



District Department of Transportation

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

2900 Block Cleveland Avenue NW

Study Area and Location

District	PSA	Ward	ANC	Phase	Description
2	204	3	3C	Proposed	2900 Block Cleveland Avenue Northwest Northwest-bound



This *proposed* speed camera will be located in Ward 3 at the 2900 block of Cleveland Avenue Northwest in the northwest bound direction. Cleveland Avenue runs between Calvert Street Northwest to the east and 34th Street Northwest to the west. The posted speed limit is 25 MPH.

W3 - 384





District Department of Transportation

2900 Block Cleveland Avenue NW

Field Assessment Summary

Cleveland Avenue is assumed to run in the east-west direction, and is classified as a minor arterial. Cleveland Avenue has two travel lanes in each direction. This site has the following characteristics:

- This site is located in a residential area with driveways on both sides of the street.
- There is one school in the area: Oyster-Adams Bilingual School.
- There are sidewalks on both sides of the street.
- There is a grassy median in the center of the street.



Looking South

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2900 Block Cleveland Avenue NW



Looking North

Speed Data Analysis

	Northwest-Bound	Southeast-Bound
Posted Speed Limit (MPH)	25	25
Mean Speed (MPH)	23	18
85th Percentile Speed (MPH)	29	25
10 MPH Pace Speed	21-30	17-26
Sample Size	4,122	4,181
ADT	8,303	

The mean speed is lower than the posted speed limit in both directions and the 85th percentile speed is higher by 4 MPH in the northwest-bound direction and the same in the southwest-bound direction 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 seven crashes at this location. A breakdown of collision type can be found in the chart below. The most common types of collision at this location were Rear End and Right Angle with two crashes

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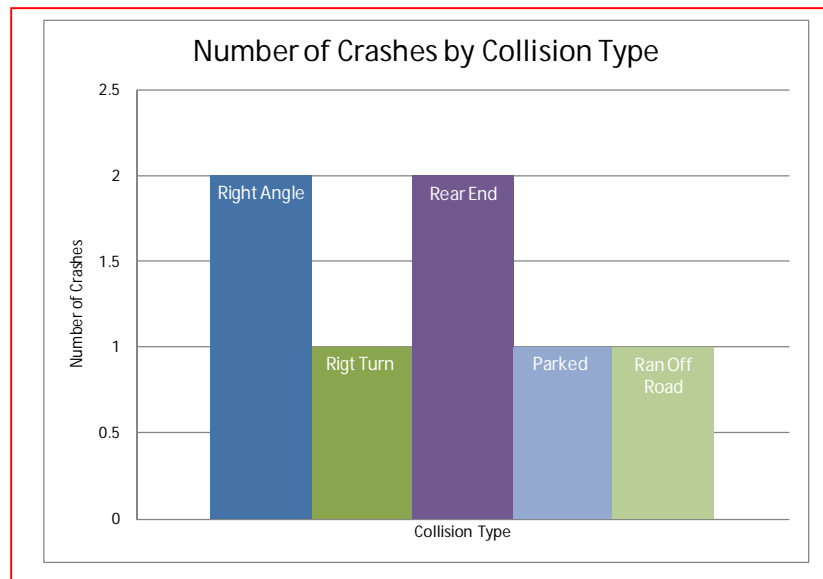


District Department of Transportation

2900 Block Cleveland Avenue NW

each. Each of the other collision types had one crash or less. Furthermore, this site experienced four injury-related crashes.

Severity			Weather			Surface condition			Light Condition		
Total	7										
Fatal	0	0.0%	Clear	7	100.0%	Dry	7	100.0%	Day	3	42.9%
Injury	4	57.1%	Rain	0	0.0%	Wet	0	0.0%	Night	4	57.1%
Taxi	2	28.6%	Snow	0	0.0%	Snow/Ice	0	0.0%			
Bus	2	28.6%									



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 higher than the posted speed limit at this location in the northwest direction and the same as the posted speed limit in the southeast direction.
2. Crash Data – This location experienced four injury-related crashes.
3. Field Assessment – The following site characteristics suggest a need for a safer travel environment:
 - a. This site is located in a residential area with houses and driveways both sides of the street and in the surrounding area.
 - b. There is one school in the area: Oyster-Adams Bilingual School.

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District Department of Transportation

2900 Block Cleveland Avenue NW

- c. There are multiple bus stops in the area which generate pedestrian activity.

Due to the speed data analysis, the elevated number of injury-related crashes, the specific site characteristics, and the pedestrian generators, 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

2900 blocks of Cleveland Ave NW Speed

NWB

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
11/07/13	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	7	17	100	110	10	2	0	0	0	0	0	0	0	0	246
08:00	28	50	95	69	11	0	0	0	0	0	0	0	0	0	253
09:00	15	25	87	77	17	1	1	0	0	0	0	0	0	0	223
10:00	6	16	65	95	11	1	0	0	0	0	0	0	0	0	194
11:00	6	32	81	62	7	1	0	0	0	0	0	0	0	0	189
12 PM	11	22	105	79	16	0	0	0	0	0	0	0	0	0	233
13:00	12	24	68	71	11	1	0	0	0	0	0	0	0	0	187
14:00	14	37	77	81	21	1	0	0	0	0	0	0	0	0	231
15:00	30	35	96	88	10	0	0	0	0	0	0	0	0	0	259
16:00	6	14	101	140	29	2	0	0	0	0	0	0	0	0	292
17:00	17	26	146	161	23	2	1	0	1	0	0	0	0	0	377
18:00	6	29	167	161	29	0	0	0	0	0	0	0	0	0	392
19:00	9	35	108	118	22	0	0	0	0	0	0	0	0	0	292
20:00	0	3	72	67	7	0	1	0	0	0	0	0	0	0	150
21:00	1	11	63	70	7	2	0	0	0	0	0	0	0	0	154
22:00	4	2	31	50	12	3	0	0	0	0	0	0	0	0	102
23:00	2	1	11	33	3	0	0	0	0	0	0	0	0	0	50
Total	174	379	1473	1532	246	16	3	0	1	0	0	0	0	0	3824

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NWB

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
11/08/13	4	2	10	19	6	0	0	0	0	0	0	0	0	0	41
01:00	3	2	13	6	4	0	0	0	0	0	0	0	0	0	28
02:00	0	4	7	7	0	0	0	0	0	0	0	0	0	0	18
03:00	1	5	2	3	1	0	0	0	0	0	0	0	0	0	12
04:00	0	1	10	11	4	0	0	0	0	0	0	0	0	0	26
05:00	14	8	16	16	5	1	1	0	0	0	0	0	0	0	61
06:00	11	14	37	43	4	3	0	0	0	0	0	0	0	0	112
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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	33	36	95	105	24	4	1	0	0	0	0	0	0	0	298
Grand Total	207	415	1568	1637	270	20	4	0	1	0	0	0	0	0	4122

15th Percentile : 16 MPH
50th Percentile : 23 MPH
85th Percentile : 29 MPH
95th Percentile : 31 MPH

Stats
Mean Speed(Average) : 23 MPH
10 MPH Pace Speed : 21-30 MPH
Number in Pace : 2662
Percent in Pace : 64.6%
Number of Vehicles > 25 MPH : 1764
Percent of Vehicles > 25 MPH : 42.8%

SAMMAT ENGINEERING SERVICES, LLC

1515 RISING RIDGE ROAD
MOUNT AIRY, MD 21771

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2900 blocks of Cleveland Ave NW Speed

SEB															
Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76	
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total
11/07/13	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	67	66	85	47	9	0	0	0	0	0	0	0	0	0	274
08:00	133	98	193	82	12	0	0	0	0	0	0	0	0	0	518
09:00	107	101	115	58	11	1	0	0	0	0	0	0	0	0	393
10:00	50	58	94	49	3	0	0	0	0	0	0	0	0	0	254
11:00	33	68	76	37	3	0	0	0	0	0	0	0	0	0	217
12 PM	33	54	69	52	4	0	0	0	0	0	0	0	0	0	212
13:00	44	51	65	27	1	0	0	0	0	0	0	0	0	0	188
14:00	43	55	70	42	3	0	0	0	0	0	0	0	0	0	213
15:00	85	83	82	28	3	0	0	0	0	0	0	0	0	0	281
16:00	56	58	94	29	6	1	0	0	0	0	0	0	0	0	244
17:00	71	57	112	60	3	0	0	0	0	0	0	0	0	0	303
18:00	57	69	119	67	2	0	0	0	0	0	0	0	0	0	314
19:00	22	30	78	64	7	0	0	0	0	0	0	0	0	0	201
20:00	10	38	49	45	4	0	0	0	0	0	0	0	0	0	146
21:00	6	30	38	27	1	0	0	0	0	0	0	0	0	0	102
22:00	7	32	33	26	3	0	0	0	0	0	0	0	0	0	101
23:00	6	17	18	9	2	0	0	0	0	0	0	0	0	0	52
Total	830	965	1390	749	77	2	0	0	0	0	0	0	0	0	4013

SAMMAT ENGINEERING SERVICES, LLC

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MOUNT AIRY, MD 21771

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SEB															
Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76	
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total
11/08/13	4	5	8	9	1	0	0	0	0	0	0	0	0	0	27
01:00	0	4	12	5	0	0	0	0	0	0	0	0	0	0	21
02:00	1	1	3	2	0	0	0	0	0	0	0	0	0	0	7
03:00	0	1	1	1	0	0	0	0	0	0	0	0	0	0	3
04:00	0	2	6	4	0	1	0	0	0	0	0	0	0	0	13
05:00	14	6	14	5	1	0	0	0	0	0	0	0	0	0	40
06:00	4	12	27	14	0	0	0	0	0	0	0	0	0	0	57
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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	23	31	71	40	2	1	0	0	0	0	0	0	0	0	168
Grand Total	853	996	1461	789	79	3	0	0	0	0	0	0	0	0	4181

15th Percentile : 8 MPH
50th Percentile : 18 MPH
85th Percentile : 25 MPH
95th Percentile : 28 MPH

Stats
Mean Speed(Average) : 18 MPH
10 MPH Pace Speed : 17-26 MPH
Number in Pace : 1861
Percent in Pace : 44.5%
Number of Vehicles > 25 MPH : 742
Percent of Vehicles > 25 MPH : 17.7%

SAMMAT ENGINEERING SERVICES, LLC

1515 RISING RIDGE ROAD
MOUNT AIRY, MD 21771

www.sammateng.com

2900 blocks of Cleveland Ave NW Volume

Start Time	07-Nov-13 Thu	NWB		SEB		Combined		08-Nov- Fri	NWB		SEB		Combined	
		A.M.	P.M.	A.M.	P.M.	A.M.	P.M.		A.M.	P.M.	A.M.	P.M.	A.M.	P.M.
12:00		*	60	*	59	*	119		16	*	5	*	21	*
12:15		*	66	*	64	*	130		12	*	13	*	25	*
12:30		*	55	*	43	*	98		10	*	6	*	16	*
12:45		*	52	*	46	*	98		3	*	3	*	6	*
01:00		*	39	*	42	*	81		6	*	4	*	10	*
01:15		*	55	*	42	*	97		6	*	6	*	12	*
01:30		*	48	*	46	*	94		10	*	8	*	18	*
01:45		*	45	*	58	*	103		6	*	3	*	9	*
02:00		*	66	*	58	*	124		5	*	1	*	6	*
02:15		*	59	*	62	*	121		3	*	2	*	5	*
02:30		*	56	*	41	*	97		4	*	3	*	7	*
02:45		*	50	*	52	*	102		6	*	1	*	7	*
03:00		*	52	*	58	*	110		3	*	0	*	3	*
03:15		*	69	*	85	*	154		5	*	1	*	6	*
03:30		*	63	*	74	*	137		1	*	1	*	2	*
03:45		*	75	*	64	*	139		3	*	1	*	4	*
04:00		*	73	*	63	*	136		4	*	4	*	8	*
04:15		*	64	*	58	*	122		2	*	0	*	2	*
04:30		*	67	*	53	*	120		12	*	4	*	16	*
04:45		*	88	*	70	*	158		8	*	5	*	13	*
05:00		*	89	*	74	*	163		7	*	1	*	8	*
05:15		*	91	*	69	*	160		6	*	11	*	17	*
05:30		*	101	*	75	*	176		16	*	10	*	26	*
05:45		*	96	*	85	*	181		32	*	18	*	50	*
06:00		*	104	*	84	*	188		23	*	5	*	28	*
06:15		*	78	*	75	*	153		25	*	18	*	43	*
06:30		*	108	*	73	*	181		30	*	22	*	52	*
06:45		*	102	*	82	*	184		34	*	12	*	46	*
07:00		41	104	55	49	96	153		*	*	*	*	*	*
07:15		65	68	47	56	112	124		*	*	*	*	*	*
07:30		71	66	82	49	153	115		*	*	*	*	*	*
07:45		69	54	90	47	159	101		*	*	*	*	*	*
08:00		60	40	112	43	172	83		*	*	*	*	*	*
08:15		61	29	148	40	209	69		*	*	*	*	*	*
08:30		75	39	131	35	206	74		*	*	*	*	*	*
08:45		57	42	127	28	184	70		*	*	*	*	*	*
09:00		47	33	100	36	147	69		*	*	*	*	*	*
09:15		53	39	101	21	154	60		*	*	*	*	*	*
09:30		45	36	104	20	149	56		*	*	*	*	*	*
09:45		78	46	88	25	166	71		*	*	*	*	*	*
10:00		53	33	77	25	130	58		*	*	*	*	*	*
10:15		42	27	46	27	88	54		*	*	*	*	*	*
10:30		62	16	66	29	128	45		*	*	*	*	*	*
10:45		37	26	65	20	102	46		*	*	*	*	*	*
11:00		47	10	56	21	103	31		*	*	*	*	*	*
11:15		47	12	56	12	103	24		*	*	*	*	*	*
11:30		46	9	50	10	96	19		*	*	*	*	*	*
11:45		49	19	55	9	104	28		*	*	*	*	*	*
Total		1105	2719	1656	2357	2761	5076		298	0	168	0	466	0
Day Total		3824		4013		7837			298	0.0%	168	0.0%	466	
% Total		14.1%	34.7%	21.1%	30.1%				63.9%		36.1%			
Peak		07:15	05:15	08:00	05:30	08:00	06:00		06:00		05:45		05:45	
Vol.		265	392	518	319	771	706		112		63		173	
P.H.F.		0.933	0.942	0.875	0.938	0.922	0.939		0.824		0.716		0.832	
ADT		ADT 8,303		AADT 8,303										

DC Department of Transportation - Traffic Accident Reporting and Analysis System

Accident Summary Report (R-8)

Corridor: CLEVELAND AVE,NW From CALVERT ST,NW TO THIRTIETH 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:	7	Collision Type	#ACC	%	Collision Type	#ACC	%
Total Number of Fatalities:	0	Right Angle:	2	28.6%	Fixed Object:	0	0.0%
Total Number of Injuries:	5	Left Turn:	0	0.0%	Ran Off Road:	1	14.3%
Total Number of Disabling Injuries:	0	Right Turn:	1	14.3%	Ped. Involved:	0	0.0%
Total Number of NonDisabling Injuries:	2	Rear End:	2	28.6%	Backing:	0	0.0%
Total Number of Pedestrians Involved:	0	Side Swiped:	0	0.0%	Non Collision:	0	0.0%
Total Number of Bicycles Involved:	2	Head On:	0	0.0%	Under/Over Ride:	0	0.0%
Total Number of Motorcycles Involved:	0	Parked:	1	14.3%	Unspecified:	0	0.0%

Time of Day	#ACC	%	Day o fweek	#ACC	%
07:30 ~ 09:30:	0	0.0%	Sunday:	1	14.3%
09:30 ~ 11:30:	1	14.3%	Monday:	0	0.0%
11:30 ~ 13:30:	0	0.0%	Tuesday:	0	0.0%
13:30 ~ 16:00:	0	0.0%	Wednesday:	2	28.6%
16:00 ~18:30:	2	28.6%	Thursday:	1	14.3%
18:30 ~ 07:30:	4	57.1%	Friday:	0	0.0%
Unspecified:	0	0.0%	Saturday:	3	42.9%

Weather Condition	#ACC	%	Surface Condition	#ACC	%
Clear:	7	100.0%	Dry:	7	100.0%
Rain:	0	0.0%	Wet:	0	0.0%
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:	11	64.7%	Fatal Collision:	0	0.0%
Bus:	2	11.8%	Injury Collision:	4	57.1%
Truck:	0	0.0%	PDO Collision:	3	42.9%
Taxi:	2	11.8%	Light Condition	#ACC	%
Minivan:	0	0.0%	Daylight:	3	42.9%
Police/Emergency Vehicle:	0	0.0%	Dawn/Dusk:	0	0.0%
Motorcycle/Moped:	0	0.0%	Dark(Lighted):	4	57.1%
Bicycle:	2	11.8%	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:	1	5.9%	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	11.8%	In Unmarked Crosswalk:	0	0.0%
Vehicle:	1	5.9%	Not in Crosswalk:	0	0.0%
Roadway:	0	0.0%	From Between Parked Cars:	0	0.0%
Unspecified:	13	76.5%	Unspecified:	0	0.0%

5 Records are not approved as of 9/15/2013 9:28:45 PM