



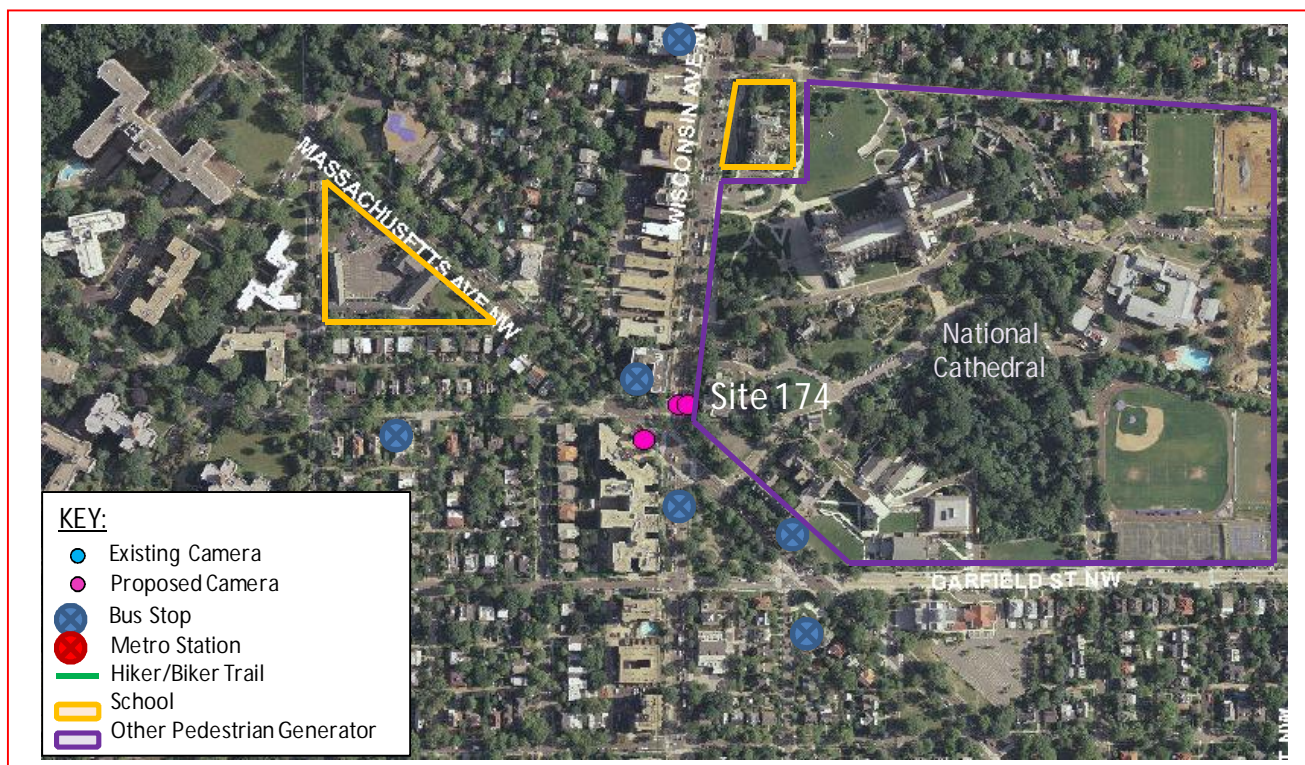
District Department of Transportation

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

3400-3500 Blocks Cathedral Avenue NW

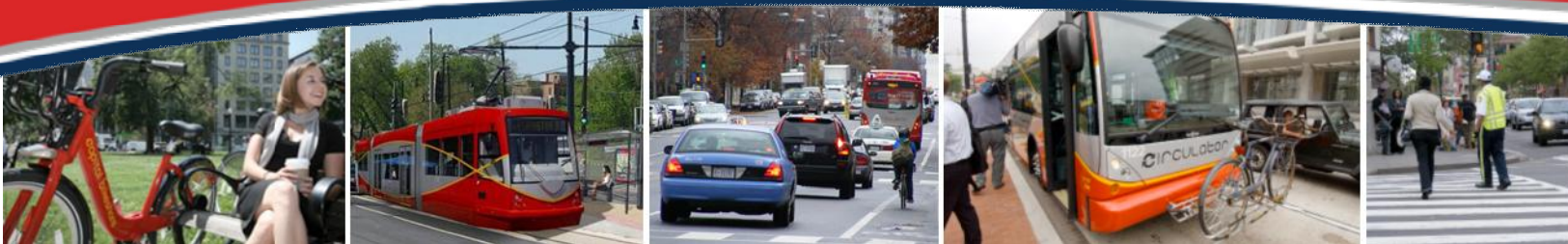
Study Area and Location

District	PSA	Ward	ANC	Phase	Description
2	205	3	3C	Proposed	3400-3500 Blocks Cathedral Ave NW



The *proposed* speed camera will be located in Ward 3 between the 3400 and 3500 block of Cathedral Avenue Northwest. Cathedral Avenue Northwest runs from Foxhall Road Northwest in the west and Wisconsin Avenue Northwest in the east. The posted speed limit is 25 MPH.

W3 - 412





District Department of Transportation

3400-3500 Blocks Cathedral Avenue NW

Field Assessment Summary

Cathedral Avenue Northwest is assumed to run in an east-west direction and is classified as a collector road. Cathedral Avenue Northwest has one travel lane in each direction and eastbound traffic has a left turn lane and a right turn lane at Massachusetts Ave Northwest. This site has the following characteristics:

- This site is located in a residential area with houses on both sides of the roadway.
- There is sidewalk on both sides of the roadway.
- There are two schools in the area: National Cathedral School and Annunciation Catholic School.
- There are several bus stops in the area that generate pedestrian activity.
- The National Cathedral is nearby and generates pedestrian and bicycle traffic.



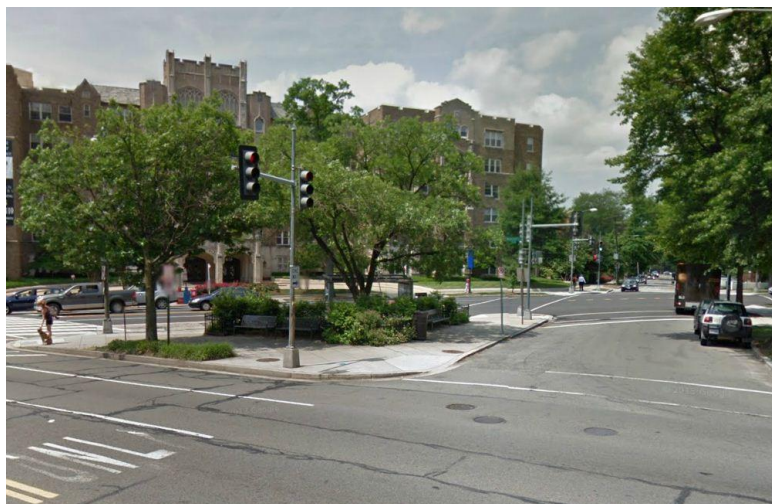
Looking Eastbound

W3 - 413



District Department of Transportation

3400-3500 Blocks Cathedral Avenue NW



Looking Westbound

Speed Data Analysis

	Eastbound	Westbound
Posted Speed Limit (MPH)	25	25
Mean Speed (MPH)	14	15
85th Percentile Speed (MPH)	19	20
10 MPH Pace Speed	11-20	11-20
Sample Size	272	184
ADT	456	

The mean speed is lower than the posted speed in both directions and the 85th percentile speed is lower than the posted speed in both directions 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 12 crashes at this location. A breakdown of collision types can be found in the chart on the next page. The most common types of collision at this location were Side Swiped (4 crashes), and Right Turn (3 crashes). The other collision types had two crashes or less each. Furthermore, crash data shows one (1) collision where vehicular speeding was the contributing factor.

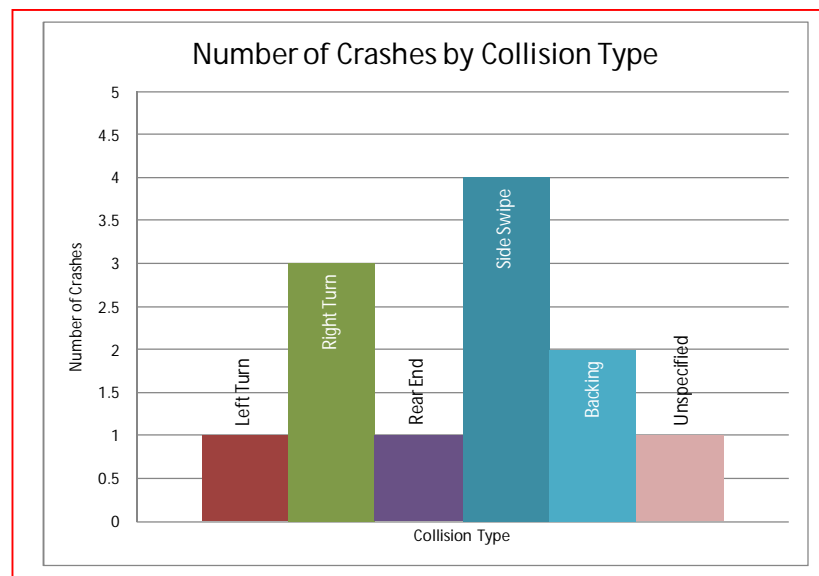
W3 - 414



District Department of Transportation

3400-3500 Blocks Cathedral Avenue NW

Severity			Weather			Surface condition			Light Condition		
Total	12										
Fatal	0	0.0%	Clear	10	83.3%	Dry	10	83.3%	Day	8	66.7%
Injury	0	0.0%	Rain	2	16.7%	Wet	2	16.7%	Night	4	33.3%
Bus	5	41.7%	Snow	0	0.0%	Snow/Ice	0	0.0%			
Truck	2	16.7%									



Safety Nexus

This site presents the following safety considerations which may establish a 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 – 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 site is located in a residential area with houses on both sides of the roadway.
 - b) There are two schools in the area: National Cathedral School and Annunciation Catholic School.
 - c) There are several bus stops in the area that generate pedestrian activity.

Although the speed data analysis showed the mean and 85th percentile speeds to be lower than the posted speed limit, and the crash data analysis showed a low number of crashes at this location, due to the specific

W3 - 415



District Department of Transportation

3400-3500 Blocks Cathedral Avenue NW

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.

W3 - 416

SAMMAT ENGINEERING SERVICES, LLC

1515 RISING RIDGE ROAD
MOUNT AIRY, MD 21771

www.sammateng.com

3400-3500 blocks of Cathedral Ave NW Speed

WB																
Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76		
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	
11/19/13	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
06:00	3	4	0	0	0	0	0	0	0	0	0	0	0	0	0	7
07:00	3	4	2	0	0	0	0	0	0	0	0	0	0	0	0	9
08:00	4	3	1	1	0	0	0	0	0	0	0	0	0	0	0	9
09:00	2	2	1	2	0	0	0	0	0	0	0	0	0	0	0	7
10:00	1	3	1	0	0	0	0	0	0	0	0	0	0	0	0	5
11:00	2	6	0	0	0	0	0	0	0	0	0	0	0	0	0	8
12 PM	3	3	2	0	0	0	0	0	0	0	0	0	0	0	0	8
13:00	3	2	2	0	0	0	0	0	0	0	0	0	0	0	0	7
14:00	7	5	2	0	0	0	0	0	0	0	0	0	0	0	0	14
15:00	6	10	0	0	0	0	0	0	0	0	0	0	0	0	0	16
16:00	4	11	5	1	0	0	0	0	0	0	0	0	0	0	0	21
17:00	3	8	2	1	0	0	0	0	0	0	0	0	0	0	0	14
18:00	4	10	2	0	0	0	0	0	0	0	0	0	0	0	0	16
19:00	4	10	3	0	0	0	0	0	0	0	0	0	0	0	0	17
20:00	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	3
21:00	2	8	6	0	0	0	0	0	0	0	0	0	0	0	0	16
22:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
23:00	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Total	53	93	30	5	0	0	0	0	0	0	0	0	0	0	0	181

SAMMAT ENGINEERING SERVICES, LLC

1515 RISING RIDGE ROAD
MOUNT AIRY, MD 21771

www.sammateng.com

3400-3500 blocks of Cathedral Ave NW Speed

WB

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
11/20/13	2	1	0	0	0	0	0	0	0	0	0	0	0	0	3
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	2	1	0	0	0	0	0	0	0	0	0	0	0	0	3
Grand Total	55	94	30	5	0	0	0	0	0	0	0	0	0	0	184

15th Percentile : 7 MPH
50th Percentile : 14 MPH
85th Percentile : 20 MPH
95th Percentile : 23 MPH

Stats
Mean Speed(Average) : 15 MPH
10 MPH Pace Speed : 11-20 MPH
Number in Pace : 106
Percent in Pace : 57.6%
Number of Vehicles > 25 MPH : 5
Percent of Vehicles > 25 MPH : 2.9%

SAMMAT ENGINEERING SERVICES, LLC

1515 RISING RIDGE ROAD
MOUNT AIRY, MD 21771

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3400-3500 blocks of Cathedral Ave NW Speed

EB

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
11/19/13	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	1	2	0	0	0	0	0	0	0	0	0	0	0	0	3
06:00	1	2	1	0	0	0	0	0	0	0	0	0	0	0	4
07:00	8	16	3	0	0	0	0	0	0	0	0	0	0	0	27
08:00	5	13	4	0	0	0	0	0	0	0	0	0	0	0	22
09:00	3	8	4	0	0	0	0	0	0	0	0	0	0	0	15
10:00	4	3	3	0	0	0	0	0	0	0	0	0	0	0	10
11:00	9	9	1	0	0	0	0	0	0	0	0	0	0	0	19
12 PM	5	5	1	0	0	0	0	0	0	0	0	0	0	0	11
13:00	2	4	1	0	0	0	0	0	0	0	0	0	0	0	7
14:00	4	10	2	0	0	0	0	0	0	0	0	0	0	0	16
15:00	1	17	4	0	0	0	0	0	0	0	0	0	0	0	22
16:00	7	15	4	0	0	0	0	0	0	0	0	0	0	0	26
17:00	6	18	4	1	0	0	0	0	0	0	0	0	0	0	29
18:00	5	10	5	0	0	0	0	0	0	0	0	0	0	0	20
19:00	10	7	1	0	0	0	0	0	0	0	0	0	0	0	18
20:00	3	7	0	0	0	0	0	0	0	0	0	0	0	0	10
21:00	0	6	0	0	0	0	0	0	0	0	0	0	0	0	6
22:00	3	1	0	0	0	0	0	0	0	0	0	0	0	0	4
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	77	153	38	1	0	0	0	0	0	0	0	0	0	0	269

SAMMAT ENGINEERING SERVICES, LLC

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MOUNT AIRY, MD 21771

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3400-3500 blocks of Cathedral Ave NW Speed

EB

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
11/20/13	1	2	0	0	0	0	0	0	0	0	0	0	0	0	3
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	1	2	0	0	0	0	0	0	0	0	0	0	0	0	3
Grand Total	78	155	38	1	0	0	0	0	0	0	0	0	0	0	272

15th Percentile : 7 MPH
50th Percentile : 14 MPH
85th Percentile : 19 MPH
95th Percentile : 22 MPH

Stats
Mean Speed(Average) : 14 MPH
10 MPH Pace Speed : 11-20 MPH
Number in Pace : 167
Percent in Pace : 61.4%
Number of Vehicles > 25 MPH : 4
Percent of Vehicles > 25 MPH : 1.3%

SAMMAT ENGINEERING SERVICES, LLC

1515 RISING RIDGE ROAD
MOUNT AIRY, MD 21771

www.sammateng.com

3400-3500 blocks of Cathedral Ave NW Volume

Start Time	19-Nov-13		WB		EB		Combined		20-Nov-Wed		WB		EB		Combined	
	Tue		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		*	2		*	0	*	2		0	*	1	*	1	*	
12:15		*	3		*	5	*	8		2	*	1	*	3	*	
12:30		*	3		*	1	*	4		1	*	0	*	1	*	
12:45		*	0		*	5	*	5		0	*	1	*	1	*	
01:00		*	4		*	3	*	7		0	*	0	*	0	*	
01:15		*	1		*	1	*	2		0	*	0	*	0	*	
01:30		*	1		*	1	*	2		0	*	0	*	0	*	
01:45		*	1		*	2	*	3		0	*	0	*	0	*	
02:00		0	3		0	7	0	10		*	*	*	*	*	*	
02:15		0	5		0	3	0	8		*	*	*	*	*	*	
02:30		0	1		0	3	0	4		*	*	*	*	*	*	
02:45		0	5		0	3	0	8		*	*	*	*	*	*	
03:00		0	2		0	3	0	5		*	*	*	*	*	*	
03:15		0	4		0	9	0	13		*	*	*	*	*	*	
03:30		0	7		0	6	0	13		*	*	*	*	*	*	
03:45		0	3		0	4	0	7		*	*	*	*	*	*	
04:00		0	12		0	7	0	19		*	*	*	*	*	*	
04:15		0	2		0	4	0	6		*	*	*	*	*	*	
04:30		0	3		0	9	0	12		*	*	*	*	*	*	
04:45		0	4		0	6	0	10		*	*	*	*	*	*	
05:00		1	4		1	6	2	10		*	*	*	*	*	*	
05:15		0	2		1	6	1	8		*	*	*	*	*	*	
05:30		0	1		0	5	0	6		*	*	*	*	*	*	
05:45		0	7		1	12	1	19		*	*	*	*	*	*	
06:00		3	6		0	6	3	12		*	*	*	*	*	*	
06:15		1	6		1	3	2	9		*	*	*	*	*	*	
06:30		1	3		2	5	3	8		*	*	*	*	*	*	
06:45		2	1		1	6	3	7		*	*	*	*	*	*	
07:00		4	2		3	7	7	9		*	*	*	*	*	*	
07:15		1	3		4	4	5	7		*	*	*	*	*	*	
07:30		0	6		8	4	8	10		*	*	*	*	*	*	
07:45		4	6		12	3	16	9		*	*	*	*	*	*	
08:00		5	0		8	1	13	1		*	*	*	*	*	*	
08:15		2	2		9	2	11	4		*	*	*	*	*	*	
08:30		2	0		2	2	4	2		*	*	*	*	*	*	
08:45		0	1		3	5	3	6		*	*	*	*	*	*	
09:00		0	2		4	2	4	4		*	*	*	*	*	*	
09:15		1	2		5	1	6	3		*	*	*	*	*	*	
09:30		3	2		3	1	6	3		*	*	*	*	*	*	
09:45		3	10		3	2	6	12		*	*	*	*	*	*	
10:00		1	0		2	1	3	1		*	*	*	*	*	*	
10:15		0	0		4	0	4	0		*	*	*	*	*	*	
10:30		1	1		1	2	2	3		*	*	*	*	*	*	
10:45		3	0		3	1	6	1		*	*	*	*	*	*	
11:00		1	1		6	0	7	1		*	*	*	*	*	*	
11:15		2	0		5	0	7	0		*	*	*	*	*	*	
11:30		2	0		4	0	6	0		*	*	*	*	*	*	
11:45		3	1		4	0	7	1		*	*	*	*	*	*	
Total		46	135		100	169	146	304		3	0	3	0	6	0	
Day Total		181			269		450		3	3	0	3	3	6	0	
% Total		10.2%	30.0%		22.2%	37.6%			50.0%	0.0%	50.0%	0.0%				
Peak		07:45	03:15		07:30	05:00	07:30	03:15		12:00		12:00		12:00		
Vol.		13	26		37	29	48	52		3		3		6		
P.H.F.		0.650	0.542		0.771	0.604	0.750	0.684		0.375		0.750		0.500		

DC Department of Transportation - Traffic Accident Reporting and Analysis System

Accident Summary Report (R-8)

Corridor: CATHEDRAL AVE,NW From WISCONSIN AVE,NW TO MASSACHUSETTS AVE,NW

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

Prepared By: Rahul Jain

Prepared Date: 9/15/2013

Total Number of Accident:	12	Collision Type	#ACC	%	Collision Type	#ACC	%
Total Number of Fatalities:	0	Right Angle:	0	0.0%	Fixed Object:	0	0.0%
Total Number of Injuries:	0	Left Turn:	1	8.3%	Ran Off Road:	0	0.0%
Total Number of Disabling Injuries:	0	Right Turn:	3	25.0%	Ped. Involved:	0	0.0%
Total Number of NonDisabling Injuries:	0	Rear End:	1	8.3%	Backing:	2	16.7%
Total Number of Pedestrians Involved:	0	Side Swiped:	4	33.3%	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:	1	8.3%

Time of Day	#ACC	%	Day of week	#ACC	%
07:30 ~ 09:30:	0	0.0%	Sunday:	1	8.3%
09:30 ~ 11:30:	1	8.3%	Monday:	3	25.0%
11:30 ~ 13:30:	1	8.3%	Tuesday:	0	0.0%
13:30 ~ 16:00:	1	8.3%	Wednesday:	0	0.0%
16:00 ~ 18:30:	3	25.0%	Thursday:	1	8.3%
18:30 ~ 07:30:	6	50.0%	Friday:	5	41.7%
Unspecified:	0	0.0%	Saturday:	2	16.7%

Weather Condition	#ACC	%	Surface Condition	#ACC	%
Clear:	10	83.3%	Dry:	10	83.3%
Rain:	2	16.7%	Wet:	2	16.7%
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%

Type of Vehicle	#VEH	%	Accident Severity Type	#ACC	%
Passenger Car:	15	62.5%	Fatal Collision:	0	0.0%
Bus:	5	20.8%	Injury Collision:	0	0.0%
Truck:	2	8.3%	PDO Collision:	12	100.0%
Taxi:	2	8.3%	Light Condition	#ACC	%
Minivan:	0	0.0%	Daylight:	8	66.7%
Police/Emergency Vehicle:	0	0.0%	Dawn/Dusk:	0	0.0%
Motorcycle/Moped:	0	0.0%	Dark(Lighted):	4	33.3%
Bicycle:	0	0.0%	Dark(Not Lighted):	0	0.0%
Fixed Object:	0	0.0%	Dark(Unknown Lighting):	0	0.0%
Unspecified:	0	0.0%	Unspecified:	0	0.0%

Contributing Factor	#VEH	%	Pedestrian Actions	#ACC	%
Driver: Speed:	1	4.2%	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:	7	29.2%	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:	16	66.7%	Unspecified:	0	0.0%

6 Records are not approved as of 9/15/2013 9:33:50 PM