



District Department of Transportation

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

### 44th Street and Brooks Street NE

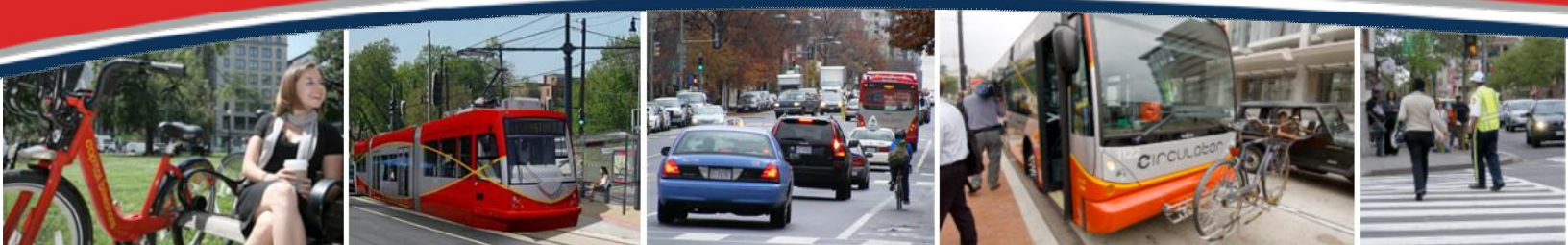
#### Study Area and Location

District	PSA	Ward	ANC	Phase	Description
6	602	7	7D	Proposed	44 <sup>th</sup> Street and Brooks Street Northeast, Westbound and Eastbound



This *proposed* speed camera will be located in Ward 7 at the intersection of 44<sup>th</sup> Street and Brooks Street Northeast in the westbound and eastbound directions. Existing 44<sup>th</sup> Street runs between Lee Street Northeast to the north and Benning Road Northeast to the south. The posted speed limit is 25 MPH.

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District Department of Transportation

## 44th Street and Brooks Street NE

### Field Assessment Summary

44th Street Northeast is assumed to run in a north-south direction, and is classified as a collector. 44th Street Northeast has one lane in each direction. Brooks Street has one travel lane in each direction on the east leg and one travel lane in the westbound direction on the west leg. This site has the following characteristics:

- This is a residential area with houses and driveways.
- There are three schools in the area: Smothers Elementary School, Kelly Miller Middle School and Aiton Elementary School. There is also a Boys and Girls Club of America in the area.
- There are several bus stops as well as a Metrorail station close to the site which generate pedestrian activity.
- There is sidewalk and on-street parking on both sides and crosswalks on all four legs of the intersection.
- The intersection is stop-controlled.



Looking Northbound





District Department of Transportation

## 44th Street and Brooks Street NE



Looking Southbound

### Speed Data Analysis

	Eastbound	Westbound
Posted Speed Limit (MPH)	25	25
Mean Speed (MPH)	22	23
85th Percentile Speed (MPH)	27	30
10 MPH Pace Speed	20-29	21-30
Sample Size	3,564	3,587
ADT	7,151	

The mean speed is lower than the posted speed limit in both directions and the 85<sup>th</sup> percentile speed is higher in both directions 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 6 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 type of collision at this location was Right Angle (4 crashes). The other collision types had one crash or less each.

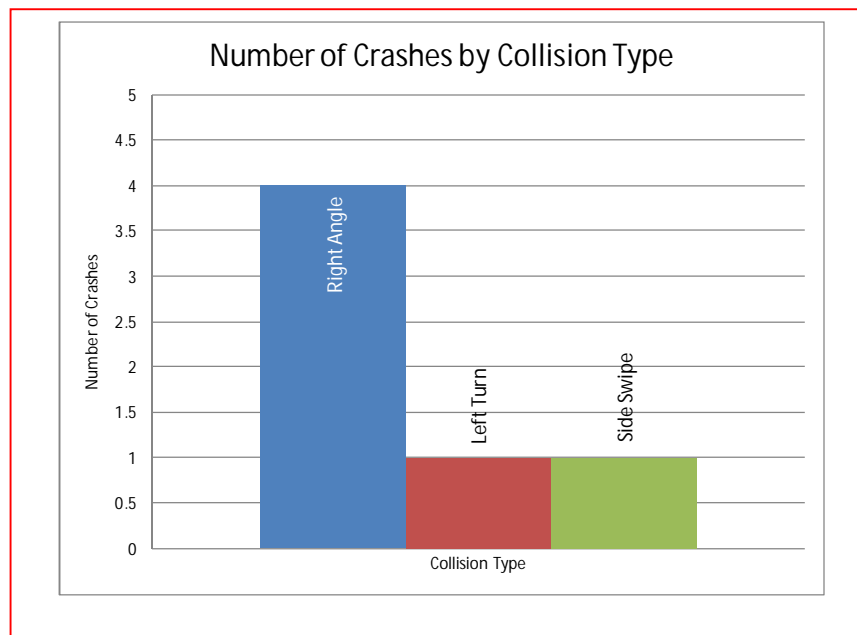
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District Department of Transportation

## 44th Street and Brooks Street NE

Severity			Weather			Surface condition			Light Condition		
Total	6										
Fatal	0	0.0%	Clear	6	100.0%	Dry	6	100.0%	Day	3	50.0%
Injury	2	33.3%	Rain	0	0.0%	Wet	0	0.0%	Night	2	33.3%
Bus	1	16.7%	Snow	0	0.0%	Snow/Ice	0	0.0%			
Taxi	1	16.7%									



### 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 85<sup>th</sup> percentile speed in both directions are 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.
3. Field Assessment – The following site characteristics suggest a need for a safer travel environment:
  - a. This is a residential area with houses and driveways.
  - b. There are three schools in the area: Smothers Elementary School, Kelly Miller Middle School and Aiton Elementary School.
  - c. There is a Boys and Girls Club of America in the area.

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## 44th Street and Brooks Street NE

- d. There are several bus stops as well as a Metro stop in the area which generate pedestrian activity.
- e. There is on-street parking on both sides of the street on all four legs.

Although the crash data analysis showed a low number of crashes at this location, due to the speed data analysis, the specific site characteristics, the proximity of schools to the site, and other 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](http://www.sammateng.com)

## 44th St and Brooks St, NE Speed

EB

Start Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total
11/23/13	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	2	3	19	10	0	0	0	0	0	0	0	0	0	0	34
02:00	0	9	17	13	6	0	0	0	0	0	0	0	0	0	45
03:00	0	3	13	13	1	0	0	0	0	0	0	0	0	0	30
04:00	0	4	16	14	5	0	0	0	0	0	0	0	0	0	39
05:00	2	2	25	13	2	0	0	0	0	0	0	0	0	0	44
06:00	3	4	26	28	3	0	0	0	0	0	0	0	0	0	64
07:00	7	16	34	37	6	1	0	0	0	0	0	0	0	0	101
08:00	8	12	70	50	11	1	0	0	0	0	0	0	0	0	152
09:00	6	28	93	57	4	0	0	0	0	0	0	0	0	0	188
10:00	9	20	137	56	9	1	0	0	0	0	0	0	0	0	232
11:00	19	26	88	62	5	0	0	0	0	0	0	0	0	0	200
12 PM	10	34	129	53	8	0	0	0	0	0	0	0	0	0	234
13:00	17	16	107	83	7	0	0	0	0	0	0	0	0	0	230
14:00	14	30	115	74	10	1	0	0	0	0	0	0	0	0	244
15:00	14	37	141	49	5	2	1	0	0	0	0	0	0	0	249
16:00	11	38	133	51	4	1	0	0	0	0	0	0	0	0	238
17:00	10	27	121	43	1	0	0	0	0	0	0	0	0	0	202
18:00	14	39	125	45	1	0	0	0	0	0	0	0	0	0	224
19:00	11	22	105	58	3	0	0	0	0	0	0	0	0	0	199
20:00	8	18	84	35	3	0	0	0	0	0	0	0	0	0	148
21:00	6	27	80	34	2	1	0	0	0	0	0	0	0	0	150
22:00	9	13	57	41	3	0	0	0	0	0	0	0	0	0	123
23:00	2	9	46	31	8	3	0	0	0	0	0	0	0	0	99
Total	182	437	1781	950	107	11	1	0	0	0	0	0	0	0	3469

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## 44th St and Brooks St, NE Speed

EB

Start Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total
11/24/13	38	0	37	0	0	0	0	0	0	0	0	0	0	0	75
01:00	10	0	10	0	0	0	0	0	0	0	0	0	0	0	20
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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	48	0	47	0	0	0	0	0	0	0	0	0	0	0	95
Grand Total	230	437	1828	950	107	11	1	0	0	0	0	0	0	0	3564

15th Percentile : 14 MPH  
 50th Percentile : 22 MPH  
 85th Percentile : 27 MPH  
 95th Percentile : 30 MPH

Stats  
 Mean Speed(Average) : 22 MPH  
 10 MPH Pace Speed : 20-29 MPH  
 Number in Pace : 2324  
 Percent in Pace : 65.2%  
 Number of Vehicles > 25 MPH : 1055  
 Percent of Vehicles > 25 MPH : 29.6%

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## 44th St and Brooks St, NE Speed

WB

Start Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total
11/23/13	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	1	1	6	20	12	5	1	0	0	0	0	0	0	0	46
02:00	0	1	17	17	11	3	0	0	1	0	0	0	0	0	50
03:00	1	1	8	16	9	3	1	1	0	0	0	0	0	0	40
04:00	0	3	3	15	9	1	0	0	0	0	0	0	0	0	31
05:00	2	2	10	8	6	6	0	0	0	0	0	0	0	0	34
06:00	1	5	15	22	13	3	0	0	0	0	0	0	0	0	59
07:00	4	3	24	33	18	8	3	0	0	0	0	0	0	0	93
08:00	6	4	36	51	19	2	6	0	0	0	0	0	0	0	124
09:00	8	6	46	61	34	7	1	0	1	0	0	0	0	0	164
10:00	7	31	53	66	25	8	1	0	0	0	0	0	0	0	191
11:00	31	30	74	56	20	8	0	0	0	0	0	0	0	0	219
12 PM	28	42	82	57	30	5	0	0	0	0	0	0	0	0	244
13:00	6	26	86	100	27	9	0	0	0	0	0	0	0	0	254
14:00	18	19	98	80	22	4	0	0	0	0	0	0	0	0	241
15:00	14	32	72	62	31	6	1	0	0	0	0	0	0	0	218
16:00	15	32	86	72	23	5	1	0	0	0	0	0	0	0	234
17:00	14	19	71	77	21	7	0	1	0	0	0	0	0	0	210
18:00	15	14	61	70	28	11	0	0	0	0	0	0	0	0	199
19:00	17	16	70	74	18	4	1	0	0	0	0	0	0	0	200
20:00	17	8	41	55	18	5	1	0	0	0	0	0	0	0	145
21:00	7	7	43	52	14	4	1	0	0	0	0	0	0	0	128
22:00	8	14	51	61	16	4	0	0	1	0	0	0	0	0	155
23:00	4	2	26	47	24	9	5	1	0	0	0	0	0	0	118
Total	224	318	1079	1172	448	127	23	3	3	0	0	0	0	0	3397



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WB

Start Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total
11/24/13	75	0	38	37	0	0	0	0	0	0	0	0	0	0	150
01:00	20	0	10	10	0	0	0	0	0	0	0	0	0	0	40
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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	95	0	48	47	0	0	0	0	0	0	0	0	0	0	190
Grand Total	319	318	1127	1219	448	127	23	3	3	0	0	0	0	0	3587

15th Percentile : 12 MPH  
 50th Percentile : 24 MPH  
 85th Percentile : 30 MPH  
 95th Percentile : 34 MPH

Stats  
 Mean Speed(Average) : 23 MPH  
 10 MPH Pace Speed : 21-30 MPH  
 Number in Pace : 1933  
 Percent in Pace : 53.9%  
 Number of Vehicles > 25 MPH : 1624  
 Percent of Vehicles > 25 MPH : 45.3%

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MOUNT AIRY, MD 21771

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

## 44th St and Brooks St, NE Volume

Start Time	23-Nov-13		EB		WB		Combined		24-Nov-Sun	EB		WB		Combined	
	Sat		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	*		* 55		* 66		* 121			15	*	30	*	45	*
12:15	*		* 62		* 59		* 121			20	*	40	*	60	*
12:30	*		* 61		* 60		* 121			20	*	40	*	60	*
12:45	*		* 56		* 59		* 115			20	*	40	*	60	*
01:00	*		* 66		* 70		* 136			20	*	40	*	60	*
01:15	9		54		10 83		19 137			*	*	*	*	*	*
01:30	13		63		17 48		30 111			*	*	*	*	*	*
01:45	12		47		19 53		31 100			*	*	*	*	*	*
02:00	13		69		15 68		28 137			*	*	*	*	*	*
02:15	10		52		13 64		23 116			*	*	*	*	*	*
02:30	14		64		9 49		23 113			*	*	*	*	*	*
02:45	8		59		13 60		21 119			*	*	*	*	*	*
03:00	12		58		10 53		22 111			*	*	*	*	*	*
03:15	4		48		10 51		14 99			*	*	*	*	*	*
03:30	6		79		10 60		16 139			*	*	*	*	*	*
03:45	8		64		10 54		18 118			*	*	*	*	*	*
04:00	12		72		11 63		23 135			*	*	*	*	*	*
04:15	8		57		6 55		14 112			*	*	*	*	*	*
04:30	10		49		12 62		22 111			*	*	*	*	*	*
04:45	9		60		2 54		11 114			*	*	*	*	*	*
05:00	7		53		7 53		14 106			*	*	*	*	*	*
05:15	16		49		9 70		25 119			*	*	*	*	*	*
05:30	10		60		11 42		21 102			*	*	*	*	*	*
05:45	11		40		7 45		18 85			*	*	*	*	*	*
06:00	11		66		9 49		20 115			*	*	*	*	*	*
06:15	13		53		12 54		25 107			*	*	*	*	*	*
06:30	26		51		21 45		47 96			*	*	*	*	*	*
06:45	14		54		17 51		31 105			*	*	*	*	*	*
07:00	14		42		13 56		27 98			*	*	*	*	*	*
07:15	28		52		23 53		51 105			*	*	*	*	*	*
07:30	31		55		20 45		51 100			*	*	*	*	*	*
07:45	28		50		37 46		65 96			*	*	*	*	*	*
08:00	36		46		26 28		62 74			*	*	*	*	*	*
08:15	34		31		39 35		73 66			*	*	*	*	*	*
08:30	42		32		26 46		68 78			*	*	*	*	*	*
08:45	40		39		33 36		73 75			*	*	*	*	*	*
09:00	46		44		45 34		91 78			*	*	*	*	*	*
09:15	51		38		50 32		101 70			*	*	*	*	*	*
09:30	51		36		30 27		81 63			*	*	*	*	*	*
09:45	40		32		39 35		79 67			*	*	*	*	*	*
10:00	43		30		38 52		81 82			*	*	*	*	*	*
10:15		66	32		47 34		113 66			*	*	*	*	*	*
10:30		56	27		52 34		108 61			*	*	*	*	*	*
10:45		67	34		54 35		121 69			*	*	*	*	*	*
11:00		44	33		59 34		103 67			*	*	*	*	*	*
11:15		52	24		53 36		105 60			*	*	*	*	*	*
11:30		55	21		56 31		111 52			*	*	*	*	*	*
11:45		49	21		51 17		100 38			*	*	*	*	*	*

Total	1129	2340	1051	2346	2180	4686	95	0	190	0	285	0
Day Total	3469		3397		6866		95	95	190	190	285	285
% Total	16.4%	34.1%	15.3%	34.2%			33.3%	0.0%	66.7%	0.0%		
Peak Vol.	10:15	03:30	10:45	00:30	10:15	00:30	00:15	00:15	00:15	00:15	00:15	00:15
P.H.F.	233	272	222	272	445	509	80	160	160	240	240	240
	0.869	0.861	0.941	0.819	0.919	0.929	1.000	1.000	1.000	1.000	1.000	1.000

ADT                      ADT 7,151                      AADT 7,151

## Accident Summary Report (R-8)

**Corridor:** BROOKS ST,NE From FORTY SECOND ST,NE TO FORTY FIFTH ST,NE

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

**Prepared By:** Rahul Jain

**Prepared Date:** 11/25/2012

Total Number of Accident:	6	<b>Collision Type</b>	<b>#ACC</b>	<b>%</b>	<b>Collision Type</b>	<b>#ACC</b>	<b>%</b>
Total Number of Fatalities:	0	Right Angle:	4	66.7%	Fixed Object:	0	0.0%
Total Number of Injuries:	7	Left Turn:	1	16.7%	Ran Off Road:	0	0.0%
Total Number of Disabling Injuries:	0	Right Turn:	0	0.0%	Ped. Involved:	0	0.0%
Total Number of NonDisabling Injuries:	0	Rear End:	0	0.0%	Backing:	0	0.0%
Total Number of Pedestrians Involved:	0	Side Swiped:	1	16.7%	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:	0	0.0%	Unspecified:	0	0.0%
<b>Time of Day</b>				<b>#ACC</b>	<b>%</b>	<b>Day of week</b>	
07:30 ~ 09:30:				0	0.0%	Sunday:	
09:30 ~ 11:30:				1	16.7%	Monday:	
11:30 ~ 13:30:				0	0.0%	Tuesday:	
13:30 ~ 16:00:				2	33.3%	Wednesday:	
16:00 ~ 18:30:				0	0.0%	Thursday:	
18:30 ~ 07:30:				3	50.0%	Friday:	
Unspecified:				0	0.0%	Saturday:	
<b>Weather Condition</b>				<b>#ACC</b>	<b>%</b>	<b>Surface Condition</b>	
Clear:				6	100.0%	Dry:	
Rain:				0	0.0%	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:				0	0.0%	Unspecified:	
<b>Type of Vehicle</b>				<b>#VEH</b>	<b>%</b>	<b>Accident Severity Type</b>	
Passenger Car:				9	69.2%	Fatal Collision:	
Bus:				1	7.7%	Injury Collision:	
Truck:				0	0.0%	PDO Collision:	
Taxi:				1	7.7%	<b>Light Condition</b>	
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:				2	15.4%	Unspecified:	
<b>Contributing Factor</b>				<b>#VEH</b>	<b>%</b>	<b>Pedestrian Actions</b>	
Driver: Speed:				0	0.0%	In Crosswalk with Signal:	
Driver: Alcohol/Drug:				0	0.0%	In Crosswalk against Signal:	
Driver: Electronic Device:				0	0.0%	In Crosswalk no Signal:	
Driver: Others:				0	0.0%	In Unmarked Crosswalk:	
Vehicle:				0	0.0%	Not in Crosswalk:	
Roadway:				2	15.4%	From Between Parked Cars:	
Unspecified:				11	84.6%	Unspecified:	

5 Records are not approved as of 11/25/2013 1:39:01 PM