

Traffic Crash Data for 2008



Department of Transportation
Engineering & Operations Division

7/14/2009

Introduction

The Traffic Safety Section within the Charlotte Department of Transportation is responsible for the compilation and analysis of collisions that occur within the Right of Way inside the city limits of Charlotte. This data is used to develop projects and programs to address documented collision patterns with the ultimate goal of reducing collisions throughout the City. Included in this report are the collision data and trends from calendar year 2008. The data presented in this report does not include collisions that occurred on the Interstate highways (I-77, I-85, I-485, and I-277) or collisions that occur within parking areas.

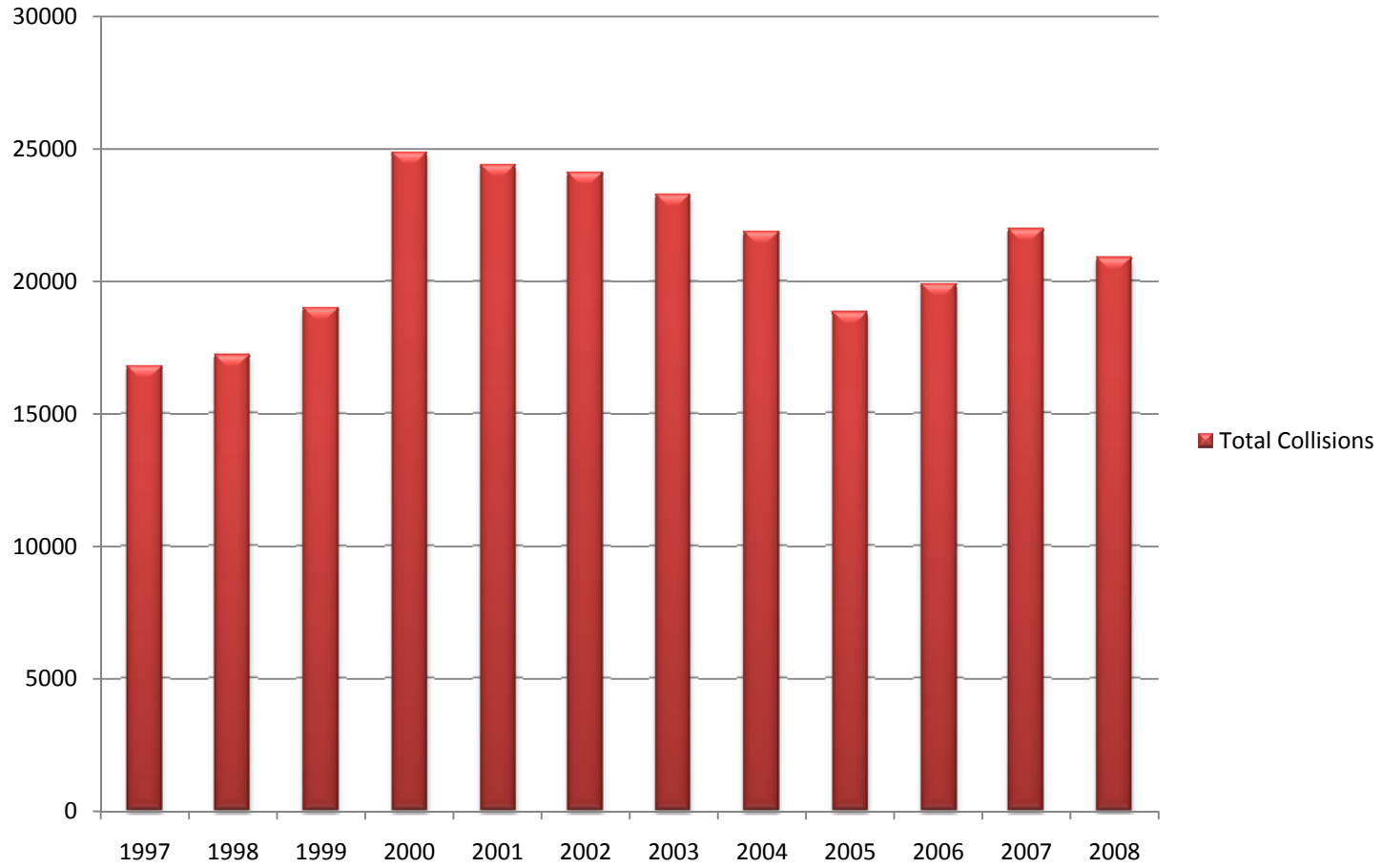
All data used for this report is current at the date of printing. CDOT reserves the right to revise any and all collision information contained herein without providing additional notice. For current information regarding specific locations contact the Traffic Safety Section.

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2008 Crash Summary
Collisions by Year

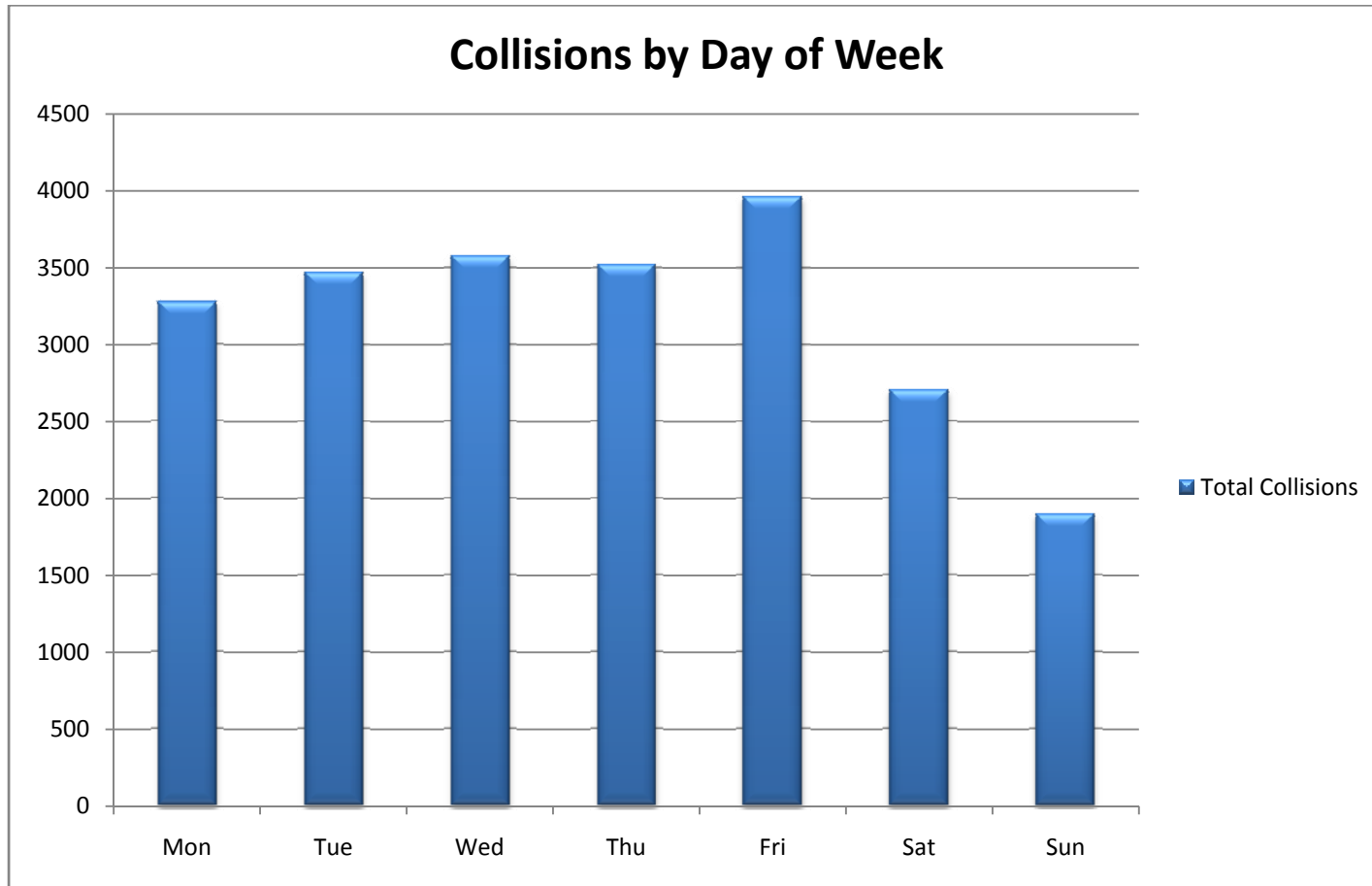
Total Annual Collisions



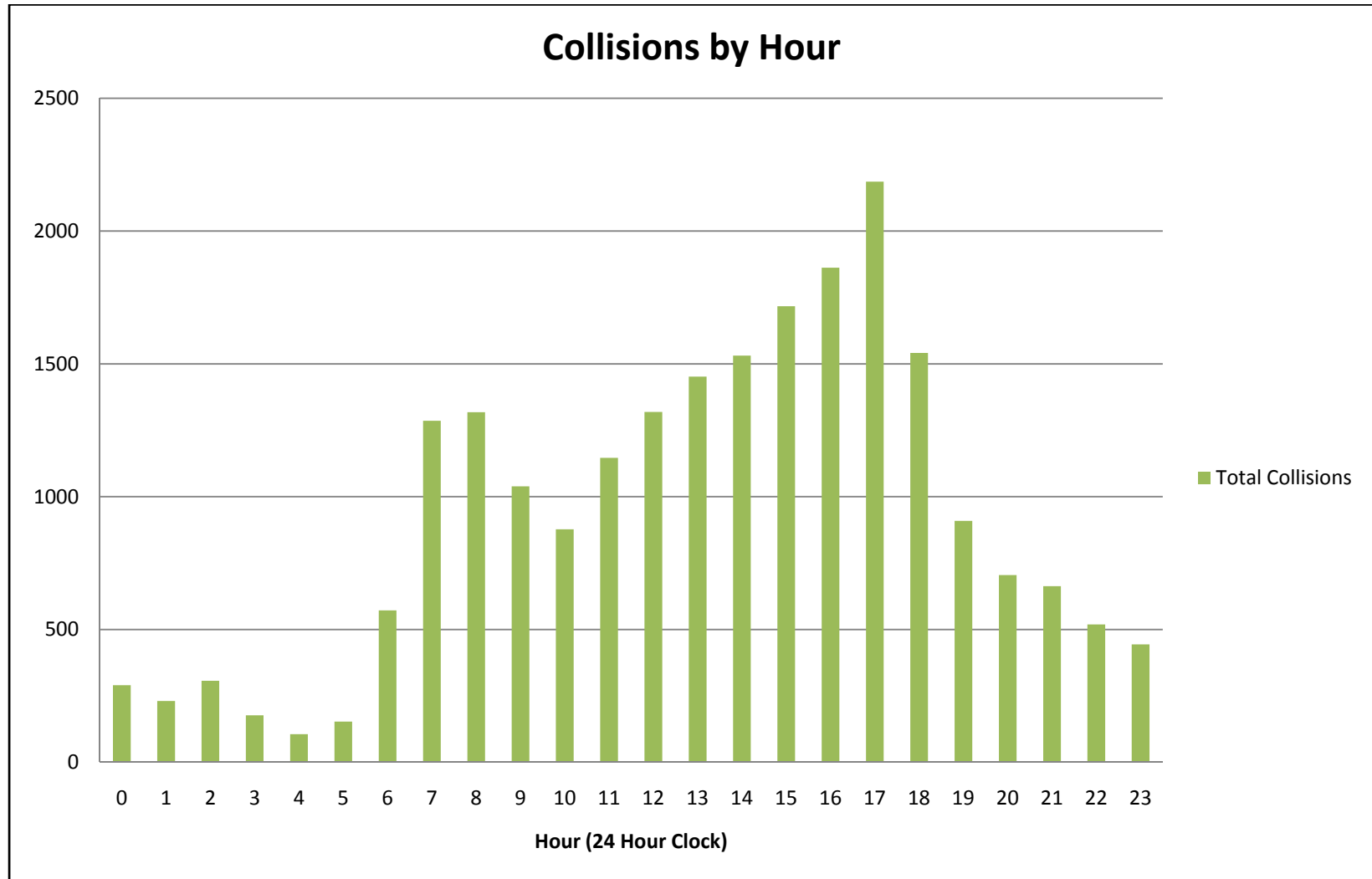
2008 Crash Summary
Collisions by Month

Month of Year	Total Number of Crashes	Percent of Total
January	1,885	8.41%
February	1,901	8.49%
March	2,077	9.27%
April	1,983	8.85%
May	1,912	8.54%
June	1,668	7.45%
July	1,735	7.75%
August	1,785	7.97%
September	1,923	8.58%
October	2,013	8.99%
November	1,834	8.19%
December	1,685	7.52%
TOTAL	22,401	100.00%

2008 Crash Summary
Collisions by Day of Week



2008 Crash Summary
Collisions by Hour of the Day



2008 Crash Summary
Collisions by Environmental Factors

Road Condition

Type of Condition	Total Number of Crashes	Percent of Total
Dry	18,214	81.31%
Wet	3,956	17.66%
Water (standing, moving)	60	0.27%
Ice	48	0.21%
Fuel, Oil	3	0.01%
Other*	6	0.03%
Sand, Mud, Dirt, Gravel	6	0.03%
Slush	8	0.04%
Snow	8	0.04%
Unknown	92	0.41%
Total	22,401	100.00%

Ambient Light

Type of Condition	Total Number of Crashes	Percent of Total
Daylight	16,268	72.62%
Dawn	432	1.93%
Dark - lighted roadway	3,971	17.73%
Dark - roadway not lighted	902	4.03%
Dark - unknown lighting	110	0.49%
Dusk	610	2.72%
Unknown	92	0.41%
Other	16	0.07%
Total	22,401	100.00%

2008 Crash Summary
Collision Severity and Outcome

Collision Severity	Total Collisions	Percent of Total Collisions
Fatal	42	0.19%
Injury	6,379	28.48%
Property Damage Only	15,980	71.34%
Total	22,401	100%

2008 Crash Summary
Collisions by Motorist Contributing Circumstances

Contributing Circumstances	Total Collisions	Percent of Total Collisions
Inattention	5,843	26.08%
Failure to reduce speed	3,598	16.06%
Failed to yield right of way	2,853	12.74%
Unable to determine	1,472	6.57%
No contributing circumstance indicated	1,102	4.92%
Followed too closely	961	4.29%
Improper lane change	785	3.50%
Improper turn	727	3.25%
Disregarded traffic signals	657	2.93%
Other*	562	2.51%
Improper backing	453	2.02%
Unknown	414	1.85%
Exceeded safe speed for conditions	395	1.76%
Alcohol use	314	1.40%
Operated vehicle in erratic, reckless, careless, negligent or aggressive manner	304	1.36%
Driver distracted	302	1.35%
Overcorrected/over steered	231	1.03%
Exceeded authorized speed limit	219	0.98%
Swerved or avoided due to wind, slippery surface, vehicle, object, non-motorist	219	0.98%
Disregarded stop sign	196	0.87%
Crossed centerline/going wrong way	177	0.79%
Other improper passing	155	0.69%
Visibility obstructed	141	0.63%
Operated defective equipment	105	0.47%
Use of improper lane	63	0.28%
Disregarded other traffic signs	45	0.20%
Disregarded road markings	34	0.15%
Improper parking	22	0.10%
Disregarded yield sign	16	0.07%
Right turn on red	14	0.06%
Improper or no signal	12	0.05%
Drug use	8	0.04%
Passed on hill	1	0.00%
Passed stopped school bus	1	0.00%
TOTAL	22,401	100%

2008 Crash Summary

Collision Rates by Volume

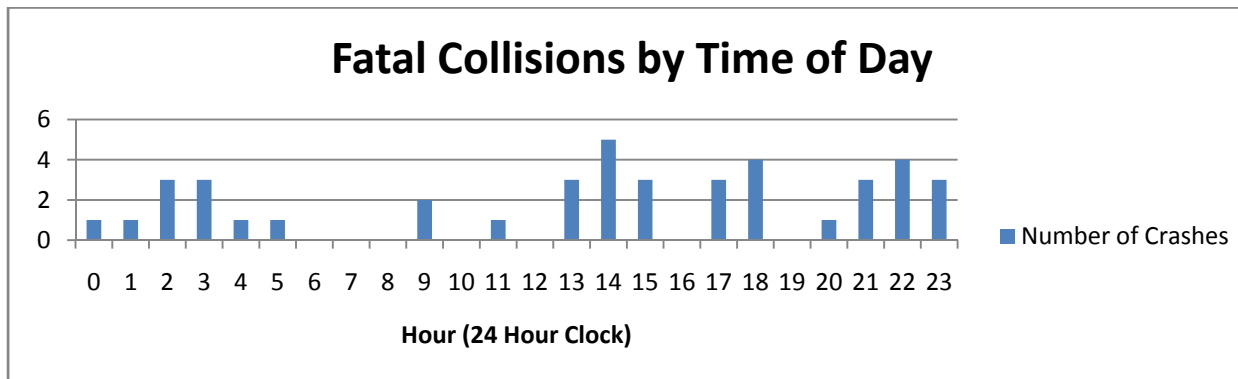
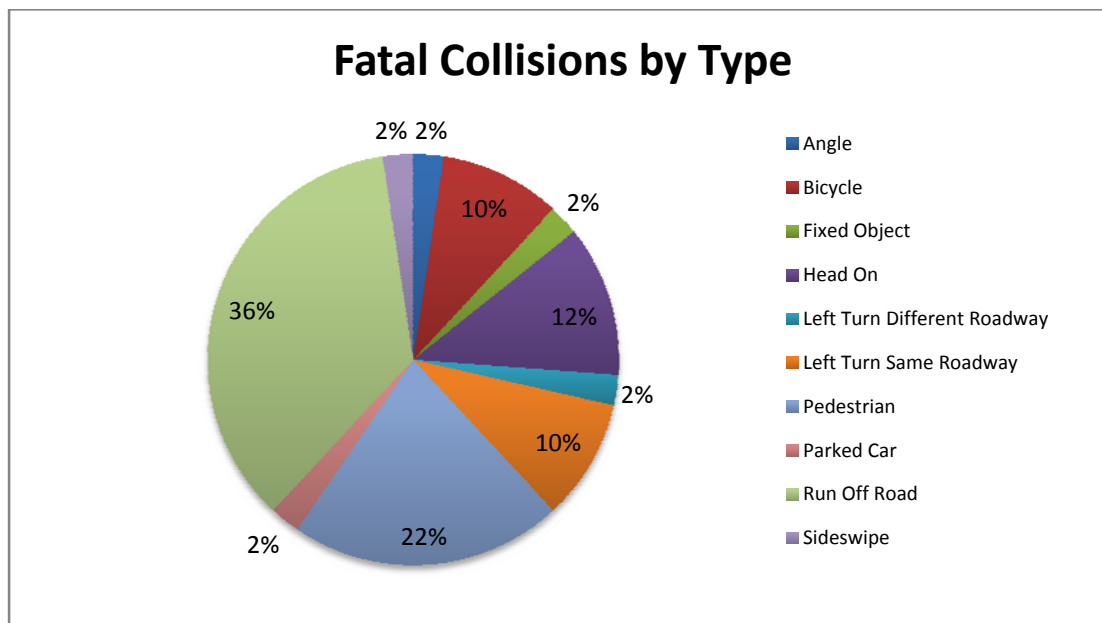
Year	Vehicle Miles Traveled	Total Crashes	Crashes Per Million Vehicle Miles	Fatal Crashes	Fatalities Per Million Vehicle Miles
2000	17,050,383	24,856	1,458	79	4.63
2001	17,035,215	24,407	1,433	45	2.64
2002	17,699,261	24,137	1,364	48	2.71
2003	18,583,633	23,302	1,254	53	2.85
2004	20,095,648	21,860	1,088	39	1.94
2005	22,412,325	18,802	839	51	2.28
2006	22,343,242	19,892	890	63	2.82
2007	22,516,834	22,224	987	52	2.31
2008	22,051,666	22,401	1,016	42	1.95

Pedestrian & Cyclist Collisions by Population

Year	Population	Pedestrian Collisions	Pedestrian Crashes Per 10,000 Persons	Bicycle Collisions	Bike Crashes Per 10,000 Persons
2000	540,828	249	4.60	115	2.13
2001	551,645	263	4.77	94	1.70
2002	579,684	234	4.04	98	1.69
2003	594,176	271	4.56	71	1.19
2004	614,330	223	3.63	105	1.71
2005	632,760	198	3.13	79	1.25
2006	640,270	230	3.59	92	1.44
2007	664,342	311	4.68	91	1.37
2008	674,752	345	5.11	114	1.69

2008 Crash Summary
Fatal Collision Summary

42 Fatal Collisions occurred during 2008.



2008 High Accident List

CDOT releases the annual High Accident List (HAL) to heighten motorist awareness of locations that have an elevated crash rate. This list is also used in conjunction with other statistical reports to determine locations that have the potential for crash reduction countermeasures. These countermeasures are selected based on detailed engineering studies, availability of funding, and other various factors.

HAL Calculation Methodology

The calculation for the HAL is as follows;

- Step 1. Select all intersections with 15 or more collisions in a 3 year period
- Step 2. Select any intersections not identified above having 5 or more collisions with 75% occurring in the current year (2007).
- Step 3. Calculate crash rates for all intersections meeting above criteria.
$$(C*1,000,000)/(V*N*365)$$
where;
C= 3 years' collisions
V= Intersection Volume
N= Number of years
- Step 4. Determine HAL cutoff, should be an even number and allow for at least 50 locations. The cutoff for 2006, 2007, and 2008 has been a crash rate of 1.30.

Two versions of the HAL list are presented on the following pages, rank order and street name order.

ID	Location	Collisions			3 Years Total	Avg Volume	Crash Rate	Rank	Prior Year Rank	Notes
		2006	2007	2008						
11956	E 9TH ST & N COLLEGE ST	20	7	8	35	8,400	3.81	1	1	
11693	E 12TH ST & N COLLEGE ST	11	15	6	32	8,800	3.32	2	6	
13108	E MARTIN LUTHER KING JR BV & S DAVIDSON ST	2	11	19	32	10,000	2.92	3	49	Estimated Volume
13736	CAMDEN RD & E PARK AV & W PARK AV	4	4	8	16	5,000	2.92	4	Not Ranked	Estimated Volume
27388	CONLAN CR & JOHN J DELANEY DR	11	13	12	36	11,500	2.86	5	4	Estimated Volume
2975	BROWNE RD & EASTFIELD RD	12	10	12	34	11,300	2.75	6	14	NCDOT Signalization Project
21514	E ARROWOOD RD & NATIONS FORD RD & W ARROWOOD RD	44	21	23	88	29,500	2.72	7	3	Potential Intersection Enhancement Project
10100	ASHLEY RD & FREEDOM DR & TUCKASEEGEE RD	36	42	33	111	38,900	2.61	8	21	
12038	E 8TH ST & N COLLEGE ST	10	8	5	23	8,900	2.36	9	2	
11331	E W T HARRIS BV & MEADOW ROSE LN & MILTON RD	29	39	25	93	36,900	2.30	10	16	Recent Signalization Project
8847	E SUGAR CREEK RD & N TRYON ST & W SUGAR CREEK RD	57	44	27	128	51,100	2.29	11	8	
6971	N TRYON ST & REAGAN DR	12	6	12	30	12,000	2.28	12	12	Estimated Volume
48168	NORTHLAKE MALL DR & PERIMETER PY	6	8	11	25	10,000	2.28	13	69	Estimated Volume
11639	PARKWOOD AV & PEGRAM ST	19	15	10	44	18,200	2.21	14	15	
13600	3RD-4TH CONNECTOR ST & E 4TH ST & N KINGS DR & S KINGS DR	36	29	41	106	44,700	2.17	15	44	
5672	BEATTIES FORD RD & SUNSET RD	20	35	28	83	35,600	2.13	16	20	Beatties Ford Widening
4698	LAWING RD & MIRANDA RD & OAKDALE RD & SUNSET RD	6	8	3	17	7,300	2.13	17	13	Recent Spot Safety Project
3152	EASTFIELD RD & OLD STATESVILLE RD	9	12	13	34	14,700	2.11	18	43	
3146	MALLARD CREEK RD & ODELL SCHOOL RD	6	14	9	29	12,600	2.10	19	33	Recent NCDOT Project
12170	S POPLAR ST & W 4TH ST	5	12	6	23	10,500	2.00	20	23	2-way Conversion
8329	BEATTIES FORD RD & LASALLE ST	26	17	22	65	29,900	1.99	21	22	
24904	PINEVILLE-MATTHEWS RD & PROVIDENCE RD	45	56	54	155	71,300	1.99	22	76	
13763	CENTRAL AV & EASTWAY DR	50	32	46	128	59,600	1.96	23	19	
12396	E TRADE ST & N COLLEGE ST & S COLLEGE ST	18	15	18	51	23,800	1.96	24	46	Under construction
21549	S TRYON ST & SANDY PORTER RD	22	23	28	73	34,200	1.95	25	51	
4866	E MALLARD CREEK CHURCH RD & N TRYON ST & W MALLARD CREEK CHURCH RD	25	37	38	100	47,100	1.94	26	60	
11894	E 12TH ST & N BREVARD ST	12	2	3	17	8,200	1.89	27	32	
4061	DAVID COX RD & LAKEVIEW RD & OLD STATESVILLE RD	14	9	11	34	16,400	1.89	28	47	
11972	N POPLAR ST & W 5TH ST	6	9	5	20	9,700	1.88	29	10	Potential 2-way Conversion
12110	S MINT ST & W 4TH ST	5	8	5	18	8,800	1.87	30	35	Potential 2-way Conversion
4175	LAKEVIEW RD & STATESVILLE RD	13	11	5	29	14,300	1.85	31	18	
15882	EAST BV & QUEENS RD WEST & S KINGS DR	22	20	19	61	30,400	1.83	32	61	
10162	E SUGAR CREEK RD & THE PLAZA	30	21	28	79	39,400	1.83	33	54	
12978	E MARTIN LUTHER KING JR BV & S CALDWELL ST	10	9	5	24	12,000	1.83	34	Not Ranked	Estimated Volume
15632	EXECUTIVE CENTER DR & FARM POND LN	7	6	3	16	8,000	1.83	35	58	Estimated Volume
11262	EASTWAY DR & FRONTENAC AV & SHAMROCK DR	35	36	33	104	52,200	1.82	36	34	
18776	SOUTH BV & TYVOLA RD	42	49	39	130	65,500	1.81	37	40	
11882	N PINE ST & W 5TH ST	6	5	4	15	7,600	1.80	38	9	Potential 2-way Conversion
5714	JOHN KIRK DR & UNIVERSITY CITY BV	13	19	35	67	34,000	1.80	39	Not Ranked	Current Intersection Enhancement Project
19986	ARCHDALE DR & SOUTH BV	43	18	21	82	42,300	1.77	40	24	
25815	PINEVILLE-MATTHEWS RD & REA RD	30	32	37	99	51,700	1.75	41	36	
12265	S CHURCH ST & W 4TH ST	14	16	7	37	19,500	1.73	42	27	
10622	MULBERRY CHURCH RD & QUEEN CITY DR	7	16	15	38	20,100	1.73	43	29	
14442	CENTRAL AV & N SHARON AMITY RD	47	45	35	127	67,600	1.72	44	17	
15762	HOPEDALE AV & QUEENS RD	4	6	5	15	8,000	1.71	45	Not Ranked	Estimated Volume
19869	ARCHDALE DR & CHERRYCREST LN	7	7	8	22	11,900	1.69	46	39	
21992	S TRYON ST & WESTINGHOUSE BV	36	33	34	103	55,800	1.69	47	94	
8925	E W T HARRIS BV & THE PLAZA	39	33	23	95	52,200	1.66	48	57	Intersection Enhancement Project
3559	PERIMETER PY & W W T HARRIS BV	6	4	8	18	9,900	1.66	49	Not Ranked	
15253	ALBEMARLE RD & E W T HARRIS BV	60	45	63	168	93,200	1.65	50	38	Bond Project

ID	Location	Collisions			3 Years Total	Avg Volume	Crash Rate	Rank	Prior Year Rank	Notes
		2006	2007	2008						
21312	E ARROWOOD RD & SOUTH BV & STARBROOK DR	20	24	29	73	40,500	1.65	51	70	
9902	CAMBRIDGE COMMONS DR & HARRISBURG RD	9	9	13	31	17,200	1.65	52	72	
12013	FREEDOM DR & W MOREHEAD ST	22	23	20	65	36,200	1.64	53	67	
22250	SHARON LAKES RD & SOUTH BV & SWEDEN RD	22	21	16	59	33,100	1.63	54	77	
12413	E 6TH ST & N BREVARD ST	3	11	11	25	14,200	1.61	55	Not Ranked	
15287	ALBEMARLE RD & N SHARON AMITY RD	34	48	57	139	79,000	1.61	56	56	
7380	REAGAN DR & W SUGAR CREEK RD	28	33	24	85	48,400	1.60	57	31	
9607	E SUGAR CREEK RD & N DAVIDSON ST	18	12	12	42	24,000	1.60	58	116	
13118	CENTRAL AV & E 7TH ST & N KINGS DR	20	12	31	63	36,000	1.60	59	Not Ranked	
15908	HOLBROOK DR & N SHARON AMITY RD	9	10	2	21	12,000	1.60	60	Not Ranked	Estimated Volume
12863	E 3RD ST & S CALDWELL ST	13	11	10	34	19,500	1.59	61	91	Nascar HOF reconstruction
23162	SHARON RD WEST & SOUTH BV	27	24	29	80	45,900	1.59	62	104	
12305	E 5TH ST & N COLLEGE ST	11	12	4	27	15,500	1.59	63	41	
11232	BARRINGTON DR & MILTON RD	8	6	10	24	13,800	1.59	64	110	
8181	FREEDOM DR & TODDVILLE RD	10	12	11	33	19,000	1.59	65	28	
11625	E 11TH ST & N COLLEGE ST	15	13	14	42	24,200	1.58	66	50	Spot Safety Project
7195	REAGAN DR & TOM HUNTER RD	7	6	4	17	9,800	1.58	67	11	
31626	PLAZA WALK DR & THE PLAZA	20	19	7	46	26,600	1.58	68	25	
20523	SOUTH BV & WISTERIA DR	31	12	16	59	34,200	1.58	69	64	
13099	E TRADE ST & ELIZABETH AV & N MCDOWELL ST & S MCDOWELL ST	16	16	13	45	26,100	1.57	70	66	
13019	E JOHN BELK RA & E STONEWALL ST & S BREVARD ST	24	9	8	41	23,900	1.57	71	52	
12991	E MOREHEAD ST & S TRYON ST & W MOREHEAD ST	13	20	21	54	31,500	1.57	72	Not Ranked	
16439	OLD PINEVILLE RD & SCALEYBARK RD & SOUTH BV	17	23	16	56	32,800	1.56	73	101	
12806	E STONEWALL ST & S COLLEGE ST	16	14	15	45	26,400	1.56	74	74	
11847	E 9TH ST & N TRYON ST & W 9TH ST	9	6	11	26	15,400	1.54	75	Not Ranked	
15195	ALBEMARLE RD & FARM POND LN	40	37	29	106	63,000	1.54	76	68	
13667	E 7TH ST & HAWTHORNE LN	14	12	22	48	28,600	1.53	77	85	
9768	EASTWAY DR & THE PLAZA	30	33	24	87	51,900	1.53	78	30	
14091	E 7TH ST & N CASWELL RD & PECAN AV	18	15	14	47	28,100	1.53	79	75	
13302	E 4TH ST & E JOHN BELK RA	10	9	11	30	18,000	1.52	80	Not Ranked	Estimated Volume
5407	J M KEYNES DR & J W CLAY BV & OLMSTED DR	8	7	5	20	12,000	1.52	81	Not Ranked	Estimated Volume
5421	OLD STATESVILLE RD & STATESVILLE RD & SUNSET RD	18	13	29	60	36,100	1.52	82	Not Ranked	
17151	E INDEPENDENCE BV & IDLEWILD RD	40	48	60	148	89,900	1.50	83	Not Ranked	
11108	BERRYHILL RD & THRIFT RD & TUCKASEEGEE RD	6	4	8	18	11,000	1.49	84	Not Ranked	
11707	N GRAHAM ST & W 6TH ST	14	12	21	47	28,800	1.49	85	Not Ranked	
13683	E INDEPENDENCE BV & ELIZABETH AV	10	7	6	23	14,100	1.49	86	119	
17739	E WOODLAWN RD & SOUTH BV	32	21	23	76	47,300	1.47	87	131	
13531	REMOUNT RD & WEST BV	15	14	15	44	27,400	1.47	88	Not Ranked	
12618	E 5TH ST & N CALDWELL ST	8	5	17	30	18,700	1.47	89	Not Ranked	
12611	S CHURCH ST & W STONEWALL ST	11	11	6	28	17,500	1.46	90	63	
11164	CAMP GREENE ST & FREEDOM DR	13	18	17	48	30,000	1.46	91	Not Ranked	
14213	CENTRAL AV & ROSEHAVEN DR	25	13	19	57	35,700	1.46	92	42	
4743	BELLHAVEN BV & MT HOLLY-HUNTERSVILLE RD & ROZZELLES FERRY RD	17	13	15	45	28,200	1.46	93	98	
12199	E 5TH ST & N TRYON ST & W 5TH ST	11	9	7	27	17,000	1.45	94	106	
9974	EDGEWOOD RD & QUEEN CITY DR & TUCKASEEGEE RD	9	3	8	20	12,600	1.45	95	Not Ranked	
23328	SLEDGE RD & STEELE CREEK RD	11	7	12	30	18,900	1.45	96	Not Ranked	
11979	E 12TH ST & E BROOKSHIRE FR RA & N CALDWELL ST	10	16	25	51	32,400	1.44	97	Not Ranked	
11846	BOYER ST & OLD DOWD RD	10	5	11	26	16,600	1.43	98	Not Ranked	
12517	N SHARON AMITY RD & SHAMROCK DR	21	24	20	65	41,600	1.43	99	Not Ranked	
11592	N CEDAR ST & S CEDAR ST & W TRADE ST	14	11	8	33	21,200	1.42	100	Not Ranked	

ID	Location	Collisions			3 Years Total	Avg Volume	Crash Rate	Rank	Prior Year Rank	Notes
		2006	2007	2008						
22547	E HEBRON ST & SOUTH BV	20	19	14	53	34,200	1.42	101	Not Ranked	
7701	NEWELL-HICKORY GROVE RD & OLD CONCORD RD	7	3	7	17	11,000	1.41	102	Not Ranked	Estimated Volume
7554	BACK CREEK CHURCH RD & ROCKY RIVER RD	4	7	9	20	13,000	1.40	103	103	
12896	E 6TH ST & N MCDOWELL ST	8	11	9	28	18,200	1.40	104	73	
12089	E 12TH ST & N DAVIDSON ST	13	12	13	38	24,700	1.40	105	113	
12455	E 3RD ST & S TRYON ST & W 3RD ST	13	13	16	42	27,300	1.40	106	Not Ranked	
4332	S I-85 RA & W MALLARD CREEK CHURCH RD	23	14	17	54	35,300	1.40	107	114	
5832	KEN HOFFMAN DR & N TRYON ST	17	11	20	48	31,500	1.39	108	Not Ranked	
12809	E 7TH ST & N MCDOWELL ST	12	16	16	44	28,900	1.39	109	107	
12333	E 7TH ST & N BREVARD ST	16	6	7	29	19,100	1.39	110	83	
13420	E BLAND ST & S TRYON ST & W BLAND ST	3	9	11	23	15,300	1.37	111	Not Ranked	
7094	EQUIPMENT DR & W SUGAR CREEK RD	11	10	6	27	18,000	1.37	112	71	Estimated Volume
31973	I-77 RA & WESTINGHOUSE BV	14	11	5	30	20,000	1.37	113	78	Estimated Volume
12721	S CHURCH ST & W HILL ST & W JOHN BELK RA	7	6	5	18	12,000	1.37	114	Not Ranked	Estimated Volume
11835	BELMONT AV & N DAVIDSON ST	8	7	10	25	16,700	1.37	115	Not Ranked	
12101	E 6TH ST & N TRYON ST & W 6TH ST	11	13	11	35	23,500	1.36	116	Not Ranked	
15107	CHARLOTTE DR & EAST BV	10	12	13	35	23,600	1.35	117	Not Ranked	
8549	LASALLE ST & NEWCASTLE ST & NEWLAND RD	5	6	11	22	14,900	1.35	118	Not Ranked	
13389	ELIZABETH AV & N KINGS DR	16	7	9	32	21,700	1.35	119	55	
11055	MATHESON AV & THE PLAZA	20	19	20	59	40,200	1.34	120	Not Ranked	
11877	BILLY GRAHAM PY & BOYER ST	19	29	27	75	51,300	1.34	121	Not Ranked	
17555	E WOODLAWN RD & OLD PINEVILLE RD	12	27	13	52	35,600	1.33	122	90	
9791	MATHESON AV & N TRYON ST & W 30TH ST	24	16	14	54	37,000	1.33	123	92	
12695	E TRADE ST & N CALDWELL ST & S CALDWELL ST	11	14	10	35	24,000	1.33	124	Not Ranked	
20563	FARMHURST DR & NATIONS FORD RD	16	9	4	29	19,900	1.33	125	86	
3149	MALLARD CREEK RD & RIDGE RD	6	13	3	22	15,100	1.33	126	79	
12174	N CHURCH ST & S CHURCH ST & W TRADE ST	13	13	7	33	22,700	1.33	127	37	
11981	N CHURCH ST & W 6TH ST	3	11	4	18	12,400	1.33	128	123	Estimated Volume
9604	FREEDOM DR & S I-85 RA	7	15	7	29	20,000	1.32	129	Not Ranked	Estimated Volume
12505	OLD STEELE CREEK RD & WESTERLY HILLS DR & WILKINSON BV	15	19	16	50	34,600	1.32	130	Not Ranked	
8193	E W T HARRIS BV & GRIER RD	29	30	18	77	53,400	1.32	131	Not Ranked	
16107	QUEENS RD WEST & RADCLIFFE AV	6	7	3	16	11,100	1.32	132	Not Ranked	Estimated Volume
11311	MILTON RD & N SHARON AMITY RD	11	19	17	47	32,800	1.31	133	Not Ranked	
20422	S TRYON ST & W ARROWOOD RD	26	27	24	77	53,800	1.31	134	96	
998	CAROWINDS BV & CATAWBA TRACE & CHOATE CR	11	11	16	38	26,600	1.30	135	Not Ranked	
13343	E 7TH ST & E INDEPENDENCE BV	17	16	19	52	36,600	1.30	136	Not Ranked	

2009 Intersection Safety Warrant List

As part of the Charlotte Department of Transportation's goal of providing a safe transportation system for all road users, the Traffic Safety Section has developed a list of locations that have promise as sites for safety improvements. Additionally this list provides a more stable picture of the collision patterns at locations throughout the City to aid in the development of capital projects and programs. City of Charlotte staff is the primary users of this information; however, other transportation professionals may find the information helpful in developing projects and programs. The warrant list will be updated every 2 years with additional warrants for pedestrians, bicyclists, and roadway segments to be released in late 2009.

The following are a few key points regarding the warrant list that may be helpful to non-primary users of this information:

- The locations are selected and prioritized using many crash-related factors. Some of the factors include frequency, rate, severity and crash pattern. To find more information on the screening process, you can consult the appendix included in the full report.
- This listing is not based strictly on highest rate, injuries or frequency. Thus it is **not** an effort to list "the most dangerous locations".
- The locations listed in this publication are only preliminary candidates for safety improvements. The final decision to install safety countermeasures at a location will depend upon the findings of a detailed engineering investigation, the availability of funds and other various factors.

GISValue Id	Location Name	Signalized	5 Year Collision Total	Intersection Warrants					Pedestrian & Bike Warrants				2009 Hal Rank	
				Frontal Impact	Last Year Increase	Severity	Night	Chronic	Last 3years	Night	Alcohol	Chronic		
6454	AINTREE RD & THE PLAZA	No	11			X								
108	AIRPORT DR & WEST BV	No	15			X								
161	ALBEMARLE RD & E WT HARRIS BV	Yes	302								P			50
4342	ALBEMARLE RD & ARLINGTON CHURCH RD & BROOKS MILL RD	No	11					X						
1601	ALBEMARLE RD & BLAIR RD	Yes	48	X										
2278	ALBEMARLE RD & CABARRUS RD	No	32	X										
22716	ALBEMARLE RD & CENTRAL AV	Yes	69				X							
1077	ALBEMARLE RD & CLEAR CREEK COMMERCE DR & ROCKY RIVER CHURCH RD	Yes	40	X										
2268	ALBEMARLE RD & DOOLEY DR	No	12			X								
263	ALBEMARLE RD & EXECUTIVE CENTER DR & JENKINS DR	Yes	86				X							
722	ALBEMARLE RD & FARM POND LN	Yes	162						P	P		P		76
22908	ALBEMARLE RD & I-485 RA	Yes	33			X								
4535	ALBEMARLE RD & PINE GROVE AV	No	13			X								
1176	ALBEMARLE RD & POINT LAKE DR	No	26	X										
1488	ALBEMARLE RD & REDDMAN RD	Yes	101										B	
577	ALBEMARLE RD & REGAL OAKS DR	Yes	120						P				P,B	
326	ALBEMARLE RD & WINTERHAVEN DR	Yes	85				X							
1410	ALLEGHANY ST & ASHLEY RD	Yes	43	X										
1629	ALLEN A BROWN RD & BROWNE RD & DEARMON RD	No	17				X							
653	ANDOVER RD & PROVIDENCE RD	No	13			X								
1202	ARCHDALE DR & MONTPELIER RD	No	13					X						
1916	ARCHDALE DR & OLD PINEVILLE RD	Yes	44	X										
24789	ARDREY KELL RD & BLAKENEY HEATH RD & BLAKENEY PROFESSIONAL DR	No	11			X								
1034	ARDREY KELL RD & COMMUNITY HOUSE RD	No	28	X										
5698	ARDREY KELL RD & LANCASTER HY	Yes	48	X										
8314	ARDREY KELL RD & REA RD	Yes	76				X							
4105	ARDSLEY RD & QUEENS RD & QUEENS RD WEST	No	23					X						
4543	ARLINGTON AV & S CALDWELL ST & SOUTH BV	No	29	X										
345	ARNOLD DR & CENTRAL AV	No	15			X							B	
1473	ARNOLD DR & EASTWAY DR	No	59				X							
1383	ARROWRIDGE BV & N I-77 EXIT 3 RA & W ARROWOOD RD	No	30	X										
923	ASHLEY RD & TUCKASEEGEE RD	Yes	78	X										
5549	ASHMORE DR & E INDEPENDENCE BV	No	32				X							
954	ATANDO AV & LASALLE ST & N I-77 EXIT 12 RA	Yes	33	X										
68	ATANDO AV & N GRAHAM ST	Yes	39	X										
1489	ATANDO AV & STATESVILLE AV	Yes	75	X										
5175	ATMORE ST & E SUGAR CREEK RD	No	30				X							
114	AUSTIN DR & N TRYON ST	No	46	X										
6510	AYRSLEY TOWN BV & S TRYON ST & WHITEHALL PARK DR	Yes	75				X							
6305	BACK CREEK CHURCH RD & HANBERRY BV	No	10			X								
1560	BACK CREEK CHURCH RD & ROCKY RIVER RD	No	35	X										103
572	BACK CREEK DR & E W T HARRIS BV	No	50				X							
5056	BAINBRIDGE RD & MONROE RD	No	11			X								
5199	BALLANTYNE COMMONS PY & DURANT BV & JOHN J DELANEY DR	No	39	X										
825	BALLANTYNE COMMONS PY & JOHN J DELANEY DR	No	56	X										
467	BALLANTYNE COMMONS PY & JOHNSTON RD	Yes	104				X							
979	BALLANTYNE COMMONS PY & NORTH COMMUNITY HOUSE RD	Yes	31	X										
482	BALLANTYNE COMMONS PY & REA RD	Yes	84				X							
2356	BANNER ELK DR & SUNSET RD	No	51	X										
2073	BARCLAY DOWNS DR & BULFINCH RD	No	29	X										
1331	BARRINGER DR & CLANTON RD	Yes	31	X	X									
381	BARRINGER DR & REMOUNT RD	Yes	32	X										
495	BARRINGTON DR & MILTON RD	No	39	X		X								64
165	BARTON CREEK DR & N TRYON ST	No	29	X										

GISValue Id	Location Name	Signalized	5 Year Collision Total	Intersection Warrants					Pedestrian & Bike Warrants				2009 Hal Rank	
				Frontal Impact	Last Year Increase	Severity	Night	Chronic	Last 3years	Night	Alcohol	Chronic		
832	BAXTER ST & S KINGS DR	Yes	32										P	
1281	BEAL ST & N WENDOVER RD	No	29	X										
5423	BEARD RD & RIDGE RD	No	11			X								
5611	BEATTIES FORD RD & BOOKER AV & OAKLAWN AV	Yes	45	X										
20	BEATTIES FORD RD & CATHERINE SIMMONS AV	No	57	X									P	
1994	BEATTIES FORD RD & CINDY LN & GRIERS GROVE RD	Yes	37	X										
1840	BEATTIES FORD RD & DIXON ST	Yes	32							P				
1211	BEATTIES FORD RD & FRENCH ST	Yes	43	X										
853	BEATTIES FORD RD & GILBERT ST & MONTANA DR	Yes	55	X										
2127	BEATTIES FORD RD & KELLER AV	No	26	X										
1741	BEATTIES FORD RD & LASALLE ST	Yes	104	X									P	21
250	BEATTIES FORD RD & N I-85 EXIT 37 RA	Yes	70	X										
2408	BEATTIES FORD RD & SANDERS AV	No	18						P	P				
382	BEATTIES FORD RD & SUNSET RD	Yes	112	X										16
1334	BECKMORE PL & PINEVILLE-MATTHEWS RD	No	12			X								
2034	BELLHAVEN BV & MT HOLLY-HUNTERSVILLE RD & ROZZELLES FERRY RD	Yes	62	X			X							93
254	BELMONT AV & N DAVIDSON ST	No	33	X										115
1282	BELMONT AV & SEIGLE AV	No	18					X						
907	BELVEDERE AV & THE PLAZA	Yes	30	X										
656	BENNETT ST & N TRYON ST	No	68	X										
1885	BEVINGTON PL & REA RD	Yes	27	X										
277	BILLY GRAHAM PY & BOYER ST	Yes	120				X							121
23007	BILLY GRAHAM PY & N I-85 EXIT 33 RA	No	28					X						
5476	BINGHAM DR & N TRYON ST	No	27	X										
5164	BIRNEN DR & JOHNSTON RD & PARK RD	Yes	61				X							
1427	BISCAYNE DR & EASTWAY DR	No	26	X										
2189	BLACK FARMS RD & MAYES RD & SAM FURR RD	No	13			X								
1240	BLUE HERON DR & PINEVILLE-MATTHEWS RD	No	16			X								
1216	BONNIE CONE LN & E MALLARD CREEK CHURCH RD & MARY ALEXANDER RD	Yes	27	X										
1241	BOYER ST & OLD DOWD RD	No	32	X			X							98
1378	BRANDON FOREST DR & SHARON RD WEST	Yes	23			X								
1163	BRIAR CREEK RD & E INDEPENDENCE/BRIAR CREEK RA	No	30	X										
4161	BRIARWOOD DR & THE PLAZA	No	15			X								
10572	BROOKFORD ST & SOUTH COMMERCE BV & WESTINGHOUSE BV	No	12			X								
1987	BROOKSHIRE BV & MT HOLLY-HUNTERSVILLE RD	Yes	79				X							
479	BROOKSHIRE BV & OAKDALE RD	No	84	X										
2109	BROOKSHIRE BV & OLD PLANK RD	No	22			X								
383	BROWNE RD & EASTFIELD RD	No	49	X			X							6
10702	BROWNE RD & HUCKS RD	No	12			X								
1126	BROWN-GRIER RD & SANDY PORTER RD & W ARROWOOD RD	Yes	56	X										
1188	BROWN-GRIER RD & STEELE CREEK RD	Yes	26	X										
232	BUICK DR & CONFERENCE DR & E INDEPENDENCE BV	Yes	104							P				
425	BURGIN ST & EASTWAY DR	No	20			X								
2241	BUSINESS CENTER DR & LITTLE ROCK RD & QUEEN CITY DR	No	32	X										
1573	BYRUM DR & PIPER LN & YORKMONT RD	No	12			X								
562	CALIBRE CROSSING DR & CROSS POINT CR & E INDEPENDENCE BV	No	27	X										
7954	CALLABRIDGE CT & MT HOLLY-HUNTERSVILLE RD	Yes	45				X							
4253	CAMBRIDGE COMMONS DR & HARRISBURG RD	No	50	X			X							52
331	CAMP STEWART RD & HARRISBURG RD	No	26	X										
944	CAMPBELL DR & N SHARON AMITY RD	No	26	X										
2035	CANTERWOOD DR & ELGYWOOD LN	No	14					X						
5716	CARMEL COMMONS BV & CARMEL RD	No	28	X										
4155	CARMEL RD & HILLINGDON RD & WILD PARTRIDGE RD	No	20					X						
2451	CARMEL RD & JOHNSTON RD	Yes	75				X							

GISValue Id	Location Name	Signalized	5 Year Collision Total	Intersection Warrants					Pedestrian & Bike Warrants				2009 Hal Rank	
				Frontal Impact	Last Year Increase	Severity	Night	Chronic	Last 3years	Night	Alcohol	Chronic		
1341	CARMEL RD & SHARON VIEW RD	Yes	43	X										
417	CARMEL RD & WATERFORD SQUARE DR	No	23					X						
1068	CAROLINA LILY LN & ODELL SCHOOL RD	No	25					X						
362	CAROWINDS BV & CATAWBA TRACE & CHOATE CR	Yes	65	X										135
6019	CEDAR CROFT DR & PROVIDENCE RD	No	11			X								
444	CENTRAL AV & E 7TH ST & N KINGS DR	Yes	95				X							59
890	CENTRAL AV & EASTWAY DR	Yes	231										P	23
305	CENTRAL AV & HAWTHORNE LN	Yes	45	X										
1519	CENTRAL AV & LOGIE AV	No	10			X								
96	CENTRAL AV & ROSEHAVEN DR	Yes	117										P	92
5107	CENTRAL AV & PROGRESS LN	No	27	X										
13	CENTRAL AV & SHARON AMITY RD	Yes	262										P,B	44
389	CENTRAL AV & THE PLAZA	Yes	117										P	
642	CHANCELLOR PARK DR & E W T HARRIS BV	No	78					X						
1925	CHARLOTTE DR & EAST BV	No	48	X			X							117
194	CHARLOTTETOWNE AV & E 4TH ST	Yes	68	X										
155	CHARLOTTETOWNE AV & S KINGS DR	Yes	42		X									
451	CHASTAIN AV & E WOODLAWN RD	No	64				X							
344	CHEROKEE RD & PROVIDENCE RD	Yes	66	X										
8104	CHILTON PL & SHARON RD	No	10			X								
1213	CHOATE CR & S TRYON ST	No	48	X										
4496	CHRISTENBURY RD & GIBBON RD	No	14					X						
1823	CINDERELLA RD & W SUGAR CREEK RD	No	42	X										
1168	CIRCLE AV & HERMITAGE CT & PROVIDENCE RD	No	9					X						
1232	CITISIDE DR & EASTWAY DR & WELDON AV	No	37	X			X							
5956	CITY VIEW DR & E INDEPENDENCE BV	No	46	X			X							
1471	CLANTON RD & N I-77 EXIT 7 RA	Yes	32	X										
766	CLARICE AV & E 7TH ST	No	34	X										
2419	CLAUDE FREEMAN DR & W MALLARD CREEK CHURCH RD	Yes	42				X							
1180	CLEMSON AV & MATHESON AV	No	10			X								
8327	CLOISTER DR & PROVIDENCE RD	No	12			X								
14146	COLDSTREAM LN & N WENDOVER RD	No	10			X								
1092	COLONY ACRES DR & HILARY CR & NATIONS FORD RD	No	13			X								
2042	COLONY RD & FAIRVIEW RD	Yes	48				X							
831	COLONY RD & SHARON VIEW RD	Yes	32	X										
252	COLVILLE RD & PROVIDENCE RD	Yes	56	X										
2131	CONCORDIA AV & N GRAHAM ST	No	13			X								
2156	CONLAN CR & JOHN J DELANEY DR	No	50	X										5
458	CONNECTING RD & E WOODLAWN RD	No	11			X								
1020	COTTONWOOD ST & N GRAHAM ST & REAGAN DR	Yes	53	X										
181	CURTISWOOD DR & EASTWAY DR	No	41					X						
2325	DAVID COX RD & LAKEVIEW RD & OLD STATESVILLE RD	No	51	X										28
453	DAVID COX RD & W W T HARRIS BV	No	25	X										
5901	DAVID TAYLOR DR & W MALLARD CREEK CHURCH RD	No	39	X										
1705	DAVIS LAKE PY & W W T HARRIS BV	Yes	59				X							
5891	DELTA LAKE DR & E W T HARRIS BV	No	10			X								
5144	DILWORTH RD EAST & EAST BV	Yes	39	X										
8164	DIXIE RD & DIXIE RIVER RD	No	11			X								
784	DONALD ROSS RD & WILKINSON BV	No	42				X							
4347	DONEGAL DR & RAMA RD	No	10			X								
1096	DOWNNS RD & E WESTINGHOUSE BV	Yes	28	X										
1808	E 11TH ST & E BROOKSHIRE FR RA & N DAVIDSON ST	Yes	37	X										
661	E 11TH ST & N CALDWELL ST	Yes	32	X										
163	E 11TH ST & N COLLEGE ST	Yes	73	X										66

GISValue Id	Location Name	Signalized	5 Year Collision Total	Intersection Warrants					Pedestrian & Bike Warrants				2009 Hal Rank	
				Frontal Impact	Last Year Increase	Severity	Night	Chronic	Last 3years	Night	Alcohol	Chronic		
1057	E 12TH ST & E BROOKSHIRE FR RA & N CALDWELL ST	Yes	55		X		X							97
18	E 12TH ST & N BREVARD ST	Yes	34					X						27
247	E 12TH ST & N COLLEGE ST	Yes	51	X		X								2
517	E 18TH ST & N DAVIDSON ST	No	25	X										
1506	E 28TH ST & N TRYON ST & W 28TH ST	Yes	49						P			B		
5324	E 33RD ST & N DAVIDSON ST	No	10			X								
1976	E 36TH ST & HOLT ST	No	13					X						
407	E 3RD ST & E JOHN BELK RA	Yes	66	X										
1194	E 3RD ST & E JOHN BELK RA	Yes	42	X										
1082	E 3RD ST & PROVIDENCE RD & S CASWELL RD	Yes	55	X										
1927	E 3RD ST & S CALDWELL ST	Yes	48	X										61
393	E 3RD ST & S COLLEGE ST	Yes	34									P		
270	E 3RD ST & S KINGS DR	Yes	63	X			X							
207	E 3RD ST & S MCDOWELL ST	Yes	74	X									p	
820	E 3RD ST & S TORRENCE ST	No	28	X										
819	E 3RD ST & S TRYON ST & W 3RD ST	Yes	67				X							106
41	E 4TH ST & S DAVIDSON ST	Yes	26						P					
999	E 4TH ST & E JOHN BELK RA	Yes	40	X										80
1485	E 4TH ST & HAWTHORNE LN & QUEENS RD	Yes	54	X										
698	E 4TH ST & S COLLEGE ST	Yes	45	X			X							
1088	E 4TH ST & S MCDOWELL ST	Yes	49				X		P			P		
79	E 5TH ST & N CALDWELL ST	Yes	58	X			X							89
5172	E 5TH ST & N DAVIDSON ST	Yes	32	X										
620	E 5TH ST & N MCDOWELL ST	Yes	34	X										
2382	E 6TH ST & N BREVARD ST	Yes	42	X			X							55
1714	E 6TH ST & N COLLEGE ST	Yes	55									P		
508	E 6TH ST & N MCDOWELL ST	Yes	47	X										104
1515	E 6TH ST & N TRYON ST & W 6TH ST	Yes	58				X							116
1353	E 7TH ST & E INDEPENDENCE BV	Yes	72				X							136
170	E 7TH ST & HAWTHORNE LN	Yes	93	X										77
835	E 7TH ST & N CALDWELL ST	Yes	51	X										
681	E 7TH ST & N CASWELL RD & PECAN AV	Yes	82	X										79
950	E 7TH ST & N DAVIDSON ST	Yes	25	X										
1015	E 7TH ST & N MCDOWELL ST	Yes	73	X			X							109
2301	E 7TH ST & RIDGEWAY AV	No	25	X										
731	E 7TH ST & N TRYON ST & W 7TH ST	Yes	58									P		
1728	E 8TH ST & N COLLEGE ST	No	43	X										9
27	E 8TH ST & N TRYON ST & W 8TH ST	Yes	35									P		
1973	E 8TH ST & PECAN AV	No	11					X						
670	E 9TH ST & N COLLEGE ST	Yes	49	X										1
1008	E 9TH ST & N TRYON ST & W 9TH ST	Yes	41	X										75
7	E ARROWHEAD DR & N TRYON ST & W ARROWHEAD DR	No	66	X										
4148	E ARROWOOD RD & ENGLAND ST & OLD PINEVILLE RD	Yes	32				X							
274	E ARROWOOD RD & NATIONS FORD RD & W ARROWOOD RD	Yes	136	X								P		7
91	E ARROWOOD RD & SOUTH BV & STARBROOK DR	Yes	130						P					51
587	E BLAND ST & S TRYON ST & W BLAND ST	Yes	37	X			X							111
1549	E HEBRON ST & NATIONS FORD RD & W HEBRON ST	Yes	38	X										
8318	E HILL ST & S COLLEGE ST	No	30	X										
2032	E HILL ST & S TRYON ST & W HILL ST	No	13			X								
455	E INDEPENDENCE BV & IDLEWILD RD	Yes	243									B		83
1509	E INDEPENDENCE BV & ROCKWAY DR	No	11			X								
1076	E INDEPENDENCE BV & SHARON FOREST DR	No	41	X										
901	E INDEPENDENCE BV & WALLACE RD	No	68	X										
358	E JOHN BELK RA & E STONEWALL ST & S BREVARD ST	Yes	60	X										71

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				Frontal Impact	Last Year Increase	Severity	Night	Chronic	Last 3years	Night	Alcohol	Chronic		
23228	E MALLARD CREEK CHURCH RD & JOHN KIRK DR	No	20				X							
1115	E MALLARD CREEK CHURCH RD & N TRYON ST & W MALLARD CREEK CHURCH RD	Yes	148				X							26
23692	E MALLARD CREEK CHURCH RD & UNIVERSITY CITY BV	No	64				X							
103	E MARTIN LUTHER KING JR BV & S CALDWELL ST	Yes	31	X										34
7927	E MARTIN LUTHER KING JR BV & S DAVIDSON ST	No	38	X	X									3
1143	E MOREHEAD ST & HARDING PL	Yes	26	X										
4045	E MOREHEAD ST & S TRYON ST & W MOREHEAD ST	Yes	78					X						72
523	E STONEWALL ST & S CALDWELL ST	Yes	53	X										
2107	E STONEWALL ST & S COLLEGE ST	Yes	74	X					P			P		74
1695	E STONEWALL ST & S MCDOWELL ST	Yes	46				X							
439	E SUGAR CREEK RD & MCMILLAN ST	No	13			X								
1053	E TRADE ST & ELIZABETH AV & N MCDOWELL ST & S MCDOWELL ST	Yes	71	X										70
2433	E TRADE ST & N CALDWELL ST & S CALDWELL ST	Yes	50	X										124
828	E TRADE ST & N COLLEGE ST & S COLLEGE ST	Yes	83						P			P		
498	E TRADE ST & N DAVIDSON ST & S DAVIDSON ST	Yes	42	X										
987	E TRADE S & S BREVARD ST	Yes	29						P					
328	E TREMONT AV & SOUTH BV	Yes	67									B		
7952	E W T HARRIS BV & UNIVERSITY CITY BV	No	19		X		X							
1303	E WESTINGHOUSE BV & NATIONS FORD RD & WESTINGHOUSE BV	Yes	28	X										
1226	E WESTINGHOUSE BV & RODNEY ST	No	13			X								
712	E WOODLAWN RD & RUNNYMEDE LN & SELWYN AV	Yes	64	X										
197	EAST BV & KENILWORTH AV	Yes	62	X										
5108	EAST BV & PARK RD	No	21					X						
1198	EASTFIELD RD & OLD STATESVILLE RD	No	48				X							18
2311	EASTWAY CROSSING DR & EASTWAY DR	Yes	30	X										
746	EASTWAY DR & FRONTENAC AV & SHAMROCK DR	Yes	177									P		36
5195	EASTWAY DR & MAGNOLIA HILL DR	No	18			X								
5621	EL VERANO CR & SHARON LAKES RD	No	10			X								
2342	ELIZABETH AV & HAWTHORNE LN	Yes	28	X										
446	ELIZABETH AV & N KINGS DR	Yes	70									P		119
315	ENFIELD RD & KILBORNE DR	No	17					X						
4235	EPRI DR & W W T HARRIS BV & WACHOVIA DR	Yes	26					X						
1419	EQUIPMENT DR & N GRAHAM ST	No	29	X										
1989	EQUIPMENT DR & W SUGAR CREEK RD	No	44	X										112
908	ERWIN RD & STEELE CREEK RD	No	29	X										
119	E W T HARRIS BV & N TRYON ST & W WT HARRIS BV	Yes	212						P					
12770	FAIRES FARM RD & KATHERINE KIKER RD	No	16					X						
2403	FAIRVIEW RD & SIMSBURY RD	No	25	X										
23470	FAIRVIEW RD & SOUTH PARK DR	No	27	X										
1030	FARMHURST DR & FOREST POINT BV & NATIONS FORD RD	Yes	23			X								
1199	FARMHURST DR & NATIONS FORD RD	No	41	X										125
1456	FINCHLEY DR & SHAMROCK DR	No	28	X										
420	FOLGER DR & PROVIDENCE RD	No	24	X										
22674	GALLERIA VILLAGE DR & SARDIS RD NORTH	No	23					X						
1244	GIBBON RD & NEVIN RD	Yes	38	X										
546	GIBBON RD & OLD STATESVILLE RD	Yes	44	X			X							
1144	GLENEAGLES RD & PARK RD & SHARON RD WEST	Yes	62				X							
6301	GLENWOOD DR & S I-85 EXIT 35 RA	No	26	X										
811	GOVERNOR HUNT RD & MALLARD CREEK RD	Yes	23					X						
971	GRIER RD & ORR RD	No	15			X								
1514	GRIER RD & ROCKY RIVER RD	Yes	11			X								
2231	GROVER RD & SOUTH BV	Yes	48	X										
7953	HAMILTON RD & STEELE CREEK RD	Yes	25	X										
1283	HARGROVE AV & MIDLAND AV & WILKINSON BV	No	38	X										

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				Frontal Impact	Last Year Increase	Severity	Night	Chronic	Last 3years	Night	Alcohol	Chronic		
1457	HARRIS HOUSTON RD & UNIVERSITY CITY BV	No	30	X										
6234	HARRISBURG RD & MISENHEIMER RD	No	11			X								
136	HARRISBURG RD & PARKTON RD	No	26	X										
1014	HAZELTON DR & LOUISBURG SQUARE LN & SHARON RD	No	10			X								
861	HEATHER LN & PARK RD	Yes	32	X										
956	HEATHWAY DR & N TRYON ST	No	43	X										
160	HIDDEN VALLEY RD & W SUGAR CREEK RD	Yes	52				X							
833	HONDURES DR & W SUGAR CREEK RD	No	12			X								
1147	HOOD RD & ROCKY RIVER RD	No	26	X										
1845	HUNTSMOOR DR & NATIONS FORD RD	No	32	X										
6275	HUTCHISON-MCDONALD RD & STATESVILLE RD	No	13			X								
5591	I-485 RA & N TRYON ST	No	12			X								
9248	I-77 RA & WESTINGHOUSE BV	No	51	X										113
743	IDEAL WY & REMOUNT RD & SOUTH BV	Yes	56	X										
378	IDLEWILD RD & PINEY GROVE RD	Yes	26	X										
8125	IDLEWILD RD & SALLY LN	No	11			X								
2428	J M KEYNES DR & J W CLAY BV & OLMSTED DR	No	33	X										81
1172	J M KEYNES DR & N TRYON ST & UNIVERSITY HOSPITAL DR	Yes	45				X							
1170	J W CLAY BV & N TRYON ST	Yes	78				X							
5299	JOHN J DELANEY DR & JOHNSTON RD	Yes	107				X							
216	JOHN KIRK DR & OLD CONCORD RD	No	18			X								
4054	JOHN RUSSELL RD & ROCKY RIVER RD	No	12			X								
2206	JOHNSTON RD & MARVIN RD	No	68				X							
13060	JOHNSTON RD & NORTH COMMUNITY HOUSE RD	Yes	49				X							
532	JOHNSTON RD & PROVIDENCE RD WEST	Yes	52				X							
353	JOSH BIRMINGHAM PY & OLD DOWD RD	Yes	21				X							
8140	KEMP ST & N TRYON ST	No	13					X						
1915	KUYKENDALL RD & PROVIDENCE RD	Yes	44				X							
2344	LAKEVIEW RD & STATESVILLE RD	No	45	X										31
494	LAKEVIEW RD & W W T HARRIS BV	Yes	45				X							
436	LASALLE ST & NEWCASTLE ST & NEWLAND RD	No	37	X										118
1064	LAWING RD & MIRANDA RD & OAKDALE RD & SUNSET RD	No	21					X						17
481	LAWYERS RD & LEBANON RD & WILSON GROVE RD	No	1					X						
794	LAWYERS RD & MEADOW GLEN DR	No	7					X						
286	LAWYERS RD & OLIVET DR	No	16			X								
2188	LAWYERS RD & ROLLING OAK LN	No	13			X								
5161	LITTLE ROCK RD & SCOTT FUTRELL DR	Yes	24		X		X							
2005	LONGLEAF DR & SOUTH BV	No	34				X							
1717	LUCENA ST & MORETZ AV	No	18					X						
645	MALLARD CREEK RD & MEDICAL PLAZA DR	No	22					X						
325	MALLARD CREEK RD & ODELL SCHOOL RD	No	47	X										19
1690	MALLARD CREEK RD & OLD MALLARD CREEK RD	Yes	36	X										
603	MALLARD CREEK RD & PROSPERITY CHURCH RD & W MALLARD CREEK CHURCH RD	Yes	94				X							
1588	MALLARD CREEK RD & RIDGE RD	No	40				X							126
590	MCLEAN RD & MEADOW VISTA RD & OLD CONCORD RD	Yes	40				X							
5284	MCMAHAN DR & PINEVILLE-MATTHEWS RD	No	27	X										
735	MEADOWBROOK RD & RANDOLPH RD & WENDWOOD LN	No	15			X								
1736	MEADOWCLIFF DR & MILTON RD	No	10			X								
15036	METROMONT INDUSTRIAL BV & REAMES RD	No	14			X								
5680	MOORES CHAPEL RD & OLD MT HOLLY RD	No	11			X								
2038	MORETZ AV & N GRAHAM ST & W 28TH ST	Yes	44	X										
102	MORETZ AV & STATESVILLE AV	No	14			X								
1768	MORRIS FIELD DR & WILKINSON BV	Yes	60				X							
707	MOSS RD & S TRYON ST	Yes	50	X										

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				Frontal Impact	Last Year Increase	Severity	Night	Chronic	Last 3years	Night	Alcohol	Chronic		
10674	MOTORSPORTS LN & STATESVILLE RD	No	13			X								
5475	MT HOLLY-HUNTERSVILLE RD & OAKDALE RD	No	44				X							
372	MULBERRY CHURCH RD & QUEEN CITY DR	Yes	74	X										43
4570	N CEDAR ST & S CEDAR ST & W TRADE ST	Yes	47				X							100
78	N CHURCH ST & W 5TH ST	Yes	47	X										
4203	N CHURCH ST & W 6TH ST	Yes	36				X			P				128
5074	N CHURCH ST & S CHURCH ST & W TRADE ST	Yes	67										P	127
1121	N COLONIAL AV & RANDOLPH RD & S COLONIAL AV	No	64	X										
227	N DAVIDSON ST & PARKWOOD AV	Yes	41	X										
796	N GRAHAM ST & NORRIS AV	Yes	24			X								
762	N GRAHAM ST & S GRAHAM ST & W TRADE ST	Yes	55	X						P			P	
39	N GRAHAM ST & SYLVANIA AV	No	11			X								
783	N GRAHAM ST & W 5TH ST	Yes	45	X										
149	N GRAHAM ST & W 6TH ST	Yes	72	X			X							85
2068	N HOSKINS RD & ROZZELLES FERRY RD & S HOSKINS RD	Yes	33	X										
2020	N I-77 EXIT 10B RA & N I-77 EXIT 10C RA & W 5TH ST	Yes	35	X			X							
231	N I-77 EXIT 10B RA & W TRADE ST	Yes	54	X										
913	N I-77 EXIT 16 RA & SUNSET RD	No	46					X						
1261	N I-77 EXIT 16 RA & SUNSET RD	No	28	X		X								
1268	N I-77 EXIT 3 RA & W ARROWOOD RD	No	10					X						
1386	N I-77 EXIT 5 RA & TYVOLA RD	No	17					X						
6340	N I-85 RA & SAM WILSON RD	No	10			X								
5145	N I-85 RA & W MALLARD CREEK CHURCH RD	No	47				X							
922	N IRWIN AV & W 5TH ST	No	27	X										
1863	N PINE ST & W 5TH ST	No	30	X										38
5112	N PINE ST & W 6TH ST	No	21				X							
4128	N POPLAR ST & W 5TH ST	Yes	41	X										29
2192	N SHARON AMITY RD & SUDBURY RD	No	28	X										
643	N SYCAMORE ST & W 5TH ST	No	19					X						
22745	N TRYON ST & OLD CONCORD RD	Yes	83				X							
5513	N TRYON ST & PAVILION BV	Yes	40				X							
75	N TRYON ST & REAGAN DR	No	48	X										12
82	N TRYON ST & REAGAN DR	No	12			X								
5057	N TRYON ST & UNIVERSITY CITY BV	No	14			X								
1802	N TRYON ST & W 26TH ST	No	13			X								
5930	N TRYON ST & WEDNESBURY BV	No	13			X								
966	N TRYON ST & WELLINGFORD ST	No	34	X										
2392	NATIONS FORD RD & RED ROOF DR	No	25	X										
5600	NATIONS FORD RD & S I-77 EXIT 4 RA	Yes	28	X										
5446	NATIONS FORD RD & SHORT HILLS DR	No	15			X								
24917	NORTHLAKE MALL DR & PERIMETER PY	No	27	X										
4053	OAK LEIGH DR & UNIVERSITY CITY BV	No	27	X										
4578	OLD PROVIDENCE RD & REA RD	No	25	X										
919	OLD STATESVILLE RD & W W T HARRIS BV	Yes	114				X							
1449	OLD STEELE CREEK RD & WEST BV	Yes	39	X			X							
56	PARK CEDAR DR & PINEVILLE-MATTHEWS RD	No	39	X										
162	PARKWOOD AV & PEGRAM ST	No	65	X										14
688	PAUL BUCK BV & W TYVOLA RD	Yes	16			X								
466	PINEVILLE-MATTHEWS RD & PROVIDENCE RD	Yes	228				X							22
8230	PIONEER AV & WESTINGHOUSE BV	No	26	X										
2128	PIPER STATION DR & REA RD	Yes	62				X							
10628	PLAZA WALK DR & THE PLAZA	No	65	X			X							68
489	PRINCETON AV & QUEENS RD WEST	No	11			X								
5226	PROSPERITY CHURCH RD & RIDGE RD	No	28	X										

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991	PROVIDENCE COUNTRY CLUB DR & PROVIDENCE RD	Yes	29					X					
761	QUEENS RD WEST & SELWYN AV	Yes	41	X				X					
1002	QUEENS RD WEST & WESTFIELD RD	No	28	X								B	
1882	RANDOLPH RD & VAN NESS ST	No	10			X							
622	REA RD & STALLWORTH DR	No	9					X					
48	REAGAN DR & TOM HUNTER RD	No	36	X									67
6283	RED FOX TL & SHARON RD	No	11			X							
593	REID AV & WEST BV	No	13			X							
2446	REMOUNT RD & TOOMEY AV	No	15			X							
847	REMOUNT RD & WEST BV	Yes	76									P	88
23404	RIVERGATE PY & S TRYON ST	No	42	X	X			X					
5279	ROCKWELL BV & W SUGAR CREEK RD	No	10			X							
11442	ROMARE BEARDEN DR & WEST BV	No	11			X							
1952	ROZZELLES FERRY RD & TODDVILLE RD	No	18			X							
1385	S CHURCH ST & W 3RD ST	Yes	43	X									
1290	S CHURCH ST & W 4TH ST	Yes	57	X									42
1191	S CHURCH ST & W HILL ST & W JOHN BELK RA	No	22						X				114
2157	S CHURCH ST & W MOREHEAD ST	Yes	28	X									
10	S CHURCH ST & W STONEWALL ST	Yes	47	X									90
5094	S GRAHAM ST & S MINT ST & W STONEWALL ST	Yes	36	X									
948	S GRAHAM ST & W 4TH ST	Yes	32	X									
5467	S I-77 EXIT 10B RA & S I-77 EXIT 10C RA & W 5TH ST	No	25	X									
1531	S I-77 EXIT 10B RA & W TRADE ST	No	37	X									
936	S I-77 EXIT 3 RA & W ARROWOOD RD	Yes	30	X									
4189	S MINT ST & S MINT ST & W SUMMIT AV	No	14						X				
222	S MINT ST & W 3RD ST	Yes	18						X				
4156	S MINT ST & W 4TH ST	Yes	25					X					30
1186	S MINT ST & W MOREHEAD ST	Yes	40	X									
1238	S MINT ST & WEST BV	Yes	27	X									
730	S POPLAR ST & W 4TH ST	Yes	43	X									20
983	S TRYON ST & SANDY PORTER RD	Yes	101					X					25
335	S TRYON ST & STEELE CREEK RD	Yes	45		X			X					
5242	S TRYON ST & TYVOLA CENTRE DR	No	26	X									
186	S TRYON ST & W ARROWOOD RD	Yes	126					X					134
166	S TRYON ST & WEST BV	Yes	51	X								P	
308	S TRYON ST & WESTINGHOUSE BV	Yes	157					X					47
932	S TRYON ST & WHITEHALL COMMONS SHOPPING CENTER DR & YAGER CREEK DR	Yes	68					X					
8690	S TRYON ST & YORK CENTER DR & GENERAL DR	No	17			X							
147	SAM NEELY RD & STEELE CREEK RD	No	29	X		X	X						
1431	SARDIS LN & SARDIS RD	No	17			X							
1685	SARDIS RD & SARDIS RD NORTH	Yes	29	X									
5957	SARDIS RD & TIMBER LN	No	12			X							
268	SELWYN AV & WELLESLEY AV	No	15									B	
16564	SENATOR ROYALL DR & W MALLARD CREEK CHURCH RD	Yes	34						X				
1930	SHADY OAK TL & SHARON LAKES RD	No	12			X							
319	SHAMROCK DR & TIPPERARY PL & WILLARD FARROW DR	Yes	27	X									
5940	SLEDGE RD & STEELE CREEK RD	No	47	X				X					96
6394	SOFLEY RD & W SUGAR CREEK RD	No	32	X									
113	SOUTH BV & TYVOLA RD	Yes	213									P	37
1415	STATESVILLE AV & WOODWARD AV	No	9						X				
4070	STEELE CREEK RD & STEELE OAKS DR	No	13			X							
544	STEELE CREEK RD & WESTINGHOUSE BV	Yes	48	X									
760	TECHNOLOGY DR & W W T HARRIS BV	Yes	64						X				
4308	TOM HUNTER RD & WHITE PLAINS RD	No	20			X							

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2353	W 10TH ST & W BROOKSHIRE RA	No	10			X								
13485	W ARROWOOD RD & WHITEHALL PARK DR	No	11			X								
22642	W SUGAR CREEK RD & W W T HARRIS BV	Yes	120				X							
440	W TRADE ST & WESLEY HEIGHTS WY	No	29	X										
474	W TYVOLA RD & YORKMONT RD	Yes	68	X										
528	WEYLAND AV & WILKINSON BV	No	27	X										

Appendix

Intersection Safety Warrants Selection Criteria

Warrant I-1: Frontal Impact

Locations with a minimum of 25 total collisions AND a minimum of 50% of all crashes were frontal impact crashes AND a minimum of 25% of the total crashes occurred in the last 2 years. Frontal impact crashes are defined as:

- Angle
- Left Turn (same or different roadways)
- Right Turn (same or different roadways)
- Head On

Warrant I-2: Last Year Increase

Locations with a minimum of 25 total crashes AND a minimum of 38% of the total crashes occurred during the last year.

Warrant I-3: Frequency with a Severity Index Minimum

Tier 1: Locations with a minimum of 25 total crashes AND a minimum severity index of 7.0 AND a minimum of 40% of the collisions involving injury.

Tier 2: Locations with a minimum of 10 total crashes AND a minimum severity index of 8.0 AND a minimum of 50% of the collisions involving injury.

Severity index of a location is equal to the total equivalent property damage only (EPDO) collisions divided by the total number of collisions. EPDO is calculated as follows;

$$(76.8*(K+A)) + (8.4*(B+C)) + (O+U)$$

Where

K=Fatal collisions

A=Disabling injury collisions

B=Evident injury collisions
C=Possible injury collisions
O=No injury collisions
U=Unknown injury collisions

Warrant I-4: Night Locations without Streetlights (Officer indicated)

Locations with a minimum of 25% of the total crashes occurring in the last 2 years AND locations with a minimum of 12 crash that occurred at night.

Warrant I-5: Chronic Pattern

This warrant only applies to locations that did not meet the conditions of Warrants 1-4

Locations with a minimum of 20 crashes during 10 years, 15% of the total crashes occurring in the last 3 years AND a minimum of 80% of the total crashes were in one of the following pattern categories:

- Rear End (all rear end crash types)
- Crossing (all left turn, angle, and head on crash types)

Warrant P-1: Last 3 Years (Pedestrians)

Locations with a minimum of 4 crashes involving pedestrians reported in the last 10 years AND a minimum of 45% of all crashes involving pedestrians happened in the last 3 years.

Warrant P-2: Darkness with Streetlights (Pedestrians)

Locations with a minimum of 4 crashes involving pedestrians reported in the last 10 years AND a minimum of 55% of all crashes involving pedestrians occurred during darkness with streetlights.

Warrant P-3: Alcohol Involvement (Pedestrians)

Locations with a minimum of 4 crashes involving pedestrians reported in the last 10 years AND a minimum of 30% of all crashes involving pedestrians must have involved alcohol.

Warrant P-4: Chronic Location (Pedestrians)

Locations with a minimum of 6 crashes involving pedestrians reported in the last 10 years.

Warrant X-1: Last 3 Years (Bicyclists)

Locations with a minimum of 3 crashes involving bicyclists reported in the last 10 years AND a minimum of 45% of all crashes involving bicyclists happened in the last 3 years.

Warrant X-2: Darkness with Streetlights (Bicyclists)

Locations with a minimum of 3 crashes involving bicyclists reported in the last 10 years AND a minimum of 55% of all crashes involving bicyclists occurred during darkness with streetlights.

Warrant X-3: Alcohol Involvement (Bicyclists)

Locations with a minimum of 3 crashes involving bicyclists reported in the last 10 years AND a minimum of 30% of all crashes involving bicyclists must have involved alcohol.

Warrant X-4: Chronic Location (Bicyclists)

Locations with a minimum of 4 crashes involving bicyclists reported in the last 10 years.