



District Department of Transportation

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

### 5200 Block Southern Avenue SE SW/B

### Study Area and Location

District	PSA	Ward	ANC	Phase	Description
7	606	7	7B	Proposed	5200 Block Southern Avenue Southeast, Southwest-bound



The *proposed* speed camera will be located in Ward 7 at the 5200 block of Southern Avenue Southeast in the southwest-bound direction. Southern Avenue runs between Eastern Avenue Northeast to the north and South Capitol Street Southwest to the south. The posted speed limit is 30 MPH.

W7 - 512





District Department of Transportation

5200 Block Southern Avenue SE SW/B

## Field Assessment Summary

Southern Avenue is assumed to run in a northeast-southwest direction, and is classified as a minor arterial. Southern Avenue has two travel lanes in each direction. This site has the following characteristics:

- This is a residential area with houses and driveways.
- Benning Park Recreation Center is in the area and generates pedestrian activity.
- There are several bus stops in the area that generate pedestrian activity.
- There are sidewalks and on-street parking on both sides of the street and a crosswalk with an in-street pedestrian crossing sign at H Street and Gunther Street.
- The pavement is in fair condition and there is curb and gutter with drainage inlets. There is a slope downgrade southwest-bound.



Looking Northeast-bound

W7 - 513



District Department of Transportation

5200 Block Southern Avenue SE SW/B



Looking Southwest-bound

## Speed Data Analysis

	NE	SW
Posted Speed Limit (MPH)	30	30
Mean Speed (MPH)	30	28
85th Percentile Speed (MPH)	36	35
10 MPH Pace Speed	27-36	26-35
Sample Size	6,714	7,358
ADT	14,072	

In the southwest direction, the mean speed is lower than the posted speed limit by 2 MPH and the 85<sup>th</sup> percentile speed is higher than the posted speed limit by 5 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 17 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 (4 crashes), Side Swipe and Parked (3 crashes each), and Right Angle (2 crashes). The other collision types had 1

W7 - 514

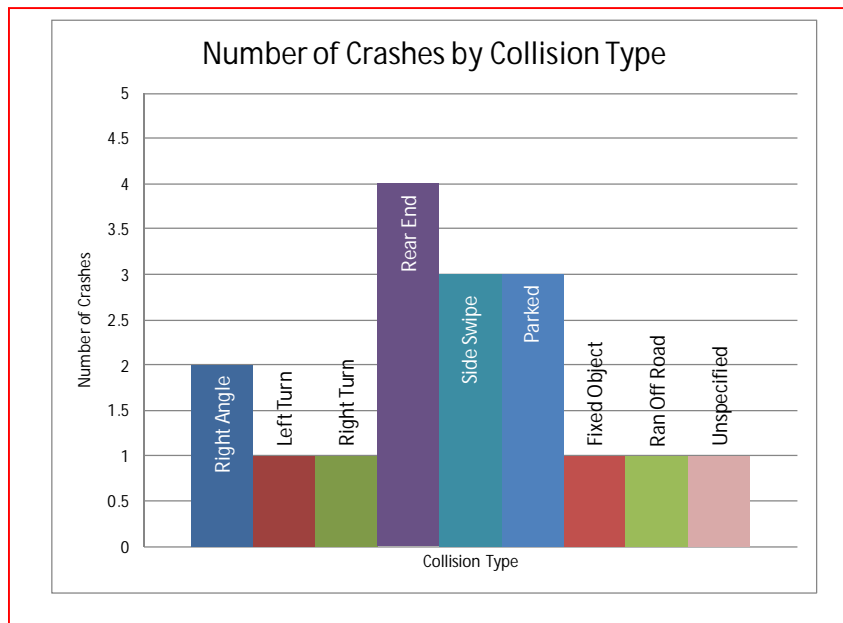


District Department of Transportation

5200 Block Southern Avenue SE SW/B

crash or less each. There was 1 crash where vehicular speeding was the contributing factor. Furthermore, the site experienced 8 injury-related crashes.

Severity			Weather			Surface condition			Light Condition		
Total	17										
Fatal	0	0.0%	Clear	13	76.5%	Dry	13	76.5%	Day	8	47.1%
Injury	8	47.1%	Rain	3	17.6%	Wet	3	17.6%	Night	7	41.2%
Truck	3	17.6%	Snow	0	0.0%	Snow/Ice	0	0.0%			
Bus	1	5.9%									



## 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 is higher than the posted speed limit at this location.
2. Crash Data – The site experienced 8 injury-related crashes. There was also 1 crash where vehicular speeding was the contributing factor.
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. Benning Park Recreation Center is in the area which generates pedestrian and bicycle activity.

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District Department of Transportation

5200 Block Southern Avenue SE SW/B

- 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.

Due to the speed data analysis, the elevated 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.

W7 - 516

# SAMMAT ENGINEERING SERVICES, LLC

1515 RISING RIDGE ROAD  
MOUNT AIRY, MD 21771

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

## 5200 Block of Southern Ave SE 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
11/21/13	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
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	9	2	8	46	55	28	18	1	0	0	1	0	0	0	168
23:00	1	0	7	29	65	35	12	3	0	0	0	0	1	0	153
Total	10	2	15	75	120	63	30	4	0	0	1	0	1	0	321

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## 5200 Block of Southern Ave SE Speed

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total
	15	20	25	30	35	40	45	50	55	60	65	70	75	999	
11/22/13	4	2	11	25	23	21	5	3	1	0	0	0	0	0	95
01:00	0	3	8	21	14	3	2	0	0	0	0	0	0	0	51
02:00	0	1	7	18	10	3	3	0	0	0	0	0	0	0	42
03:00	1	1	3	8	15	8	5	0	0	1	1	1	0	0	44
04:00	0	0	1	9	20	12	5	2	0	0	0	0	0	0	49
05:00	2	2	3	24	30	28	13	2	0	0	0	0	0	0	104
06:00	9	1	12	38	59	40	27	5	1	0	0	0	0	0	192
07:00	26	4	39	108	143	63	17	4	0	0	0	0	0	0	404
08:00	14	10	14	87	126	69	26	1	3	1	0	0	0	0	351
09:00	14	0	18	96	116	48	9	11	0	0	0	0	0	0	312
10:00	8	5	23	81	113	67	10	4	0	0	0	0	0	0	311
11:00	10	1	18	74	100	50	20	7	1	0	0	0	0	0	281
12 PM	13	2	39	82	144	34	17	2	1	0	0	0	0	0	334
13:00	19	4	25	89	148	76	23	3	0	0	0	0	0	0	387
14:00	15	4	13	74	117	86	27	4	1	0	0	0	0	0	341
15:00	25	11	22	129	168	80	30	2	0	0	0	0	0	0	467
16:00	35	8	81	150	158	51	10	3	1	0	0	0	0	0	497
17:00	48	9	75	203	153	43	14	0	0	0	0	0	0	0	545
18:00	31	8	64	163	151	49	8	1	1	2	0	0	0	0	478
19:00	21	3	37	167	149	43	15	2	0	0	0	0	0	0	437
20:00	64	3	32	72	121	42	12	1	0	0	0	0	0	0	347
21:00	18	2	28	110	110	45	9	2	0	0	0	0	0	0	324
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	377	84	573	1828	2188	961	307	59	10	4	1	1	0	0	6393
Grand Total	387	86	588	1903	2308	1024	337	63	10	4	2	1	1	0	6714

15th Percentile : 21 MPH  
 50th Percentile : 30 MPH  
 85th Percentile : 36 MPH  
 95th Percentile : 41 MPH

Stats  
 Mean Speed(Average) : 30 MPH  
 10 MPH Pace Speed : 27-36 MPH  
 Number in Pace : 3735  
 Percent in Pace : 55.6%  
 Number of Vehicles > 30 MPH : 3517  
 Percent of Vehicles > 30 MPH : 52.4%

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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
11/21/13	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
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	19	4	16	73	69	20	0	1	1	0	1	0	0	0	204
23:00	4	4	15	47	57	20	10	1	0	0	0	0	0	0	158
Total	23	8	31	120	126	40	10	2	1	0	1	0	0	0	362



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Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total
	15	20	25	30	35	40	45	50	55	60	65	70	75	999	
11/22/13	2	5	9	40	26	10	5	3	0	0	0	0	0	0	100
01:00	0	1	7	18	17	5	1	0	1	0	0	0	0	0	50
02:00	0	1	7	13	11	5	1	1	1	0	0	0	0	0	40
03:00	0	1	8	9	6	4	5	0	0	0	1	0	0	0	34
04:00	1	1	5	13	10	7	4	1	0	0	0	0	0	0	42
05:00	4	2	10	34	46	19	11	2	0	0	0	0	0	0	128
06:00	4	2	14	63	64	50	12	3	0	0	0	0	1	0	213
07:00	27	5	24	127	184	78	20	0	1	0	0	0	0	0	466
08:00	23	6	44	122	150	74	15	3	1	0	0	0	0	0	438
09:00	14	7	45	141	107	36	9	1	0	0	0	0	0	0	360
10:00	13	6	29	116	94	46	8	6	0	0	0	0	0	0	318
11:00	16	3	24	110	116	49	9	4	3	1	0	0	0	0	335
12 PM	22	13	56	118	118	46	14	2	1	0	0	0	0	0	390
13:00	15	9	23	98	135	53	13	1	1	0	0	1	0	0	349
14:00	25	11	48	158	128	57	11	2	0	0	0	0	0	0	440
15:00	19	6	53	195	162	56	13	2	1	0	1	0	0	0	508
16:00	61	5	69	234	176	32	4	0	0	0	0	0	0	0	581
17:00	39	8	119	254	127	19	1	0	0	0	0	0	0	0	567
18:00	42	14	118	249	102	14	3	2	0	0	0	0	0	0	544
19:00	20	11	84	204	119	24	3	0	0	1	0	0	0	0	466
20:00	19	6	43	125	89	26	1	1	0	0	0	0	0	0	310
21:00	27	1	42	137	90	18	1	1	0	0	0	0	0	0	317
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	393	124	881	2578	2077	728	164	35	10	2	2	1	1	0	6996
Grand Total	416	132	912	2698	2203	768	174	37	11	2	3	1	1	0	7358

15th Percentile : 21 MPH  
 50th Percentile : 28 MPH  
 85th Percentile : 35 MPH  
 95th Percentile : 39 MPH

Stats  
 Mean Speed(Average) : 28 MPH  
 10 MPH Pace Speed : 26-35 MPH  
 Number in Pace : 4283  
 Percent in Pace : 58.2%  
 Number of Vehicles > 30 MPH : 3092  
 Percent of Vehicles > 30 MPH : 42.0%

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## 5200 Block of Southern Ave SE Volume

Start Time	21-Nov-13			NEB			SWB			Combined			22-Nov-			NEB			SWB			Combined		
	Thu	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	Fri	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	*	*	*	*	*	*	*	*	*		31	76	20	71	51	147								
12:15	*	*	*	*	*	*	*	*	*		26	79	32	114	58	193								
12:30	*	*	*	*	*	*	*	*	*		16	85	24	113	40	198								
12:45	*	*	*	*	*	*	*	*	*		22	94	24	92	46	186								
01:00	*	*	*	*	*	*	*	*	*		13	107	12	83	25	190								
01:15	*	*	*	*	*	*	*	*	*		15	99	7	91	22	190								
01:30	*	*	*	*	*	*	*	*	*		12	84	17	87	29	171								
01:45	*	*	*	*	*	*	*	*	*		11	97	14	88	25	185								
02:00	*	*	*	*	*	*	*	*	*		12	85	12	112	24	197								
02:15	*	*	*	*	*	*	*	*	*		11	87	11	110	22	197								
02:30	*	*	*	*	*	*	*	*	*		12	78	8	108	20	186								
02:45	*	*	*	*	*	*	*	*	*		7	91	9	110	16	201								
03:00	*	*	*	*	*	*	*	*	*		10	101	8	111	18	212								
03:15	*	*	*	*	*	*	*	*	*		10	116	9	122	19	238								
03:30	*	*	*	*	*	*	*	*	*		13	124	10	140	23	264								
03:45	*	*	*	*	*	*	*	*	*		11	126	7	135	18	261								
04:00	*	*	*	*	*	*	*	*	*		9	116	7	153	16	269								
04:15	*	*	*	*	*	*	*	*	*		13	119	8	150	21	269								
04:30	*	*	*	*	*	*	*	*	*		10	151	17	142	27	293								
04:45	*	*	*	*	*	*	*	*	*		17	111	10	136	27	247								
05:00	*	*	*	*	*	*	*	*	*		15	145	20	131	35	276								
05:15	*	*	*	*	*	*	*	*	*		35	123	28	159	63	282								
05:30	*	*	*	*	*	*	*	*	*		23	132	45	133	68	265								
05:45	*	*	*	*	*	*	*	*	*		31	145	35	144	66	289								
06:00	*	*	*	*	*	*	*	*	*		48	115	35	138	83	253								
06:15	*	*	*	*	*	*	*	*	*		39	116	48	125	87	241								
06:30	*	*	*	*	*	*	*	*	*		53	120	56	143	109	263								
06:45	*	*	*	*	*	*	*	*	*		52	127	74	138	126	265								
07:00	*	*	*	*	*	*	*	*	*		92	137	111	112	203	249								
07:15	*	*	*	*	*	*	*	*	*		85	101	97	133	182	234								
07:30	*	*	*	*	*	*	*	*	*		104	96	123	121	227	217								
07:45	*	*	*	*	*	*	*	*	*		123	103	135	100	258	203								
08:00	*	*	*	*	*	*	*	*	*		97	82	118	78	215	160								
08:15	*	*	*	*	*	*	*	*	*		85	108	129	60	214	168								
08:30	*	*	*	*	*	*	*	*	*		89	73	95	85	184	158								
08:45	*	*	*	*	*	*	*	*	*		80	84	96	87	176	171								
09:00	*	*	*	*	*	*	*	*	*		68	84	99	81	167	165								
09:15	*	*	*	*	*	*	*	*	*		64	81	75	86	139	167								
09:30	*	*	*	*	*	*	*	*	*		80	90	100	81	180	171								
09:45	*	*	*	*	*	*	*	*	*		100	69	86	69	186	138								
10:00	*	49	*	*	67	*	116	*	*		80	*	93	*	173	*								
10:15	*	38	*	*	55	*	93	*	*		80	*	75	*	155	*								
10:30	*	44	*	*	49	*	93	*	*		86	*	75	*	161	*								
10:45	*	37	*	*	33	*	70	*	*		65	*	75	*	140	*								
11:00	*	36	*	*	40	*	76	*	*		68	*	68	*	136	*								
11:15	*	40	*	*	43	*	83	*	*		65	*	86	*	151	*								
11:30	*	40	*	*	34	*	74	*	*		72	*	93	*	165	*								
11:45	*	37	*	*	41	*	78	*	*		76	*	88	*	164	*								
Total	0	321	0	362	0	683	2236	4157	2524	4472	4760	8629												
Day Total	0.0%	321	0.0%	362	0.0%	683	6393	6996	13389															
% Total	0.0%	47.0%	0.0%	53.0%	0.0%	16.7%	31.0%	18.9%	33.4%															
Peak		10:00		10:00		10:00	07:15	05:00	07:30	04:00	07:30	05:00												
Vol.		168		204		372	409	545	505	581	914	1112												
P.H.F.		0.857		0.761		0.802	0.831	0.940	0.935	0.949	0.886	0.962												

ADT                      ADT 14,072                      AADT 14,072

DC Department of Transportation - Traffic Accident Reporting and Analysis System

## Accident Summary Report (R-8)

**Corridor:** SOUTHERN AVE,NE,SE From GUNTHER ST,SE TO FIFTY FIRST ST,SE

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

**Prepared By:** Rahul Jain

**Prepared Date:** 9/15/2013

Total Number of Accident:	17	<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:	2	11.8%	Fixed Object:	1	5.9%
Total Number of Injuries:	10	Left Turn:	1	5.9%	Ran Off Road:	1	5.9%
Total Number of Disabling Injuries:	0	Right Turn:	1	5.9%	Ped. Involved:	0	0.0%
Total Number of NonDisabling Injuries:	1	Rear End:	4	23.5%	Backing:	0	0.0%
Total Number of Pedestrians Involved:	0	Side Swiped:	3	17.6%	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	17.6%	Unspecified:	1	5.9%
<b>Time of Day</b>				<b>Day o fweek</b>			
	<b>#ACC</b>	<b>%</b>			<b>#ACC</b>	<b>%</b>	
07:30 ~ 09:30:	1	5.9%		Sunday:	4	23.5%	
09:30 ~ 11:30:	3	17.6%		Monday:	0	0.0%	
11:30 ~ 13:30:	1	5.9%		Tuesday:	3	17.6%	
13:30 ~ 16:00:	2	11.8%		Wednesday:	4	23.5%	
16:00 ~18:30:	2	11.8%		Thursday:	0	0.0%	
18:30 ~ 07:30:	8	47.1%		Friday:	4	23.5%	
Unspecified:	0	0.0%		Saturday:	2	11.8%	
<b>Weather Condition</b>				<b>Surface Condition</b>			
	<b>#ACC</b>	<b>%</b>			<b>#ACC</b>	<b>%</b>	
Clear:	13	76.5%		Dry:	13	76.5%	
Rain:	3	17.6%		Wet:	3	17.6%	
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:	1	5.9%		Unspecified:	1	5.9%	
<b>Type of Vehicle</b>				<b>Accident Severity Type</b>			
	<b>#VEH</b>	<b>%</b>			<b>#ACC</b>	<b>%</b>	
Passenger Car:	31	88.6%		Fatal Collision:	0	0.0%	
Bus:	1	2.9%		Injury Collision:	8	47.1%	
Truck:	3	8.6%		PDO Collision:	9	52.9%	
Taxi:	0	0.0%		<b>Light Condition</b>			
Minivan:	0	0.0%			<b>#ACC</b>	<b>%</b>	
Police/Emergency Vehicle:	0	0.0%		Daylight:	8	47.1%	
Motorcycle/Moped:	0	0.0%		Dawn/Dusk:	1	5.9%	
Bicycle:	0	0.0%		Dark(Lighted):	7	41.2%	
Fixed Object:	0	0.0%		Dark(Not Lighted):	0	0.0%	
Unspecified:	0	0.0%		Dark(Unknown Lighting):	0	0.0%	
				Unspecified:	1	5.9%	
<b>Contributing Factor</b>				<b>Pedestrian Actions</b>			
	<b>#VEH</b>	<b>%</b>			<b>#ACC</b>	<b>%</b>	
Driver: Speed:	1	2.9%		In Crosswalk with Signal:	0	0.0%	
Driver: Alcohol/Drug:	2	5.7%		In Crosswalk against Signal:	0	0.0%	
Driver: Electronic Device:	0	0.0%		In Crosswalk no Signal:	0	0.0%	
Driver: Others:	4	11.4%		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:	28	80.0%		Unspecified:	0	0.0%	

10 Records are not approved as of 9/15/2013 2:29:08 PM