



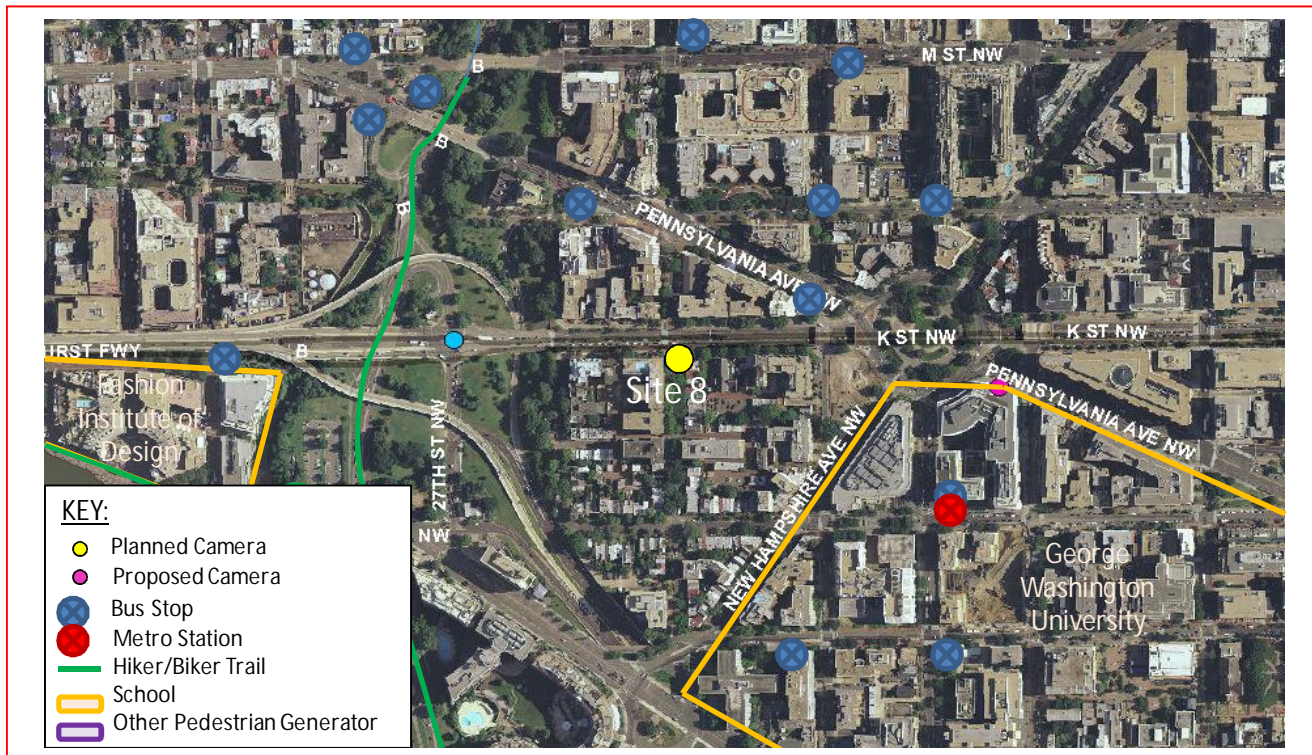
District Department of Transportation

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

K Street WB at 25th Street NW

Study Area and Location

District	PSA	Ward	ANC	Phase	Description
2	207	2	2A	Planned	K Street Westbound at 25 th Street Northwest



The *planned* speed camera will be located in Ward 2 at the intersection of K Street and 25th Street Northwest in the westbound direction. K Street runs between Whitehurst Freeway Northwest to the west and Florida Avenue Northeast to the east. The posted speed limit is 25 MPH.

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K Street WB at 25th Street NW

Field Assessment Summary

K Street is assumed to run in an East-West direction, and is classified as a principal arterial. K Street has two lanes that travel through the tunnel and one shared through-right turn lane outside of the tunnel in the eastbound direction. K Street has three through lanes in the westbound direction. 25th Street Northwest is one-way with one travel lane northbound. This site has the following characteristics:

- This site is located in a residential area with apartments.
- Driveways, on-street parking, and sidewalks with curb and gutter exist on both sides of the street.
- There is a brick median through the center of K Street at the intersection and concrete and brick medians separating tunnel traffic from non-tunnel traffic.
- There is a traffic signal and crosswalks with pedestrian signals at this intersection.
- There are two schools in this area: Georgetown University and Fashion Institute of Design.
- The Rock Creek Park Trails and Chesapeake and Ohio Canal National Historic Park are also in the area.



Looking Eastbound



District Department of Transportation

K Street WB at 25th Street NW



Looking Westbound

Speed Data Analysis

Posted Speed Limit (MPH)	25
Mean Speed (MPH)	14
85th Percentile Speed (MPH)	21
10 MPH Pace Speed	7-16 MPH
Sample Size	4,030
ADT	4,091

Both the mean speed and the 85th percentile speed are lower than the posted speed limit at this location. The 85th percentile speed is 4 MPH lower than the posted speed limit.

Crash Data Analysis

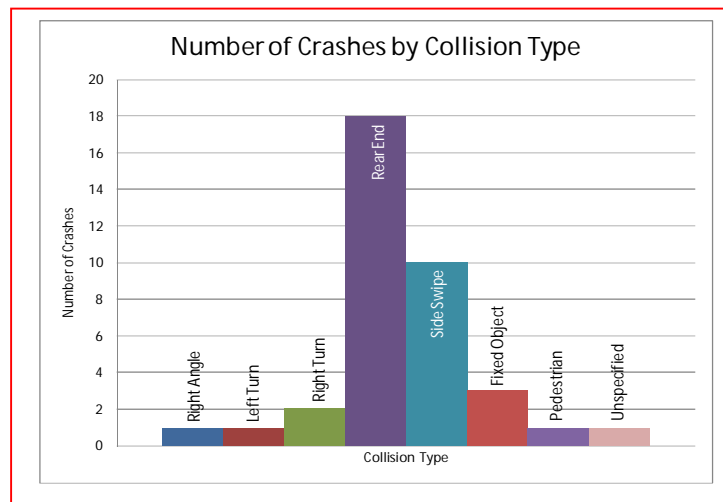
From the Accident Summary Report provided for the dates between January 1, 2010 and December 31, 2012, there were a total of 37 crashes at this location. A breakdown of number of crashes by collision type can be found in the chart on the next page. The most common types of collision at this location were Rear End (18 crashes) and Side Swiped (10 crashes). The other collision types had less than three crashes or less each.



District Department of Transportation

K Street WB at 25th Street NW

Severity			Weather			Surface condition			Light Condition		
Total	37										
Fatal	0	0.0%	Clear	30	81.1%	Dry	30	81.1%	Day	18	48.6%
Injury	9	24.3%	Rain	2	5.4%	Wet	4	10.8%	Night	19	51.4%
Taxi	11	29.7%	Snow	0	0.0%	Snow/Ice	1	2.7%			
Truck	3	8.1%									



There were an elevated number of speed-related crashes at this location, including rear end and side swipe crashes. The AASHTO Highway Safety Manual lists “assuming the lead driver will go through a green or yellow light, but the lead driver stops” and “changing lanes to avoid a slowing or stopped vehicle”¹ as two errors leading to rear-end and sideswipe crashes. Both of these errors can be decreased with a decrease in travel speed.

Safety Nexus

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

1. Speed Data – The speed data analysis shows travel speeds being lower than the posted speed limit.
2. Crash Data – There was an elevated number of speed-related crashes at this location, including rear end and side swipe collisions. There was a high frequency (9 crashes) of injury-related crashes at this location.

¹ AASHTO Highway Safety Manual, 1st Edition, 2010; Volume 1, page 2-13



District Department of Transportation

K Street WB at 25th Street NW

3. Field Assessment – The following site characteristics suggest a need for a safer environment:
 - a. The site is located in a residential area with apartments and driveways on both sides of the street.
 - b. There are two schools in this area: Georgetown University and Fashion Institute of Design.
 - c. The Rock Creek Park Trails and Chesapeake and Ohio Canal National Historic Park are in the area which generates pedestrian activity.
 - d. There are multiple bus stops and one Metrorail s in the area which generate pedestrian activity.
 - e. There is on-street parking at this location.

Although the speed data analysis showed the mean and 85th percentile speeds to be lower than the posted speed limit, due to the elevated number of speed-related crashes, the specific site characteristics and 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

K St WB at 25th St NW Speed

West Bound

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
11/04/13	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	8	0	0	1	0	0	0	0	0	0	0	0	0	0	9
02:00	8	0	1	0	0	0	0	0	0	0	0	0	0	0	9
03:00	7	1	0	1	0	0	0	0	0	0	0	0	0	0	9
04:00	4	2	1	0	1	0	0	0	0	0	0	0	0	0	8
05:00	21	5	1	2	0	0	0	0	0	0	0	0	0	0	29
06:00	52	36	5	2	0	0	0	0	0	0	0	0	0	0	95
07:00	69	58	17	5	2	1	0	0	0	0	0	0	0	0	152
08:00	81	71	38	4	2	0	0	0	0	0	0	0	0	0	196
09:00	79	68	34	8	0	0	0	0	0	0	0	0	0	0	189
10:00	108	53	46	22	3	0	0	0	0	0	0	0	0	0	232
11:00	81	64	59	29	5	1	0	0	0	0	0	0	0	0	239
12 PM	85	70	48	24	5	1	0	0	0	0	0	0	0	0	233
13:00	104	71	65	29	4	0	0	0	0	0	0	0	0	0	273
14:00	89	113	86	22	2	0	0	0	0	0	0	0	0	0	312
15:00	88	115	115	11	1	1	0	0	0	0	0	0	0	0	331
16:00	102	105	96	8	2	0	0	0	0	0	0	0	0	0	313
17:00	119	94	48	6	1	0	0	0	0	0	0	0	0	0	268
18:00	121	51	21	8	2	0	0	0	0	0	0	0	0	0	203
19:00	85	130	71	6	1	0	0	0	0	0	0	0	0	0	293
20:00	70	75	54	13	3	0	0	0	0	0	0	0	0	0	215
21:00	83	51	31	11	0	0	0	0	0	0	0	0	0	0	176
22:00	90	30	11	8	2	0	0	0	0	0	0	0	0	0	141
23:00	67	11	13	13	1	0	0	0	0	0	0	0	0	0	105
Total	1621	1274	861	233	37	4	0	0	0	0	0	0	0	0	4030

SAMMAT ENGINEERING SERVICES, LLC

1515 RISING RIDGE ROAD
MOUNT AIRY, MD 21771

www.sammateng.com

K St WB at 25th St NW Speed

West Bound

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
11/05/13	23	6	9	0	2	1	0	0	0	0	0	0	0	0	41
01:00	18	0	1	1	0	0	0	0	0	0	0	0	0	0	20
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	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	41	6	10	1	2	1	0	0	0	0	0	0	0	0	61
Grand Total	1662	1280	871	234	39	5	0	0	0	0	0	0	0	0	4091

15th Percentile : 6 MPH
 50th Percentile : 12 MPH
 85th Percentile : 21 MPH
 95th Percentile : 25 MPH

Stats
 Mean Speed(Average) : 14 MPH
 10 MPH Pace Speed : 7-16 MPH
 Number in Pace : 2030
 Percent in Pace : 49.6%
 Number of Vehicles > 25 MPH : 239
 Percent of Vehicles > 25 MPH : 5.8%

SAMMAT ENGINEERING SERVICES, LLC

1515 RISING RIDGE ROAD
MOUNT AIRY, MD 21771

www.sammateng.com

K St WB at 25th St NW Volume

Start Time	04-Nov-13		05-Nov-13		06-Nov-13		Daily Average	
	Mon A.M.	P.M.	Tue A.M.	P.M.	Wed A.M.	P.M.	A.M.	P.M.
12:00	*	53	21	*	*	*	21	53
12:15	*	67	8	*	*	*	8	67
12:30	*	77	5	*	*	*	5	77
12:45	*	36	7	*	*	*	7	36
01:00	*	63	7	*	*	*	7	63
01:15	*	61	6	*	*	*	6	61
01:30	*	79	7	*	*	*	7	79
01:45	9	70	*	*	*	*	9	70
02:00	2	111	*	*	*	*	2	111
02:15	2	70	*	*	*	*	2	70
02:30	3	69	*	*	*	*	3	69
02:45	2	62	*	*	*	*	2	62
03:00	0	87	*	*	*	*	0	87
03:15	3	89	*	*	*	*	3	89
03:30	2	75	*	*	*	*	2	75
03:45	4	80	*	*	*	*	4	80
04:00	1	75	*	*	*	*	1	75
04:15	4	75	*	*	*	*	4	75
04:30	0	81	*	*	*	*	0	81
04:45	3	82	*	*	*	*	3	82
05:00	5	73	*	*	*	*	5	73
05:15	3	68	*	*	*	*	3	68
05:30	11	73	*	*	*	*	11	73
05:45	10	54	*	*	*	*	10	54
06:00	14	35	*	*	*	*	14	35
06:15	28	53	*	*	*	*	28	53
06:30	19	57	*	*	*	*	19	57
06:45	34	58	*	*	*	*	34	58
07:00	45	82	*	*	*	*	45	82
07:15	46	71	*	*	*	*	46	71
07:30	24	67	*	*	*	*	24	67
07:45	37	73	*	*	*	*	37	73
08:00	47	60	*	*	*	*	47	60
08:15	47	52	*	*	*	*	47	52
08:30	56	60	*	*	*	*	56	60
08:45	46	43	*	*	*	*	46	43
09:00	54	41	*	*	*	*	54	41
09:15	53	52	*	*	*	*	53	52
09:30	32	53	*	*	*	*	32	53
09:45	50	30	*	*	*	*	50	30
10:00	64	44	*	*	*	*	64	44
10:15	50	32	*	*	*	*	50	32
10:30	64	30	*	*	*	*	64	30
10:45	54	35	*	*	*	*	54	35
11:00	58	34	*	*	*	*	58	34
11:15	48	26	*	*	*	*	48	26
11:30	64	26	*	*	*	*	64	26
11:45	69	19	*	*	*	*	69	19
Total	1167	2863	61	0	0	0	1228	2863
Combined Total	4030		61		0		4091	
Peak	11:00	03:00	12:00				11:00	03:00
Vol.	239	331	41				239	331
P.H.F.	0.866	0.745	0.488				0.866	0.745
ADT	ADT 4,091		AADT 4,091					

DC Department of Transportation - Traffic Accident Reporting and Analysis System

Accident Summary Report (R-8)

Corridor: K ST,NW,NE From TWENTY FIFTH ST,NW TO TWENTY SEVENTH ST,NW

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

Prepared By: Rahul Jain

Prepared Date: 10/6/2013

Total Number of Accident:	37	Collision Type	#ACC	%	Collision Type	#ACC	%
Total Number of Fatalities:	0	Right Angle:	1	2.7%	Fixed Object:	3	8.1%
Total Number of Injuries:	11	Left Turn:	1	2.7%	Ran Off Road:	0	0.0%
Total Number of Disabling Injuries:	1	Right Turn:	2	5.4%	Ped. Involved:	1	2.7%
Total Number of NonDisabling Injuries:	1	Rear End:	18	48.6%	Backing:	0	0.0%
Total Number of Pedestrians Involved:	1	Side Swiped:	10	27.0%	Non Collision:	0	0.0%
Total Number of Bicycles Involved:	1	Head On:	0	0.0%	Under/Over Ride:	0	0.0%
Total Number of Motorcycles Involved:	1	Parked:	0	0.0%	Unspecified:	1	2.7%
Time of Day				#ACC	%	Day o fweek	
07:30 ~ 09:30:				2	5.4%	Sunday:	
09:30 ~ 11:30:				2	5.4%	Monday:	
11:30 ~ 13:30:				2	5.4%	Tuesday:	
13:30 ~ 16:00:				7	18.9%	Wednesday:	
16:00 ~18:30:				4	10.8%	Thursday:	
18:30 ~ 07:30:				20	54.1%	Friday:	
Unspecified:				0	0.0%	Saturday:	
Weather Condition				#ACC	%	Surface Condition	
Clear:				30	81.1%	Dry:	
Rain:				2	5.4%	Wet:	
Snow:				0	0.0%	Snow/Ice:	
Sleet/Hail:				0	0.0%	Slush:	
Fog/Mist:				2	5.4%	Water/Sand:	
Crosswind/Blowing Sand:				1	2.7%	Repairing:	
Unspecified:				2	5.4%	Unspecified:	
Type of Vehicle				#VEH	%	Accident Severity Type	
Passenger Car:				46	67.6%	Fatal Collision:	
Bus:				2	2.9%	Injury Collision:	
Truck:				3	4.4%	PDO Collision:	
Taxi:				11	16.2%		
Minivan:				0	0.0%	Light Condition	
Police/Emergency Vehicle:				0	0.0%	Daylight:	
Motorcycle/Moped:				1	1.5%	Dawn/Dusk:	
Bicycle:				1	1.5%	Dark(Lighted):	
Fixed Object:				0	0.0%	Dark(Not Lighted):	
Unspecified:				4	5.9%	Dark(Unknown Lighting):	
						Unspecified:	
Contributing Factor				#VEH	%	Pedestrian Actions	
Driver: Speed:				0	0.0%	In Crosswalk with Signal:	
Driver: Alcohol/Drug:				2	2.9%	In Crosswalk against Signal:	
Driver: Electronic Device:				0	0.0%	In Crosswalk no Signal:	
Driver: Others:				11	16.2%	In Unmarked Crosswalk:	
Vehicle:				0	0.0%	Not in Crosswalk:	
Roadway:				2	2.9%	From Between Parked Cars:	
Unspecified:				53	77.9%	Unspecified:	

21 Records are not approved as of 10/6/2013 11:54:50 AM