City of New Orleans
Pedestrian Safety Action Plan Part 1: Engineering Strategies

In collaboration with the Regional Planning Commission for Jefferson, Orleans, Plaquemines, St. Bernard, St. Tammany and Tangipahoa Parishes

FINAL REPORT

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S. Peters Street and Poydras Street
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LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

CITY OF NEW ORLEANS

RPC REGIONAL PLANNING COMMISSION

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gcr

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2) This report is prepared solely for the purpose of identifying, evaluating and planning safety improvements on public roads; and is therefore exempt from discovery or admission under 23 U.S.C. 409.

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Executive Summary

In the five years between 2008 and 2012, 1,489 pedestrians were involved in Orleans Parish traffic crashes. The City of New Orleans has ranked among the highest in Louisiana for the number of pedestrian injuries and crashes for many years, and its pedestrian fatality rate exceeds the national average.

To counter this trend, the City of New Orleans and the Regional Planning Commission assembled a Project Management Team, assisted by GCR Inc. and Dana Brown and Associates, to lead the development of the Pedestrian Safety Action Plan. Part I of the Plan identifies high-frequency, severe injury, and fatal pedestrian crash locations, investigates their causes, and proposes engineering solutions to apply to prototype problem areas.

Consistent with federal guidance and practices, this Plan applies a data-driven, systemic approach to reducing and eliminating pedestrian crashes throughout the City of New Orleans.

Recent Trends in Local Pedestrian Activity

Based on local counting efforts, the 2013 Pedestrian and Bicycle Count Report documented significant growth in pedestrian numbers throughout New Orleans in recent years. Overall, the report notes that the number of pedestrians increased 66.8% between 2010 and 2013 at observation locations.

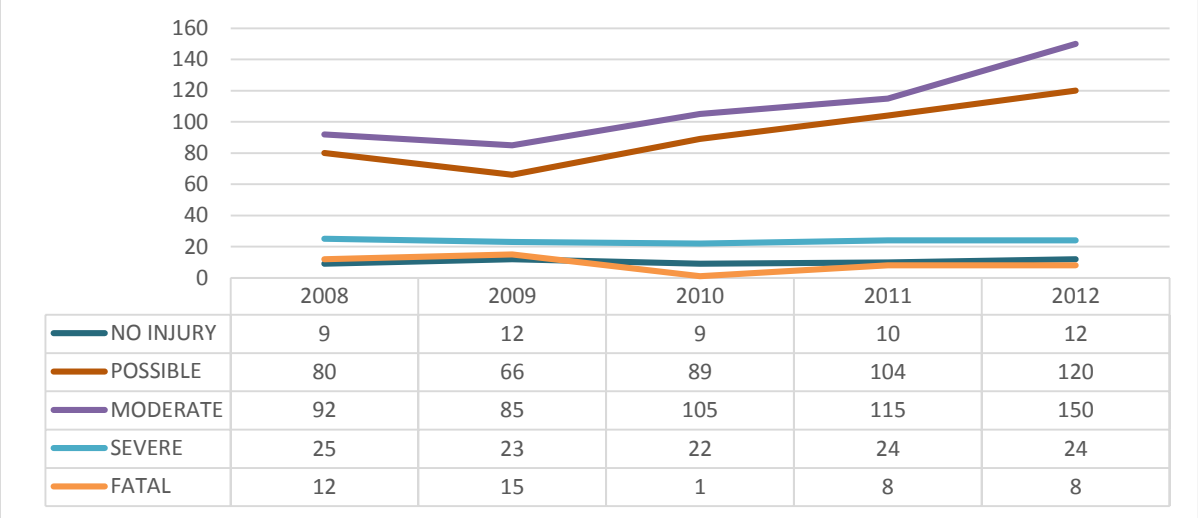
A disproportionately high number of the state's pedestrian crashes occur in New Orleans. From 2008-2012:

- 22.7% of all Louisiana pedestrian crashes occurred in Orleans Parish, though the city is home to just 8% of the state's population,
- The Orleans Parish average annual pedestrian crash rate (inclusive of all severities of crashes) was 78 pedestrian crash victims per 100,000 residents. This is three times the rate of Louisiana, which had 26 victims per 100,000 residents,
- The average annual pedestrian fatality rate in Orleans Parish was 2.6 deaths per 100,000 residents, compared to the state rate of 2.3 and the national rate of 1.4.

Moreover, traffic fatalities are much more likely to be pedestrians in Orleans Parish. DOTD crash data indicates that of all Orleans Parish traffic fatalities to take place from 2008-2012, 25.7% were pedestrians. This is nearly twice the rate of both the state – 13.3% - and the U.S. – 12.9%. One exception is 2010, during which only one pedestrian fatality occurred in the city. Figure 4 depicts these data for each year.

The number of Orleans Parish pedestrian crashes increased from 2008 to 2012, particularly those categorized by officers as moderate and possible injury crashes. Serious injuries, on the other hand, remained steady year after year, while fatal crashes varied significantly from one year to the next, from as low as one crash in 2010 to as many as 15 in 2009.

Crashes by Year and Severity



	2008	2009	2010	2011	2012
NO INJURY	9	12	9	10	12
POSSIBLE	80	66	89	104	120
MODERATE	92	85	105	115	150
SEVERE	25	23	22	24	24
FATAL	12	15	1	8	8

Source: Louisiana Department of Transportation and Development. Analysis by GCR Inc.

Crash Analysis: Locations

The project management team conducted an analysis of 2008-2012 crash data provided by the DOTD and RPC. The analysis objectives were to identify:

1. Locations, including intersections and multi-block corridors, where crashes resulting in fatalities or severe injuries have frequently occurred from 2008-2012
2. Common factors in crashes that should be addressed by engineering countermeasures

The results of the analysis are used later in this report to recommend engineering safety countermeasures for unsafe intersections and corridors based on responsible factors.

Fatal and severe crashes are referred to in this report as KSIs, which is a commonly-used acronym for "killed and severely injured," and categorically represents the most severe pedestrian crashes.

Two separate maps were created for the locational analysis – one showing intersections, the other street segments. In the former, a score was assigned to each intersection based on the combined weight of adjacent crashes. In the latter, a score was assigned to each individual street segment based on the combined weight of crashes within 120 feet. The intersection map results are used to identify the most frequent KSI "spots" while the street segment maps are used to identify corridors. These maps are located in the Appendix. The table below shows the top ranking intersections resulting from the analysis.

Table: Top Twenty Ranking Intersections

Rank	Primary Road	Intersection Road	Signal	# Crashes	# KSI	Score
1	S. Claiborne Ave (US 90)	Gravier St	Yes	4	3	109
2	Poydras St	Camp St	Yes	11	2	105
3	Iberville St	N. Peters St	No	11	2	87.12
4	Canal St	Carondelet St/Bourbon St	Yes	10	2	87.08
5	S. Peters St	Poydras St	Yes	8	2	83.04
6	Esplanade Ave	N. Claiborne Ave (LA 46)	Yes	7	2	80.12
7	Read Blvd	I-10 W Onramp	Yes	4	2	80
8	S. Carrollton Ave	Ulloa St	Yes	4	2	77
9	Martin Luther King Blvd	S. Claiborne Ave (US 90)	Yes	3	2	72.04
10[1]	Airline Dr (US 61)	Monroe St	Yes	2	2	72
10	Canal St	N./S. Peters St	Yes	2	2	72
10	St Claude Ave (LA 46)	Franklin Ave	Yes	2	2	72
10	Behrman Pl (LA 428)	Holiday Dr	No	2	2	72
10	Press Dr	Chef Menteur Hwy (US 90)	Yes	2	2	72
10	Willow St	Cambronne St	No	2	2	72
10	Louisiana Ave	S. Saratoga St	Yes	2	2	72
17	S. Claiborne Ave (US 90)	Leonidas St	Yes	7	1	53.04
18	N. Peters St	Conti St	No	6	1	48.08
19	St Claude Ave (LA 46)	Elysian Fields Ave (LA 46)	Yes	6	1	47
20	Gravier St	S. Broad St	No	4	1	45

Source: Louisiana Department of Transportation and Development. Analysis by GCR Inc.

Pedestrian Crash Factors

Crash reports contain information regarding a number of factors, including victim and driver demographics, movements prior to the crash and condition. This Plan includes analyses of this data from all pedestrian crashes from 2008-2012 in Orleans Parish, and found the following key patterns:

- 40-59 year olds are 38% of KSI victims, but only 27% of Orleans population
- Victims are overwhelmingly male, especially in KSI crashes
- Drivers are overwhelmingly 20-29 years old and male
- Violations are the most frequent primary contributing factor, but the condition of the Driver is most likely to result in KSI
- Crossing at intersections is the highest pedestrian action cause, but crossing midblock is more likely to result in a KSI
- Turns are the most frequent driver movement cause – especially left turns
- Inattention is the most frequent pedestrian impairment, but a pedestrian drinking alcohol is most likely to result in a KSI
- Parked vehicles are the most frequent driver obstruction

[1] Seven intersections tied for 10th ranking with a score of 72 (two KSI's each).

Engineering Recommendations

The City of New Orleans should prioritize pedestrian safety improvements at the emphasis areas identified in Chapter IV, Crash Analysis - Locations. To inform the type of improvements, field surveys were conducted at selected locations, with the goal of examining high-KSI locations from the pedestrian vantage point and assessing how engineering solutions could improve pedestrian safety. Chapter VI provides guidance for selecting the appropriate countermeasures to address the key corridors and intersections highlighted in Chapter IV, with an emphasis on low-cost, easy-to-implement treatments, such as signal timing, signage, striping, and minor concrete work. This guidance supports a systemic approach to implementing safety improvements throughout the city.

By adopting a systemic approach to improving pedestrian safety, using the evidence-based engineering countermeasures described in this Pedestrian Safety Action Plan, the City of New Orleans will slow this trend, and help achieve the city's goal to reduce pedestrian fatalities by 50% by 2030, to an average of four per year, compared to the 2011 and 2012 rate of 8 per year. This approach will require close coordination with the DOTD, RPC and NOPD. Furthermore, the City should pursue non-engineering strategies, including education and traffic enforcement, to support the engineering safety improvements.

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I. Introduction: Overview and Goals

In the five years between 2008 and 2012, 1,489 pedestrians were involved in Orleans Parish traffic crashes. The City of New Orleans (which is coterminous with the Parish) has ranked among the highest in Louisiana for the number of pedestrian injuries and crashes for many years, and its pedestrian fatality rate exceeds the national average. In 2012 the State of Louisiana was named one of 16 Pedestrian Focus States by the Federal Highway Administration in order to bring attention and additional federal support to this issue. Pedestrian crashes not only impact public health and life expectancy, but also carry an economic cost. The National Safety Council estimates that average comprehensive cost of a fatality is $4.5 million, and the cost of an incapacitating injury is $225,100.[2]

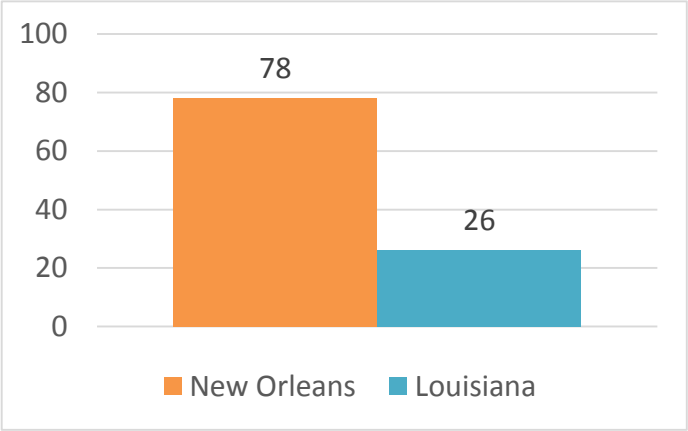


Figure 1: 2008-2012 Avg. Pedestrian Crash Rate (per 100,000 residents) Source: Louisiana Department of Transportation and Development. Analysis by GCR Inc.

Source: Louisiana Department of Transportation and Development

To counter these trends, in recent years the Regional Planning Commission (RPC) and the City of New Orleans have implemented numerous engineering initiatives to create a safe, accessible and pedestrian-friendly transportation network. These include crafting an ADA Transition Plan and Complete Streets Policy, installing high-profile crosswalks, right-sizing wide roadways, adding pedestrian countdown signals at high-traffic intersections, securing federal grants to improve safety in schools zones, adding photo-enforcement devices in school zones, reducing the number of motor vehicle lanes on select streets, and repairing sidewalks throughout the city. The city's Bronze level award on the Walk Friendly Community Report Card in 2011 is testament to this progress.

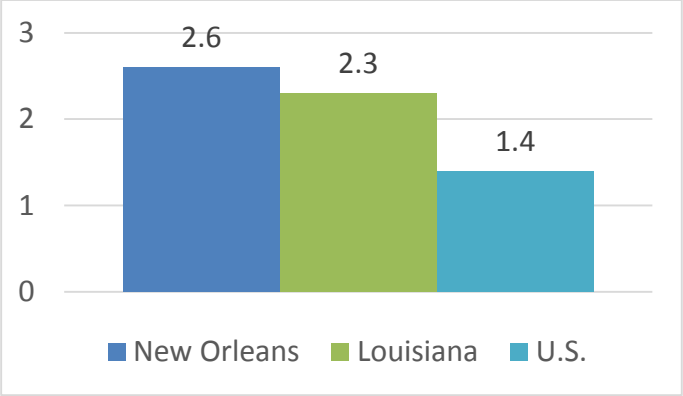


Figure 2: 2008-2012 Avg. Pedestrian Fatality Rate (per 100,000 residents)

Source: Louisiana Department of Transportation and Development, National Highway Traffic Safety Administration.

[2] National Safety Council, *Estimating the Costs of Unintentional Injuries, 2011*, Itasca, Illinois: February 2013.

To supplement these efforts and increase pedestrian safety and walkability in New Orleans, the City of New Orleans and the Regional Planning Commission assembled a Project Management Team, assisted by GCR Inc. and Dana Brown and Associates, to lead the development of the Pedestrian Safety Action Plan: Part I Engineering Strategies. This Plan identifies high-frequency, severe injury, and fatal pedestrian crash locations, investigates their causes, and proposes engineering solutions to apply to prototype problem areas.

Consistent with federal guidance and practices, this Plan applies a data-driven, systemic approach to reducing and eliminating pedestrian crashes throughout the City of New Orleans. However, engineering countermeasures are just one tool for impacting the pedestrian crash, injury and fatality rates. In order to create significant, sustained impact over the long-term, it will be necessary to change the culture of walking and driving in New Orleans through other pedestrian safety strategies such as encouragement, education and enforcement programs. Future Pedestrian Safety Action Plan components will outline how these efforts will be implemented as funding becomes available.

This Pedestrian Safety Action Plan is a revision of the Draft Plan, which was completed in August 2013 for inclusion in the New Orleans Pedestrian Safety Project Proposal. The Louisiana Highway Safety Commission submitted this proposal to the National Highway Traffic Safety Administration's Education and Enforcement in Pedestrian Focus Cities program.

II. Previous pedestrian safety studies and initiatives undertaken

The following studies and reports demonstrate the efforts made by the RPC and City of New Orleans to improve pedestrian safety.

New Orleans Metropolitan Bicycle and Pedestrian Plan

Time frame: 2005

Date released: September 2006

Participants: Regional Planning Commission, U.S. Department of Transportation, Federal Highway Administration

Purpose: To improve walking and bicycling conditions in the New Orleans region. The Plan identifies treatment options, such as improving sight distance between vehicles and pedestrians, and designing connected networks of mobility throughout the City and Region.

Outcomes: Identified the need for adequate facilities for walking and bicycling within the region due to a historic inclination to favor the automobile. It urges state and local policy-makers to incorporate existing federal policies to bring forth comprehensive laws, policies, design and construction of facilities. Some of these policies include the adoption of a state-wide Pedestrian Master Plan, prioritizing roadways that should be upgraded to accommodate bicyclist safety on state maintained roadways, and state and local groups working to change the rights of motorists, pedestrians, and bicyclists that will help reduce the incidents and fatalities in all areas.

New Orleans Regional Pedestrian and Bicycle Crash Reports

Time frame: 2006-2008, 2009-2010

Date released: October 2011, July 2012

Participants: Pedestrian Bicycle Resource Initiative, Regional Planning Commission, The Louisiana Department of Transportation and Development, and the University of New Orleans Transportation Institute

Purpose: To guide policy-makers in developing safer and more efficient facilities for pedestrians and bicyclists by providing an overview of existing conditions for pedestrians and bicyclists in the New Orleans Metro Region and by identifying crash trends and statistically significant "crash hot spots."

Outcomes: Identified crash clusters to help identify geographic areas where a higher than average number of incidents are taking place. These reports suggest that engineering improvements alone will not sufficiently increase pedestrian safety. The Crash Reports recommend a system-wide approach to implementing policy changes and including active modes of transportation into city and regional master plans.

New Orleans Pedestrian and Bicycle Count Reports

Time frame: 2010 - 2013

Date released: July 2011, July 2012, and July 2013

Participants: Pedestrian Bicycle Resource Initiative, Regional Planning Commission, and the University of New Orleans, Tulane University, Texas State University, Louisiana Department of Transportation and Development

Purpose: To uncover the growing demand and use of active transportation in New Orleans by analyzing Census data as well as pedestrian count and bicycle data collected at 17 locations around New Orleans. The reports highlight a need for improved infrastructure networks for walking and bicycling.

Outcomes: The study found that New Orleans ranks high for large American cities in both pedestrian and bicycle mode shares, making it one of the top cities for mode shares in the Southern Region of the United States. It tracks the steady increased volumes of pedestrians within the city that supports the need for pedestrian improvements. The Count Reports point out that in certain areas pedestrians are using newly installed bicycle facilities, and therefore when doing these projects it is important to include signals at intersections, and improve sidewalk conditions to maximize the benefits for all users.

Walk Friendly Communities Application and Report Card

Time frame: 2012

Date released: Spring 2012

Participants: Pedestrian and Bicycle Information Center, Prevention Research Center at Tulane University, Walk Friendly Communities Program

Purpose: To evaluate a community's commitment to improving walkability and pedestrian safety through comprehensive programs, plans, and policies as well as offer technical feedback on how to improve the walkability of the assessed community.

Outcomes: New Orleans received a Bronze level status, where the City was recognized for its public engagement, way finding signs, online interactive map, Safe Routes to School program, engineering treatments, road diets, and annual pedestrian and bicycle design workshops. In comparing New Orleans to cities with Gold level ratings, like Chicago, IL and Ann Arbor, MI, it is evident that New Orleans is lacking in innovative streetscape design, a large pedestrian signal system, and traffic calming initiatives.

City of New Orleans Department of Public Works ADA Transition Plan for the Public Right-of-Way

Time frame: 2013

Date released: February 2013

Participants: City of New Orleans Department of Public Works, Prevention Research Center at Tulane University, Louisiana Public Health Institute

Purpose: To ensure that facilities for pedestrian circulation and use located in the public right-of-way are readily accessible to and usable by pedestrians with disabilities in accordance with the Americas with Disabilities Act and the U.S. Access Board Public Right of Way Accessibility Guidelines.

Outcomes: Reviews and updates New Orleans' ADA Transition Plan relative to public rights-of-way to reflect requirements of ADA Accessibility Guidelines and Public Rights of Way Accessibility Guidelines

Department of Transportation and Development Complete Streets Work Group Report and Policy

Time frame: 2010

Date released: July 2010

Participants: Burk-Kleinpeter, Inc., the Louisiana Department of Transportation and Development,

Purpose: To create a Complete Streets Policy that provides Louisiana with a tool to design for multi-modal mobility and safety for all user groups.

Context: State of Louisiana

Outcomes: Provides design standards that ensure a fully integrated transportation system that can be adopted as needed within the state. This report includes actions for implementation of Complete Streets in new as well as retrofitted projects, strategies for retraining planners and engineers, and legislative strategies for implementation on a state and local level.

Regional Planning Commission Complete Streets Policy

Time frame: 2010

Date released: November 2012

Participants: Regional Planning Commission

Purpose: To create a comprehensive, connected transportation network for the New Orleans and St. Tammany urbanized areas that balances access, mobility, health and safety needs of motorists, transit users, pedestrians, and bicyclists of all ages and abilities, which includes user of wheelchairs and mobility aids.

Context: New Orleans metropolitan area

Outcomes: Ensures that all new construction and reconstruction of roadways will consider the impact of safety for pedestrians, bicyclists and transit users, not just motor vehicles. These design standards will be implemented in all new construction projects as well as retrofit projects. It is important to note that all complete streets may not look the same. Each street will use design standards to cater to the site specific needs of each situation.

City of New Orleans Complete Streets Ordinance

Time Frame: 2011

Date Released: December 2011

Participants: New Orleans City Council, Department of Public Works

Purpose: To provide guiding principles and practices requiring that all transportation improvements are planned, designed, and constructed to encourage walking, bicycling, and transit use, while also promoting the full use of, and safe operations for all users of the City's transportation network.

Context: City of New Orleans

Outcomes: Balances the access and mobility of all users, despite age and ability, as well as public transit and private vehicles by requiring any City improvements to streets and bridges to include Complete Street facilities such as sidewalks, bicycle lanes, crosswalks, traffic calming measures, and street and sidewalk lighting.

Louisiana Crash Data Reports

Time frame: 2009 - 2013

Date released: updated daily

Participants: Louisiana Safety Research Group at LSU, Louisiana Highway Safety Commission, and Louisiana Department of Transportation and Development (LADOTD)

Purpose: To gather crash data from state, sheriff, and local police agencies so that:

1. LADOTD can identify high crash intersections or road segments for safety improvement
2. Law enforcement officials can deploy enforcement personnel in trouble areas
3. U.S. Congress uses the crash data reports to appropriate funds for highway safety construction projects

Context: State of Louisiana

Outcomes: This detailed information done by the Louisiana Highway Safety Research Group leads to analysis of motor vehicle crashes and the variables that cause them.

New Orleans Region Transportation Strategic Highway Safety Plan Pedestrian and Bicycle Emphasis Area Action Plan

Time frame: 2014

Date adopted: January 2014

Participants: New Orleans Region Transportation Safety Coalition

Purpose: To define objectives and strategies and associated milestones, timelines and budgets for improving pedestrian and bicycle crashes in the Greater New Orleans region

Context: Greater New Orleans region

Outcomes: The Action Plan is incorporated into the statewide Strategic Highway Safety Plan.

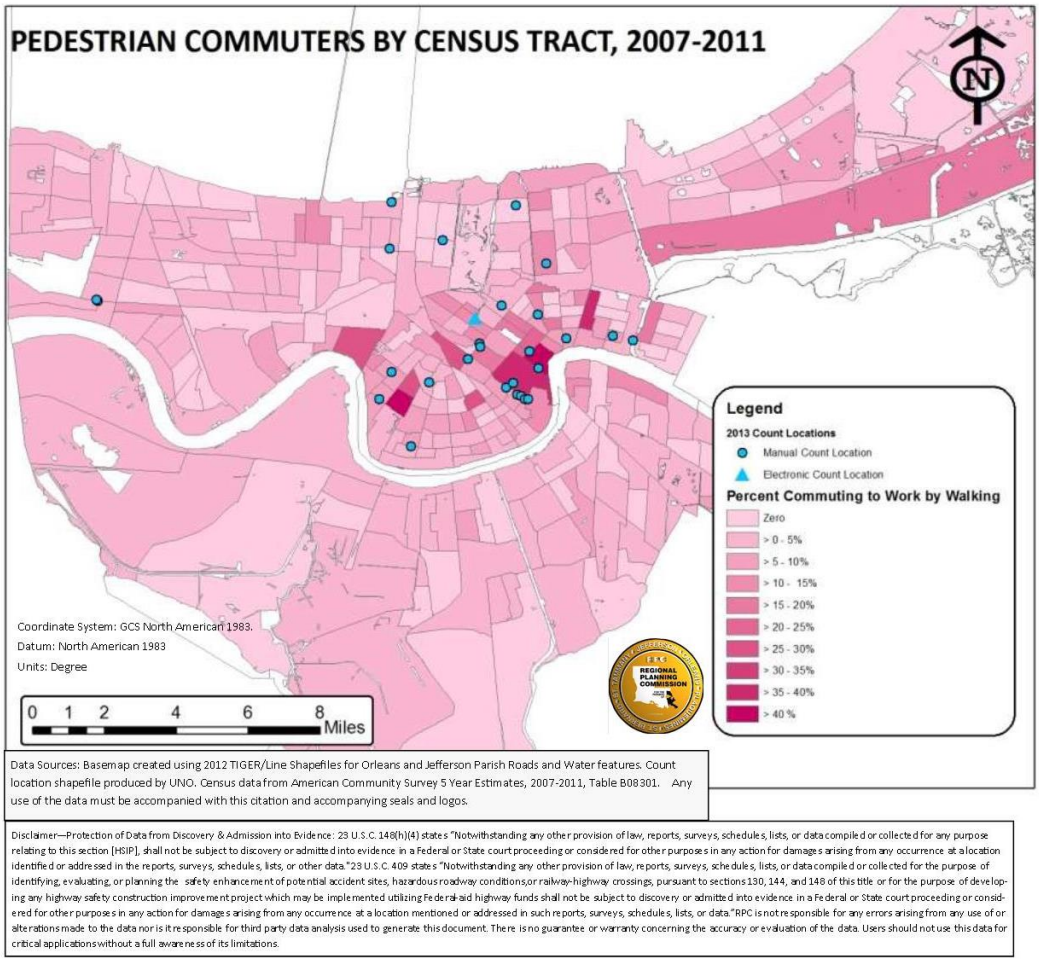
III. Recent Trends in Local Pedestrian Activity

New Orleans developed to accommodate walking trips prior to the mid-twentieth century through compact street layout, sidewalks and relatively dense land use patterns. Following World War II, private automobile interests began to drive predominantly car-oriented, residential, low-density neighborhood design in Lakeview, Gentilly, the Lakeshore, New Orleans East, and Algiers.

Locations

According to the U.S. Census Bureau American Community Survey, 2008-2012*, 5.1% of New Orleans commuters walked to work*. Figure 3 shows higher rates of pedestrian trips, occur in the older, mixed-use business and entertainment neighborhoods of the French Quarter and Central Business District (CBD), as well as at the Tulane University and Loyola University uptown campuses.

Figure 3: Pedestrian Commuters by Census Tract, 2007-2011. (Source: New Orleans 2013 Pedestrian and Bicycle Count Report, Figure 12)



Volumes

Based on local counting efforts, the 2013 Pedestrian and Bicycle Count Report documented significant growth in pedestrian numbers throughout New Orleans in recent years. Overall, the report notes that **the number of pedestrians increased 66.8% between 2010 and 2013 at observation locations**. Decatur Street in the French Quarter hosted the most pedestrian traffic of all observed sites.

Table 1: Observed Pedestrian Volumes, 2010-2013 (Source: New Orleans 2013 Pedestrian and Bicycle Count Report, Table 3)

	Observed Volume (8-hour period)		Absolute Change	Percent Change
Count Site	**2010**	**2013**	**2010-2013**	**2010-2013**
Harrison Ave	124	285	161	129.8%
Gentilly Blvd	126	121	-5	-4.0%
Esplanade Ave	230	573	343	149.1%
Royal St	324	376	52	16.0%
St. Claude Ave	230	325	95	41.3%
Magazine St (Uptown)	330	338	8	2.4%
Camp St (Gateway)	144	199	55	38.2%
Magazine St (Gateway)	159	334	175	110.1%
Decatur St	1313	3053	1740	132.5%
Simon Bolivar Ave	608	692	84	13.8%
Carondelet St (Gateway)	81	140	59	72.8%
St. Charles Ave	550	603	53	9.6%
TOTAL	**4219**	**7039**	**2820**	**66.8%**

The high growth rate – particularly on Decatur Street in the French Quarter - may be attributed to the growth in tourists and French Quarter visitors. **From 2009 to 2012, New Orleans visitors increased from 7.5 million to 9 million – a 20% increase.**[3] Typically tourists and other visitors are less familiar with the city than residents, making them potentially more vulnerable to crashes.

A high volume of pedestrian traffic can also be found in areas with higher poverty levels, where people are less likely to own cars and more likely to use public transit, bicycles, or walking as their primary mode of transportation. Census data in Figure 3 also show higher pedestrian volumes are found in higher poverty neighborhoods such as the Upper 9th Ward and Gert Town.

[3] New Orleans Convention and Visitors Bureau, *New Orleans Tourism Industry Recovery Milestones*, August 2013. Accessed September 17, 2013: http://www.neworleanscvb.com/includes/content/images/MEDIA/docs/K8-Milestones.pdf

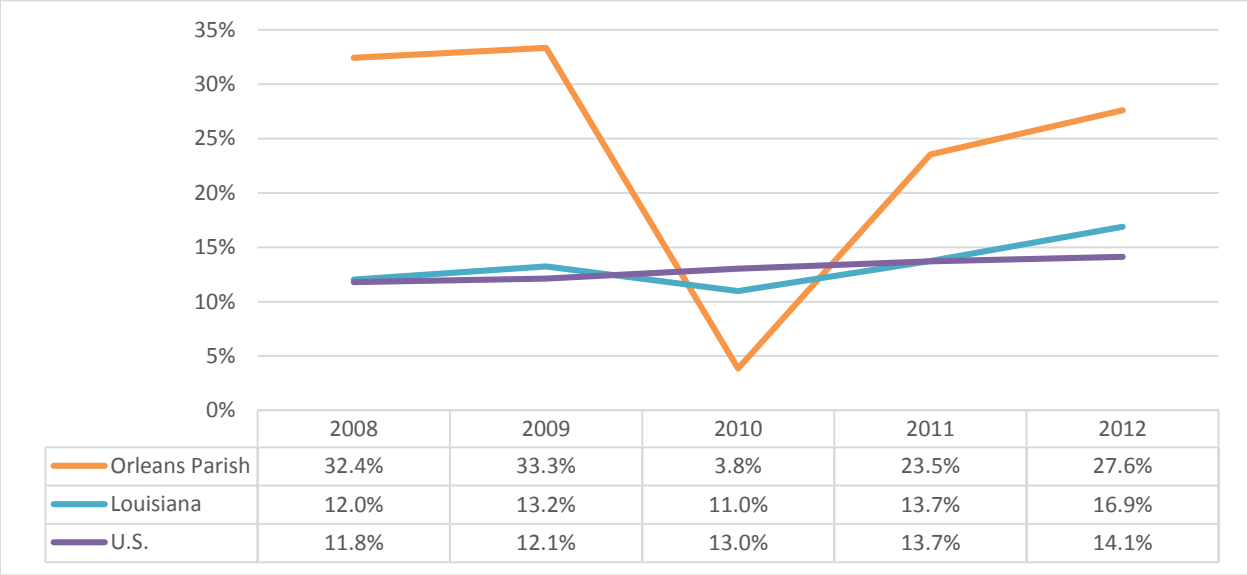
Number and Severity of Crashes

A disproportionately high number of the state's pedestrian crashes occur in New Orleans. From 2008-2012:

- 22.7% of all Louisiana pedestrian crashes occurred in Orleans Parish, though the city is home to just 8% of the state's population,
- The Orleans Parish average annual pedestrian crash rate (inclusive of all severity of crashes) was 78 pedestrian crash victims per 100,000 residents. This is three times the rate of Louisiana, which had 26 victims per 100,000 residents,
- The average annual pedestrian fatality rate in Orleans Parish was 2.6 deaths per 100,000 residents, compared to the state rate of 2.3 and the national rate of 1.4.

Moreover, traffic fatalities are much more likely to be pedestrians in Orleans Parish. DOTD crash data indicates that of all Orleans Parish traffic fatalities to take place from 2008-2012, 25.7% were pedestrians. This is nearly twice the rate of both the state – 13.3% - and the U.S. – 12.9%. One exception is 2010, during which only one pedestrian fatality occurred in the city. Figure 4 depicts these data for each year.

Figure 4: Pedestrians Fatalities as a Percentage of all Traffic Fatalities, by Year



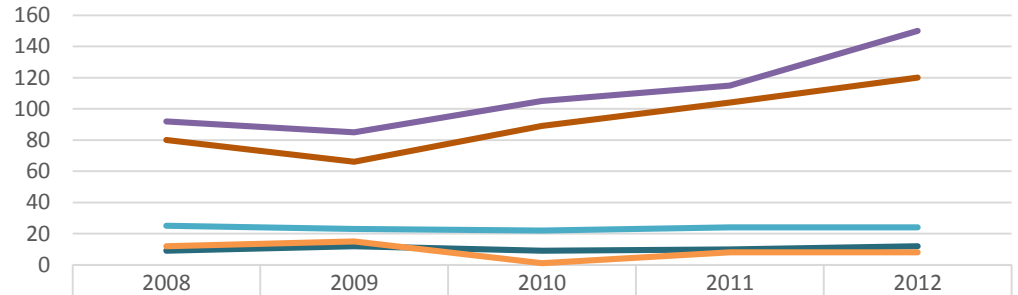
	2008	2009	2010	2011	2012
Orleans Parish	32.4%	33.3%	3.8%	23.5%	27.6%
Louisiana	12.0%	13.2%	11.0%	13.7%	16.9%
U.S.	11.8%	12.1%	13.0%	13.7%	14.1%

Growth of Crashes

The State of Louisiana Uniform Motor Vehicle Traffic Crash Report prompts reporting police officers to note the severity level of traffic crash victims' injuries. Choices are: A- Fatal; B- Incapacitating/Severe; C-Non-Incapacitating/Moderate; D-Possible/Complaint; and E- No Injury. However, the selection of injury code is at the discretion of individual officers at crash scenes, and precise definitions are unavailable on the Crash Report or its guidelines.

The number of Orleans Parish pedestrian crashes increased from 2008 to 2012, particularly those categorized by officers as moderate and possible injury crashes. Serious injuries, on the other hand, remained steady year after year, while fatal crashes varied significantly from one year to the next, from as low as one crash in 2010 to as many as 15 in 2009.

Figure 5: Crashes by Year and Severity



	2008	2009	2010	2011	2012
NO INJURY	9	12	9	10	12
POSSIBLE	80	66	89	104	120
MODERATE	92	85	105	115	150
SEVERE	25	23	22	24	24
FATAL	12	15	1	8	8

Table 2: Pedestrian Crash Frequency and Severity, 2008-2012

	2008	2009	2010	2011	2012	5-Year
Orleans Population	311,853	354,850	343,829	360,740	369,250	
Orleans Pedestrian Crashes	287	244	290	243	290	1,354
Orleans Pedestrian Fatalities	12	15	1	8	8	44
Orleans Total Traffic Fatalities	37	45	26	34	29	171
Orleans % of Fatal Crashes Pedestrian	32.4%	33.3%	3.8%	23.5%	27.6%	25.7%
Orleans Pedestrian Crashes per 100,000	92.03	68.76	84.34	67.36	78.54	78.2
Orleans Pedestrian Fatalities per 100,000	3.85	4.23	0.29	2.22	2.17	
Orleans Pedestrian Crashes as % of State	24.9%	21.8%	24.7%	20.6%	21.6%	22.7%
Louisiana Population	4,410,796	4,492,076	4,533,372	4,574,836	4,601,893	
Louisiana Pedestrian Crashes	1,151	1,121	1,172	1,182	1,343	5,969
Louisiana Pedestrian Fatalities	110	109	79	93	122	513
Louisiana Total Traffic Fatalities	915	824	720	677	723	3,859
Louisiana % of Fatal Crashes Pedestrian	12.0%	13.2%	11.0%	13.7%	16.9%	13.3%
Louisiana Pedestrian Crashes per 100,000	26.10	24.96	25.85	25.84	29.18	26.4
Louisiana Pedestrian Fatalities per 100,000	2.49	2.43	1.74	2.03	2.65	
U.S. Population (millions)	304.0	306.4	308.7	311.6	313.9	
U.S. Pedestrian Fatalities[4]	4,414	4,109	4,302	4,457	4,743	22,025
U.S. Total Traffic Fatalities	37,423	33,883	32,999	32,479	33,561	170,345
U.S. % of Fatal Crashes Pedestrian	11.8%	12.1%	13.0%	13.7%	14.1%	12.9%
U.S. Pedestrian Fatalities per 100,000	1.45	1.34	1.39	1.43	1.51	

Sources: National Highway Traffic Safety Administration; Louisiana Department of Transportation and Development

[4] Traffic Safety Facts 2011 Data: Pedestrians, National Highway Traffic Safety Administration, April 2013

IV. Crash Analysis: Locations

The project management team conducted an analysis of 2008-2012 crash data provided by the DOTD and RPC. The analysis objectives were to identify:

3. Locations, including intersections and multi-block corridors, where crashes resulting in fatalities or severe injuries have frequently occurred from 2008-2012
4. Common factors in crashes that should be addressed by engineering countermeasures

The results of the analysis are used later in this report to recommend engineering safety countermeasures for unsafe intersections and corridors based on responsible factors.

Fatal and severe crashes are referred to in this report as KSIs, which is a commonly-used acronym for "killed and severely injured," and categorically represents the most severe pedestrian crashes.

Methodology

In the fall of 2013, the Regional Planning Commission (RPC) provided the project management team with 2008-2012 Orleans Parish pedestrian crash data. This data is originally documented by the New Orleans Police Department (NOPD) and submitted to and then maintained by the Louisiana Department of Transportation and Development (DOTD). The data was provided in Microsoft Excel spreadsheets, and included separate tables each for pedestrian attributes and driver attributes. It was organized consistent with the format of the State of Louisiana Uniform Vehicle Traffic Crash Report. Accuracy and completeness of data was dependent upon the initial completion of the individual crash reports. As such, accuracy and completeness vary by crash record. The RPC also provided full written crash reports from the years 2010, 2011 and 2012. The project team reviewed a sample of these reports and found that all crash report data had been entered into the DOTD database.

The project management team performed quality assurance to identify and address inaccuracies and gaps in the crash data. The full crash reports available for every fatality and severe injury – 64 in total – were reviewed to collect any additional information not provided by the DOTD database. Table 3 lists these deficiencies and actions taken to correct them.

Table 3: Crash Data Deficiencies and Corrective Steps

Data Deficiency	Corrective Action
Null values for many attributes in the crash report database (11% of pedestrian data)[5]	Verified information in individual, written crash reports submitted by NOPD to DOTD (2010-2012 only)

[5] 11% of the pedestrian dataset consisted of NOUB (Null, Other, Unknown, Blank) values; this does not include the driver dataset or any outlier values (e.g. ages recorded as 200)

Missing geocoordinates for crash locations (43, including 3 severe and 1 fatal)[6]	Used Google Maps to identify and copy correct geocoordinates of crash locations into database
Inaccurate geocoordinates for crash locations (233)	Used ArcGIS to identify correct geocoordinates of crash locations into database

Source: GCR Inc.

In January 2014, RPC provided the project team with pedestrian fatality records created and maintained independently by the NOPD traffic fatality investigator. The data included record numbers, item numbers, dates, locations, NOPD signals, and whether alcohol/drugs were involved or whether the crash was a "late case," in which the death occurred after the date of the incident. All but four of these records were present within the DOTD data (Table 4). The project team added the four records to the DOTD dataset for the analysis.

Table 4: NOPD Pedestrian Fatality Data Missing From DOTD Data

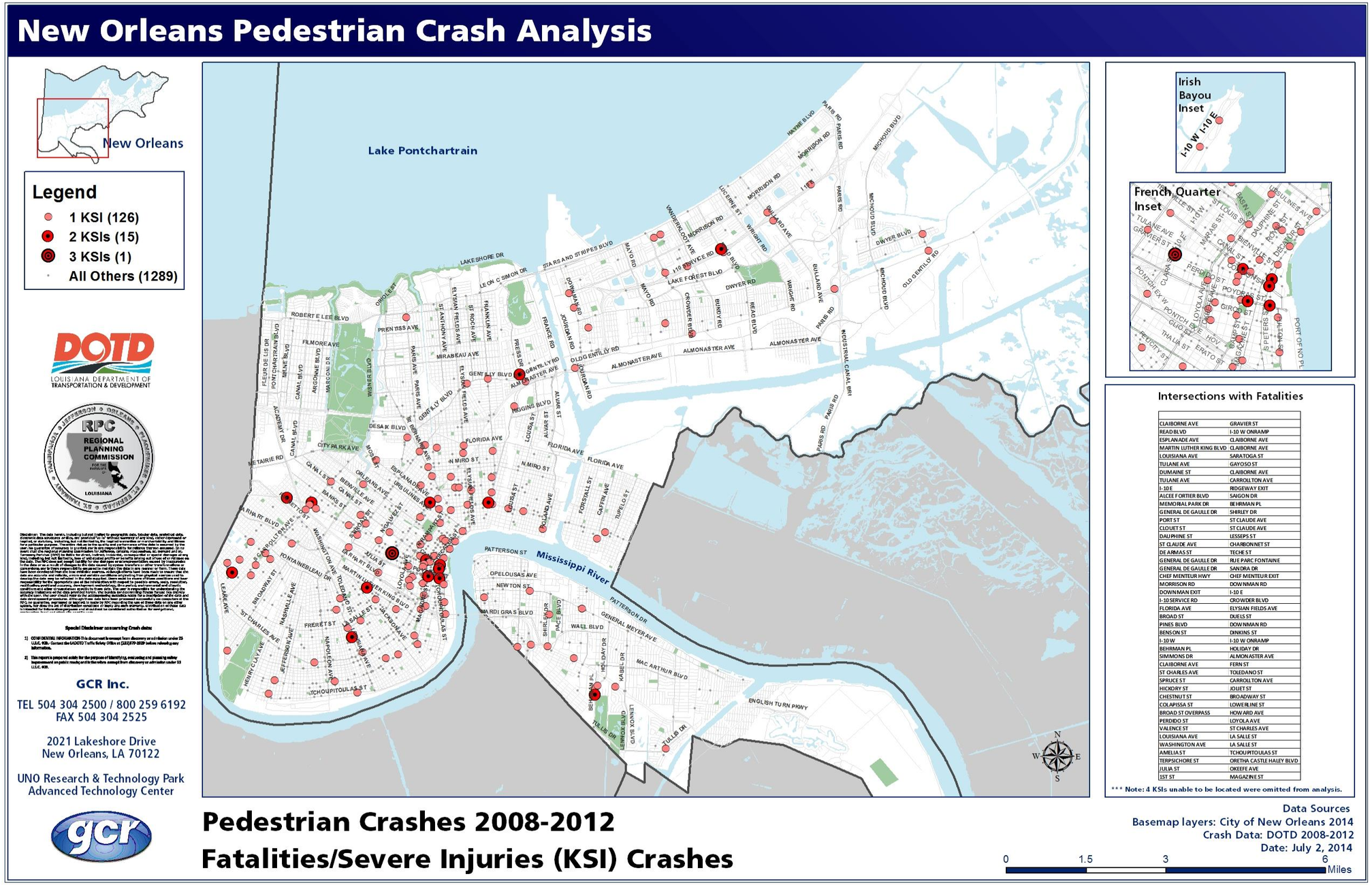
Record	Item Number	Date	Location	Signal	# Deaths	Alcohol/ Drugs	Late case
44	J-09723-11	10/17/11	Broadway and Chestnut St	20-F	1	N	Y
8	B-00365-12	02/19/12	I-10 Service Rd and Crowder Blvd	20-F	1	N	Y
32	L-07286-12	12/06/12	Sandra and Gen. DeGaulle	100-F	1	N	N
35	K-34904-12	12/12/12	1300 Blk. Perdido Street	20-F	1	-	Y

Source: GCR Inc.; New Orleans Police Department

Figure 6 illustrates the location of all crashes, and highlights those resulting in pedestrian fatalities and severe injuries. Full size maps are available in the Appendix.

[6] Two crashes were not located at all and were excluded from the Location Analysis: A severe crash was listed at S. Claiborne and Palm Streets, which are parallel to one another. A Possible Injury crash was listed at S. Roman Street but did not have a cross street noted.

Figure 6: KSI Crash Locations



The project team conducted several crash frequency and severity analyses, using a variety of weightings by crash severity to identify target intersections and corridors for recommended safety improvements. Following evaluation of different weighting alternatives, the project team proceeded to identify the most frequent severe injury and fatality crash locations using a hierarchy that treats KSI crashes equally and with much exponentially higher weight than non-severe, possible or no injury crashes.

Table 5: Crash Weights, by Severity

Code/Severity	Weight
A/Fatality	36
B/Severe injury	36
C/Non-severe injury	4
D/Possible injury	1
E/No injury	0.04

Source: State of Louisiana Uniform Vehicle Traffic Crash Report

Results

Two separate maps were created for the locational analysis – one shows intersections, the other street segments. In the former, a score was assigned to each intersection based on the combined weight of adjacent crashes. In the latter, a score was assigned to each individual street segments based on the combined weight of crashes within 120 feet. The intersection map results are used to identify the most frequent KSI "spots" while the street segment maps are used to identify corridors. These maps are located in the Appendix. Table 6 shows the top ranking intersections resulting from the analysis. For the purposes of application to the Local Road Safety Program and Highway Safety Improvement program, this table represents "adopted emphasis areas." (See Chapter VII for more information).

Table 6: Top Twenty Ranking Intersections

Rank	Primary Road	Intersection Road	Signal	# Crashes	# KSI	Score
1	S. Claiborne Ave (US 90)	Gravier St	Yes	4	3	109
2	Poydras St	Camp St	Yes	11	2	105
3	Iberville St	N. Peters St	No	11	2	87.12
4	Canal St	Carondelet St/Bourbon St	Yes	10	2	87.08
5	S. Peters St	Poydras St	Yes	8	2	83.04
6	Esplanade Ave	N. Claiborne Ave (LA 39)	Yes	7	2	80.12
7	Read Blvd	I-10 W Onramp	Yes	4	2	80
8	S. Carrollton Ave	Ulloa St	Yes	4	2	77
9	Martin Luther King Blvd	S. Claiborne Ave (US 90)	Yes	3	2	72.04
10[7]	Airline Dr (US 61)	Monroe St	Yes	2	2	72
10	Canal St	N./S. Peters St	Yes	2	2	72
10	St Claude Ave (LA 46)	Franklin Ave	Yes	2	2	72
10	Behrman Pl (LA 428)	Holiday Dr	No	2	2	72
10	Press Dr	Chef Menteur Hwy (US 90)	Yes	2	2	72
10	Willow St	Cambronne St	No	2	2	72
10	Louisiana Ave	S. Saratoga St	Yes	2	2	72
17	S. Claiborne Ave (US 90)	Leonidas St	Yes	7	1	53.04
18	N. Peters St	Conti St	No	6	1	48.08
19	St Claude Ave (LA 46)	Elysian Fields Ave (LA 46)	Yes	6	1	47
20	Gravier St	S. Broad St	No	4	1	45

Source: Louisiana Department of Transportation and Development. Analysis by GCR Inc.

Among these intersections, the street segments analysis demonstrates the high number of crashes along the South and North Peters Street corridor, between Poydras Street and Conti Street. The intersection of Canal Street and Carondelet Street/Bourbon Street stands out for its 10 crashes, including two severe injuries. Three additional higher-speed corridors (35mph posted speed limits) considered are St. Claude Avenue (at Clouet), S. Claiborne Avenue (at Gravier), Louisiana Avenue (at S. Saratoga) and Holiday Drive (at Behrman Place). A transit stop is located at each of these locations, except at the intersection of S. Claiborne Ave. and Gravier St. The presence of a traffic stop is noted for each intersection.

Crashes at several of these locations are described in further detail below.

[7] Seven intersections tied for 10th ranking with a score of 72 (two KSI's each).

Location Profiles

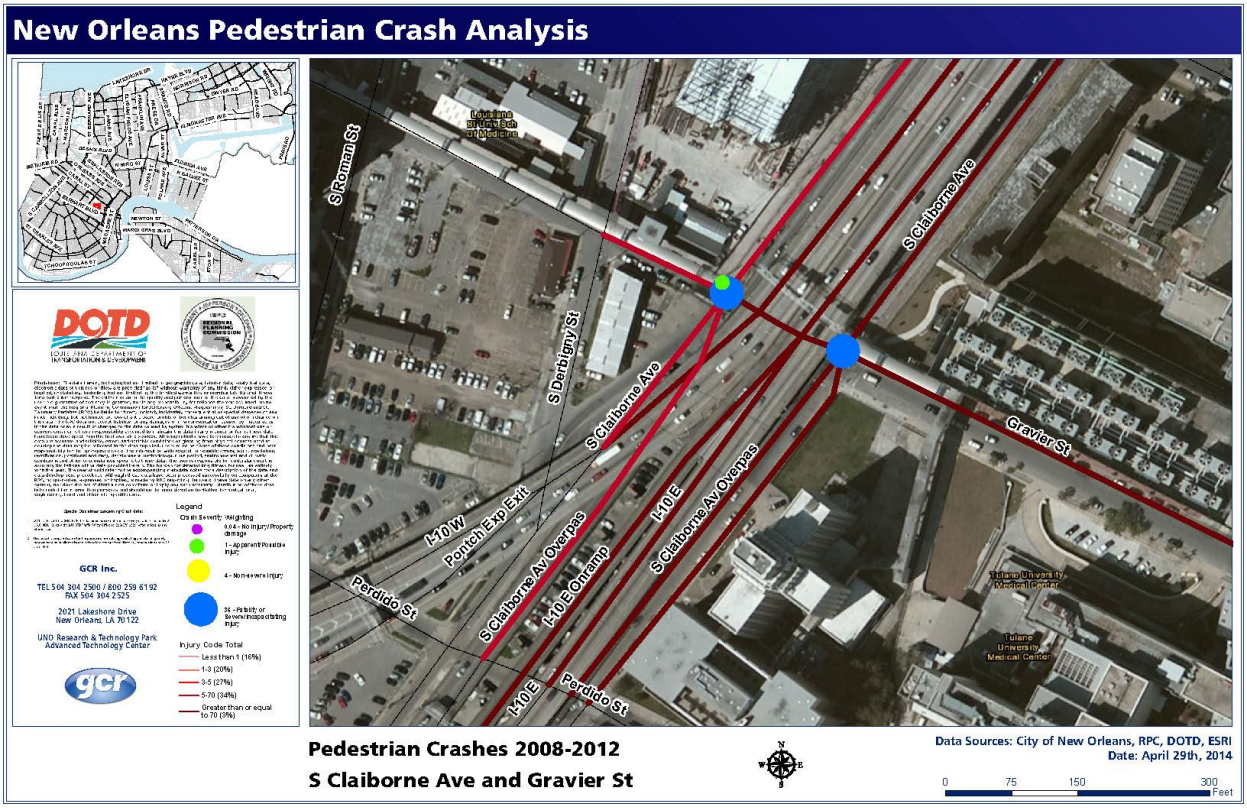
To examine more thoroughly the places where KSI crashes occur, the project team selected several locations from Table 6 that are representative of other intersection types in New Orleans. This process is consistent with the systematic approach to safety improvements endorsed by the Federal Highway Administration.[8]

However, the limitations of data analysis come to the forefront when examining specific locations. The following locations scored high, but because of the limited number of crashes that occurred at each location, the sample size is insufficient to infer specific trends and patterns. The incompleteness of the data and each officer's discretion in filling out the report are additional challenges to deciphering crash patterns.

Regardless of these challenges, common factors at crash locations were documented to facilitate a systemic approach to implementing countermeasures.

S. Claiborne Ave and Gravier St

Figure 7: S. Claiborne Ave and Gravier St



[8] Additional information about the FHWA System Safety Project Selection Tool is available at http://safety.fhwa.dot.gov/systemic/fhwasa13019/

This intersection had a total of four crashes. Two fatal crashes occurred, each in 2011. A severe crash in 2009 occurred on the upriver bound portion of S. Claiborne Avenue between Gravier St. and S. Derbigny St. All three of these KSI crashes occurred on a Saturday. The fourth crash, a possible injury crash, also occurred in 2009.

The first fatal crash, in January 2011, occurred around noon in cloudy conditions on a wet surface. A 42 year-old black male proceeded straight on a green signal in a van at 35 mph. A 45 year-old black male, whose condition was "drinking alcohol – impaired," attempted to cross the road at the intersection and was killed. The primary contributing factor was "condition of pedestrian" and the secondary contributing factor was "pedestrian actions."

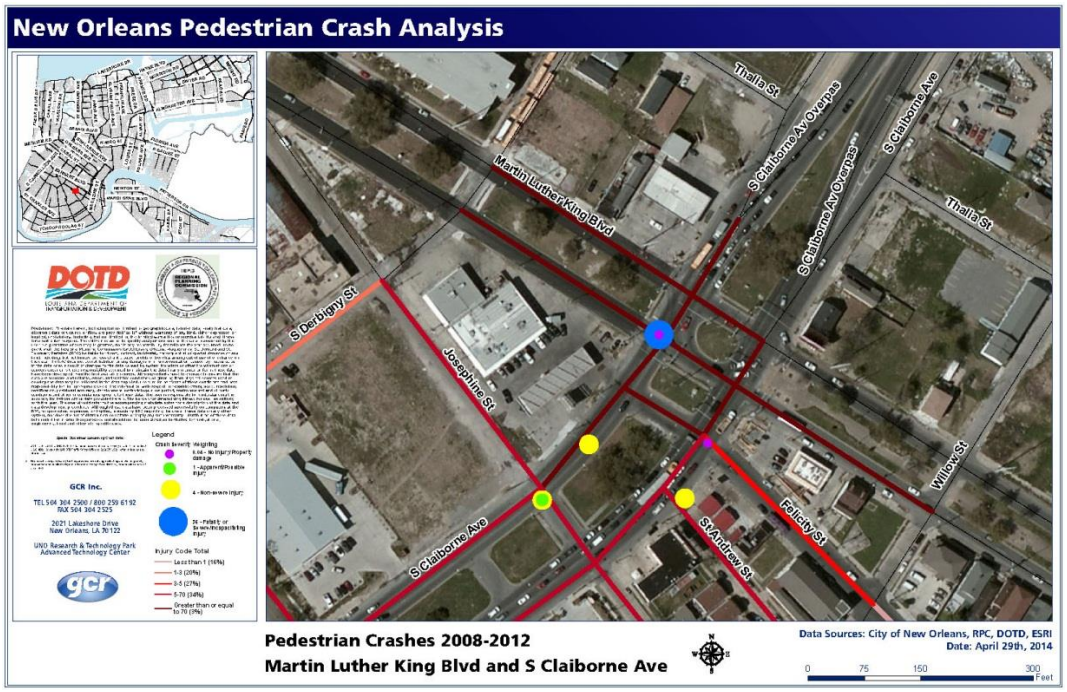
The second fatal crash, in October 2011, occurred at night in dark conditions (with street lighting) on a dry surface. There were two cars involved in the crash, but the officer recorded no data about the drivers, their vehicles, or their movements prior to the crash. A 43 year-old black male attempted to cross the road at the intersection and was killed. The primary contributing factor was "violations" and the secondary contributing factor was "movement prior to crash."

The severe injury crash, in November 2009, occurred in the afternoon, in daylight. The crash occurred on the upriver bound side of S. Claiborne Avenue between Gravier and S. Derbigny Streets. The pedestrian, a 50 year-old black female, was walking in the roadway and was severely injured. The data do not identify a primary or secondary contributing factor to the crash. The driver was cited for careless operation.

The possible injury crash also occurred in 2009, and a 22 year-old white female was injured while crossing the intersection at 9am. The contributing factor was violations. The crash occurred when a 60 year-old black male, driving a light truck, made a left turn heading westbound.

Martin Luther King Jr. Blvd and S. Claiborne Ave (US 90)

Figure 8: Martin Luther King Jr. Blvd and S. Claiborne Ave (US 90)



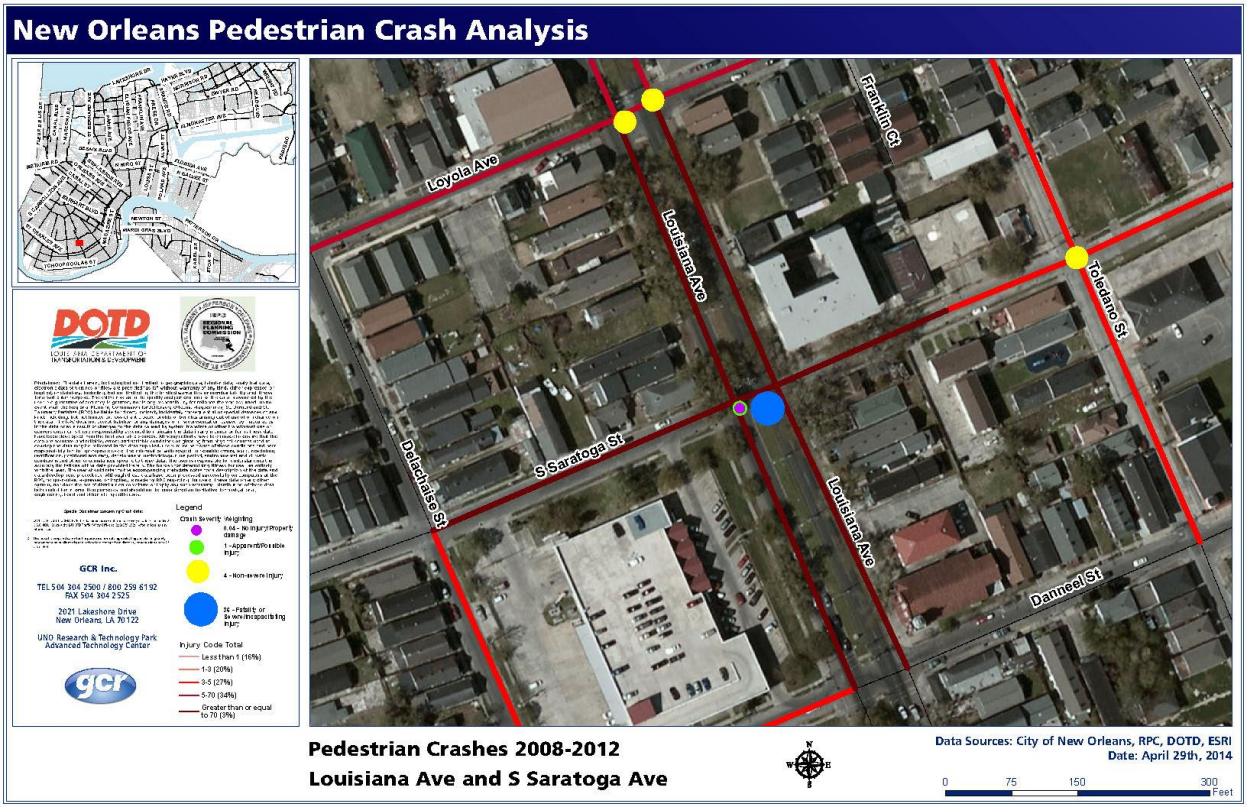
This intersection had two crashes. The first crash occurred in 2008 and fatally injured one pedestrian and severely injured another. The second crash, in 2012, involved only one pedestrian, but the injury code was listed as "null."

The first crash, in March 2008, involved either four or two vehicles – it is not clear from the data. At least one SUV, driven by a 21 year-old white female, crashed with a van driven by an unknown driver and an "other non-fixed object." The drivers' movements were described as normal, but no other information was given. The crash occurred in the afternoon in dry, clear conditions. A 31 year-old black male was killed and a 34 year-old black female was severely injured. Their actions prior to the crash were described as "other" and their condition was "normal." The primary contributing factor was "condition of driver" and secondary contributing factor "movement prior to crash," but it isn't clear what about the driver's condition led to the crash.

The second crash, in April 2012, occurred at night in dark conditions, with street lighting, on a dry surface. The driver, a 23 year-old black female, proceeded straight ahead on a green signal at an estimated 45 mph (in a 35 mph zone). Her SUV had headlights on. There is no detail about the pedestrian, including age, sex, race, or even the injury. In the absence of data, this crash was categorized as a no injury crash. The pedestrian's condition was "inattentive" and the action was "crossing the road, not at the intersection." The crash's primary contributing factor was "pedestrian actions" and the secondary contributing factor was "movement prior to crash." Correspondingly, the driver's movement reason was recorded as "to avoid pedestrian."

Louisiana Ave and S. Saratoga St

Figure 9: Louisiana Ave. and S. Saratoga St.

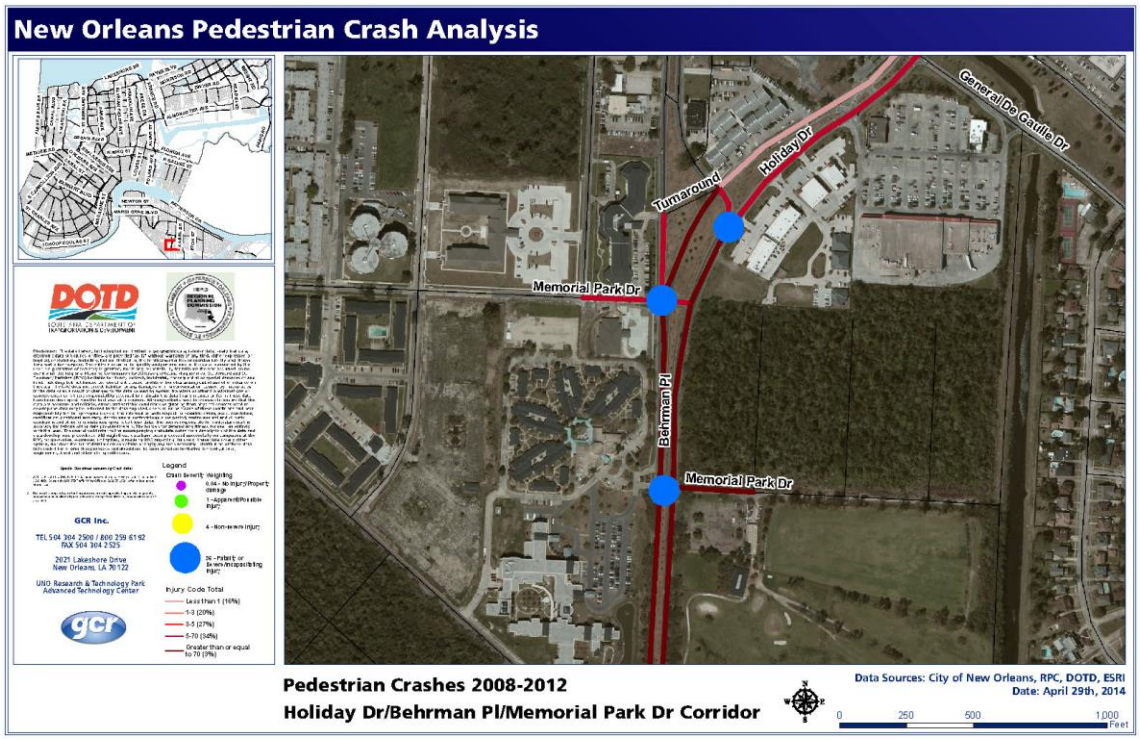


This intersection had one crash in 2009 that fatally injured one pedestrian and severely injured another. Like the MLK and Claiborne crash, it's unclear whether the crash involved one or two vehicles, as no information is provided about the driver(s) or vehicle(s).

The crash occurred at night on a Saturday, in the dark with street lighting, in dry conditions. The pedestrians crossed the road at the intersection, but their condition was unknown. The primary contributing factor was "violations" and no secondary contributing factor was listed. A 38 year-old male of "other" race (likely Hispanic or Asian) was killed, and a 50 year-old male of "other" race was severely injured.

Holiday Drive and Behrman Place (LA 428)

Figure 10: Holiday Dr and Behrman Pl (LA 428)



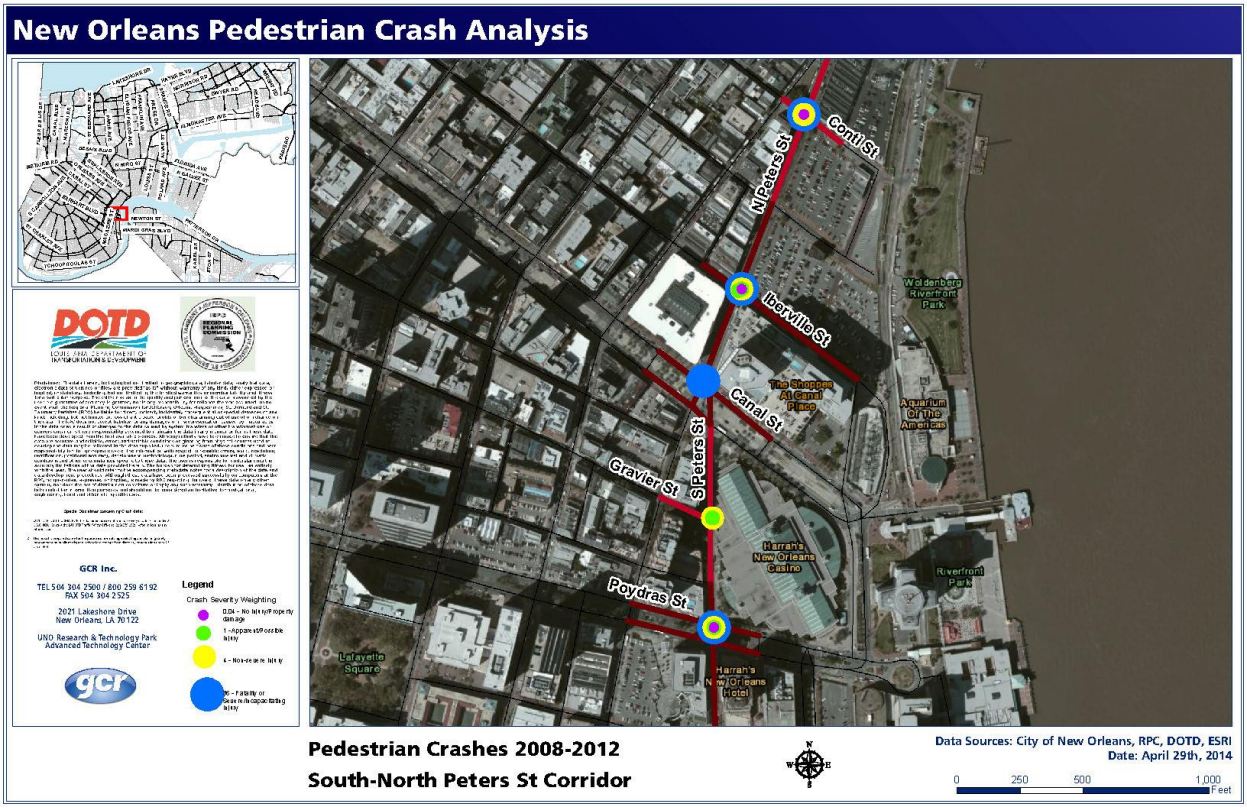
There were three KSI crashes at this clustered intersection on the Westbank, all in 2011.

One crash, in December, severely injured two pedestrians, a 67 year-old black male and a 50 year-old black female. Their actions at the time were unknown. The crash occurred in the dark (in streetlight), in dry conditions. As with other crashes, there may be more than one car involved, but the data are not clear. A 56 year-old black female proceeded straight ahead in a passenger car and crashed with the pedestrians; the driver's movement reason was listed as "to avoid pedestrian." The pedestrians' conditions were unknown. The primary contributing factor of this crash was "movement prior to crash" and the secondary factor was "violations."

The other two crashes were both fatal. One crash, at night in an unlit area, occurred when a 35 year-old black man who was impaired by alcohol drove a light truck and fatally struck a 59 year-old black man. The road surface was recorded as "bumpy" and the alignment was a "level curve." The primary contributing factor of this crash was "condition of driver" and the secondary contributing factor was "lighting." The other crash occurred in unspecified lighting conditions, and a 71 year-old white man was fatally struck in the median by a 50 year-old white man who ran off the road while under the influence of drugs. The primary contributing factor of this crash was "violations" and the secondary factor was "movement prior to crash." The pedestrian's actions and condition were unknown.

Peters Street and Canal, Iberville, Poydras Streets

Figure 11: Peters St and Canal, Iberville and Podyras Streets



These three intersections had 18 crashes between 2008 and 2012.

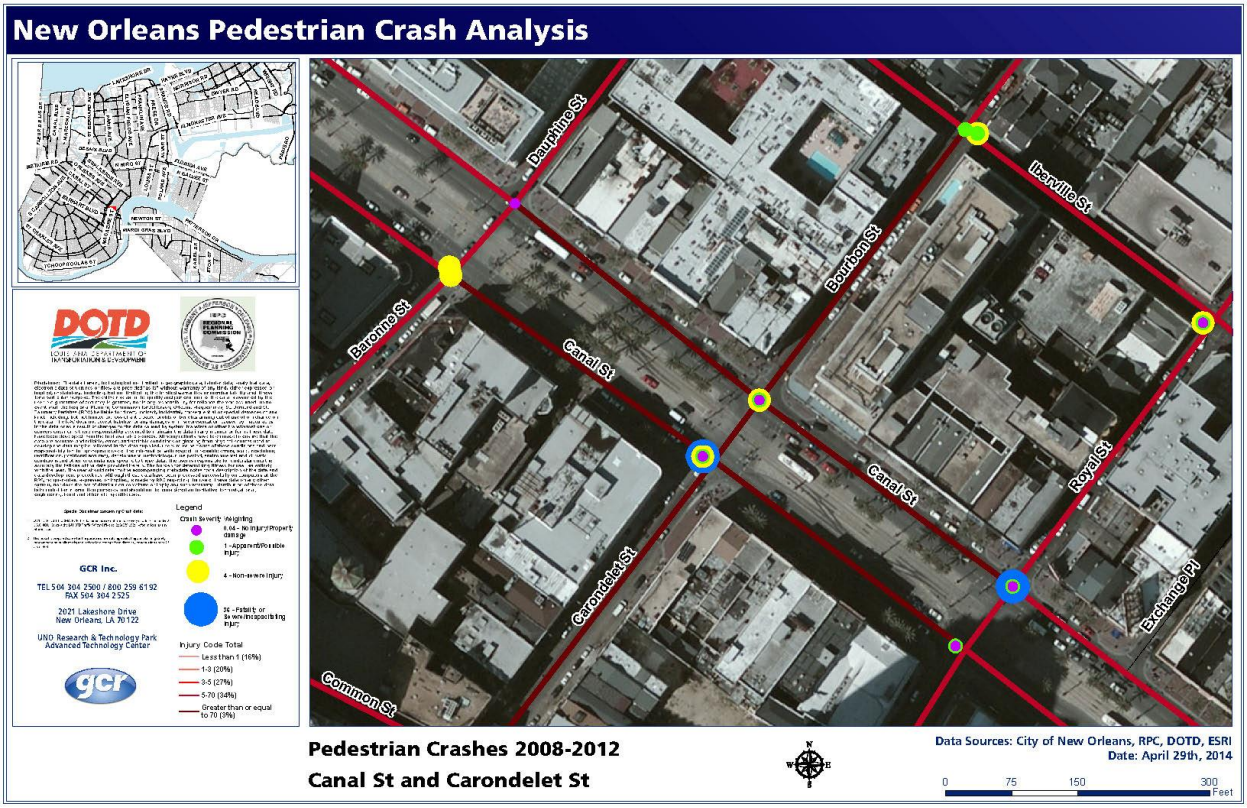
Three crashes involved two pedestrians. (A total of 21 pedestrians were injured in this corridor.) Six pedestrians were severely injured but none were killed. The pedestrians' conditions were mostly "normal" with one inattentive, two impaired by alcohol, and one "drug use – not impaired."

Overall, this crash site has a more even distribution between male and female than the full data set of crashes. However, the drivers with sex identified were almost all male, with only one female.

Of the drivers involved, 11 were making left turns or preparing to make a left turn. Others were making right turns, entering traffic from the shoulder, or proceeding straight ahead. Most of the left turn drivers were at a stop sign, not a traffic signal. Many of these drivers were also cited with failure to yield or careless operation. All but one crash took place in dry conditions. The lighting was either daylight or streetlight, not dark and unlit. The primary contributing factors were all either movement prior to crash (6), violations (8), or pedestrian actions (5).

Canal St and Bourbon/Carondelet Streets

Figure 12: Canal St and Bourbon and Canal Streets



This intersection also had 18 crashes between 2008 and 2012, three of which involved two pedestrians. Only two pedestrians were injured severely, and none were killed. The pedestrians' conditions were mostly "normal" with three impaired by alcohol and several unknown.

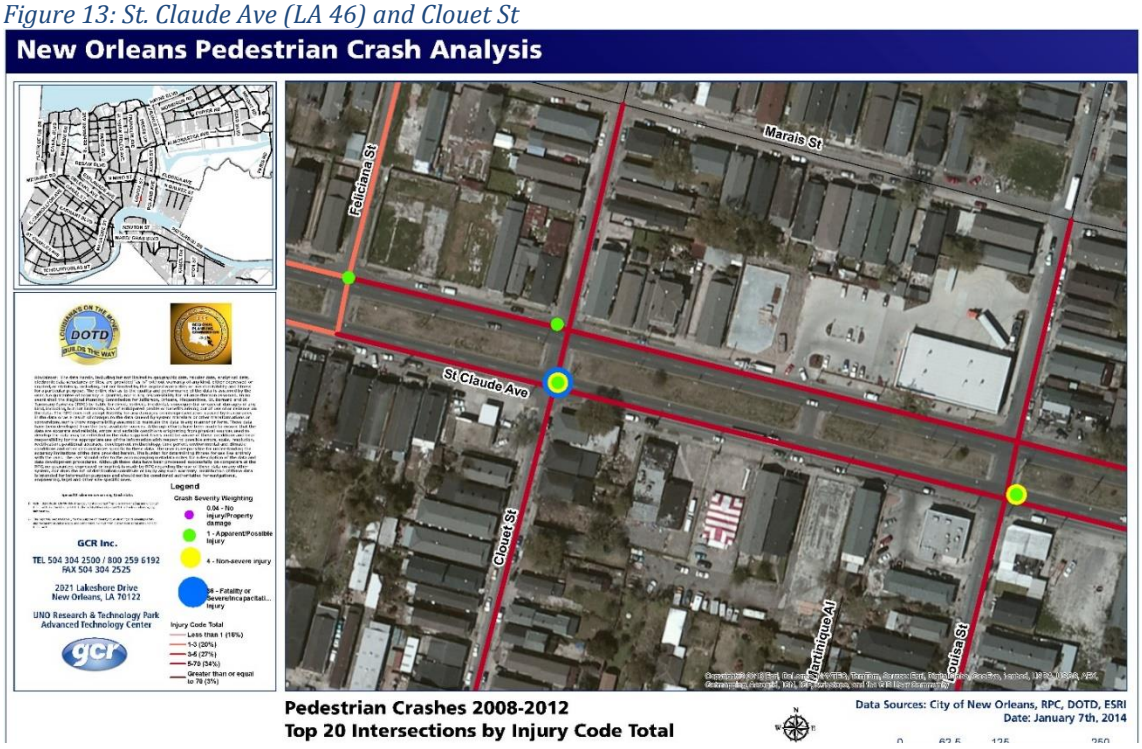
The severely injured pedestrians were a 59 year-old white man and a 50 year-old black woman.

Overall, this crash site has a similar distribution between male and female to the full set of crash data. Drivers were mostly male, but four were female.

Most drivers were proceeding straight ahead (18 of 21), and the only recorded violation was "following too closely." Traffic signals were either green or unknown. Vision was mostly unobstructed except one instance of "moving vehicles." The primary contributing factor for most crashes was "movement prior to crash" (10), with the rest a mixture of "pedestrian actions" (4), "violations" (3), and one each of "condition of pedestrian," "traffic control," and "vision obscurements."

St. Claude Ave (LA 46) and Clouet St

Figure 13: St. Claude Ave (LA 46) and Clouet St



There were four crashes at this intersection, three in 2009 and one in 2010.

The fatal crash occurred in March 2009, on a Saturday night in dark, dry conditions. A driver of unknown race, age, or sex proceeded straight in a passenger car. The pedestrian, a 33 year-old black male, was crossing the street not at the intersection. The pedestrian's condition was listed as "other" and was cited as the secondary contributing factor. The primary factor was "movement prior to crash."

The moderate injury crash occurred in July 2009 on a Monday night in dark, dry conditions with no street lighting. A van with an unknown driver proceeded straight. The pedestrian, a 47 year-old black male, was crossing the road at the intersection. Movement prior to crash was the primary contributing factor, and no secondary factor was cited.

Two possible injury crashes also occurred, one in May 2010 and one in June 2009. No driver information was provided for either crash. Each crash occurred in the afternoon in daylight in dry conditions. The primary contributing factor for both crashes was "violations." The pedestrian in the 2009 crash, a 55 year-old black male, had a "normal" condition and was not under the influence of alcohol or drugs, but did not have an action listed. That crash also had a secondary contributing factor of "kind of location," but it's not clear what that means. The pedestrian in the 2010 crash was an 18 year-old black male who was crossing at the intersection, and the secondary contributing factor was "movement prior to crash."

V. Pedestrian Crash Factors

Crash reports contain information regarding a number of factors, including victim and driver demographics, movements prior to the crash and condition. This section presents analyses of this data from all pedestrian crashes from 2008-2012 in Orleans Parish.[9]

Methodology Note

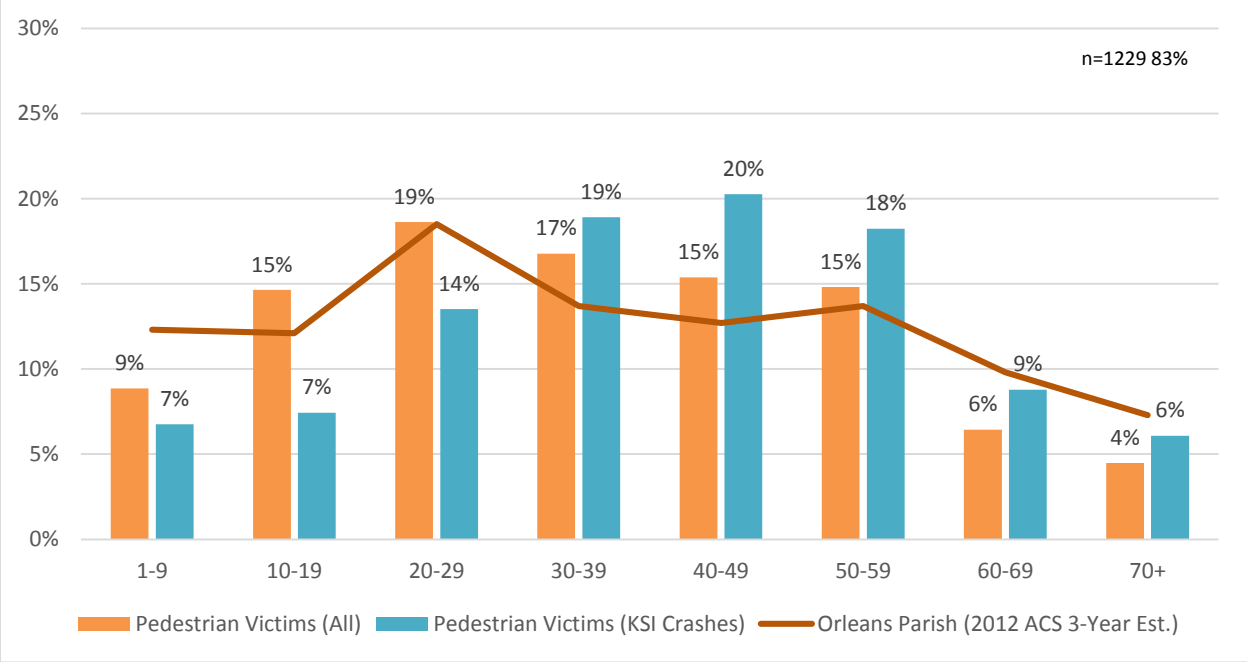
The crash data analyzed are incomplete in several ways. Many records contain Null, Other, Unknown, or Blank values (referred to as "NOUB" values). For most of the analyses that follow, NOUB values were filtered from the complete data set, resulting in varying total crash numbers. N values are noted on charts for clarity.

Victim Profile

Age

When the ages of each pedestrian were examined, an outsized number (over 200) were recorded as 0. While some infants may have been involved in pedestrian crashes, all 0 ages were filtered out for consistency, leaving 1,229 pedestrians, 148 of whom were injured in KSI crashes.

Figure 14: Age Comparison – Proportion of Victims, by Age



[9] This section compares the age, sex and race of pedestrian crash victims to the Orleans Parish demographics. However, the place of residence for drivers and pedestrians is not noted on the crash reports. Commuters and tourists could certainly be included in these figures.

This distribution of all pedestrian crash victim ages is fairly similar to the overall age distribution of population in Orleans Parish, with a few exceptions:

- Children and teenagers age 10-19 are slightly overrepresented (15% compared to 12%)
- People age 30 to 59 are overrepresented (47% compared to 40%).
- Individuals 60 and older are underrepresented in crash victims (10% compared to 17%)

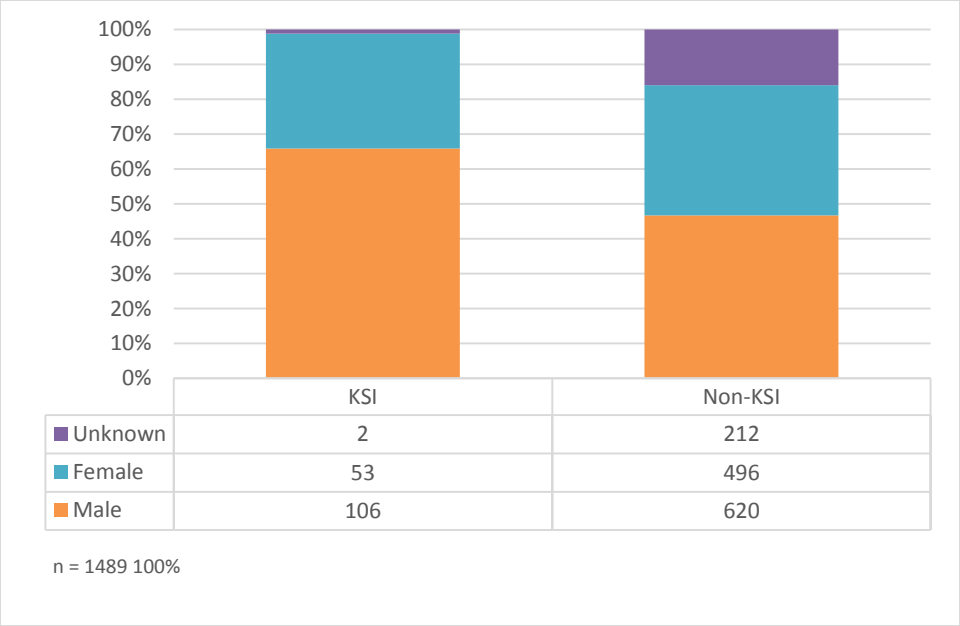
The age distribution of pedestrian KSI victims diverges from Orleans Parish's age distribution in several significant ways:

- Children and seniors make up a smaller portion of KSI crash victims.
- People age 30 to 59 are overrepresented (57% compared to 40%).

Sex

Overall, pedestrian crash victims were more likely to be male than female -- 57% of victims for all crashes were male and 43% were female. *KSI victims are even more likely to be male* – 66.7% of KSI crash victims were male, and 33.3% were female.[10]

Figure 15: Sex of Pedestrian Victims, KSI vs. Non-KSI

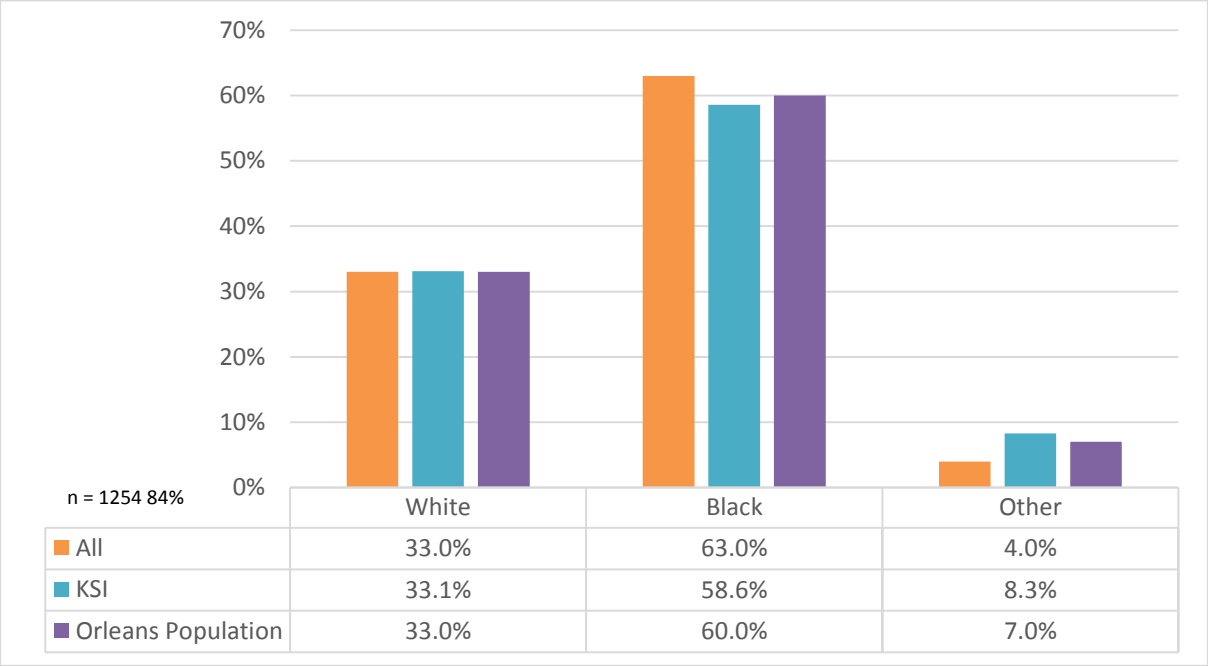


[10] This analysis excludes 214 crash victims, whose sex is not reported.

Race

The Louisiana Uniform Crash Report asks the officer to select one of four categories for drivers and pedestrians: B (Black), W (White), I (Indian) or O (Other). In 2012, Orleans Parish was approximately 33% white and 60% black.[11] Overall, the crash data demonstrates little evidence of a significant racial disparity in crash victims. [12]

Figure 16: Race of Crash Victims



[11] U.S. Bureau of the Census, Population Estimates Program (PEP). Updated annually. http://www.census.gov/popest/estimates.html.
[12] This analysis excludes 235 crash victims, whose race is not reported.

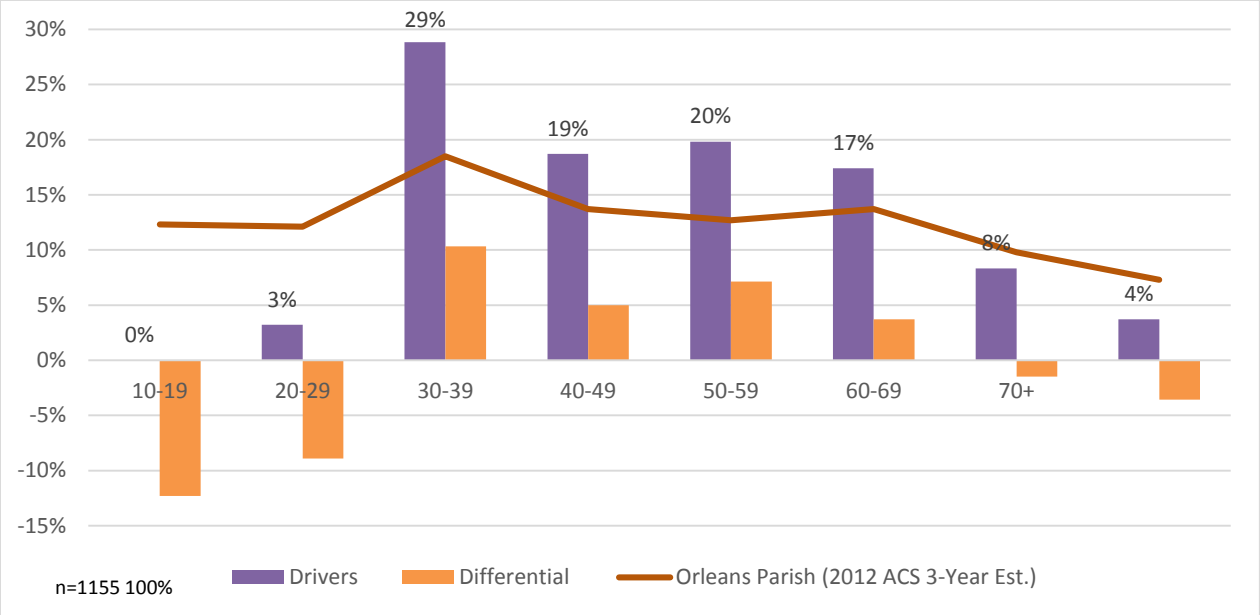
Driver Profile

Because of multi-vehicle crashes, the number of driver listings in the Uniform Crash Reports was 1,645, compared to 1,489 pedestrians. The driver data were analyzed separately from pedestrian data because of this disparity, and therefore driver data are not examined based on the severity of pedestrian injury.

Age

The age distribution of drivers differs from Orleans Parish as a whole, most discernibly because children under 16 cannot legally drive, and older adults drive less frequently as they age. As can be expected, drivers age 20 to 59 are therefore more highly represented than the Parish population. However, 28.8% of the drivers involved in pedestrian crashes were in their 20s, compared to just 18.5% of the city's population. This 10.3% differential is the highest among all age groups, as Figure 17 demonstrates.

Figure 17: Percent of Crashes, by Age of Driver, Compared to City Population



Sex

Like pedestrian victims, drivers are overwhelmingly male. 65% of drivers where sex was recorded (n=1,205) in this dataset were male, while 35% were female.

Race

The race of the driver is recorded in the same way as that of the pedestrian on the Louisiana Uniform Crash Report. 59% of drivers were black, 37% were white, and 5% were "other." White drivers are overrepresented here, since whites comprise only 33% of Orleans Parish residents.

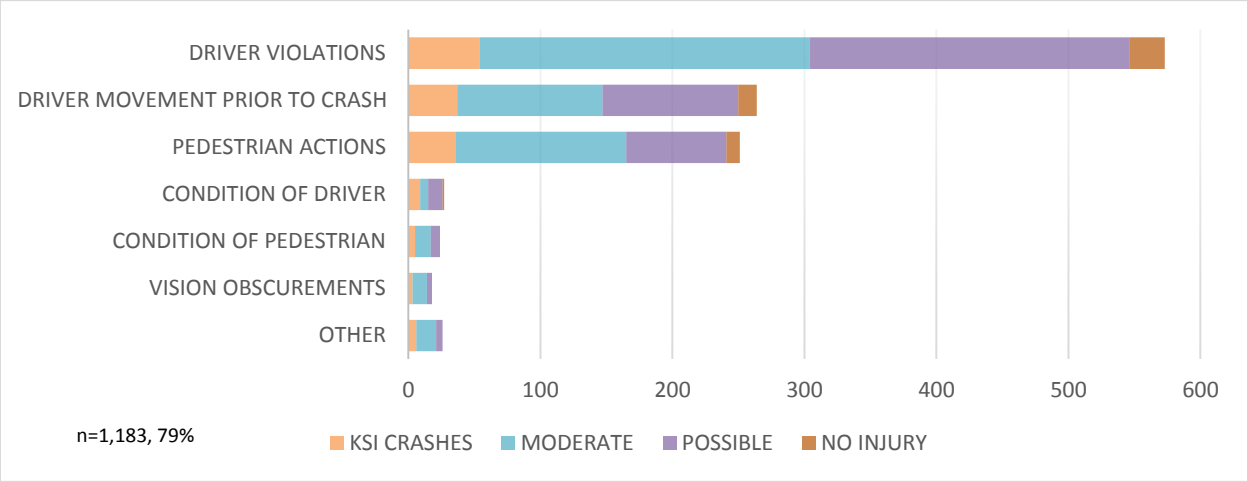
Pedestrian and Motorist Actions and Behavior

The Uniform Motor Vehicle Traffic Crash Report asks reporting officers to choose from a number of contributing factors related to pedestrian conditions and behavior, driver conditions and behavior, and environmental conditions. These include:

- Violations (driver)
- Movement prior to crash (driver)
- Vision obscurements
- Condition of driver
- Vehicle conditions
- Road surface
- Roadway condition
- Lighting
- Weather
- Traffic control
- Kind of location
- Condition of pedestrian
- Pedestrian action

In 1,183 (79%) of the crash reports, the reporting officer records one of the above as a "primary contributing factor**."** The most prominent primary contributing factor to all pedestrian crashes was **Violations** (driver) followed by **Movement prior to crash** (driver) and **Pedestrian actions**. These three factors comprised 92% of all reported crashes, and are also the top three contributing factors in KSI crashes. Figure 18 shows the number of crashes, by severity, for each of the primary contributing factors. "Other" includes Vehicle Conditions, Road Surface, Roadway Condition, Lighting, Weather, Traffic Control, and Kind of Location (land use).

Figure 18: Primary Contributing Factor, by Severity

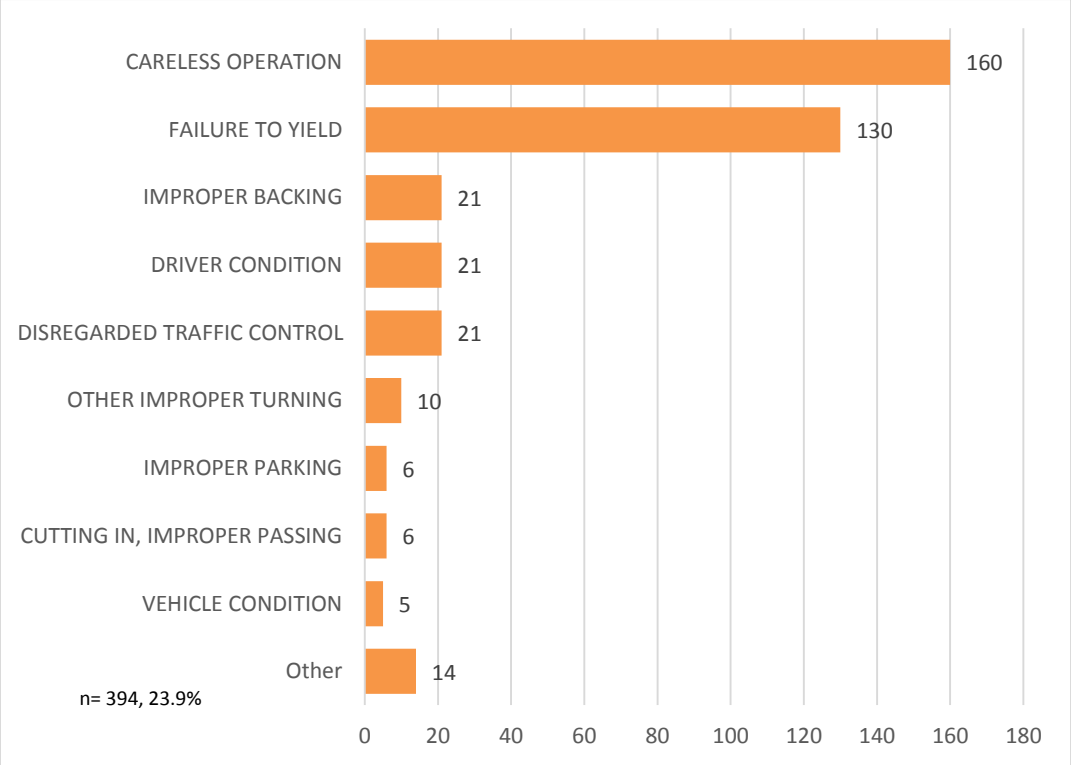


The following sections expand on each primary contributing factor.

Driver Violations

Officers cited driver violations as the primary contributing factor in nearly half (48.4%) of all crash reports that cite one. Of these, careless operation and failure to yield were the most frequent violations, as Figure 19 shows.

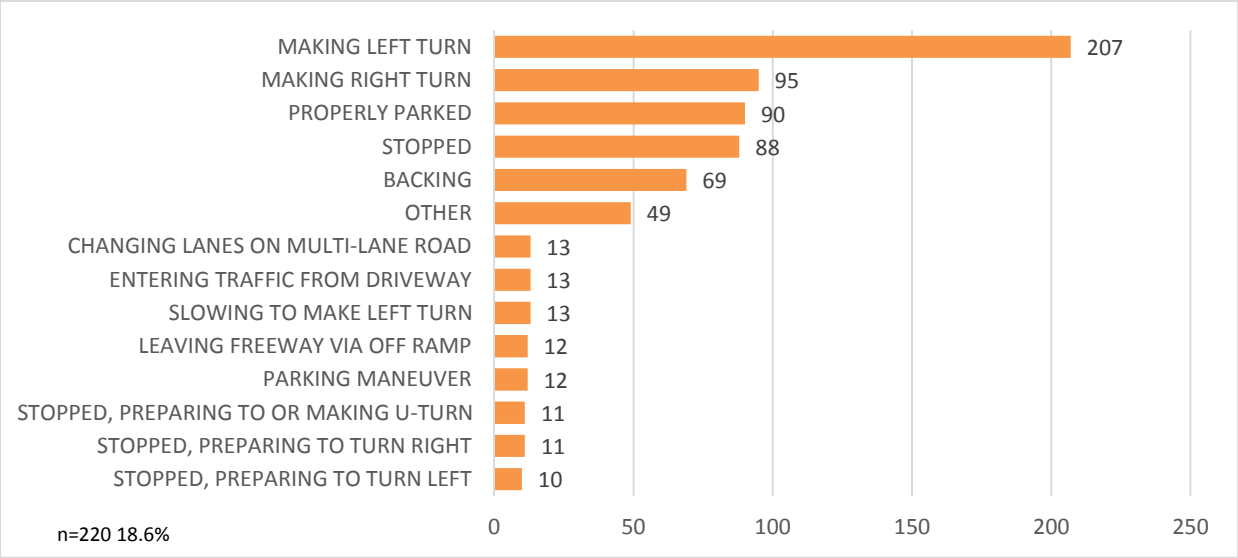
Figure 19: Driver Violations



Movement Prior to Crash

Prior to crashes, most drivers (52%) were "proceeding straight ahead" (not shown in Figure 20 for clarity) prior to the crash. The most common reasons after proceeding straight ahead were making left turns, making right turns, parking, and stopping.

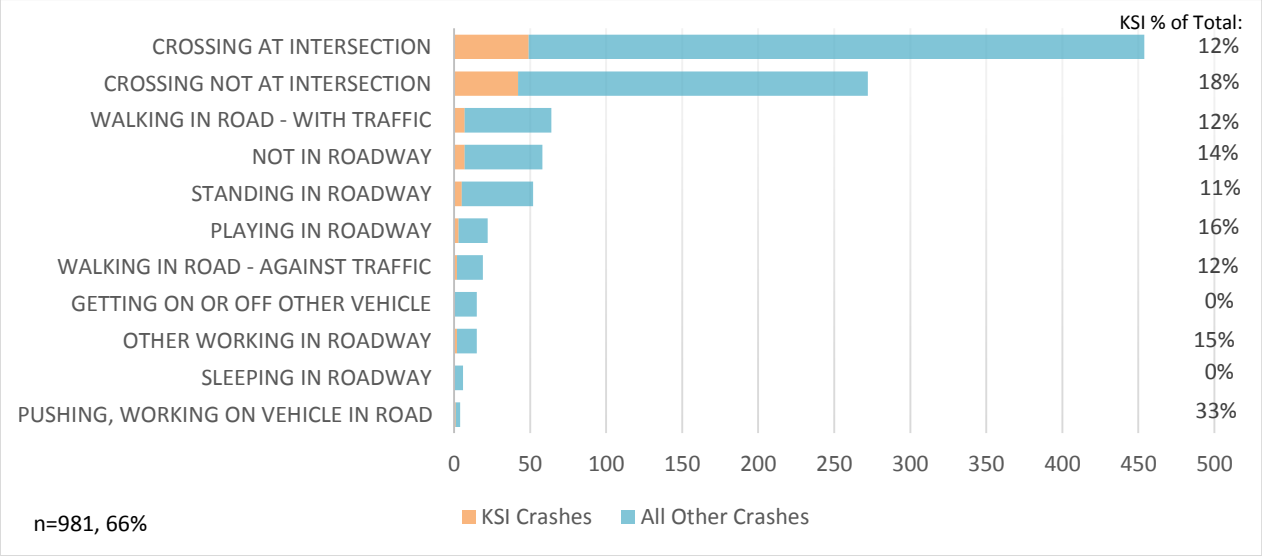
Figure 20: Driver Movement Prior to Crash



Pedestrian Actions

981 crash records indicated a pedestrian action prior to the crash. Of these, most occurred while the pedestrian was crossing a road, either at the intersection (46%) or midblock (28%). These actions were also the most common among KSI crashes. However, midblock crossing crashes were more likely to be KSI than intersection crossings (18% of all crashes, compared to 12%).

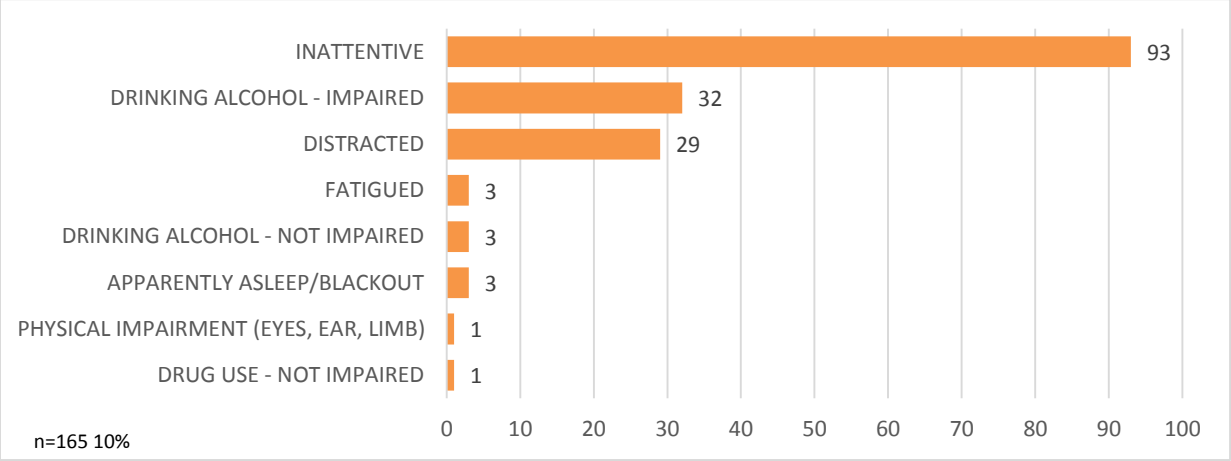
Figure 21: Pedestrian Actions Prior to Crash



Driver Condition

Drivers were mostly cited as having normal behavior. 56% of drivers were "normal" and another 34% were recorded as a NOUB value; these categories were excluded from Figure 12 for clarity. The most frequent condition cited as a possible factor was inattentive driving, but these comprised only 93 (5.6%) incidents. Driver alcohol impairment was cited in only 32 (1.9%) crashes.

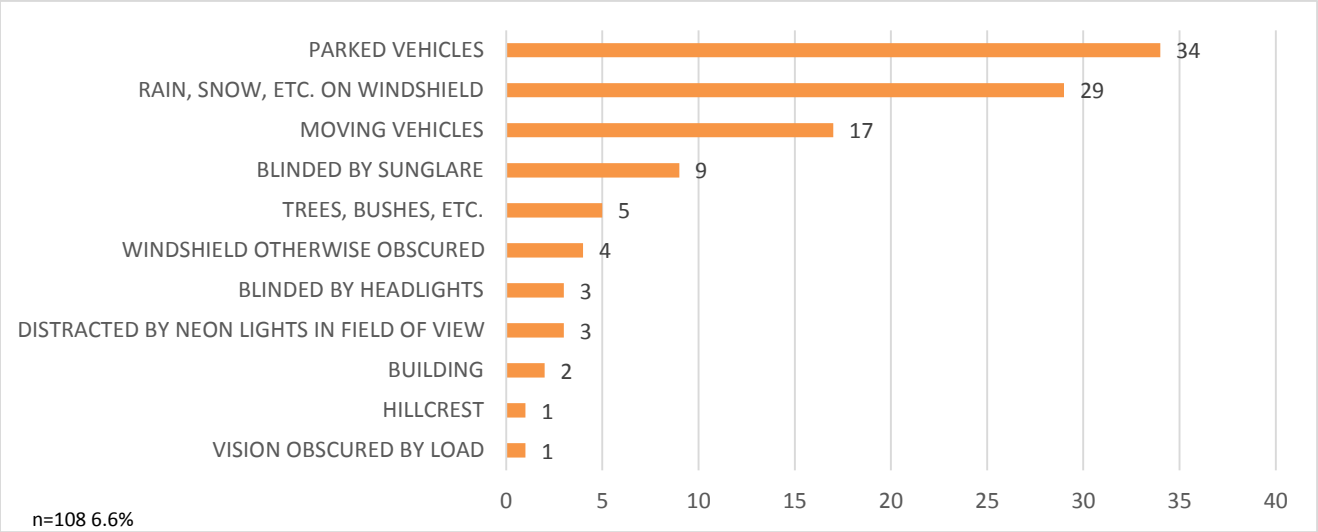
Figure 22: Driver Condition



Obstructions

A driver's "vision obscurement" was cited in 6% of crashes (57% had no obscurements and the rest were NOUB [Null, Other, Unknown, Blank] values) – these values were not shown in Figure 23, for clarity). Those 6% of crashes broke down as follows:

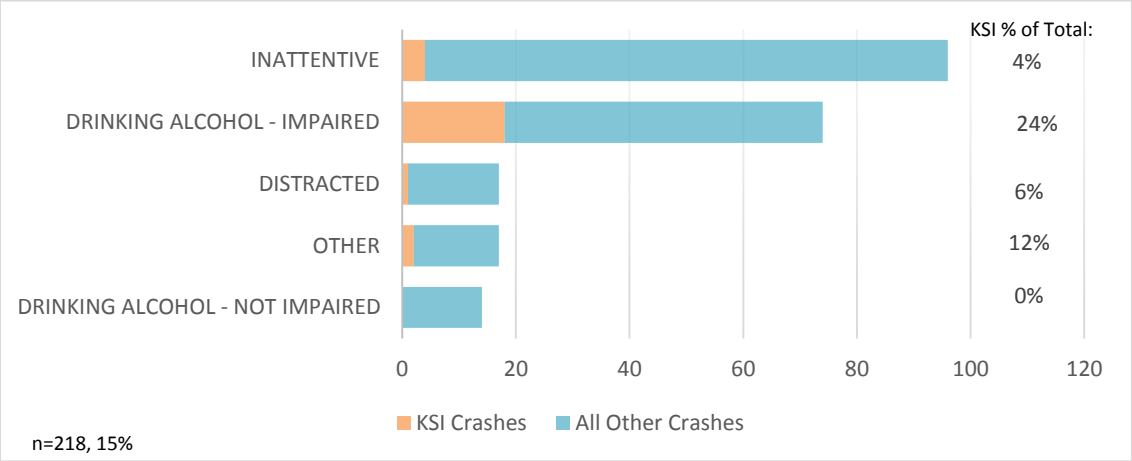
Figure 23: Driver Vision Obscurements



Pedestrian Condition

218 crash records indicated a pedestrian condition other than "normal." Of these, inattention was the most common factor, followed by alcohol impairment. Of all conditions, pedestrians impaired by alcohol were the mostly likely to suffer a KSI.

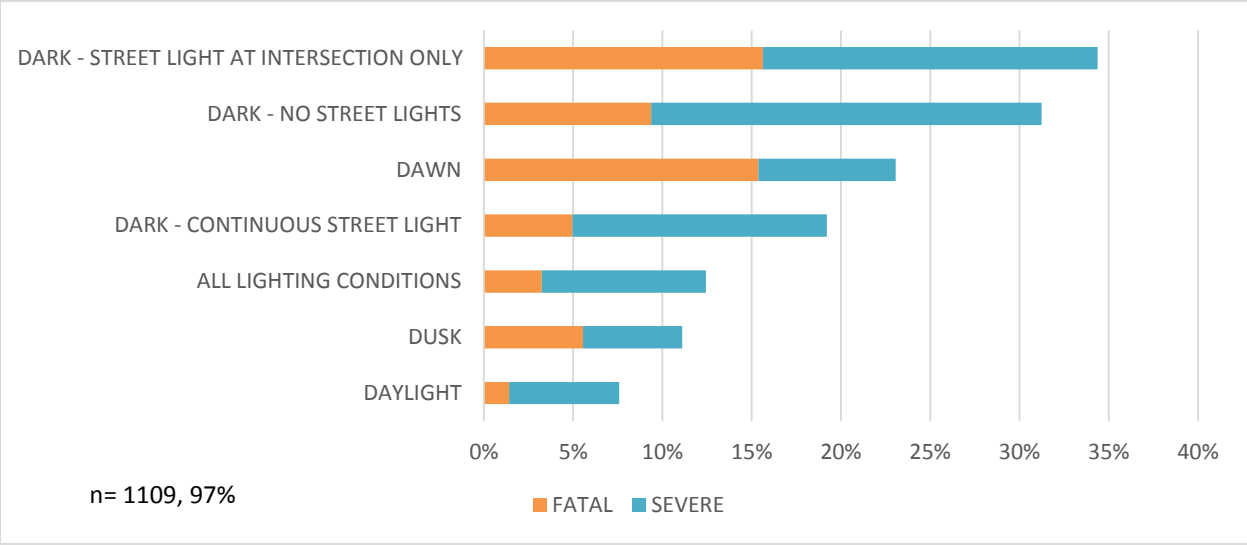
Figure 24: Pedestrian Condition



Lighting

Nearly all pedestrian crash records (97%) indicated lighting conditions at the time of the crash. Although most (64%) of all crashes occurred during daylight, daytime crashes were least likely to result in KSI crashes (8%). Figure 25 shows that KSI crashes were most likely to take place under dark conditions with no street lights, especially with few or no street lights.

Figure 25: Lighting Conditions, by Severity of Crash



The following key findings highlight the analysis of pedestrian crash factors:

- 40-59 year olds are 38% of KSI victims, but only 27% of Orleans population
- Victims are overwhelmingly male, especially in KSI crashes
- Drivers are overwhelmingly 20-29 years old and male
- Violations are the most frequent primary contributing factor
    - But Condition of Driver is most likely to result in KSI
- Crossing at intersections is the highest pedestrian action cause
    - But Crossing midblock is more likely to result in a KSI
- Turns are the most frequent driver movement cause – especially left turns
- Inattention is the most frequent pedestrian impairment
    - But a pedestrian drinking alcohol is most likely to result in a KSI
- Parked vehicles are the most frequent driver obstruction

VI. Recommendations of Engineering Countermeasures and Strategies for Pedestrian Safety

This section reviews nationally accepted pedestrian safety countermeasures and strategies endorsed by the American Association of State Highway and Transportation Officials (AASHTO), the Federal Highway Administration's Manual on Uniform Traffic Control Devices (MUTCD), and the National Association of City Transportation Officials (NACTO). Some treatments are inexpensive retrofits that can be quickly implemented, while others require greater study, coordination and funding. Peer-reviewed research has demonstrated the effectiveness of these countermeasures, and, where applicable, this Plan cites the Crash Reduction Factors (CRF) determined for each one.[13]

This section also provides guidance for selecting the appropriate countermeasures to address the key corridors and intersections highlighted in Chapter IV, with an emphasis on low-cost, easy-to-implement treatments, such as signal timing, signage, striping, and minor concrete work. This guidance supports a systemic approach to implementing safety improvements throughout the city. Where instructive, site plans and perspectives accompany the recommendations. It is important to note that while efforts were made to identify the most appropriate engineering treatments, the City of New Orleans may identify additional engineering solutions to supplement or replace these recommendations, should conditions – such as traffic volumes, land uses, transit stop placements, and newly available or approved technologies - change in the future.

In addition to specific engineering treatments, this section recommends additional analyses, studies and policies that will help reduce pedestrian crashes, injuries and fatalities in New Orleans.

Selected List of Countermeasures

The Pedestrian Safety Guide and Countermeasure Selection System (PEDSAFE), a program of the Federal Highway Administration, provides the following list of proven safety countermeasures.

Table 7 serves as a starting point to determine proposed interventions at unsafe intersections and corridors. Full descriptions of each treatment are available at: www.pedbikesafe.org/PEDSAFE/countermeasures.cfm.

[13] A CRF is a measurement of the expected impact of the treatment on the number of future crashes. The value indicates the percentage change in crashes following implementation of the treatment. For instance, a CRF of 22 indicates that crashes would be expected to decrease 22%. A higher CRF therefore indicates a more effective treatment.

Table 7: Pedestrian Safety Engineering Countermeasures

Countermeasure	Crash Reduction Factor (where applicable)	Cost (per unit, unless otherwise indicated)[14]
Along the Roadway		
Sidewalks, Walkways and Paved Shoulders	88[15]	$7 to $8 per SF, excluding curbs
Street Furniture/Walking Environment	--	Varies
At Crossing Locations		
Curb Ramps	--	$1,500 to $2,000 per ramp
Marked Crosswalks and Enhancements	18	$400 to $2,000 per crossing
Curb Extensions	--	$12,000 to $20,000
Crossing Islands	36[16]*	$3,500 to $40,000
Raised Pedestrian Crossings	30[17]	$2,000 to $20,000
Lighting and Illumination	78 (fatality) 42 (injury)[18]	Varies
Parking Restrictions (at crossing locations)	30[19]	$200 per sign
Automated Pedestrian Detection		Varies
Leading Pedestrian Interval	5	Varies
Advance Yield/Stop Lines	18	$1,000 to $2,000
Transit		
Transit Stop Improvements		Varies
Access to Transit		Varies
Bus Bulb Outs		$15,000 to $70,000 per bulb
Roadway Design		
Bicycle Lanes	36	$1,000 to $11,000 per mile
Lane Narrowing		$5,000 to $30,000 per mile

[14] All costs are estimates provided by PEDSAFE (FHWA)
[15] McMahon, P., Zegeer, C., Duncan, C., Knoblauch, R., Stewart, R., and Khattak, A., "An Analysis of Factors Contributing to 'Walking Along Roadway' Crashes: Research Study and Guidelines for Sidewalks and Walkways," FHWA-RD-01-101, (March 2002)
[16] Bahar, G., Parkhill, M., Hauer, E., Council, F., Persaud, B., Zegeer, C., Elvik, R., Smiley, A., and Scott, B. "Prepare Parts I and II of a Highway Safety Manual: Knowledge Base for Part II". Unpublished material from NCHRP Project 17-27, (May 2007)
[17] Ibid.
[18] Ibid.
[19] Gan, A., Shen, J., and Rodriguez, A., "Update of Florida Crash Reduction Factors and Countermeasures to improve the Development of District Safety Improvement Projects." Florida Department of Transportation, (2005)

Lane Reduction/Road Diet		$5,000 to $30,000 per mile
Driveway Improvements		Varies
Raised Medians	25[20]	$2,100 to $40,000 per median
One-way/Two-way Street Conversions	26[21]	Varies
Improved Right-Turn Slip-Lane Design		Varies
Intersection Design		
Roundabouts	27[22]	$25,000 to $500,000
Modified T-Intersections		$20,000 to $60,000
Intersection Median Barriers	86[23]	$15,000 to $20,000 per 100 feet
Curb Radius Reduction	39[24]	$15,000 to $40,000 per corner
Modify Skewed Intersections		Varies
Pedestrian Accommodations at Complex Interchanges		Varies
Traffic Calming		
Temporary Installations for Traffic Calming		Varies
Chokers		$2,000 to $25,000
Chicanes		$2,500 to $16,000
Mini-Circles		$5,000 to $15,000
Speed Humps		$1,500 to $5,500
Speed Tables		$2,000 to $20,000
Gateways		$10,000 to $65,000
Landscaping		Varies
Specific Paving Treatments		$50 to $190 per square yard
Serpentine Design		$60,000 to $90,000 per block
Traffic Management		
Diverters	11[25]	$5,000 to $85,000
Full Street Closure		$500 to $120,000
Partial Street Closure		$10,000 to $41,000
Left Turn Prohibitions	10[26]	Varies
Signals and Signs		
Traffic Signals		$35,000 to $150,000

[20] Ibid.
[21] Gan, et al, (2005)
[22] De Brabander, B. and Vereeck, L., "Safety Effects of Roundabouts in Flanders: Signal type, speed limits and vulnerable road users." AAP-1407, Elsevier Science, (2006)
[23] Hovey, P. W. and Chowdhury, M., "Development of Crash Reduction Factors." 14801(0), Ohio Department of Transport, (2005)
[24] Gan, et al, (2005)
[25] Ibid.
[26] Ibid.

Pedestrian Signals	25[27]	$1,000 to $2,000
Pedestrian Signal Timing	34[28]	$8,000 to $150,000
Traffic Signal Enhancements		Varies
Right-Turn-on-Red Restrictions	23[29]	$200 per sign
Advanced Stop Lines at Traffic Signals		$400
Left Turn Phasing	99[30] (left turns)	$8,000 to $150,000
Push Buttons and Signal Timing		$800 to $1200
Pedestrian Hybrid Beacon (PHB)		$20,000 to $130,000
Rectangular Rapid Flash Beacon (RRFB)		$4,500 to $50,000
Puffin Crossing		$80,000 to $150,000
Signing		$200 to $500
Other Measures		
School Zone Improvement	15-20[31]	Varies
Neighborhood Identity		Varies
Speed-Monitoring Trailers		$7,000 to $18,000
On-Street Parking Enhancements	30[32]	$2,000 to $20,000
Pedestrian Streets/Malls		Varies
Work Zones – Pedestrian Detours		Varies
Pedestrian Safety at Railroad Crossings		$50,000 to $300,000

Improvements at Emphasis Areas

The City of New Orleans should prioritize pedestrian safety improvements at the emphasis areas identified in Chapter IV, Crash Analysis - Locations. To inform the type of improvements, field surveys were conducted at selected locations, with the goal of examining high-KSI locations from the pedestrian vantage point and assessing how engineering solutions could improve pedestrian safety. As not every contributing factor can be known or quantified, walking the actual intersections

[27] Markowitz, F., Sciortino, S., Fleck, J. L., and Yee, B. M., "Pedestrian Countdown Signals: Experience with an Extensive Pilot Installation." Institute of Transportation Engineers Journal, Vol. January 2006, ITE, (1-1-2006) pp. 43–48. Updated by Memorandum, Olea, R., "Collision changes 2002–2004 and countdown signals," (February 7th, 2006)
[28] Institute of Transportation Engineers, "Toolbox of Countermeasures and Their Potential Effectiveness to Make Intersections Safer." Briefing Sheet 8, ITE, FHWA, (2004)
[29] Ibid.
[30] Applies to conversion of permissive or permissive/protected to protected only left-turn phasing. Harkey, D., Srinivasan, R., Baek, J., Council, F. M., Eccles, K., Lefler, N., Gross, F., Persaud, B., Lyon, C., Hauer, E., and Bonneson, J. A., "Crash Reduction Factors for Traffic Engineering and ITS Improvements," NCHRP Report No. 617, (2008)
[31] Gan, et al, (2005)
[32] Ibid.

allows for real-time assessment of conditions, behavior, vehicle and pedestrian volume and patterns, and other factors that potentially contribute to crashes.

This section presents findings from the field surveys, identifies safety challenges, and proposes various countermeasures that the City of New Orleans has successfully implemented in previous projects.

South Peters Street and Poydras Street

Existing Concerns

A1 – A2: Crosswalks
Narrow (4') cut-throughs in the Poydras Street neutral ground are insufficient for the volume of pedestrians that cross at these intersections, and do not meet the 5' minimum width ADA guideline.

S. Peters St and Poydras St (Matthew Rufo)

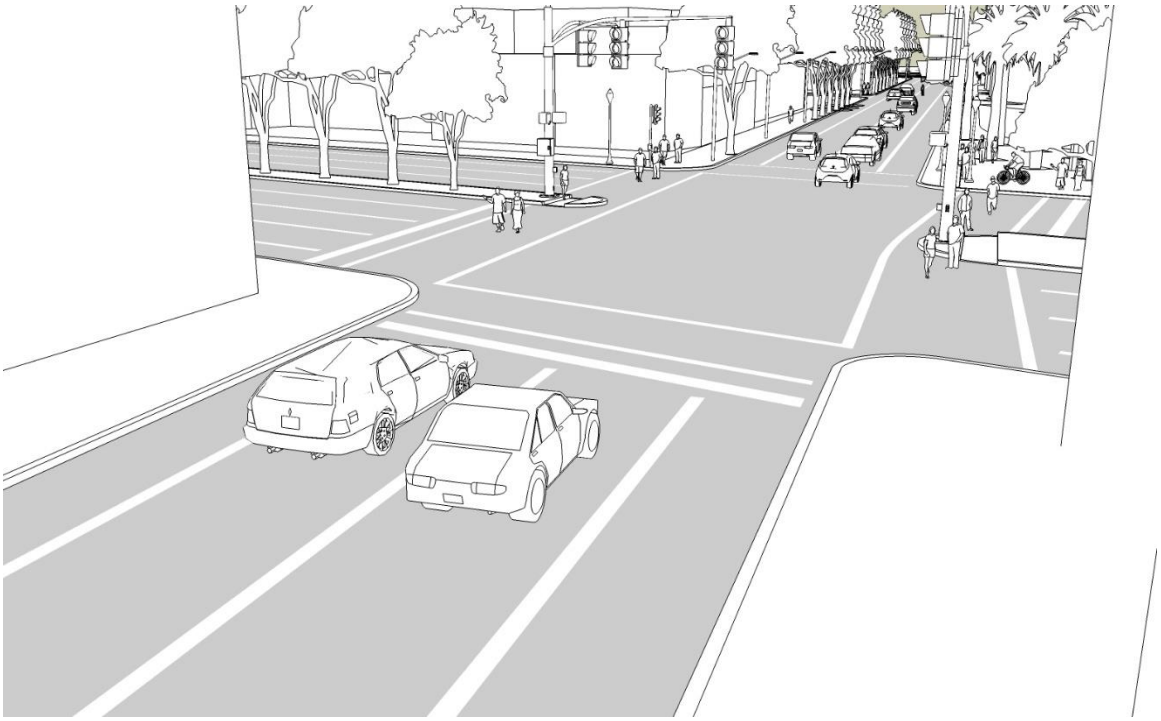
B: Left Turn (S. Peters to Poydras)
Pedestrians crossing the north (lakebound) lanes of Poydras are vulnerable to drivers turning left from S. Peters onto Poydras. The field audit team observed drivers making this left turn failing to yield to pedestrians crossing in the crosswalk.

C: Left Turn (Poydras to S. Peters)
The left turn from Poydras onto S. Peters is hazardous because drivers must focus on crossing three lanes of partially obscured, oncoming traffic. The field audit team observed several drivers making this turn and seemingly unaware of pedestrians crossing S. Peters towards Harrah's Casino.

D: Signals
The crossing of the riverbound side of Poydras along the eastern/river side of S. Peters, from north to south, lacks a traffic signal. There is no traffic signal that faces in this direction, as there are at other points in the intersection, so pedestrians must rely on visuals – e.g. oncoming cars – and may not be protected while crossing. Additionally, the intersection lacks dedicated pedestrian countdown signals.

E: Crosswalks
Crosswalk markings at this intersection are faded and in need of replacement.

Figure 26: South Peters St. and Poydras St., Existing (3D)



Source: Dana Brown & Associates

Proposed Countermeasures[33]

Marked Crosswalks and Signal Enhancements

High visibility crosswalks should be applied throughout the intersection, and countdown pedestrian signals should serve each crossing. Crosswalks should be staggered to increase the lifespan and reduce maintenance costs.

Curb Extensions

The neutral ground "bullet noses" should be extended to permit widening of neutral ground cut-throughs. This would also narrow turning radii for the described left turn, thus reducing the speed of turning traffic. Curb extensions may also be constructed to shorten crossing distances.

Pedestrian Signal Timing

Once countdown pedestrian signals are installed, they should be adjusted to give pedestrians crossing Poydras a Lead Pedestrian Interval walk phase, prior to the vehicle left turns.

[33] Since the drafting of this document, the City of New Orleans has repaved and replaced markings, extended "bullet noses" and made ADA improvements at this intersection.

Left Turn Phasing on Poydras
Left turns from Poydras to S. Peters should have a protected left turn phase (green arrow), and should not be permitted on a regular green light (solid green for through traffic, solid red for left turns).

ADA Compliance
Improvements to accessibility at each corner and in the neutral ground are needed; in particular, ramps, widths, slope, and surface, including detectable warnings should be improved.

Figure 27: South Peters St. and Poydras St., Proposed (3D)

Source: Dana Brown & Associates

S. Carrollton Avenue and Tulane Avenue (US 61)

Existing Concerns

North corner of S. Carrollton Ave. and Tulane Ave. (Google Streetview 2014)

A1 – A2: Right Turn Conflicts
Rights turns from Tulane Ave. onto S. Carrollton Ave. southbound, and turns from S. Carrollton Ave. to Tulane Ave. eastbound leave pedestrians vulnerable to vehicles yielding to oncoming vehicles.

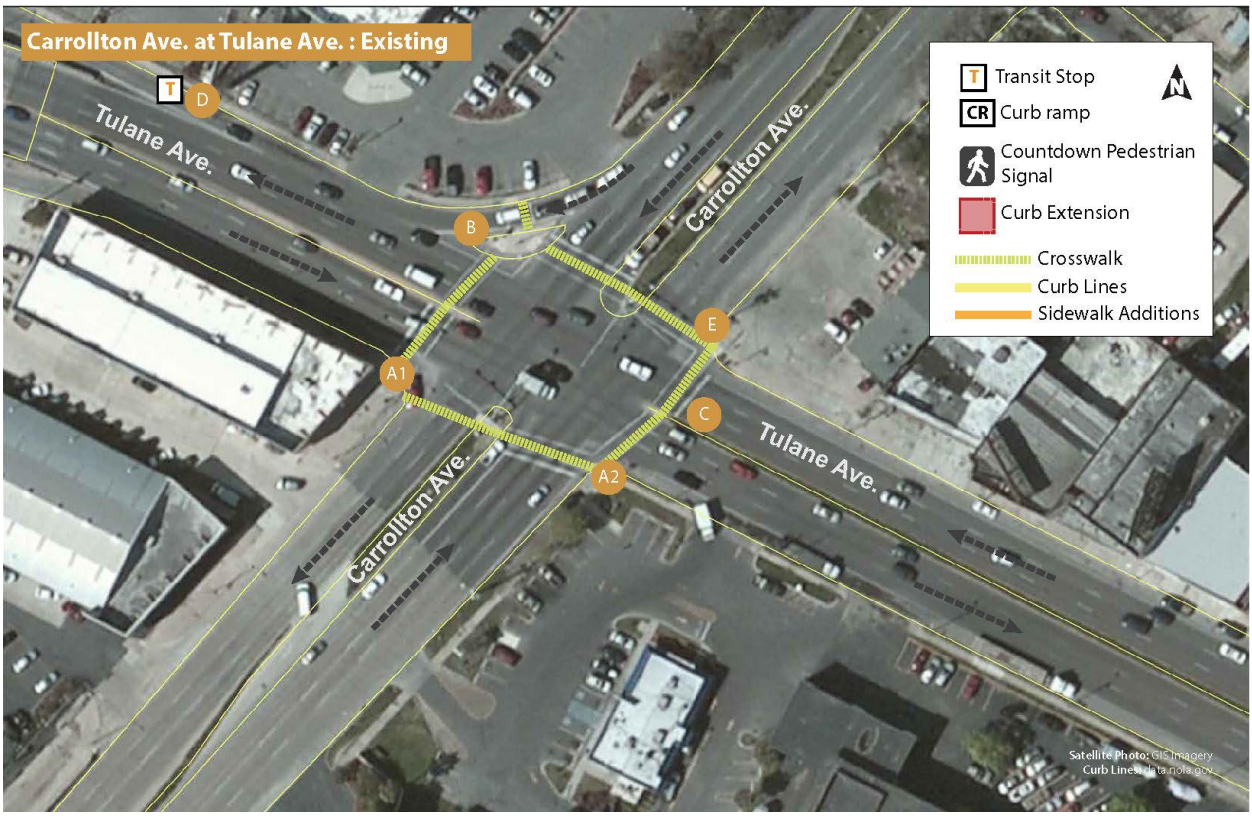
B: Right Turn Radius
The intersection angle allows for high-speed right turns from S. Carrollton onto Tulane, especially as they bypass other vehicles stopped at the light. The right turn slip lane on the northern side of this intersection is sufficiently marked with a pedestrian signal. A dedicated traffic light in this turn lane limits movement from vehicles unless on green, providing adequate safety for pedestrians crossing the narrow walkway onto the pedestrian island.

C: Sidewalk Width
Narrow cut-through sidewalks in the Tulane neutral ground are not sufficient for the volume of people crossing this intersection. The cut-through sizes along Carrollton are sufficient in size.

D: Transit Stops
The far-side transit stop on Tulane Avenue serves both RTA and JeT buses. The location of this transit stop does not allow adequate space for the volume of pedestrians waiting for the buses. The location of the stop also forces buses to cross two lanes of traffic to merge from the stop back onto Tulane Ave as it becomes Airline Drive, including an exit-only lane leading to Interstate 10.

E: Crosswalks
Crosswalk markings at this intersection are faded and in need of replacement.

Figure 28: S. Carrollton Ave and Tulane Ave (US 61), Existing



Proposed Countermeasures

Marked Crosswalks and Signal Enhancements

High visibility crosswalks should be applied throughout the intersection, and countdown pedestrian signals should serve each crossing. Crosswalks should be staggered to increase the lifespan and reduce maintenance costs.

Curb Extensions

The neutral ground "bullet noses" should be extended to permit widening of neutral ground cut-throughs. This would also narrow turning radii for the vehicle turns, slowing those turns down. A bulb-out on Tulane Ave would create a shorter crossing distance for pedestrians and a tighter turning radius for vehicles, resulting in slower turns. This bulb-out will make pedestrians more visible to turning vehicles.

Transit Stop Relocation

Review the feasibility of relocating transit stops to the far side of the intersections based on the operations of RTA and Jefferson Transit.

ADA Compliance
All curbs, sidewalks, and transit stops should be upgraded to comply with ADA, paying close attention to curb ramps, widths, surfaces (including detectable warnings), and slope.

Limit Left Turn Phasing
Permissive left turns pose a threat to pedestrians at this intersection. By limiting left turns to protected turns only, pedestrians will be able to cross the intersection more safely and conflicts with turning vehicles will be reduced.

Lane Reallocation (Road Diet)
A recent lane reallocation project on Broad Street has shown the potential for reducing six lane roads to four lane roads. S. Carrollton Avenue should be studied for a similar lane reduction project. Tulane Avenue is scheduled for improvements in striping, configuration, and other streetscape elements that should similarly reallocate road space and increase pedestrian safety.

S. Carrollton Avenue and Ulloa Street

West corner of S. Carrollton Ave. and Ulloa St. (Google Streetview 2014)

Existing Concerns

A: Turning Conflicts

Vehicles consistently bunch up in the intersection waiting to turn. Drivers are often confused, as the riverside of the intersection is one way going west towards S. Carrollton, while the lakeside of Ulloa Street is two-way. Drivers focused on turning through bunched vehicles are less likely to pay attention to pedestrians crossing the street.

B: ADA Improvements

While the Carrollton Avenue neutral ground cut-throughs are wide enough to allow pedestrians to flow through the intersection, they are not ADA compliant and need ramps as well as slope adjustments. All corners should be brought into compliance as well.

C: Crosswalks

Crosswalk markings at this intersection are faded and in need of replacement.

Figure 29: S. Carrollton Ave and Ulloa St., Existing

Proposed Countermeasures

Signal Phasing

The signal phase timing for Ulloa Street traffic is thirty seconds. By changing the signal phasing to allow one side to proceed for fifteen to twenty seconds at a time, then the other side, the vehicle bunching in the intersection would be reduced.

Restriping, Marked Crosswalks, and Signal Enhancements

High visibility crosswalks should be applied throughout the intersection, and countdown pedestrian signals should serve each crossing.

Curb Extensions ("Bulb-Outs")

Installing curb extensions along S. Carrollton Ave. would make pedestrians more visible to motorists and reduce crossing distance throughout the intersection.

ADA Compliance

All curbs, sidewalks, and transit stops should be upgraded to comply with ADA, paying close attention to curb ramps, widths, surfaces (including detectable warnings), and slope.

Signage
Regulatory signs, including YIELD, Pedestrians Ahead, and others should be considered for high volume intersections such as this one. The high volume of traffic from the three vehicular lanes in each direction, combined with the broad expanse of each street and its proximity to the interstate, obscure pedestrian activity in the area.

Lane Reallocation (Road Diet)
A recent lane reallocation project on Broad Street has shown the potential for reducing six lane roads to four lane roads. S. Carrollton Avenue should be studied for a similar lane reduction project.

Read Boulevard and Interstate 10/I-10 Service Roads

North and east corners of Read Blvd. and I-10 Service Road, north side of I-10 (Google Streetview 2014)

Existing Concerns – North Side

A1-A2: Turning Conflicts

Large radii allow for vehicles to make turns at fast speeds on curvilinear approaches. Pedestrians have a long distance to cross and are not visible to approaching vehicles.

B Signals

The lack of pedestrian signals at these intersections forces pedestrians to rely on visual cues when crossing; i.e., they cross when they do not see any oncoming vehicles. As the vehicles at these intersections are typically entering and exiting I-10 or the service road, they are traveling at high speeds and pose significant danger for pedestrians.

C: Crosswalks and ADA Improvements

Crosswalk markings at this intersection are faded and in need of replacement. Sidewalks are narrow and ADA compliant curb ramps are not always present.

D1-D2: Left Turn Conflicts and Crossing Time

Left-turning motorists from either direction of Read Blvd. have permissive green signals. Drivers making left turns are not looking out for pedestrians crossing at the Service Road intersections. Additionally, the length of the green signal to cross Read at the service road is less than ten seconds – only enough time for a fast walker to make it halfway through the intersection.

Figure 30: Read Blvd. and I-10, North Side, Existing

Existing Concerns - South Side

A1-A2: Turning Conflicts

Large radii allow for vehicles to make turns at fast speeds on curvilinear approaches. Pedestrians have a long distance to cross and are not visible to approaching vehicles.

B: Signals

The lack of pedestrian signals at this intersection forces pedestrians to rely on visual cues when crossing; i.e., they cross when they do not see any oncoming vehicles. As the vehicles at this intersection are typically entering and exiting I-10 or the service road, they are traveling at high speeds and pose significant danger for pedestrians.

C: Crosswalks and ADA Improvements

Crosswalk markings at this intersection are faded and in need of replacement. Sidewalks are narrow and ADA compliant curb ramps are not always present.

D1-D2: Left Turn Conflicts and Crossing Time

Left-turning motorists from either direction of Read Blvd. have permissive green signals. Drivers making left turns are not looking out for pedestrians crossing at the Service Road intersections. Additionally, the length of the green signal to cross Read at the service road is less than ten seconds – only enough time for a fast walker to make it halfway through the intersection.

Figure 31: Read Blvd. and I-10, South Side, Existing

Proposed Countermeasures

These solutions also apply to both the North Side and South Side of the Interstate.

Refuge Islands

Create refuge islands in large areas of pavement, as seen on the diagram. These islands will reduce the turning radii and thus reduce vehicle speed. Pedestrians will be more visible to drivers and will be better protected from speeding vehicles. These refuge islands are marked in red on the diagram; currently these areas are part of the asphalt road surface.

Pedestrian Signals

Countdown pedestrian signals should be added to all intersections so that pedestrians do not have to rely on traffic flow to know when to cross. Push-button signals that lengthen the crossing time across Read should be added at the service road intersections to adjust crossing time when necessary. Passive detection systems that extend the signal time should also be used to aid pedestrians in crossing the width of Read Blvd.

Curb Extensions

The neutral ground "bullet noses" should be extended to permit widening of neutral ground cut-throughs. This would also narrow turning radii for the vehicle turns, slowing those turns down. Curb extensions in other areas can be used for beautification and stormwater management.

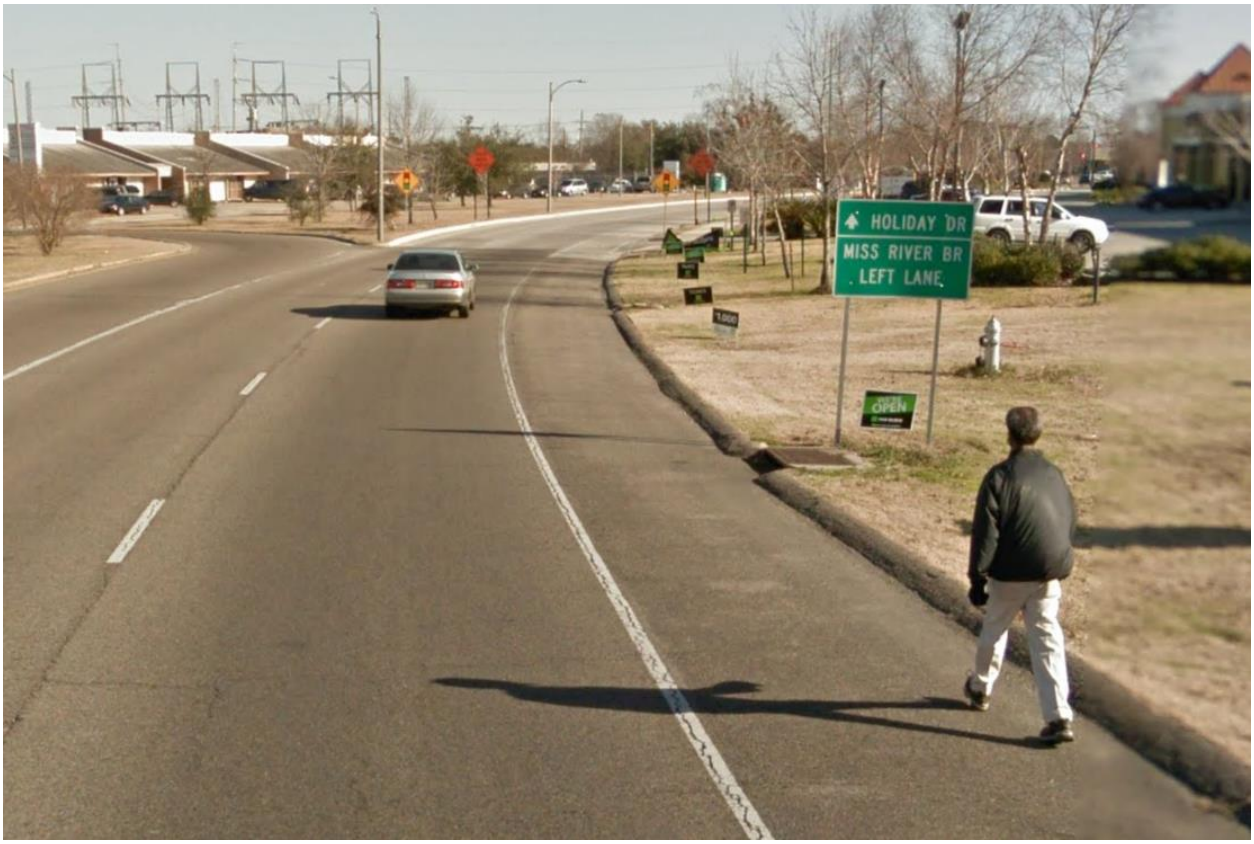
Marked Crosswalks
High visibility crosswalks should be applied throughout the intersection.

Lighting
The field audit took place during the day and nighttime lighting conditions were not assessed. However, Read Boulevard's width and the underpass under I-10 could be made brighter and more visible with additional lighting.

Street Trees
The intersections near the interstate are not a pleasant walking environment, and pedestrians are vulnerable to drivers. Planting trees between the sidewalk and the street would shield pedestrians from drivers and make the walking environment more pleasant.

Lane Reallocation or Bus Only Lanes
A recent lane reduction project on Broad Street has shown the potential for reducing six lane roads to four lane roads. Read Boulevard is a six lane road and carries less traffic than Broad Street, and could potentially be reallocated in a way that would grant more roadway space to buses or pedestrians.

Holiday Drive and Behrman Place (LA 428)



Holiday Dr., northbound, at Behrman Pl. (Google Streetview 2014)

Existing Concerns

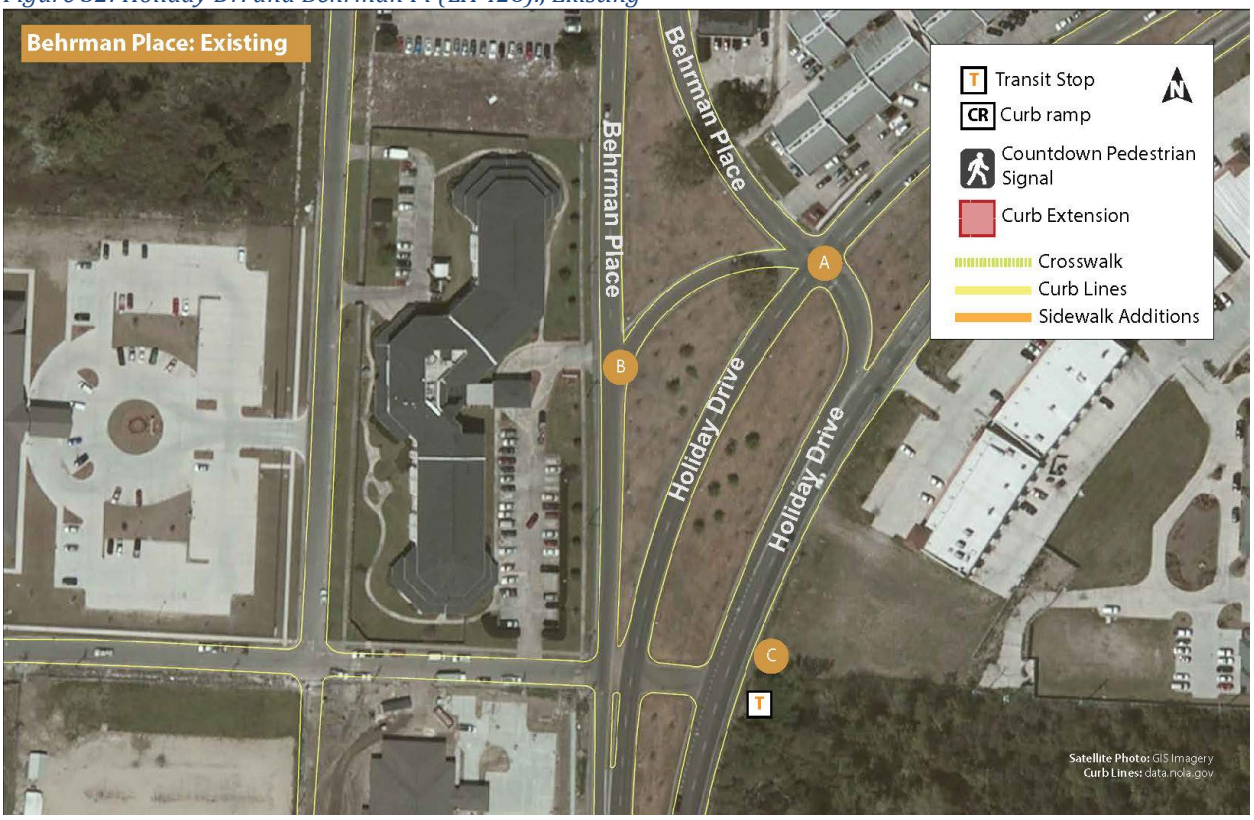
A – Vehicles turning left onto Behrman Place from Holiday Drive are required to stop at a stop sign. Frequently, vehicles merely yield because they are traveling at a high rate of speed on Holiday Drive coming into this turn.

B – The Behrman Place access curve creates a problem with vehicles merging onto Behrman Place. Vehicles are unaware of pedestrians attempting to cross the road in this area. Pedestrians tend to cross here because of the desire line from retail development to apartments. There are no designated crosswalks.

C – A transit stop is located in this area. There are no crosswalks or sidewalks leading to the transit stop, which makes crossing travel lanes dangerous for pedestrians.

The speed limit in the area is 45 MPH which causes a greater risk to pedestrians trying to cross the roads.
There are no designated crosswalks for pedestrians at any intersection.

Figure 32: Holiday Dr. and Behrman Pl (LA 428)., Existing



Proposed Countermeasures

Lane Reallocations

Relocate the Behrman Place access curve to a more northern location on Behrman Place. This will allow for the closure of the existing access curve to be used for pedestrians. Creating a merge lane will take Behrman Place from two lanes to one lane ahead of the merge, reducing southbound traffic speeds.

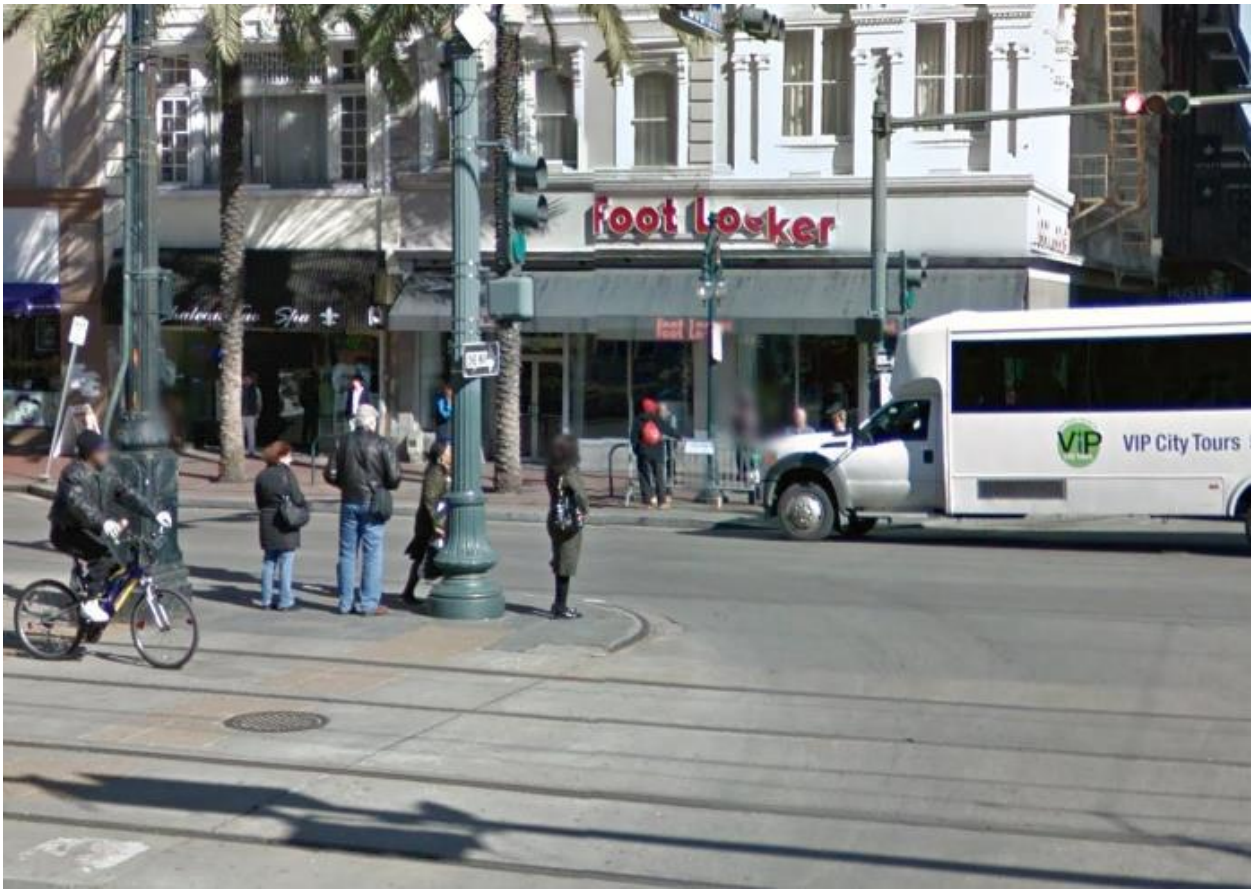
Create high-profile pedestrian crossing

Close off the U-turn south of Memorial Park Drive to vehicles, allowing a safe crossing for pedestrians. This pedestrian crossing should use a highly detectable crossing system, such as a HAWK or a rapid flashing beacon. Narrowing traffic lanes and narrowing the turning radius will slow down traffic merging onto Behrman Place. Overall, reducing unnecessary roadways in this area enables more convenient pedestrian access and creates green space that may be used to better manage stormwater.

Curb Extensions and Sidewalks

Extend the curb for the left turn onto Behrman Place from Holiday Drive. This will narrow the roadway from two lanes to one lane, slowing traffic and tightening the radii of the curve resulting in slower turns. Add sidewalks and crosswalks that guide pedestrians to the existing transit stop.

Canal Street and Bourbon Street/Carondelet Street



North corner of Canal St. at Bourbon St.. (Google Streetview 2014)

Existing Concerns

A - Crosswalks are poorly marked at most intersections.

B - Pedestrian holding areas in the neutral ground create awkward situations between pedestrians and the street car line.

Bourbon Street has the heaviest pedestrian traffic along Canal Street. A case could be made for closing down Bourbon Street to any vehicular traffic, expect for deliveries (8am to 3pm) and emergency vehicles.

There is no turn lane designation on Carondelet Street causing confusion among vehicles, which creates potential conflict with pedestrians crossing Canal Street.

Signage for no turns on red and yield to pedestrians are usually located in areas that are not highly visible to vehicles.

Figure 33: Canal St and Bourbon St./Carondelet St., Existing

Proposed Countermeasures:

Street closure

Blocking off Bourbon Street to all vehicles except for deliveries and emergency vehicles would mostly eliminate all pedestrians/vehicular conflicts.

Pavement markings and crossing treatments

Designating turning lanes on Carondelet Street could reduce confusion for pedestrians and drivers at the intersection of Canal Street. All crosswalks should be replaced with high-visibility crosswalks. Transitions between pedestrian areas and street car lines should be designated by a truncated dome made of similar existing sidewalk granite/brick materials. Planters or other structure, as shown in Figure 34Figure 34, may be used to discourage pedestrians crossing midblock.

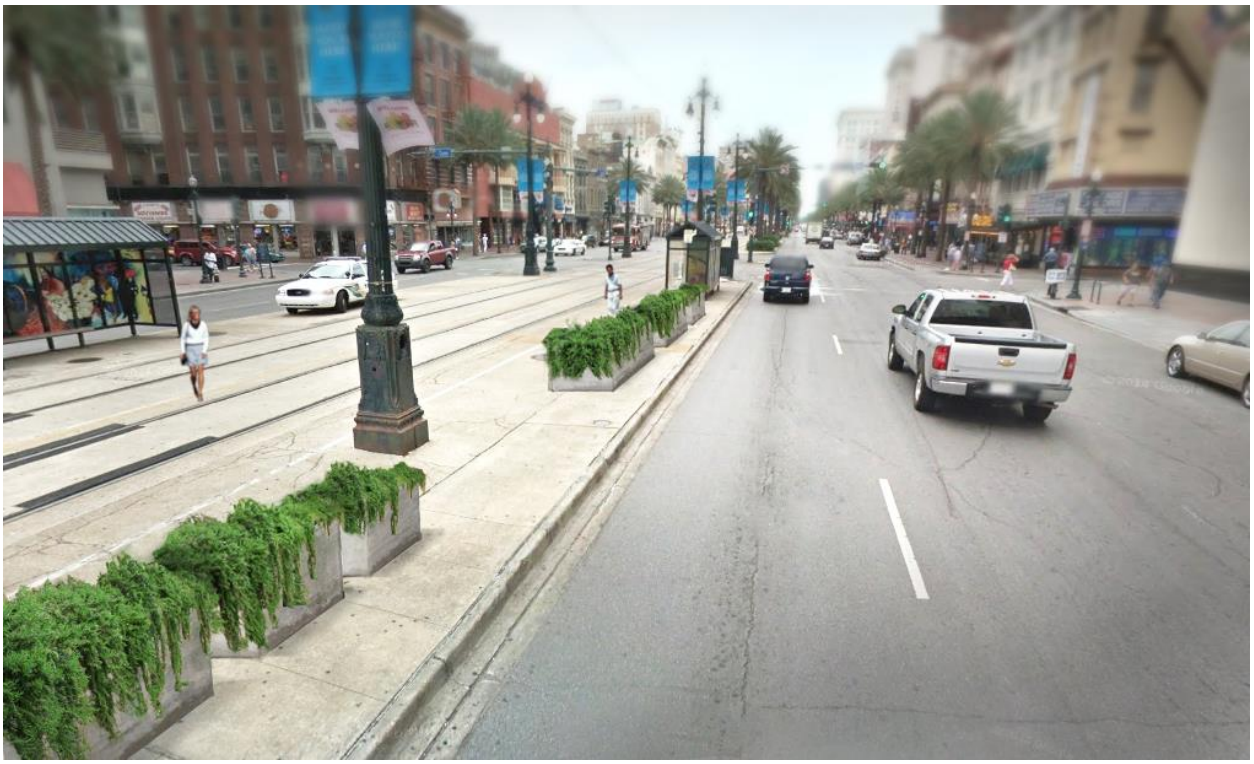
Pedestrian signals

All pedestrian signals should be replaced with countdown pedestrian signals. Signals should be placed at each intersection, as well as on neutral grounds so that they are clearly visible.

Right turn on red

All right turns on red should be eliminated to avoid conflicts with pedestrians.

Figure 34: Planter Concept



Planters could be used to discourage midblock crossings on Canal St, lakebound at Chartres St (Dana Brown & Associates Google Streetview)

Canal Street between Royal Street/St. Charles Avenue and Camp Street/Chartres Street

Existing Concerns

A – Crosswalk alignment causes confusion for pedestrians crossing Canal Street. Awkward geometry of Camp Street/Chartres Street causes crosswalks to off angles, making wayfinding difficult.

B – A U-turn in this location creates an awkward situation for pedestrians crossing Canal Street.

Crosswalks are poorly marked at most intersections

Most pedestrian signals are not working properly.

Pedestrian holding areas in the neutral ground create awkward situations between pedestrians and the street car line.

Signage for no turns on red and yield to pedestrians are usually located in areas that are not high visible to vehicles.

Figure 35: Canal St. and Royal Street/St. Charles Avenue and Camp Street/Chartres Street, Existing

Proposed Countermeasures

Pedestrian Islands

Pedestrian islands in the neutral ground on the lakeside of Canal Street should be expanded to allow for a conflict free situation between vehicles U-turning. Transitions between pedestrian areas and street car lines should be designated by a truncated dome made of similar existing sidewalk granite/brick materials.

Pavement Markings and Crosswalks

Stop bar for vehicles in the U-turn only lane should be set back further. All crosswalks should be replaced with highly visible striping. Create a turn only lane on Camp Street onto Canal Street to limit confusion for motorists and reduce conflicts with pedestrians.

Signal Enhancements

All pedestrian signals should be replaced with countdown pedestrian signals. Signals should be placed at each intersection, as well as on neutral grounds so that they are clearly visible.

All right turns on red should be eliminated to avoid conflicts with pedestrians.

Canal Street and Peters Street

Existing Concerns

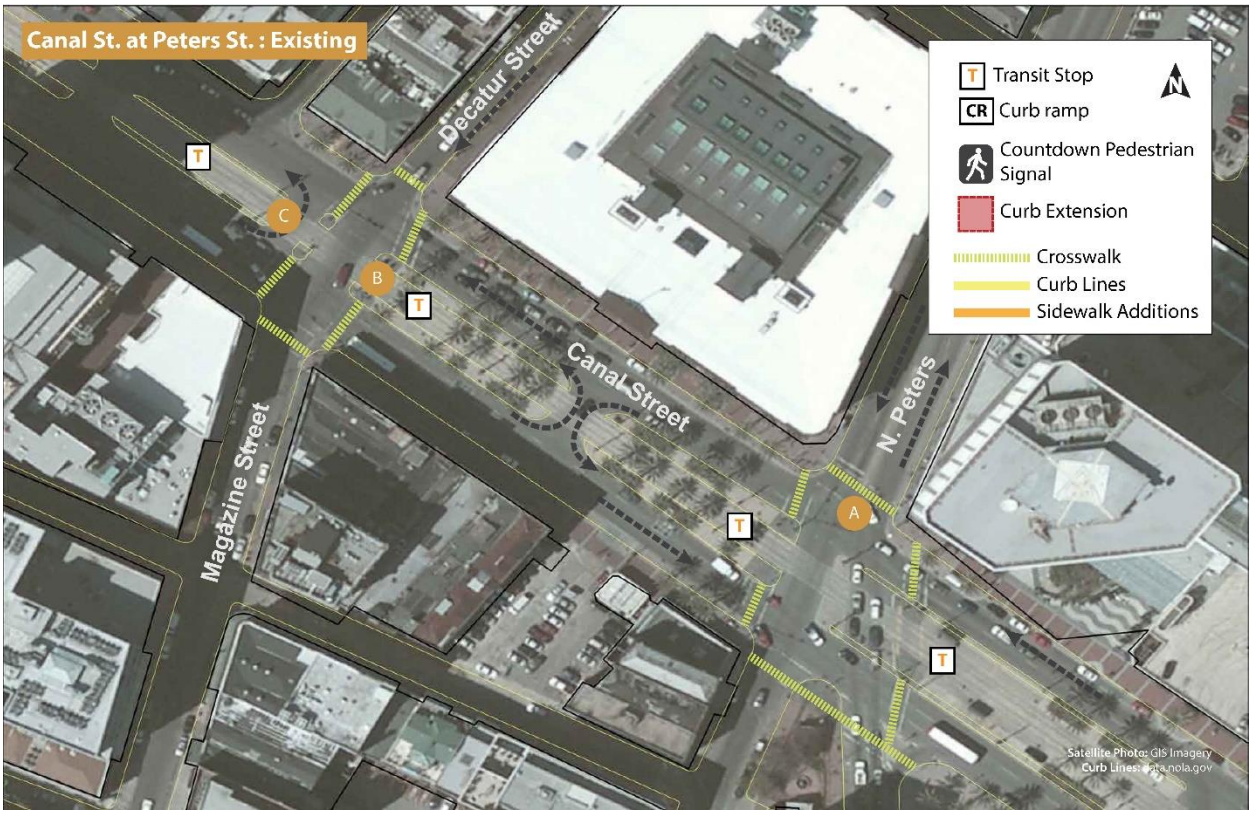
A – Signal timing crossing Canal Street along Peters Street.

B – Crosswalks are aligned to direct pedestrians into awkward spaces with utility poles in the neutral ground.

C – A U-turn in this location creates an awkward situation for pedestrians crossing Canal Street.

Crosswalks are poorly marked at most intersections and most pedestrian signals are not working properly. Pedestrian holding areas in the neutral ground create awkward situations between pedestrians and the street car line. Signage for no turns on red and yield to pedestrians are usually located in areas that are not high visible to vehicles.

Figure 36: Canal St. and Peters St., Existing



Proposed Countermeasures

Removing the turn lane from S. Peters Street onto Canal Street southbound would allow for a larger pedestrian space. This would eliminate the existing island for pedestrians, which doesn't provide sufficient space. Vehicles would be allowed to turn only on a green signal, eliminating turns on red.

Restriping, Marked Crosswalks, and Signal Enhancements

Stop bar for vehicles in the U-turn only lane should be set back further.

All crosswalks should be replaced with highly visible striping. Realignment of the crosswalk from Magazine Street to the neutral ground on Canal Street will allow pedestrians to straighten their path.

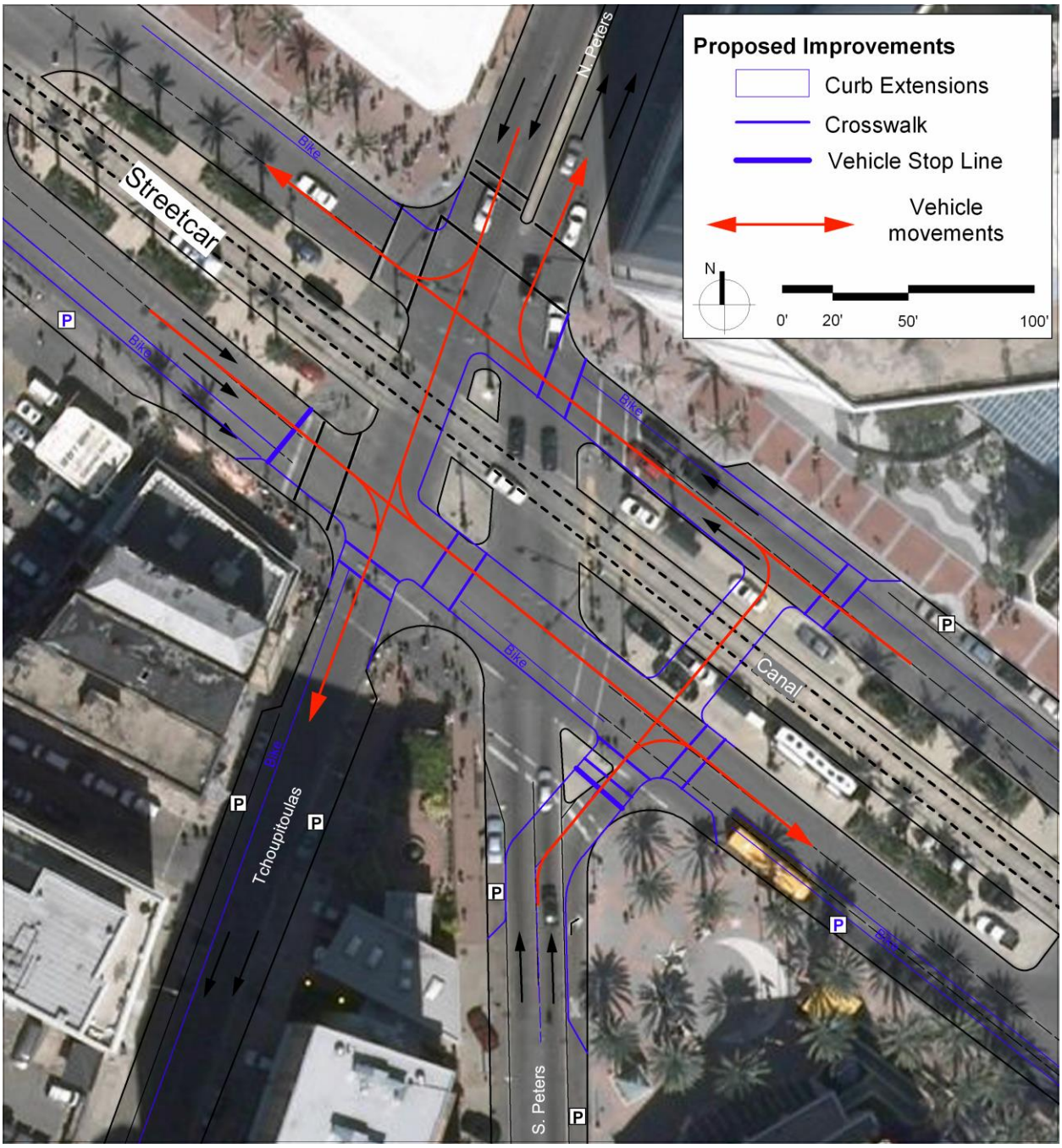
Leading pedestrian intervals should replace all-red phases to prevent confusion and conflicts when pedestrians cross with vehicle phases. All pedestrian signals should be replaced with countdown timers. Signals should be placed at each intersection, as well as on neutral grounds so that they are clearly visible.

Pedestrian Islands

Pedestrian islands in the neutral ground on the uptown side of Canal Street should be expanded to allow for a conflict free situation between vehicles U-turning. Transitions between pedestrian areas and street car lines should be designated by a truncated dome made of similar sidewalk granite/brick materials.

The *New Orleans Mobility and Parking Study* also suggested strategies for safety and mobility improvements at this intersection. Figure 37 illustrates this document's proposal for the intersection of Canal and Peters Streets, which feature more significant changes than those described above. These may be considered longer-term strategies that may require additional study of traffic impacts.

Figure 37: Proposed Configuration, Canal and Peters Street



Source: New Orleans Mobility and Parking Study

Improving pedestrian safety citywide

The engineering problems described at the emphasis areas are not unique to these intersections and corridors. To improve pedestrian safety systematically citywide, the City should consider applying the countermeasures, including but not limited to curb extensions, pedestrian signals, leading intervals, high-visibility crosswalks and sidewalks repairs throughout the city. Ongoing street reconstruction or rehabilitation projects funded by the Federal Emergency Management Agency, Community Development Block Grants, state and federal grants and local funding sources are fitting opportunities for the City to apply these proven countermeasures on a sustained basis.

VII. Funding Implementation

The City should fund implementation of the engineering and policy recommendations made within Chapter VI using any of several funding sources available, including City of New Orleans operating funds, the City's bond-funded capital program, and state and federal grants. Two DOTD grant programs in particular offer viable funding sources: the Local Road Safety Program and the Highway Safety Improvement Program.

Local Road Safety Program

Statewide, parish or municipal governments are eligible to fund local road safety improvements through the Local Road Safety Program (LRSP).[34] The Local Technical Assistance Program administers the Local Road Safety Program in cooperation with the DOTD. State Roads, such as Tulane Avenue and S. Claiborne Avenue, are not eligible for this program.

Individual projects are eligible for up to $500,000 in LRSP funds. A 10% local match is required for construction, and no match is required for engineering and design services. An individual project may span multiple locations. For instance, a single project could install pedestrian countdown signals at intersections across the city.

Importantly, proposed projects that document a crash history are particularly competitive projects. The locally owned streets identified in Chapter 6 and in the appendix are therefore strong candidates for this program.

Completed applications are due each year by January 31st. The City of New Orleans should therefore plan accordingly to submit proposals annually by this deadline.

[34] Program Guidelines and Policies are available at http://www.ltrc.lsu.edu/ltap/pdf/2014_LRSP_Program_Guidelines.pdf.

Highway Safety Improvement Program

The Louisiana Highway Safety Commission administers this federally-funded grant program, which supports improvements on both local and state roads that reduce the number of traffic fatalities and severe injuries, including pedestrian fatalities and severe injuries. The Commission maintains a Strategic Highway Safety Plan, which includes projects submitted by local jurisdictions on a competitive basis.

A stage 0 feasibility study is a prerequisite of inclusion of projects in the Strategic Highway Safety Plan, which the RPC may complete on the City's behalf. The projects must target adopted emphasis areas. This document serves to designate the locations highlighted in Chapter VI and in Table 6: Top Twenty Ranking Intersections as adopted emphasis areas.

No match is required for engineering and construction services, and DOTD provides on-retainer traffic study and design services for these projects.

VIII. Conclusion

The City of New Orleans witnessed an increasing pedestrian crash rate from 2008-2012 – particularly crashes resulting in moderate and possible injuries. Many crashes resulting in severe injuries and fatalities are clustered at specific intersections and corridors. By adopting a systemic approach to improving pedestrian safety, using the evidence-based engineering countermeasures described in this Pedestrian Safety Action Plan, the City of New Orleans will slow this trend, and help achieve the city's goal to reduce pedestrian fatalities by 50% by 2030, to an average of four per year, compared to the 2011 and 2012 rate of 8 per year. This approach will require close coordination with the DOTD, RPC and NOPD. Furthermore, the City should pursue non-engineering strategies, including education and traffic enforcement, to support the engineering safety improvements.

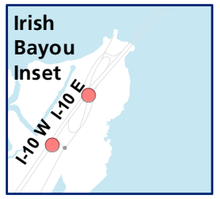
Appendixes

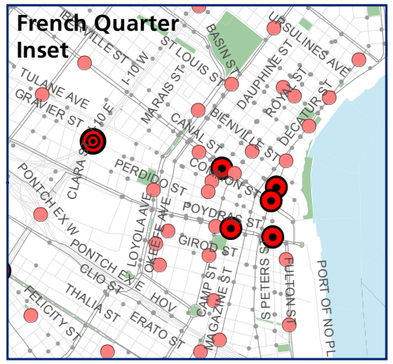
1) Crash Maps
2) Table of All Intersection Scores

New Orleans Pedestrian Crash Analysis

Legend

- 1 KSI (126)
- 2 KSIs (15)
- 3 KSIs (1)
- All Others (1289)





Intersections with Fatalities

CLAIBORNE AVE	GRAVIER ST
READ BLVD	I-10 W ONRAMP
ESPLANADE AVE	CLAIBORNE AVE
MARTIN LUTHER KING BLVD	CLAIBORNE AVE
LOUISIANA AVE	SARATOGA ST
TULANE AVE	GAYOSO ST
DUMAINE ST	CLAIBORNE AVE
TULANE AVE	CARROLLTON AVE
I-10 E	RIDGEWAY EXIT
ALCEE FORTIER BLVD	SAIGON DR
MEMORIAL PARK DR	BEHRMAN PL
GENERAL DE GAULLE DR	SHIRLEY DR
PORT ST	ST CLAUDE AVE
CLOUET ST	ST CLAUDE AVE
DAUPHINE ST	LESSEPS ST
ST CLAUDE AVE	CHARBONNET ST
DE ARMAS ST	TECHE ST
GENERAL DE GAULLE DR	RUE PARC FONTAINE
GENERAL DE GAULLE DR	SANDRA DR
CHEF MENTEUR HWY	CHEF MENTEUR EXIT
MORRISON RD	DOWNMAN RD
DOWNMAN EXIT	I-10 E
I-10 SERVICE RD	CROWDER BLVD
FLORIDA AVE	ELYSIAN FIELDS AVE
BROAD ST	DUELS ST
PINES BLVD	DOWNMAN RD
BENSON ST	DINKINS ST
I-10 W	I-10 W ONRAMP
BEHRMAN PL	HOLIDAY DR
SIMMONS DR	ALMONASTER AVE
CLAIBORNE AVE	FERN ST
ST CHARLES AVE	TOLEDANO ST
SPRUCE ST	CARROLLTON AVE
HICKORY ST	JOLIET ST
CHESTNUT ST	BROADWAY ST
COLAPISSA ST	LOWERLINE ST
BROAD ST OVERPASS	HOWARD AVE
PERDIDO ST	LOYOLA AVE
VALENCE ST	ST CHARLES AVE
LOUISIANA AVE	LA SALLE ST
WASHINGTON AVE	LA SALLE ST
AMELIA ST	TCHOUPITOULAS ST
TERPSICHORE ST	ORETHA CASTLE HALEY BLVD
JULIA ST	OKEEFE AVE
1ST ST	MAGAZINE ST

*** Note: 4 KSIs unable to be located were omitted from analysis.

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UNO Research & Technology Park
Advanced Technology Center

Pedestrian Crashes 2008-2012
Fatalities/Severe Injuries (KSI) Crashes

Data Sources
Basemap layers: City of New Orleans 2014
Crash Data: DOTD 2008-2012
Date: July 2, 2014

0 1.5 3 6 Miles

New Orleans Pedestrian Crash Analysis

Legend

Injury Code Total

- 0-4.99 (698)
- 5-35.99 (119)
- 36-71.99 (128)
- 72 and above (16)

LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

RPC REGIONAL PLANNING COMMISSION

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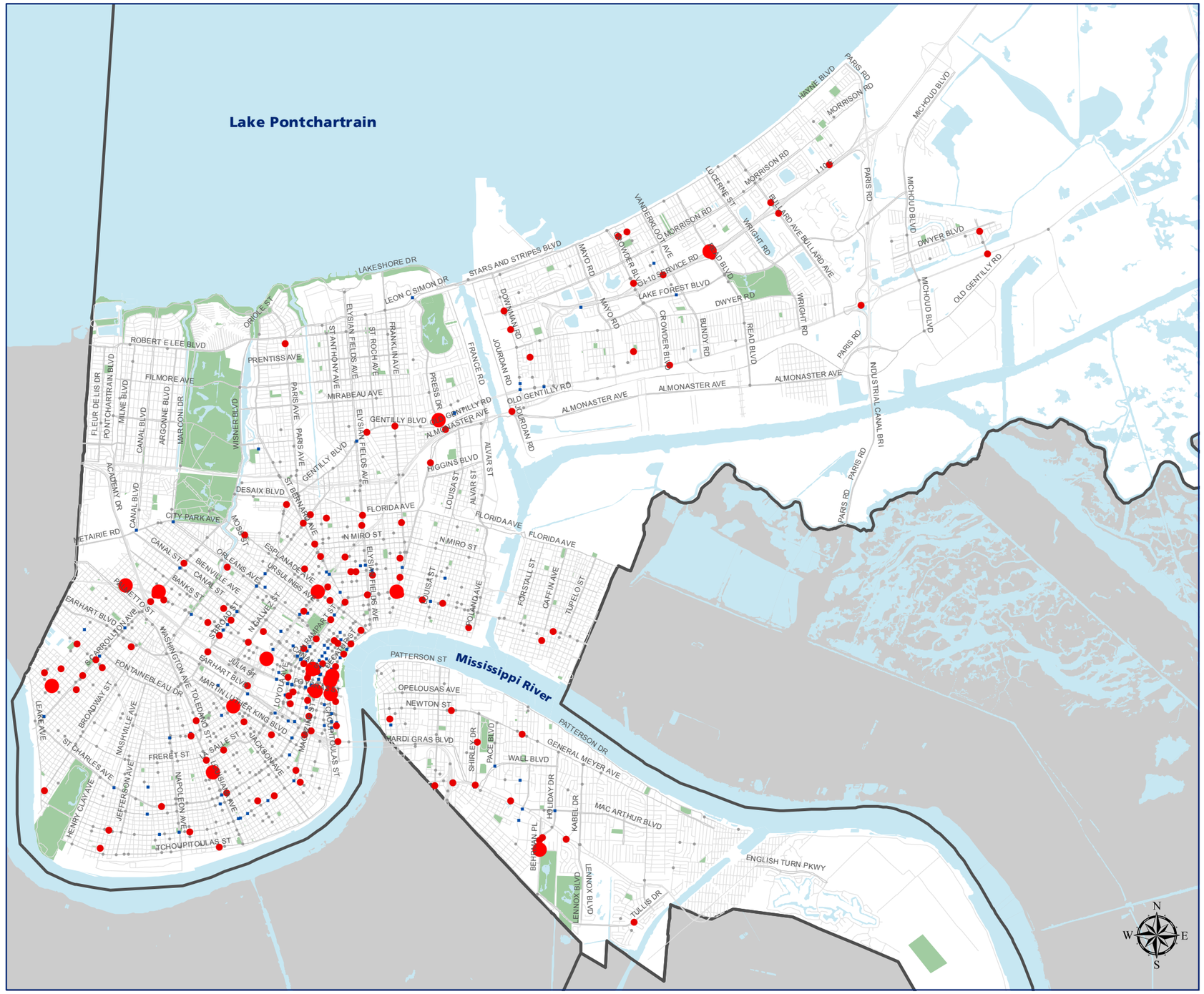
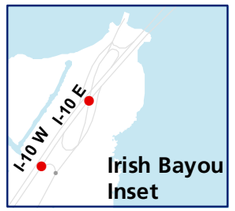
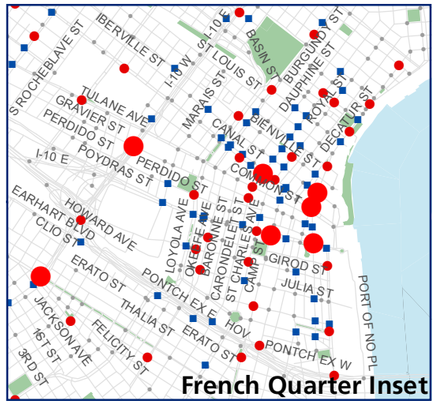


Weighting System for Crash Severity

Fatality = 36
Severe/Incapacitating Injury = 36
Non-severe injury = 4
Apparent/Possible Injury = 1
No injury/Property damage = 0.04





Top 20 Intersections (Injury Code Total)

1	CLAIBORNE AVE	GRAVIER ST	4	109
2	POYDRAS ST	CAMP ST	11	105
3	IBERVILLE ST	PETERS ST	11	87.12
4	CANAL ST	CARONDELET ST	10	87.08
5	PETERS ST	POYDRAS ST	8	83.04
6	ESPLANADE AVE	CLAIBORNE AVE	7	80.12
7	READ BLVD	I-10 W ONRAMP	4	80
8	CARROLLTON AVE	ULLOA ST	4	77
9	MARTIN LUTHER KING BLVD	CLAIBORNE AVE	3	72.04
10	AIRLINE HWY	MONROE ST	2	72
11	CANAL ST	PETERS ST	2	72
12	ST CLAUDE AVE	FRANKLIN AVE	2	72
13	BEHRMAN PL	MEMORIAL PARK DR	2	72
14	PRESS DR	CHEF MENTEUR HWY	2	72
15	WILLOW ST	CAMBRONNE ST	2	72
16	LOUISIANA AVE	SARATOGA ST	2	72
17	CLAIBORNE AVE	LEONIDAS ST	7	53.04
18	PETERS ST	CONTI ST	6	48.08
19	ST CLAUDE AVE	ELYSIAN FIELDS AVE	6	47
20	GRAVIER ST	BROAD AVE	4	45

*** Note: 4 KSIs unable to be located were omitted from analysis

Pedestrian Crashes 2008-2012
Intersection Crash Severity Scores

Data Sources
Basemap layers: City of New Orleans 2014
Crash Data: DOTD 2008-2012
Date: April 14, 2014

0 1.25 2.5 5 Miles

New Orleans Pedestrian Crash Analysis

Legend

Injury Code Total

- 0.0 - 4.1
- 4.2 - 16.1
- 16.2 - 35.9
- 36.0 - 71.9
- 72.0 - 107.0
- 108.0 - 159.1

Weighting System for Crash Severity

Fatality = 36
Severe/Incapacitating Injury = 36
Non-severe injury = 4
Apparent/Possible Injury = 1
No injury/Property damage = 0.04

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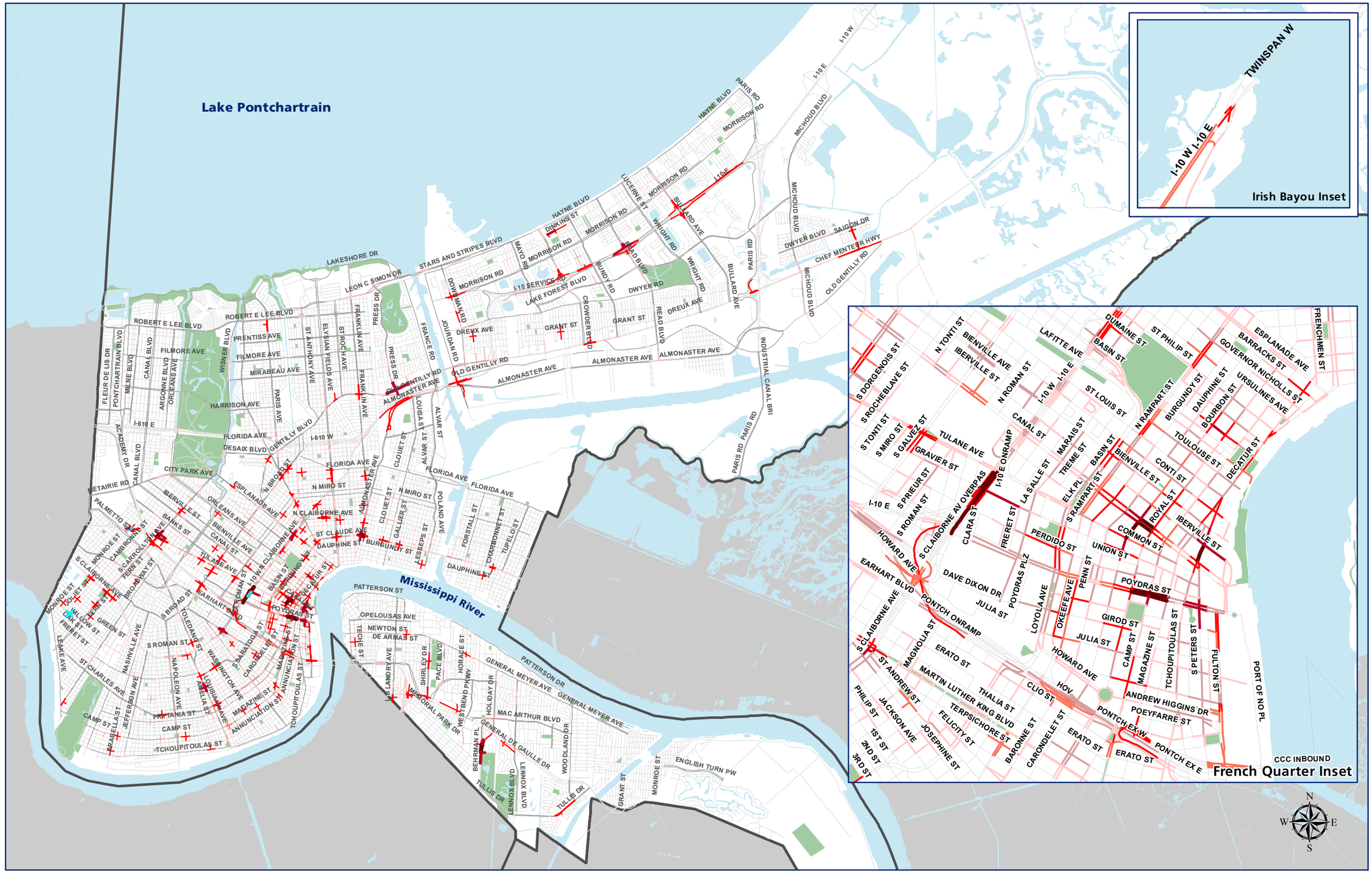

Pedestrian Crashes 2008-2012
Street Segment Crash Severity Scores

*** Note: 4 KSIs unable to be located were omitted from analysis.

Data Sources
Basemap layers: City of New Orleans 2014
Crash Data: DOTD 2008-2012
Date: April 14, 2014

0 1.25 2.5 5 Miles

Street 1	Street 2	# Crashes	Score
CLAIBORNE AVE	GRAVIER ST	4	109.00
POYDRAS ST	CAMP ST	11	105.00
IBERVILLE ST	PETERS ST	11	87.12
CANAL ST	CARONDELET ST	10	87.08
PETERS ST	POYDRAS ST	8	83.04
ESPLANADE AVE	CLAIBORNE AVE	7	80.12
READ BLVD	I-10 W ONRAMP	4	80.00
CARROLLTON AVE	ULLOA ST	4	77.00
MARTIN LUTHER KING BLVD	CLAIBORNE AVE	3	72.04
AIRLINE HWY	MONROE ST	2	72.00
CANAL ST	PETERS ST	2	72.00
ST CLAUDE AVE	FRANKLIN AVE	2	72.00
BEHRMAN PL	MEMORIAL PARK DR	2	72.00
PRESS DR	CHEF MENTEUR HWY	2	72.00
WILLOW ST	CAMBRONNE ST	2	72.00
LOUISIANA AVE	SARATOGA ST	2	72.00
CLAIBORNE AVE	LEONIDAS ST	7	53.04
PETERS ST	CONTI ST	6	48.08
ST CLAUDE AVE	ELYSIAN FIELDS AVE	6	47.00
GRAVIER ST	BROAD AVE	4	45.00
BARRACKS ST	DECATUR ST	3	44.00
MILAN ST	MAGAZINE ST	3	44.00
CLOUET ST	ST CLAUDE AVE	4	42.00
ST ANN ST	ROYAL ST	3	41.00
BROAD ST	ST BERNARD AVE	3	41.00
BASIN ST	BIENVILLE ST	2	40.00
I-10 E	RIDGEWAY BLVD	2	40.00
DUMAINE ST	CLAIBORNE AVE	2	40.00
ST ANN ST	BOURBON ST	2	40.00
PAUGER ST	I-10 W ONRAMP	2	40.00
PORT ST	ST CLAUDE AVE	2	40.00
FRANKLIN AVE	VILLERE ST	2	40.00
DAUPHINE ST	LESSEPS ST	2	40.00
GENERAL DE GAULLE DR	RUE PARC FONTAINE	2	40.00
CHEF MENTEUR HWY	GAWAIN DR	2	40.00
ST BERNARD AVE	MIRO ST	2	40.00
ARABELLA ST	MAGAZINE ST	2	40.00
GALVEZ ST	TULANE AVE	2	40.00
OKEEFE AVE	LAFAYETTE ST	2	40.00
AMELIA ST	TCHOUPITOULAS ST	2	40.00
ST MARY ST	CONSTANCE ST	2	40.00
ST CHARLES AVE	GIROD ST	2	40.00
CALLIOPE ST	PONTCH EX E ONRAMP	2	40.00
ST JOSEPH ST	CAMP ST	4	39.00
BIENVILLE ST	ROYAL ST	6	38.12
GRAVIER ST	CARONDELET ST	3	38.00
GIROD ST	RAMPART ST	3	38.00
POYDRAS ST	ST CHARLES AVE	5	37.12
CANAL ST	ROYAL ST	3	37.04
CANAL ST	ROOSEVELT WAY	2	37.00
CLAIBORNE AVE	MARIGNY ST	2	37.00
LOUISIANA AVE	LA SALLE ST	2	37.00
ST BERNARD AVE	RAMPART ST	3	36.08
COMMON ST	CARONDELET ST	3	36.08
CARROLLTON AVE	IBERVILLE ST	2	36.04
DECATUR ST	ST PETER ST	2	36.04
CLAIBORNE AVE	TOURO ST	2	36.04
RAMPART ST	TOULOUSE ST	1	36.00
RAMPART ST	URSULINES AVE	1	36.00
DECATUR ST	PETERS ST	1	36.00
TULANE AVE	GAYOSO ST	1	36.00
CLEVELAND AVE	DUPRE ST	1	36.00
TULANE AVE	CARROLLTON AVE	1	36.00
TULANE AVE	PIERCE ST	1	36.00
CARROLLTON AVE	I-10 E	1	36.00
ST PETER ST	HAGAN AVE	1	36.00
SERANTINE ST	GENTILLY BLVD	1	36.00
GALVEZ ST	COLUMBUS ST	1	36.00

Street 1	Street 2	# Crashes	Score
CANAL ST	JOHNSON ST	1	36.00
ROMAN ST	PAINTERS ST	1	36.00
I-10 E	RIDGEWAY EXIT	1	36.00
ALCEE FORTIER BLVD	SAIGON DR	1	36.00
ALCEE FORTIER BLVD	CHEF MENTEUR HWY	1	36.00
WEST EX IN	GENERAL DE GAULLE DR	1	36.00
PRIEUR ST	ST ANTHONY ST	1	36.00
ROBERTSON ST	COLUMBUS ST	1	36.00
DORGENOIS ST	FRANKLIN AVE	1	36.00
MEMORIAL PARK DR	BEHRMAN PL	1	36.00
GENERAL DE GAULLE DR	SHIRLEY DR	1	36.00
ST CLAUDE AVE	GALLIER ST	1	36.00
BURGUNDY ST	CAFFIN AVE	1	36.00
ST CLAUDE AVE	CHARBONNET ST	1	36.00
DE ARMAS ST	TECHE ST	1	36.00
GENERAL MEYER AVE	HORACE ST	1	36.00
SUMNER ST	NEWTON ST	1	36.00
L B LANDRY AVE	ERIE ST	1	36.00
LAWRENCE ST	SHIRLEY DR	1	36.00
GENERAL DE GAULLE DR	SANDRA DR	1	36.00
TULLIS DR	TIMBER GROVE DR	1	36.00
CHEF MENTEUR HWY	CHEF MENTEUR EXIT	1	36.00
MORRISON RD	DOWNMAN RD	1	36.00
DOWNMAN EXIT	I-10 E	1	36.00
GRANT ST	BONITA DR	1	36.00
TAMARON BLVD	I-10 SERVICE RD	1	36.00
READ BLVD	I-10 E ONRAMP	1	36.00
BULLARD AVE	I-10 SERVICE RD	1	36.00
BULLARD AVE	I-10 SERVICE RD	1	36.00
I-10 SERVICE RD	CROWDER BLVD	1	36.00
FLORIDA AVE	ELYSIAN FIELDS AVE	1	36.00
BROAD ST	DUELS ST	1	36.00
JOHNSON ST	ST BERNARD AVE	1	36.00
GENTILLY BLVD	FRANKLIN AVE	1	36.00
PINES BLVD	DOWNMAN RD	1	36.00
NEW ORLEANS ST	HOPE ST	1	36.00
BENSON ST	DINKINS ST	1	36.00
STEMWAY DR	DREUX AVE	1	36.00
MANDEVILLE ST	GENTILLY BLVD	1	36.00
DORGENOIS ST	ELYSIAN FIELDS AVE	1	36.00
MEYN ST	DINKINS ST	1	36.00
BOSTON DR	I-10 SERVICE RD	1	36.00
I-10 W	I-10 W ONRAMP	1	36.00
AVIATORS ST	PARIS AVE	1	36.00
BEHRMAN PL	HOLIDAY DR	1	36.00
SIMMONS DR	ALMONASTER AVE	1	36.00
MARAIS ST	ESPLANADE AVE	1	36.00
MAUREPAS ST	ESPLANADE AVE	1	36.00
CARROLLTON AVE	CLAIBORNE AVE	1	36.00
MONROE ST	JEANNETTE ST	1	36.00
CLAIBORNE AVE	FERN ST	1	36.00
ST CHARLES AVE	TOLEDANO ST	1	36.00
SPRUCE ST	CARROLLTON AVE	1	36.00
HICKORY ST	JOLIET ST	1	36.00
CHESTNUT ST	BROADWAY ST	1	36.00
COLAPISSA ST	LOWERLINE ST	1	36.00
GREEN ST	SHORT ST	1	36.00
ANNUNCIATION ST	NASHVILLE AVE	1	36.00
BROAD ST OVERPASS	HOWARD AVE	1	36.00
BROAD ST	PALMYRA ST	1	36.00
PERDIDO ST	LOYOLA AVE	1	36.00
CLAIBORNE AVE	DELACHAISE ST	1	36.00
VALENCE ST	ST CHARLES AVE	1	36.00
TOLEDANO ST	ROMAN ST	1	36.00
ST ANDREW ST	ROBERTSON ST	1	36.00
WASHINGTON AVE	LA SALLE ST	1	36.00
TERPSICHORE ST	ORETHA CASTLE HALEY BLVD	1	36.00
SUPERDOME EXIT	PONTCH EX E	1	36.00

Street 1	Street 2	# Crashes	Score
JULIA ST	OKEEFE AVE	1	36.00
WASHINGTON AVE	CAMP ST	1	36.00
1ST ST	MAGAZINE ST	1	36.00
FELICITY ST	CAMP ST	1	36.00
DIAMOND ST	CONVENTION CENTER BLVD	1	36.00
CONVENTION CENTER BLVD	LAFAYETTE ST	1	36.00
CLIO ST	CAMP ST	1	36.00
CALLIOPE ST	CONVENTION CENTER BLVD	1	36.00
BARONNE ST	CALLIOPE ST	8	26.00
IBERVILLE ST	ROYAL ST	8	19.04
PLEASANT ST	MAGAZINE ST	5	17.00
DECATUR ST	ST ANN ST	5	14.00
CANAL ST	CHARTRES ST	6	13.08
TULANE AVE	BROAD ST	6	13.08
1ST ST	CLAIBORNE AVE	5	13.04
CANAL ST	BOURBON ST	11	12.08
POYDRAS ST	CARONDELET ST	3	12.00
BOURBON ST	BIENVILLE ST	7	11.08
RAMPART ST	CANAL ST	4	10.00
GENERAL DE GAULLE DR	HOV	4	10.00
JOSEPHINE ST	CLAIBORNE AVE	4	10.00
CITY PARK AVE	CANAL BLVD	4	10.00
POYDRAS ST	CONVENTION CENTER BLVD	5	9.08
BIENVILLE ST	DECATUR ST	4	9.04
BOURBON ST	TOULOUSE ST	4	9.04
PERDIDO ST	LA SALLE ST	4	9.04
BIENVILLE ST	RAMPART ST	3	9.00
WESTBEND PKWY	GARDEN OAKS DR	3	9.00
CHEF MENTEUR HWY	MAJESTIC OAKS DR	3	9.00
ST CHARLES AVE	JULIA ST	3	9.00
PETERS ST	ST JOSEPH ST	3	9.00
CONVENTION CENTER BLVD	ST JOSEPH ST	3	9.00
DORGENOIS ST	ST ANN ST	3	9.00
DOWNMAN RD	CHEF MENTEUR BRIDGE	3	8.04
ELYSIAN FIELDS AVE	GENTILLY BLVD	3	8.04
I-10 SERVICE RD	FARWOOD RD	3	8.04
DELACHAISE ST	CLAIBORNE AVE	3	8.04
GIROD ST	LOYOLA AVE	3	8.04
ST ANDREW ST	SOPHIE WRIGHT PL	3	8.04
POYDRAS ST	RAMPART ST	3	8.04
ROBERTSON ST	DUMAINE ST	2	8.00
CANAL ST	DAUPHINE ST	2	8.00
LAPEYROUSE ST	DERBIGNY ST	2	8.00
CANAL ST	CARROLLTON AVE	2	8.00
CADILLAC ST	SENATE ST	2	8.00
ST PHILIP ST	BOURBON ST	2	8.00
DERBIGNY ST	FRENCHMEN ST	2	8.00
CLAIBORNE AVE	MARIGNY ST	2	8.00
LAMARQUE ST	TECHE ST	2	8.00
PACE BLVD	WALL BLVD	2	8.00
GENERAL DE GAULLE DR	SHIRLEY DR	2	8.00
SEINE ST	GARDEN OAKS DR	2	8.00
PRESS DR	LEON C SIMON DR	2	8.00
LOUISA ST	LOUISA DR	2	8.00
NELSON ST	CARROLLTON AVE	2	8.00
MAPLE ST	CARROLLTON AVE	2	8.00
ST CHARLES AVE	NASHVILLE AVE	2	8.00
ROBERT ST	DANNEEL ST	2	8.00
COMMON ST	CAMP ST	2	8.00
GALVEZ ST	ERATO ST	2	8.00
EARHART BLVD	WILLOW ST	2	8.00
MAGAZINE ST	3RD ST	2	8.00
POYDRAS ST	RAMPART ST	2	8.00
POLYMNIA ST	PRYTANIA ST	2	8.00
TCHOUPITOULAS ST	GRAVIER ST	2	8.00
CLAIBORNE AVE	ST ANN ST	2	8.00
ST LOUIS ST	BOURBON ST	9	7.20
TULANE AVE	CARROLLTON AVE	5	7.04

Street 1	Street 2	# Crashes	Score
BOURBON ST	CONTI ST	5	7.04
TOULOUSE ST	DECATUR ST	5	7.04
POYDRAS ST	LOYOLA AVE	5	6.08
DAUPHINE ST	TOULOUSE ST	4	6.04
BOURBON ST	IBERVILLE ST	3	6.00
CAMP ST	CHARTRES ST	3	6.00
VESPASIAN ST	CYPRESS ACRES DR	3	6.00
PRYTANIA ST	DELACHAISE ST	3	6.00
ANDREW HIGGINS DR	TCHOUPITOULAS ST	3	6.00
8TH ST	MAGAZINE ST	3	6.00
ST PHILIP ST	BROAD ST	3	6.00
FORSHEY ST	CARROLLTON AVE	4	5.08
CANAL ST	BASIN ST	4	5.08
IBERVILLE ST	DECATUR ST	4	5.08
DOME SERVICE RD	POYDRAS ST	4	5.08
CANAL ST	RAMPART ST	6	5.04
RAMPART ST	GOVERNOR NICHOLLS ST	3	5.04
CONTI ST	ROYAL ST	3	5.04
CLAIBORNE AVE	CARROLLTON AVE	3	5.04
CANAL ST EXIT	CLAIBORNE AVE	3	5.04
LOUISIANA AVE	ST CHARLES AVE	3	5.04
TOLEDANO ST	MAGAZINE ST	3	5.04
MAGAZINE ST	POYDRAS ST	3	5.04
BROAD ST	CANAL ST	3	5.04
BELFAST ST	MONROE ST	2	5.00
CANAL ST	BURGUNDY ST	2	5.00
CITY PARK AVE	MARCONI DR	2	5.00
TULANE AVE	PIERCE ST	2	5.00
TULANE AVE	JEFFERSON DAVIS PKWY	2	5.00
DERBIGNY ST	BIENVILLE AVE	2	5.00
CLAIBORNE AVE	FRANKLIN AVE	2	5.00
CONTI ST	RAMPART ST	2	5.00
DUMAINE ST	ROYAL ST	2	5.00
CLAIBORNE AVE	ST BERNARD AVE	2	5.00
MARAIS ST	ST BERNARD AVE	2	5.00
ELYSIAN FIELDS AVE	DERBIGNY ST	2	5.00
ST CLAUDE AVE	ELYSIAN FIELDS AVE	2	5.00
ST CLAUDE AVE	LOUISA ST	2	5.00
DESIRE ST	CLAIBORNE AVE	2	5.00
HOLIDAY DR	MAC ARTHUR BLVD	2	5.00
LAKE FOREST BLVD	TARA LN	2	5.00
CHEF MENTEUR HWY	LOUISA ST	2	5.00
DOWNMAN RD	REEL ST	2	5.00
YORKTOWN DR	MIDDLEBORO RD	2	5.00
CALLIOPE ST	EARHART BLVD	2	5.00
BROAD ST	BANKS ST	2	5.00
NAPOLEON AVE	CLAIBORNE AVE	2	5.00
NAPOLEON AVE	MAGAZINE ST	2	5.00
ROBERT ST	PRYTANIA ST	2	5.00
BORDEAUX ST	MAGAZINE ST	2	5.00
ST CHARLES AVE	THALIA ST	2	5.00
CARONDELET ST	CALLIOPE ST	2	5.00
GRAVIER ST	PETERS ST	2	5.00
JULIA ST	PETERS ST	2	5.00
PERDIDO ST	ST CHARLES AVE	2	5.00
TCHOUPITOULAS ST	GIROD ST	2	5.00
ANDREW HIGGINS DR	PETERS ST	2	5.00
ORLEANS AVE	BROAD ST	2	5.00
IBERVILLE ST	MARAIS ST	2	5.00
CANAL ST	ELK PL	4	4.12
OLEANDER ST	CARROLLTON AVE	3	4.08
ROYAL ST	BARRACKS ST	3	4.08
ST CHARLES AVE	JACKSON AVE	3	4.08
POYDRAS ST	TCHOUPITOULAS ST	3	4.08
BANKS ST	WHITE ST	2	4.04
LAFRENIERE ST	PARIS AVE	2	4.04
DERBIGNY ST	MANDEVILLE ST	2	4.04
ST CLAUDE AVE	MAZANT ST	2	4.04

Street 1	Street 2	# Crashes	Score
ODEON ST	GENERAL MEYER AVE	2	4.04
DOWNMAN RD	DWYER RD	2	4.04
PAUGER ST	DORGENOIS ST	2	4.04
OKEEFE AVE	ROOSEVELT WAY	2	4.04
TULANE AVE	CLAIBORNE AVE	2	4.04
LA SALLE ST	GRAVIER ST	2	4.04
ST CHARLES AVE	GRAVIER ST	2	4.04
LOUISIANA AVE	MAGAZINE ST	2	4.04
ST CHARLES AVE	ST ANDREW ST	2	4.04
POYDRAS ST	CARONDELET ST	2	4.04
ST CHARLES AVE	CALLIOPE ST	2	4.04
TCHOUPITOULAS ST	POEYFARRE ST	2	4.04
MCALISTER DR	FRERET ST	2	4.04
ST PHILIP ST	ROYAL ST	4	4.00
MURL ST	VESPASIAN ST	4	4.00
ANTONINE ST	TCHOUPITOULAS ST	4	4.00
AIRLINE HWY	EAGLE ST	1	4.00
RAMPART ST	CANAL ST	1	4.00
ESPLANADE AVE	BURGUNDY ST	1	4.00
ROBERTSON ST	BASIN ST	1	4.00
RAMPART ST	BIENVILLE ST	1	4.00
ST PHILIP ST	RAMPART ST	1	4.00
ROYAL ST	GOVERNOR NICHOLLS ST	1	4.00
MARCONI DR	ZACHARY TAYLOR DR	1	4.00
JEANNE MARIE PL	HARCOURT DR	1	4.00
TULANE AVE	WHITE ST	1	4.00
CANAL ST	MARAIS ST	1	4.00
CHARTRES ST	ST LOUIS ST	1	4.00
DUMAINE ST	CARROLLTON AVE	1	4.00
TOULOUSE ST	CARROLLTON AVE	1	4.00
TOULOUSE ST	CARROLLTON AVE	1	4.00
CONTI ST	CARROLLTON AVE	1	4.00
CARROLLTON AVE	BIENVILLE AVE	1	4.00
LELONG AVE	COLLINS DIBOLL CIRCL	1	4.00
I-10 W	CARROLLTON AVE	1	4.00
CANAL ST	PIERCE ST	1	4.00
WASHINGTON AVE	PINE ST	1	4.00
TULANE AVE	CORTEZ ST	1	4.00
BAUDIN ST	CORTEZ ST	1	4.00
TULANE AVE	CLARK ST	1	4.00
TULANE AVE	CLARK ST	1	4.00
TULANE AVE	JEFFERSON DAVIS PKWY	1	4.00
DUPRE ST	CANAL ST	1	4.00
WHITE ST	CANAL ST	1	4.00
DREXEL DR	JEFFERSON DAVIS PKWY	1	4.00
TULANE AVE	LOPEZ ST	1	4.00
GENTILLY BLVD	BELFORT AVE	1	4.00
GENTILLY BLVD	OREILLY ST	1	4.00
FORTIN ST	GENTILLY BLVD	1	4.00
LAFITTE AVE	DORGENOIS ST	1	4.00
BROAD ST	BRUXELLES ST	1	4.00
BIENVILLE AVE	GALVEZ ST	1	4.00
LAFITTE AVE	ROCHEBLAVE ST	1	4.00
ORLEANS AVE	TONTI ST	1	4.00
CONTI ST	MIRO ST	1	4.00
CANAL ST	MIRO ST	1	4.00
ST LOUIS ST	CLAIBORNE AVE	1	4.00
LAFITTE AVE	GALVEZ ST	1	4.00
GOVERNOR NICHOLLS ST	JOHNSON ST	1	4.00
CANAL ST	CLAIBORNE AVE	1	4.00
GOVERNOR NICHOLLS ST	CLAIBORNE AVE	1	4.00
URSULINES AVE	CLAIBORNE AVE	1	4.00
DAUPHINE ST	FRANKLIN AVE	1	4.00
GENERAL PERSHING ST	FRERET ST	1	4.00
2ND ST	CLARA ST	1	4.00
JACKSON AVE	CLAIBORNE AVE	1	4.00
NAPOLEON AVE	CARONDELET ST	1	4.00
GOVERNOR NICHOLLS ST	CLAIBORNE AVE	1	4.00

Street 1	Street 2	# Crashes	Score
GOVERNOR NICHOLLS ST	ROBERTSON ST	1	4.00
ESPLANADE AVE	VILLERE ST	1	4.00
ST PETER ST	BOURBON ST	1	4.00
CLAIBORNE AVE	BASIN ST	1	4.00
DECATUR ST	MADISON ST	1	4.00
BIENVILLE ST	FRONT ST	1	4.00
TOULON ST	LAVAL ST	1	4.00
LEMANS ST	MICHOUD BLVD	1	4.00
CHEF MENTEUR HWY	INDUSTRIAL PKWY	1	4.00
CHEF MENTEUR HWY	ALCEE FORTIER BLVD	1	4.00
ALCEE FORTIER BLVD	PELTIER DR	1	4.00
KERLEREC ST	CLAIBORNE AVE	1	4.00
JOHNSON ST	ELYSIAN FIELDS AVE	1	4.00
PRIEUR ST	PAINTERS ST	1	4.00
PRIEUR ST	ALMONASTER AVE	1	4.00
PAUGER ST	PRIEUR ST	1	4.00
WEST EX OUT	HOV	1	4.00
ANNETTE ST	VILLERE ST	1	4.00
CLAIBORNE AVE	PAUGER ST	1	4.00
I-10 E	I-10 E ONRAMP	1	4.00
GENERAL DE GAULLE DR	WEST EX IN	1	4.00
MIRO ST	ST ROCH AVE	1	4.00
TONTI ST	ARTS ST	1	4.00
ELYSIAN FIELDS AVE	ROMAN ST	1	4.00
ELYSIAN FIELDS AVE	BURGUNDY ST	1	4.00
MARIGNY ST	RAMPART ST	1	4.00
GALVEZ ST	GALVEZ ST OVERPASS	1	4.00
CLAIBORNE AVE	MANDEVILLE ST	1	4.00
ALVAR ST	ROBERTSON ST	1	4.00
BURGUNDY ST	FRENCHMEN ST	1	4.00
MANDEVILLE ST	ST CLAUDE AVE	1	4.00
CLAIBORNE AV OVERPAS	CLOUET ST	1	4.00
CLAIBORNE AVE	LOUISA ST	1	4.00
CLOUET ST	ROBERTSON ST	1	4.00
MARAIS ST	ALVAR ST	1	4.00
MARAIS ST	BARTHOLOMEW ST	1	4.00
ST CLAUDE AVE	DESIRE ST	1	4.00
ROMAN ST	DESIRE ST	1	4.00
WAGNER ST	ELIZA ST	1	4.00
SISTER ST	ST CLAUDE AVE	1	4.00
TENNESSEE ST	CLAIBORNE AVE	1	4.00
VILLERE ST	POLAND AVE	1	4.00
GORDON ST	EL DORADO ST	1	4.00
NEWTON ST	TECHE ST	1	4.00
LAMARQUE ST	BELLEVILLE ST	1	4.00
NEWTON ST	PACIFIC AVE	1	4.00
GENERAL MEYER AVE	FLANDERS ST	1	4.00
FARRAGUT ST	SHEPARD ST	1	4.00
BODENGER BLVD	MARDI GRAS BLVD	1	4.00
GEN DE GAULLE EXIT	GENERAL DE GAULLE DR	1	4.00
GENERAL MEYER AVE	WILTZ LN	1	4.00
GENERAL MEYER AVE	SHIRLEY DR	1	4.00
SANDRA DR	SEINE CT	1	4.00
MAC ARTHUR BLVD	MERCEDES BLVD	1	4.00
MAC ARTHUR BLVD	GENERAL COLLINS AVE	1	4.00
GENERAL MEYER AVE	KABEL DR	1	4.00
HUNTLEE DR	GENERAL MEYER AVE	1	4.00
BERKLEY DR	BOYD ST	1	4.00
GALLATIN ST	KABEL DR	1	4.00
BERKLEY DR	MANSFIELD AVE	1	4.00
KABEL DR	GENERAL DE GAULLE DR	1	4.00
PATTERSON DR	BLYTHE ST	1	4.00
WOODLAND DR	MAPLE LEAF DR	1	4.00
CHEF MENTEUR HWY	STEMWAY DR	1	4.00
CHEF MENTEUR HWY	STEMWAY DR	1	4.00
BULLARD AVE	BULLARD EXIT	1	4.00
A P TUREAUD AVE	MIRO ST	1	4.00
A P TUREAUD AVE	TONTI ST	1	4.00

Street 1	Street 2	# Crashes	Score
MADRID ST	FRANKLIN AVE	1	4.00
MIRO ST	ST BERNARD AVE	1	4.00
CHEF MENTEUR HWY	OLD GENTILLY RD	1	4.00
DESIRE PKWY	CHEF MENTEUR HWY	1	4.00
ERIN DR	CAROLE LN	1	4.00
LAKESHORE DR	ELYSIAN FIELDS AVE	1	4.00
MUSIC ST	MIRABEAU AVE	1	4.00
I-10 W	I-10 W ONRAMP	1	4.00
PROVIDENCE PL	ST FERDINAND DR	1	4.00
JOURDAN RD OVERPASS	I-10 E	1	4.00
WARFIELD ST	STEMWAY DR	1	4.00
LAW ST	REPUBLIC ST	1	4.00
ELYSIAN FIELDS AVE	BENEFIT ST	1	4.00
OLD GENTILLY EXIT	I-10 W	1	4.00
CLOVER ST	CLEMATIS ST	1	4.00
BUNKER HILL RD	BOSTON DR	1	4.00
BENSON ST	LOMOND RD	1	4.00
TARA LN	WENDY LN	1	4.00
READ BLVD	I-10 SERVICE RD	1	4.00
MICHIGAN ST	CURRAN RD	1	4.00
DWYER RD	TULIP ST	1	4.00
I-510 S	LAKE FOREST BLVD	1	4.00
PENTLAND DR	PRESSBURG ST	1	4.00
ST BERNARD AVE	I-610 E	1	4.00
TRAFALGER ST	DESAIX BLVD	1	4.00
ALVAR ST	ALMONASTER AVE	1	4.00
DALEWOOD RD	CURRAN RD	1	4.00
PRIEUR ST	ST BERNARD AVE	1	4.00
ST CLAUDE CT	RAMPART ST	1	4.00
GRAVIER ST	PICAYUNE PL	1	4.00
ST ANDREW ST	LA SALLE ST	1	4.00
ESPLANADE AVE	BROAD ST	1	4.00
CLAIBORNE AVE	ST ANDREW ST	1	4.00
DUPLESSIS ST	MILTON ST	1	4.00
VESPASIAN ST	WAGNER ST	1	4.00
HERO BLVD	L B LANDRY AVE	1	4.00
MORRISON RD	KRISTEN CT	1	4.00
LAKE WILLOW DR	HUNTINGTON PARK DR	1	4.00
SYCAMORE ST	LEONIDAS ST	1	4.00
ST ANDREW ST	ANNUNCIATION ST	1	4.00
PRIEUR ST	EARHART BLVD	1	4.00
CLAIBORNE AVE	EAGLE ST	1	4.00
CLAIBORNE AVE	CARROLLTON AVE	1	4.00
JEFFERSON AVE	PRYTANIA ST	1	4.00
WILLOW ST	LEONIDAS ST	1	4.00
BIRCH ST	MONROE ST	1	4.00
DANTE ST	CLAIBORNE AVE	1	4.00
CARROLLTON AVE	HICKORY ST	1	4.00
CARROLLTON AVE	SPRUCE ST	1	4.00
APRICOT ST	CARROLLTON AVE	1	4.00
EARHART BLVD	SHORT ST	1	4.00
OAK ST	CAMBRONNE ST	1	4.00
ST CHARLES AVE	LEAKE AVE	1	4.00
ADAMS ST	MAPLE ST	1	4.00
PRIEUR ST	CALHOUN ST	1	4.00
SPRUCE ST	BURDETTE ST	1	4.00
CLAIBORNE AVE	NASHVILLE AVE	1	4.00
PINE ST	BIRCH ST	1	4.00
PRYTANIA ST	WALNUT ST	1	4.00
JOSEPH ST	FRERET ST	1	4.00
HENRY CLAY AVE	TCHOUPITOULAS ST	1	4.00
ST CHARLES AVE	VALMONT ST	1	4.00
MAGAZINE ST	STATE ST	1	4.00
MAGAZINE ST	NASHVILLE AVE	1	4.00
TCHOUPITOULAS ST	LEONTINE ST	1	4.00
PINE ST	EARHART BLVD	1	4.00
MAGAZINE ST	BELLECASTLE ST	1	4.00
LAFAYETTE ST	BOLIVAR ST	1	4.00

Street 1	Street 2	# Crashes	Score
SALCEDO ST	EARHART BLVD	1	4.00
PERDIDO ST	ROBERTSON ST	1	4.00
GRAVIER ST	JOHNSON ST	1	4.00
PERDIDO ST	PRIEUR ST	1	4.00
BROAD ST	TULANE AVE	1	4.00
CANAL ST	CROZAT ST	1	4.00
EARHART BLVD	BROAD ST	1	4.00
DORGENOIS ST	TULANE AVE	1	4.00
JULIA ST	I-10 E	1	4.00
GENERAL TAYLOR ST	ROMAN ST	1	4.00
I-10 E	BOLIVAR ST	1	4.00
GENERAL TAYLOR ST	CLAIBORNE AVE	1	4.00
CLAIBORNE AVE	MILAN ST	1	4.00
TULANE AVE	LOYOLA AVE	1	4.00
CANAL ST EXIT	DERBIGNY ST	1	4.00
TULANE AVE	RAMPART ST	1	4.00
CLAIBORNE AVE	NAPOLEON AVE	1	4.00
MILAN ST	MIRO ST	1	4.00
NAPOLEON AVE	WILLOW ST	1	4.00
ST CHARLES AVE	VALENCE ST	1	4.00
TOLEDANO ST	JOHNSON ST	1	4.00
VALENCE ST	LIBERTY ST	1	4.00
SONIAT ST	SARATOGA ST	1	4.00
NAPOLEON AVE	MAGNOLIA ST	1	4.00
NAPOLEON AVE	ST CHARLES AVE	1	4.00
FOUCHER ST	ST CHARLES AVE	1	4.00
1ST ST	ROMAN ST	1	4.00
CAMP ST	MILAN ST	1	4.00
GENERAL PERSHING ST	MAGAZINE ST	1	4.00
DERBIGNY ST	4TH ST	1	4.00
WASHINGTON AVE	CLARA ST	1	4.00
LOUISIANA AVE	ROBERTSON ST	1	4.00
DANNEEL ST	DELACHAISE ST	1	4.00
CHESTNUT ST	NAPOLEON AVE	1	4.00
LOUISIANA AVE	LOYOLA AVE	1	4.00
LOYOLA AVE	LOUISIANA AVE	1	4.00
PRYTANIA ST	7TH ST	1	4.00
TOLEDANO ST	SARATOGA ST	1	4.00
PRYTANIA ST	LOUISIANA AVE	1	4.00
DELACHAISE ST	ST CHARLES AVE	1	4.00
LOUISIANA AVE	ST CHARLES AVE	1	4.00
DELACHAISE ST	COLISEUM ST	1	4.00
GENERAL TAYLOR ST	MAGAZINE ST	1	4.00
MAGAZINE ST	VALENCE ST	1	4.00
CADIZ ST	TCHOUPITOULAS ST	1	4.00
ANNUNCIATION ST	CONSTANTINOPLE ST	1	4.00
LAFAYETTE ST	BARONNE ST	1	4.00
SIMON BOLIVAR AVE	MARTIN LUTHER KING BLVD	1	4.00
LOUISIANA AVE	ANNUNCIATION ST	1	4.00
ROBERTSON ST	MARTIN LUTHER KING BLVD	1	4.00
GIROD ST	LOYOLA AVE	1	4.00
GIROD ST	CARONDELET ST	1	4.00
LIBERTY ST	ST ANDREW ST	1	4.00
JACKSON AVE	ORETHA CASTLE HALEY BLVD	1	4.00
3RD ST	CARONDELET ST	1	4.00
2ND ST	ST CHARLES AVE	1	4.00
1ST ST	ST CHARLES AVE	1	4.00
FELICITY ST	BARONNE ST	1	4.00
JACKSON AVE	CARONDELET ST	1	4.00
MAGAZINE ST	JACKSON AVE	1	4.00
FELICITY ST	ST CHARLES AVE	1	4.00
JOSEPHINE ST	ST CHARLES AVE	1	4.00
ST MARY ST	LAUREL ST	1	4.00
RICHARD ST	ANNUNCIATION ST	1	4.00
CHIPPEWA ST	WASHINGTON AVE	1	4.00
TCHOUPITOULAS ST	JULIA ST	1	4.00
LAUREL ST	WASHINGTON AVE	1	4.00
ST JAMES ST	ST THOMAS ST	1	4.00

Street 1	Street 2	# Crashes	Score
JOHNSON ST	ST ANN ST	1	4.00
WASHINGTON AVE	EARHART BLVD	1	4.00
ROBERT E LEE BLVD	WUERPEL ST	1	4.00
WEST END BLVD	LANE ST	1	4.00
ORLEANS AVE	JEFFERSON DAVIS PKWY	1	4.00
TOULOUSE ST	CITY PARK AVE	1	4.00
BROAD ST	CANAL ST	1	4.00
DABADIE ST	BROAD ST	1	4.00
HARRISON AVE	PONTCHARTRAIN BLVD	1	4.00
FLEUR DE LIS DR	20TH ST	1	4.00
ST PHILIP ST	CLAIBORNE AVE	4	3.04
DUBLIN ST	EARHART BLVD	3	3.00
HAYNE BLVD	MICHIGAN ST	3	3.00
ST LOUIS ST	RAMPART ST	3	2.04
DUMAINE ST	BOURBON ST	3	2.04
LOUISIANA AVE	SARATOGA ST	3	2.04
POYDRAS ST	BARONNE ST	3	2.04
ROYAL ST	ESPLANADE AVE	2	2.00
DECATUR ST	URSULINES AVE	2	2.00
PALMETTO ST	CARROLLTON AVE	2	2.00
CARROLLTON AVE	DREXEL DR	2	2.00
PARIS AVE	SERE ST	2	2.00
PIETY ST	DAUPHINE ST	2	2.00
DAUPHINE ST	DUMAINE ST	2	2.00
ST ROCH AVE	CLAIBORNE AVE	2	2.00
MIRO ST	CLOUET ST	2	2.00
CLOUET ST	ST CLAUDE AVE	2	2.00
VALLETTE ST	NEWTON ST	2	2.00
NUNEZ ST	DIANA ST	2	2.00
GEORGIA ST	GENERAL DE GAULLE DR	2	2.00
READ BLVD	ALMONASTER AVE	2	2.00
I-10 W ONRAMP	TOURO ST	2	2.00
READ BLVD	LAKE FOREST BLVD	2	2.00
ELYSIAN FIELDS AVE	ROBERT E LEE BLVD	2	2.00
DESAIX BLVD	WISNER BLVD	2	2.00
POYDRAS ST	I-10 W ONRAMP	2	2.00
TULANE AVE	GALVEZ ST	2	2.00
WASHINGTON AVE	BROAD ST	2	2.00
ELBA ST	BROAD ST	2	2.00
JACKSON AVE	LA SALLE ST	2	2.00
PERDIDO ST	BARONNE ST	2	2.00
CONSTANCE ST	GIROD ST	2	2.00
DUMAINE ST	BROAD ST	2	2.00
ST CHARLES AVE	CANAL ST	4	1.12
CARROLLTON AVE	EARHART BLVD	3	1.08
ROBERTSON ST	ST PHILIP ST	2	1.04
IBERVILLE ST	DAUPHINE ST	2	1.04
CANAL ST	CLAIBORNE AVE	2	1.04
DAUPHINE ST	ST PETER ST	2	1.04
PRIEUR ST	MUSIC ST	2	1.04
KABEL DR	GENERAL DE GAULLE DR	2	1.04
ELYSIAN FIELDS AVE	GENTILLY BLVD	2	1.04
CHARTRES ST	ST ANN ST	2	1.04
ESPLANADE AVE	MIRO ST	2	1.04
JOSEPH ST	MAGAZINE ST	2	1.04
FOUCHER ST	PRYTANIA ST	2	1.04
JULIA ST	CAMP ST	2	1.04
HOMEDALE ST	WEST END BLVD	1	1.00
EDINBURGH ST	EAGLE ST	1	1.00
OLIVE ST	CARROLLTON AVE	1	1.00
STROELITZ ST	DUBLIN ST	1	1.00
EDINBURGH ST	CARROLLTON AVE	1	1.00
OLIVE ST	SHORT ST	1	1.00
ST BERNARD AVE	NEW YORK ST	1	1.00
BIENVILLE ST	BURGUNDY ST	1	1.00
CONTI ST	BURGUNDY ST	1	1.00
DECATUR ST	ST PHILIP ST	1	1.00
EARHART BLVD	CAMBRONNE ST	1	1.00

Street 1	Street 2	# Crashes	Score
CHARTRES ST	TOULOUSE ST	1	1.00
DECATUR ST	PETERS ST	1	1.00
DORSIERE ST	IBERVILLE ST	1	1.00
LAPEYROUSE ST	PRIEUR ST	1	1.00
GALVEZ ST	ST BERNARD AVE	1	1.00
STADIUM DR	DREYFOUS AVE	1	1.00
TULANE AVE	CARROLLTON AVE	1	1.00
CARROLLTON AVE	CANAL ST	1	1.00
FERN ST	WASHINGTON AVE	1	1.00
BANKS ST	TELEMACHUS ST	1	1.00
ORLEANS AVE	GAYOSO ST	1	1.00
MILTON ST	ST BERNARD AVE	1	1.00
WHITE ST	ORCHID ST	1	1.00
OREILLY ST	BROAD ST	1	1.00
BIENVILLE AVE	GALVEZ ST	1	1.00
CLAIBORNE AVE	CONTI ST	1	1.00
CANAL ST	TONTI ST	1	1.00
LOUISA ST	RAMPART ST	1	1.00
MORGAN ST	BOUNY ST	1	1.00
BURGUNDY ST	DUMAINE ST	1	1.00
DECATUR ST	MAGAZINE ST	1	1.00
TOULOUSE ST	ROYAL ST	1	1.00
CHEF MENTEUR HWY	MICHOUD BLVD	1	1.00
LEMANS ST	DWYER BLVD	1	1.00
ROMAN ST	TOURO ST	1	1.00
ST ANTHONY AVE	MC SHANE PL	1	1.00
ST BERNARD AVE	MC SHANE PL	1	1.00
KERLEREC ST	RAMPART ST	1	1.00
KERLEREC ST	RAMPART ST	1	1.00
PRIEUR ST	FRANKLIN AVE	1	1.00
VILLERE ST	PAUGER ST	1	1.00
ST ROCH AVE	ST CLAUDE AVE	1	1.00
ELYSIAN FIELDS AVE	DAUPHINE ST	1	1.00
DESIRE ST	LAW ST	1	1.00
ELYSIAN FIELDS AVE	CLAIBORNE AVE	1	1.00
ROYAL ST	ST ROCH AVE	1	1.00
VILLERE ST	TOURO ST	1	1.00
VERRET ST	PELICAN AVE	1	1.00
ST CLAUDE AVE	MANDEVILLE ST	1	1.00
FELICIANA ST	ST CLAUDE AVE	1	1.00
ST CLAUDE AVE	GALLIER ST	1	1.00
ST CLAUDE AVE	FRANCE ST	1	1.00
ST CLAUDE AVE	JOURDAN AVE	1	1.00
ST CLAUDE AVE	POLAND AVE	1	1.00
ST CLAUDE AVE	LESSEPS ST	1	1.00
ST CLAUDE AVE	FORSTALL ST	1	1.00
RAMPART ST	LIZARDI ST	1	1.00
L B LANDRY AVE	PTOLEMY ST	1	1.00
BEHRMAN AVE	NEWTON ST	1	1.00
LAWRENCE ST	PACE BLVD	1	1.00
FLANDERS ST	NEWTON ST	1	1.00
GENERAL MEYER AVE	HOLIDAY DR	1	1.00
GENERAL MEYER AVE	KABEL DR	1	1.00
TIMBER BLUFF LN	TIMBER RIDGE CT	1	1.00
PATTERSON DR	PITTARI PL	1	1.00
STRATFORD PL	SULLEN PL	1	1.00
CHEF MENTEUR HWY	MAJESTIC OAKS DR	1	1.00
CHEF MENTEUR HWY	CERISE AVE	1	1.00
CROWDER BLVD	LAKE FOREST BLVD	1	1.00
TONTI ST	NEW ORLEANS ST	1	1.00
LAW ST	A P TUREAUD AVE	1	1.00
TREASURE ST	PARIS AVE	1	1.00
PARIS AVE	GENTILLY BLVD	1	1.00
WADSWORTH DR	LEON C SIMON DR	1	1.00
FRANKLIN AVE	LEON C SIMON DR	1	1.00
LEON C SIMON DR	ST ROCH AVE	1	1.00
PINERIDGE ST	PARTRIDGE LN	1	1.00
FRENCHMEN ST	STEPHEN GIRARD ST	1	1.00

Street 1	Street 2	# Crashes	Score
PRESS DR	MIRABEAU AVE	1	1.00
HAYNE BLVD	LAVERNE ST	1	1.00
PRINCESS LN	DOWNMAN RD	1	1.00
DOWNMAN RD	SELMA ST	1	1.00
TONTI ST	ST ANTHONY ST	1	1.00
DWYER RD	MAJESTIC OAKS DR	1	1.00
ELYSIAN FIELDS AVE	TREASURE ST	1	1.00
HAYNE BLVD	BULLARD AVE	1	1.00
TULSA ST	VIOLA ST	1	1.00
BULLARD AVE	CURRAN RD	1	1.00
HAYNE BLVD	CROWDER BLVD	1	1.00
WILSON AVE	WARFIELD ST	1	1.00
WEAVER AVE	HAYNE BLVD	1	1.00
READ BLVD	LAKE FOREST BLVD	1	1.00
RESTGATE RD	CHEVY CHASE DR	1	1.00
KNIGHT DR	GRANT ST	1	1.00
BULLARD AVE	MORRISON RD	1	1.00
READ BLVD	HAMMOND ST	1	1.00
QUEENSWAY DR	EASTGATE AVE	1	1.00
BODENGER BLVD	CCC OUTBOUND	1	1.00
GENTILLY BLVD	ANNETTE ST	1	1.00
CONVENTION CENTER BLVD	CANAL ST	1	1.00
LOYOLA AVE	HOWARD AVE	1	1.00
ORLEANS AVE	DAUPHINE ST	1	1.00
BARRACKS ST	PETERS ST	1	1.00
FRENCHMEN ST	DECATUR ST	1	1.00
ESPLANADE AVE	GALVEZ ST	1	1.00
MYSTERY ST	PONCE DE LEON ST	1	1.00
MARTIN LUTHER KING BLVD	BARONNE ST	1	1.00
MAGNOLIA ST	6TH ST	1	1.00
MOSS ST	FLORIDA AVE	1	1.00
BADINE ST	IBERVILLE ST	1	1.00
TCHOUPITOULAS ST	NATCHEZ ST	1	1.00
GARDEN OAKS DR	BEHRMAN HWY	1	1.00
JOSEPH ST	ROBERTSON ST	1	1.00
JULIA ST	LOYOLA AVE	1	1.00
CLAIBORNE AVE	BROADWAY ST	1	1.00
JEFFERSON AVE	MAGAZINE ST	1	1.00
SHORT ST	CLAIBORNE AVE	1	1.00
DUBLIN ST	WILLOW ST	1	1.00
CARROLLTON AVE	HAMPSON ST	1	1.00
COHN ST	CARROLLTON AVE	1	1.00
ZIMPLE ST	BROADWAY ST	1	1.00
AUDUBON ST	WILLOW ST	1	1.00
LOYOLA AVE	JOSEPH ST	1	1.00
WILLOW ST	MCALISTER EXT	1	1.00
FRERET ST	WIRTH PL	1	1.00
GARFIELD ST	STATE ST	1	1.00
CONSTANCE ST	STATE ST	1	1.00
TCHOUPITOULAS ST	ARABELLA ST	1	1.00
GRAVIER ST	PRIEUR ST	1	1.00
BROAD ST	CLEVELAND AVE	1	1.00
TULANE AVE	LA SALLE ST	1	1.00
FRERET ST	GRAVIER ST	1	1.00
CLEVELAND AVE	LA SALLE ST	1	1.00
FRERET ST	VALENCE ST	1	1.00
GRAVIER ST	LOYOLA AVE	1	1.00
NASHVILLE AVE	GALVEZ ST	1	1.00
WASHINGTON AVE	BROAD ST	1	1.00
NAPOLEON AVE	CLAIBORNE AVE	1	1.00
NAPOLEON AVE	CARONDELET ST	1	1.00
CLAIBORNE EXIT	SUPERDOME EXIT	1	1.00
JACKSON AVE	DERBIGNY ST	1	1.00
LOUISIANA AVE	LAUREL ST	1	1.00
7TH ST	ST CHARLES AVE	1	1.00
BARONNE ST	WASHINGTON AVE	1	1.00
WASHINGTON AVE	MAGNOLIA ST	1	1.00
DANNEEL ST	FOUCHER ST	1	1.00

Street 1	Street 2	# Crashes	Score
NAPOLEON AVE	MAGAZINE ST	1	1.00
JACKSON AVE	MAGNOLIA ST	1	1.00
WASHINGTON AVE	LA SALLE ST	1	1.00
CARONDELET ST	LOUISIANA AVE	1	1.00
PRYTANIA ST	TOLEDANO ST	1	1.00
7TH ST	DANNEEL ST	1	1.00
CADIZ ST	CONSTANCE ST	1	1.00
WASHINGTON AVE	DANNEEL ST	1	1.00
LYONS ST	CONSTANCE ST	1	1.00
CADIZ ST	PRYTANIA ST	1	1.00
CLIO ST	SIMON BOLIVAR AVE	1	1.00
NAPOLEON AVE	ANNUNCIATION ST	1	1.00
THALIA ST	ST CHARLES AVE	1	1.00
CONSTANCE ST	AMELIA ST	1	1.00
MILAN ST	CONSTANCE ST	1	1.00
ANTONINE ST	CAMP ST	1	1.00
SIMON BOLIVAR AVE	FELICITY ST	1	1.00
ST CHARLES AVE	PHILIP ST	1	1.00
BARONNE ST	HOWARD AVE	1	1.00
ERATO ST	CLARA ST	1	1.00
RAMPART ST	JULIA ST	1	1.00
WASHINGTON AVE	MAGAZINE ST	1	1.00
LAFAYETTE ST	RAMPART ST	1	1.00
CLIO ST	RAMPART ST	1	1.00
JOSEPHINE ST	BARONNE ST	1	1.00
CHESTNUT ST	6TH ST	1	1.00
PRYTANIA ST	MELPOMENE ST	1	1.00
BARONNE ST	POYDRAS ST	1	1.00
JULIA ST	MAGAZINE ST	1	1.00
CAMP ST	NATCHEZ ST	1	1.00
CAMP ST	CAPDEVILLE ST	1	1.00
ANNUNCIATION ST	WASHINGTON AVE	1	1.00
MAGAZINE ST	ST JOSEPH ST	1	1.00
ST JOSEPH ST	TCHOUPITOULAS ST	1	1.00
CAMP ST	ANDREW HIGGINS DR	1	1.00
EUTERPE ST	ANNUNCIATION ST	1	1.00
7TH ST	MAGAZINE ST	1	1.00
CALLIOPE ST	ANNUNCIATION ST	1	1.00
BROAD ST	ORLEANS AVE	1	1.00
BROAD ST	ST ANN ST	1	1.00
MARGARET PL	PRYTANIA ST	1	1.00
ORLEANS AVE	VICTORY DR	1	1.00
VILLERE ST	ST LOUIS ST	1	1.00
SIMON BOLIVAR AVE	CLIO ST	3	0.12
TOLEDANO ST	CLAIBORNE AVE	3	0.12
JOSEPHINE ST	ST CHARLES AVE	3	0.12
BASIN ST	IBERVILLE ST	2	0.08
CANAL ST	DAUPHINE ST	2	0.08
VILLERE ST	LESSEPS ST	2	0.08
FRANKLIN AVE	GENTILLY BLVD	2	0.08
I-10 W	CROWDER BLVD	2	0.08
WASHINGTON AVE	ROMAN ST	2	0.08
MILAN ST	ST CHARLES AVE	2	0.08
OKEEFE AVE	POYDRAS ST	2	0.08
JACKSON AVE	COLISEUM ST	2	0.08
CONVENTION CENTER BLVD	JULIA ST	2	0.08
PRITCHARD PL	MONROE ST	1	0.04
ROBERT E LEE BLVD	GENERAL DIAZ ST	1	0.04
RAMPART ST	ST PETER ST	1	0.04
IBERVILLE ST	ROBERTSON ST	1	0.04
ESPLANADE AVE	RAMPART ST	1	0.04
RAMPART ST	GOVERNOR NICHOLLS ST	1	0.04
COLUMBUS ST	PRIEUR ST	1	0.04
BASIN ST	ST PETER ST	1	0.04
GOVERNOR NICHOLLS ST	DECATUR ST	1	0.04
BAUDIN ST	DUPRE ST	1	0.04
GRAVIER ST	WHITE ST	1	0.04
LAFRENIERE ST	HAMBURG ST	1	0.04

Street 1	Street 2	# Crashes	Score
CHARTRES ST	CONTI ST	1	0.04
CHARTRES ST	BIENVILLE ST	1	0.04
LAHARPE ST	ROMAN ST	1	0.04
WEIBLEN PL	CANAL BLVD	1	0.04
DREYFOUS AVE	COLLINS DIBOLL CIRCL	1	0.04
BANKS ST	ALEXANDER ST	1	0.04
D HEMECOURT ST	SOLOMON ST	1	0.04
BANKS ST	SOLOMON ST	1	0.04
CARROLLTON AVE	I-10 E	1	0.04
SCOTT ST	TULANE AVE	1	0.04
DREXEL DR	TELEMACHUS ST	1	0.04
BAUDIN ST	PIERCE ST	1	0.04
JEFFERSON DAVIS PKWY	IBERVILLE ST	1	0.04
BANKS ST	GENOIS ST	1	0.04
SENATE ST	PARIS AVE	1	0.04
ST BERNARD AVE	I-610 W	1	0.04
ROCHEBLAVE ST	DABADIE ST	1	0.04
DABADIE ST	GALVEZ ST	1	0.04
ST PETER ST	ROCHEBLAVE ST	1	0.04
DE SOTO ST	ESPLANADE AVE	1	0.04
CHARTRES ST	ELYSIAN FIELDS AVE	1	0.04
LOUISIANA AVE	CARONDELET ST	1	0.04
CLAIBORNE AVE	WASHINGTON AVE	1	0.04
3RD ST	CLARA ST	1	0.04
ST PETER ST	ROYAL ST	1	0.04
ST PHILIP ST	CHARTRES ST	1	0.04
DUMAINE ST	DECATUR ST	1	0.04
RIDGEWAY BLVD	RIDGEWAY EXIT	1	0.04
OLD GENTILLY RD	MICHOUD BLVD	1	0.04
CHARMES CT	LOURDES ST	1	0.04
PALACE ST	SAIGON DR	1	0.04
KERLEREC ST	ROBERTSON ST	1	0.04
FRANKLIN AVE	GALVEZ ST	1	0.04
WESTBANK EXP SERVICE	DONNER RD	1	0.04
WEST EX OUT	TERRY PW EXIT	1	0.04
ELYSIAN FIELDS AVE	DECATUR ST	1	0.04
ST ROCH AVE	RAMPART ST	1	0.04
ROYAL ST	FRENCHMEN ST	1	0.04
ST CLAUDE AVE	ELYSIAN FIELDS AVE	1	0.04
DELARONDE ST	SEGUIN ST	1	0.04
DERBIGNY ST	PIETY ST	1	0.04
ST CLAUDE AVE	ALVAR ST	1	0.04
URQUHART ST	CONGRESS ST	1	0.04
GALVEZ ST	ALVAR ST	1	0.04
MARAIS ST	LESSEPS ST	1	0.04
ST CLAUDE AVE	LIZARDI ST	1	0.04
ST CLAUDE AVE	GORDON ST	1	0.04
ST CLAUDE AVE	ST MAURICE AVE	1	0.04
ST CLAUDE AVE	DELERY ST	1	0.04
VALLETTE ST	OPELOUSAS AVE	1	0.04
NEWTON ST	HENDEE ST	1	0.04
PATTERSON DR	FLANDERS ST	1	0.04
FIESTA ST	PRANCER ST	1	0.04
HOLIDAY DR	GENERAL DE GAULLE DR	1	0.04
BEHRMAN HWY	TULLIS DR	1	0.04
TALL TIMBERS DR	SILVER MAPLE CT	1	0.04
CHEF MENTEUR HWY	DALE ST	1	0.04
BUNKER HILL RD	MIDDLEBORO RD	1	0.04
PLUM ORCHARD ST	CHEF MENTEUR HWY	1	0.04
LURLINE ST	GRANT ST	1	0.04
NATURE CENTER DR	READ BLVD	1	0.04
ELYSIAN FIELDS AVE	ELYSIAN FIELDS EXIT	1	0.04
CROWDER BLVD	HUNTINGTON PARK DR	1	0.04
ST ANTHONY AVE	ROBERT E LEE BLVD	1	0.04
LOUISA DR	STEPHEN GIRARD AVE	1	0.04
STEPHEN GIRARD AVE	MARK TWAIN DR	1	0.04
CHEF MENTEUR HWY	I-10 W	1	0.04
DOWNMAN RD	DOROTHEA ST	1	0.04

Street 1	Street 2	# Crashes	Score
FRENCHMEN ST	TREASURE ST	1	0.04
FRANKLIN AVE	JASMINE ST	1	0.04
FRANKLIN AVE	I-610 W ONRAMP	1	0.04
FLORIDA AVE	HOPE ST	1	0.04
MORRISON RD	MARYWOOD CT	1	0.04
MACKENZIE ST	ZENITH ST	1	0.04
I-10 W	FRANKLIN EXIT	1	0.04
WISNER BLVD	FILMORE AVE	1	0.04
LAKESHORE DR	TURNAROUND	1	0.04
GENERAL MEYER AVE	PACE BLVD	1	0.04
BENEFIT ST	URSULA SPENCER WY	1	0.04
MARY JANE LN	ANNE MARIE CT	1	0.04
ST CHARLES AVE	MELPOMENE ST	1	0.04
MAGNOLIA ST	MARTIN LUTHER KING BLVD	1	0.04
CLAIBORNE AVE	FELICITY ST	1	0.04
LAKE FOREST BLVD	CROWDER BLVD	1	0.04
DRYADES ST	CALLIOPE ST	1	0.04
MAPLE ST	BROADWAY ST	1	0.04
BELFAST ST	CARROLLTON AVE	1	0.04
FERN ST	ST CHARLES AVE	1	0.04
CHEROKEE ST	MAPLE ST	1	0.04
FRERET ST	BROADWAY ST	1	0.04
CLAIBORNE AVE	AUDUBON BLVD	1	0.04
CALHOUN ST	JOHNSON ST	1	0.04
ST CHARLES AVE	PALMER AVE	1	0.04
PERDIDO ST	JOHNSON ST	1	0.04
TCHOUPITOULAS ST	VALMONT ST	1	0.04
JEFFERSON AVE	TCHOUPITOULAS ST	1	0.04
ROCHEBLAVE ST	BANKS ST	1	0.04
TULANE AVE	PRIEUR ST	1	0.04
MIRO ST	TULANE AVE	1	0.04
TONTI ST	NAPOLEON AVE	1	0.04
TULANE AVE	SARATOGA ST	1	0.04
LOYOLA AVE	POYDRAS ST	1	0.04
BARONNE ST	COMMON ST	1	0.04
3RD ST	ROMAN ST	1	0.04
PRIEUR ST	1ST ST	1	0.04
PRIEUR ST	MARTIN LUTHER KING BLVD	1	0.04
FOUCHER ST	BARONNE ST	1	0.04
PHILIP ST	MAGNOLIA ST	1	0.04
FELICITY ST	CLARA ST	1	0.04
FELICITY ST	MAGNOLIA ST	1	0.04
3RD ST	LOYOLA AVE	1	0.04
4TH ST	LOYOLA AVE	1	0.04
NAPOLEON AVE	PRYTANIA ST	1	0.04
WASHINGTON AVE	DRYADES ST	1	0.04
ANNUNCIATION ST	LYONS ST	1	0.04
BORDEAUX ST	TCHOUPITOULAS ST	1	0.04
DELACHAISE ST	MAGAZINE ST	1	0.04
PHILIP ST	PRYTANIA ST	1	0.04
FELICITY ST	MAGAZINE ST	1	0.04
LOUISIANA AVE	TCHOUPITOULAS ST	1	0.04
WASHINGTON AVE	PRYTANIA ST	1	0.04
JOSEPHINE ST	LIBERTY ST	1	0.04
MAGAZINE ST	CANAL ST	1	0.04
MAGAZINE ST	GRAVIER ST	1	0.04
PRYTANIA ST	2ND ST	1	0.04
COLISEUM ST	ST MARY ST	1	0.04
HOWARD AVE	ST CHARLES AVE	1	0.04
PETERS ST	POYDRAS ST	1	0.04
ST CHARLES AVE	LAFAYETTE ST	1	0.04
MAESTRI PL	CAMP ST	1	0.04
ST CHARLES AVE	MAESTRI PL	1	0.04
GRAVIER ST	CAMP ST	1	0.04
ST CHARLES AVE	ANDREW HIGGINS DR	1	0.04
ANNUNCIATION ST	JOHN CHURCHILL CHASE	1	0.04
JULIA ST	FULTON ST	1	0.04
JOHN CHURCHILL CHASE	PETERS ST	1	0.04

Street 1	Street 2	# Crashes	Score
CONSTANCE ST	7TH ST	1	0.04
ANNUNCIATION ST	6TH ST	1	0.04
HOV	PORT OF NO PL	1	0.04
CITY PARK AVE	UNNAMED ST	1	0.04
IBERVILLE ST	BROAD ST	1	0.04
URSULINES AVE	BROAD ST	1	0.04
ONZAGA ST	BROAD ST	1	0.04
ONZAGA ST	PAUL MORPHY ST	1	0.04
MOUTON ST	MILNE BLVD	1	0.04