



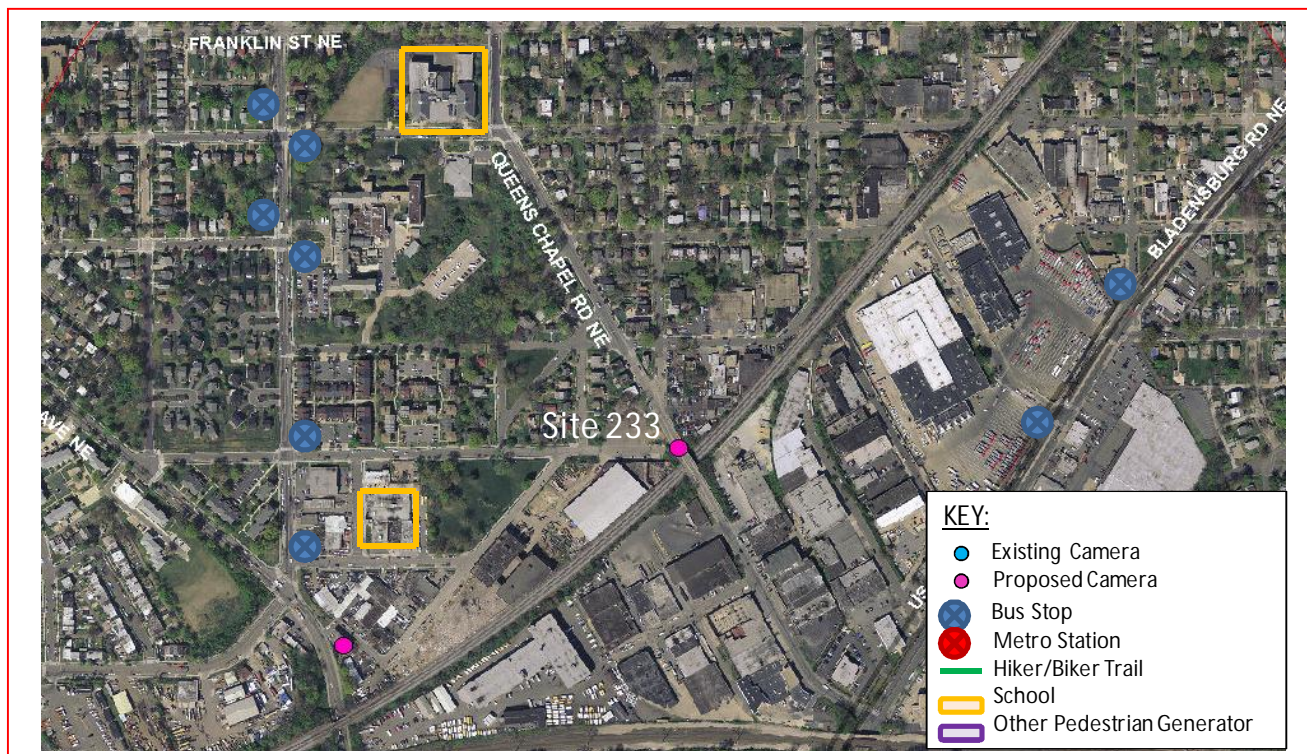
District Department of Transportation

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

### 2400 Block Queens Chapel Road NE

#### Study Area and Location

District	PSA	Ward	ANC	Phase	Description
5	505	5	5B	Proposed	2400 Block Queens Chapel Road Northeast Northeastbound



The *proposed* speed camera will be located in Ward 5 at the 2400 block of Queens Chapel Road Northeast in the northeast-bound direction. Queens Chapel Road Northeast runs between Evarts Street Northeast to the north and Bladensburg Road Northeast to the south. The posted speed limit is 20 MPH.

W5 - 508





District Department of Transportation

2400 Block Queens Chapel Road NE

## Field Assessment Summary

Queens Chapel Road is assumed to run in a northeast-southwest direction, and is classified as a collector road. Queens Chapel Road has one travel lane in each direction and no centerline markings. This site has the following characteristics:

- This is a residential area with houses and apartments.
- There are two schools in the area: Tree of Life Community Public Charter School and Langdon Education Campus.
- 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.



Looking Northeast-bound

W5 - 509



District Department of Transportation

2400 Block Queens Chapel Road NE



Looking Southwest-bound

## Speed Data Analysis

Posted Speed Limit (MPH)	20
Mean Speed (MPH)	14
85th Percentile Speed (MPH)	20
10 MPH Pace Speed	10-19
ADT	3,620

The mean speed is lower than the posted speed by 6 MPH and the 85<sup>th</sup> percentile speed is the same as the posted speed 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 nine crashes at this location. A breakdown of 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 Fixed Object (3) and Left Turn (2). Furthermore, this site experienced four injury-related crashes.

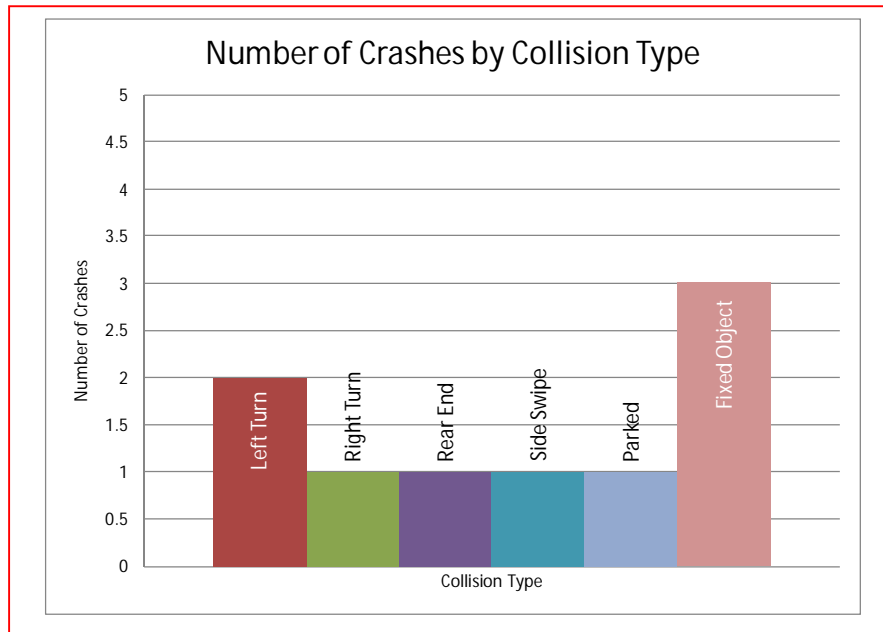
W5 - 510



District Department of Transportation

2400 Block Queens Chapel Road NE

Severity			Weather			Surface condition			Light Condition		
Total	9										
Fatal	0	0.0%	Clear	9	100.0%	Dry	9	100.0%	Day	3	33.3%
Injury	4	44.4%	Rain	0	0.0%	Wet	0	0.0%	Night	6	66.7%
Police/EMS	3	33.3%	Snow	0	0.0%	Snow/Ice	0	0.0%			
Bus	2	22.2%									



This site is adjacent to one of the top seventy high accident locations in the District from 2011: Adams Place and Queens Chapel Road.<sup>1</sup>

### Safety Nexus

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

1. Speed Data – The speed data analysis shows travel speeds being lower than or the same as the posted speed limit.
2. Crash Data – This site experienced four injury-related crashes. This site is adjacent to one of the top seventy high accident locations in the District from 2011: Adams Place and Queens Chapel Road.

<sup>1</sup> DDOT, Top 70 High Accident Locations Map for 2011



District Department of Transportation

2400 Block Queens Chapel Road NE

3. Field Assessment – The following site characteristics suggest a need for a safer travel environment:
  - a. This is a residential area with houses and apartments.
  - b. There are two schools in the area: Tree of Life Community Public Charter School and Langdon Education Campus.
  - c. There are several bus stops in the area which generate pedestrian activity.
  - d. There is on-street parking on both sides of the street.

Although the speed data analysis showed the mean and 85th percentile speeds to be lower than or the same as the posted speed limit, due to the number of injury-related crashes, the specific site characteristics, the proximity of schools to the site, the proximity to a high accident location, and other pedestrian generators, there is a nexus between traffic safety and the speed camera at this location.

W5 - 512

# SAMMAT ENGINEERING SERVICES, LLC

1515 RISING RIDGE ROAD  
MOUNT AIRY, MD 21771

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

## 2400 block of Queens Chapel Rd NE NEB Speed

NEB															
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
11/17/13	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
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	3	16	13	4	0	0	0	0	0	0	0	0	0	0	36
23:00	1	10	8	3	0	0	0	0	0	0	0	0	0	0	22
Total	4	26	21	7	0	0	0	0	0	0	0	0	0	0	58

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1515 RISING RIDGE ROAD  
MOUNT AIRY, MD 21771

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## 2400 block of Queens Chapel Rd NE NEB Speed

NEB															
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
11/18/13	1	8	7	1	1	0	0	0	0	0	0	0	0	0	18
01:00	1	4	5	2	0	0	0	0	0	0	0	0	0	0	12
02:00	2	2	2	3	0	0	1	0	0	0	0	0	0	0	10
03:00	7	4	9	1	0	0	0	0	0	0	0	0	0	0	21
04:00	21	15	7	3	0	0	0	0	0	0	0	0	0	0	46
05:00	47	73	35	3	0	0	0	0	0	0	0	0	0	0	158
06:00	126	86	30	4	0	0	0	0	0	0	0	0	0	0	246
07:00	100	116	108	10	1	0	0	0	0	0	0	0	0	0	335
08:00	92	94	75	5	0	0	0	0	0	0	0	0	0	0	266
09:00	130	85	37	2	1	0	0	0	0	0	0	0	0	0	255
10:00	92	80	41	0	1	0	0	0	0	0	0	0	0	0	214
11:00	90	69	36	1	0	0	0	0	0	0	0	0	0	0	196
12 PM	90	93	39	1	0	0	0	0	0	0	0	0	0	0	223
13:00	93	99	37	3	0	0	0	0	0	0	0	0	0	0	232
14:00	148	118	44	4	0	1	0	0	0	0	0	0	0	0	315
15:00	91	106	59	0	0	0	0	0	0	0	0	0	0	0	256
16:00	38	94	41	4	0	0	0	0	0	0	0	0	0	0	177
17:00	64	92	33	1	0	0	0	0	0	0	0	0	0	0	190
18:00	37	80	40	2	1	0	0	0	0	0	0	0	0	0	160
19:00	8	58	29	3	1	0	0	0	0	0	0	0	0	0	99
20:00	10	34	34	0	0	0	0	0	0	0	0	0	0	0	78
21:00	4	25	24	2	0	0	0	0	0	0	0	0	0	0	55
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	1292	1435	772	55	6	1	1	0	0	0	0	0	0	0	3562
Grand Total	1296	1461	793	62	6	1	1	0	0	0	0	0	0	0	3620

15th Percentile : 6 MPH  
 50th Percentile : 13 MPH  
 85th Percentile : 20 MPH  
 95th Percentile : 23 MPH

Stats  
 Mean Speed(Average) : 14 MPH  
 10 MPH Pace Speed : 10-19 MPH  
 Number in Pace : 1866  
 Percent in Pace : 51.5%  
 Number of Vehicles > 20 MPH : 634  
 Percent of Vehicles > 20 MPH : 17.5%

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## 2400 block of Queens Chapel Rd NE NEB Volume

Start Time	Sun	17-Nov-13	Mon	18-Nov-13	Tue	19-Nov-13	Daily Average	
	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.
12:00	*	*	8	54	*	*	8	54
12:15	*	*	5	65	*	*	5	65
12:30	*	*	4	42	*	*	4	42
12:45	*	*	1	62	*	*	1	62
01:00	*	*	3	58	*	*	3	58
01:15	*	*	3	56	*	*	3	56
01:30	*	*	4	59	*	*	4	59
01:45	*	*	2	59	*	*	2	59
02:00	*	*	2	69	*	*	2	69
02:15	*	*	2	97	*	*	2	97
02:30	*	*	0	70	*	*	0	70
02:45	*	*	6	79	*	*	6	79
03:00	*	*	6	70	*	*	6	70
03:15	*	*	4	56	*	*	4	56
03:30	*	*	5	60	*	*	5	60
03:45	*	*	6	70	*	*	6	70
04:00	*	*	5	53	*	*	5	53
04:15	*	*	9	47	*	*	9	47
04:30	*	*	14	46	*	*	14	46
04:45	*	*	18	31	*	*	18	31
05:00	*	*	25	42	*	*	25	42
05:15	*	*	31	48	*	*	31	48
05:30	*	*	52	56	*	*	52	56
05:45	*	*	50	44	*	*	50	44
06:00	*	*	52	47	*	*	52	47
06:15	*	*	58	40	*	*	58	40
06:30	*	*	71	47	*	*	71	47
06:45	*	*	65	26	*	*	65	26
07:00	*	*	74	20	*	*	74	20
07:15	*	*	81	25	*	*	81	25
07:30	*	*	91	28	*	*	91	28
07:45	*	*	89	26	*	*	89	26
08:00	*	*	59	19	*	*	59	19
08:15	*	*	65	23	*	*	65	23
08:30	*	*	73	22	*	*	73	22
08:45	*	*	69	14	*	*	69	14
09:00	*	*	61	12	*	*	61	12
09:15	*	*	61	15	*	*	61	15
09:30	*	*	69	12	*	*	69	12
09:45	*	*	64	16	*	*	64	16
10:00	*	5	63	*	*	*	63	5
10:15	*	9	55	*	*	*	55	9
10:30	*	10	41	*	*	*	41	10
10:45	*	12	55	*	*	*	55	12
11:00	*	3	54	*	*	*	54	3
11:15	*	7	45	*	*	*	45	7
11:30	*	9	44	*	*	*	44	9
11:45	*	3	53	*	*	*	53	3
Total	0	58	1777	1785	0	0	1777	1843
Combined Total	58		3562		0		3620	
Peak	10:00		07:00	02:15			07:00	02:15
Vol.	36		335	316			335	316
P.H.F.	0.750		0.920	0.814			0.920	0.814
ADT	ADT 3,620		AADT 3,620					



## Accident Summary Report (R-8)

**Corridor:** QUEENS CHAPEL RD,NE From ADAMS PL,NE TO TWENTY SECOND ST,NE

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

**Prepared By:** Rahul Jain

**Prepared Date:** 9/16/2013

		<b>Collision Type</b>	<b>#ACC</b>	<b>%</b>	<b>Collision Type</b>	<b>#ACC</b>	<b>%</b>
Total Number of Accident:	9	Right Angle:	0	0.0%	Fixed Object:	3	33.3%
Total Number of Fatalities:	0	Left Turn:	2	22.2%	Ran Off Road:	0	0.0%
Total Number of Injuries:	10	Right Turn:	1	11.1%	Ped. Involved:	0	0.0%
Total Number of Disabling Injuries:	0	Rear End:	1	11.1%	Backing:	0	0.0%
Total Number of NonDisabling Injuries:	2	Side Swiped:	1	11.1%	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:	1	11.1%	Unspecified:	0	0.0%
Total Number of Motorcycles Involved:	0						

<b>Time of Day</b>	<b>#ACC</b>	<b>%</b>	<b>Day of week</b>	<b>#ACC</b>	<b>%</b>
07:30 ~ 09:30:	0	0.0%	Sunday:	1	11.1%
09:30 ~ 11:30:	0	0.0%	Monday:	2	22.2%
11:30 ~ 13:30:	0	0.0%	Tuesday:	1	11.1%
13:30 ~ 16:00:	3	33.3%	Wednesday:	0	0.0%
16:00 ~ 18:30:	0	0.0%	Thursday:	1	11.1%
18:30 ~ 07:30:	6	66.7%	Friday:	2	22.2%
Unspecified:	0	0.0%	Saturday:	2	22.2%

<b>Weather Condition</b>	<b>#ACC</b>	<b>%</b>	<b>Surface Condition</b>	<b>#ACC</b>	<b>%</b>
Clear:	9	100.0%	Dry:	9	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%

<b>Type of Vehicle</b>	<b>#VEH</b>	<b>%</b>	<b>Accident Severity Type</b>	<b>#ACC</b>	<b>%</b>
Passenger Car:	8	50.0%	Fatal Collision:	0	0.0%
Bus:	2	12.5%	Injury Collision:	4	44.4%
Truck:	1	6.3%	PDO Collision:	5	55.6%
Taxi:	1	6.3%			
Minivan:	0	0.0%	<b>Light Condition</b>	<b>#ACC</b>	<b>%</b>
Police/Emergency Vehicle:	3	18.8%	Daylight:	3	33.3%
Motorcycle/Moped:	0	0.0%	Dawn/Dusk:	0	0.0%
Bicycle:	0	0.0%	Dark(Lighted):	6	66.7%
Fixed Object:	0	0.0%	Dark(Not Lighted):	0	0.0%
Unspecified:	1	6.3%	Dark(Unknown Lighting):	0	0.0%
			Unspecified:	0	0.0%

<b>Contributing Factor</b>	<b>#VEH</b>	<b>%</b>	<b>Pedestrian Actions</b>	<b>#ACC</b>	<b>%</b>
Driver: Speed:	0	0.0%	In Crosswalk with Signal:	0	0.0%
Driver: Alcohol/Drug:	2	12.5%	In Crosswalk against Signal:	0	0.0%
Driver: Electronic Device:	0	0.0%	In Crosswalk no Signal:	0	0.0%
Driver: Others:	4	25.0%	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:	10	62.5%	Unspecified:	0	0.0%

4 Records are not approved as of 9/16/2013 9:58:36 AM