



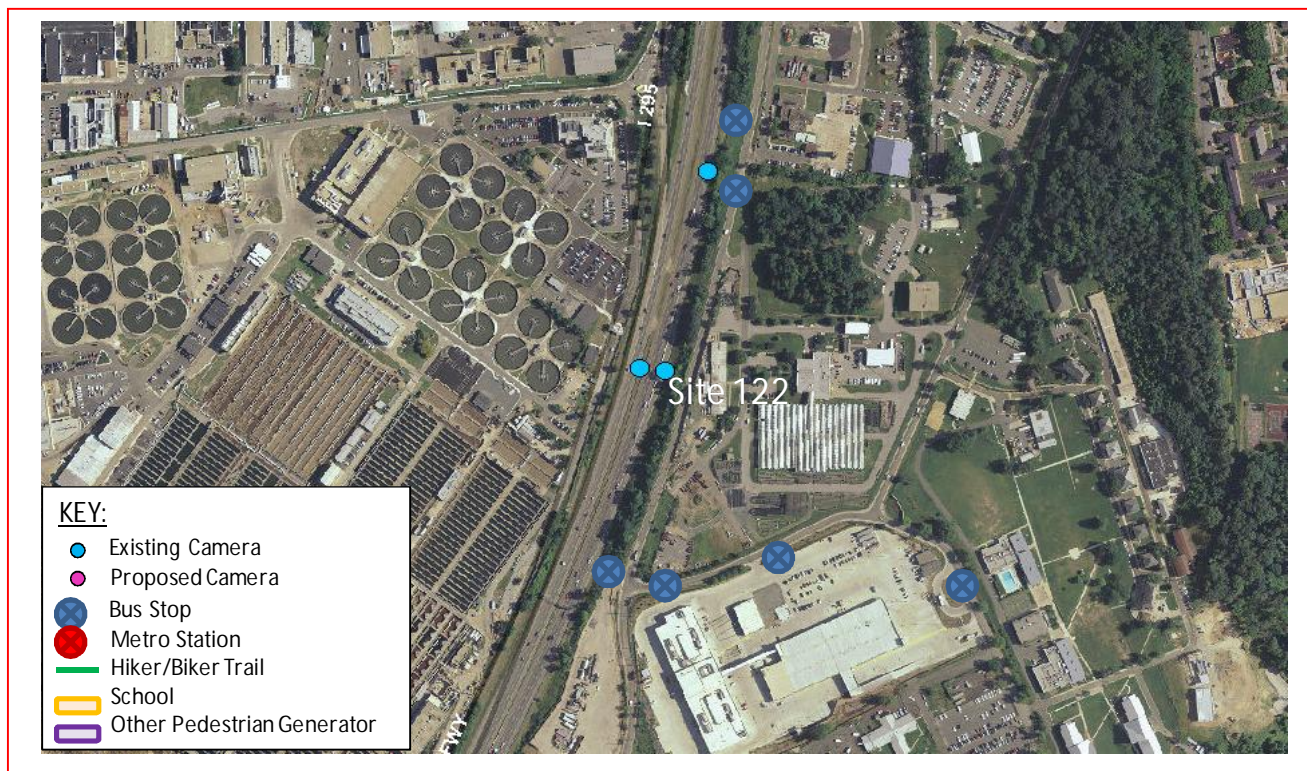
District Department of Transportation

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

DC-295 SW 0.3 Miles South of Exit 1 N/B

Study Area and Location

District	PSA	Ward	ANC	Phase	Description
7	708	8	8D	Existing	DC-295 Southwest 0.3 Miles South of Exit 1 Northbound



This existing speed camera is located in Ward 8 on I-295 Southwest 0.3 miles south of Exit 1 in the northbound direction. I-295 runs between the DC 295 to the north and the DC-Maryland Line to the south. The posted speed limit is 50 MPH. This speed camera was installed on November 21, 2011.

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District Department of Transportation

DC-295 SW 0.3 Miles South of Exit 1 N/B

Field Assessment Summary

I-295 is assumed to run in the north-south direction, and is classified as a freeway. I-295 has two travel lanes in each direction. This site has the following characteristics:

- There is a grassy median as well as well as a concrete jersey barrier separating the northbound and southbound travel lanes.
- The pavement is in good condition and there is open ditch drainage.
- There is a truck inspection area on the east side of I-295 at the camera location, with a deceleration lane from the northbound lanes to the weigh station area. The exit lane from the inspection area overlaps with the deceleration lane to Exit 1.



Looking Northbound



District Department of Transportation

DC-295 SW 0.3 Miles South of Exit 1 N/B



At Inspection Area

Speed Data Analysis

Posted Speed Limit (MPH)	50
Mean Speed (MPH)	51
85th Percentile Speed (MPH)	60
10 MPH Pace Speed (MPH)	49-58
ADT	33,062

The mean speed is higher than the posted speed limit by 1 MPH and the 85th percentile speed is higher than the posted speed by 10 MPH at this location.

Crash Data Analysis

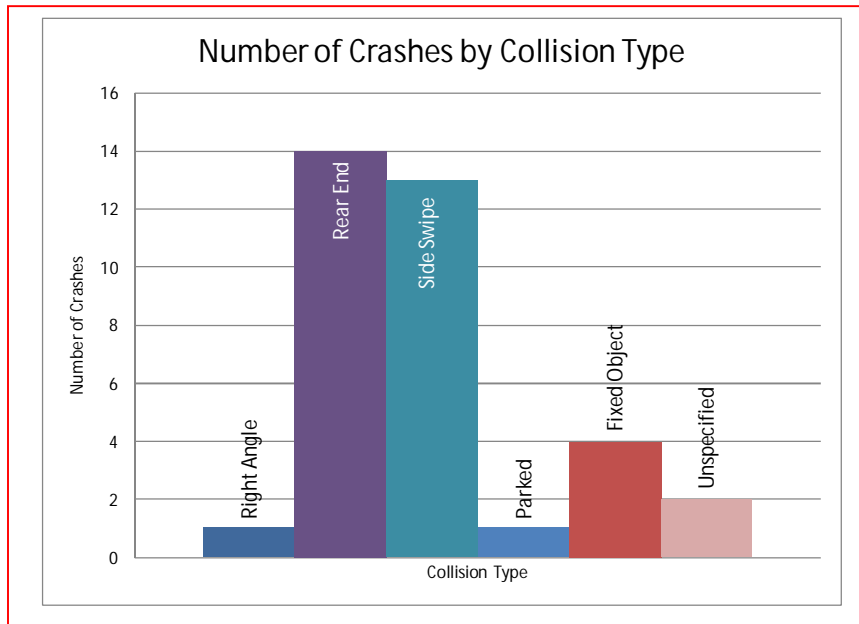
From the Accident Summary Report provided for the dates between January 1, 2010 and December 31, 2012 there were a total of 35 crashes at this location. A breakdown of number of crashes by collision type can be found in the chart on the next page. The most common types of crashes at this location were Rear End (14 crashes) and Side Swipe (13 crashes). Furthermore, this site experienced a high frequency (15 crashes) of injury-related crashes.



District Department of Transportation

DC-295 SW 0.3 Miles South of Exit 1 N/B

Severity			Weather			Surface condition			Light Condition		
Total	35										
Fatal	0	0.0%	Clear	27	77.1%	Dry	25	71.4%	Day	22	62.9%
Injury	15	42.9%	Rain	7	20.0%	Wet	6	17.1%	Night	10	28.6%
Truck	10	28.6%	Snow	0	0.0%	Snow	0	0.0%			
Police/EMS	2	5.7%									

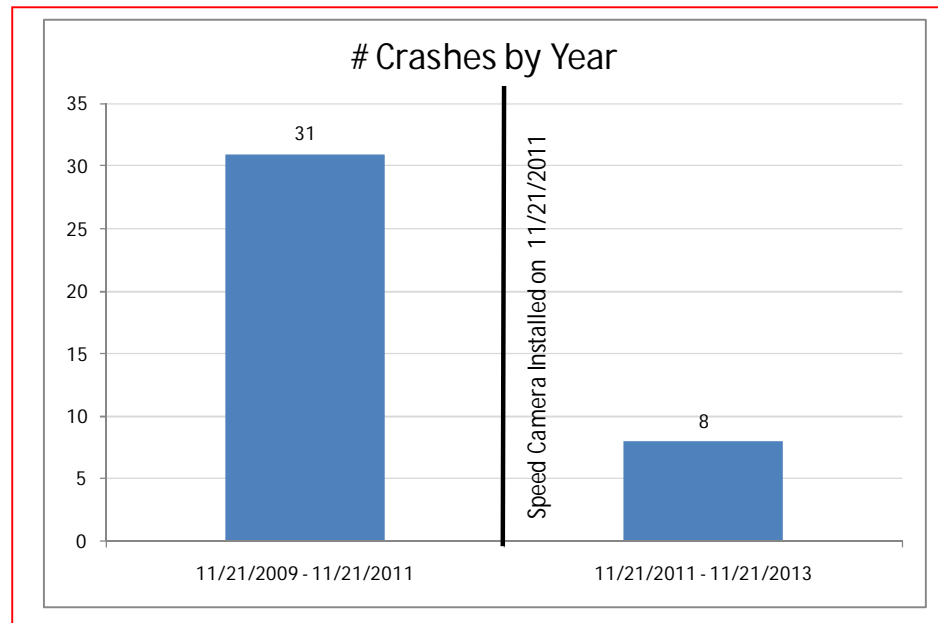


The speed camera was installed on 11-21-2011. The graph below shows the number of crashes in the two years prior to the speed camera's installation (31 crashes) and the two years after the speed camera's installation (8 crashes). There was a decrease in the number of crashes after the installation of the camera.



District Department of Transportation

DC-295 SW 0.3 Miles South of Exit 1 N/B



Safety Nexus

This site presents the following safety considerations which establish a nexus between traffic safety and the speed camera.

1. Speed Data – Both the mean and 85th percentile speeds are higher than the posted speed limit.
2. Crash Data – this site experienced a high frequency (15 crashes) of injury-related crashes.
3. Field Assessment – The following site characteristics suggest a need for a safer travel environment:
 - a. The exit lane from the truck inspection area overlaps with the deceleration lane to Exit 1. This interaction between accelerating trucks leaving the weigh station and decelerating vehicles exiting the freeway can create potential conflicts and can promote speeding in the area.
 - b. In the northbound direction, there are several lane transitions in the vicinity of the speed camera site. The lanes transition from five to three approximately one-half mile before the truck inspection area. The lanes transition from three to two approximately 1500 feet after truck inspection area.

Due to the elevated speeds, high frequency of injury-related crashes, the number of lane transitions in the area, and the proximity of the site to the truck inspection area, 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

DC 295 SW .3 miles S.O. exit 1 NB Speed

NB

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
12/02/13	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	1	0	0	0	0	4	12	17	37	43	24	7	3	2	150
03:00	3	0	0	0	1	3	12	25	61	53	44	31	7	6	246
04:00	33	0	1	0	7	11	9	53	159	265	217	152	47	19	973
05:00	153	0	0	0	3	38	112	488	867	725	231	59	12	1	2689
06:00	181	0	1	1	16	60	316	1145	1026	378	68	16	1	1	3210
07:00	150	0	9	32	43	59	175	741	1041	474	132	16	7	1	2880
08:00	110	0	1	7	6	17	78	372	858	690	289	71	8	2	2509
09:00	100	0	0	5	2	25	121	351	665	570	264	79	17	5	2204
10:00	70	0	0	1	3	12	84	256	446	441	255	82	21	5	1676
11:00	68	1	0	1	13	44	83	236	405	350	203	72	17	5	1498
12 PM	62	0	0	2	6	21	71	209	400	404	235	55	13	7	1485
13:00	75	0	0	0	11	37	98	224	454	421	264	61	16	8	1669
14:00	97	0	1	2	3	51	132	272	432	395	208	76	16	5	1690
15:00	92	1	0	0	6	40	118	261	420	406	212	82	16	9	1663
16:00	57	0	0	0	0	37	77	283	398	361	222	68	13	11	1527
17:00	50	0	0	1	8	33	195	410	483	299	126	30	12	4	1651
18:00	30	0	0	1	1	11	71	311	390	302	116	50	7	6	1296
19:00	18	0	0	0	1	10	66	188	278	249	134	55	10	4	1013
20:00	13	0	0	0	1	7	21	143	240	225	102	36	11	8	807
21:00	12	0	0	0	2	6	30	92	203	232	146	55	23	7	808
22:00	8	0	0	0	1	6	27	89	171	152	104	54	29	19	660
23:00	3	0	0	0	0	3	12	65	107	97	78	22	2	6	395
Total	1386	2	13	53	134	535	1920	6231	9541	7532	3674	1229	308	141	32699

SAMMAT ENGINEERING SERVICES, LLC

1515 RISING RIDGE ROAD
MOUNT AIRY, MD 21771

www.sammateng.com

DC 295 SW .3 miles S.O. exit 1 NB Speed

NB

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
12/03/13	2	0	0	0	0	3	17	28	60	62	35	10	3	3	223
01:00	2	0	0	0	0	0	7	24	37	38	17	7	5	3	140
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	4	0	0	0	0	3	24	52	97	100	52	17	8	6	363
Grand Total	1390	2	13	53	134	538	1944	6283	9638	7632	3726	1246	316	147	33062

15th Percentile : 44 MPH
 50th Percentile : 52 MPH
 85th Percentile : 60 MPH
 95th Percentile : 65 MPH

Stats
 Mean Speed(Average) : 51 MPH
 10 MPH Pace Speed : 49-58 MPH
 Number in Pace : 16244
 Percent in Pace : 49.4%
 Number of Vehicles > 50 MPH : 21388
 Percent of Vehicles > 50 MPH : 65.0%

SAMMAT ENGINEERING SERVICES, LLC

1515 RISING RIDGE ROAD
MOUNT AIRY, MD 21771

www.sammateng.com

DC 295 SW .3 miles S.O. exit 1 NB Volume

Start Time	02-Dec-13		03-Dec-13		04-Dec-13		Daily Average	
	Mon A.M.	P.M.	Tue A.M.	P.M.	Wed A.M.	P.M.	A.M.	P.M.
12:00	*	399	82	*	*	*	82	399
12:15	*	354	52	*	*	*	52	354
12:30	*	382	45	*	*	*	45	382
12:45	*	350	44	*	*	*	44	350
01:00	*	403	33	*	*	*	33	403
01:15	*	442	33	*	*	*	33	442
01:30	*	424	37	*	*	*	37	424
01:45	*	400	37	*	*	*	37	400
02:00	32	396	*	*	*	*	32	396
02:15	34	401	*	*	*	*	34	401
02:30	46	472	*	*	*	*	46	472
02:45	38	421	*	*	*	*	38	421
03:00	42	464	*	*	*	*	42	464
03:15	60	394	*	*	*	*	60	394
03:30	74	419	*	*	*	*	74	419
03:45	70	386	*	*	*	*	70	386
04:00	116	379	*	*	*	*	116	379
04:15	206	357	*	*	*	*	206	357
04:30	268	438	*	*	*	*	268	438
04:45	383	353	*	*	*	*	383	353
05:00	478	413	*	*	*	*	478	413
05:15	665	427	*	*	*	*	665	427
05:30	765	431	*	*	*	*	765	431
05:45	781	380	*	*	*	*	781	380
06:00	774	371	*	*	*	*	774	371
06:15	833	340	*	*	*	*	833	340
06:30	797	305	*	*	*	*	797	305
06:45	806	280	*	*	*	*	806	280
07:00	802	286	*	*	*	*	802	286
07:15	703	246	*	*	*	*	703	246
07:30	733	254	*	*	*	*	733	254
07:45	642	227	*	*	*	*	642	227
08:00	677	224	*	*	*	*	677	224
08:15	620	213	*	*	*	*	620	213
08:30	613	197	*	*	*	*	613	197
08:45	599	173	*	*	*	*	599	173
09:00	548	164	*	*	*	*	548	164
09:15	573	226	*	*	*	*	573	226
09:30	560	214	*	*	*	*	560	214
09:45	523	204	*	*	*	*	523	204
10:00	462	173	*	*	*	*	462	173
10:15	460	171	*	*	*	*	460	171
10:30	391	177	*	*	*	*	391	177
10:45	363	139	*	*	*	*	363	139
11:00	348	121	*	*	*	*	348	121
11:15	353	104	*	*	*	*	353	104
11:30	402	99	*	*	*	*	402	99
11:45	395	71	*	*	*	*	395	71
Total	18035	14664	363	0	0	0	18398	14664
Combined Total	32699		363		0		33062	
Peak	06:15	02:15	12:00				06:15	02:15
Vol.	3238	1758	223				3238	1758
P.H.F.	0.972	0.931	0.680				0.972	0.931
ADT	ADT 33,062		AADT 33,062					

DC Department of Transportation - Traffic Accident Reporting and Analysis System

Accident Summary Report (R-8)

Corridor: INTERSTATE 295,BN From ANACOSTIA FRWY (SB),SE TO OVERLOOK AVE,SW

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

Prepared By: Rahul Jain

Prepared Date: 1/8/2014

Total Number of Accident:	35	Collision Type	#ACC	%	Collision Type	#ACC	%
Total Number of Fatalities:	0	Right Angle:	1	2.9%	Fixed Object:	4	11.4%
Total Number of Injuries:	17	Left Turn:	0	0.0%	Ran Off Road:	0	0.0%
Total Number of Disabling Injuries:	1	Right Turn:	0	0.0%	Ped. Involved:	0	0.0%
Total Number of NonDisabling Injuries:	2	Rear End:	14	40.0%	Backing:	0	0.0%
Total Number of Pedestrians Involved:	0	Side Swiped:	13	37.1%	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:	0	Parked:	1	2.9%	Unspecified:	2	5.7%
Time of Day				#ACC	%	Day o fweek	
07:30 ~ 09:30:				3	8.6%	Sunday:	
09:30 ~ 11:30:				5	14.3%	Monday:	
11:30 ~ 13:30:				1	2.9%	Tuesday:	
13:30 ~ 16:00:				6	17.1%	Wednesday:	
16:00 ~18:30:				5	14.3%	Thursday:	
18:30 ~ 07:30:				15	42.9%	Friday:	
Unspecified:				0	0.0%	Saturday:	
Weather Condition				#ACC	%	Surface Condition	
Clear:				27	77.1%	Dry:	
Rain:				7	20.0%	Wet:	
Snow:				0	0.0%	Snow/Ice:	
Sleet/Hail:				0	0.0%	Slush:	
Fog/Mist:				0	0.0%	Water/Sand:	
Crosswind/Blowing Sand:				0	0.0%	Repairing:	
Unspecified:				1	2.9%	Unspecified:	
Type of Vehicle				#VEH	%	Accident Severity Type	
Passenger Car:				52	73.2%	Fatal Collision:	
Bus:				1	1.4%	Injury Collision:	
Truck:				10	14.1%	PDO Collision:	
Taxi:				0	0.0%	Light Condition	
Minivan:				0	0.0%	Daylight:	
Police/Emergency Vehicle:				2	2.8%	Dawn/Dusk:	
Motorcycle/Moped:				0	0.0%	Dark(Lighted):	
Bicycle:				0	0.0%	Dark(Not Lighted):	
Fixed Object:				0	0.0%	Dark(Unknown Lighting):	
Unspecified:				6	8.5%	Unspecified:	
Contributing Factor				#VEH	%	Pedestrian Actions	
Driver: Speed:				7	9.9%	In Crosswalk with Signal:	
Driver: Alcohol/Drug:				2	2.8%	In Crosswalk against Signal:	
Driver: Electronic Device:				0	0.0%	In Crosswalk no Signal:	
Driver: Others:				12	16.9%	In Unmarked Crosswalk:	
Vehicle:				0	0.0%	Not in Crosswalk:	
Roadway:				0	0.0%	From Between Parked Cars:	
Unspecified:				50	70.4%	Unspecified:	

26 Records are not approved as of 1/8/2014 6:31:56 PM

DC Department of Transportation - Traffic Accident Reporting and Analysis System

Accident Summary Report (R-8)

Corridor: INTERSTATE 295,BN From ANACOSTIA FRWY (SB),SE TO OVERLOOK AVE,SW

Time Period Covered: From 11/21/2009 To 11/21/2011

Prepared By: Rahul Jain

Prepared Date: 1/8/2014

Total Number of Accident:	31	Collision Type	#ACC	%	Collision Type	#ACC	%
Total Number of Fatalities:	0	Right Angle:	1	3.2%	Fixed Object:	3	9.7%
Total Number of Injuries:	15	Left Turn:	0	0.0%	Ran Off Road:	0	0.0%
Total Number of Disabling Injuries:	1	Right Turn:	0	0.0%	Ped. Involved:	0	0.0%
Total Number of NonDisabling Injuries:	0	Rear End:	12	38.7%	Backing:	0	0.0%
Total Number of Pedestrians Involved:	0	Side Swiped:	12	38.7%	Non Collision:	1	3.2%
Total Number of Bicycles Involved:	0	Head On:	0	0.0%	Under/Over Ride:	0	0.0%
Total Number of Motorcycles Involved:	0	Parked:	1	3.2%	Unspecified:	1	3.2%
Time of Day				#ACC	%	Day o fweek	
07:30 ~ 09:30:				3	9.7%	Sunday:	
09:30 ~ 11:30:				4	12.9%	Monday:	
11:30 ~ 13:30:				1	3.2%	Tuesday:	
13:30 ~ 16:00:				4	12.9%	Wednesday:	
16:00 ~18:30:				5	16.1%	Thursday:	
18:30 ~ 07:30:				14	45.2%	Friday:	
Unspecified:				0	0.0%	Saturday:	
Weather Condition				#ACC	%	Surface Condition	
Clear:				23	74.2%	Dry:	
Rain:				7	22.6%	Wet:	
Snow:				0	0.0%	Snow/Ice:	
Sleet/Hail:				0	0.0%	Slush:	
Fog/Mist:				1	3.2%	Water/Sand:	
Crosswind/Blowing Sand:				0	0.0%	Repairing:	
Unspecified:				0	0.0%	Unspecified:	
Type of Vehicle				#VEH	%	Accident Severity Type	
Passenger Car:				49	68.1%	Fatal Collision:	
Bus:				1	1.4%	Injury Collision:	
Truck:				9	12.5%	PDO Collision:	
Taxi:				0	0.0%	Light Condition	
Minivan:				0	0.0%	Daylight:	
Police/Emergency Vehicle:				3	4.2%	Dawn/Dusk:	
Motorcycle/Moped:				0	0.0%	Dark(Lighted):	
Bicycle:				0	0.0%	Dark(Not Lighted):	
Fixed Object:				0	0.0%	Dark(Unknown Lighting):	
Unspecified:				10	13.9%	Unspecified:	
Contributing Factor				#VEH	%	Pedestrian Actions	
Driver: Speed:				6	8.3%	In Crosswalk with Signal:	
Driver: Alcohol/Drug:				2	2.8%	In Crosswalk against Signal:	
Driver: Electronic Device:				0	0.0%	In Crosswalk no Signal:	
Driver: Others:				11	15.3%	In Unmarked Crosswalk:	
Vehicle:				0	0.0%	Not in Crosswalk:	
Roadway:				0	0.0%	From Between Parked Cars:	
Unspecified:				53	73.6%	Unspecified:	

24 Records are not approved as of 1/8/2014 6:35:45 PM

Accident Summary Report (R-8)**Corridor:** INTERSTATE 295,BN From ANACOSTIA FRWY (SB),SE TO OVERLOOK AVE,SW**Time Period Covered:** From 11/21/2011 To 11/21/2013**Prepared By:** Rahul Jain**Prepared Date:** 1/8/2014

		Collision Type	#ACC	%	Collision Type	#ACC	%
Total Number of Accident:	8	Right Angle:	0	0.0%	Fixed Object:	1	12.5%
Total Number of Fatalities:	0	Left Turn:	0	0.0%	Ran Off Road:	0	0.0%
Total Number of Injuries:	4	Right Turn:	0	0.0%	Ped. Involved:	0	0.0%
Total Number of Disabling Injuries:	0	Rear End:	5	62.5%	Backing:	0	0.0%
Total Number of NonDisabling Injuries:	2	Side Swiped:	1	12.5%	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:	1	12.5%
Total Number of Motorcycles Involved:	0						

Time of Day	#ACC	%	Day o fweek	#ACC	%
07:30 ~ 09:30:	0	0.0%	Sunday:	0	0.0%
09:30 ~ 11:30:	1	12.5%	Monday:	1	12.5%
11:30 ~ 13:30:	1	12.5%	Tuesday:	0	0.0%
13:30 ~ 16:00:	3	37.5%	Wednesday:	3	37.5%
16:00 ~18:30:	0	0.0%	Thursday:	1	12.5%
18:30 ~ 07:30:	3	37.5%	Friday:	2	25.0%
Unspecified:	0	0.0%	Saturday:	1	12.5%

Weather Condition	#ACC	%	Surface Condition	#ACC	%
Clear:	6	75.0%	Dry:	5	62.5%
Rain:	1	12.5%	Wet:	1	12.5%
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:	1	12.5%	Unspecified:	2	25.0%

Type of Vehicle	#VEH	%	Accident Severity Type	#ACC	%
Passenger Car:	14	87.5%	Fatal Collision:	0	0.0%
Bus:	0	0.0%	Injury Collision:	4	50.0%
Truck:	2	12.5%	PDO Collision:	4	50.0%
Taxi:	0	0.0%			
Minivan:	0	0.0%	Light Condition	#ACC	%
Police/Emergency Vehicle:	0	0.0%	Daylight:	5	62.5%
Motorcycle/Moped:	0	0.0%	Dawn/Dusk:	0	0.0%
Bicycle:	0	0.0%	Dark(Lighted):	1	12.5%
Fixed Object:	0	0.0%	Dark(Not Lighted):	0	0.0%
Unspecified:	0	0.0%	Dark(Unknown Lighting):	0	0.0%
			Unspecified:	2	25.0%

Contributing Factor	#VEH	%	Pedestrian Actions	#ACC	%
Driver: Speed:	1	6.3%	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:	2	12.5%	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:	13	81.3%	Unspecified:	0	0.0%

4 Records are not approved as of 1/8/2014 6:34:28 PM