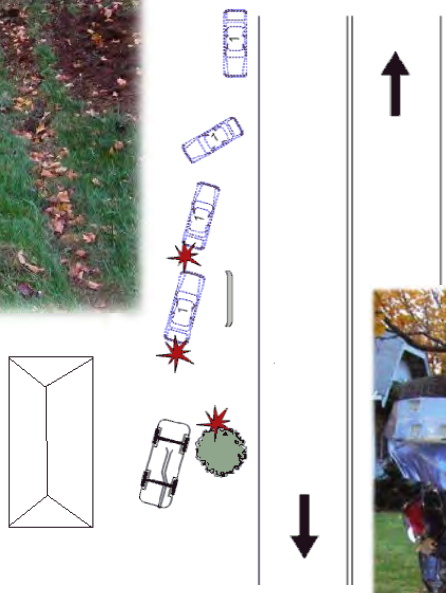
2007 Tippecanoe County Vehicle Crash Report



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Dayton Police Department • Indiana Department of Transportation

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EXECUTIVE SUMMARY

In 2007, police agencies reported 7,472 crashes in Tippecanoe County, 5,746 of which occurred on public roadways e.g., parking facilities and private drives/property are excluded from this analysis. This averages to approximately 16 crashes per day on the road system. As is typical, the vast majority of crashes only involved property damage (4693 or 81.7%). Eighteen percent (1033) involved one or more personal injuries. The number of fatalities typically fluctuates year to year; however, there were 20 fatality crashes in 2007, resulting in 22 deaths.

The winter months (January, February, November, and December,) typically rank the highest for property damage crashes, with this year's peak in February, followed by December. The pattern for personal injury and fatality crashes is also high in the autumn and winter months with a peak in December, followed by September and October.

Fridays consistently had the most crashes of all types and accounted for 1,063 or 18.5% of the total number of crashes. Likewise, Sunday consistently had the fewest total crashes (591 or 10.3% of total). In 2007, there was no defined peak for fatality accidents. Four fatality crashes each occurred on Tuesdays, Wednesdays, and Saturdays. Monday reported the least number of fatality crashes with only 1.

Historically 25% of all accidents (including property damage and injury crashes) occurred between 3-6pm. This year's hourly peak was between 5-6pm for a total of 512 (property damage of 414, and personal injury crashes of 97). Typically 3am to 6am have the fewest crashes with this year's low occurring from 4-5am (52).

Of the primary circumstances that contribute to a crash, forty percent were *following too closely* and *failing to yield the right-of-way*. Naturally, the top two types of collisions were then *rear end*, 32.4%, and *right angle*, 19.1%.

There were 102 intersections that had ten or more crashes, and all but 4 of the top 40 (ranked by number of crashes) involved a state road. The intersection that had the most crashes was SR 26 and Creasy with 42, followed by US 52 at SR 26 (39 crashes), SR 26 and the I-65 southbound exit/entrance ramps (37 crashes), and US 52 at Cumberland Ave (35 crashes, 9 of which involved one or more injuries). These intersections, along with US 52 and Teal, and US 52 and SR 38, are historically ranked in the top 10 crash locations.

When crash locations are compared based on exposure (i.e., crashes per Million Entering Vehicles-MEV) the worst intersection was SR 43 and the NB Exit/Entrance Ramps to I-65 followed by Kossuth and 4th St. Although these are not heavily traveled intersections, their relative rate of crashes was larger than the other major intersections in the county.

GLOSSARY

ADT: Average Daily Traffic (ADT) is the average number of vehicles counted on a road segment. The types of vehicles counted include passenger cars, trucks, tractor-trailers, motorcycles, and bicycles. In Tippecanoe County the ADT is computed from a 48-hour weekday traffic count, and adjusted to account for a seasonal variation volume due to Purdue University student population.

ARIES: Automated Reporting Information Exchange System (ARIES) developed and maintained by the Indiana State Police. ARIES provides officer's an electronic means to complete the Indiana Officer's Crash Report form. The system also allows access to authorized individuals to the Indiana State Police crash records database. ARIES was formerly known as the Vehicle Crash Record System (VCRS).

Aggressive Driving: Two or more driver behaviors actions that occur in a relatively short distance that include but not limited to: following too close, failure to signal lane changes, speeding, driving on the shoulder, cutting back into lane without sufficient clearance, etc.

Alcohol-Related Crash: A crash in which the investigating officer reported one or more of the following: Primary Contributing Circumstance for the crashes as Alcoholic Beverages; Vehicle Contributing Circumstance for one or more of the involved vehicles as Alcoholic Beverage, or; A Blood Alcohol Concentration of greater than 0.08 percent for one or more of the drivers involved in the crash.

Construction Zone: It begins with the first actual lane restriction or required reduction of speed and ends when the lanes are returned to a normal flow and normal speed.

Contributing Circumstances: For each vehicle, the officer can select up to two "Driver" contributing circumstances, and one "Vehicle" and one "Environmental" contributing circumstances. For one of the vehicles in the accident, one the four possible contributing circumstances must be the primary factor. Appendix A provides the options available to the Officers.

Crash Report:
Motor vehicle crashes have a number of characteristics that are used to determine whether or not a crash report is required. If the answer to each of the questions below is "yes", the incident is a motor vehicle crash[1]:

1. Did the incident involve one or more motor vehicles?
2. Of the motor vehicles involved, was at least one in motion?
3. Did the incident originate on a traffic way, or on private property; and where injury or apparent damage occurred?
4. Was there at least one occurrence of injury or damage, which was not a direct result of a cataclysm (act of nature)?

[1] Previously, acts of "Deliberate intent" (suicide, homicide, legal intervention, etc.) were excluded from crash reports and documented on criminal case reports; however, depending on an agencies policy, a victim or their agent could have difficultly in obtaining needed information. As a result of this, if a deliberate act meets the criteria set forth in questions 1-4, a crash report will be required in addition to any criminal report(s).

If vehicles are moved, a report should be completed and is required by law if the crash involves $1,000 or more in property damage, or when personal injury or death has occurred, regardless if the vehicle(s) have been moved prior to the officer's arrival.

If a chain of events occurs without the situation coming to a stabilized condition, it is one crash regardless of how many vehicles are involved. For example, an object falls from a vehicle, bounces off the road and strikes another vehicle. This would require a single crash report to be completed. However, if the vehicles and conditions surrounding the crash have stabilized and another event occurs it becomes two separate crashes e.g., an object falls from a vehicle, bounces off the road and strikes another vehicle; then, after stabilization, another vehicle strikes either the object or vehicle from

Crash Severity: The severity of a crash based on the type, or lack of injuries involved crash. The types used in this report Fatal Injury Crash, Personal Injury Crash, or Property Damage Only Crash.

Driver/Operator: The person who is in actual physical control of a vehicle in transit.

Fatal Injury: An injury that results in death within a 30-day period after the crash occurred.

Fatal Injury Crash: A crash that results in one or more of the vehicle(s) occupants or non-motorists. Other occupants or non-motorists may be injured in additional to the fatality.

FHWA: Federal Highway Administration (FHWA) is a division of the United States Department of Transportation.

Incapacitating Injury: A non-fatal injury that prevents the injured person from walking, driving or normally continuing the activities with person was capable of performing before the injury occurred. Hospitalization is usually required. Examples are: sever lacerations, broken limbs, skull fracture, crushed chest, internal injuries, etc.

Indiana Criminal Justice Institute (ICJI): The Traffic Safety Division is responsible for implementing programming to reduce the number of people injured and killed each year on Indiana's roadways. Responsible for allocating and managing State funds, as well as Federal dollars granted to Indiana from the National Highway Traffic Safety Administration, U.S. Department of Transportation, Federal Highway Administration, and the Federal Motor Carrier Safety Administration, the Traffic Safety Division's primary purposes include overseeing grant-funded programs, conducting media campaigns, producing public information and educational materials, and funding law enforcement with the goal of reducing the number of people killed and injured in vehicle crashes. The status of the ISP's ARIES system and ongoing efforts to improve the completeness and reliability of its data is documented in ICJI's 2007 Problem Identification Report.

Indiana State Police (ISP): Responsible for the processing, storage and dissemination of traffic collision reports (ARIES); the support of local agencies through their Districts; and answering public requests for collision information. Crash reporting is handed by and the ARIES system are handled by the Crash Records Section Indiana Government Center North 100 North Senate Avenue Indianapolis, IN 46204-2259.

Personal Injury Crash: A crash in which at least one of the vehicle occupants or non-motorists were injured, but not a fatality. Non-Fatal Injuries are classified as Incapacitating, Non-Incapacitating, or Probable. In a few instances, crashes classified as an injury accident if the individual(s) refused treatment at the scene.

Possible Injury: Any injury reported or claimed which was not visible, e.g., the complaint of back or neck pain.

Property Damage Only Crash: A crash in which at least one vehicle or property is damaged by no occupants or non-motorists are injured. As of 1990, a crash is required to be reported if the amount of the damage was $750 or more.

MEV: Million of entering vehicles into an intersection. This is an approximation from traffic counts surrounding an intersection based on actually directional counts, dividing a roads' traffic in half to approximate one direction or travel, or by making an assumption as to the number of cars from similar streets.

Manner of Collision: Indicates what the driver/vehicle was doing (turning left, right going straight, etc.) at the time of the crash as referred to in the Officer's Standard Crash Report Code Sheet. Appendix A provides the options available to the Officers.

Motor Vehicle Crash: A crash involving a motor vehicle in transport on a public traffic way (in Indiana) that results in injury, death or at least $750 property damage.

Non-Incapacitating Injury: An injury, other than a fatal or incapacitating injury, which is evident to he officer at the scene of the crash and may require medical treatment. Although, hospitalization is usually not required. Examples are abrasions, minor bleeding and lacerations, etc.

VCRS: Vehicle Crash Reporting System (VCRS) is now known as the Automated Reporting Information Exchange System (ARIES).

1 INTRODUCTION

Vehicle crashes are an inevitable occurrence on any roadway. Crashes result from three primary factors: operator error, vehicular failure, or highway environment, including weather and facility deficiencies. Given the thousands of crashes reported to law enforcement officials annually, the task of identifying specific factors that contribute to the cause of the crash can be complex and costly. Identifying problem is also complicated by the random nature of vehicle crashes. Crashes are a dynamic phenomenon: they change in response to land use and other economic variables. Identifying and evaluating crash patterns requires a crash database from all local jurisdictions that is comprehensive, readily accessible, and well maintained.

The objective of this study is to analyze the 2007 crash data and identify area wide trends and hazardous intersections. The problem areas can then receive follow-up analysis to identify specific problems for which appropriate countermeasures can be designed and implemented.

The data for this report came from the Indiana State Police (ISP) Automated Reporting Information Exchange System (ARIES) database of crash reports submitted by police departments of Lafayette, West Lafayette, Purdue, Dayton, Battleground, the Tippecanoe County Sheriff, the Department of Natural Resources, and the ISP. The database contains a subset of the most important information that was submitted for each accident reported to the ARIES system. If necessary, the entire crash report was obtained through the ARIES web site, or from the reporting agency. Appendix A provides an example of the ISP Officer's Standard Crash Reporting Form as well as the database columns used for the analysis presented in the report.

In 2006, all local reporting agencies, with the exception of the Dayton Police Department, began to submit their crash reports to the ARIES system using the electronic submission software. In 2007, approximately 1.9% of Tippecanoe County's crash reports were still submitted on paper to the ISP. Paper crash reports are mailed to the ISP where they are entered by ISP staff into the digital report database.

The analysis covered in this report includes all injury, fatality, and property damage crashes. The report includes analysis of 5,746 crashes that occurred on all public streets (local as well as state maintained). An additional 1,726 crashes were reported; they occurred in alleys, parking lots/garages, loading docks, and private property and were excluded from this analysis.

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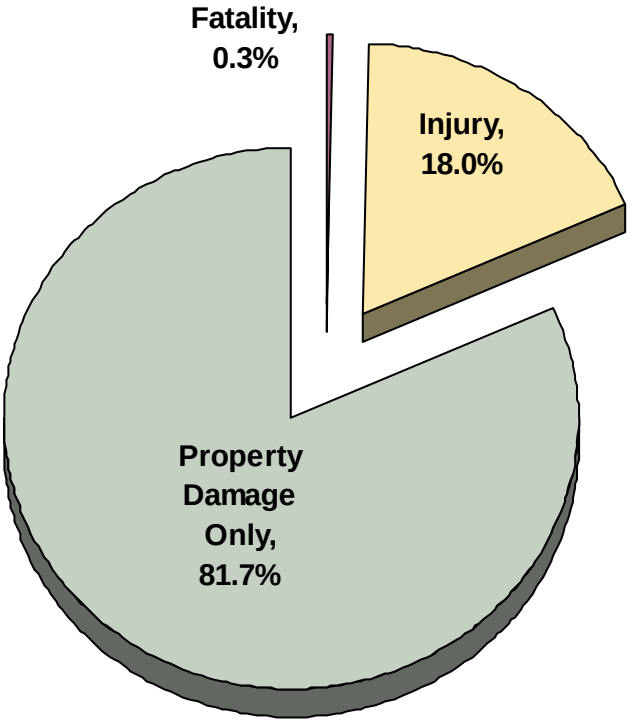
2 SYSTEM-WIDE ANALYSIS

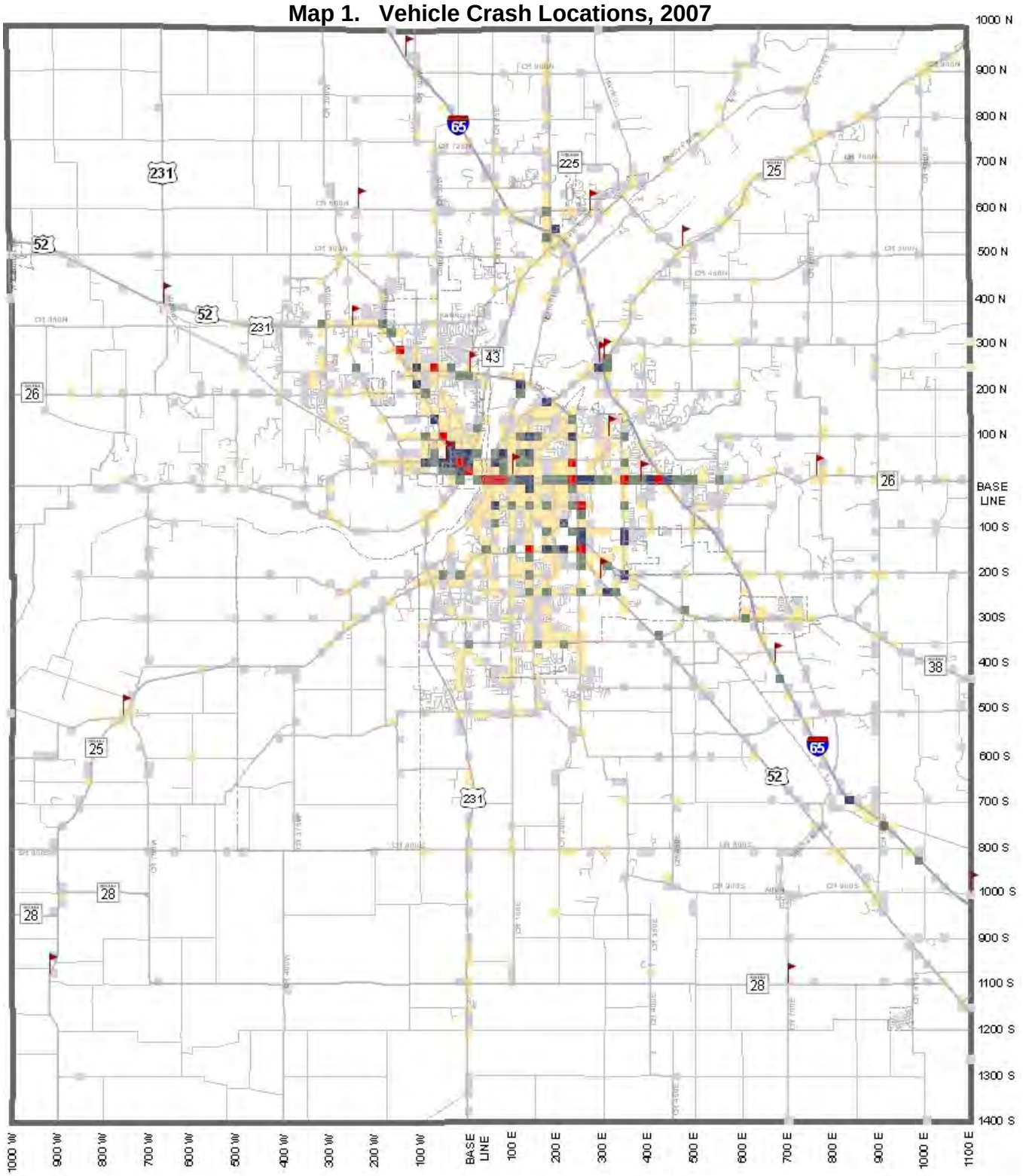
Vehicle crashes are classified by their severity, shown in Table 1, as property damage only (only damage to vehicles and objects), personal injury (one or more persons injured), and fatality (one or more fatalities and includes persons injured in the crash). Of the 5,746 qualified roadway vehicle crashes reported in the study area in 2007, 81.7% were "property damage only", and 18.0% of all crashes involved one or more personal injuries resulting in 1,372 injured individuals. Fatality crashes accounted for only 0.3% of the total crashes. Of the 20 fatality crashes, one involved three fatalities and the remaining crashes involved one fatality each, with an additional 23 injured during the crashes. Map 1 shows the general location of all roadway crashes, and Map 2 all injury and fatality crashes within the county.

Table 1. Vehicle Crashes, Injured Persons, and Fatalities, 2007

Severity Classification	Total Crashes	Percent of Total Crashes	Total Injured Persons	Total Fatalities
Property Damage Only	4,693	81.7%	0	0
Personal Injury Only	1,033	18.0%	1,372	0
Fatality	20	0.3%	23	22
Total	*5,746*	*100%*	*1,395*	*22*



Map 1. Vehicle Crash Locations, 2007



Legend

Fatality Crash*

Number of Crashes (per 1000x1000 sqft)

1 | 2 - 9 | 10 - 19 | 20 - 39 | 40 - 79

Municipal Boundary
Interstate Highway
US Highway
State Highway
Major Local Road
Local Roads

N

0 1.5 3 6 Miles

The Area Plan Commission of Tippecanoe County

Date: July 2008

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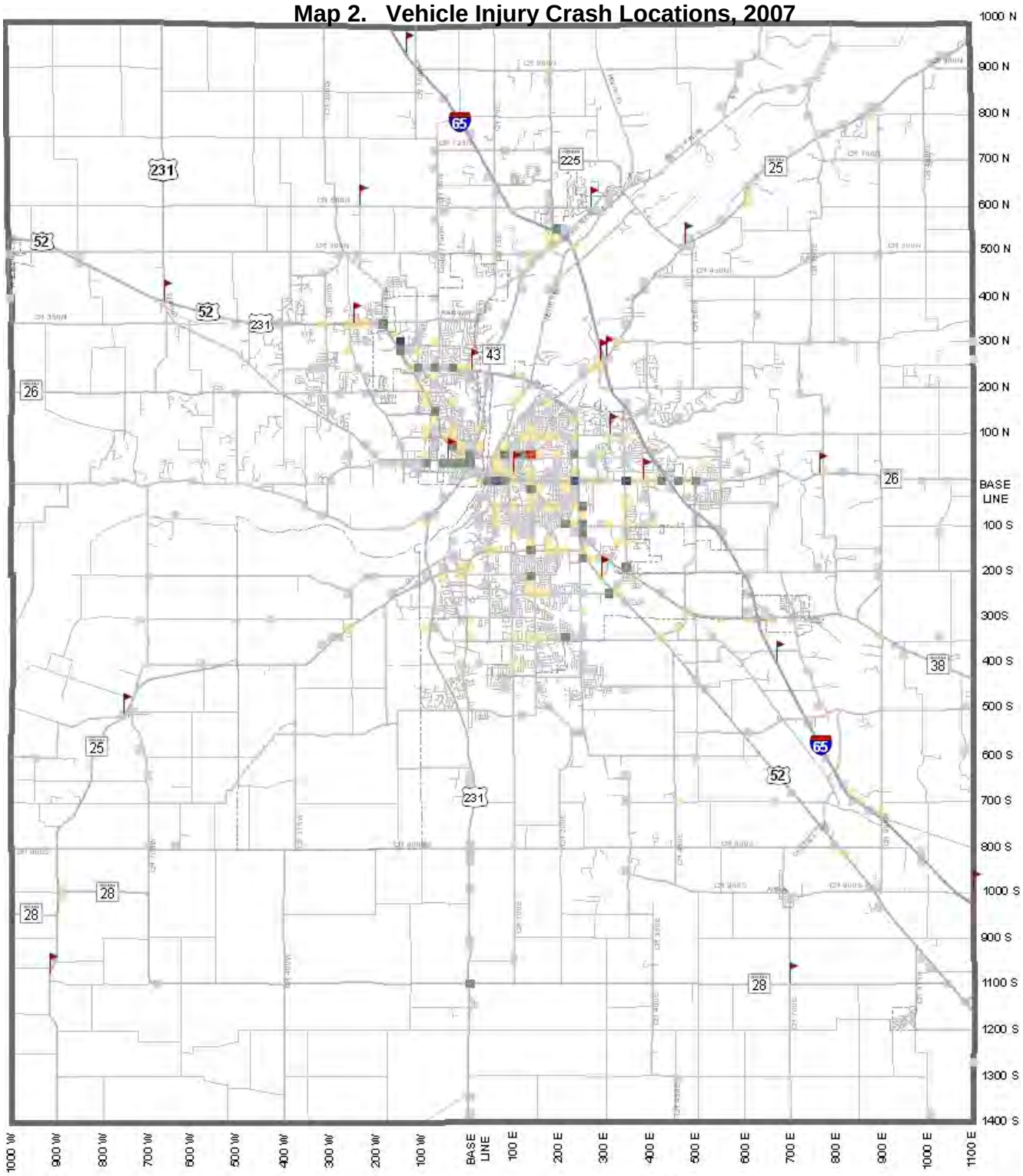
*Crash Data Source: 2007 Indiana State Police Vehicle Crash Records Database *(extracted 05/01/08)*

Map 2. Vehicle Injury Crash Locations, 2007



Legend

Fatality Crash*

Number of Injury Crashes (per 1000x1000 sqft)

1 | 2 - 4 | 5 - 9 | 10 - 14 | 15 - 19

Municipal Boundary
Interstate Highway
US Highway
State Highway
Major Local Road
Local Roads

N

0 1.25 2.5 5 Miles

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*Crash Data Source: 2007 Indiana State Police Vehicle Crash Records Database *(extracted 05/01/08)*

In the 1,053 injury and fatality crashes, 1,395 persons were injured with an additional 22 deaths. Table 2 gives a summary of the number of injuries per crash and the total injuries involved. The majority of the total crashes either involved one (14.13%) or two (2.948%) injured persons (excluding any fatalities that may have accompanied the crash).

Table 2. Vehicle Crashes by Number of Injured in Crash, 2007

Personal Injuries Per Crash (excludes Fatalities)	Personal Injury Only Crashes	Personal Injury (including a Fatality*) Crashes	*Total Personal Injury Crashes*	*Percent of Total Crashes*	*Total Persons Injured Including Fatalities*
21 Persons	1	0	*1*	*0.02%*	*21*
7 Persons	1	0	*1*	*0.02%*	*7*
6 Persons	5	1	*6*	*0.10%*	*37****
5 Persons	3	0	*3*	*0.05%*	*15*
4 Persons	8	2	*10*	*0.17%*	*42****
3 Persons	42	0	*42*	*0.73%*	*126*
2 Persons	168	1	*169*	*2.94%*	*339****
1 Persons	805	7**	*812*	*14.13%*	*821****
0 Persons	0	9	*9*	*0.16%*	*9*
Totals	*1033*	*20*	*1053*	*18.3%*	*1417*

**Fatality Crashes involved a Single Fatality unless noted*
***One Crash involved a Three Fatalities.*
****(6 persons per crash x 6 crashes +1 fatalities)*
(4 persons per crash x 10 crashes +2 fatalities)
(2 persons per crash x 169 crashes +1 fatalities)
(1 persons per crash x 812 crashes + 9 fatalities)

The proximity of crashes to an intersection were examined at a distance of 100ft from the stop bar associated with an intersection. In 2007, 67.9% of crashes occurred within 100ft of an intersection (Table 3). Additional analysis of intersection crashes can be found in Section 3.

Table 3. Intersection Proximity to the Vehicle Crashes, 2007

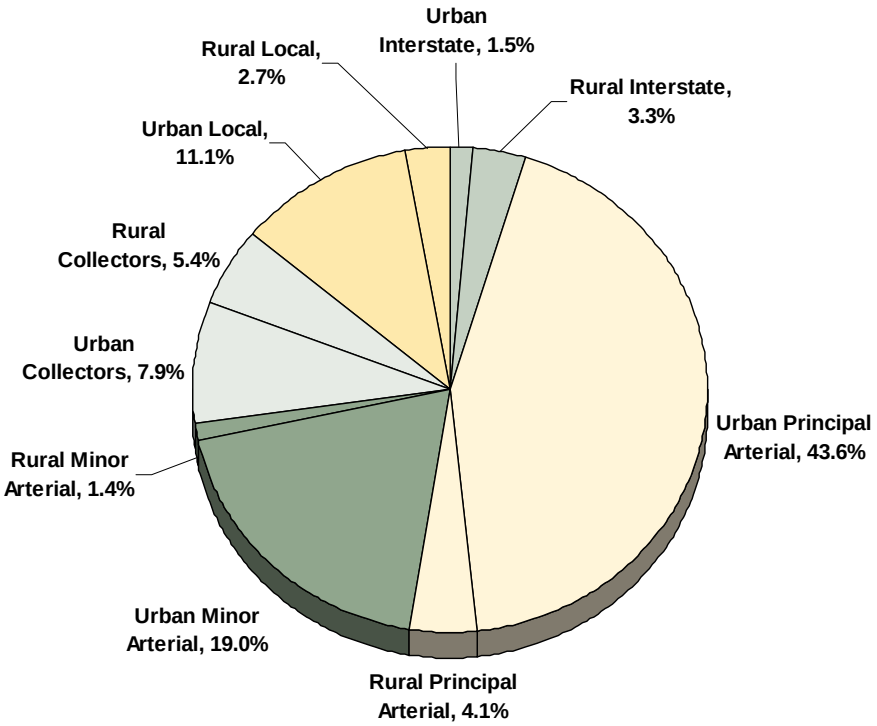
Crash Location	Property Damage Only Crashes	Personal Injury Crashes	Fatality Crashes	*Total Crashes*	*Percent of Total Crashes*
Intersection: 0 - 100ft Radius	3,212	676	13	*3,901*	*67.9%*
Mid-Block: > 100ft Radius	1,481	357	7	*1,845*	*32.1%*

The function streets serve and their location (rural or urban) provides insight into crashes as seen in Table 4. The majority of roads in the urban area have curbs or wide shoulders; whereas rural roads are typically narrower without shoulders. The street classification with the highest percentage of total crashes in 2007 (47.7%) was *Principal Arteria*ls, e.g., South, State, and Columbia St (SR 26) and Sagamore Parkway/US 52. This is not surprising because *Principal Arterials* carry the most non-interstate traffic of any other street classification per mile. The second highest percentage of crashes (20.4%) occurred in the *Minor Arterial* category, e.g., Earl Ave and Salisbury St. *Minor Arterials* carry less traffic overall but generally are more numerous within the County than *Principal Arterials*. Third was the *Local* road category with 13.8%. A *Local* road's primary function is to

provide access from small businesses or dwelling units to another busier (higher classed) road. While traffic counts are lower on *Local* roads, there are many more of them. However, more motorists may be using these streets to circumnavigate congested arterial routes.

Table 4. Vehicle Crashes by Roadway Type, 2007

	FHWA Functional Class	Property Damage Only Crashes	Personal Injury Crashes	Fatality Crashes	*Total Crashes*	*Percent of Total Crashes*
Urban	Interstate	74	11		85	*1.5%*
	Principal Arterial	2,045	455	8	2,508	*43.6%*
	Minor Arterial	876	216	1	1,093	*19.0%*
	Collectors	385	68	1	454	*7.9%*
	Local	565	74		639	*11.1%*
	Total Urban Crashes	3,945	824	10	4,779	*83.2%*
Rural	Interstate	164	24	2	190	*3.3%*
	Principal Arterial	171	61	2	234	*4.1%*
	Minor Arterial	61	15	2	78	*1.4%*
	Collectors	236	72	3	311	*5.4%*
	Local	116	37	1	154	*2.7%*
	Total Rural Crashes	748	209	10	967	*16.8%*
Total	Interstate	238	35	2	275	*4.8%*
	Principal Arterial	2,216	516	10	2,742	*47.7%*
	Minor Arterial	937	231	3	1,171	*20.4%*
	Collectors	621	140	4	765	*13.3%*
	Local	681	111	1	793	*13.8%*
	Total Crashes	4,693	1,033	20	5,746	*100.0%*

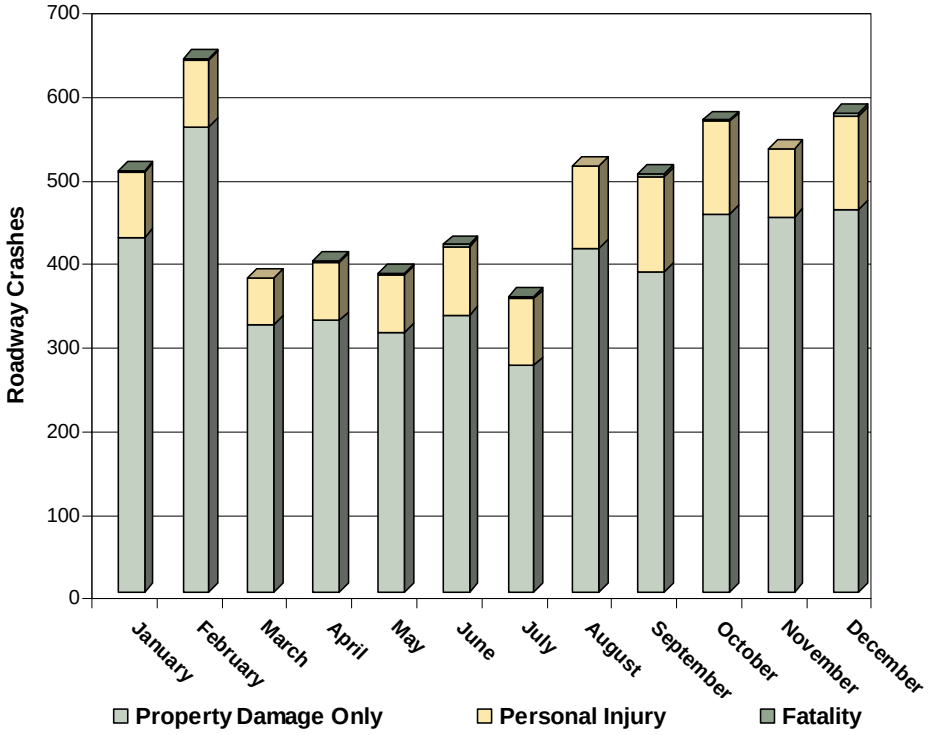


Monthly variation in crashes (Table 5) show that February had the most crashes at 639, or 11.1%, followed by December with 10.0% of the total. Historically, crashes peak in the fall months, however this year it occurred in the winter months. In February 23% of crashes were attributed to snow, blowing snow, or freezing rain. January, and the autumn months of August, September, October, and November also had a high number of crashes with over five hundred each. July had the fewest number of crashes with 353 or 6.1%. Injury crashes peaked in September but were also high in October and December. The injury crashes remained relatively consistent during the remaining months with a low of 56 injury crashes in the month of March.

Table 5. Vehicle Crashes by Month, 2007

Month	Property Damage Only Crashes	Personal Injury Crashes	Fatality Crashes	*Total Crashes*	*Percent of Total Crashes*
January*	425	78	1	*504*	*8.8%*
February*	557	79	3	*639*	*11.1%*
March*	320	56	0	*376*	*6.5%*
April*	325	70	2	*397*	*6.9%*
May*	311	69	2	*382*	*6.6%*
June	331	83	2	*416*	*7.2%*
July	271	80	2	*353*	*6.1%*
August**	411	99	0	*510*	*8.9%*
September**	383	114	3	*500*	*8.7%*
October**	452	111	2	*565*	*9.8%*
November**	449	82	0	*531*	*9.2%*
December**	458	112	3	*573*	*10.0%*

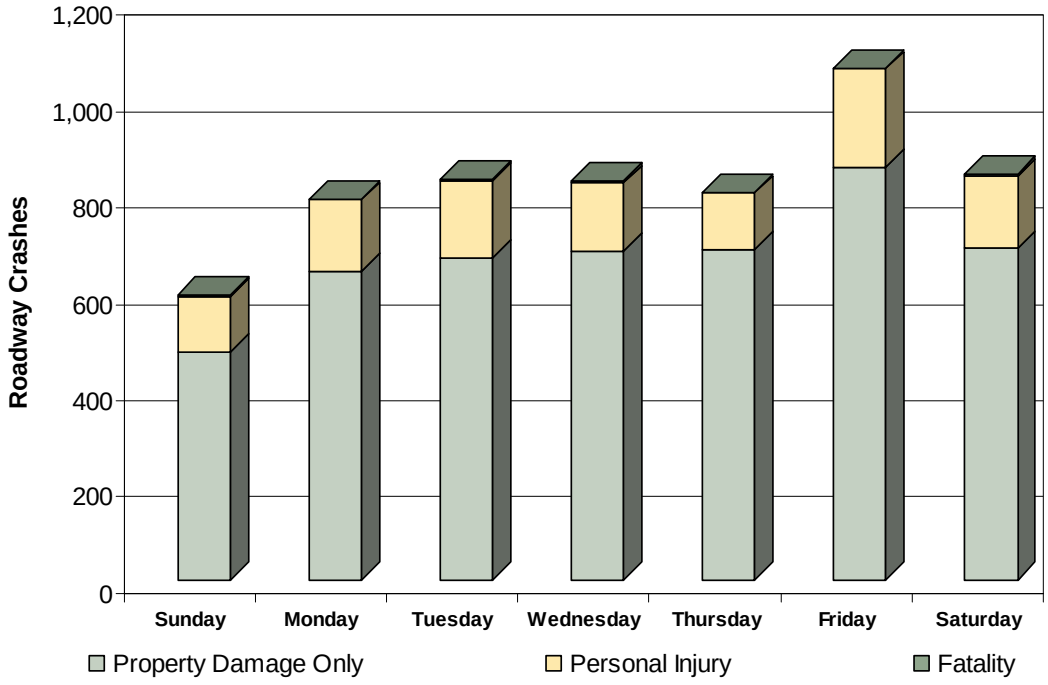
*Purdue University 2007 Spring Semester: January 8th – May 13th 2007
**Purdue University 2007 Fall Semester: August 20th – December 16th 2007



Friday had the most total and injury crashes (Table 6). As is also typical, Sunday had the fewest total crashes. This is a direct correlation with traffic volume: Sunday is the least traveled day, while Friday is the most. Usually, crashes gradually increase during the week, peaking on Friday. In 2007, Tuesday, Wednesday, and Saturday had the most fatality crashes, and Monday had the least.

Table 6. Vehicle Crashes by Day of the Week, 2007

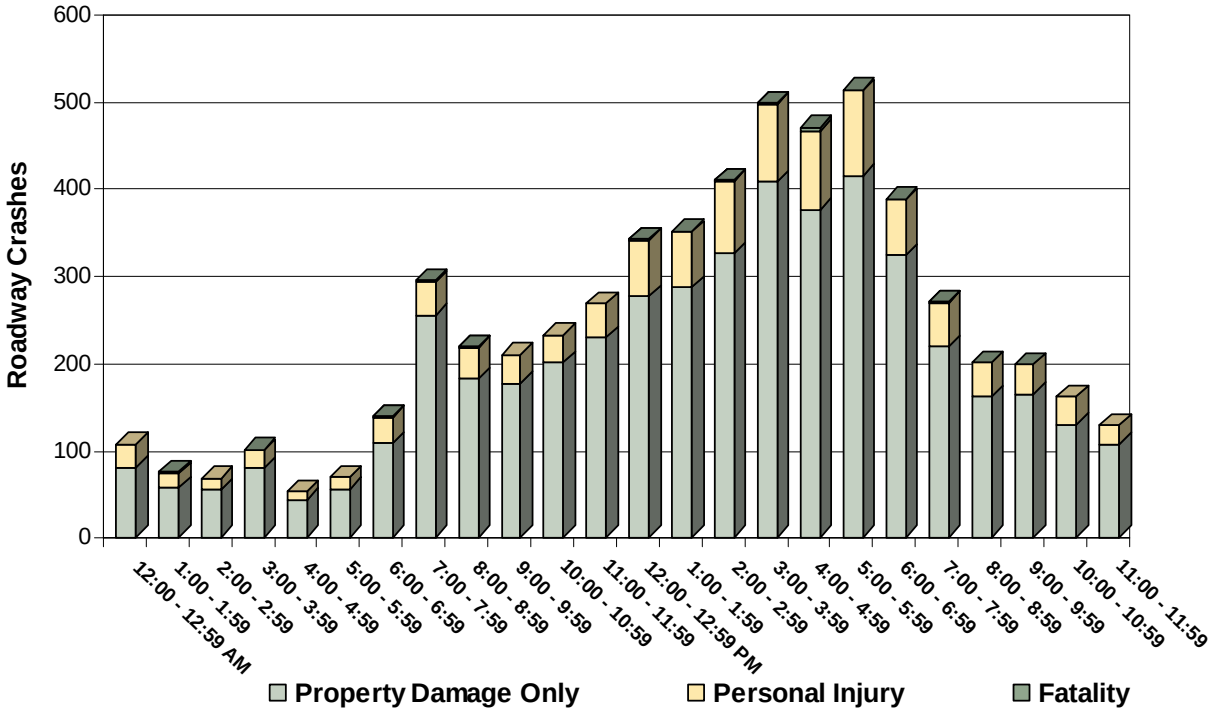
Day of the Week	Property Damage Only Crashes	Personal Injury Crashes	Fatality Crashes	*Total Crashes*	*Percent of Total Crashes*
Sunday	474	115	2	*591*	*10.3%*
Monday	641	147	1	*789*	*13.7%*
Tuesday	667	160	4	*831*	*14.5%*
Wednesday	682	141	4	*827*	*14.4%*
Thursday	685	117	2	*804*	*14.0%*
Friday	857	203	3	*1,063*	*18.5%*
Saturday	687	150	4	*841*	*14.6%*



Previous analysis has shown that crashes are more likely to occur during evening peak travel times when traffic volume is at or near capacity between 3pm to 6pm. In 2007, Table 7 shows the 5-6pm hour had the most crashes (512), 3-4pm was second (497), and 4-5pm was third (469). As is typical, evening peak hours (3-8pm) accounted for approximately 37.1% of all crashes. The hourly crash trends also show a morning rush hour spike with significantly fewer crashes between Midnight and 6am.

Table 7. Vehicle Crashes by Hour in Day, 2007

Time of the Day	Property Damage Only Crashes	Personal Injury Crashes	Fatality Crashes	*Total Crashes*	*Percent of Total Crashes*
12:00 - 12:59 AM	80	26	0	*106*	*1.8%*
1:00 - 1:59	56	17	2	*75*	*1.3%*
2:00 - 2:59	54	13	0	*67*	*1.2%*
3:00 - 3:59	78	21	1	*100*	*1.7%*
4:00 - 4:59	43	9	0	*52*	*0.9%*
5:00 - 5:59	55	13	0	*68*	*1.2%*
6:00 - 6:59	107	30	1	*138*	*2.4%*
7:00 - 7:59	254	38	2	*294*	*5.1%*
8:00 - 8:59	181	36	1	*218*	*3.8%*
9:00 - 9:59	176	33	0	*209*	*3.6%*
10:00 - 10:59	200	31	0	*231*	*4.0%*
11:00 - 11:59	228	39	0	*267*	*4.6%*
12:00 - 12:59 PM	275	65	1	*341*	*5.9%*
1:00 - 1:59	286	63	1	*350*	*6.1%*
2:00 - 2:59	324	84	1	*409*	*7.1%*
3:00 - 3:59	407	89	1	*497*	*8.6%*
4:00 - 4:59	375	90	4	*469*	*8.2%*
5:00 - 5:59	414	97	1	*512*	*8.9%*
6:00 - 6:59	322	64	1	*387*	*6.7%*
7:00 - 7:59	218	50	1	*269*	*4.7%*
8:00 - 8:59	161	38	1	*200*	*3.5%*
9:00 - 9:59	164	33	1	*198*	*3.4%*
10:00 - 10:59	129	32	0	*161*	*2.8%*
11:00 - 11:59	106	22	0	*128*	*2.2%*



There are many circumstances that contribute to a crash. For each crash report, officers are allowed to specify two “Driver”, one “Vehicle”, and one “Environmental” contributing circumstances for each vehicle. Appendix B, gives the frequency of each contributing circumstance specified for all 2007 crashes (roadway and non-roadway).

For one of the vehicles in the crash, one the four possible contributing circumstances must be listed as the primary contributing circumstance (also referred to as the primary factor) for the crash. Table 8 gives the top 20 primary contributing circumstances reported in 2007. These top 20 primary crash factors represent 96.7% of the total accidents. As is typical, the two most cited causes (accounted for 39% of the accidents) were: *following too closely* and *failure to yield right of way*.

Table 8. Top 20 Primary Contributing Circumstance for Crashes, 2007

Primary Contributing Circumstance	Property Damage Only Crashes	Personal Injury Crashes	Fatality Crashes	*Total Crashes*	*Percent of Total Crashes*
Following Too Closely	1,083	201	0	*1,284*	*22.3%*
Failure To Yield Right Of Way	722	235	3	*960*	*16.7%*
Other (Driver) - Explained In Crash Narrative	446	97	1	*544*	*9.5%*
Animal/Object In Roadway	427	14	0	*441*	*7.7%*
Speed Too Fast For Weather Conditions	318	53	1	*372*	*6.5%*
Disregard Signal/Regulatory Sign	189	81	3	*273*	*4.8%*
Improper Lane Usage	220	22	0	*242*	*4.2%*
Ran Off Road Right	176	51	0	*227*	*4.0%*
Unsafe Backing	213	4	0	*217*	*3.8%*
Unsafe Speed	143	54	2	*199*	*3.5%*
Improper Turning	147	11	0	*158*	*2.7%*
Driver Distracted - Explained In Crash Narrative	106	20	0	*126*	*2.2%*
Roadway Surface Condition	97	23	1	*121*	*2.1%*
Left Of Center	67	22	2	*91*	*1.6%*
Overcorrecting/Over steering	55	28	1	*84*	*1.5%*
Improper Passing	53	10	0	*63*	*1.1%*
Alcoholic Beverages	28	27	0	*55*	*1.0%*
Driver Asleep Or Fatigued	25	11	0	*36*	*0.6%*
Pedestrian Action	5	26	4	*35*	*0.6%*
Other (Environmental) - Explained In Crash Narrative	26	4	1	*31*	*0.5%*

Table 9 gives additional information on other primary factors. As noted, cell phone usage was listed as a primary cause for 10 crashes. However as shown in Appendix B, an additional 22 crashes listed cell phone usage as a secondary contributing circumstance to

the crash.[2] Impaired drivers from alcohol, illegal, and prescription drugs were reported as the primary factor in 1.1% of the total crashes (Table 9).[3] Crashes primarily due to vehicle or equipment failure resulted in 0.91% of the total crashes. Furthermore, roadway/pavement conditions were reported as a primary factor in crashes for only 0.16% of the total crashes.

Table 9. Other Notable Primary Contributing Circumstances for Crashes, 2007

Primary Contributing Circumstance	Property Damage Only Crashes	Personal Injury Crashes	Fatality Crashes	*Total Crashes*	*Percent of Total Crashes*
Distractions					
Cell Phone Usage	9	1	0	*10*	*0.16%*
Passenger Distraction	4	1	0	*5*	*0.09%*
Drivers					
Alcoholic Beverages	28	27	0	*55*	*0.96%*
Illegal Drugs	0	0	0	*0*	*0.00%*
Prescription Drugs	2	1	0	*3*	*0.05%*
Vehicles					
Tire Failure Or Defective	19	1	0	20	0.35%
Brake Failure Or Defective	7	6	1	14	0.25%
Insecure/Leaky Load	8	0	0	8	0.14%
Engine Failure Or Defective	4	0	0	4	0.07%
Steering Failure	0	1	0	1	0.02%
Headlight Defective Or Not On	1	0	0	1	0.02%
Accelerator Failure Or Defective	1	1	0	2	0.03%
Tow Hitch Failure	2	0	0	2	0.03%
Roadway Conditions					
Holes/Ruts In Surface	1	0	0	*1*	*0.02%*
Traffic Control Inoperative/Missing/ Obscured	0	0	0	*0*	*0.00%*
Lane Marking Obscured	0	0	0	*0*	*0.00%*
Obstruction Not Marked	3	2	0	*5*	*0.09%*
Road Under Construction	1	1	0	*2*	*0.03%*

According to the INDOT State Highway Safety Plan (9/15/06):

> *In 2004, 32% of Indiana's 947 fatalities involved alcohol. Although Indiana has been successful in reducing the incidence of driving while impaired by alcohol or other drugs, such behavior remains a significant safety problem. The percentage*

[2] Only the *primary factor* for a crash is provided in the digital crash database export used in this analysis. Data for secondary factors is not provided with the database and can only be viewed on the individual crash reports themselves or by a generalized summary based on generalized search criteria, e.g., county, jurisdiction, street name, and/or date.

[3] Current electronic crash reporting policy states that 'alcohol' or 'asleep/fatigued" should not be used as the primary factor in a crash. For example, if an impaired driver crosses the center line and strikes a vehicle, the primary cause should be "left of center" with a contributing circumstance of "alcohol". This policy is not enforced at this time. Therefore, alcohol continues to be specified a primary cause for crashes within Tippecanoe County.

of alcohol related fatalities has been on a downward trend from 41% in 1998 to 32% in 2004. Nevertheless, this is an unacceptable toll and additional efforts are needed to target this problem.

Of the 260 total (private and roadway) crashes listed with alcoholic beverage consumption as a contributing circumstance (Appendix B), only 28 of roadway crashes (10.8%) listed it as a primary factor for the crash.[4] The remaining crashes either reported alcoholic beverages as a secondary contributing circumstance or occurred on private property.

Approximately 208 roadway crashes included individuals who were tested for alcohol consumption. Of the 208, 168 had blood alcohol content results ≥ 0.08%. Of the 168 crashes with legally drunk drivers/pedestrians, 5 crashes resulted in a fatality, 65 resulted in one or more injuries, and 98 crashes resulted in only property damage.

Table 10 presents the roadway classification for the 168 crashes with legally drunk drivers. Approximately 83.3% of the drunk driver crashes occurred in the urbanized area. The heavily traveled urban Principal and Minor Arterials had the largest number of injury and property damage alcohol related crashes.

Table 10. Crashes From Alcoholic Beverages by Roadway Classification, 2007

	Functional Class	Property Damage Only Crashes	Personal Injury Crashes	Fatality Crashes	*Total Crashes*	*Percent of Total Alcohol Crashes*
Urban	Interstate	1	0	0	*1*	*0.6%*
	Principal Arterial	35	23	2	*60*	*35.7%*
	Minor Arterial	23	17	0	*40*	*23.8%*
	Collectors	11	6	0	*17*	*10.1%*
	Local	16	6	0	*22*	*13.1%*
	Total Urban of Total Crashes	86	52	2	*140*	*83.3%*
Rural	Interstate	1	1	1	*3*	*1.8%*
	Principal Arterial	2	4	1	*7*	*4.2%*
	Minor Arterial	1	2	0	*3*	*1.8%*
	Collectors	4	5	0	*9*	*5.4%*
	Local	4	1	1	*6*	*3.6%*
	Total Rural of Total Crashes	*12*	*13*	*3*	*28*	*16.7%*
Total	*Interstate*	*2*	*1*	*1*	*4*	*2.4%*
	Principal Arterial	*37*	*27*	*3*	*67*	*39.9%*
	Minor Arterial	*24*	*19*	*0*	*43*	*25.6%*
	Collectors	*15*	*11*	*0*	*26*	*15.5%*
		20	*7*	*1*	*28*	*16.7%*
	Total Crashes	*98*	*65*	*5*	*168*	*100.0%*

[4] The digital database only provides the primary factor for a crash. Analysis of secondary factors would require the individual review of each of the 5,746 crash reports.

The most frequent type of collision (Table 11) was rear end crashes which comprise almost 32.4% of all accidents. Right-angle collisions make up over 19.1% of the total with same direction sideswipes and leaving the roadway (*ran off the road*) accounting for 11.7% and 10.5% crashes, respectively.

Table 11. Manner of Collision for Crashes, 2007

Manner of Collision	Property Damage Only Crashes	Personal Injury Crashes	Fatality Crashes	*Total Crashes*	*Percent of Total Crashes*
Rear End	1,554	303	2	*1,859*	*32.4%*
Right Angle	824	267	6	*1,097*	*19.1%*
Same Direction Sideswipe	633	42	0	*675*	*11.7%*
Ran Off Road	446	157	3	*606*	*10.5%*
Head On	393	98	7	*498*	*8.7%*
Left Turn	230	63	0	*293*	*5.1%*
Backing Crash	198	2	0	*200*	*3.5%*
Other - Explained In Crash Narrative	156	35	2	*193*	*3.4%*
Opposite Direction Sideswipe	109	18	0	*127*	*2.2%*
Non-Collision	49	33	0	*82*	*1.4%*
Right Turn	63	10	0	*73*	*1.3%*
Left/Right Turn	20	3	0	*23*	*0.4%*
Rear To Rear	13	2	0	*15*	*0.3%*
Not Specified In The Report	5	0	0	*5*	*0.1%*

Table 12, Table 13, and Table 14 provide information on the weather, lighting conditions, and roadway surface conditions for the Tippecanoe County crashes. The majority of crashes took place during the day and on dry roadway conditions.

According to Purdue University Airport weather observations; there were 169 days (46.3% of the year) with recorded rainfall or snow amounts, i.e., a trace or more of rain. It is also important to note that the winter months of January, February, and December all had significant snow accumulation days. In total the Purdue Airport station reported snow or freezing rain during 38 days in 2007, or 22% of all area precipitation events.

Table 12. Weather Conditions for Crashes, 2007

Weather Conditions	Property Damage Only Crashes	Personal Injury Crashes	Fatality Crashes	*Total Crashes*	*Percent of Total Crashes*
Clear	2,779	629	12	*3,420*	*59.5%*
Cloudy	977	223	6	*1,206*	*21.0%*
Rain	588	130	0	*718*	*12.5%*
Snow	222	33	1	*256*	*4.5%*
Sleet/Hail/Freezing Rain	63	14	1	*78*	*1.4%*
Blowing Sand/Soil/Snow	36	1	0	*37*	*0.6%*
Fog/Smoke/Smog	18	3	0	*21*	*0.4%*
Not Specified In The Report	6	0	0	*6*	*0.1%*
Severe Cross Wind	4	0	0	*4*	*0.1%*

Table 13. Light Conditions for Crashes, 2007

Light Condition	Property Damage Only Crashes	Personal Injury Crashes	Fatality Crashes	*Total Crashes*	*Percent of Total Crashes*
Daylight	3,076	689	12	*3,777*	*65.7%*
Dark (Not Lighted)	683	159	5	*847*	*14.7%*
Dark (Lighted)	665	135	2	*802*	*14.0%*
Dawn/Dusk	223	50	1	*274*	*4.8%*
Unknown	42	0	0	*42*	*0.7%*
Not Specified In The Report	4	0	0	*4*	*0.1%*

Table 14. Roadway Surface Condition for Crashes, 2007

Surface Condition	Property Damage Only Crashes	Personal Injury Crashes	Fatality Crashes	*Total Crashes*	*Percent of Total Crashes*
Dry	3,178	747	15	*3,940*	*68.6%*
Wet	948	201	4	*1,153*	*20.1%*
Snow/Slush	373	47	1	*421*	*7.3%*
Ice	167	33	0	*200*	*3.5%*
Loose Material On Road	11	4	0	*15*	*0.3%*
Water (Standing Or Moving)	7	1	0	*8*	*0.1%*
Not Specified In The Report	8	0	0	*8*	*0.1%*
Muddy	1	0	0	*1*	*0.0%*

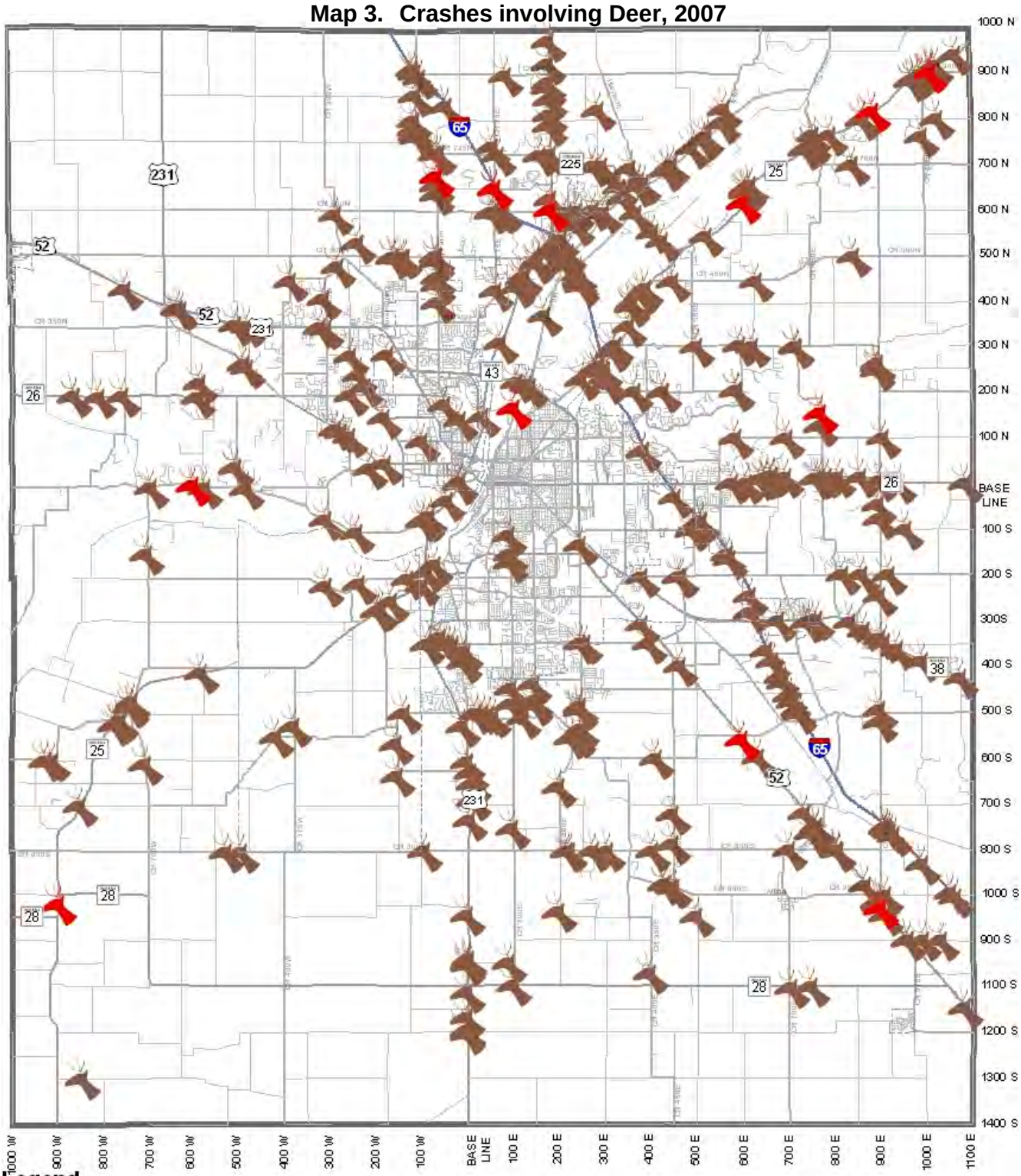
Table 15 provides the collision object for the first (primary) vehicle listed in the crash reports. Collisions with '*another motor vehicle* 'accounted for 70.5% of the total crashes followed by collisions with *deer* (Map 3). A detailed analysis of crashes involving pedestrians, bicyclists, and motorcycles/mopeds can be found in Appendices C, D, and E respectively.

Table 15. Leading Objects of Collision for Crashes, 2007

Collision Object	Vehicle #1	Percent of Total Reporting Crashes	Collision Object (Continued)	Vehicle #1	Percent of Total Reporting Crashes
Another Motor Vehicle	4051	70.50%	Bridge Rail	33	0.57%
Deer	407	7.08%	Median Barrier	28	0.49%
Not Specified In The Report	164	2.85%	Animal Other Than Deer	27	0.47%
Other - Explained In Crash Narrative	113	1.97%	Wall/Building/Tunnel	17	0.30%
Ditch	110	1.91%	Fell From Vehicle (Non Collision)	11	0.19%
Tree	105	1.83%	Cargo/Equipment Shift Or Loss	10	0.17%
Utility Pole	84	1.46%	Guardrail End	10	0.17%
Bicycle	63	1.10%	Light/Luminaire Support	8	0.14%
Curb	62	1.08%	Culvert	7	0.12%
Guardrail Face	58	1.01%	Jackknife	4	0.07%
Fence	49	0.85%	Railway Vehicle /Train /Engine	4	0.07%
Mailbox	48	0.84%	Bridge Pier Or Abutment	3	0.05%
Off Roadway	48	0.84%	Fire/Explosion	3	0.05%
Other Post/Pole Or Support	46	0.80%	Bridge Parapet End	2	0.03%
Overturn/Rollover	44	0.77%	Work Zone Maintenance Equipment	2	0.03%
Pedestrian	44	0.77%	Animal Drawn Vehicle	1	0.02%
Highway Traffic Sign Post	41	0.71%	Immersion	1	0.02%
Embankment	37	0.64%	Overhead Sign Post	1	0.02%

*There were actually 52 Pedestrian crashes; in 8 crashes the pedestrian was hit by a secondary vehicle, and not the vehicle responsible for the crash

Map 3. Crashes involving Deer, 2007



Legend

Personal Injury Deer Related Crash*

Property Damage Only Deer Related Crash*

*Crash Data Source: 2007 Indiana State Police Vehicle Crash Records Database *(extracted 05/01/08)*

Municipal Boundary
Interstate Highway
US Highway
State Highway
Major Local Road
Local Roads

N

0 1.25 2.5 5 Miles

The Area Plan Commission of Tippecanoe County

Date: July 2008

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Below is additional interesting information about the 2007 vehicle crashes:

- 47 (01.8%) crashes were noted for "Aggressive Driving"[5]
- 639 (11.1%) crashes were reported as "Hit and Run" accidents:
    - 574 of the 639 (89.8%) were listed as a property damage only crash
    - 65 of the 639 (10.2%) involved an injury and/or fatality
    - 11 of the 639 (1.7%) involved pedestrians
    - 12 of the 639 (1.9%) involved motorcycles/mopeds
    - 7 of the 639 (1.1%) involved bicyclists
    - 226 of the 639 (35.4%) involved one or more parked vehicles
    - 98 of the 639 (15.3%) involved one or more slowing or vehicles stopped in traffic.
- 219 (3.8%) crashes were listed as involving one or more trailers
- 120 (2.1%) crashes were listed as taking place in school zones.
- 114 (2.0%) crashes were listed as taking place in work zones (Table 16). In 2007 there were several major construction zones in the county. Work zones with more than 5 crashes were:
    - SR 26E
        - 8 crashes at CR 500E
        - 8 crashes at Meijer Way
    - SR 43
        - 5 crashes at I65 Southbound Exit/Entrance Ramps
        - 10 crashes at CR 600N
        - 17 crashes at I65 Southbound Exit/Entrance Ramps

Table 16. Construction Type for Work Zone Crashes, 2007

Construction Type of Work Zone Crashes	Property Damage Only Crashes	Personal Injury Crashes	Fatality Crashes	*Total Crashes*
Lane Closure	45	15	0	*60*
Work On Shoulder	23	7	0	*30*
Intermittent Or Moving Work	11	3	0	*14*
Cross-Over/Lane Shift	9	1	0	*10*

[5] **Aggressive Driving:** Two or more driver behaviors or actions that occur in a relatively short distance that include but are not limited to: following too close, failure to signal lane changes, speeding, driving on the shoulder, cutting back into lane without sufficient clearance.

3 INTERSECTION ANALYSIS

To identify which accidents were associated with intersections, staff used the *Manual of Traffic Engineering Studies* as a guide. The "One Hundred Foot Rule" was used to identify intersections with the most frequent number of crashes: any crash occurring within one hundred feet of the intersection was counted as having taken place at that intersection. Table 17 shows that in 2007, 3,901 crashes occurred within 100ft of an intersection, or 67.9% of the total crashes.

Each year since 2005, INDOT has submitted an annual report evaluating the top 5% of crash locations statewide.[6] The intent of the report is to raise public awareness of highway safety needs and the challenges that exist. In the report, INDOT established a 250ft standard for intersection related crashes. Table 17 also lists the number of crashes within 250ft of an intersection.

Table 17. Crashes within 100ft and 250ft of an Intersection, 2007

Crash Location	Property Damage Only Crashes	Personal Injury Crashes	Fatality Crashes	*Total Crashes*	*Percent of Total Crashes*
100 ft Intersection Radius					
Intersection: 0 - 100ft Radius	3,212	676	13	*3,901*	*67.9%*
Mid-Block: > 100ft Radius	1,481	357	7	*1,845*	*32.1%*
250 ft Intersection Radius					
Intersection: 0 - 250ft Radius	3,708	793	15	*4,516*	*78.6%*
Mid-Block: > 250ft Radius	984	240	5	*1,229*	*21.4%*

Intersections reporting ten or more crashes per year are considered hazardous[7]. Table 18 and Map 4 show the intersections having 10 or more crashes within 100ft of the intersection ranked by crash frequency. In 2007 there were 102 intersections (out of the approximate 4600 total intersections in Tippecanoe County) with 10 or more crashes. These 102 hazardous intersections accounted for 29.3% of the total number of crashes within the county.

The Tippecanoe County intersection with the highest number of crashes was SR 26 East and Creasy Ln with 42 crashes. The remaining top ten intersections in 2007 were: SR 26 and US 52; SR 26 and the SB exit/entrance ramp from I-65; US 52 and Cumberland Ave; US 52 and Creasy Ln/Brady Ln, US 52 and Main St/SR 38; Teal and S18th St; US 231/River Rd and SR 26/State St; US 52 and Greenbush Ave; and I65 and the SR 43 NB exit/entrance ramps. Table 18 also gives the intersection rank for combined totals from fatality and injury crashes.

[6] http://www.in.gov/dot/pubs/ ***Highway Safety Improvement Program: Indiana "5 Percent Report"***, INDOT, August 2007.

[7] ***Identification of Hazardous Locations***, Report No. FHWA-RD-77-83

US 231 and Cumberland Ave had the most injury accidents in 2007 with 9 injury accidents, followed by: SR 26/South St and 4th (8); SR 26/State St and Russell St (8); US 52 and Main St/SR 38 (8); Salem St and N 9th St (7); SR 26 and Creasy Ln (7); I-65 and the SR 43 northbound exit/entrance ramps (7); and US 52 and Creasy Ln/Brady Ln (7).

Nine of the crashes listed in Table 18 involved one incapacitating injury (identified with a +). For the three intersections with fatality crashes, each reported a single fatality.

Table 18. Hazardous Intersections* Ranked by Crash Frequency, 2007

T indicates a Tie

Total Crash Frequency Rank	Injury and Fatality Frequency Rank	Intersection: Road 1	Intersection: Road 2	Crash Type: P.D.O.	Crash Type: Injury	Crash Type: Fatality**	Total Crashes
1	T5	SR 26 E/E SOUTH ST	CREASY LN	35	7	0	42
2	T15	US 52/SAGAMORE PKY S	SR 26 E	35	4	0	39
3	T9	SR 26 E/E SOUTH ST	I65 SOUTHBOUND EXIT/ENTRANCE RAMPS	31	6	0	37
4	1	US 52/SAGAMORE PKY W	CUMBERLAND AVE	26	9	0	35
5	T5	US 52/SAGAMORE PKY S	CREASY LN/BRADY LN	27	7	0	34
6	T2	US 52/SAGAMORE PKY S	SR 38 E/MAIN ST	25	8	0	33
T7	T49	SR 25 E/TEAL RD	S 18TH ST	26	2	0	28
T7	T24	US 231/RIVER RD	SR 26/STATE ST	25	3	0	28
T7	T15	US 52 /SAGAMORE PKY N	GREENBUSH	24	4+	0	28
T10	T5	SR 43 N	I65 NORTHBOUND EXIT/ENTRANCE RAMPS	20	7	0	27
T10	T13	US 52/SAGAMORE PKY W	N SALISBURY ST	22	5	0	27
T12	T49	SR 26 E/E SOUTH ST	PROGRESS DR/ RED CLOUD TRL	24	2	0	26
T12	T49	US 52/SAGAMORE PKY S	SR 25 E/TEAL RD	24	2	0	26
T14	T15	SR 38 E/SR 25 E	S CREASY LN	21	4	0	25
T14	T15	US 52/SAGAMORE PKY S	KOSSUTH ST E	21	4	0	25
T14	T15	US 52/SAGAMORE PKY S	MCCARTY LN	21	4	0	25
T17	T9	MAIN ST	S EARL ST	17	6	0	23
T17	T24	SR 26 E/E SOUTH ST	FARABEE DR N	20	3	0	23
T17	T49	SR 26 W/W STATE ST	NORTHWESTERN AVE	21	2	0	23
T17	T49	US 231 N/ NORTHWESTERN AVE	STADIUM AVE	21	2	0	23
T17	T24	US 52/SAGAMORE PKY N	UNION ST E	20	3	0	23
T22	T24	SR 26 W/W STATE ST	SR 26 W/S CHAUNCEY AVE	19	3	0	22
T22	T76	US 52/SAGAMORE PKY N	SCHUYLER AVE	21	1	0	22
24	T2	SR 26 W/W STATE ST	RUSSELL ST	13	8	0	21
T25	T24	KOSSUTH ST	S 4TH ST	17	3	0	20
T25	T2	SR 26 E/SOUTH ST	4TH ST	12	8	0	20
T25	T9	US 52/SAGAMORE PKY W	YEAGER RD	14	6	0	20
28	T24	SR 26 E/SOUTH ST	9TH ST	16	3	0	19
T29	T76	S CREASY LN	MCCARTY LN	17	1	0	18
T29	T24	SR 26 E/E SOUTH ST	S EARL AVE	15	3+	0	18
T31	T76	SR 26 E/SOUTH ST	3RD ST	16	1+	0	17
T31	T76	SR 26 E/SOUTH ST	S 18TH ST	16	1	0	17
T33	T49	SR 26 E/SOUTH ST	MAIN ST/S 16TH ST	14	2+	0	16

T indicates a Tie

Total Crash Frequency Rank	Injury and Fatality Frequency Rank	Intersection: Road 1	Intersection: Road 2	Crash Type: P.D.O.	Crash Type: Injury	Crash Type: Fatality**	*Total Crashes*
T33	T76	SR 26 W/W STATE ST	TAPAWINGO DR	15	1	0	16
T33	T9	SR 43 N	I65 SOUTHBOUND EXIT/ENTRANCE RAMPS	10	6	0	16
T33	T76	US 52/SAGAMORE PKY S	E 350 S	15	1	0	16
T33	T49	US 52/SAGAMORE PKY S	NATIONAL DR	14	2	0	16
T38	T5	SALEM ST	N 9TH ST	8	7	0	15
T38	T76	SR 26 E/E SOUTH ST	MARKETPLACE DR/ COCHISE TRL	14	1	0	15
T38	T49	US 231 N/ NORTHWESTERN AVE	SR 126 E/CHERRY LN	13	2	0	15
T41	T76	CONCORD RD	BRADY LN	13	1	0	14
T41	T24	MAIN ST	S 18TH ST/S 17TH ST	11	3+	0	14
T41	NA	SR 26 E	I65 NORTHBOUND EXIT/ENTRANCE RAMPS	14	0	0	14
T41	T15	SR 26 E/E SOUTH ST	FAIRINGTON AVE	10	3	1	14
T41	T76	SR 26 E/E SOUTH ST	PARK EAST BLVD/ BRINKER ST	13	1	0	14
T41	T24	SR 26 W/W STATE ST	MEMORIAL MALL/ MARSTELLER ST	11	3	0	14
T41	T76	SR 43/N RIVER RD	HOWARD RD	13	1	0	14
T41	T49	SR 43/N RIVER RD	SR 443/ HAPPY HOLLOW RD N	12	2	0	14
T41	T24	SR 43 N/N RIVER RD	ROBINSON ST	11	3	0	14
T41	T76	US 231 N/ NORTHWESTERN AVE	YEAGER RD	13	1	0	14
T41	T24	US 52/SAGAMORE PKY W	DUNCAN RD	11	3	0	14
T41	T49	US 52/SAGAMORE PKY W	KLONDIKE RD/N 300 W	12	2	0	14
T41	T24	US 52/SAGAMORE PKY W	WB US 52 RAMP	11	3	0	14
T54	T24	S 18TH ST	BRADY LN	10	3	0	13
T54	T76	SR 25 E	HAMMAN ST	12	1+	0	13
T54	T24	SR 26 E/COLUMBIA ST	N 2ND ST	10	3	0	13
T54	T24	SR 26 W/W STATE ST	N GRANT ST	10	3	0	13
T54	T49	SR 26 W/W STATE ST	PIERCE ST/ANDREW PL	11	2	0	13
T54	T49	SR 38 E/SR 25 E	S CR 475 E	11	2	0	13
T54	NA	SR 43 N	E CR 600 N	13	0	0	13
T54	NA	US 231 N/ NORTHWESTERN AVE	US 231/WIGGINS ST	13	0	0	13
T54	T76	US 231 N/ NORTHWESTERN AVE	LINDBERG RD	12	1	0	13
T54	T24	US 52/SAGAMORE PKY S	CALLOWAY DR	10	3	0	13
T54	T24	US 52/SAGAMORE PKY W	WIN HENTSCHEL BLVD/ GREAT LAKES BLVD	10	3	0	13
T65	T15	BECK LN	S 18TH ST	8	4	0	12
T65	T24	KOSSUTH ST	S 18TH ST	9	3	0	12
T65	T15	SALEM ST	N 18TH ST	8	4	0	12
T65	T49	SR 25/TEAL/OLD US 231 S	S 4TH ST/POLLAND HILL RD	10	2	0	12
T65	T49	SR 25 E/TEAL RD	S 26TH ST/SEQUOYA DR	10	2	0	12

T indicates a Tie

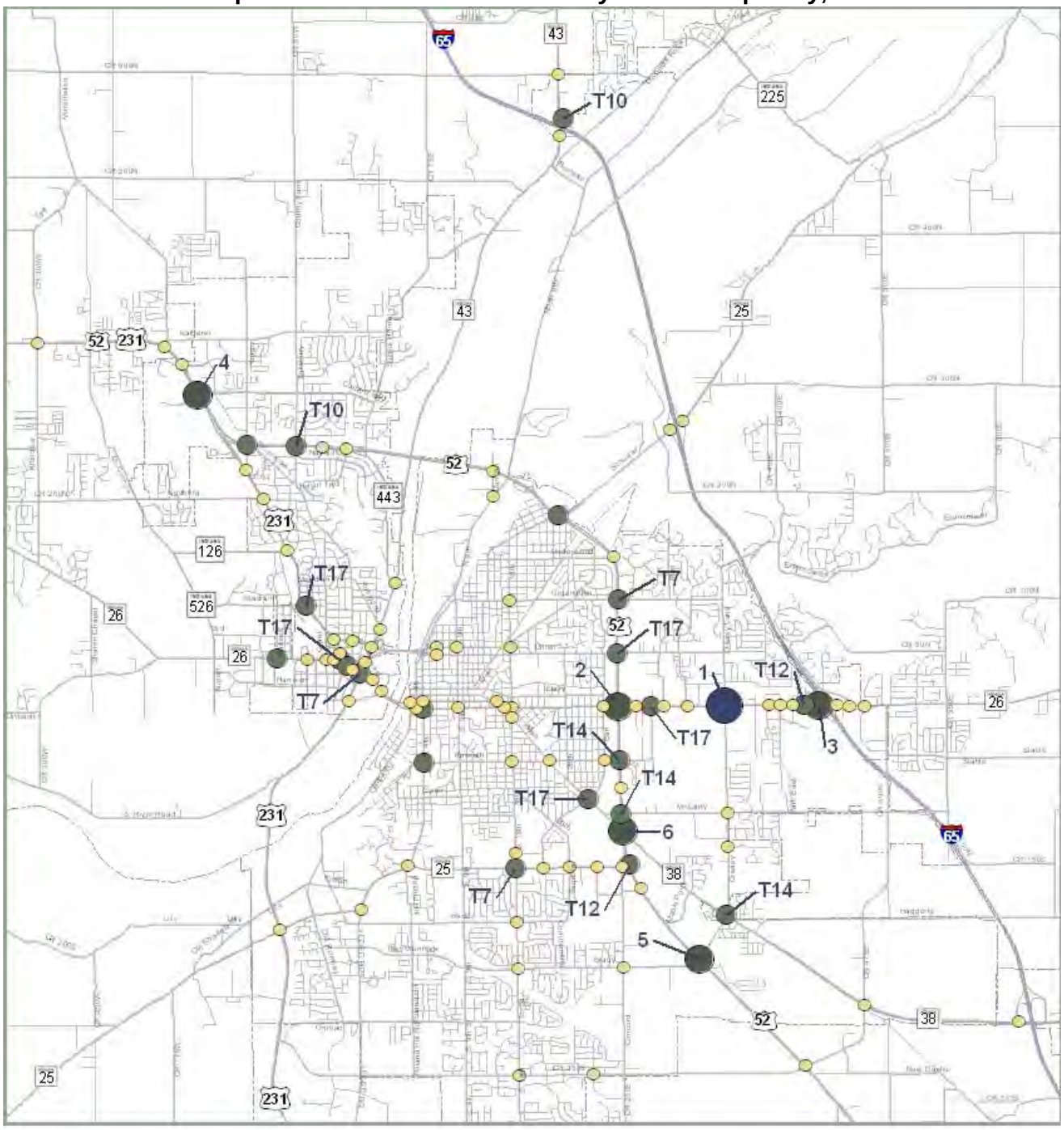
Total Crash Frequency Rank	Injury and Fatality Frequency Rank	Intersection: Road 1	Intersection: Road 2	Crash Type: P.D.O.	Crash Type: Injury	Crash Type: Fatality**	Total Crashes
T65	T49	SR 25 N	I65 NORTHBOUND EXIT/ENTRANCE RAMPS	10	1	1	12
T65	NA	SR 26 E/COLUMBIA	MAIN ST	12	0	0	12
T65	T76	SR 26 E/COLUMBIA ST	N 4TH ST	11	1	0	12
T65	T24	SR 26 E/E SOUTH ST	MEIJER WAY	9	3	0	12
T65	T49	SR 26 E/E SOUTH ST	SHENANDOAH DR	10	2	0	12
T65	T76	SR 26 W/E STATE ST	ROEBUCK DR	11	1	0	12
T65	T24	SR 38 E/SR 25 E	I65 SOUTHBOUND EXIT/ENTRANCE RAMPS	9	3	0	12
T65	T24	SR 43/RIVER RD	US 231/WIGGINS RAMP	9	3	0	12
T78	T24	E 350 S	OSBORNE LN/ PROMENADE PKWY	8	3	0	11
T78	T49	E CR 350 S	S 18TH ST	9	2	0	11
T78	T49	GREENBUSH ST	N 18TH ST	9	2	0	11
T78	T24	J R HIATT DR	S 18TH ST	8	3	0	11
T78	T76	KOSSUTH ST	MAIN ST	10	1	0	11
T78	T49	S CREASY LN	AMELIA AVE	9	2	0	11
T78	T49	SALEM ST	N 6TH ST	9	2+	0	11
T78	T49	SR 25 E/TEAL RD	22ND ST	9	2	0	11
T78	T49	SR 25 E/TEAL RD	S 30TH ST	9	2	0	11
T78	T24	SR 25 N	I65 SOUTHBOUND EXIT/ENTRANCE RAMPS	8	2	1	11
T78	T49	SR 26 W/W STATE ST	SALISBURY ST	9	2	0	11
T78	T49	US 231/WIGGINS ST	N SALISBURY ST	9	2	0	11
T78	T15	US 52/SAGAMORE PKY N	UNDERDOOD ST/ OFARRELL RD	7	4	0	11
T78	T13	US 52/SAGAMORE PKY S	NIGHTHAWK DR	6	5	0	11
T78	NA	US231 S/S RIVER RD	TAPAWINGO DR	11	0	0	11
T93	T49	N 9TH ST	DUNCAN RD	8	2+	0	10
T93	T76	NORTHWESTERN AVE	COLUMBIA ST	9	1+	0	10
T93	T24	S EARL AVE	KOSSUTH ST	7	3	0	10
T93	T76	SR 25 E	OLD US 231 S	9	1	0	10
T93	NA	SR 25 E/TEAL RD	CONCORD RD	10	0	0	10
T93	T49	SR 26 E/E SOUTH ST	FRONTAGE RD	8	2	0	10
T93	NA	SR 26 E/E SOUTH ST	N 36TH ST	10	0	0	10
T93	T76	UNION ST	N 6TH ST	9	1	0	10
T93	NA	US 231 S/ S RIVER RD	SR 25	10	0	0	10
T93	T49	US 52/SAGAMORE PKY W	MOREHOUSE RD	8	2	0	10

*"One Hundred Foot Rule" is applied.

**All intersection fatality crashes involved one fatality

+One of the injury crashes involved one person with an incapacitating injury.

Map 4. Hazardous Intersections by Crash Frequency, 2007



Legend

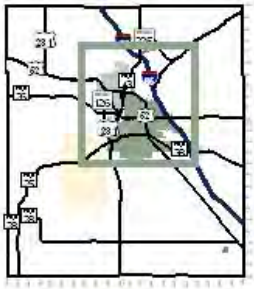
Total Intersection Crashes 2007*

(Top 21 Intersection Labeled as in Table 18)

10 - 19
20 - 29
30 - 39
40 - 42

Municipal Boundary
Interstate Highway
US Highway
State Highway
Major Local Road
Local Road

Map Location:



0 0.5 1 2 Miles

N

The Area Plan Commission of Tippecanoe County

Date: July 2008

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*Crash Data Source: 2007 Indiana State Police Vehicle Crash Records Database *(extracted 05/01/08)*

Table 19 lists the intersections with the highest crash rate with respect to traffic entering the intersection i.e., crashes per million entering vehicles (MEV). The MEV Rate provides a vehicle's relative crash exposure rate, generating a ratio of crashes to approximate traffic volume.

$$MEVRate = \frac{A}{MEV} = A \times \frac{1{,}000{,}000}{365 \times (V_1 + V_2 + V_3 + V_4)} \qquad \text{[Equation 1]}$$

Where:

MEV Rate =	Accidents rate per 1 million entering vehicles.
A =	Accident frequency for a given analysis period (i.e., one year)
MEV =	Millions of vehicles entering an intersection in the study period (i.e., one year)
V_1 =	Average daily traffic (ADT) at the north approach
V_2 =	ADT at the south approach
V_3 =	ADT a the east approach
V_4 =	ADT a the west approach

To determine the significance of the MEV Rate, a Critical Rate Factor (CRF) was also computed for each intersection. By using the MEV and crash frequency for a specific time period (365 days), we can generate a critical rate factor with a 95% confidence level. An intersection with an MEV rate higher than its CRF is determined to be critical or significant. Intersections meeting this criterion are listed in bold typeface in Table 19.

$$CRF = R_a + K\sqrt{\frac{R_a}{MEV}} + \frac{1}{2MEV} \qquad \text{[Equation 2]}$$

Where:

CRF =	Critical accident rate factor for a location (accidents per million entering vehicles)
R_a =	Average MEV Rate for all intersections
MEV =	Millions of vehicles entering an intersection in the study period (i.e., one year); and
K =	Probability factor determined by the level of significance (confidence level) for the equation. For a 95% confidence level, K = 1.645

Source: Transportation and Traffic Engineering Handbook. Institute of Transportation Engineers. 1976, pg. 390.

As shown in Table 19 and 0 the intersection with the highest MEV rate in 2007 was SR 43 and the I-65 northbound exit/entrance ramps. Interestingly, of the top 25 intersections based on traffic volume only two were in the MEV list: US 52 and Cumberland (13); and SR 38 and Creasy (25). Conversely, the top three ranked intersections in the MEV list (e.g., SR 43 and I-65 northbound exit/entrance ramps, Kossuth and 4th St, and SR 43 and I-65 northbound exit/entrance ramps) had relatively low traffic, but numerous accidents causing them to rise to the top of the list.

Table 19. Hazardous Intersections* Ranked by MEV*** Rate, 2007

T indicates a Tie

Rank	Intersection: Road 1	Intersection: Road 2	Total Crashes*	** ADT Entering Volume	*** MEV Rate	**** CRF	Total Crash Frequency Rank	Injury +Fatality Crash Frequency Rank
1	**SR 43 N**	**I65 NORTHBOUND EXIT/ENTRANCE RAMPS**	**27**	**19,364**	**3.820**	**2.478**	**T10**	**T5**
2	**KOSSUTH ST**	**S 4TH ST**	**20**	**16,427**	**3.336**	**2.559**	**T25**	**T24**
3	**SR 43 N**	**I65 SOUTHBOUND EXIT/ENTRANCE RAMPS**	**16**	**14,010**	**3.129**	**2.644**	**T33**	**T9**
4	**US 52/SAGAMORE PKY S**	**CREASY LN/BRADY LN**	**34**	**29,944**	**3.111**	**2.299**	**5**	**T5**
5	**SR 26 W/W STATE ST**	**RUSSELL ST**	**21**	**19,366**	**2.971**	**2.478**	**24**	**T2**
6	NORTHWESTERN AVE	COLUMBIA ST	10	10,153	2.698	2.843	T93	T76
7	SALEM ST	N 6TH ST	11	12,001	2.511	2.735	T78	T49
8	**SR 26 E/SOUTH ST**	**9TH ST**	**19**	**21,336**	**2.440**	**2.435**	**28**	**T24**
9	SR 43/N RIVER RD	SR 443/ HAPPY HOLLOW RD N	14	15,774	2.432	2.580	T41	T49
10	SR 26 E/SOUTH ST	3RD ST	17	19,239	2.421	2.481	T31	T76
11	SR 26 W/W STATE ST	SR 26 W/ S CHAUNCEY AVE	22	26,685	2.259	2.342	T22	T24
12	CONCORD RD	BRADY LN	14	17,288	2.219	2.533	T41	T76
13	**US 52/SAGAMORE PKY W**	**CUMBERLAND AVE**	**35**	**43,418**	**2.209**	**2.178**	**4**	**1**
14	SR 25 E/TEAL RD	S 18TH ST	28	34,897	2.198	2.246	T7	T49
15	SR 26 E/SOUTH ST	4TH ST	20	24,987	2.193	2.368	T25	T2
16	SR 26 W/W STATE ST	NORTHWESTERN AVE	23	28,829	2.186	2.313	T17	T49
17	MAIN ST	S 18TH ST/S 17TH ST	14	18,151	2.113	2.509	T41	T24
18	SR 43 N	E CR 600 N	13	16,880	2.110	2.545	T54	NA
19	US 52/SAGAMORE PKY W	WB US 52 RAMP	14	18,413	2.083	2.502	T41	T24
20	UNION ST	N 6TH ST	10	13,262	2.066	2.675	T93	T76
21	MAIN ST	S EARL ST	23	31,443	2.004	2.282	T17	T9
22	SR 26 E/COLUMBIA ST	N 2ND ST	13	18,012	1.977	2.513	T54	T24
23	J R HIATT DR	S 18TH ST	11	15,352	1.963	2.594	T78	T24
24	SALEM ST	N 9TH ST	15	21,585	1.904	2.429	T38	T5
25	SR 38 E/SR 25 E	S CREASY LN	25	36,018	1.902	2.236	T14	T15
26	US 52/SAGAMORE PKY S	SR 38 E/MAIN ST	33	48,989	1.846	2.143	6	T2
27	GREENBUSH ST	N 18TH ST	11	16,536	1.823	2.555	T78	T49
28	SR 26 E/E SOUTH ST	FARABEE DR N	23	35,570	1.772	2.240	T17	T24
29	SR 26 E/E SOUTH ST	CREASY LN	42	65,414	1.759	2.070	1	T5
30	US 52 /SAGAMORE PKY N	GREENBUSH	28	43,885	1.748	2.174	T7	T15
31	SR 26 E/E SOUTH ST	S EARL AVE	18	28,582	1.725	2.316	T29	T24
32	SR 26 E/SOUTH ST	S 18TH ST	17	27,029	1.723	2.337	T31	T76
33	US 52/SAGAMORE PKY S	SR 26 E	39	62,014	1.723	2.082	2	T15
34	SR 26 E/E SOUTH ST	I65 SOUTHBOUND EXIT/ENTRANCE RAMPS	37	58,866	1.722	2.095	3	T9
35	N 9TH ST	DUNCAN RD	10	16,061	1.706	2.570	T93	T49
36	US 231 N/ NORTHWESTERN AVE	US 231/WIGGINS ST	13	20,909	1.703	2.444	T54	NA
37	US 231/WIGGINS ST	N SALISBURY ST	11	17,760	1.697	2.520	T78	T49
38	US 52/SAGAMORE PKY S	SR 25 E/TEAL RD	26	41,982	1.697	2.188	T12	T49

T indicates a Tie

Rank	Intersection: Road 1	Intersection: Road 2	*Total Crashes**	** ADT Entering Volume	*** MEV Rate	**** *CRF*	*Total Crash Frequency Rank*	*Injury +Fatality Crash Frequency Rank*
39	S CREASY LN	MCCARTY LN	18	29,433	1.676	2.305	T29	T76
40	US 231 N/ NORTHWESTERN AVE	STADIUM AVE	23	37,653	1.674	2.221	T17	T49
41	SR 38 E/SR 25 E	I65 SOUTHBOUND EXIT/ENTRANCE RAMPS	12	19,723	1.667	2.470	T65	T24
42	BECK LN	S 18TH ST	12	19,831	1.658	2.467	T65	T15
43	SR 26 E/COLUMBIA	MAIN ST	12	19,843	1.657	2.467	T65	NA
44	US 52/SAGAMORE PKY S	E 350 S	16	26,480	1.655	2.345	T33	T76
45	US 52/SAGAMORE PKY S	MCCARTY LN	25	41,480	1.651	2.191	T14	T15
46	SR 26 E/COLUMBIA ST	N 4TH ST	12	20,056	1.639	2.462	T65	T76
47	US 52/SAGAMORE PKY W	N SALISBURY ST	27	45,261	1.634	2.165	T10	T13
48	SR 43 N/N RIVER RD	ROBINSON ST	14	23,603	1.625	2.391	T41	T24
49	US 231 N/ NORTHWESTERN AVE	SR 126 E/CHERRY LN	15	25,390	1.619	2.362	T38	T49
50	US 231 N/ NORTHWESTERN AVE	YEAGER RD	14	24,552	1.562	2.375	T41	T76
51	US 52/SAGAMORE PKY W	YEAGER RD	20	35,296	1.552	2.242	T25	T9
52	SR 38 E/SR 25 E	S CR 475 E	13	22,964	1.551	2.403	T54	T49
53	SR 25 E/TEAL RD	S 26TH ST/SEQUOYA DR	12	21,443	1.533	2.432	T65	T49
54	SALEM ST	N 18TH ST	12	21,935	1.499	2.423	T65	T15
55	US 52/SAGAMORE PKY S	KOSSUTH ST E	25	46,382	1.477	2.158	T14	T15
56	SR 26 W/W STATE ST	N GRANT ST	13	24,286	1.467	2.380	T54	T24
57	US 231/RIVER RD	SR 26/STATE ST	28	52,586	1.459	2.124	T7	T24
58	US 52/SAGAMORE PKY S	CALLOWAY DR	13	24,465	1.456	2.377	T54	T24
59	SR 26 W/W STATE ST	PIERCE ST/ANDREW PL	13	24,559	1.450	2.375	T54	T49
60	SR 26 W/W STATE ST	MEMORIAL MALL/ MARSTELLER ST	14	27,036	1.419	2.337	T41	T24
61	S 18TH ST	BRADY LN	13	25,166	1.415	2.365	T54	T24
62	KOSSUTH ST	S 18TH ST	12	23,241	1.415	2.398	T65	T24
63	SR 25/TEAL/OLD US 231 S	S 4TH ST/ POLLAND HILL RD	12	23,376	1.406	2.395	T65	T49
64	SR 25 N	I65 NORTHBOUND EXIT/ENTRANCE RAMPS	12	23,635	1.391	2.391	T65	T49
65	SR 25 N	I65 SOUTHBOUND EXIT/ENTRANCE RAMPS	11	21,809	1.382	2.425	T78	T24
66	SR 26 E/E SOUTH ST	PROGRESS DR/ RED CLOUD TRL	26	51,914	1.372	2.127	T12	T49
67	SR 26 E/SOUTH ST	MAIN ST/S 16TH ST	16	31,979	1.371	2.276	T33	T49
68	SR 43/N RIVER RD	HOWARD RD	14	28,031	1.368	2.324	T41	T76
69	SR 26 W/W STATE ST	TAPAWINGO DR	16	32,488	1.349	2.270	T33	T76
70	SR 25 E	OLD US 231 S	10	20,577	1.331	2.451	T93	T76
71	E CR 350 S	S 18TH ST	11	23,137	1.303	2.400	T78	T49
72	S EARL AVE	KOSSUTH ST	10	21,243	1.290	2.436	T93	T24
73	US 52/SAGAMORE PKY N	UNION ST E	23	49,018	1.286	2.143	T17	T24
74	US 52/SAGAMORE PKY S	NATIONAL DR	16	34,160	1.283	2.253	T33	T49
75	E 350 S	OSBORNE LN/ PROMENADE PKWY	11	23,726	1.270	2.389	T78	T24

T indicates a Tie

Rank	Intersection: Road 1	Intersection: Road 2	*Total Crashes**	** ADT Entering Volume	*** MEV Rate	**** *CRF*	*Total Crash Frequency Rank*	*Injury +Fatality Crash Frequency Rank*
76	S CREASY LN	AMELIA AVE	11	23,764	1.268	2.389	T78	T49
77	US 52/SAGAMORE PKY W	KLONDIKE RD/N 300 W	14	30,716	1.249	2.290	T41	T49
78	SR 25 E/TEAL RD	S 30TH ST	11	24,241	1.243	2.380	T78	T49
79	US 52/SAGAMORE PKY N	SCHUYLER AVE	22	48,920	1.232	2.144	T22	T76
80	SR 25 E	HAMMAN ST	13	29,495	1.208	2.305	T54	T76
81	SR 43/RIVER RD	US 231/WIGGINS RAMP	12	27,436	1.198	2.332	T65	T24
82	KOSSUTH ST	MAIN ST	11	25,236	1.194	2.364	T78	T76
83	US231 S/S RIVER RD	TAPAWINGO DR	11	25,543	1.180	2.359	T78	NA
84	SR 26 E/E SOUTH ST	MEIJER WAY	12	28,573	1.151	2.316	T65	T24
85	US 52/SAGAMORE PKY W	DUNCAN RD	14	35,373	1.084	2.242	T41	T24
86	US 231 N/NORTHWESTERN AVE	LINDBERG RD	13	32,874	1.083	2.266	T54	T76
87	SR 26 E	I65 NORTHBOUNDEXIT/ENTRANCE RAMPS	14	35,743	1.073	2.238	T41	NA
88	SR 25 E/TEAL RD	CONCORD RD	10	26,479	1.035	2.345	T93	NA
89	SR 25 E/TEAL RD	22ND ST	11	29,308	1.028	2.307	T78	T49
90	US 52/SAGAMORE PKY W	WIN HENTSCHEL BLVD/GREAT LAKES BLVD	13	35,183	1.012	2.243	T54	T24
91	SR 26 W/W STATE ST	SALISBURY ST	11	30,008	1.004	2.298	T78	T49
92	SR 26 W/E STATE ST	ROEBUCK DR	12	32,883	1.000	2.266	T65	T76
93	US 52/SAGAMORE PKY N	UNDERDOOD ST/OFARRELL RD	11	31,798	0.948	2.278	T78	T15
94	US 231 S/ S RIVER RD	SR 25	10	29,403	0.932	2.306	T93	NA
95	SR 26 E/E SOUTH ST	SHENANDOAH DR	12	37,369	0.880	2.224	T65	T49
96	SR 26 E/E SOUTH ST	FRONTAGE RD	10	31,233	0.877	2.284	T93	T49
97	US 52/SAGAMORE PKY S	NIGHTHAWK DR	11	34,858	0.865	2.246	T78	T13
98	SR 26 E/E SOUTH ST	MARKETPLACE DR/COCHISE TRL	15	50,914	0.807	2.133	T38	T76
99	SR 26 E/E SOUTH ST	N 36TH ST	10	35,561	0.770	2.240	T93	NA
100	SR 26 E/E SOUTH ST	FAIRINGTON AVE	14	50,035	0.767	2.137	T41	T15
101	US 52/SAGAMORE PKY W	MOREHOUSE RD	10	36,948	0.742	2.227	T93	T49
102	SR 26 E/E SOUTH ST	PARK EAST BLVD/BRINKER ST	14	53,990	0.710	2.117	T41	T76

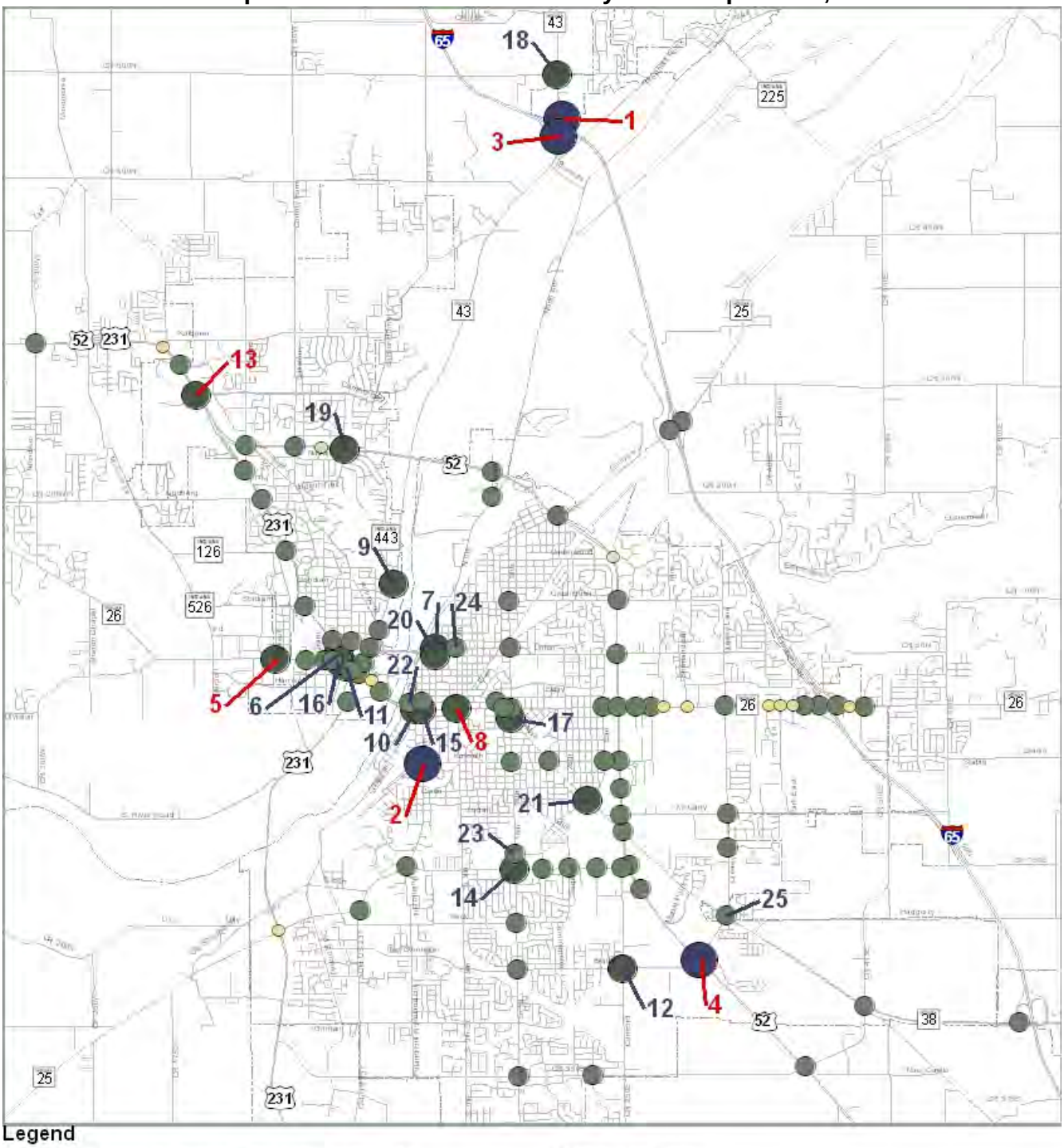
*"One Hundred Foot Rule" is applied

** Average Daily Traffic (ADT) volume for vehicles entering intersection

*** Crash Rate per One Million Entering Vehicles (MEV) (see Equation 1)

**** Critical Rate Factor (see Equation 2)

Map 5. Hazardous Intersections by Crashes per MEV, 2007



Legend

Intersection Crash Rate per Million Entering Vehicles
(Top 25 Dangerous Intersections Labeled as in Table 19)

.71 - 1 | 1.1 - 2 | 2.1 - 3 | 3.1 - 4

Municipal Boundary
Interstate Highway
US Highway
State Highway
Major Local Road
Local Road

*Crash Data Source: 2007 Indiana State Police Vehicle Crash Records Database *(extracted 05/01/08)*

Map Location:

0 0.5 1 2 Miles

N

The Area Plan Commission of Tippecanoe County

Date: July 2008

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4 PEDESTRIAN ANALYSIS

There were 54 pedestrians involved in 52 accidents[8] as presented in Table 20. As expected, the concentration of pedestrian crashes surrounded Purdue University and the Chauncey Hill area (32.7% or 17 crashes were within ¼ mile of the Purdue Main Campus). Most of the pedestrian crashes involved a single pedestrian and another vehicle, except for two crashes that involved two pedestrians each.

Table 20. Pedestrian Involved Crashes, Injuries, and Fatalities by Severity Classification, 2007

Severity Classification	Total Pedestrian Crashes	Percent of Total Pedestrian Crashes	Total Injured Pedestrians	Total Pedestrian Fatalities	Total Injured Drivers
Property Damage Only	3	5.8%	0	0	0
Personal Injury Only	44	84.6%	45*	0	3**,***
Fatality	5	9.6%	0	5	1
Total	52	100.0%	*45*	*5*	*4*

*Two crashes involved two injured pedestrians each, with no injured drivers
**One crash involved one injured driver, with no injury information for the pedestrian
*** Only one driver injury occurred per crash

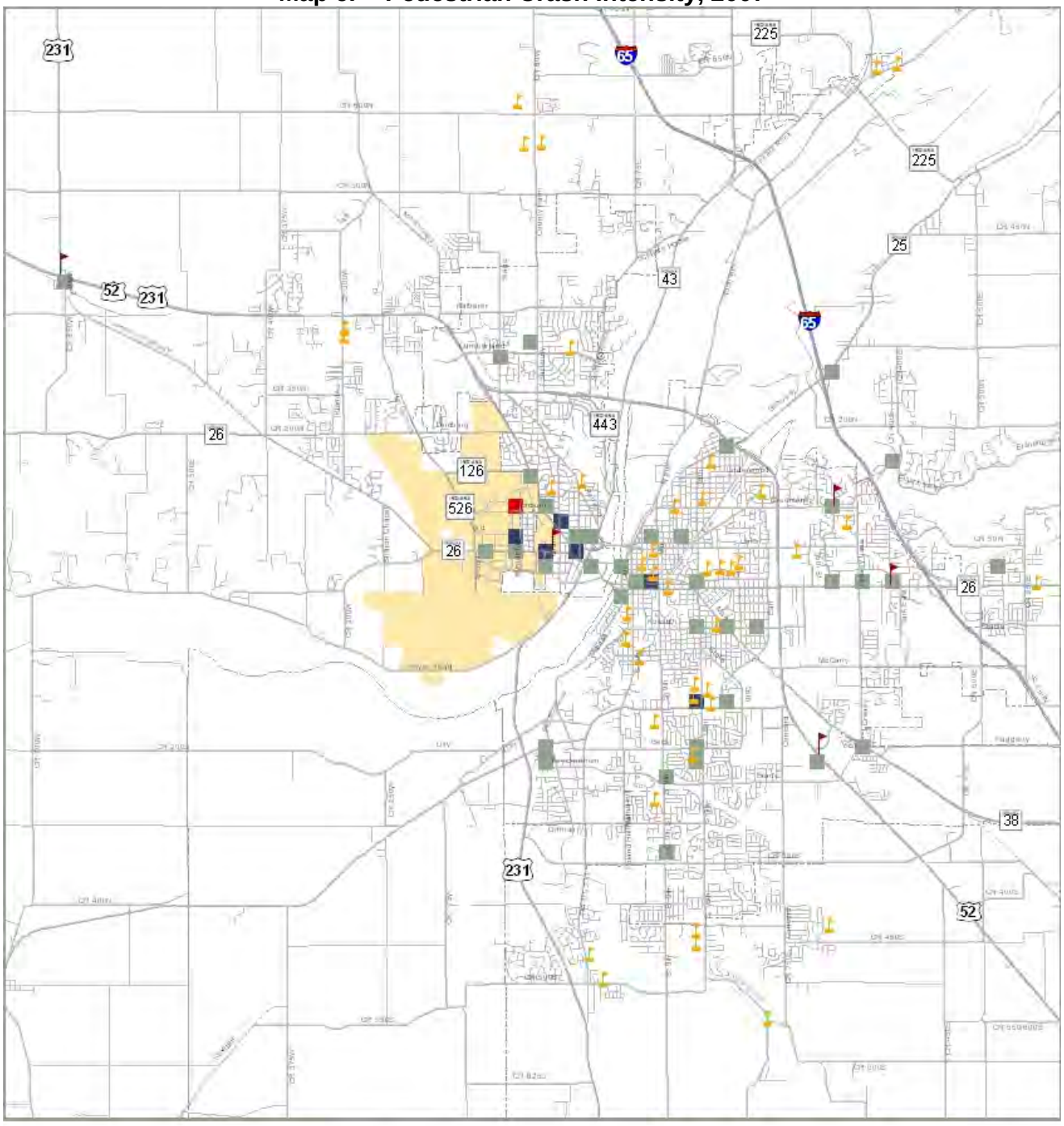
Table 21. Intersection Proximity to Pedestrian Involved Crashes, 2007

Crash Location	Property Damage Only Crashes	Personal Injury Crashes	Fatality Crashes	*Total Pedestrian Crashes*	*Percent of Total Pedestrian Crashes*
100 ft Intersection Radius					
Intersection: 0 - 100ft Radius	3	38	4	*45*	*86.5%*
Mid-Block: > 100ft Radius	0	6	1	*7*	*13.5%*
250 ft Intersection Radius					
Intersection: 0 - 250ft Radius	3	43	4	*50*	*96.2%*
Mid-Block: > 250ft Radius	0	1	1	*2*	*3.8%*

Only four of the 52 crashes were reported to have occurred within school zones and involved four pedestrians. Three of the four crashes were reported as hit-and-run. Two crashes occurred around Jefferson High and Tecumseh Middle Schools, and the others occurred near Edgelea and Oakland Elementary schools. Three of the four school zone crashes occurred in October, and the other in April. Three crashes occurred during the week, with one crash in the morning before school, and two during the noon hour. The remaining crash occurred at 10:30 p.m. on a Sunday night. All the pedestrians were females, two between the age of 15-17 and two over 30-years old.

[8] Personal and injury information for two pedestrians (involved in separate crashes) were not reported to the ISP by the reporting agencies.

Map 6. Pedestrian Crash Intensity, 2007



Legend

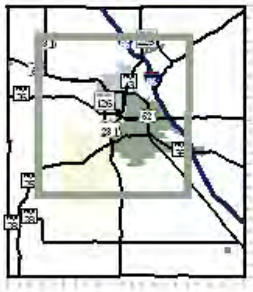
Pedestrian Fatality Crash*

Number of Pedestrian Involved Crashes (per 1000x1000 sqft)*

1 2 3

Municipal Boundary
Purdue University Main Campus
Public and Private Schools
Interstate Highway
US Highway
State Highway
Major Local Road
Local Road

Map Location:



0 0.5 1 2 Miles

N

The Area Plan Commission of Tippecanoe County

Date: July 2008

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*Crash Data Source: 2007 Indiana State Police Vehicle Crash Records Database *(extracted 05/01/08)*

The majority of the pedestrian crashes occurred on principal arterials like Northwestern Ave/US231 and State St/SR 26 surrounding the Purdue Campus (Table 22). The most dangerous time for pedestrians in 2007 was in the month of September (Table 23). However, when the crashes surrounding Purdue are removed from the data in Table 23, pedestrians were most at risk in October where 7 crashes occurred outside the campus area.

Tuesday and Wednesday were equally dangerous days for pedestrians in 2007 with 11 crashes (Table 24). As shown in Table 25, there are several hours with the maximum of 4 crashes. However, there is a cluster of these crashes occurring between noon and 3 p.m. When correlating the time and the day of the week, the most hazardous time for pedestrians was Tuesday between 2 and 3 p.m.

Table 22. Pedestrian Involved Crashes by Roadway Classification, 2007

Roadway Functional Class	Property Damage Only Crashes	Personal Injury Crashes	Fatality Crashes	*Total Pedestrian Crashes*	*Percent of Total Pedestrian Crashes*
Urban Principal Arterial	1	21	3	*25*	*48.1%*
Urban Minor Arterial	1	12	1	*14*	*26.9%*
Urban Local	1	7	0	*8*	*15.4%*
Urban Collector	0	4	0	*4*	*7.7%*
Rural Minor Arterial	0	0	1	*1*	*1.9%*

Table 23. Pedestrian Involved Crashes by Month, 2007

Month	Property Damage Only Crashes	Personal Injury Crashes	Fatality Crashes	*Total Pedestrian Crashes*	*Percent of Total Pedestrian Crashes*
January*	0	4	1	5	*9.6%*
February*	0	4	0	*4*	*7.7%*
March*	0	1	0	*1*	*1.9%*
April*	0	4	0	*4*	*7.7%*
May*	0	2	0	*2*	*3.8%*
June	0	2	0	*2*	*3.8%*
July	0	4	1	*5*	*9.6%*
August**	0	3	0	*3*	*5.8%*
September**	2	7	1	*10*	*19.2%*
October**	1	7	1	*9*	*17.3%*
November**	0	1		*1*	*1.9%*
December**	0	5	1	*6*	*11.5%*

*Purdue University 2007 Spring Semester: January 8th – May 13th 2007
**Purdue University 2007 Fall Semester: August 20th – December 16th 2007

Table 24. Pedestrian Involved Crashes by Day of the Week, 2007

Day of the Week	Property Damage Only Crashes	Personal Injury Crashes	Fatality Crashes	*Total Pedestrian Crashes*	*Percent of Total Pedestrian Crashes*
Sunday	1	6	0	*7*	*13.5%*
Monday	0	4	0	*4*	*7.7%*
Tuesday	0	9	2	*11*	*21.2%*
Wednesday	1	8	2	*11*	*21.2%*
Thursday	0	6	0	*6*	*11.5%*
Friday	0	8	1	*9*	*17.3%*
Saturday	1	3	0	*4*	*7.7%*

Table 25. Pedestrian Involved Crashes by Time of Day, 2007

Time of the Day	Property Damage Only Crashes	Personal Injury Crashes	Fatality Crashes	*Total Pedestrian Crashes*	*Percent of Total Pedestrian Crashes*
12:00 - 12:59 AM	1	1	0	*2*	*3.8%*
1:00 - 1:59	0	1	0	*1*	*1.9%*
2:00 - 2:59	0	0	0	*0*	*0.0%*
3:00 - 3:59	0	0	0	*0*	*0.0%*
4:00 - 4:59	0	0	0	*0*	*0.0%*
5:00 - 5:59	0	1	0	*1*	*1.9%*
6:00 - 6:59	0	1	1	*2*	*3.8%*
7:00 - 7:59	1	1	1	*3*	*5.8%*
8:00 - 8:59	0	1	0	*1*	*1.9%*
9:00 - 9:59	0	4	0	*4*	*7.7%*
10:00 - 10:59	0	2	0	*2*	*3.8%*
11:00 - 11:59	0	3	0	*3*	*5.8%*
12:00 - 12:59 PM	0	4	0	*4*	*7.7%*
1:00 - 1:59	0	4	0	*4*	*7.7%*
2:00 - 2:59	0	4	0	*4*	*7.7%*
3:00 - 3:59	0	3	0	*3*	*5.8%*
4:00 - 4:59	0	1	1	*2*	*3.8%*
5:00 - 5:59	0	3	0	*3*	*5.8%*
6:00 - 6:59	1	1	0	*2*	*3.8%*
7:00 - 7:59	0	2	1	*3*	*5.8%*
8:00 - 8:59	0	3	1	*4*	*7.7%*
9:00 - 9:59	0	2	0	*2*	*3.8%*
10:00 - 10:59	0	2	0	*2*	*3.8%*
11:00 - 11:59	0	0	0	*0*	*0.0%*

Table 26. Pedestrian Involved Crashes by Primary Factor, 2007

Primary Factor	Property Damage Only Crashes	Personal Injury Crashes	Fatality Crashes	*Total Pedestrian Crashes*	*Percent of Total Pedestrian Crashes*
Pedestrian Action	0	16	4	*20*	*38.5%*
Failure To Yield Right Of Way	1	15	0	*16*	*30.8%*
Other (Driver) - Explained In Crash Narrative	0	6	0	*6*	*11.5%*
Other (Environmental) - Explained In Crash Narrative	0	1	1	*2*	*3.8%*
Unsafe Speed	0	1	0	*1*	*1.9%*
Unsafe Backing	0	1	0	*1*	*1.9%*
Roadway Surface Condition	0	1	0	*1*	*1.9%*
Ran Off Road Right	1	0	0	*1*	*1.9%*
Improper Passing	0	1	0	*1*	*1.9%*
Following Too Closely	1	0	0	*1*	*1.9%*
Driver Illness	0	1	0	*1*	*1.9%*
Alcoholic Beverages	0	1	0	*1*	*1.9%*

Pedestrians were more likely to be involved in accidents during the daylight hours, followed by dark but lighted conditions (Table 27). Most pedestrian crashes also occurred in dry conditions; however 25% of the crashes occurred during wet (e.g., rain, snow, or icy) conditions (Table 28).

Table 27. Pedestrian Involved Crashes by Light Conditions, 2007

Light Condition	Property Damage Only Crashes	Personal Injury Crashes	Fatality Crashes	*Total Pedestrian Crashes*	*Percent of Total Pedestrian Crashes*
Daylight	1	29	1	*31*	*59.6%*
Dark (Lighted)	2	9	1	*12*	*23.1%*
Dark (Not Lighted)	0	3	2	*5*	*9.6%*
Dawn/Dusk	0	3	1	*4*	*7.7%*

Table 28. Pedestrian Involved Crashes by Roadway Surface Condition, 2007

Surface Condition	Property Damage Only Crashes	Personal Injury Crashes	Fatality Crashes	*Total Pedestrian Crashes*	*Percent of Total Pedestrian Crashes*
Dry	3	32	4	*39*	*75.0%*
Wet	0	9	1	*10*	*19.2%*
Snow/Slush	0	2	0	*2*	*3.8%*
Ice	0	1	0	*1*	*1.9%*

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5 BICYCLE ANALYSIS

In Tippecanoe County there were 63 crashes in 2007 involving bicyclists as shown in Table 29 and in Map 7. Fortunately there were no fatality crashes involving a bicyclist. Of the 50 injury crashes, there were no *incapacitating injuries*, 40 *non-incapacitating* injury crashes (with 45 injured cyclists), seven *possible* injuries, and one crash reported a *refused* injury type. The remaining two injury crashes were not categorized. As shown and noted in Table 29, two of the 50 crashes also reported injuries to 2 drivers and were reported as *non-incapacitating*.

Table 29. Bicyclists Involved Crashes, Injuries, and Fatalities by Severity Classification, 2007

Severity Classification	Total Crashes	Percent of Total Bicyclist Crashes	Total Injured Bicyclists	Total Bicyclists Fatalities	Total Injured Drivers
Property Damage Only	13	20.6%	0	0	0
Personal Injury Only	50	79.4%	55*,**	0	2**
Fatality Injury*	0	0.0%	0	0	0
Total	63	100.0%	55	0	2

*1 crash injured 3 bicyclists, 3 crashes injured 2 bicyclists each
**2 crashes injured both a driver and a bicyclist

The majority of all bicycle crashes were at or within 100ft of an intersection (Table 30) as are the majority of injury crashes. *Urban Principal* and *Minor Arterials,* the two busiest non-interstate road types, accounted for a combined 69.8% of the total bicycle crashes (Table 31). Only three crashes occurred in the rural area, two surrounding Dayton, and one in Benjamin Crossing Subdivision

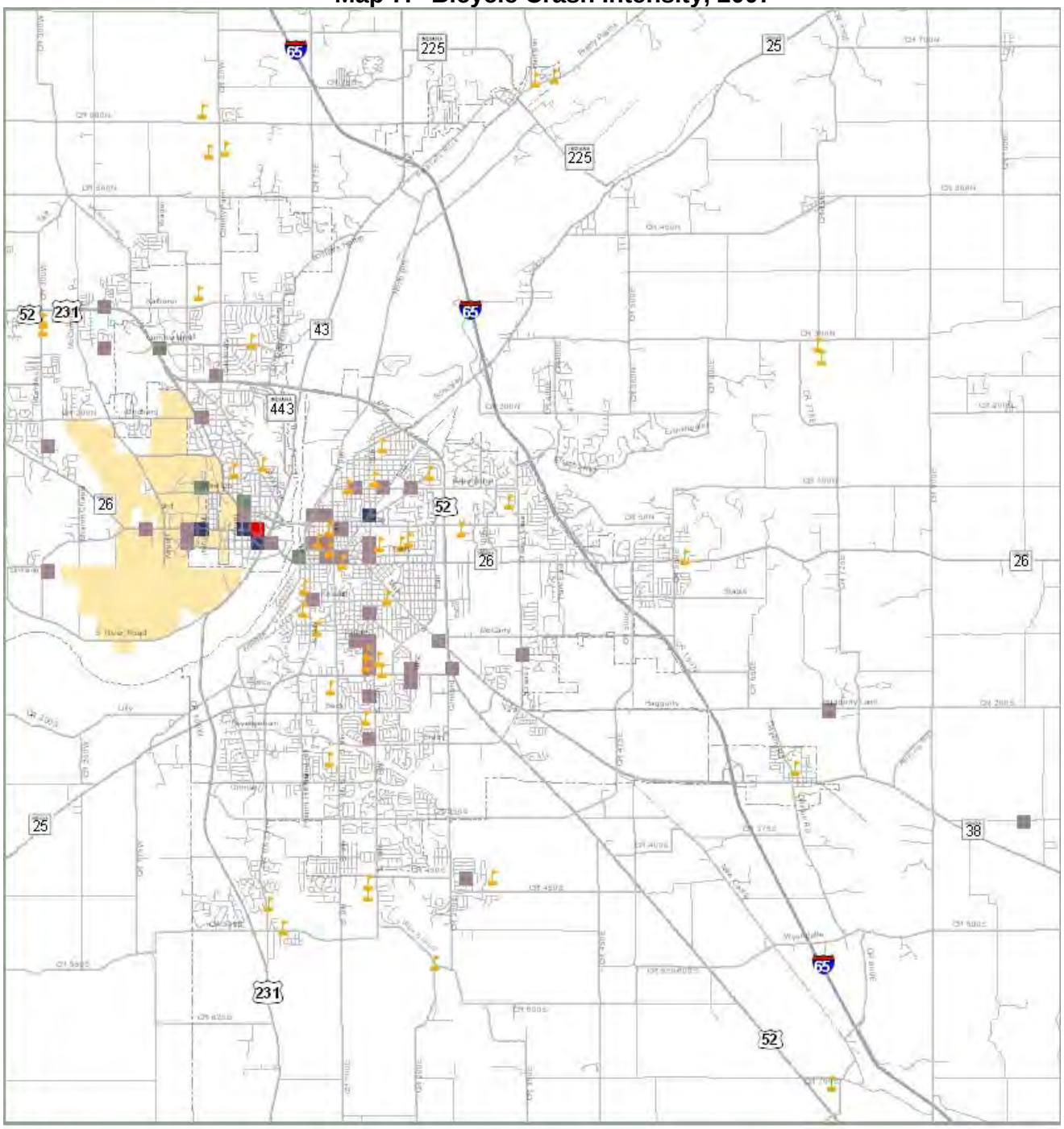
Table 30. Intersection Proximity to Bicyclist Involved Crashes, 2007

Bicyclist Crash Location	Property Damage Only Crashes	Personal Injury Crashes	Fatality Crashes	*Total* Bicyclist *Crashes*	*Percent of Total* Bicyclist *Crashes*
100 ft Intersection Radius					
Intersection: 0 - 100ft Radius	12	43	0	*55*	*87.3%*
Mid-Block: > 100ft Radius	1	7	0	*8*	*12.7%*
250 ft Intersection Radius					
Intersection: 0 - 250ft Radius	13	46	0	*59*	*93.7%*
Mid-Block: > 250ft Radius	0	4	0	*4*	*6.3%*

The highest concentration of crashes, 19 (30.2%), occurred on or within ¼ mile of the Purdue University. Other high bicycle crash locations included SR 26 at US 231/River Rd, US 52/US 231 and Cumberland Ave, and the area surrounding Market Square shopping center.

There were four school zone bicycle collisions in 2007, three of which occurred in the school zone around Cary Home, Jefferson High School, Tecumseh Middle School, and the Old Durgan Elementary School. The fourth school zone bike crash occurred near Washington Elementary. Of the seven hit-and-run bicycle crashes, two occurred in school zones.

Map 7. Bicycle Crash Intensity, 2007



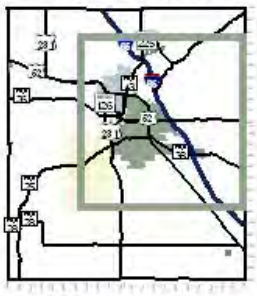
Legend

Number of Bicyclist Involved Crashes (per 1000x1000 sqft)*

1 2 3 4

Municipal Boundary
Purdue University Main Campus
Public and Private Schools
Interstate Highway
US Highway
State Highway
Major Local Road
Local Road

Map Location:



0 0.5 1 2 Miles

N

The Area Plan Commission of Tippecanoe County

Date: July 2008

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*Crash Data Source: 2007 Indiana State Police Vehicle Crash Records Database *(extracted 05/01/08)*

Table 31. Bicyclist Involved Crashes by Roadway Classification, 2007

Roadway Functional Class	Property Damage Only Crashes	Personal Injury Crashes	Fatality Crashes	*Total* Bicyclist *Crashes*	*Percent of Total* Bicyclist *Crashes*
Urban Principal Arterial	7	25	0	*32*	*50.8%*
Urban Minor Arterial	3	9	0	*12*	*19.0%*
Urban Local	1	7	0	*8*	*12.7%*
Urban Collector	2	6	0	*8*	*12.7%*
Rural Local	0	3	0	*3*	*4.8%*

Bicycle crashes occurred at an even pace over the summer months, peaking in August with 17.5% of the yearly bicycle crashes (Table 32). Tuesdays, Thursdays, and Fridays were hazardous for bicyclists accounting for 54% of the weekly crashes (Table 33). As shown in Table 34, the peak for bicycle accidents occurred between 1-2pm and 3-4pm. Furthermore, Friday between 3-4pm was the most hazardous time for a bicyclist with four of the eleven crashes, three of which involved personal injuries.

Table 32. Bicyclist Involved Crashes by Month, 2007

Month	Property Damage Only Crashes	Personal Injury Crashes	Fatality Crashes	*Total* Bicyclist *Crashes*	*Percent of Total* Bicyclist *Crashes*
January*	1	2	0	*3*	*4.8%*
February*	0	1	0	*1*	*1.6%*
March*	2	2	0	*4*	*6.3%*
April*	0	5	0	*5*	*7.9%*
May*	1	7	0	*8*	*12.7%*
June	3	6	0	*9*	*14.3%*
July	2	8	0	*10*	*15.9%*
August**	1	10	0	*11*	*17.5%*
September**	1	4	0	*5*	*7.9%*
October**	1	2	0	*3*	*4.8%*
November**	1	3	0	*4*	*6.3%*
December**	1	2	0	*3*	*4.8%*

*Purdue University 2007 Spring Semester: January 8th – May 13th 2007
**Purdue University 2007 Fall Semester: August 20th – December 16th 2007

Table 33. Bicyclist Involved Crashes by Day of the Week, 2007

Day of the Week	Property Damage Only Crashes	Personal Injury Crashes	Fatality Crashes	*Total* Bicyclist *Crashes*	*Percent of Total* Bicyclist *Crashes*
Sunday	0	4	0	*4*	*6.3%*
Monday	5	3	0	*8*	*12.7%*
Tuesday	3	9	0	*12*	*19.0%*
Wednesday	1	6	0	*7*	*11.1%*
Thursday	1	10	0	*11*	*17.5%*
Friday	1	10	0	*11*	*17.5%*
Saturday	2	8	0	*10*	*15.9%*

Table 34. Bicyclist Involved Crashes by Time of Day, 2007

Time of the Day	Property Damage Only Crashes	Personal Injury Crashes	Fatality Crashes	*Total* Bicyclist *Crashes*	*Percent of Total* Bicyclist *Crashes*
12:00 - 12:59 AM	1	0	0	*1*	*1.6%*
1:00 - 1:59	0	0	0	*0*	*0.0%*
2:00 - 2:59	0	0	0	*0*	*0.0%*
3:00 - 3:59	0	0	0	*0*	*0.0%*
4:00 - 4:59	0	0	0	*0*	*0.0%*
5:00 - 5:59	0	0	0	*0*	*0.0%*
6:00 - 6:59	1	0	0	*1*	*1.6%*
7:00 - 7:59	1	0	0	*1*	*1.6%*
8:00 - 8:59	2	0	0	*2*	*3.2%*
9:00 - 9:59	1	0	0	*1*	*1.6%*
10:00 - 10:59	0	0	0	*0*	*0.0%*
11:00 - 11:59	2	2	0	*4*	*6.3%*
12:00 - 12:59 PM	1	2	0	*3*	*4.8%*
1:00 - 1:59	7	2	0	*9*	*14.3%*
2:00 - 2:59	3	0	0	*3*	*4.8%*
3:00 - 3:59	7	2	0	*9*	*14.3%*
4:00 - 4:59	3	1	0	*4*	*6.3%*
5:00 - 5:59	6	0	0	*6*	*9.5%*
6:00 - 6:59	4	2	0	*6*	*9.5%*
7:00 - 7:59	3	1	0	*4*	*6.3%*
8:00 - 8:59	4	0	0	*4*	*6.3%*
9:00 - 9:59	2	1	0	*3*	*4.8%*
10:00 - 10:59	2	0	0	*2*	*3.2%*
11:00 - 11:59	0	0	0	*0*	*0.0%*

The primary factor for the bicycle as shown in Table 35 provides little insight as to the cause. The number one factor was due to unspecific driver actions (*Other (driver)),* followed by the motorist's/bicyclist's *failure to yield the right of way*. The third highest factor was *pedestrian action* which implies the bicyclist's actions triggered the crash[9] e.g., not stopping when exiting sidewalks and crossing roads, riding on the wrong side of the street, or riding against traffic on a one-way street. As expected the majority of these crashes (55.6%) were right-angle crashes where vehicles and cyclists collided during turns at intersections (Table 36). An additional eight crashes were the result of left and right turn turning movements made by the motorists.

Table 35. Primary Factor for Bicyclist Involved Crashes,2007

Primary Factor	Property Damage Only Crashes	Personal Injury Crashes	Fatality Crashes	*Total* Bicyclist *Crashes*	*Percent of Total* Bicyclist *Crashes*
Other (Driver) - Explained In Crash Narrative	6	17	0	*23*	*36.5%*
Failure To Yield Right Of Way	2	17	0	*19*	*30.2%*
Pedestrian Action	4	8	0	*12*	*19.0%*
Disregard Signal/Regulatory Sign	0	2	0	*2*	*3.2%*
Wrong Way On One Way	0	1	0	*1*	*1.6%*
View Obstructed	1	0	0	*1*	*1.6%*
Unsafe Speed	0	1	0	*1*	*1.6%*
Other (Environmental) - Explained In Crash Narrative	0	1	0	*1*	*1.6%*
Improper Lane Usage	0	1	0	*1*	*1.6%*
Following Too Closely	0	1	0	*1*	*1.6%*
Driver Distracted - Explained In Crash Narrative	0	1	0	*1*	*1.6%*

Table 36. Manner of Collision for Bicyclist Involved Crashes, 2007

Manner of Collision	Property Damage Only Crashes	Personal Injury Crashes	Fatality Crashes	*Total* Bicyclist *Crashes*	*Percent of Total* Bicyclist *Crashes*
Right Angle	6	29	0	*35*	*55.6%*
Other - Explained In Crash Narrative	3	5	0	*8*	*12.7%*
Same Direction Sideswipe	2	4	0	*6*	*9.5%*
Head On	1	4	0	*5*	*7.9%*
Right Turn	1	3	0	*4*	*6.3%*
Left Turn	0	3	0	*3*	*4.8%*
Rear End	0	1	0	*1*	*1.6%*
Left/Right Turn	0	1	0	*1*	*1.6%*

[9] The Indiana Officers Standard Crash Report does not provide a circumstance for *Bicyclist Action*, therefore Agencies must use *Pedestrian Action* in its place.

As shown in Table 37 and Table 38 the overwhelming majority of the bicycle crashes occurred during the day with dry pavement.

Table 37. Light Conditions for Bicyclist Involved Crashes, 2007

Light Condition	Property Damage Only Crashes	Personal Injury Crashes	Fatality Crashes	*Total* Bicyclist *Crashes*	*Percent of Total* Bicyclist *Crashes*
Daylight	12	37	0	*49*	*77.8%*
Dark (Lighted)	1	8	0	*9*	*14.3%*
Dawn/Dusk	0	3	0	*3*	*4.8%*
Dark (Not Lighted)	0	2	0	*2*	*3.2%*

Table 38. Roadway Surface for Bicyclist Involved Crashes, 2007

Surface Condition	Property Damage Only Crashes	Personal Injury Crashes	Fatality Crashes	*Total* Bicyclist *Crashes*	*Percent of Total* Bicyclist *Crashes*
Dry	11	46	0	*57*	*90.5%*
Wet	2	4	0	*6*	*9.5%*

6 MOTORCYCLE AND MOPED ANALYSIS

There were 120 roadway crash reports that involved motorcycles in 2007, 27 of which involved mopeds. Of the 20 total fatality crashes, two involved fatalities to motorcyclists.

In the crash database, 'individual' information was available for 111 of the motorcyclists and 6 passengers involved in the crashes. Of the 117 individuals:

- Only 29 (24.7%) were reported as wearing helmets[10]
- 12 (10.3%) tested above the legal limit (0.08%) for alcohol
- 50 (42.7%) were reported as transported to the hospital for injuries, not including the additional 2 cyclists (1.7%) who died

Table 39. Motorcycle and Moped Crashes, Injuries, and Fatalities by Severity Classification, 2007

Severity Classification	Total Crashes	Percent of Total Motorcycle Crashes	Total Injured Motorcyclist	Total Motorcyclist Fatalities	Total Driver Injuries	Total Injured Pedestrians
Property Damage Only	26	21.7%	0	0	0	0
Personal Injury Only	92	76.7%	97**	0	3***	1****
Fatality Injury*	2	1.7%	0	2	1	0
Total	*120*	*100.0%*	*97*	*2*	*4*	*1*

*Fatalities were Motorcyclists

**83 Crashes involved one injured motorcyclist, and five crashes involved an injured driver and passenger.

***Only one crash involved an injured vehicle occupant without an injury to the motorcyclist, the remaining two crashes involved an injured driver and motorcyclist.

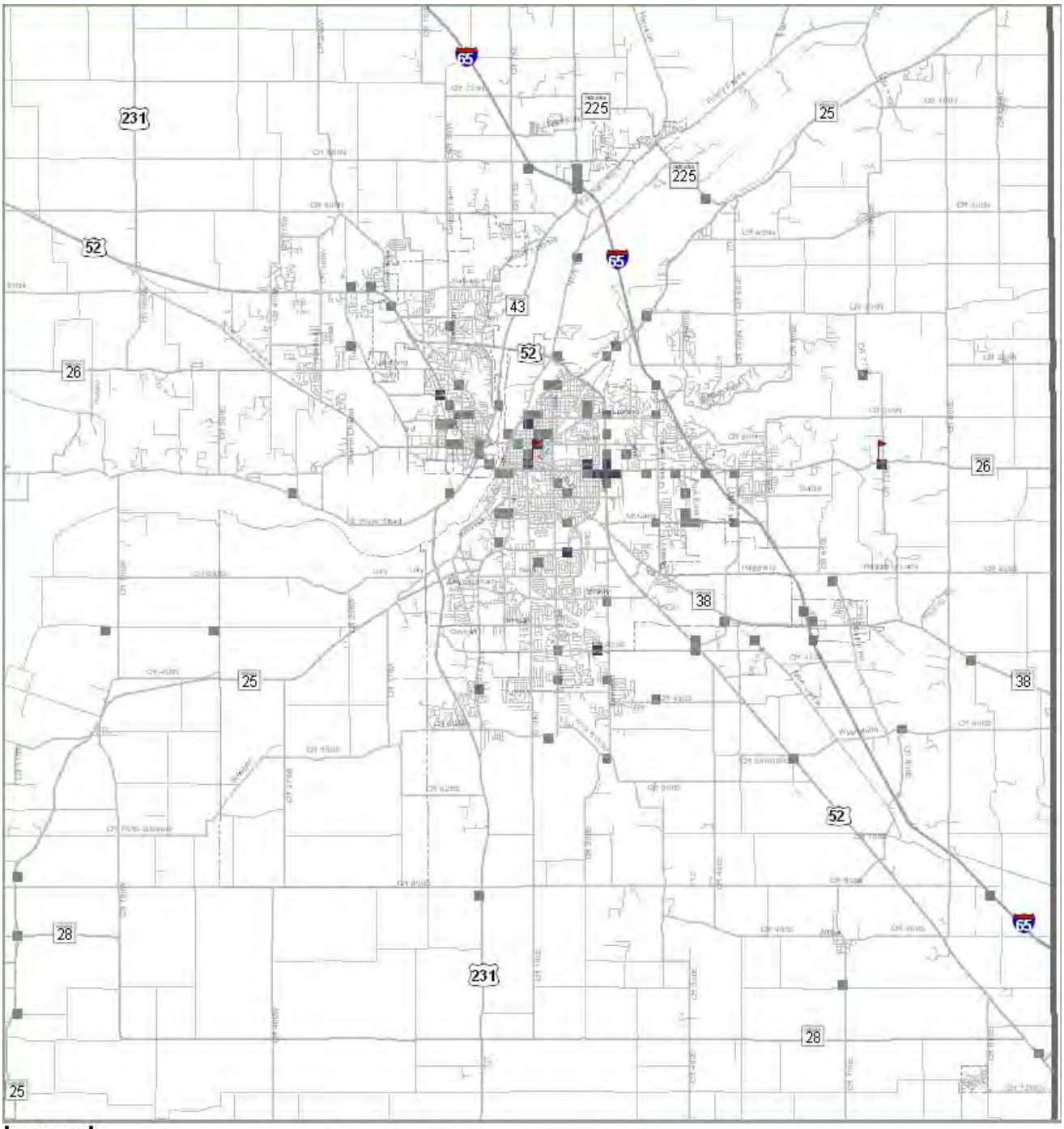
****One crash involved an injured pedestrian and an injured motorcyclist.

Table 40. Intersection Proximity to Motorcycle and Moped Crashes, 2007

Bicyclist Crash Location	Property Damage Only Crashes	Personal Injury Crashes	Fatality Crashes	*Total Motorcycle Crashes*	*Percent of Total Motorcycle Crashes*
100 ft Intersection Radius					
Intersection: 0 - 100ft Radius	19	49	1	*69*	*57.5%*
Mid-Block: > 100ft Radius	7	43	1	*51*	*42.5%*
250 ft Intersection Radius					
Intersection: 0 - 250ft Radius	20	64	1	*85*	*70.8%*
Mid-Block: > 250ft Radius	6	28	1	*35*	*29.2%*

[10,] Helmets are estimated by NHTSA to be 37% effective in preventing fatal injuries to motorcyclists, Calculating Lives Saved by Motorcycle Helmets, William V. Deutermann, 08/2005 DOT HS 809 861

Map 8. Motorcycle and Moped Crash Intensity, 2007



Legend

Motorcycle Fatality Crash*

Number of Motorcycle and Moped Crashes (per 1000x1000 sqft)*

County Boundary
Municipal Boundary
Interstate Highway
US Highway
State Highway
Major Local Road
Local Road

Map Location:

0 1 2 4 Miles

N

The Area Plan Commission of Tippecanoe County

Date: July 2008

Disclaimers and copyright restrictions apply to this map and data. Complete disclaimer can be viewed at: http://www.tippecanoe.in.gov/gis/Disclaimer.htm

*Crash Data Source: 2007 Indiana State Police Vehicle Crash Records Database *(extracted 05/01/08)*

As shown in Table 41 the majority of motorcycle crashes took place on urban roadways, specifically on *Urban Primary* and *Minor Arterials*. As expected, motorcycle crashes increased from spring through autumn with a lull during the winter months (Table 42). In 2007, August was the peak crash month with 24 crashes, and 1 fatality. September had the largest occurrence of personal injury crashes.

Table 41. Motorcycle and Moped Crashes by Roadway Classification, 2007

Roadway Functional Class	Property Damage Only Crashes	Personal Injury Crashes	Fatality Crashes	*Total Motorcycle Crashes*	*Percent of Total Motorcycle Crashes*
Urban Principal Arterial	10	36	0	*46*	*38.3%*
Urban Minor Arterial	2	17	0	*19*	*15.8%*
Urban Local	7	10	0	*17*	*14.2%*
Urban Collector	1	9	1	*11*	*9.2%*
Rural Local	1	7	0	*8*	*6.7%*
Rural Collector	3	5	0	*8*	*6.7%*
Rural Principal Arterial	0	4	1	*5*	*4.2%*
Urban Interstate	0	3	0	*3*	*2.5%*
Rural Interstate	1	1	0	*2*	*1.7%*
Rural Minor Arterial	1	0	0	*1*	*0.8%*

Table 42. 2007 Motorcycle and Moped Crashes by Month, 2007

Month	Property Damage Only Crashes	Personal Injury Crashes	Fatality Crashes	*Total Motorcycle Crashes*	*Percent of Total Motorcycle Crashes*
January*	1	0	0	*1*	*0.8%*
February*	2	2	0	*4*	*3.3%*
March*	2	7	0	*9*	*7.5%*
April*	3	9	0	*12*	*10.0%*
May*	3	9	1	*13*	*10.8%*
June	1	14	0	*15*	*12.5%*
July	5	14	0	*19*	*15.8%*
August**	8	15	1	*24*	*20.0%*
September**	1	18	0	*19*	*15.8%*
October**	0	3	0	*3*	*2.5%*
November**	0	1	0	*1*	*0.8%*
December**	1	0	0	*1*	*0.8%*

*Purdue University 2007 Spring Semester: January 8th – May 13th 2007
**Purdue University 2007 Fall Semester: August 20th – December 16th 2007

In 2007, Saturdays and 2-3pm and 4-5pm regardless of the day had the most occurrences of motorcycle crashes in Tippecanoe County (Table 43 and Table 44, respectively). However, when correlating these together, the most dangerous time for motorcyclists was found to be Saturday between 12-1am with five crashes, four of which were injury crashes. Also, Sunday

between 7-8pm had three injury crashes and two property damage only crashes and Friday between 4-5pm had four injury crashes.

Table 43. Motorcycle and Moped Crashes by Day of Week, 2007

Day of the Week	Property Damage Only Crashes	Personal Injury Crashes	Fatality Crashes	*Total Crashes*	*Percent of Total Motorcycle Crashes*
Sunday	5	16	0	*21*	*17.5%*
Monday	2	7	0	*9*	*7.5%*
Tuesday	3	13	0	*16*	*13.3%*
Wednesday	5	13	0	*18*	*15.0%*
Thursday	3	9	1	*13*	*10.8%*
Friday	4	15	0	*19*	*15.8%*
Saturday	4	19	1	*24*	*20.0%*

Table 44. Motorcycle and Moped Crashes by Time of Day, 2007

Time of the Day	Property Damage Only Crashes	Personal Injury Crashes	Fatality Crashes	*Total Crashes*	*Percent of Total Motorcycle Crashes*
12:00 - 12:59 AM	1	6	0	*7*	*5.8%*
1:00 - 1:59	0	1	0	*1*	*0.8%*
2:00 - 2:59	0	0	0	*0*	*0.0%*
3:00 - 3:59	0	1	1	*2*	*1.7%*
4:00 - 4:59	0	1	0	*1*	*0.8%*
5:00 - 5:59	0	0	0	*0*	*0.0%*
6:00 - 6:59	1	3	0	*4*	*3.3%*
7:00 - 7:59	0	0	0	*0*	*0.0%*
8:00 - 8:59	2	0	0	*2*	*1.7%*
9:00 - 9:59	0	0	0	*0*	*0.0%*
10:00 - 10:59	0	1	0	*1*	*0.8%*
11:00 - 11:59	1	4	0	*5*	*4.2%*
12:00 - 12:59 PM	3	6	0	*9*	*7.5%*
1:00 - 1:59	2	6	0	*8*	*6.7%*
2:00 - 2:59	3	10	0	*13*	*10.8%*
3:00 - 3:59	0	8	0	*8*	*6.7%*
4:00 - 4:59	4	9	0	*13*	*10.8%*
5:00 - 5:59	3	7	0	*10*	*8.3%*
6:00 - 6:59	1	5	0	*6*	*5.0%*
7:00 - 7:59	2	8	0	*10*	*8.3%*
8:00 - 8:59	0	5	0	*5*	*4.2%*
9:00 - 9:59	2	5	1	*8*	*6.7%*
10:00 - 10:59	0	4	0	*4*	*3.3%*
11:00 - 11:59	1	2	0	*3*	*2.5%*
12:00 - 12:59 AM	1	6	0	*7*	*5.8%*

In 2007, the top five primary factors reported for motorcycle crashes (Table 45) were reported as primarily due to Driver Error (*Other Driver*), *Failure To Yield The Right-Of-Way*, *Ran Off The Road Right*, *Following To Closely*, and *Unsafe Speed* by either the motorcyclist and/or and other drivers involved. Unfortunately, *Alcoholic Beverages* use was listed as a primary factor for 4 (3.3%) of the 117 total motorcycle crashes, however as mentioned earlier, there were 12 cyclists who tested over the legal limit for drunk driving.

Table 45. Motorcycle and Moped Crashes by Primary Factor, 2007

Primary Factor	Property Damage Only Crashes	Personal Injury Crashes	Fatality Crashes	*Total Crashes*	*Percent of Total Motorcycle Crashes*
Other (Driver) - Explained In Crash Narrative	6	21	0	*27*	*22.5%*
Failure To Yield Right Of Way	4	11	1	*16*	*13.3%*
Ran Off Road Right	3	11	0	*14*	*11.7%*
Following Too Closely	3	10	0	*13*	*10.8%*
Unsafe Speed	1	5	0	*6*	*5.0%*
Disregard Signal/Regulatory Sign	0	5	0	*5*	*4.2%*
Left Of Center	1	3	1	*5*	*4.2%*
Unsafe Backing	5	0	0	*5*	*4.2%*
Alcoholic Beverages	0	4	0	*4*	*3.3%*
Improper Passing	0	3	0	*3*	*2.5%*
Improper Lane Usage	0	3	0	*3*	*2.5%*
Pedestrian Action	0	2	0	*2*	*1.7%*
Improper Turning	0	2	0	*2*	*1.7%*
Speed Too Fast For Weather Conditions	1	1	0	*2*	*1.7%*
Driver Distracted - Explained In Crash Narrative	0	2	0	*2*	*1.7%*
Overcorrecting/Over steering	0	2	0	*2*	*1.7%*
Roadway Surface Condition	1	1	0	*2*	*1.7%*
Road Under Construction	0	1	0	*1*	*0.8%*
Accelerator Failure Or Defective	0	1	0	*1*	*0.8%*
Passenger Distraction	0	1	0	*1*	*0.8%*
Other (Environmental) - Explained In Crash Narrative	1	0	0	*1*	*0.8%*
Other Telematics In Use	0	1	0	*1*	*0.8%*
Brake Failure Or Defective	0	1	0	*1*	*0.8%*
Animal/Object In Roadway	0	1	0	*1*	*0.8%*

Table 46. Motorcycle and Moped Crashes by Collision With Object, 2007

Motorcycle Collision With Object	Property Damage Only Crashes	Personal Injury Crashes	Fatality Crashes	*Total Crashes*	*Percent of Total Motorcycle Crashes*
Ran Off Road	7	17	0	*24*	*20.0%*
Rear End	8	15	0	*23*	*19.2%*
Non-Collision	1	21	0	*22*	*18.3%*
Right Angle	2	10	1	*13*	*10.8%*
Other - Explained In Crash Narrative	2	11	0	*13*	*10.8%*
Head On	0	9	1	*10*	*8.3%*
Backing Crash	5	0	0	*5*	*4.2%*
Same Direction Sideswipe	0	4	0	*4*	*3.3%*
Left Turn	0	3	0	*3*	*2.5%*
Right Turn	0	1	0	*1*	*0.8%*
Opposite Direction Sideswipe	1	0	0	*1*	*0.8%*
Left/Right Turn	0	1	0	*1*	*0.8%*

Table 47. Motorcycle and Moped Crashes by Light Conditions, 2007

Light Condition	Property Damage Only Crashes	Personal Injury Crashes	Fatality Crashes	*Total Crashes*	*Percent of Total Motorcycle Crashes*
Daylight	20	65	0	*85*	*70.8%*
Dark (Lighted)	3	16	1	*20*	*16.7%*
Dark (Not Lighted)	2	8	1	*11*	*9.2%*
Dawn/Dusk	1	3	0	*4*	*3.3%*

Table 48. Motorcycle and Moped Crashes by Roadway Surface, 2007

Surface Condition	Property Damage Only Crashes	Personal Injury Crashes	Fatality Crashes	*Total Crashes*	*Percent of Total Motorcycle Crashes*
Dry	21	88	2	*111*	*92.5%*
Wet	5	3	0	*8*	*6.7%*
Loose Material On Road	0	1	0	*1*	*0.8%*

APPENDIX A – INDIANA OFFICER'S STANDARD CRASH REPORT (ELECTRONIC VERSION)

INDIANA OFFICER'S STANDARD CRASH REPORT

Electronic Version

Page 1 of 5

Mail to:
Indiana State Police, Crash Records Section
100 North Senate Avenue, Indianapolis, IN 46204

Local ID

Date of Crash	Day of Week	Actual Local Time	County	Township	# Motor Vehicles	# Injured	# Dead	# Commercial Vehicles	# Deer
//	//	M			1				

Road Crash Occurred On	Nearest/Intersecting Road/MileMarker/Interchange	If not an intersection, number of feet from	Direction	Road Classification

Inside Corporate Limits?	City/Town or Nearest City/Town	Property?	Crash Latitude	Crash Longitude
NO				

Driver #1	Driver #2	Driver #3	Driver #4

Driver Contributing Circumstances

Primary Cause	Vehicle 1	Vehicle 2	Vehicle 3	Vehicle 4	
					Alcoholic Beverages
					Illegal Drugs
					Prescription Drugs
					Driver Asleep or Fatigued
					Driver Illness
					Unsafe Speed
					Failure to Yield
					Disregard Signal
					Left of Center
					Improper Passing
					Improper Turning
					Improper Lane Usage
					Following Too Closely
					Unsafe Backing
					Overcorrecting
					Ran off Road
					Wrong Way on One Way
					Pedestrian's Action
					Passenger Distraction
					Restriction Violation
					Jackknifing
					Cell Phone Usage
					Other Telematics
					Driver Distracted
					Speed/Weather Conditions
					Other
					None

Vehicle Contributing Circumstances

Primary Cause	Vehicle 1	Vehicle 2	Vehicle 3	Vehicle 4	
					Engine Failure or Defective
					Accelerator Failure or Defective
					Brake Failure or Defective
					Tire Failure or Defective
					Headlight(s) Defective or Not On
					Other Lights Defective
					Steering Failure
					Window/Windshield Defective
					Oversize/Overweight Load
					Insecure/Leaky Load
					Tow Hitch Failure
					Other
					None

Environment Contributing Circumstances

Primary Cause	Vehicle 1	Vehicle 2	Vehicle 3	Vehicle 4	
					Glare
					Roadway Surface
					Holes/Ruts in Surface
					Shoulder Defective
					Road Under Construction
					Severe Crosswinds
					Obstruction Not Marked
					Lane Marking Obscured
					View Obstructed
					Animal/Object in Roadway
					Traffic Ctl Inop/Missing/Obscure
					Utility Work
					Other
					None

Area Information

Hit and Run	NO
School Zone	NO
Rumble Strips	NO
Locality	
Light Condition	
Weather Conditions	
Surface Condition	
Type of Median	
Type of Roadway Junction	
Road Character	
Roadway Surface	
Construction	If Yes, Construction Type
Traffic Control Devices	
Traffic Control Device Operational?	
Was this crash the result of aggressive driving?	NO

Total Estimate of all damage in the Crash:

Other Property Damage (1)	State Property	Owner's Name and Address
Other Property Damage (2)	State Property	Owner's Name and Address

Witness/Other Participant

☐ Witness ☐ Other Participant # (Last Name, First Name, MI)

Address etc.

Phone # Location at Time of Crash

☐ Witness ☐ Other Participant # (Last Name, First Name, MI)

Address etc.

Phone # Location at Time of Crash

Non-Motorist

(Last Name, First Name, MI)

Non-Motorist Type | Non-Motorist Action

Apparent Physical Condition

Cited? | Direction

Street/Highway

Traffic Control? | If yes, was traffic control operational?

Local ID

Type of Crash

Time Notified	Time Arrived	Other Location of Investigation
M	M	AT SCENE ONLY

Assisting Officer	ID No.	Agency	Investigation Complete?	Photos Taken?
			NO	NO

Assisting Officer	ID No.	Agency	Date of Report
			/ /

Investigating Officer	ID No.	Agency	Reviewing Officer
,			

Narrative

UNIT INFORMATION

Local ID

Driver's Name (Last, First, MI)

Address (Street, City, State, Zip)

Date of Birth | Age | Gender

Driver's License # | Lic Type | CDL Class | Lic State

Apparent Physical Status
- ☐ Normal
- ☐ Had Been Drinking
- ☐ Handicapped
- ☐ Ill
- ☐ Asleep/Fatigued
- ☐ Drugs/Medication
- ☐ Unknown

Restrictions
- ☐ Glasses/Contact Lenses
- ☐ Outside Rearview Mirror
- ☐ Daylight Driving
- ☐ Automatic Transmission
- ☐ Special Controls
- ☐ Employment Only
- ☐ Motorcycle Only
- ☐ To/From Employment
- ☐ Employer's Vehicle Only
- ☐ State-Owned Vehicles
- ☐ PP Chauffeurs Taxi Only
- ☐ Power Steering
- ☐ Special Restrictions
- ☐ Probation DWI
- ☐ Probation HTO
- ☐ None

Test Given | Type Given ☐ Blood ☐ Urine ☐ Breath ☐ SFST ☐ PBT

Alcohol Results: PBT | Certified Test | ☐ Pending

Drug Results

Veh# 1 | Color | Vehicle Year | Make | Model | Style

Occupants | Lic Year | License # | License State

Axles | Speed Limit | Insured By | Phone Number

Registered Owner's Name (Last, First, MI) ☐ Same as Driver

Address (Street, City, State, Zip)

Towed? | Towed To | Towed By

Lic State | Lic Year | Registered Owner's Name (Last, First, MI) ☐ Same as Driver

License# | Address (Street, City, State, Zip)

Veh Year | Make

Lic State | Lic Year | Registered Owner's Name (Last, First, MI) ☐ Same as Driver

License# | Address (Street, City, State, Zip)

Veh Year | Make

Commercial Vehicle: Carrier's Name and Address

HAZMAT Proper Shipping Name:

US DOT# | ICC# | State DOT#

Vehicle Identification# | CMV Inspection | If Yes

Gross Vehicle Weight Rating | Cargo Body Type

HAZMAT Placard | HAZMAT Release of Cargo | HAZMAT 4-Digit ID# | Hazzard Class #

Safety Equipment Used

Safety Equipment Effective?

Ejection/Trapped

EMS No. | Driver Injury Status

Nature of Most Severe Injury

Location of Most Severe Injury

If Cited?
- ☐ Infraction
- ☐ Misdemeanor
- ☐ Felony

IC Codes

Initial Impact Area
- ☐ Undercarriage
- ☐ Trailer
- ☐ None
- ☐ Unknown

Front / Rear

Areas Damaged (Multiples)
- ☐ Undercarriage
- ☐ Trailer
- ☐ None
- ☐ Unknown

Front / Rear

Vehicle Use

Emergency Run? | Fire?

Vehicle Type

Pre-Crash Vehicle Action

Direction of Travel

Type of Primary/Secondary Roadway

One Way Traffic
- ☐ One Lane
- ☐ Two Lanes
- ☐ Multi-Lanes (3 or more)

Two Way Traffic
- ☐ Two Lanes
- ☐ Multi-Lane Divided (3 or more)
- ☐ Multi-Lane Undivided 2 way left turn
- ☐ Multi-Lane Undivided (3 or more)
- ☐ Private Drive
- ☐ Alley

Collision Crash

Non-Collision Crash

NON-DRIVER INJURED INFORMATION

Page 4 of 5

Local ID

Veh# Injured Pre-crash Location:	Safety Equipment Used
Name (Last, First, MI)	Safety Equipment Effective?
Address (Street, City, State, Zip)	Ejection/Trapped
	EMS No. / Driver Injury Status
Date of Birth / Age / Gender	Nature of Most Severe Injury
Position in or on Vehicle (Front / Rear)	Location of Most Severe Injury
	Test Given / Type Given: Blood, Urine, Breath, SFST, PBT
	Alcohol Results / Certified Test / Pending / Drug Results
PBT	
Veh# Injured Pre-crash Location:	Safety Equipment Used
Name (Last, First, MI)	Safety Equipment Effective?
Address (Street, City, State, Zip)	Ejection/Trapped
	EMS No. / Driver Injury Status
Date of Birth / Age / Gender	Nature of Most Severe Injury
Position in or on Vehicle (Front / Rear)	Location of Most Severe Injury
	Test Given / Type Given: Blood, Urine, Breath, SFST, PBT
	Alcohol Results / Certified Test / Pending / Drug Results
PBT	
Veh# Injured Pre-crash Location:	Safety Equipment Used
Name (Last, First, MI)	Safety Equipment Effective?
Address (Street, City, State, Zip)	Ejection/Trapped
	EMS No. / Driver Injury Status
Date of Birth / Age / Gender	Nature of Most Severe Injury
Position in or on Vehicle (Front / Rear)	Location of Most Severe Injury
	Test Given / Type Given: Blood, Urine, Breath, SFST, PBT
	Alcohol Results / Certified Test / Pending / Drug Results
PBT	
Veh# Injured Pre-crash Location:	Safety Equipment Used
Name (Last, First, MI)	Safety Equipment Effective?
Address (Street, City, State, Zip)	Ejection/Trapped
	EMS No. / Driver Injury Status
Date of Birth / Age / Gender	Nature of Most Severe Injury
Position in or on Vehicle (Front / Rear)	Location of Most Severe Injury
	Test Given / Type Given: Blood, Urine, Breath, SFST, PBT
	Alcohol Results / Certified Test / Pending / Drug Results
PBT	

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PROPERTY/WITNESS INFORMATION

Local ID

Other Property Damage

Other Property Damage	#	State Property	Owner's Name and Address
Other Property Damage	#	State Property	Owner's Name and Address
Other Property Damage	#	State Property	Owner's Name and Address
Other Property Damage	#	State Property	Owner's Name and Address
Other Property Damage	#	State Property	Owner's Name and Address
Other Property Damage	#	State Property	Owner's Name and Address
Other Property Damage	#	State Property	Owner's Name and Address
Other Property Damage	#	State Property	Owner's Name and Address
Other Property Damage	#	State Property	Owner's Name and Address

Witness/Other Participant

☐ Witness ☐ Other Participant	#	(Last Name, First Name, MI)	Phone #
Address etc.		Location at Time of Crash	
☐ Witness ☐ Other Participant	#	(Last Name, First Name, MI)	Phone #
Address etc.		Location at Time of Crash	
☐ Witness ☐ Other Participant	#	(Last Name, First Name, MI)	Phone #
Address etc.		Location at Time of Crash	
☐ Witness ☐ Other Participant	#	(Last Name, First Name, MI)	Phone #
Address etc.		Location at Time of Crash	
☐ Witness ☐ Other Participant	#	(Last Name, First Name, MI)	Phone #
Address etc.		Location at Time of Crash	
☐ Witness ☐ Other Participant	#	(Last Name, First Name, MI)	Phone #
Address etc.		Location at Time of Crash	
☐ Witness ☐ Other Participant	#	(Last Name, First Name, MI)	Phone #
Address etc.		Location at Time of Crash	
☐ Witness ☐ Other Participant	#	(Last Name, First Name, MI)	Phone #
Address etc.		Location at Time of Crash	

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APPENDIX B – COMPLETE SUMMARY OF CONTRIBUTING CIRCUMSTANCES FOR ALL CRASHES

There are many circumstances that contribute to a crash. For each crash report, officers are allowed to specify two "Driver", one "Vehicle", and one "Environmental" contributing circumstances for each vehicle involved in the crash. For one of the vehicles in the crash, one the four possible contributing circumstances must be the listed as the primary contributing circumstance (also referred to as the primary factor) for the crash.

The following table shows all contributing circumstances (primary and secondary) specified for all Tippecanoe County crashes (roadway and non-roadway). For additional information, see Table 8 for the top 20 primary contributing circumstances reported in 2007.

Contributing Circumstances	Total Collisions	Total Fatal Crashes	Total Injury Crashes	Property Damage	Number Killed	Number Injured
FOLLOWING TOO CLOSELY	1,365	0	209	1,156	0	250
FAILURE TO YIELD RIGHT OF WAY	1,120	4	257	859	4	378
OTHER (DRIVER) - EXPLAINED IN CRASH NARRATIVE	1,078	1	144	933	1	169
UNSAFE BACKING	1,052	0	10	1,042	0	11
ROADWAY SURFACE CONDITION	716	3	116	597	3	159
ANIMAL/OBJECT IN ROADWAY	484	0	19	465	0	20
SPEED TOO FAST FOR WEATHER CONDITIONS	461	2	70	389	2	120
IMPROPER TURNING	296	0	18	278	0	22
RAN OFF ROAD RIGHT	295	0	72	223	0	94
DISREGARD SIGNAL/REG SIGN	285	3	88	194	5	127
IMPROPER LANE USAGE	282	0	26	256	0	34
UNSAFE SPEED	278	4	81	193	4	113
ALCOHOLIC BEVERAGES	260	1	92	167	1	114
DRIVER DISTRACTED - EXPLAINED IN CRASH NARRATIVE	214	0	36	178	0	50
OTHER (ENVIRONMENTAL) - EXPLAINED IN CRASH NARRATIVE	149	2	21	126	2	49
OVERCORRECTING/OVERSTEERING	133	1	39	93	1	73
LEFT OF CENTER	116	2	24	90	2	51
OTHER (VEHICLE) - EXPLAINED IN CRASH NARRATIVE	110	0	15	95	0	16
IMPROPER PASSING	78	0	12	66	0	14
VIEW OBSTRUCTED	69	2	8	59	2	14
RAN OFF ROAD LEFT	50	0	12	38	0	12
DRIVER ASLEEP OR FATIGUED	46	0	16	30	0	27
GLARE	45	0	14	31	0	21
BRAKE FAILURE OR DEFECTIVE	43	1	12	30	1	14
DRIVER ILLNESS	41	0	20	21	0	22
PEDESTRIAN ACTION	41	4	30	7	4	33
CELL PHONE USAGE	32	0	1	31	0	3
TIRE FAILURE OR DEFECTIVE	31	0	2	29	0	2

Contributing Circumstances	Total Collisions	Total Fatal Crashes	Total Injury Crashes	Property Damage	Number Killed	Number Injured
PASSENGER DISTRACTION	18	0	5	13	0	5
INSECURE/LEAKY LOAD	15	0	0	15	0	0
WRONG WAY ON ONE WAY	12	0	3	9	0	3
PRESCRIPTION DRUGS	10	0	3	7	0	5
ENGINE FAILURE OR DEFECTIVE	9	0	2	7	0	4
STEERING FAILURE	8	0	4	4	0	5
ILLEGAL DRUGS	7	2	3	2	4	5
OBSTRUCTION NOT MARKED	7	0	2	5	0	6
OTHER TELEMATICS IN USE	6	0	2	4	0	2
ACCELERATOR FAILURE OR DEFECTIVE	6	0	3	3	0	3
ROAD UNDER CONSTRUCTION	6	0	2	4	0	2
OTHER LIGHTS DEFECTIVE	5	0	0	5	0	0
OVERSIZE/OVERWEIGHT LOAD	5	0	0	5	0	0
JACKKNIFING	4	0	0	4	0	0
HOLES/RUTS IN SURFACE	4	0	2	2	0	2
HEADLIGHT DEFECTIVE OR NOT ON	3	0	2	1	0	2
TOW HITCH FAILURE	2	0	0	2	0	0
SEVERE CROSSWINDS	2	0	0	2	0	0
LANE MARKING OBSCURED	2	0	0	2	0	0
UNKNOWN FACTOR CODE	2	0	0	2	0	0
VIOLATION OF LICENSE RESTRICTION	1	0	1	0	0	1
WINDOW/WINDSHIELD DEFECTIVE	1	0	1	0	0	1
UTILITY WORK	1	0	0	1	0	0

APPENDIX C – 2007 HAZARDOUS INTERSECTION INFORMATION AND ANALYSIS

Seven intersections in Tippecanoe County had crash rates (number of crashes per million vehicles entering the intersection) statistically higher the other intersections within than county (see Chapter 3). This appendix provides an aerial photograph, an initial[11] collision diagram, and a tabular crash summary for the site.

As listed in Table 19, the seven intersections with statistically significant crash rates are:

T indicates a Tie

	Intersection							
Rank	**Road 1**	**Road 2**	***Total Crashes****	**** ADT Entering Volume**	***** MEV Rate**	******* CRF***	***Total Crash Frequency Rank***	***Injury +Fatality Crash Frequency Rank***
1	SR 43 N	I65 NORTHBOUND EXIT/ENTRANCE RAMPS	27	19,364	3.820	2.478	T10	T5
2	KOSSUTH ST	S 4TH ST	20	16,427	3.336	2.559	T25	T24
3	SR 43 N	I65 SOUTHBOUND EXIT/ENTRANCE RAMPS	16	14,010	3.129	2.644	T33	T9
4	US 52/SAGAMORE PKY S	CREASY LN/BRADY LN	34	29,944	3.111	2.299	5	T5
5	SR 26 W/W STATE ST	RUSSELL ST	21	19,366	2.971	2.478	24	T2
8	SR 26 E/SOUTH ST	9TH ST	19	21,336	2.440	2.435	28	T24
13	US 52/SAGAMORE PKY W	CUMBERLAND AVE	35	43,418	2.209	2.178	4	1

*"One Hundred Foot Rule" is applied
** Average Daily Traffic (ADT) volume for vehicles entering intersection
*** Crash Rate per One Million Entering Vehicles (MEV) (see Equation 1)
**** Critical Rate Factor (see Equation 2)

[11] The initial direction or action where the vehicle began the collision sequence is depicted in the collision diagram. Several crashes included multiple collision points, involved additional vehicles, and multiple collision paths before the vehicle came to a stop. For example, a vehicle which ran off the road right, then overcorrected to the left crossing the median (hitting a sign in the median) and opposing lanes, and then finally colliding with an object in the opposing lanes is depicted as '*running off the road right'* in this report's 2007 Initial Collision Diagrams.

SR 42 N and Interstate-65 Northbound Entrance/Exit Ramps, (Near Battle Ground)

Control: Standard Stop Sign (I65 Exit Ramp Left Turn to Southbound SR 43)
Total Traffic Entering Intersection: ~19,364 Cars per Day

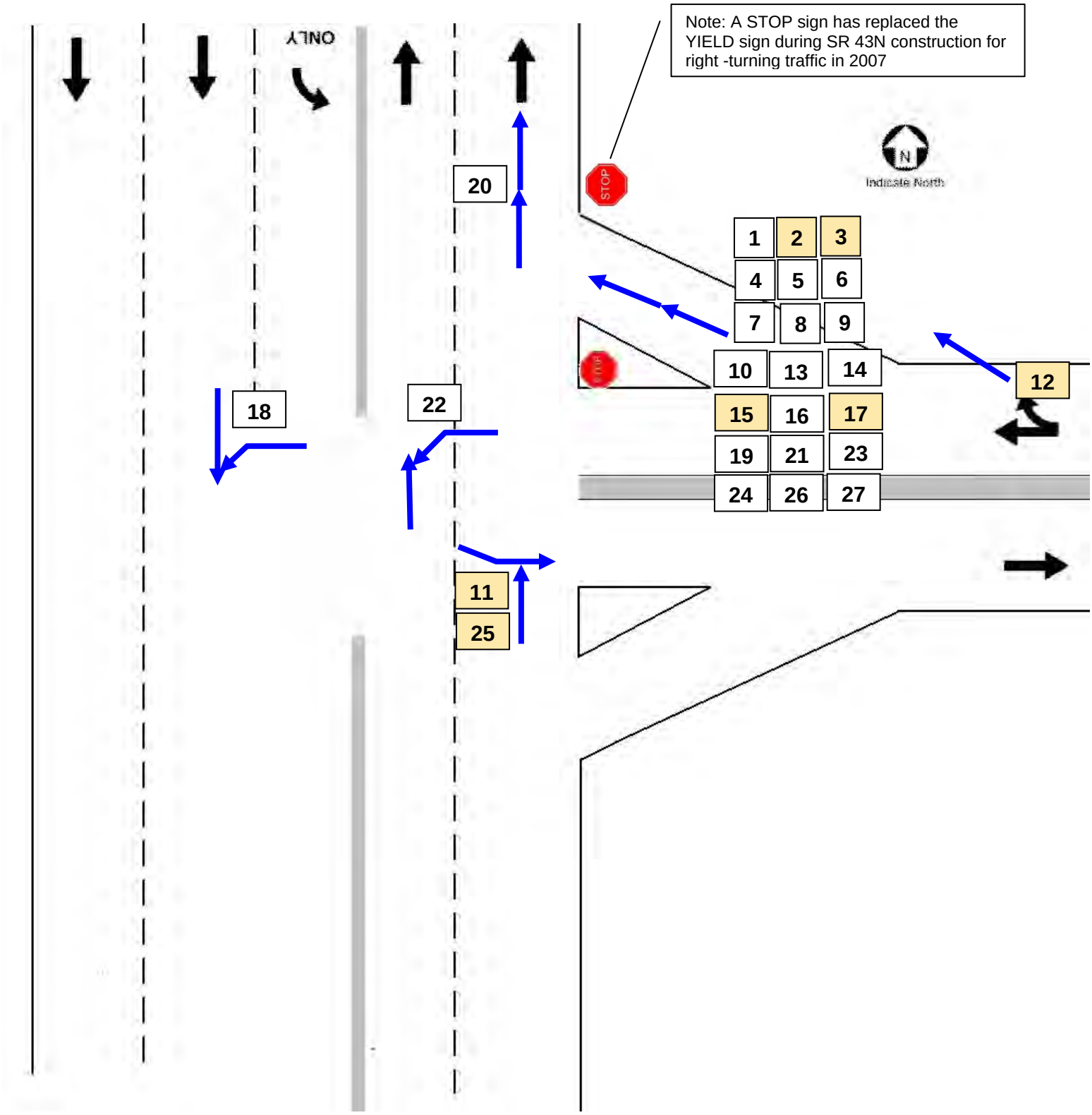
2007 Accidents within 100ft:

Fatal:	0
Personal Injury:	7
Property Damage Only:	20
Total Crashes:	27

2007 Intersection Statistics:

Total Crash Frequency Ranking:	T10
Fatality/Injury Crash Frequency Ranking:	T5
Crashes per Million Entering Vehicles:	3.820
Critical Rate Factor:	2.478

2007 Initial Collision Diagram



#	Crash Type	Date	Day of Week	Hour In Day	Number of Vehicles Involved	Number Injured Persons	Primary Factor Reported For Crash	Manor Of Collision	Light Condition	Weather Conditions	Roadway Surface Condition
1	PDO	8-Feb	Thursday	17	2	0	Following Too Closely	Rear End	Daylight	Clear	Ice
2	Injury	19-Feb	Monday	12	2	1	Driver Distracted - Explained In Crash Narrative	Rear End	Daylight	Cloudy	Dry
3	Injury	30-Mar	Friday	16	3	1	Following Too Closely	Rear End	Daylight	Clear	Dry
4	PDO	7-Apr	Saturday	8	2	0	Following Too Closely	Rear End	Daylight	Clear	Dry
5	PDO	9-Apr	Monday	16	2	0	Following Too Closely	Rear End	Daylight	Clear	Dry
6	PDO	16-Apr	Monday	18	2	0	Following Too Closely	Rear End	Daylight	Clear	Dry
7	PDO	25-Apr	Wednesday	16	2		Failure To Yield Right Of Way	Rear End	Daylight	Clear	Dry
8	PDO	30-Apr	Monday	7	2	0	Following Too Closely	Rear End	Daylight	Clear	Dry
9	PDO	14-May	Monday	12	2	0	Following Too Closely	Rear End	Daylight	Clear	Dry
10	PDO	2-Jun	Saturday	23	2	0	Cell Phone Usage	Rear End	Dark (Lighted)	Clear	Dry
11	Injury	10-Jun	Sunday	8	2	2	Improper Lane Usage	Right Angle	Daylight	Clear	Dry
12	Injury	1-Jul	Sunday	19	1	1	Accelerator Failure Or Defective	Ran Off Road	Daylight	Clear	Dry
13	PDO	13-Jul	Friday	17	2	0	Following Too Closely	Rear End	Daylight	Clear	Dry
14	PDO	21-Jul	Saturday	11	2	0	Driver Distracted - Explained In Crash Narrative	Rear End	Daylight	Clear	Dry
15	Injury	26-Jul	Thursday	15	2	1	Driver Distracted - Explained In Crash Narrative	Rear End	Daylight	Clear	Dry
16	PDO	28-Jul	Saturday	17	2	0	Other (Driver) - Explained In Crash Narrative	Rear End	Daylight	Clear	Dry
17	Injury	22-Aug	Wednesday	15	2	2	Following Too Closely	Rear End	Daylight	Clear	Dry
18	PDO	23-Aug	Thursday	17	2	0	Failure To Yield Right Of Way	Left Turn	Daylight	Cloudy	Dry
19	PDO	26-Aug	Sunday	14	2	0	Following Too Closely	Rear End	Daylight	Clear	Dry
20	PDO	31-Aug	Friday	17	2	0	Following Too Closely	Rear End	Daylight	Clear	Dry
21	PDO	5-Sep	Wednesday	7	2	0	Following Too Closely	Rear End	Dawn/Dusk	Clear	Dry
22	PDO	7-Sep	Friday	20	2	0	Failure To Yield Right Of Way	Left Turn	Dark (Lighted)	Rain	Wet
23	PDO	26-Sep	Wednesday	16	2	0	Following Too Closely	Rear End	Daylight	Cloudy	Dry
24	PDO	28-Sep	Friday	17	2	0	Following Too Closely	Rear End	Daylight	Clear	Dry
25	Injury	9-Oct	Tuesday	15	3	1	Failure To Yield Right Of Way	Left Turn	Daylight	Clear	Dry
26	PDO	2-Dec	Sunday	15	2	0	Following Too Closely	Rear End	Daylight	Rain	Wet
27	PDO	26-Dec	Wednesday	12	2	0	Following Too Closely	Rear End	Daylight	Clear	Dry

Kossuth St and 4th Street, Lafayette

Control: Standard Stop Sign (Kossuth St), Overhead Flashing Yellow (4th St)
Total Traffic Entering Intersection: ~16,427 Cars per Day

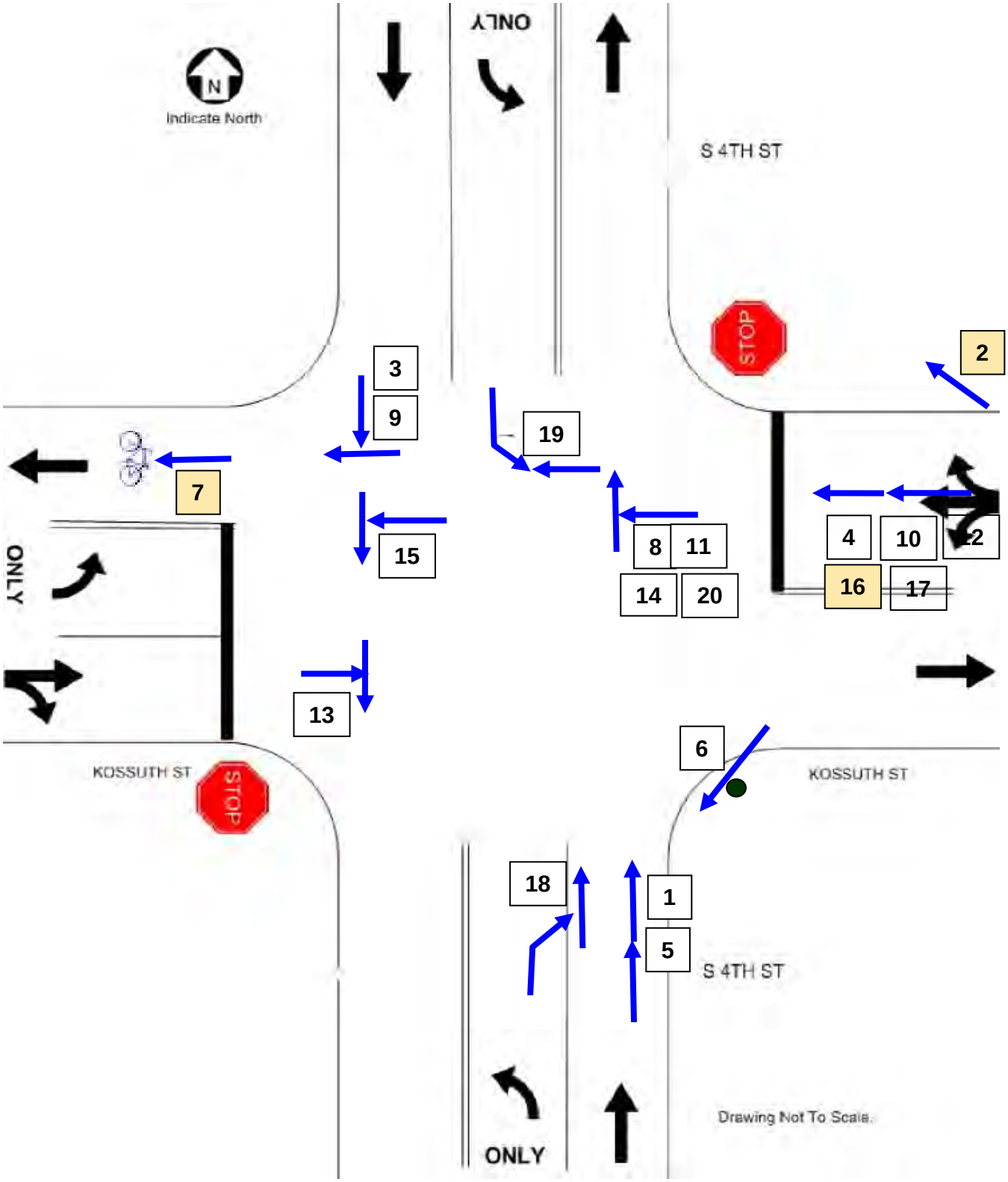
2007 Accidents within 100ft:

Fatal:	0
Personal Injury:	3
Property Damage Only:	17
Total Crashes:	20

2007 Intersection Statistics:

Total Crash Frequency Ranking:	T25
Fatality/Injury Crash Frequency Ranking:	T24
Crashes per Million Entering Vehicles:	3.336
Critical Rate Factor:	2.559

2007 Initial Collision Diagram



#	Crash Type	Date	Day of Week	Hour In Day	Number of Vehicles Involved	Number Injured Persons	Primary Factor Reported For Crash	Manor Of Collision	Light Condition	Weather Conditions	Roadway Surface Condition
1	PDO	7-Jan	Sunday	15	2	0	Other (Driver) - Explained In Crash Narrative	Rear End	Daylight	Rain	Wet
2	Injury	6-Feb	Tuesday	15	1	1	Speed Too Fast For Weather Conditions	Ran Off Road	Daylight	Snow	Snow/Slush
3	PDO	23-Mar	Friday	12	2	0	Failure To Yield Right Of Way	Right Angle	Daylight	Cloudy	Wet
4	PDO	15-May	Tuesday	15	2	0	Speed Too Fast For Weather Conditions	Rear End	Daylight	Rain	Wet
5	PDO	23-May	Wednesday	12	2	0	Other (Driver) - Explained In Crash Narrative	Rear End	Daylight	Clear	Dry
6	PDO	13-Jul	Friday	3	1	0	Other (Driver) - Explained In Crash Narrative	Opposite Direction Sideswipe	Dark (Lighted)	Clear	Dry
7	Injury	16-Jul	Monday	17	1	1	Other (Driver) - Explained In Crash Narrative	Right Angle	Daylight	Clear	Dry
8	PDO	17-Jul	Tuesday	9	3	0	Speed Too Fast For Weather Conditions	Right Angle	Daylight	Cloudy	Wet
9	PDO	23-Jul	Monday	9	2	0	Failure To Yield Right Of Way	Right Angle	Daylight	Clear	Dry
10	PDO	24-Aug	Friday	18	2	0	Speed Too Fast For Weather Conditions	Rear End	Daylight	Clear	Wet
11	PDO	26-Oct	Friday	16	2	0	Speed Too Fast For Weather Conditions	Right Angle	Daylight	Rain	Wet
12	PDO	26-Oct	Friday	23	3	0	Speed Too Fast For Weather Conditions	Rear End	Dark (Lighted)	Rain	Wet
13	PDO	10-Nov	Saturday	13	2	0	Failure To Yield Right Of Way	Right Angle	Daylight	Clear	Dry
14	PDO	21-Nov	Wednesday	14	2	0	Speed Too Fast For Weather Conditions	Right Angle	Daylight	Rain	Wet
15	PDO	21-Nov	Wednesday	16	2	0	Speed Too Fast For Weather Conditions	Right Angle	Dawn/Dusk	Rain	Wet
16	Injury	26-Nov	Monday	16	4	1	Speed Too Fast For Weather Conditions	Rear End	Dawn/Dusk	Rain	Wet
17	PDO	26-Nov	Monday	18	2	0	Speed Too Fast For Weather Conditions	Rear End	Dark (Lighted)	Sleet/Hail/Freezing Rain	Wet
18	PDO	8-Dec	Saturday	18	2	0	Improper Turning	Right Turn	Dark (Lighted)	Rain	Wet
19	PDO	22-Dec	Saturday	7	2	0	Disregard Signal/Reg Sign	Left Turn	Dark (Lighted)	Cloudy	Wet
20	PDO	28-Dec	Friday	11	2	0	Speed Too Fast For Weather Conditions	Right Angle	Daylight	Rain	Wet

SR 43 N and Interstate-65 Southbound Entrance/Exit Ramps, (Near Battle Ground)

Control: Standard Stop Sign (I65 Exit Ramp Left Turn to Northbound SR 43)
Total Traffic Entering Intersection: ~14,010 Cars per Day

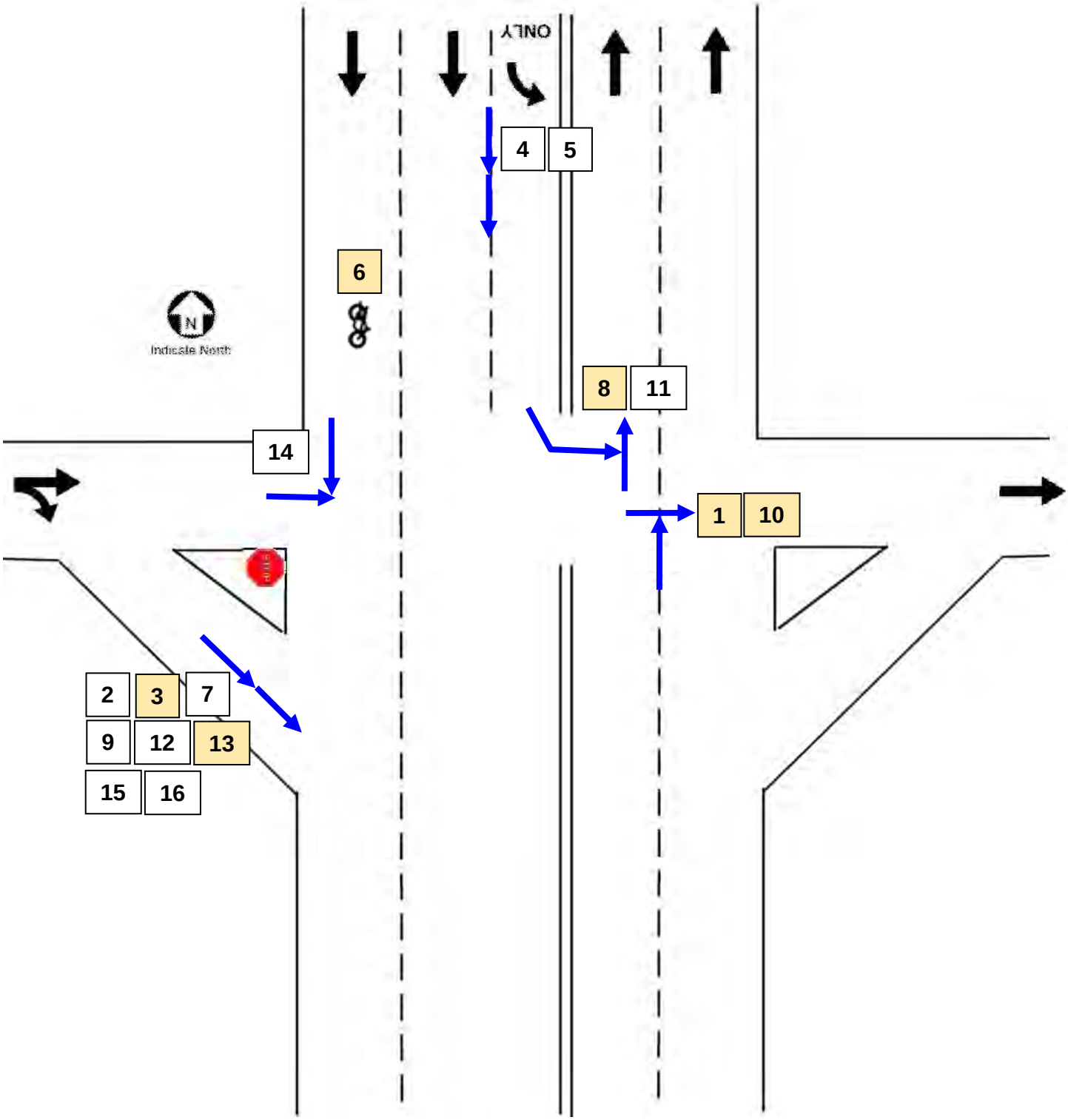
2007 Accidents within 100ft:

Fatal:	0
Personal Injury:	6
Property Damage Only:	10
Total Crashes:	16

2007 Intersection Statistics:

Total Crash Frequency Ranking:	T33
Fatality/Injury Crash Frequency Ranking:	T9
Crashes per Million Entering Vehicles:	3.129
Critical Rate Factor:	2.644

2007 Initial Collision Diagram



#	Crash Type	Date	Day of Week	Hour In Day	Number of Vehicles Involved	Number Injured Persons	Primary Factor Reported For Crash	Manor Of Collision	Light Condition	Weather Conditions	Roadway Surface Condition
1	Injury	2-Mar	Friday	18	2	2	Failure To Yield Right Of Way	Right Angle	Dawn/Dusk	Cloudy	Dry
2	PDO	4-Mar	Sunday	15	2	0	Following Too Closely	Rear End	Daylight	Clear	Dry
3	Injury	8-Apr	Sunday	18	2	2	Following Too Closely	Rear End	Daylight	Clear	Dry
4	PDO	27-Apr	Friday	14	2	0	Following Too Closely	Rear End	Daylight	Clear	Dry
5	PDO	11-Jul	Wednesday	16	2	0	Driver Distracted - Explained In Crash Narrative	Rear End	Daylight	Clear	Dry
6	Injury	13-Jul	Friday	14	1	1	Other (Driver) - Explained In Crash Narrative	Non-Collision	Daylight	Clear	Dry
7	PDO	16-Aug	Thursday	0	2	0	Following Too Closely	Rear End	Dark (Not Lighted)	Clear	Dry
8	Injury	23-Aug	Thursday	14	2	1	Failure To Yield Right Of Way	Right Angle	Daylight	Clear	Dry
9	PDO	31-Aug	Friday	17	2	0	Following Too Closely	Rear End	Daylight	Clear	Dry
10	Injury	17-Sep	Monday	10	2	2	Failure To Yield Right Of Way	Head On	Daylight	Clear	Dry
11	PDO	18-Sep	Tuesday	14	2	0	Failure To Yield Right Of Way	Left Turn	Daylight	Clear	Dry
12	PDO	18-Sep	Tuesday	15	2	0	Driver Distracted - Explained In Crash Narrative	Rear End	Daylight	Clear	Dry
13	Injury	30-Sep	Sunday	18	2	1	Following Too Closely	Rear End	Daylight	Clear	Dry
14	PDO	26-Oct	Friday	21	2	0	Failure To Yield Right Of Way	Head On	Dark (Not Lighted)	Rain	Wet
15	PDO	10-Nov	Saturday	10	2	0	Following Too Closely	Rear End	Daylight	Clear	Dry
16	PDO	19-Nov	Monday	13	2	0	Following Too Closely	Rear End	Daylight	Clear	Dry

US 52 N (Sagamore Parkway) and Creasy Ln/Brady Ln, Lafayette

Control: Standard Traffic Signal
Total Traffic Entering Intersection: ~29,944 Cars per Day

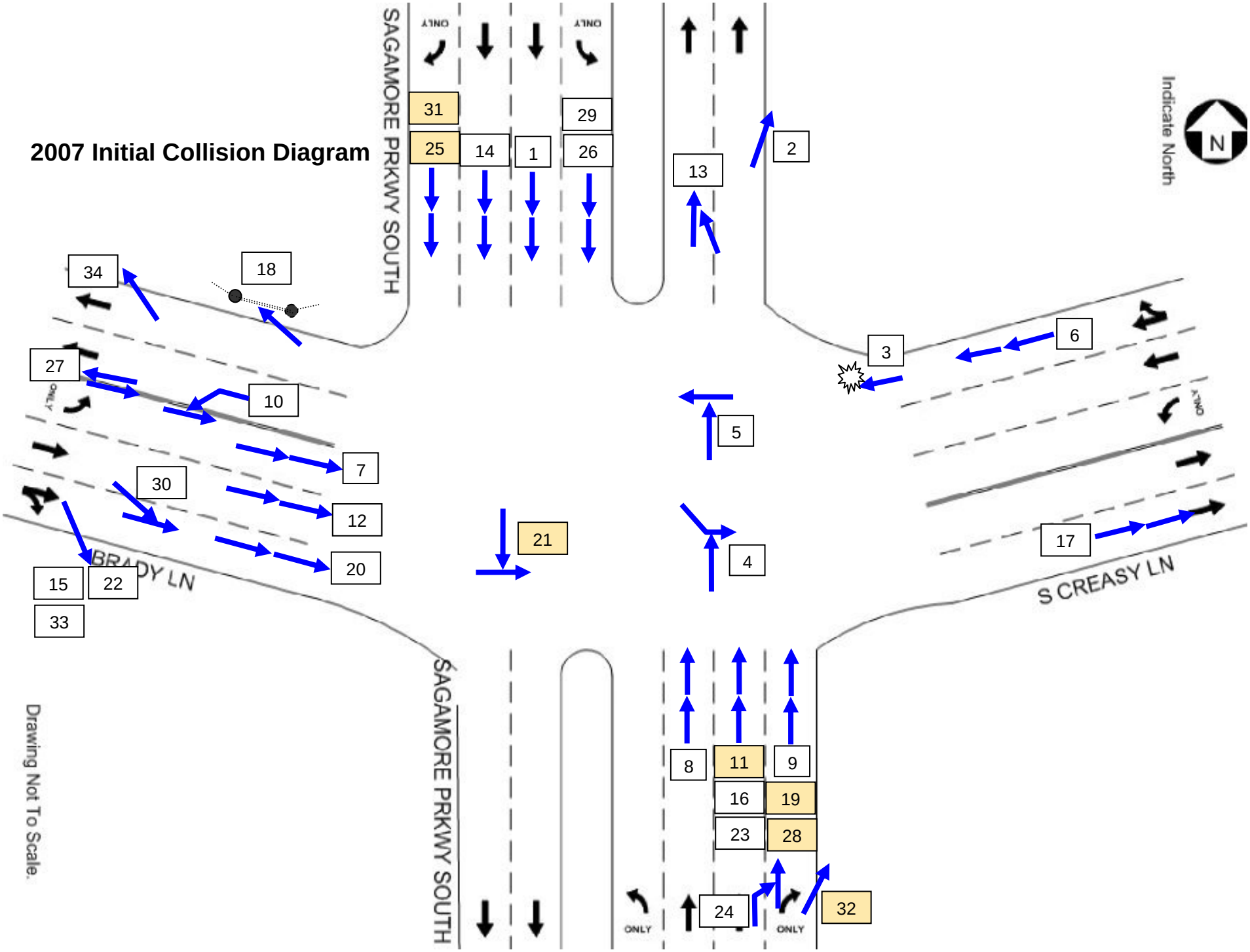
2007 Accidents within 100ft:

Fatal:	0
Personal Injury:	7
Property Damage Only:	27
Total Crashes:	34

2007 Intersection Statistics:

Total Crash Frequency Ranking:	5
Fatality/Injury Crash Frequency Ranking:	T5
Crashes per Million Entering Vehicles:	3.111
Critical Rate Factor:	2.299

2007 Initial Collision Diagram



#	Crash Type	Date	Day of Week	Hour In Day	Number of Vehicles Involved	Number Injured Persons	Primary Factor Reported For Crash	Manor Of Collision	Light Condition	Weather Conditions	Roadway Surface Condition
1	PDO	1-Jan	Monday	18	2	0	Following Too Closely	Rear End	Dark (Lighted)	Cloudy	Dry
2	PDO	4-Jan	Thursday	1	3	0	Driver Asleep Or Fatigued	Head On	Dark (Not Lighted)	Clear	Dry
3	PDO	5-Jan	Friday	11	2	0	Other (Driver) - Explained In Crash Narrative	Other - Explained In Crash Narrative	Daylight	Cloudy	Wet
4	PDO	14-Jan	Sunday	18	2	0	Disregard Signal/Regulatory Sign	Right Angle	Dark (Lighted)	Rain	Wet
5	PDO	15-Jan	Monday	13	2	0	Disregard Signal/Regulatory Sign	Right Angle	Daylight	Rain	Wet
6	PDO	26-Jan	Friday	2	3	0	Following Too Closely	Rear End	Daylight	Clear	Dry
7	PDO	7-Feb	Wednesday	11	2	0	Following Too Closely	Rear End	Daylight	Clear	Snow/Slush
8	PDO	28-Mar	Wednesday	10	2	0	Speed Too Fast For Weather Conditions	Rear End	Daylight	Rain	Wet
9	PDO	3-Apr	Tuesday	16	2	0	Speed Too Fast For Weather Conditions	Rear End	Daylight	Rain	Wet
10	PDO	27-May	Sunday	16	3	0	Unsafe Speed	Right Turn	Daylight	Rain	Wet
11	Injury	27-May	Sunday	18	2	2	Following Too Closely	Rear End	Daylight	Rain	Wet
12	PDO	17-Jul	Tuesday	7	2	0	Following Too Closely	Rear End	Dawn/Dusk	Rain	Wet
13	PDO	23-Jul	Monday	10	2	0	Improper Lane Usage	Same Direction Sideswipe	Daylight	Clear	Dry
14	PDO	29-Jul	Sunday	13	2	0	Following Too Closely	Rear End	Daylight	Cloudy	Dry
15	PDO	14-Aug	Tuesday	13	1	0	Ran Off Road Right	Ran Off Road	Daylight	Rain	Wet
16	PDO	21-Aug	Tuesday	15	2	0	Following Too Closely	Rear End	Daylight	Cloudy	Dry
17	PDO	27-Aug	Monday	7	2	0	Following Too Closely	Rear End	Daylight	Clear	Dry
18	PDO	25-Sep	Tuesday	7	1	0	Unsafe Speed	Same Direction Sideswipe	Dawn/Dusk	Rain	Wet
19	Injury	1-Oct	Monday	11	2	1	Following Too Closely	Rear End	Daylight	Clear	Dry
20	PDO	1-Oct	Monday	15	2	0	Following Too Closely	Rear End	Daylight	Rain	Wet
21	Injury	3-Oct	Wednesday	5	2	2	Disregard Signal/Regulatory Sign	Right Angle	Dark (Lighted)	Rain	Wet
22	PDO	18-Oct	Thursday	7	1	0	Unsafe Speed	Ran Off Road	Dark (Lighted)	Rain	Wet
23	PDO	18-Oct	Thursday	8	2	0	Following Too Closely	Rear End	Daylight	Cloudy	Dry
24	PDO	25-Oct	Thursday	22	2	0	Improper Turning	Right Turn	Dark (Lighted)	Cloudy	Dry
25	Injury	14-Nov	Wednesday	12	3	3	Following Too Closely	Rear End	Daylight	Clear	Dry
26	PDO	20-Nov	Tuesday	20	2	0	Following Too Closely	Rear End	Dark (Not Lighted)	Clear	Dry
27	PDO	21-Nov	Wednesday	7	2	0	Unsafe Speed	Opposite Direction Sideswipe	Dawn/Dusk	Rain	Wet
28	Injury	25-Nov	Sunday	14	3	2	Following Too Closely	Rear End	Daylight	Rain	Wet
29	PDO	26-Nov	Monday	8	2	0	Speed Too Fast For Weather Conditions	Rear End	Daylight	Rain	Wet

#	Crash Type	Date	Day of Week	Hour In Day	Number of Vehicles Involved	Number Injured Persons	Primary Factor Reported For Crash	Manor Of Collision	Light Condition	Weather Conditions	Roadway Surface Condition
30	PDO	8-Dec	Saturday	19	2	0	Speed Too Fast For Weather Conditions	Same Direction Sideswipe	Dark (Not Lighted)	Sleet/Hail/ Freezing Rain	Wet
31	Injury	15-Dec	Saturday	11	3	1	Following Too Closely	Rear End	Daylight	Snow	Wet
32	Injury	22-Dec	Saturday	13	2	1	Ran Off Road Right	Ran Off Road	Daylight	Cloudy	Dry
33	PDO	23-Dec	Sunday	3	1	0	Ran Off Road Right	Ran Off Road	Dark (Not Lighted)	Rain	Wet
34	PDO	28-Dec	Friday	15	1	0	Speed Too Fast For Weather Conditions	Ran Off Road	Daylight	Rain	Wet

SR 26 W (State St) and Russell St, Purdue University

Control: Standard Traffic Signal
Total Traffic Entering Intersection: ~19,366 Cars per Day

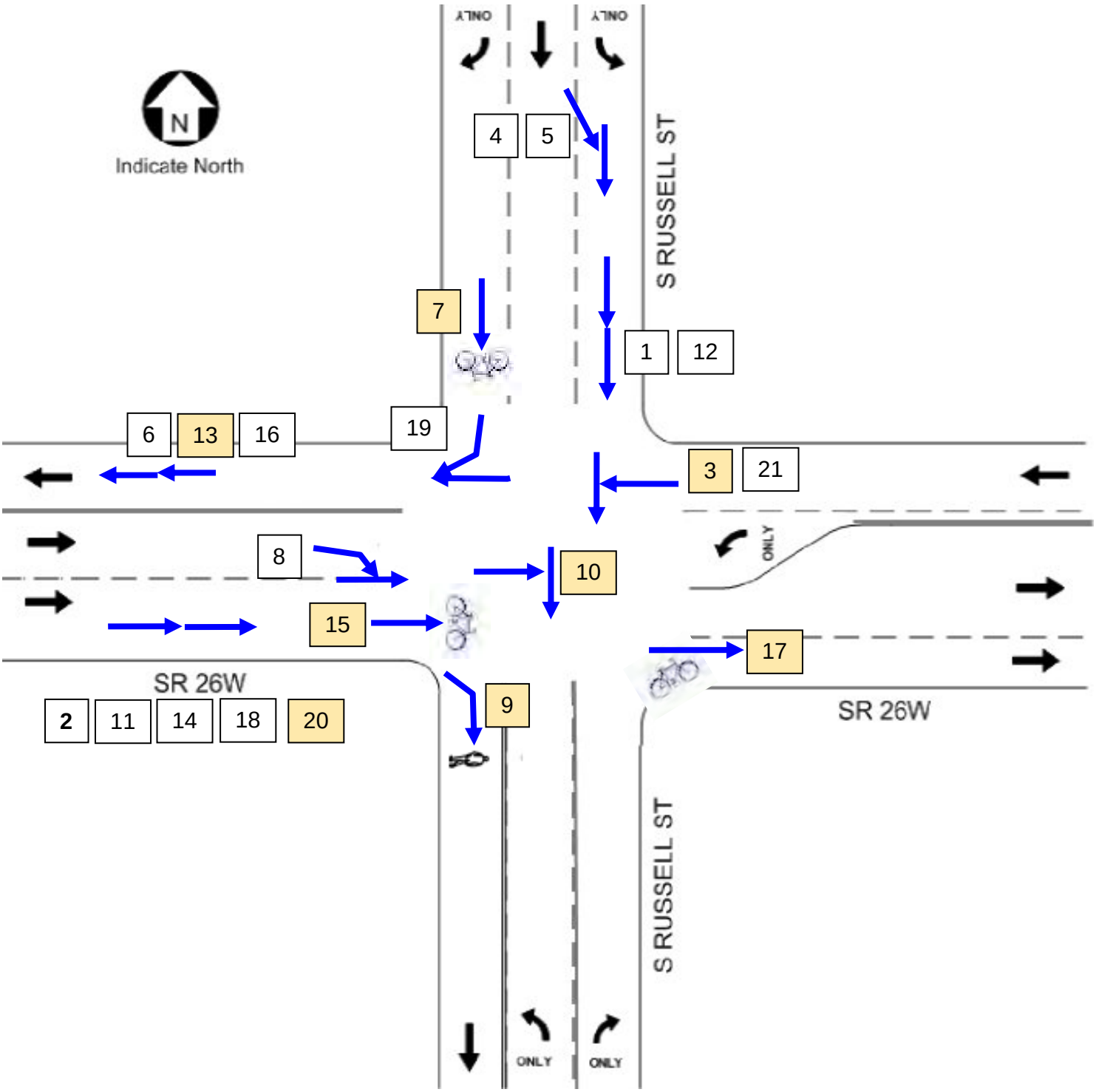
2007 Accidents within 100ft:

Fatal:	0
Personal Injury:	8
Property Damage Only:	13
Total Crashes:	21

2007 Intersection Statistics:

Total Crash Frequency Ranking:	24
Fatality/Injury Crash Frequency Ranking:	T2
Crashes per Million Entering Vehicles:	2.971
Critical Rate Factor:	2.478

2007 Initial Collision Diagram



#	Crash Type	Date	Day of Week	Hour In Day	Number of Vehicles Involved	Number Injured Persons	Primary Factor Reported For Crash	Manor Of Collision	Light Condition	Weather Conditions	Roadway Surface Condition
1	PDO	8-Jan	Monday	15	2	0	Driver Distracted - Explained In Crash Narrative	Rear End	Daylight	Cloudy	Dry
2	PDO	12-Jan	Friday	18	2	0	Speed Too Fast For Weather Conditions	Rear End	Dark (Lighted)	Rain	Wet
3	Injury	14-Jan	Sunday	12	2	1	Failure To Yield Right Of Way	Right Angle	Daylight	Cloudy	Wet
4	PDO	16-Jan	Tuesday	0	2	0	Roadway Surface Condition	Same Direction Sideswipe	Dark (Lighted)	Snow	Ice
5	PDO	28-Mar	Wednesday	0	2	0	Other (Driver) - Explained In Crash Narrative	Same Direction Sideswipe	Dark (Lighted)	Clear	Dry
6	PDO	5-Apr	Thursday	17	2	0	Following Too Closely	Rear End	Daylight	Clear	Dry
7	Injury	25-May	Friday	11	1	1	Failure To Yield Right Of Way	Head On	Daylight	Clear	Dry
8	PDO	20-Jun	Wednesday	14	2	0	Improper Turning	Right Angle	Daylight	Clear	Dry
9	Injury	11-Jul	Wednesday	12	1	2	Failure To Yield Right Of Way	Right Angle	Daylight	Clear	Dry
10	Injury	19-Jul	Thursday	17	2	3	Failure To Yield Right Of Way	Right Angle	Daylight	Cloudy	Dry
11	PDO	13-Aug	Monday	8	2	0	Other (Driver) - Explained In Crash Narrative	Rear End	Daylight	Clear	Dry
12	PDO	21-Aug	Tuesday	8	2	0	Speed Too Fast For Weather Conditions	Rear End	Daylight	Cloudy	Wet
13	Injury	22-Aug	Wednesday	17	4	1	Other (Driver) - Explained In Crash Narrative	Rear End	Daylight	Clear	Dry
14	PDO	25-Aug	Saturday	15	2	0	Following Too Closely	Rear End	Daylight	Clear	Dry
15	Injury	28-Aug	Tuesday	8	1	1	Other (Driver) - Explained In Crash Narrative	Head On	Daylight	Clear	Dry
16	PDO	30-Aug	Thursday	18	3	0	Following Too Closely	Rear End	Daylight	Clear	Dry
17	Injury	11-Sep	Tuesday	12	1	1	Other (Driver) - Explained In Crash Narrative	Same Direction Sideswipe	Daylight	Clear	Dry
18	PDO	1-Oct	Monday	19	2	0	Following Too Closely	Rear End	Dark (Lighted)	Cloudy	Dry
19	PDO	7-Nov	Wednesday	21	2	0	Other (Driver) - Explained In Crash Narrative	Right Turn	Dark (Lighted)	Clear	Dry
20	Injury	28-Nov	Wednesday	17	2	1	Following Too Closely	Rear End	Dark (Lighted)	Clear	Dry
21	PDO	7-Dec	Friday	17	2	0	Failure To Yield Right Of Way	Right Angle	Dark (Lighted)	Clear	Wet

SR 26 E (South St) and 9th St, Lafayette

Control: Standard Traffic Signal
Total Traffic Entering Intersection: ~21,336 Cars per Day

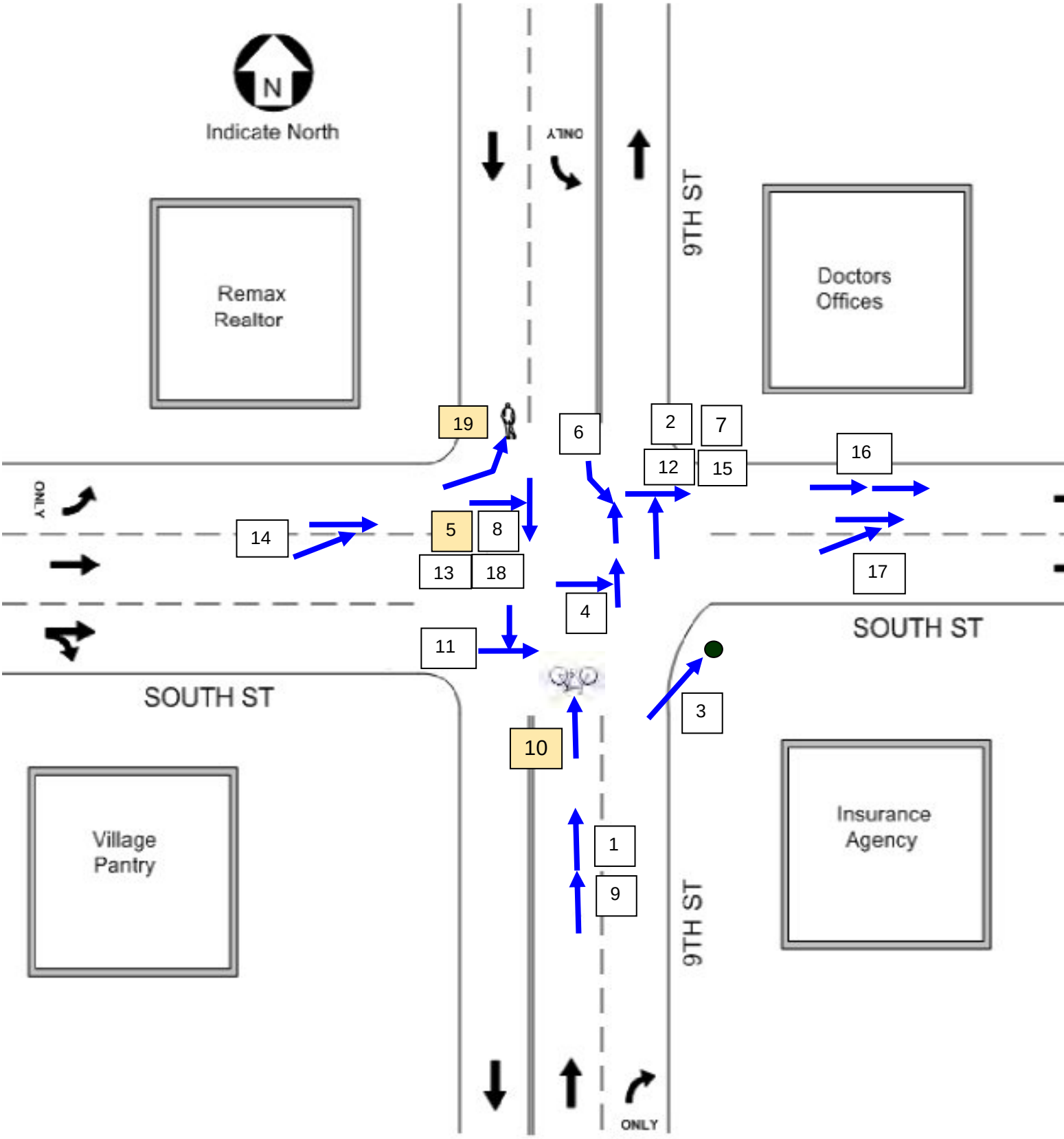
2007 Accidents within 100ft:

Fatal:	0
Personal Injury:	3
Property Damage Only:	16
Total Crashes:	19

2007 Intersection Statistics:

Total Crash Frequency Ranking:	28
Fatality/Injury Crash Frequency Ranking:	T24
Crashes per Million Entering Vehicles:	2.440
Critical Rate Factor:	2.435

2007 Initial Collision Diagram



#	Crash Type	Date	Day of Week	Hour In Day	Number of Vehicles Involved	Number Injured Persons	Primary Factor Reported For Crash	Manor Of Collision	Light Condition	Weather Conditions	Roadway Surface Condition
1	PDO	3-Feb	Saturday	10	2	0	Following Too Closely	Rear End	Daylight	Cloudy	Snow/Slush
2	PDO	9-Mar	Friday	13	2	0	Disregard Signal/Reg Sign	Right Angle	Daylight	Cloudy	Dry
3	PDO	11-Apr	Wednesday	8	1	0	Improper Turning	Ran Off Road	Daylight	Rain	Wet
4	PDO	8-May	Tuesday	15	2	0	Disregard Signal/Reg Sign	Right Angle	Daylight	Clear	Dry
5	Injury	24-May	Thursday	4	2	2	Disregard Signal/Reg Sign	Right Angle	Dark (Lighted)	Cloudy	Dry
6	PDO	8-Jun	Friday	11	2	0	Failure To Yield Right Of Way	Left Turn	Daylight	Rain	Wet
7	PDO	23-Jun	Saturday	12	2	0	Disregard Signal/Reg Sign	Right Angle	Daylight	Rain	Wet
8	PDO	23-Jun	Saturday	15	2	0	Unsafe Speed	Right Angle	Daylight	Cloudy	Wet
9	PDO	26-Jun	Tuesday	7	2	0	Following Too Closely	Rear End	Daylight	Clear	Dry
10	Injury	4-Aug	Saturday	18	1	1	Other (Driver) - Explained In Crash Narrative	Right Angle	Daylight	Clear	Dry
11	PDO	10-Aug	Friday	14	2	0	Disregard Signal/Reg Sign	Right Angle	Daylight	Clear	Dry
12	PDO	17-Aug	Friday	18	2	0	Disregard Signal/Reg Sign	Right Angle	Daylight	Clear	Dry
13	PDO	28-Aug	Tuesday	9	2	0	Disregard Signal/Reg Sign	Right Angle	Daylight	Clear	Dry
14	PDO	28-Aug	Tuesday	16	2	0	Improper Turning	Same Direction Sideswipe	Daylight	Clear	Dry
15	PDO	29-Sep	Saturday	12	2	0	Disregard Signal/Reg Sign	Right Angle	Daylight	Clear	Dry
16	PDO	30-Sep	Sunday	12	2	0	Following Too Closely	Rear End	Daylight	Clear	Dry
17	PDO	3-Oct	Wednesday	16	2	0	Improper Lane Usage	Same Direction Sideswipe	Daylight	Clear	Dry
18	PDO	4-Oct	Thursday	18	2	0	Disregard Signal/Reg Sign	Right Angle	Dawn/Dusk	Clear	Dry
19	Injury	27-Dec	Thursday	17	1	1	Failure To Yield Right Of Way	Left Turn	Dark (Not Lighted)	Clear	Wet

US 52 N (Sagamore Parkway) and Cumberland Ave, West Lafayette

Control: Standard Traffic Signal
Total Traffic Entering Intersection: ~43,418 Cars per Day

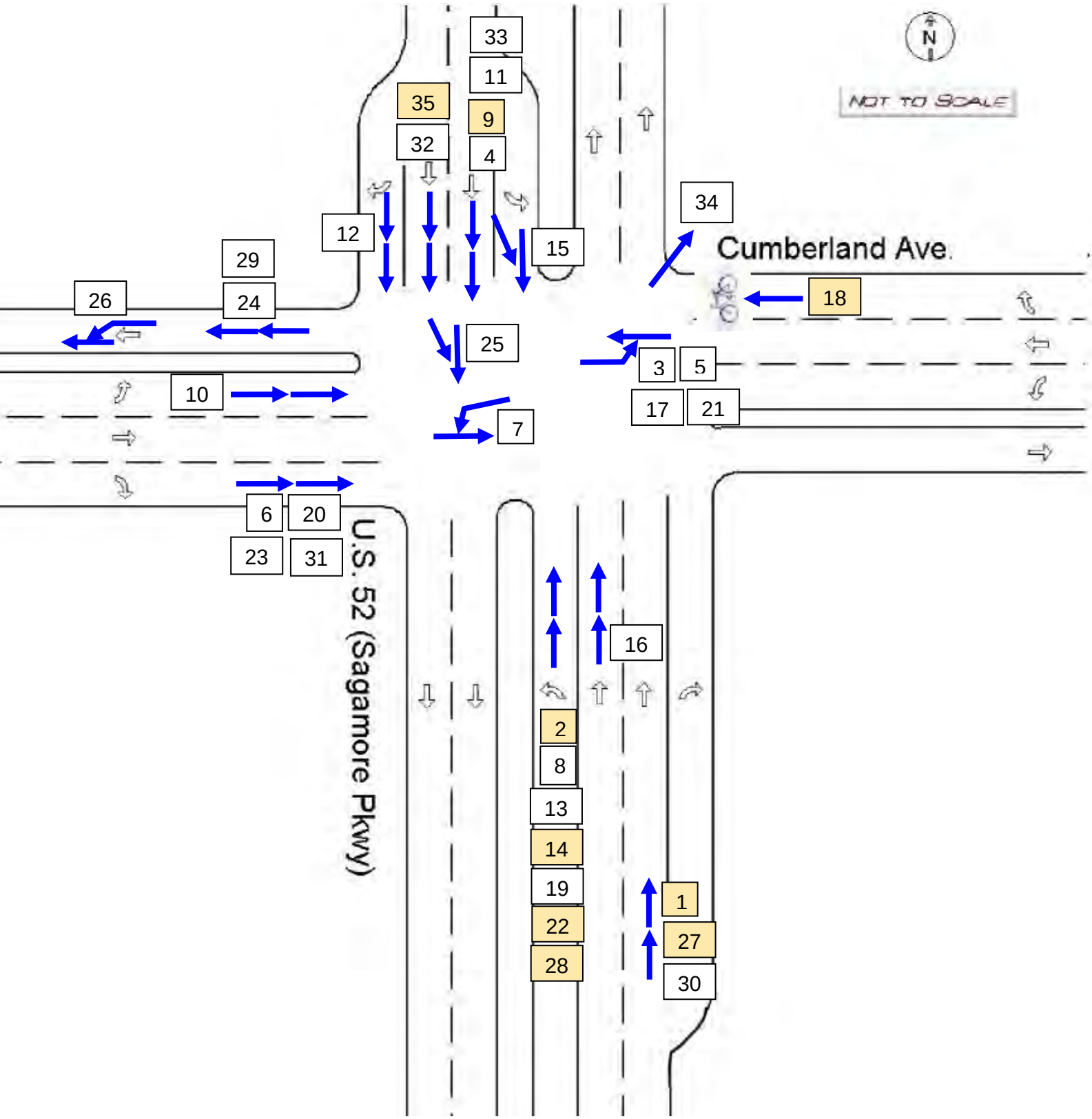
2007 Accidents within 100ft:

Fatal:	0
Personal Injury:	9
Property Damage Only:	26
Total Crashes:	35

2007 Intersection Statistics:

Total Crash Frequency Ranking:	4
Fatality/Injury Crash Frequency Ranking:	1
Crashes per Million Entering Vehicles:	2.209
Critical Rate Factor:	2.178

2007 Initial Collision Diagram



#	Crash Type	Date	Day of Week	Hour In Day	Number of Vehicles Involved	Number Injured Persons	Primary Factor Reported For Crash	Manor Of Collision	Light Condition	Weather Conditions	Roadway Surface Condition
1	Injury	5-Jan	Friday	18	2	1	Following Too Closely	Rear End	Dark (Lighted)	Rain	Wet
2	Injury	5-Jan	Friday	20	3	1	Speed Too Fast For Weather Conditions	Rear End	Dark (Lighted)	Rain	Wet
3	PDO	7-Jan	Sunday	18	2	0	Failure To Yield Right Of Way	Left Turn	Dark (Lighted)	Rain	Wet
4	PDO	28-Jan	Sunday	10	2	0	Following Too Closely	Rear End	Daylight	Clear	Dry
5	PDO	6-Feb	Tuesday	18	2	0	Failure To Yield Right Of Way	Left Turn	Dawn/Dusk	Snow	Snow/Slush
6	PDO	9-Feb	Friday	18	2	0	Following Too Closely	Rear End	Dawn/Dusk	Clear	Dry
7	PDO	14-Feb	Wednesday	19	2	0	Failure To Yield Right Of Way	Left Turn	Dark (Lighted)	Cloudy	Snow/Slush
8	PDO	11-Apr	Wednesday	21	2	0	Following Too Closely	Rear End	Dark (Not Lighted)	Rain	Wet
9	Injury	13-Apr	Friday	16	3	1	Following Too Closely	Rear End	Daylight	Clear	Dry
10	PDO	2-May	Wednesday	17	2	0	Following Too Closely	Rear End	Daylight	Cloudy	Dry
11	PDO	3-May	Thursday	14	2	0	Driver Distracted - Explained In Crash Narrative	Rear End	Daylight	Clear	Dry
12	PDO	15-May	Tuesday	17	2	0	Following Too Closely	Rear End	Daylight	Rain	Wet
13	PDO	25-May	Friday	9	2	0	Speed Too Fast For Weather Conditions	Rear End	Daylight	Rain	Wet
14	Injury	4-Jun	Monday	16	2	1	Following Too Closely	Rear End	Daylight	Rain	Wet
15	PDO	4-Jun	Monday	16	2	0	Failure To Yield Right Of Way	Same Direction Sideswipe	Daylight	Rain	Wet
16	PDO	2-Jul	Monday	16	2	0	Following Too Closely	Rear End	Daylight	Clear	Dry
17	PDO	7-Jul	Saturday	22	2	0	Failure To Yield Right Of Way	Left Turn	Dark (Lighted)	Clear	Dry
18	Injury	12-Jul	Thursday	6	1	1	Other (Driver) - Explained In Crash Narrative	Left/Right Turn	Daylight	Clear	Dry
19	PDO	19-Jul	Thursday	12	2	0	Speed Too Fast For Weather Conditions	Rear End	Daylight	Rain	Wet
20	PDO	27-Jul	Friday	17	2	0	Following Too Closely	Rear End	Daylight	Rain	Wet
21	PDO	11-Aug	Saturday	21	2	0	Failure To Yield Right Of Way	Left Turn	Dark (Lighted)	Clear	Dry
22	Injury	21-Aug	Tuesday	16	2	1	Following Too Closely	Rear End	Daylight	Clear	Dry
23	PDO	22-Aug	Wednesday	18	2	0	Following Too Closely	Rear End	Daylight	Clear	Dry
24	PDO	28-Aug	Tuesday	9	2	0	Following Too Closely	Rear End	Dark (Not Lighted)	Clear	Dry
25	PDO	30-Aug	Thursday	15	2	0	Improper Lane Usage	Same Direction Sideswipe	Daylight	Clear	Dry
26	PDO	8-Sep	Saturday	13	2	0	Improper Lane Usage	Left Turn	Daylight	Rain	Wet
27	Injury	14-Sep	Friday	18	2	1	Following Too Closely	Rear End	Daylight	Clear	Dry
28	Injury	26-Oct	Friday	19	3	1	Following Too Closely	Rear End	Dark (Not Lighted)	Rain	Wet
29	PDO	12-Nov	Monday	17	2	0	Following Too Closely	Rear End	Dark (Lighted)	Rain	Wet

#	Crash Type	Date	Day of Week	Hour In Day	Number of Vehicles Involved	Number Injured Persons	Primary Factor Reported For Crash	Manor Of Collision	Light Condition	Weather Conditions	Roadway Surface Condition
30	PDO	29-Nov	Thursday	16	2	0	Following Too Closely	Rear End	Daylight	Clear	Dry
31	PDO	5-Dec	Wednesday	12	2	0	Following Too Closely	Rear End	Daylight	Cloudy	Snow/Slush
32	PDO	8-Dec	Saturday	19	2	0	Following Too Closely	Rear End	Dark (Lighted)	Rain	Wet
33	PDO	13-Dec	Thursday	10	2	0	Following Too Closely	Rear End	Daylight	Clear	Wet
34	PDO	16-Dec	Sunday	15	1	0	Speed Too Fast For Weather Conditions	Ran Off Road	Daylight	Clear	Snow/Slush
35	Injury	21-Dec	Friday	6	2	1	Driver Distracted - Explained In Crash Narrative	Rear End	Dark (Lighted)	Cloudy	Wet