



District Department of Transportation

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

Reservoir Road NW

Study Area and Location

District	PSA	Ward	ANC	Phase	Description
2	206	2	2E	Proposed	Reservoir Road Northwest between 37 th Street and 35 th Street Northwest



This *proposed* speed camera location will be located in Ward 2 at Reservoir Road Northwest between 37th Street and 35th Street Northwest. Reservoir Road Northwest runs between Wisconsin Avenue Northwest from the east and Canal Road Northwest to the west. The posted speed limit is 25 MPH.

W2 - 83





District Department of Transportation

Reservoir Road NW

Field Assessment Summary

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

- This site is located in a residential area with houses, driveway, and sidewalks with curb and gutter on both sides of the street.
- There is a traffic signal and crosswalks with pedestrian signals at Wisconsin Ave, and crosswalks with no signals at 34th Street.
- There is on-street parking on the south side of the street.
- The existing pavement is in good condition, and there is a downhill slope in the westbound direction.
- There are five schools in this area: Georgetown University, Washington International School: Primary School, Duke Ellington School of the Arts, Corcoran College of Art and Design, and British School of Washington.
- Georgetown University Hospital is also near this site.



Northbound



District Department of Transportation

Reservoir Road NW



Speed Data Analysis

Direction	EB	WB
Posted Speed Limit (MPH)	25	25
Mean Speed (MPH)	14	19
85th Percentile Speed (MPH)	22	25
10 MPH Pace Speed	12-21	17-26
Sample Size	3,211	2,203
ADT	5,414	

The mean speeds in both directions are both lower than the posted speed limit. The 85th percentile speed is 3 MPH lower than the speed limit in the eastbound direction, and the same as the posted speed limit in the westbound direction.

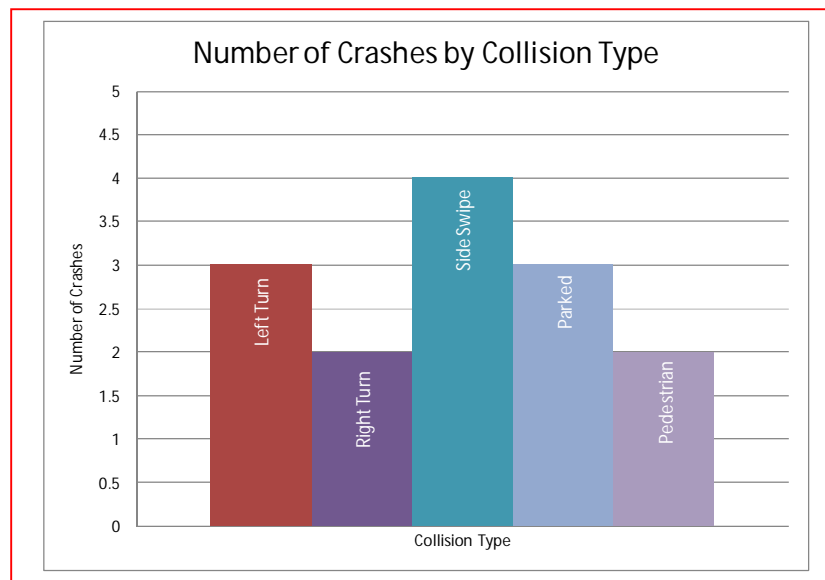
Crash Data Analysis

From the Accident Summary Report provided for the dates between January 1, 2010 and December 31, 2012, there were a total of 14 crashes at this location. A breakdown of number of crashes by collision type can be found in the chart below. The most common type of collision at this location was Side Swipe with four crashes. Crash data shows one (1) accident caused by vehicular speeding at this location.

W2 - 85



Severity		Weather			Surface condition			Light Condition		
Total	14									
Fatal	0 0.0%	Clear	11	78.6%	Dry	13	92.9%	Day	8	57.1%
Injury	3 21.4%	Rain	1	7.1%	Wet	1	7.1%	Night	5	35.7%
Truck	4 28.6%	Snow	0	0.0%	Snow/Ice	0	0.0%			
Taxi	2 14.3%									



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 travel speeds being lower or the same as the posted speed limit.
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 residential area with houses on both sides of the street and driveways on the north side of the street.
 - b. There are five schools in this area: Georgetown University, Washington International School: Primary School, Duke Ellington School of the Arts, Corcoran College of Art and Design, and British School of Washington.
 - c. There are multiple bus stops which generate pedestrian activity.



District Department of Transportation

Reservoir Road NW

- d. There is on-street parking on the south side of the street.

Although the speed data analysis showed the mean and 85th percentile speeds to be equal to or lower than the posted speed limit, and the crash data analysis shows a low number of crashes at this location, using engineering judgment, due to the specific site characteristics, the proximity of schools to the site and the other pedestrian generators, there is a nexus between traffic safety and the speed camera at this location.

SAMMAT ENGINEERING SERVICES, LLC

1515 RISING RIDGE ROAD
MOUNT AIRY, MD 21771

www.sammateng.com

Reservoir Rd NW between 34th and Wisconsin ave Speed

EB

Start Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total
11/12/13	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
04:00	0	3	6	0	0	0	0	0	0	0	0	0	0	0	9
05:00	2	5	10	1	1	0	0	0	0	0	0	0	0	0	19
06:00	10	14	24	12	0	0	0	0	0	0	0	0	0	0	60
07:00	36	73	66	7	0	0	0	0	0	0	0	0	0	0	182
08:00	160	81	73	19	2	0	0	0	0	0	0	0	0	0	335
09:00	99	77	55	13	0	0	0	0	0	0	0	0	0	0	244
10:00	75	65	62	13	5	0	0	0	0	0	0	0	0	0	220
11:00	70	59	38	12	1	0	0	0	0	0	0	0	0	0	180
12 PM	77	73	42	11	0	0	0	0	0	0	0	0	0	0	203
13:00	58	67	56	14	1	1	0	0	0	0	0	0	0	0	197
14:00	58	55	44	14	0	0	0	0	0	0	0	0	0	0	171
15:00	71	61	62	9	1	0	0	0	0	0	0	0	0	0	204
16:00	54	65	68	18	2	0	0	0	0	0	0	0	0	0	207
17:00	82	76	58	17	1	0	0	0	0	0	0	0	0	0	234
18:00	51	63	54	20	3	0	1	0	0	0	0	0	0	0	192
19:00	19	62	71	10	1	0	0	0	0	0	0	0	0	0	163
20:00	19	33	51	7	0	0	0	0	0	0	0	0	0	0	110
21:00	20	39	45	5	1	0	0	0	0	0	0	0	0	0	110
22:00	3	21	39	6	0	0	0	0	0	0	0	0	0	0	69
23:00	2	10	24	9	2	0	0	0	0	0	0	0	0	0	47
Total	966	1002	949	217	21	1	1	0	0	0	0	0	0	0	3157

SAMMAT ENGINEERING SERVICES, LLC

1515 RISING RIDGE ROAD
MOUNT AIRY, MD 21771

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Reservoir Rd NW between 34th and Wisconsin ave Speed

EB

Start Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total
11/13/13	1	5	13	4	0	0	0	0	0	0	0	0	0	0	23
01:00	1	5	8	2	0	0	0	0	0	0	0	0	0	0	16
02:00	0	3	6	4	1	1	0	0	0	0	0	0	0	0	15
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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	2	13	27	10	1	1	0	0	0	0	0	0	0	0	54
Grand Total	968	1015	976	227	22	2	1	0	0	0	0	0	0	0	3211

15th Percentile : 6 MPH
 50th Percentile : 14 MPH
 85th Percentile : 22 MPH
 95th Percentile : 26 MPH

Stats
 Mean Speed(Average) : 15 MPH
 10 MPH Pace Speed : 12-21 MPH
 Number in Pace : 1430
 Percent in Pace : 44.5%
 Number of Vehicles > 25 MPH : 244
 Percent of Vehicles > 25 MPH : 7.6%

SAMMAT ENGINEERING SERVICES, LLC

1515 RISING RIDGE ROAD
MOUNT AIRY, MD 21771

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Reservoir Rd NW between 34th and Wisconsin ave Speed

WB

Start Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total
11/12/13	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	1	1	1	0	0	0	0	0	0	0	0	0	0	0	3
04:00	0	0	8	6	0	0	0	0	0	0	0	0	0	0	14
05:00	1	2	26	13	2	1	0	0	0	0	0	0	0	0	45
06:00	2	23	72	27	0	0	0	0	0	0	0	0	0	0	124
07:00	15	47	69	25	4	0	0	0	0	0	0	0	0	0	160
08:00	30	20	73	25	0	0	0	0	0	0	0	0	0	0	148
09:00	24	34	49	10	1	0	0	0	0	0	0	0	0	0	118
10:00	17	47	41	14	0	0	0	0	0	0	0	0	0	0	119
11:00	16	50	58	9	1	0	0	0	0	0	0	0	0	0	134
12 PM	31	49	38	8	0	0	0	0	0	0	0	0	0	0	126
13:00	15	38	67	17	0	0	0	0	0	0	0	0	0	0	137
14:00	19	40	66	17	2	0	0	0	0	0	0	0	0	0	144
15:00	27	34	49	19	3	0	0	0	0	0	0	0	0	0	132
16:00	11	26	69	16	1	0	0	0	0	0	0	0	0	0	123
17:00	32	56	78	14	1	0	0	0	0	0	0	0	0	0	181
18:00	17	46	85	29	3	0	0	0	0	0	0	0	0	0	180
19:00	9	16	51	21	0	1	0	0	0	0	0	0	0	0	98
20:00	4	11	18	12	1	0	0	0	0	0	0	0	0	0	46
21:00	2	20	24	15	1	1	0	0	0	0	0	0	0	0	63
22:00	3	8	35	13	0	0	0	0	0	0	0	0	0	0	59
23:00	0	1	12	3	1	0	0	0	0	0	0	0	0	0	17
Total	276	569	989	313	21	3	0	0	0	0	0	0	0	0	2171

SAMMAT ENGINEERING SERVICES, LLC

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MOUNT AIRY, MD 21771

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Reservoir Rd NW between 34th and Wisconsin ave Speed

WB															
Start Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total
11/13/13	1	3	8	6	0	0	0	0	0	0	0	0	0	0	18
01:00	0	0	5	3	0	0	0	0	0	0	0	0	0	0	8
02:00	0	0	4	1	1	0	0	0	0	0	0	0	0	0	6
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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	1	3	17	10	1	0	0	0	0	0	0	0	0	0	32
Grand Total	277	572	1006	323	22	3	0	0	0	0	0	0	0	0	2203

15th Percentile : 10 MPH
 50th Percentile : 19 MPH
 85th Percentile : 25 MPH
 95th Percentile : 28 MPH

Stats
 Mean Speed(Average) : 19 MPH
 10 MPH Pace Speed : 17-26 MPH
 Number in Pace : 1215
 Percent in Pace : 55.2%
 Number of Vehicles > 25 MPH : 349
 Percent of Vehicles > 25 MPH : 15.9%

SAMMAT ENGINEERING SERVICES, LLC

1515 RISING RIDGE ROAD
MOUNT AIRY, MD 21771

www.sammateng.com

Reservoir Rd NW between 34th and Wisconsin ave Volume

Start Time	12-Nov-13 Tue		EB		WB		Combined		13-Nov- Wed	EB		WB		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.	A.M.	P.M.
12:00	*	58	*	30	*	88		11	*	8	*	19	*		
12:15	*	52	*	29	*	81		6	*	1	*	7	*		
12:30	*	42	*	33	*	75		3	*	7	*	10	*		
12:45	*	51	*	34	*	85		3	*	2	*	5	*		
01:00	*	51	*	36	*	87		7	*	2	*	9	*		
01:15	*	39	*	33	*	72		2	*	2	*	4	*		
01:30	*	54	*	38	*	92		5	*	2	*	7	*		
01:45	*	53	*	30	*	83		2	*	2	*	4	*		
02:00	*	42	*	38	*	80		3	*	3	*	6	*		
02:15	*	36	*	30	*	66		5	*	2	*	7	*		
02:30	*	50	*	37	*	87		4	*	1	*	5	*		
02:45	*	43	*	39	*	82		3	*	0	*	3	*		
03:00	0	57	0	29	0	86		*	*	*	*	*	*		
03:15	0	51	1	37	1	88		*	*	*	*	*	*		
03:30	0	44	1	33	1	77		*	*	*	*	*	*		
03:45	1	52	1	33	2	85		*	*	*	*	*	*		
04:00	1	60	2	17	3	77		*	*	*	*	*	*		
04:15	2	55	1	28	3	83		*	*	*	*	*	*		
04:30	3	47	3	33	6	80		*	*	*	*	*	*		
04:45	3	45	8	45	11	90		*	*	*	*	*	*		
05:00	4	69	7	38	11	107		*	*	*	*	*	*		
05:15	4	68	9	52	13	120		*	*	*	*	*	*		
05:30	5	54	14	42	19	96		*	*	*	*	*	*		
05:45	6	43	15	49	21	92		*	*	*	*	*	*		
06:00	10	62	24	37	34	99		*	*	*	*	*	*		
06:15	19	54	20	45	39	99		*	*	*	*	*	*		
06:30	12	44	40	56	52	100		*	*	*	*	*	*		
06:45	19	32	40	42	59	74		*	*	*	*	*	*		
07:00	27	49	26	26	53	75		*	*	*	*	*	*		
07:15	39	32	40	33	79	65		*	*	*	*	*	*		
07:30	57	43	35	23	92	66		*	*	*	*	*	*		
07:45	59	39	59	16	118	55		*	*	*	*	*	*		
08:00	82	26	45	14	127	40		*	*	*	*	*	*		
08:15	97	34	44	14	141	48		*	*	*	*	*	*		
08:30	82	26	31	10	113	36		*	*	*	*	*	*		
08:45	74	24	28	8	102	32		*	*	*	*	*	*		
09:00	65	40	27	26	92	66		*	*	*	*	*	*		
09:15	59	23	32	10	91	33		*	*	*	*	*	*		
09:30	56	26	29	17	85	43		*	*	*	*	*	*		
09:45	64	21	30	10	94	31		*	*	*	*	*	*		
10:00	60	15	30	20	90	35		*	*	*	*	*	*		
10:15	55	26	36	20	91	46		*	*	*	*	*	*		
10:30	48	15	33	12	81	27		*	*	*	*	*	*		
10:45	57	13	20	7	77	20		*	*	*	*	*	*		
11:00	44	10	33	2	77	12		*	*	*	*	*	*		
11:15	43	14	36	4	79	18		*	*	*	*	*	*		
11:30	44	14	32	8	76	22		*	*	*	*	*	*		
11:45	49	9	33	3	82	12		*	*	*	*	*	*		
Total	1250	1907	865	1306	2115	3213		54	0	32	0	86	0		
Day Total	3157		2171		5328			54	0.0%	32	0.0%	86			
% Total	23.5%	35.8%	16.2%	24.5%			62.8%			37.2%					
Peak	08:00	04:45	07:30	05:45	07:45	05:00		12:00		12:00		12:00			
Vol.	335	236	183	187	499	415		23		18		41			
P.H.F.	0.863	0.855	0.775	0.835	0.885	0.865		0.523		0.563		0.539			

ADT ADT 5,414 AADT 5,414

DC Department of Transportation - Traffic Accident Reporting and Analysis System

Accident Summary Report (R-8)

Corridor: RESERVOIR RD,NW From THIRTY SEVENTH ST,NW TO THIRTY FIFTH 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:	14	Collision Type	#ACC	%	Collision Type	#ACC	%
Total Number of Fatalities:	0	Right Angle:	0	0.0%	Fixed Object:	0	0.0%
Total Number of Injuries:	3	Left Turn:	3	21.4%	Ran Off Road:	0	0.0%
Total Number of Disabling Injuries:	0	Right Turn:	0	0.0%	Ped. Involved:	2	14.3%
Total Number of NonDisabling Injuries:	0	Rear End:	2	14.3%	Backing:	0	0.0%
Total Number of Pedestrians Involved:	2	Side Swiped:	4	28.6%	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:	3	21.4%	Unspecified:	0	0.0%
Time of Day				#ACC	%	Day o fweek	
07:30 ~ 09:30:				3	21.4%	Sunday:	
09:30 ~ 11:30:				1	7.1%	Monday:	
11:30 ~ 13:30:				3	21.4%	Tuesday:	
13:30 ~ 16:00:				1	7.1%	Wednesday:	
16:00 ~18:30:				2	14.3%	Thursday:	
18:30 ~ 07:30:				4	28.6%	Friday:	
Unspecified:				0	0.0%	Saturday:	
Weather Condition				#ACC	%	Surface Condition	
Clear:				11	78.6%	Dry:	
Rain:				1	7.1%	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:				2	14.3%	Unspecified:	
Type of Vehicle				#VEH	%	Accident Severity Type	
Passenger Car:				17	60.7%	Fatal Collision:	
Bus:				1	3.6%	Injury Collision:	
Truck:				4	14.3%	PDO Collision:	
Taxi:				2	7.1%	Light Condition	
Minivan:				0	0.0%	Daylight:	
Police/Emergency Vehicle:				0	0.0%	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:				4	14.3%	Unspecified:	
Contributing Factor				#VEH	%	Pedestrian Actions	
Driver: Speed:				1	3.6%	In Crosswalk with Signal:	
Driver: Alcohol/Drug:				1	3.6%	In Crosswalk against Signal:	
Driver: Electronic Device:				0	0.0%	In Crosswalk no Signal:	
Driver: Others:				6	21.4%	In Unmarked Crosswalk:	
Vehicle:				0	0.0%	Not in Crosswalk:	
Roadway:				0	0.0%	From Between Parked Cars:	
Unspecified:				20	71.4%	Unspecified:	

8 Records are not approved as of 9/15/2013 10:09:03 PM