



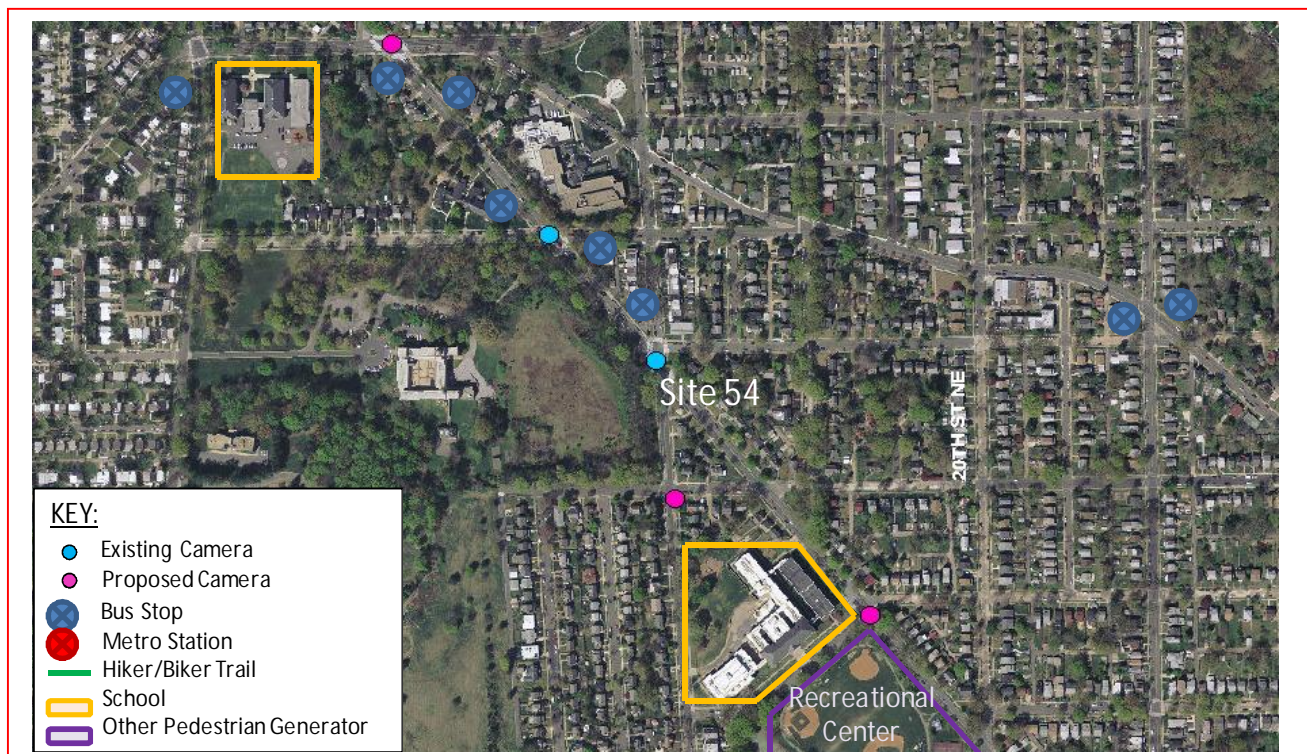
District Department of Transportation

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

4100 Block South Dakota Avenue NE

Study Area and Location

District	PSA	Ward	ANC	Phase	Description
5	504	5	5A	Existing	4100 Block South Dakota Avenue Southeast Bound



This existing speed camera location is located in Ward 5 the 4100 block of South Dakota Avenue Northeast in the southeast-bound direction. South Dakota Avenue runs between Riggs Road Northeast to the North and New York Avenue Northeast to the south. The posted speed limit is 25 MPH. The speed camera was installed on October 2002.

W5 - 87





District Department of Transportation

4100 Block South Dakota Avenue NE

Field Assessment Summary

South Dakota Avenue is assumed to run in the northwest-southeast direction, and is classified as a principal arterial. South Dakota Avenue has two travel lanes in each direction. This site has the following characteristics:

- This is a residential area with driveways.
- There are three schools in the area: Perry Street Preparatory School, Howard University- School of Divinity and Bunker Hill Elementary School.
- Taft Recreation Center is also in the area.
- There is sidewalk on both sides of the street and crosswalks at 18th Street and Taylor Street.
- There are traffic signals and pedestrian signals at 18th Street and Taylor Street.
- The pavement is in good condition and the drainage type is curb and gutter with drainage inlets. There is a slope upgrade in the northeast-bound direction.
- There are bus stops northwest-bound after 18th Street and before Taylor Street. There is a bus stop southeast-bound before 18th Street.



Looking Northbound



District Department of Transportation

4100 Block South Dakota Avenue NE



Looking Southbound

Speed Data Analysis

Posted Speed Limit (MPH)	25
Mean Speed (MPH)	9
85th Percentile Speed (MPH)	12
10 MPH Pace Speed (MPH)	4-13
ADT	5,764

The mean speed is lower than the posted speed limit by 16 MPH and the 85th percentile speed is lower than the posted speed by 13 MPH at this location.

Crash Data Analysis

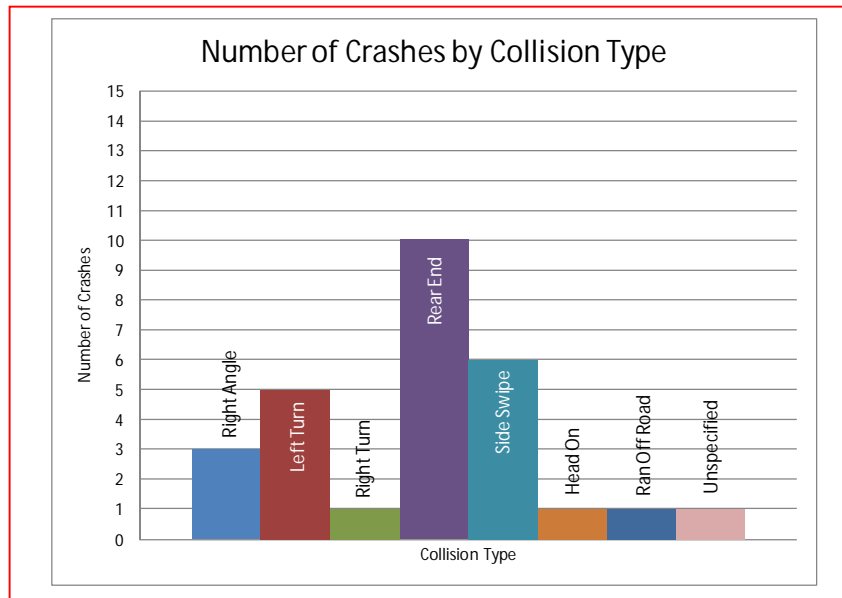
From the Accident Summary Report provided for the dates between January 1, 2010 and December 31, 2012, there were a total of 28 crashes at this location. A breakdown of collision type can be found in the chart on the next page. The most common types of collision at this location were Rear End (10 crashes) and Side Swipe (6 crashes). The other collision types had five crashes or less each.



District Department of Transportation

4100 Block South Dakota Avenue NE

Severity			Weather			Surface condition			Light Condition		
Total	28										
Fatal	0	0.0%	Clear	23	82.1%	Dry	21	75.0%	Day	18	64.3%
Injury	12	42.9%	Rain	4	14.3%	Wet	6	21.4%	Night	9	32.1%
Truck	4	14.3%	Snow	1	3.6%	Snow/Ice	0	0.0%			
Bus	2	7.1%									

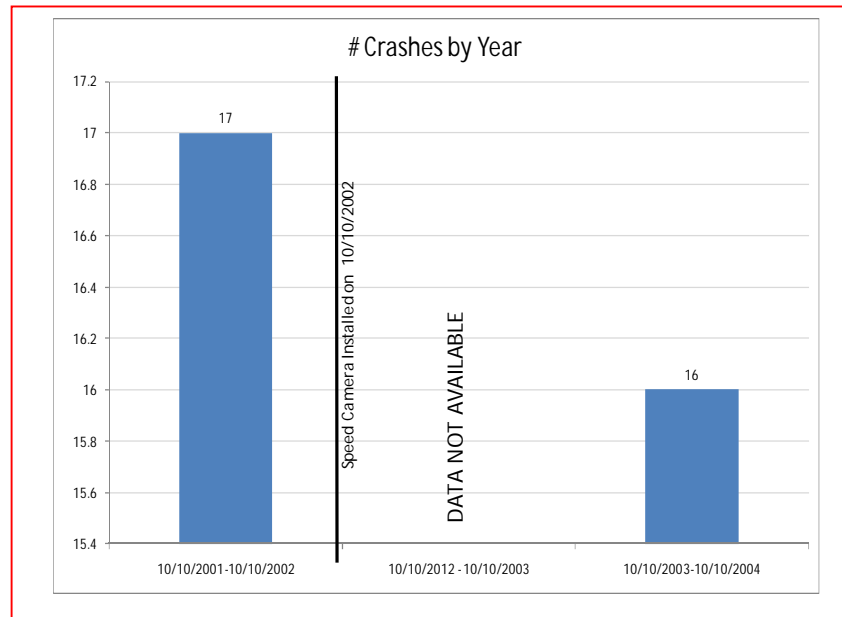


The speed camera was installed on 10/10/2002. The graph on the next page shows the number of crashes in the year prior to the speed camera's installation (17 crashes) and the year after the speed camera's installation (16 crashes). There was a decrease in the number of crashes after the installation of the camera.



District Department of Transportation

4100 Block South Dakota Avenue NE



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, as well as a high frequency (12 crashes) of injury-related crashes.
3. Field Assessment – The following site characteristics suggest a need for a safer travel environment:
 - a. This is a residential area with driveways.
 - b. There are three schools in the area: Perry Street Preparatory School, Howard University-School of Divinity and Bunker Hill Elementary School.
 - c. Taft Recreation Center is also in the area which generates pedestrian and bicycle activity.
 - d. There are several bus stops in the area which generate pedestrian activity.

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 and injury-related crashes, the specific site characteristics, the proximity of schools to the site, and the other pedestrian generators, there is a nexus between traffic safety and the speed camera at this location.

W5 - 91

SAMMAT ENGINEERING SERVICES, LLC

1515 RISING RIDGE ROAD
MOUNT AIRY, MD 21771

www.sammateng.com

4100 block of South Dakota Ave NE SEB Speed

SEB

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
11/12/13	41	2	0	0	0	0	0	0	0	0	0	0	0	0	43
01:00	63	0	1	0	0	0	1	0	0	0	0	0	0	0	65
02:00	52	1	0	0	0	0	0	0	0	0	0	0	0	0	53
03:00	36	0	1	1	0	0	1	0	0	0	0	0	0	0	39
04:00	72	0	2	0	0	0	0	0	0	0	0	0	0	0	74
05:00	167	1	1	2	0	0	0	0	0	0	0	0	0	0	171
06:00	234	0	4	0	0	0	0	0	0	0	0	0	0	0	238
07:00	287	4	1	0	0	0	1	0	0	0	0	0	0	0	293
08:00	263	5	7	1	0	0	0	0	0	0	0	0	0	0	276
09:00	306	8	0	1	0	1	1	0	0	0	0	0	0	0	317
10:00	312	5	0	4	1	1	0	0	0	0	0	0	0	0	323
11:00	298	2	3	1	1	0	0	0	0	0	0	0	0	0	305
12 PM	314	4	3	1	0	0	0	0	0	0	0	0	0	0	322
13:00	316	3	5	1	0	0	0	0	0	0	0	0	0	0	325
14:00	302	5	0	0	0	0	0	0	0	0	0	0	0	0	307
15:00	341	4	6	0	0	0	0	0	0	0	0	0	0	0	351
16:00	350	8	0	0	0	0	0	0	0	0	0	0	0	0	358
17:00	322	6	3	0	0	1	0	0	0	0	0	0	0	0	332
18:00	315	2	3	2	0	0	0	0	0	0	0	0	0	0	322
19:00	278	7	2	0	0	0	0	0	0	0	0	0	0	0	287
20:00	262	4	1	1	0	0	0	0	0	0	0	0	0	0	268
21:00	248	2	1	0	0	0	0	0	0	0	0	0	0	0	251
22:00	195	3	1	1	0	0	0	0	0	0	0	0	0	0	200
23:00	182	10	1	1	0	0	0	0	0	0	0	0	0	0	194
Total	5556	86	46	17	2	3	4	0	0	0	0	0	0	0	5714

SAMMAT ENGINEERING SERVICES, LLC

1515 RISING RIDGE ROAD
MOUNT AIRY, MD 21771

www.sammateng.com

4100 block of South Dakota Ave NE SEB Speed

SEB	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total
Start Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	
11/13/13	50	0	0	0	0	0	0	0	0	0	0	0	0	0	50
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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	50	0	0	0	0	0	0	0	0	0	0	0	0	0	50
Grand Total	5606	86	46	17	2	3	4	0	0	0	0	0	0	0	5764

15th Percentile : 4 MPH
 50th Percentile : 8 MPH
 85th Percentile : 12 MPH
 95th Percentile : 14 MPH

Stats
 Mean Speed(Average) : 9 MPH
 10 MPH Pace Speed : 4-13 MPH
 Number in Pace : 4567
 Percent in Pace : 79.2%
 Number of Vehicles > 25 MPH : 17
 Percent of Vehicles > 25 MPH : 0.3%

SAMMAT ENGINEERING SERVICES, LLC

1515 RISING RIDGE ROAD
MOUNT AIRY, MD 21771

www.sammateng.com

4100 block of South Dakota Ave NE SEB Volume

Start Time	Tue 12-Nov-13		Wed 13-Nov-13		Thu 14-Nov-13		Daily Average	
	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.
12:00	*	97	30	*	*	*	30	97
12:15	*	76	20	*	*	*	20	76
12:30	20	82	*	*	*	*	20	82
12:45	23	67	*	*	*	*	23	67
01:00	21	78	*	*	*	*	21	78
01:15	21	77	*	*	*	*	21	77
01:30	13	87	*	*	*	*	13	87
01:45	10	83	*	*	*	*	10	83
02:00	9	87	*	*	*	*	9	87
02:15	15	86	*	*	*	*	15	86
02:30	18	63	*	*	*	*	18	63
02:45	11	71	*	*	*	*	11	71
03:00	9	86	*	*	*	*	9	86
03:15	10	85	*	*	*	*	10	85
03:30	7	83	*	*	*	*	7	83
03:45	13	97	*	*	*	*	13	97
04:00	13	90	*	*	*	*	13	90
04:15	15	94	*	*	*	*	15	94
04:30	22	85	*	*	*	*	22	85
04:45	24	89	*	*	*	*	24	89
05:00	27	85	*	*	*	*	27	85
05:15	41	83	*	*	*	*	41	83
05:30	53	73	*	*	*	*	53	73
05:45	50	91	*	*	*	*	50	91
06:00	40	98	*	*	*	*	40	98
06:15	62	79	*	*	*	*	62	79
06:30	62	66	*	*	*	*	62	66
06:45	74	79	*	*	*	*	74	79
07:00	59	71	*	*	*	*	59	71
07:15	73	88	*	*	*	*	73	88
07:30	79	68	*	*	*	*	79	68
07:45	82	60	*	*	*	*	82	60
08:00	78	73	*	*	*	*	78	73
08:15	59	67	*	*	*	*	59	67
08:30	75	68	*	*	*	*	75	68
08:45	64	60	*	*	*	*	64	60
09:00	75	58	*	*	*	*	75	58
09:15	90	78	*	*	*	*	90	78
09:30	78	53	*	*	*	*	78	53
09:45	74	62	*	*	*	*	74	62
10:00	81	55	*	*	*	*	81	55
10:15	78	48	*	*	*	*	78	48
10:30	67	41	*	*	*	*	67	41
10:45	97	56	*	*	*	*	97	56
11:00	64	59	*	*	*	*	64	59
11:15	81	46	*	*	*	*	81	46
11:30	69	48	*	*	*	*	69	48
11:45	91	41	*	*	*	*	91	41
Total	2197	3517	50	0	0	0	2247	3517
Combined Total	5714		50		0		5764	
Peak	09:15	03:45					09:15	03:45
Vol.	323	366					323	366
P.H.F.	0.897	0.943					0.897	0.943
ADT	ADT 5,764		AADT 5,764					

Accident Summary Report (R-8)**Corridor:** SOUTH DAKOTA AVE,NE From TAYLOR ST,NE TO RANDOLPH ST,NE**Time Period Covered:** From 01/01/2010 To 12/31/2012**Prepared By:** Rahul Jain**Prepared Date:** 9/15/2013

		Collision Type	#ACC	%	Collision Type	#ACC	%
Total Number of Accident:	28	Right Angle:	3	10.7%	Fixed Object:	0	0.0%
Total Number of Fatalities:	0	Left Turn:	5	17.9%	Ran Off Road:	1	3.6%
Total Number of Injuries:	18	Right Turn:	1	3.6%	Ped. Involved:	0	0.0%
Total Number of Disabling Injuries:	0	Rear End:	10	35.7%	Backing:	0	0.0%
Total Number of NonDisabling Injuries:	2	Side Swiped:	6	21.4%	Non Collision:	0	0.0%
Total Number of Pedestrians Involved:	0	Head On:	1	3.6%	Under/Over Ride:	0	0.0%
Total Number of Bicycles Involved:	0	Parked:	0	0.0%	Unspecified:	1	3.6%
Total Number of Motorcycles Involved:	0						

Time of Day	#ACC	%	Day o fweek	#ACC	%
07:30 ~ 09:30:	5	17.9%	Sunday:	4	14.3%
09:30 ~ 11:30:	3	10.7%	Monday:	4	14.3%
11:30 ~ 13:30:	1	3.6%	Tuesday:	8	28.6%
13:30 ~ 16:00:	4	14.3%	Wednesday:	5	17.9%
16:00 ~18:30:	5	17.9%	Thursday:	3	10.7%
18:30 ~ 07:30:	10	35.7%	Friday:	2	7.1%
Unspecified:	0	0.0%	Saturday:	2	7.1%

Weather Condition	#ACC	%	Surface Condition	#ACC	%
Clear:	23	82.1%	Dry:	21	75.0%
Rain:	4	14.3%	Wet:	6	21.4%
Snow:	1	3.6%	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:	1	3.6%

Type of Vehicle	#VEH	%	Accident Severity Type	#ACC	%
Passenger Car:	47	82.5%	Fatal Collision:	0	0.0%
Bus:	2	3.5%	Injury Collision:	12	42.9%
Truck:	4	7.0%	PDO Collision:	16	57.1%
Taxi:	1	1.8%			
Minivan:	0	0.0%	Light Condition	#ACC	%
Police/Emergency Vehicle:	0	0.0%	Daylight:	18	64.3%
Motorcycle/Moped:	0	0.0%	Dawn/Dusk:	1	3.6%
Bicycle:	0	0.0%	Dark(Lighted):	9	32.1%
Fixed Object:	0	0.0%	Dark(Not Lighted):	0	0.0%
Unspecified:	3	5.3%	Dark(Unknown Lighting):	0	0.0%
			Unspecified:	0	0.0%

Contributing Factor	#VEH	%	Pedestrian Actions	#ACC	%
Driver: Speed:	1	1.8%	In Crosswalk with Signal:	0	0.0%
Driver: Alcohol/Drug:	0	0.0%	In Crosswalk against Signal:	0	0.0%
Driver: Electronic Device:	0	0.0%	In Crosswalk no Signal:	0	0.0%
Driver: Others:	9	15.8%	In Unmarked Crosswalk:	0	0.0%
Vehicle:	1	1.8%	Not in Crosswalk:	0	0.0%
Roadway:	2	3.5%	From Between Parked Cars:	0	0.0%
Unspecified:	44	77.2%	Unspecified:	0	0.0%

19 Records are not approved as of 9/15/2013 1:57:34 PM

DC Department of Transportation - Traffic Accident Reporting and Analysis System

Accident Summary Report (R-8)

Corridor: SOUTH DAKOTA AVE,NE From TAYLOR ST,NE TO RANDOLPH ST,NE

Time Period Covered: From 10/09/2001 To 10/09/2002

Prepared By: Rahul Jain

Prepared Date: 11/19/2013

Total Number of Accident:	17		Collision Type	#ACC	%	Collision Type	#ACC	%
Total Number of Fatalities:	0		Right Angle:	1	5.9%	Fixed Object:	1	5.9%
Total Number of Injuries:	16		Left Turn:	3	17.6%	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:	8		Rear End:	6	35.3%	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:	1	5.9%	Under/Over Ride:	0	0.0%
Total Number of Motorcycles Involved:	0		Parked:	0	0.0%	Unspecified:	0	0.0%
Time of Day			Day of week					
	#ACC	%		#ACC	%		#ACC	%
07:30 ~ 09:30:	0	0.0%	Sunday:	1	5.9%			
09:30 ~ 11:30:	1	5.9%	Monday:	3	17.6%			
11:30 ~ 13:30:	3	17.6%	Tuesday:	3	17.6%			
13:30 ~ 16:00:	0	0.0%	Wednesday:	2	11.8%			
16:00 ~ 18:30:	4	23.5%	Thursday:	5	29.4%			
18:30 ~ 07:30:	9	52.9%	Friday:	1	5.9%			
Unspecified:	0	0.0%	Saturday:	2	11.8%			
Weather Condition			Surface Condition					
	#ACC	%		#ACC	%		#ACC	%
Clear:	14	82.4%	Dry:	15	88.2%			
Rain:	1	5.9%	Wet:	1	5.9%			
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:	2	11.8%	Unspecified:	1	5.9%			
Type of Vehicle			Accident Severity Type					
	#VEH	%		#ACC	%		#ACC	%
Passenger Car:	28	82.4%	Fatal Collision:	0	0.0%			
Bus:	3	8.8%	Injury Collision:	8	47.1%			
Truck:	2	5.9%	PDO Collision:	9	52.9%			
Taxi:	0	0.0%						
Minivan:	0	0.0%	Light Condition				#ACC	%
Police/Emergency Vehicle:	0	0.0%	Daylight:	9	52.9%			
Motorcycle/Moped:	0	0.0%	Dawn/Dusk:	0	0.0%			
Bicycle:	0	0.0%	Dark(Lighted):	0	0.0%			
Fixed Object:	1	2.9%	Dark(Not Lighted):	0	0.0%			
Unspecified:	0	0.0%	Dark(Unknown Lighting):	7	41.2%			
			Unspecified:	1	5.9%			
Contributing Factor			Pedestrian Actions					
	#VEH	%		#ACC	%		#ACC	%
Driver: Speed:	2	5.9%	In Crosswalk with Signal:	0	0.0%			
Driver: Alcohol/Drug:	1	2.9%	In Crosswalk against Signal:	0	0.0%			
Driver: Electronic Device:	0	0.0%	In Crosswalk no Signal:	0	0.0%			
Driver: Others:	4	11.8%	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:	27	79.4%	Unspecified:	0	0.0%			

17 Records are not approved as of 11/19/2013 1:39:16 PM

Accident Summary Report (R-8)

Corridor: SOUTH DAKOTA AVE,NE From TAYLOR ST,NE TO RANDOLPH ST,NE

Time Period Covered: From 01/01/2004 To 12/31/2004

Prepared By: Rahul Jain

Prepared Date: 11/19/2013

Total Number of Accident:	16	Collision Type	#ACC	%	Collision Type	#ACC	%
Total Number of Fatalities:	0	Right Angle:	0	0.0%	Fixed Object:	1	6.3%
Total Number of Injuries:	19	Left Turn:	8	50.0%	Ran Off Road:	0	0.0%
Total Number of Disabling Injuries:	2	Right Turn:	2	12.5%	Ped. Involved:	0	0.0%
Total Number of NonDisabling Injuries:	2	Rear End:	3	18.8%	Backing:	0	0.0%
Total Number of Pedestrians Involved:	0	Side Swiped:	1	6.3%	Non Collision:	0	0.0%
Total Number of Bicycles Involved:	0	Head On:	1	6.3%	Under/Over Ride:	0	0.0%
Total Number of Motorcycles Involved:	0	Parked:	0	0.0%	Unspecified:	0	0.0%
Time of Day				#ACC	%	Day of week	
07:30 ~ 09:30:				4	25.0%	Sunday:	
09:30 ~ 11:30:				1	6.3%	Monday:	
11:30 ~ 13:30:				1	6.3%	Tuesday:	
13:30 ~ 16:00:				2	12.5%	Wednesday:	
16:00 ~ 18:30:				3	18.8%	Thursday:	
18:30 ~ 07:30:				5	31.3%	Friday:	
Unspecified:				0	0.0%	Saturday:	
Weather Condition				#ACC	%	Surface Condition	
Clear:				15	93.8%	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:				1	6.3%	Unspecified:	
Type of Vehicle				#VEH	%	Accident Severity Type	
Passenger Car:				25	80.6%	Fatal Collision:	
Bus:				0	0.0%	Injury Collision:	
Truck:				4	12.9%	PDO Collision:	
Taxi:				0	0.0%	Light Condition	
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	6.5%	Unspecified:	
Contributing Factor				#VEH	%	Pedestrian Actions	
Driver: Speed:				1	3.2%	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:				13	41.9%	In Unmarked Crosswalk:	
Vehicle:				0	0.0%	Not in Crosswalk:	
Roadway:				0	0.0%	From Between Parked Cars:	
Unspecified:				17	54.8%	Unspecified:	

16 Records are not approved as of 11/19/2013 1:37:31 PM