



District Department of Transportation

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

### 5700 Block MacArthur Boulevard NW S/B

#### Study Area and Location

District	PSA	Ward	ANC	Phase	Description
2	205	3	3D	Planned	5700 Block MacArthur Boulevard Northwest Southbound



This *planned* speed camera is located in Ward 3 at the 5700 block of MacArthur Boulevard Northwest in the southbound direction. MacArthur Boulevard runs parallel to the Potomac River from Maryland in the north to Canal Road Northwest in the south. The posted speed limit is 25 MPH.

W3 - 169





District Department of Transportation

5700 Block MacArthur Boulevard NW S/B

## Field Assessment Summary

MacArthur Boulevard is assumed to run in the North-South direction, and is classified as a principal arterial. MacArthur Boulevard has two lanes in each direction. This site has the following characteristics:

- Located in a residential area with apartment buildings, houses, and driveways on both sides of the street.
- The Capital Crescent Trail and Chesapeake & Ohio Trail both run parallel to MacArthur Boulevard 0.15 miles to the west.
- Sibley Memorial Hospital is in the area.
- There is on street parking and sidewalks with curb and gutter on both sides of the street, as well as a center grass median in the middle of the street.
- There are bus stops on southwest and northeast corners as well as others in the area.
- The existing pavement is in fair condition.



Looking Northbound

W3 - 170





## 5700 Block MacArthur Boulevard NW S/B



Looking Southbound

### Speed Data Analysis

Posted Speed Limit (MPH)	25
Mean Speed (MPH)	25
85th Percentile Speed (MPH)	29
10 MPH Pace Speed	21-30
ADT	7,750

The 85<sup>th</sup> percentile speed is 4 MPH higher than the posted speed limit and the mean speed is the same as the posted speed limit.

### Crash Data Analysis

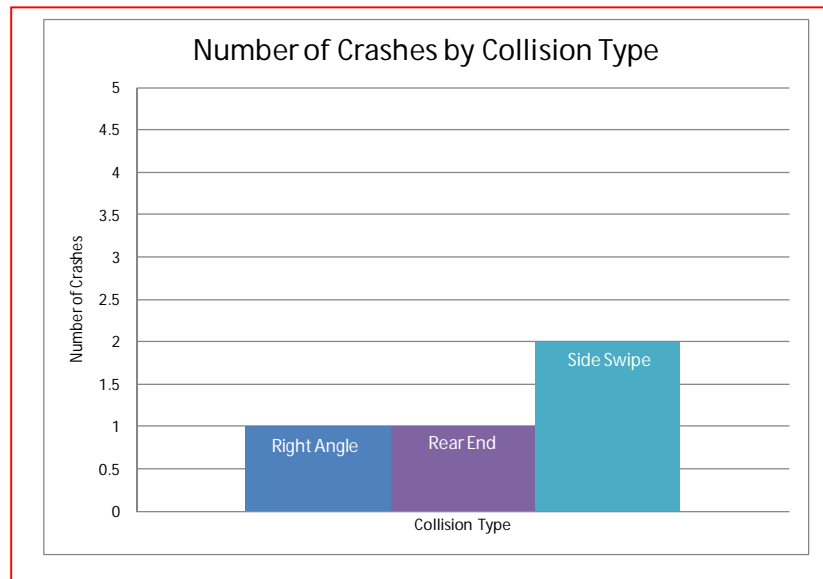
From the Accident Summary Report provided for the dates between January 1, 2010 and December 31, 2012, there were a total of four crashes at this location. A breakdown of collision type can be found in the chart on the next page.

The most common type of crash at this location was Side Swiped (2 crashes). There was also one Rear End and one Right Angle collision.



## 5700 Block MacArthur Boulevard NW S/B

Severity			Weather			Surface condition			Light Condition		
Total	4										
Fatal	0	0.0%	Clear	2	50.0%	Dry	2	50.0%	Day	3	75.0%
Injury	2	50.0%	Rain	2	50.0%	Wet	2	50.0%	Night	1	25.0%
Truck	1	25.0%	Snow	0	0.0%	Snow/Ice	0	0.0%			
Police/EMS	1	25.0%									



### 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 speed data analysis shows the 85<sup>th</sup> percentile speed higher than the posted speed limit.
2. Crash Data – There was a low number of crashes recorded at this location.
3. Field Assessment – The following site characteristics suggest a need for a safer travel environment:
  - a. Located in a residential area with apartment buildings, houses, and driveways on both sides of the street.
  - b. The Capital Crescent Trail and Chesapeake & Ohio Trail both run parallel to MacArthur Boulevard 0.15 miles to the west which generates pedestrian activity.
  - c. There is on-street parking at this location.
  - d. There are multiple bus stops in the area which generate pedestrian activity.



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5700 Block MacArthur Boulevard NW S/B

Due to the 85<sup>th</sup> percentile speeds, and the specific site characteristics of a residential area and pedestrian generators, there is a nexus between traffic safety and the speed camera at this location.

W3 - 173

# SAMMAT ENGINEERING SERVICES, LLC

1515 RISING RIDGE ROAD  
MOUNT AIRY, MD 21771

[www.sammateng.com](http://www.sammateng.com)

## 5700 block of MacArthur Blvd NW NB Speed

NB

Start Time	15	16	21	26	31	36	41	46	51	56	61	66	71	76	Total
	15	20	25	30	35	40	45	50	55	60	65	70	75	999	
11/06/13	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	0	3	49	46	16	2	0	0	0	0	0	0	0	0	116
06:00	12	11	148	140	34	2	0	0	0	0	0	0	0	0	347
07:00	19	43	271	262	43	3	1	0	0	0	0	0	0	0	642
08:00	33	51	357	292	44	3	1	0	0	0	0	0	0	0	781
09:00	17	18	249	261	51	5	1	0	0	0	0	0	0	0	602
10:00	4	22	135	141	47	5	0	0	0	0	0	0	0	0	354
11:00	9	21	141	158	40	6	1	0	0	0	0	0	0	0	376
12 PM	9	18	112	173	44	6	0	0	0	0	0	0	0	0	362
13:00	3	21	158	152	27	6	1	0	0	0	0	0	0	0	368
14:00	10	18	171	186	40	2	0	0	0	0	0	0	0	0	427
15:00	5	13	177	255	68	4	0	0	0	0	0	0	0	0	522
16:00	9	17	207	271	57	6	0	0	0	0	0	0	0	0	567
17:00	11	29	271	280	32	3	0	0	0	0	0	0	0	0	626
18:00	13	18	253	246	40	2	0	0	0	0	0	0	0	0	572
19:00	11	34	221	134	14	2	0	0	0	0	0	0	0	0	416
20:00	2	15	108	114	22	0	0	0	0	0	0	0	0	0	261
21:00	5	9	71	63	12	0	1	0	0	0	0	0	0	0	161
22:00	0	5	63	55	12	0	0	0	0	0	0	0	0	0	135
23:00	2	2	15	24	9	1	0	0	0	0	0	0	0	0	53
<b>Total</b>	<b>174</b>	<b>368</b>	<b>3177</b>	<b>3253</b>	<b>652</b>	<b>58</b>	<b>6</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>7688</b>

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## 5700 block of MacArthur Blvd NW NB Speed

NB

Start Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total
11/07/13	0	1	8	4	4	1	0	0	0	0	0	0	0	0	18
01:00	0	1	2	1	2	0	0	0	0	0	0	0	0	0	6
02:00	0	1	2	1	0	0	0	0	0	0	0	0	0	0	4
03:00	0	1	2	1	3	0	0	0	0	1	0	0	0	0	8
04:00	0	1	12	10	2	1	0	0	0	0	0	0	0	0	26
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
<b>Total</b>	<b>0</b>	<b>5</b>	<b>26</b>	<b>17</b>	<b>11</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>62</b>
<b>Grand Total</b>	<b>174</b>	<b>373</b>	<b>3203</b>	<b>3270</b>	<b>663</b>	<b>60</b>	<b>6</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>7750</b>

15th Percentile : 19 MPH  
 50th Percentile : 24 MPH  
 85th Percentile : 29 MPH  
 95th Percentile : 32 MPH

Stats  
 Mean Speed(Average) : 25 MPH  
 10 MPH Pace Speed : 21-30 MPH  
 Number in Pace : 5586  
 Percent in Pace : 72.1%  
 Number of Vehicles > 25 MPH : 3831  
 Percent of Vehicles > 25 MPH : 49.4%

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MOUNT AIRY, MD 21771

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## 5700 block of MacArthur Blvd NW NB Volume

Start Time	Wed	06-Nov-13	Thu	07-Nov-13	Fri	08-Nov-13	Daily Average	
	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.
12:00	*	100	7	*	*	*	7	100
12:15	*	74	7	*	*	*	7	74
12:30	*	88	2	*	*	*	2	88
12:45	*	100	2	*	*	*	2	100
01:00	*	89	2	*	*	*	2	89
01:15	*	89	2	*	*	*	2	89
01:30	*	92	1	*	*	*	1	92
01:45	*	98	1	*	*	*	1	98
02:00	*	85	1	*	*	*	1	85
02:15	*	88	2	*	*	*	2	88
02:30	*	121	0	*	*	*	0	121
02:45	*	133	1	*	*	*	1	133
03:00	*	135	2	*	*	*	2	135
03:15	*	130	2	*	*	*	2	130
03:30	*	127	2	*	*	*	2	127
03:45	*	130	2	*	*	*	2	130
04:00	*	136	<b>5</b>	*	*	*	5	136
04:15	*	142	<b>4</b>	*	*	*	4	142
04:30	*	146	<b>8</b>	*	*	*	8	146
04:45	*	143	<b>9</b>	*	*	*	9	143
05:00	16	<b>147</b>	*	*	*	*	16	<b>147</b>
05:15	27	<b>156</b>	*	*	*	*	27	<b>156</b>
05:30	26	<b>154</b>	*	*	*	*	26	<b>154</b>
05:45	47	<b>169</b>	*	*	*	*	47	<b>169</b>
06:00	46	133	*	*	*	*	46	133
06:15	71	151	*	*	*	*	71	151
06:30	104	141	*	*	*	*	104	141
06:45	126	147	*	*	*	*	126	147
07:00	121	105	*	*	*	*	121	105
07:15	153	129	*	*	*	*	153	129
07:30	172	107	*	*	*	*	172	107
07:45	196	75	*	*	*	*	196	75
08:00	155	74	*	*	*	*	155	74
08:15	<b>209</b>	59	*	*	*	*	<b>209</b>	59
08:30	<b>217</b>	66	*	*	*	*	<b>217</b>	66
08:45	<b>200</b>	62	*	*	*	*	<b>200</b>	62
09:00	<b>168</b>	44	*	*	*	*	<b>168</b>	44
09:15	154	42	*	*	*	*	154	42
09:30	140	30	*	*	*	*	140	30
09:45	140	45	*	*	*	*	140	45
10:00	115	41	*	*	*	*	115	41
10:15	92	35	*	*	*	*	92	35
10:30	66	32	*	*	*	*	66	32
10:45	81	27	*	*	*	*	81	27
11:00	92	25	*	*	*	*	92	25
11:15	92	10	*	*	*	*	92	10
11:30	97	7	*	*	*	*	97	7
11:45	95	11	*	*	*	*	95	11
<b>Total</b>	<b>3218</b>	<b>4470</b>	<b>62</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3280</b>	<b>4470</b>
<b>Combined Total</b>	<b>7688</b>		<b>62</b>		<b>0</b>		<b>7750</b>	
<b>Peak Vol.</b>	<b>08:15</b> 794	<b>05:00</b> 626	<b>04:00</b> 26				<b>08:15</b> 794	<b>05:00</b> 626
<b>P.H.F.</b>	<b>0.915</b>	<b>0.926</b>	<b>0.722</b>				<b>0.915</b>	<b>0.926</b>
<b>ADT</b>		<b>ADT 7,750</b>	<b>AADT 7,750</b>					



DC Department of Transportation - Traffic Accident Reporting and Analysis System

## Accident Summary Report (R-8)

**Corridor:** MACARTHUR BLVD,NW From NEWARK ST,NW TO MACOMB ST,NW

**Time Period Covered:** From 01/01/2010 To 12/31/2012 **Prepared By:** Rahul Jain

**Prepared Date:** 9/15/2013

Total Number of Accident:	4	<b>Collision Type</b>	<b>#ACC</b>	<b>%</b>	<b>Collision Type</b>	<b>#ACC</b>	<b>%</b>
Total Number of Fatalities:	0	Right Angle:	1	25.0%	Fixed Object:	0	0.0%
Total Number of Injuries:	4	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:	1	Rear End:	1	25.0%	Backing:	0	0.0%
Total Number of Pedestrians Involved:	0	Side Swiped:	2	50.0%	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:	0	0.0%	Unspecified:	0	0.0%
<b>Time of Day</b>				<b>#ACC</b>	<b>%</b>	<b>Day o fweek</b>	
07:30 ~ 09:30:				1	25.0%	Sunday:	
09:30 ~ 11:30:				0	0.0%	Monday:	
11:30 ~ 13:30:				1	25.0%	Tuesday:	
13:30 ~ 16:00:				1	25.0%	Wednesday:	
16:00 ~18:30:				0	0.0%	Thursday:	
18:30 ~ 07:30:				1	25.0%	Friday:	
Unspecified:				0	0.0%	Saturday:	
<b>Weather Condition</b>				<b>#ACC</b>	<b>%</b>	<b>Surface Condition</b>	
Clear:				2	50.0%	Dry:	
Rain:				2	50.0%	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:				0	0.0%	Unspecified:	
<b>Type of Vehicle</b>				<b>#VEH</b>	<b>%</b>	<b>Accident Severity Type</b>	
Passenger Car:				8	80.0%	Fatal Collision:	
Bus:				0	0.0%	Injury Collision:	
Truck:				1	10.0%	PDO Collision:	
Taxi:				0	0.0%	<b>Light Condition</b>	
Minivan:				0	0.0%	Daylight:	
Police/Emergency Vehicle:				1	10.0%	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:				0	0.0%	Unspecified:	
<b>Contributing Factor</b>				<b>#VEH</b>	<b>%</b>	<b>Pedestrian Actions</b>	
Driver: Speed:				0	0.0%	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:				1	10.0%	In Unmarked Crosswalk:	
Vehicle:				0	0.0%	Not in Crosswalk:	
Roadway:				0	0.0%	From Between Parked Cars:	
Unspecified:				9	90.0%	Unspecified:	

2 Records are not approved as of 9/15/2013 12:09:51 PM