



District Department of Transportation

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

18th Street at Randolph Road NE

Study Area and Location

District	PSA	Ward	ANC	Phase	Description
5	504	5	5A	Proposed	18 th Street Northbound at Randolph Road Northeast



The *proposed* speed camera will be located in Ward 5 at the intersection of 18th Street and Randolph Road Northeast in the northbound direction. 18th Street Northeast runs between Michigan Avenue Northeast to the north and Adams Street Northeast to the south. The proposed speed limit is 25 MPH.

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18th Street at Randolph Road NE

Field Assessment Summary

18th Street is assumed to run in a north-south direction, and is classified as a collector road. 18th Street and Randolph Road both have one travel lane in each direction. This site has the following characteristics:

- This is a residential area with houses and driveways.
- There is one school in the area: Perry Street Preparatory Public Charter School.
- Taft Recreation Center is also in the area.
- This intersection is a four way stop with crosswalks on the north, south, and west legs.
- There is sidewalk on both sides of the north, south, and east legs, and the south side of the west leg.
- There is on-street parking on the south side of the east and west legs, and the west side of the north and south legs.
- There are bus stops on 18th Street in the northwest and southeast corners.



Looking Northbound

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18th Street at Randolph Road NE



Looking Southbound

Speed Data Analysis

Posted Speed Limit (MPH)	25
Mean Speed (MPH)	22
85th Percentile Speed (MPH)	28
10 MPH Pace Speed	21-30
ADT	2,355

The mean speed is lower than the posted speed limit by 3 MPH and the 85th percentile speed is higher than the posted speed by 3 MPH at this location.

Crash Data Analysis

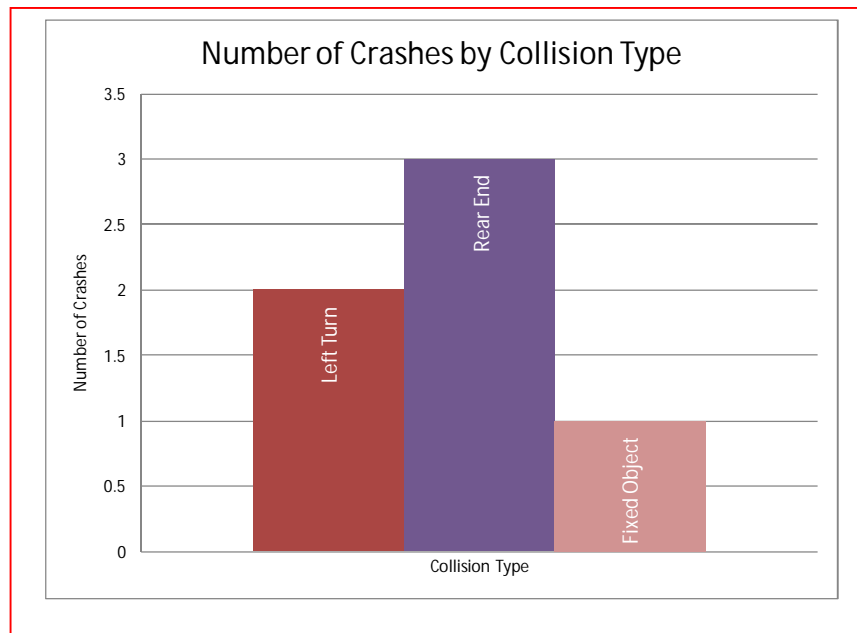
From the Accident Summary Report provided for the dates between January 1, 2010 and December 31, 2012 there were a total of six crashes at this location. A breakdown of the number of crashes by collision type can be found in the chart on the next page. The most common types of crashes at this location were Rear End (3) and Left turns (2).

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18th Street at Randolph Road NE

Severity			Weather			Surface condition			Light Condition		
Total	6										
Fatal	0	0.0%	Clear	5	83.3%	Dry	4	66.7%	Day	3	50.0%
Injury	3	50.0%	Rain	1	16.7%	Wet	1	16.7%	Night	3	50.0%
Motorcycle	1	16.7%	Snow	0	0.0%	Snow/Ice	0	0.0%			
Bus	0	0.0%									



This site is ranked 18th in the top seventy high accident locations in the District in 2011. ¹

Safety Nexus

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

1. Speed Data – The 85th percentile speed is higher than the posted speed limit at this location.
2. Crash Data – The crash data analysis shows a low number of crashes at this location, yet three injury-related crashes. This site is ranked 18th in the top seventy high accident locations in the District in 2011.
3. Field Assessment – The following site characteristics suggest a need for a safer travel environment:

¹ DDOT, Top 70 High Accident Locations Map for 2011



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18th Street at Randolph Road NE

- a. This is a residential area with houses and driveways.
- b. There is one school in the area: Perry Street Preparatory Pubic Charter School.
- c. Taft Recreation Center is in the area which generates pedestrian and bicycle activity.
- d. There are multiple bus stops in the area which generate pedestrian activity.
- e. There is on-street parking on the south side of the east and west legs, and the west side of the north and south legs.

Although the crash data analysis showed a low number of crashes at this location, due to the speed data analysis, the number of injury-related crashes, the specific site characteristics, and 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

18th St NB at Randolph NE Speed

NB

Start Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total
11/19/13	4	0	8	13	3	0	1	0	0	0	0	0	0	0	29
01:00	2	0	1	1	1	0	1	0	0	0	0	0	0	0	6
02:00	0	2	0	5	1	1	0	0	0	0	0	0	0	0	9
03:00	0	1	4	1	1	0	0	0	0	0	0	0	0	0	7
04:00	2	0	0	1	1	0	0	0	0	0	0	0	0	0	4
05:00	8	2	8	2	2	0	0	0	0	0	0	0	0	0	22
06:00	10	1	16	27	6	0	0	0	0	0	0	0	0	0	60
07:00	27	10	49	63	17	3	0	0	0	0	0	0	0	0	169
08:00	17	15	53	63	16	4	0	0	0	0	0	0	0	0	168
09:00	16	4	36	39	9	1	0	0	0	0	0	0	0	0	105
10:00	8	10	46	33	10	1	0	0	0	0	0	0	0	0	108
11:00	12	7	52	32	8	1	0	0	0	0	0	0	0	0	112
12 PM	5	7	47	42	3	0	0	0	0	0	0	0	0	0	104
13:00	8	4	44	51	7	1	0	0	0	0	0	0	0	0	115
14:00	6	13	60	43	6	0	0	0	0	0	0	0	0	0	128
15:00	11	13	96	52	12	0	0	0	0	0	0	0	0	0	184
16:00	11	16	99	74	10	1	0	0	0	0	0	0	0	0	211
17:00	16	34	157	72	8	2	0	0	0	0	0	0	0	0	289
18:00	16	13	78	67	4	0	0	0	0	0	0	0	0	0	178
19:00	14	8	38	36	11	3	0	0	0	0	0	0	0	0	110
20:00	16	3	29	32	8	1	0	0	0	0	0	0	0	0	89
21:00	8	5	21	19	7	0	0	0	0	0	0	0	0	0	60
22:00	11	5	17	12	9	1	0	0	0	0	0	0	0	0	55
23:00	10	0	11	8	3	1	0	0	0	0	0	0	0	0	33
Total	238	173	970	788	163	21	2	0	0	0	0	0	0	0	2355
Grand Total	238	173	970	788	163	21	2	0	0	0	0	0	0	0	2355

15th Percentile : 12 MPH
 50th Percentile : 23 MPH
 85th Percentile : 28 MPH
 95th Percentile : 31 MPH

Stats
 Mean Speed(Average) : 22 MPH
 10 MPH Pace Speed : 21-30 MPH
 Number in Pace : 1420
 Percent in Pace : 60.3%
 Number of Vehicles > 25 MPH : 891
 Percent of Vehicles > 25 MPH : 37.8%

SAMMAT ENGINEERING SERVICES, LLC

1515 RISING RIDGE ROAD
MOUNT AIRY, MD 21771

www.sammateng.com

18th St NB at Randolph NE Volume

Start Time	19-Nov-13		20-Nov-13		21-Nov-13		Daily Average	
	Tue A.M.	P.M.	Wed A.M.	P.M.	Thu A.M.	P.M.	A.M.	P.M.
12:00	12	21	*	*	*	*	12	21
12:15	8	29	*	*	*	*	8	29
12:30	6	20	*	*	*	*	6	20
12:45	3	34	*	*	*	*	3	34
01:00	1	24	*	*	*	*	1	24
01:15	1	35	*	*	*	*	1	35
01:30	3	29	*	*	*	*	3	29
01:45	1	27	*	*	*	*	1	27
02:00	2	23	*	*	*	*	2	23
02:15	2	36	*	*	*	*	2	36
02:30	2	31	*	*	*	*	2	31
02:45	3	38	*	*	*	*	3	38
03:00	2	45	*	*	*	*	2	45
03:15	2	35	*	*	*	*	2	35
03:30	2	54	*	*	*	*	2	54
03:45	1	50	*	*	*	*	1	50
04:00	0	60	*	*	*	*	0	60
04:15	0	59	*	*	*	*	0	59
04:30	1	44	*	*	*	*	1	44
04:45	3	48	*	*	*	*	3	48
05:00	3	66	*	*	*	*	3	66
05:15	4	66	*	*	*	*	4	66
05:30	7	88	*	*	*	*	7	88
05:45	8	69	*	*	*	*	8	69
06:00	8	49	*	*	*	*	8	49
06:15	11	54	*	*	*	*	11	54
06:30	19	36	*	*	*	*	19	36
06:45	22	39	*	*	*	*	22	39
07:00	31	40	*	*	*	*	31	40
07:15	36	22	*	*	*	*	36	22
07:30	43	23	*	*	*	*	43	23
07:45	59	25	*	*	*	*	59	25
08:00	58	20	*	*	*	*	58	20
08:15	45	20	*	*	*	*	45	20
08:30	29	29	*	*	*	*	29	29
08:45	36	20	*	*	*	*	36	20
09:00	20	19	*	*	*	*	20	19
09:15	23	14	*	*	*	*	23	14
09:30	39	15	*	*	*	*	39	15
09:45	23	12	*	*	*	*	23	12
10:00	29	17	*	*	*	*	29	17
10:15	30	8	*	*	*	*	30	8
10:30	30	14	*	*	*	*	30	14
10:45	19	16	*	*	*	*	19	16
11:00	31	4	*	*	*	*	31	4
11:15	24	11	*	*	*	*	24	11
11:30	25	11	*	*	*	*	25	11
11:45	32	7	*	*	*	*	32	7
Total	799	1556	0	0	0	0	799	1556
Combined Total	2355		0		0		2355	
Peak	07:30	05:00					07:30	05:00
Vol.	205	289					205	289
P.H.F.	0.869	0.821					0.869	0.821
ADT	ADT 2,355		AADT 2,355					

Accident Summary Report (R-8)

Corridor: 18TH ST,NE From RANDOLPH ST,NE TO SHEPHERD ST,NE

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

Prepared By: Rahul Jain

Prepared Date: 9/16/2013

		Collision Type	#ACC	%	Collision Type	#ACC	%
Total Number of Accident:	6	Right Angle:	0	0.0%	Fixed Object:	1	16.7%
Total Number of Fatalities:	0	Left Turn:	2	33.3%	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:	3	50.0%	Backing:	0	0.0%
Total Number of NonDisabling Injuries:	0	Side Swiped:	0	0.0%	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:	1						

Time of Day	#ACC	%
07:30 ~ 09:30:	2	33.3%
09:30 ~ 11:30:	0	0.0%
11:30 ~ 13:30:	0	0.0%
13:30 ~ 16:00:	0	0.0%
16:00 ~18:30:	1	16.7%
18:30 ~ 07:30:	3	50.0%
Unspecified:	0	0.0%

Day o fweek	#ACC	%
Sunday:	2	33.3%
Monday:	2	33.3%
Tuesday:	2	33.3%
Wednesday:	0	0.0%
Thursday:	0	0.0%
Friday:	0	0.0%
Saturday:	0	0.0%

Weather Condition	#ACC	%
Clear:	5	83.3%
Rain:	1	16.7%
Snow:	0	0.0%
Sleet/Hail:	0	0.0%
Fog/Mist:	0	0.0%
Crosswind/Blowing Sand:	0	0.0%
Unspecified:	0	0.0%

Surface Condition	#ACC	%
Dry:	4	66.7%
Wet:	1	16.7%
Snow/Ice:	0	0.0%
Slush:	0	0.0%
Water/Sand:	0	0.0%
Repairing:	0	0.0%
Unspecified:	1	16.7%

Type of Vehicle	#VEH	%
Passenger Car:	10	90.9%
Bus:	0	0.0%
Truck:	0	0.0%
Taxi:	0	0.0%
Minivan:	0	0.0%
Police/Emergency Vehicle:	0	0.0%
Motorcycle/Moped:	1	9.1%
Bicycle:	0	0.0%
Fixed Object:	0	0.0%
Unspecified:	0	0.0%

Accident Severity Type	#ACC	%
Fatal Collision:	0	0.0%
Injury Collision:	3	50.0%
PDO Collision:	3	50.0%

Light Condition	#ACC	%
Daylight:	3	50.0%
Dawn/Dusk:	0	0.0%
Dark(Lighted):	3	50.0%
Dark(Not Lighted):	0	0.0%
Dark(Unknown Lighting):	0	0.0%
Unspecified:	0	0.0%

Contributing Factor	#VEH	%
Driver: Speed:	0	0.0%
Driver: Alcohol/Drug:	0	0.0%
Driver: Electronic Device:	0	0.0%
Driver: Others:	1	9.1%
Vehicle:	0	0.0%
Roadway:	0	0.0%
Unspecified:	10	90.9%

Pedestrian Actions	#ACC	%
In Crosswalk with Signal:	0	0.0%
In Crosswalk against Signal:	0	0.0%
In Crosswalk no Signal:	0	0.0%
In Unmarked Crosswalk:	0	0.0%
Not in Crosswalk:	0	0.0%
From Between Parked Cars:	0	0.0%
Unspecified:	0	0.0%

5 Records are not approved as of 9/16/2013 9:50:34 AM