746		0		39317	
Peak	06:45	01:45	12:00				06:45	01:45
Vol.	2355	2716	943				2355	2716
P.H.F.	0.975	0.983	0.756				0.975	0.983
ADT	ADT 39,317		AADT 39,317					

Accident Summary Report (R-8)**Corridor:** INTERSTATE 695,BN From INTERSTATE 395 INTERSTATE,BN TO INTERSTATE 295 I,BN**Time Period Covered:** From 01/01/2010 To 12/31/2012**Prepared By:** Rahul Jain**Prepared Date:** 12/31/2012

Total Number of Accident:	7	Collision Type	#ACC	%	Collision Type	#ACC	%				
Total Number of Fatalities:	0	Right Angle:	0	0.0%	Fixed Object:	1	14.3%				
Total Number of Injuries:	4	Left Turn:	1	14.3%	Ran Off Road:	1	14.3%				
Total Number of Disabling Injuries:	0	Right Turn:	0	0.0%	Ped. Involved:	0	0.0%				
Total Number of NonDisabling Injuries:	3	Rear End:	2	28.6%	Backing:	0	0.0%				
Total Number of Pedestrians Involved:	0	Side Swiped:	1	14.3%	Non Collision:	0	0.0%				
Total Number of Bicycles Involved:	0	Head On:	0	0.0%	Under/Over Ride:	0	0.0%				
Total Number of Motorcycles Involved:	1	Parked:	0	0.0%	Unspecified:	1	14.3%				
Time of Day				#ACC	%	Day o fweek		#ACC	%		
07:30 ~ 09:30:				4	57.1%	Sunday:		1	14.3%		
09:30 ~ 11:30:				0	0.0%	Monday:		1	14.3%		
11:30 ~ 13:30:				0	0.0%	Tuesday:		0	0.0%		
13:30 ~ 16:00:				0	0.0%	Wednesday:		1	14.3%		
16:00 ~18:30:				1	14.3%	Thursday:		1	14.3%		
18:30 ~ 07:30:				2	28.6%	Friday:		0	0.0%		
Unspecified:				0	0.0%	Saturday:		3	42.9%		
Weather Condition				#ACC	%	Surface Condition				#ACC	%
Clear:				6	85.7%	Dry:				6	85.7%
Rain:				1	14.3%	Wet:				1	14.3%
Snow:				0	0.0%	Snow/Ice:				0	0.0%
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:				7	63.6%	Fatal Collision:				0	0.0%
Bus:				0	0.0%	Injury Collision:				3	42.9%
Truck:				2	18.2%	PDO Collision:				4	57.1%
Taxi:				0	0.0%	Light Condition				#ACC	%
Minivan:				0	0.0%	Daylight:				4	57.1%
Police/Emergency Vehicle:				1	9.1%	Dawn/Dusk:				1	14.3%
Motorcycle/Moped:				1	9.1%	Dark(Lighted):				2	28.6%
Bicycle:				0	0.0%	Dark(Not Lighted):				0	0.0%
Fixed Object:				0	0.0%	Dark(Unknown Lighting):				0	0.0%
Unspecified:				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:				3	27.3%	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:				8	72.7%	Unspecified:				0	0.0%

6 Records are not approved as of 12/31/2013 1:54:38 PM