



District Department of Transportation

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

3100 Block North Capitol Street NE

Study Area and Location

District	PSA	Ward	ANC	Phase	Description
4	405/407	4	4D/5A	Existing	3100 Block North Capitol Street Northeast Northbound



The existing speed camera is located in Ward 4 in the 3100 block of North Capitol Street Northeast in the northbound direction. North Capitol Street Northeast runs from Eastern Avenue Northeast in the north to D Street Northeast in the south. The posted speed limit is 35 MPH. This speed camera was installed on July 2010.

W4 - 131





District Department of Transportation

3100 Block North Capitol Street NE

Field Assessment Summary

North Capitol Street Northeast is assumed to run in the North-South direction and is classified as a principal arterial. North Capitol Street Northeast has one travel lane in each direction. This site has the following characteristics:

- This is a residential and commercial area.
- The Catholic University Athletic Fields are in the area.
- There is sidewalk and on-street parking on both sides of the street.
- The pavement is in fair condition and there is curb and gutter with drainage inlets.
- There are multiple bus stops in the area.



Looking Northbound



District Department of Transportation

3100 Block North Capitol Street NE



Looking Southbound

Speed Data Analysis

Posted Speed Limit (MPH)	35
Mean Speed (MPH)	35
85th Percentile Speed (MPH)	41
10 MPH Pace Speed	32-41
ADT	14,010

The 85th percentile speed is 6 MPH higher than the posted speed limit and the mean speed is the same as 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 28 crashes at this location. A breakdown of collision type can be found in the chart on the next page.

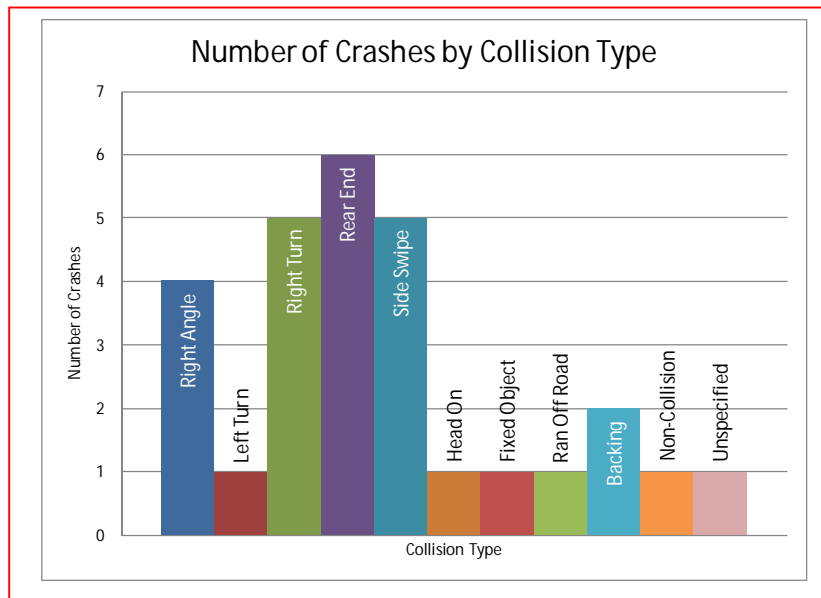
The most common type of crashes at this location was Rear End (6 crashes). The other collision types had five crashes or less.



District Department of Transportation

3100 Block North Capitol Street NE

Severity		Weather			Surface condition			Light Condition		
Total	28									
Fatal	0 0.0%	Clear	26 92.9%		Dry	27 96.4%		Day	15 53.6%	
Injury	9 32.1%	Rain	1 3.6%		Wet	1 3.6%		Night	12 42.9%	
Truck	4 14.3%	Fog/Mist	0 0.0%		Snow/Ice	0 0.0%				
Bus	4 14.3%									

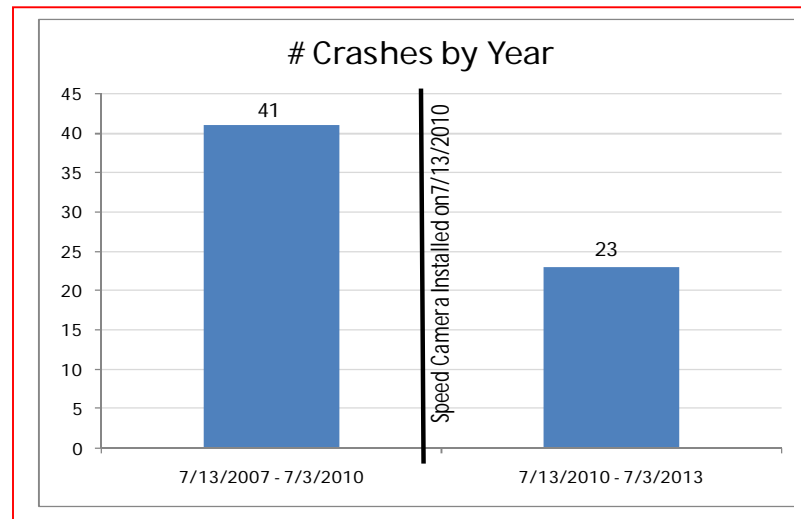


The speed camera was installed on 7-13-2010. The graph on the next page shows the number of crashes in the three years prior to the speed camera's installation (41 crashes) and the three years after the speed camera's installation (23 crashes).



District Department of Transportation

3100 Block North Capitol Street NE



The North Capitol 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 much higher than the posted speed limit.
2. Crash Data – There were nine injury-related crashes at this location. The number of accidents at this location decreased by a significant amount after the installation of the existing traffic camera. The North Capitol 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 is a residential area with houses.
 - b. The Catholic University Athletic Fields are in the area.
 - c. There are multiple bus stops in the area which generate pedestrian activity.
 - d. There is on-street parking on both sides of the street.

Due to the 85th percentile speeds, the number of injury-related crashes, the reduction of crashes after installation of the speed camera, and the specific site characteristics of residential area with pedestrian generators, there is a nexus between traffic safety and the speed camera at this location.

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

SAMMAT ENGINEERING SERVICES, LLC

1515 RISING RIDGE ROAD
MOUNT AIRY, MD 21771

www.sammateng.com

3100 block of North Capitol St NE NB Speed

NB

Start Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total
11/11/13	5	0	0	12	91	116	30	7	2	0	1	1	0	0	265
01:00	6	0	1	10	57	71	20	3	0	0	0	0	0	0	168
02:00	0	0	0	7	42	50	15	6	1	0	0	0	0	0	121
03:00	0	0	1	7	41	38	16	0	3	0	1	0	1	0	108
04:00	1	0	0	8	30	49	20	3	2	0	0	0	0	0	113
05:00	1	0	0	7	67	112	54	7	3	1	1	0	0	0	253
06:00	15	0	1	12	104	253	85	23	2	0	0	0	0	0	495
07:00	40	0	0	16	176	341	159	21	4	0	0	0	0	0	757
08:00	23	0	0	10	145	338	146	27	2	0	0	0	0	0	691
09:00	19	0	3	19	132	258	123	22	3	1	0	0	0	0	580
10:00	22	0	1	22	168	277	127	13	3	0	0	0	0	0	633
11:00	19	0	1	25	191	297	118	19	4	1	1	0	0	0	676
12 PM	28	1	2	23	196	353	113	15	0	0	0	0	0	0	731
13:00	32	0	1	35	210	324	120	18	2	1	0	0	0	0	743
14:00	41	0	1	36	237	446	153	30	5	1	0	0	0	0	950
15:00	46	0	1	25	273	516	157	28	4	0	0	0	0	0	1050
16:00	45	0	0	24	288	500	146	25	3	0	0	0	0	0	1031
17:00	45	0	2	47	370	423	111	17	1	0	0	0	0	0	1016
18:00	31	1	6	47	332	374	80	8	1	0	0	0	0	0	880
19:00	22	0	4	41	250	303	64	4	2	1	0	0	0	0	691
20:00	11	0	1	28	189	253	77	10	0	1	0	0	0	0	570
21:00	11	0	2	36	183	226	66	14	1	0	0	0	0	0	539
22:00	14	0	0	21	178	211	67	4	1	1	0	0	0	0	497
23:00	6	0	4	30	131	196	72	11	1	1	0	0	0	0	452
Total	483	2	32	548	4081	6325	2139	335	50	9	4	1	1	0	14010
Grand Total	483	2	32	548	4081	6325	2139	335	50	9	4	1	1	0	14010

15th Percentile : 30 MPH
 50th Percentile : 36 MPH
 85th Percentile : 41 MPH
 95th Percentile : 44 MPH

Stats
 Mean Speed(Average) : 35 MPH
 10 MPH Pace Speed : 32-41 MPH
 Number in Pace : 9448
 Percent in Pace : 67.4%
 Number of Vehicles > 35 MPH : 8363
 Percent of Vehicles > 35 MPH : 59.7%

SAMMAT ENGINEERING SERVICES, LLC

1515 RISING RIDGE ROAD
MOUNT AIRY, MD 21771

www.sammateng.com

3100 block of North Capitol St NE NB 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	84	176	*	*	*	*	84	176
12:15	82	196	*	*	*	*	82	196
12:30	59	163	*	*	*	*	59	163
12:45	40	196	*	*	*	*	40	196
01:00	47	195	*	*	*	*	47	195
01:15	43	173	*	*	*	*	43	173
01:30	39	192	*	*	*	*	39	192
01:45	39	183	*	*	*	*	39	183
02:00	35	223	*	*	*	*	35	223
02:15	25	224	*	*	*	*	25	224
02:30	31	239	*	*	*	*	31	239
02:45	30	264	*	*	*	*	30	264
03:00	26	247	*	*	*	*	26	247
03:15	23	271	*	*	*	*	23	271
03:30	35	302	*	*	*	*	35	302
03:45	24	230	*	*	*	*	24	230
04:00	28	281	*	*	*	*	28	281
04:15	27	252	*	*	*	*	27	252
04:30	23	239	*	*	*	*	23	239
04:45	35	259	*	*	*	*	35	259
05:00	43	286	*	*	*	*	43	286
05:15	57	275	*	*	*	*	57	275
05:30	75	235	*	*	*	*	75	235
05:45	78	220	*	*	*	*	78	220
06:00	96	215	*	*	*	*	96	215
06:15	109	236	*	*	*	*	109	236
06:30	134	226	*	*	*	*	134	226
06:45	156	203	*	*	*	*	156	203
07:00	166	200	*	*	*	*	166	200
07:15	191	182	*	*	*	*	191	182
07:30	207	155	*	*	*	*	207	155
07:45	193	154	*	*	*	*	193	154
08:00	171	151	*	*	*	*	171	151
08:15	189	152	*	*	*	*	189	152
08:30	148	140	*	*	*	*	148	140
08:45	183	127	*	*	*	*	183	127
09:00	148	145	*	*	*	*	148	145
09:15	144	149	*	*	*	*	144	149
09:30	153	139	*	*	*	*	153	139
09:45	135	106	*	*	*	*	135	106
10:00	133	147	*	*	*	*	133	147
10:15	178	155	*	*	*	*	178	155
10:30	164	111	*	*	*	*	164	111
10:45	158	84	*	*	*	*	158	84
11:00	166	133	*	*	*	*	166	133
11:15	141	133	*	*	*	*	141	133
11:30	198	104	*	*	*	*	198	104
11:45	171	82	*	*	*	*	171	82
Total	4860	9150	0	0	0	0	4860	9150
Combined Total	14010		0		0		14010	
Peak	07:15	02:45					07:15	02:45
Vol.	762	1084					762	1084
P.H.F.	0.920	0.897					0.920	0.897
ADT	ADT 14,010		AADT 14,010					

Accident Summary Report (R-8)

Corridor: NORTH CAPITOL ST,BN From CRITTENDEN ST,BN TO HAWAII AVE,BN

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

Prepared By: Rahul Jain

Prepared Date: 10/27/2012

Total Number of Accident:	28	Collision Type	#ACC	%	Collision Type	#ACC	%
Total Number of Fatalities:	0	Right Angle:	4	14.3%	Fixed Object:	1	3.6%
Total Number of Injuries:	12	Left Turn:	1	3.6%	Ran Off Road:	1	3.6%
Total Number of Disabling Injuries:	1	Right Turn:	5	17.9%	Ped. Involved:	0	0.0%
Total Number of NonDisabling Injuries:	2	Rear End:	6	21.4%	Backing:	2	7.1%
Total Number of Pedestrians Involved:	0	Side Swiped:	5	17.9%	Non Collision:	1	3.6%
Total Number of Bicycles Involved:	0	Head On:	1	3.6%	Under/Over Ride:	0	0.0%
Total Number of Motorcycles Involved:	1	Parked:	0	0.0%	Unspecified:	1	3.6%
Time of Day				#ACC	%	Day of week	
07:30 ~ 09:30:				5	17.9%	Sunday:	
09:30 ~ 11:30:				0	0.0%	Monday:	
11:30 ~ 13:30:				2	7.1%	Tuesday:	
13:30 ~ 16:00:				3	10.7%	Wednesday:	
16:00 ~ 18:30:				7	25.0%	Thursday:	
18:30 ~ 07:30:				11	39.3%	Friday:	
Unspecified:				0	0.0%	Saturday:	
Weather Condition				#ACC	%	Surface Condition	
Clear:				26	92.9%	Dry:	
Rain:				1	3.6%	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	3.6%	Unspecified:	
Type of Vehicle				#VEH	%	Accident Severity Type	
Passenger Car:				39	72.2%	Fatal Collision:	
Bus:				4	7.4%	Injury Collision:	
Truck:				4	7.4%	PDO Collision:	
Taxi:				1	1.9%		
Minivan:				0	0.0%	Light Condition	
Police/Emergency Vehicle:				2	3.7%	Daylight:	
Motorcycle/Moped:				1	1.9%	Dawn/Dusk:	
Bicycle:				0	0.0%	Dark(Lighted):	
Fixed Object:				0	0.0%	Dark(Not Lighted):	
Unspecified:				3	5.6%	Dark(Unknown Lighting):	
						Unspecified:	
Contributing Factor				#VEH	%	Pedestrian Actions	
Driver: Speed:				2	3.7%	In Crosswalk with Signal:	
Driver: Alcohol/Drug:				0	0.0%	In Crosswalk against Signal:	
Driver: Electronic Device:				0	0.0%	In Crosswalk no Signal:	
Driver: Others:				11	20.4%	In Unmarked Crosswalk:	
Vehicle:				0	0.0%	Not in Crosswalk:	
Roadway:				0	0.0%	From Between Parked Cars:	
Unspecified:				41	75.9%	Unspecified:	

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Accident Summary Report (R-8)

Corridor: NORTH CAPITOL ST,BN From CRITTENDEN ST,BN TO HAWAII AVE,BN

Time Period Covered: From 07/12/2007 To 07/12/2010

Prepared By: Rahul Jain

Prepared Date: 11/18/201

		Collision Type	#ACC	%	Collision Type	#ACC	%
Total Number of Accident:	41	Right Angle:	5	12.2%	Fixed Object:	3	7.3%
Total Number of Fatalities:	0	Left Turn:	2	4.9%	Ran Off Road:	1	2.4%
Total Number of Injuries:	20	Right Turn:	2	4.9%	Ped. Involved:	0	0.0%
Total Number of Disabling Injuries:	1	Rear End:	10	24.4%	Backing:	0	0.0%
Total Number of NonDisabling Injuries:	3	Side Swiped:	8	19.5%	Non Collision:	0	0.0%
Total Number of Pedestrians Involved:	0	Head On:	2	4.9%	Under/Over Ride:	0	0.0%
Total Number of Bicycles Involved:	0	Parked:	7	17.1%	Unspecified:	1	2.4%
Total Number of Motorcycles Involved:	0						

Time of Day	#ACC	%	Day o fweek	#ACC	%
07:30 ~ 09:30:	1	2.4%	Sunday:	7	17.1%
09:30 ~ 11:30:	4	9.8%	Monday:	3	7.3%
11:30 ~ 13:30:	0	0.0%	Tuesday:	6	14.6%
13:30 ~ 16:00:	8	19.5%	Wednesday:	3	7.3%
16:00 ~18:30:	7	17.1%	Thursday:	10	24.4%
18:30 ~ 07:30:	21	51.2%	Friday:	6	14.6%
Unspecified:	0	0.0%	Saturday:	6	14.6%

Weather Condition	#ACC	%	Surface Condition	#ACC	%
Clear:	26	63.4%	Dry:	28	68.3%
Rain:	9	22.0%	Wet:	11	26.8%
Snow:	2	4.9%	Snow/Ice:	1	2.4%
Sleet/Hail:	0	0.0%	Slush:	0	0.0%
Fog/Mist:	1	2.4%	Water/Sand:	0	0.0%
Crosswind/Blowing Sand:	0	0.0%	Repairing:	0	0.0%
Unspecified:	3	7.3%	Unspecified:	1	2.4%

Type of Vehicle	#VEH	%	Accident Severity Type	#ACC	%
Passenger Car:	66	80.5%	Fatal Collision:	0	0.0%
Bus:	2	2.4%	Injury Collision:	12	29.3%
Truck:	5	6.1%	PDO Collision:	29	70.7%
Taxi:	1	1.2%			
Minivan:	0	0.0%	Light Condition	#ACC	%
Police/Emergency Vehicle:	1	1.2%	Daylight:	21	51.2%
Motorcycle/Moped:	0	0.0%	Dawn/Dusk:	0	0.0%
Bicycle:	0	0.0%	Dark(Lighted):	10	24.4%
Fixed Object:	0	0.0%	Dark(Not Lighted):	1	2.4%
Unspecified:	7	8.5%	Dark(Unknown Lighting):	7	17.1%
			Unspecified:	2	4.9%

Contributing Factor	#VEH	%	Pedestrian Actions	#ACC	%
Driver: Speed:	6	7.3%	In Crosswalk with Signal:	0	0.0%
Driver: Alcohol/Drug:	3	3.7%	In Crosswalk against Signal:	0	0.0%
Driver: Electronic Device:	0	0.0%	In Crosswalk no Signal:	0	0.0%
Driver: Others:	14	17.1%	In Unmarked Crosswalk:	0	0.0%
Vehicle:	0	0.0%	Not in Crosswalk:	0	0.0%
Roadway:	1	1.2%	From Between Parked Cars:	0	0.0%
Unspecified:	58	70.7%	Unspecified:	0	0.0%

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Accident Summary Report (R-8)

Corridor: NORTH CAPITOL ST,BN From CRITTENDEN ST,BN TO HAWAII AVE,BN

Time Period Covered: From 07/13/2010 To 07/13/2013

Prepared By: Rahul Jain

Prepared Date: 11/18/2013

		Collision Type	#ACC	%	Collision Type	#ACC	%
Total Number of Accident:	23	Right Angle:	4	17.4%	Fixed Object:	3	13.0%
Total Number of Fatalities:	0	Left Turn:	2	8.7%	Ran Off Road:	0	0.0%
Total Number of Injuries:	9	Right Turn:	0	0.0%	Ped. Involved:	0	0.0%
Total Number of Disabling Injuries:	0	Rear End:	9	39.1%	Backing:	0	0.0%
Total Number of NonDisabling Injuries:	3	Side Swiped:	5	21.7%	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	%	Day of week	#ACC	%
07:30 ~ 09:30:	1	4.3%	Sunday:	1	4.3%
09:30 ~ 11:30:	1	4.3%	Monday:	5	21.7%
11:30 ~ 13:30:	1	4.3%	Tuesday:	5	21.7%
13:30 ~ 16:00:	2	8.7%	Wednesday:	0	0.0%
16:00 ~18:30:	7	30.4%	Thursday:	2	8.7%
18:30 ~ 07:30:	11	47.8%	Friday:	6	26.1%
Unspecified:	0	0.0%	Saturday:	4	17.4%

Weather Condition	#ACC	%	Surface Condition	#ACC	%
Clear:	16	69.6%	Dry:	16	69.6%
Rain:	4	17.4%	Wet:	7	30.4%
Snow:	0	0.0%	Snow/Ice:	0	0.0%
Sleet/Hail:	0	0.0%	Slush:	0	0.0%
Fog/Mist:	1	4.3%	Water/Sand:	0	0.0%
Crosswind/Blowing Sand:	0	0.0%	Repairing:	0	0.0%
Unspecified:	2	8.7%	Unspecified:	0	0.0%

Type of Vehicle	#VEH	%	Accident Severity Type	#ACC	%
Passenger Car:	38	82.6%	Fatal Collision:	0	0.0%
Bus:	3	6.5%	Injury Collision:	7	30.4%
Truck:	4	8.7%	PDO Collision:	16	69.6%
Taxi:	0	0.0%			
Minivan:	0	0.0%	Light Condition	#ACC	%
Police/Emergency Vehicle:	0	0.0%	Daylight:	9	39.1%
Motorcycle/Moped:	0	0.0%	Dawn/Dusk:	3	13.0%
Bicycle:	0	0.0%	Dark(Lighted):	10	43.5%
Fixed Object:	0	0.0%	Dark(Not Lighted):	0	0.0%
Unspecified:	1	2.2%	Dark(Unknown Lighting):	0	0.0%
			Unspecified:	1	4.3%

Contributing Factor	#VEH	%	Pedestrian Actions	#ACC	%
Driver: Speed:	2	4.3%	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:	6	13.0%	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:	38	82.6%	Unspecified:	0	0.0%

13 Records are not approved as of 11/18/2013 5:24:08 PM