

CHAPTER 6.4: CITY OF MCGREGOR

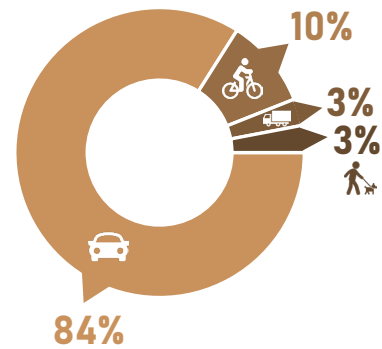
INTRODUCTION

The City of McGregor is located sixteen miles southwest of Waco on US-84 in western McLennan County. The city has an estimated population of 5,338 according to the 2020 census. This chapter provides information on the City of McGregor’s collision statistics from 2014 to 2023. A total of 32 collisions occurred on McGregor city streets in the last 10 years, including one fatal and three serious injuries collisions. TxDOT roadways within McGregor city limits had 158 collisions during the same period, with four fatal injuries and 25 serious injuries. The majority of injury collisions in both City and TxDOT rights-of-way resulted in minor injuries, with 50 percent in City right-of-way and approximately 42 percent in TxDOT right-of-way.



COLLISIONS 2014 TO 2023		CITY		TxDOT	
Total Collisions	32	100 %	158	100 %	
Fatal Injury	1	3.13 %	4	2.53 %	
Serious Injury	3	9.38 %	25	15.82 %	
Minor Injury	16	50.00 %	66	41.77 %	
Possible Injury	12	37.50 %	63	39.87 %	
Total Persons Involved	32	100 %	229	100 %	
Fatal Injury	1	3.13 %	4	1.75 %	
Serious Injury	3	9.38 %	27	11.79 %	
Minor Injury	16	50.00 %	96	41.92 %	
Possible Injury	12	37.50 %	102	44.54 %	

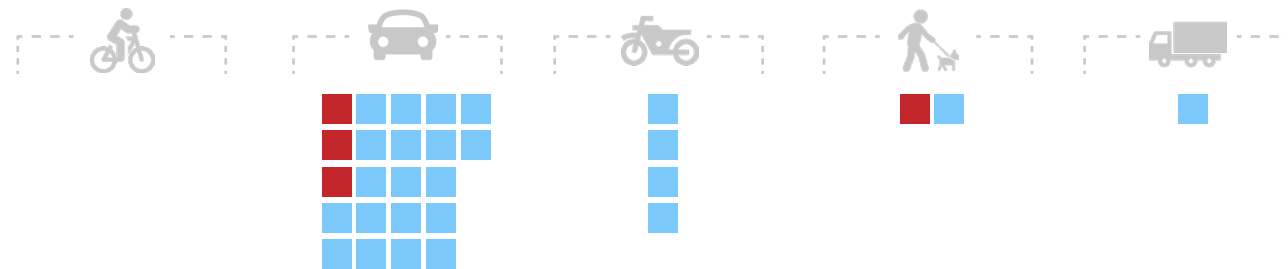
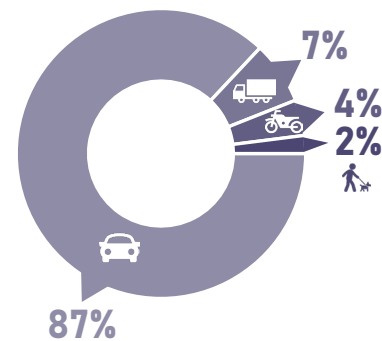
COLLISIONS BY MODE - CITY



Mode	Fatal Injury	Serious Injury	Minor Injury	Possible Injury
Bicycle	0 %	0 %	0 %	0 %
Car	4 %	48 %	44 %	100 %
Motorcycle	0 %	0 %	0 %	0 %
Pedestrian	0 %	100 %	0 %	100 %
Truck	0 %	100 %	0 %	100 %

Note : Each box represents one fatal or severe injury collision.

COLLISIONS BY MODE - TxDOT



Mode	Fatal Injury	Serious Injury	Minor Injury	Possible Injury
Bicycle	0 %	0 %	0 %	0 %
Car	2 %	14 %	41 %	100 %
Motorcycle	0 %	57 %	29 %	100 %
Pedestrian	0 %	33 %	0 %	100 %
Truck	0 %	9 %	45 %	100 %

Note : Each box represents one fatal or severe injury collision.

The following summary provides information on the number of collisions, persons injured, and the proportion of persons involved in collisions based on mode of transportation, age group, and gender. It also draws comparisons between collisions on McGregors’s city streets, TxDOT facilities and McLennan County across various categories.

On the city streets of McGregor, there were a total of 32 collisions, resulting in 32 persons injured. In comparison, TxDOT reported a total of 158 collisions resulting in 229 persons injured within McGregor city limits.

This section also identifies several major collision trends on McGregor city streets, including hit object collisions, collisions involving unsafe speeds, right-of-way violations by automobiles, and nighttime collisions. On TxDOT roadways, the prominent trends were broadside collisions, unsafe speed violations, right-of-way violations by automobiles and nighttime collisions. A detailed summary analyzing these collision trends is provided in the collision profile section of this chapter.

The pie charts below compare the severity of collisions on roadways with different speed limits. The charts indicate that roads with a 50 mph speed limit accounted for the highest proportion of KSI collisions out of the speed limits examined.

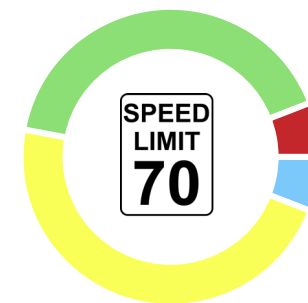
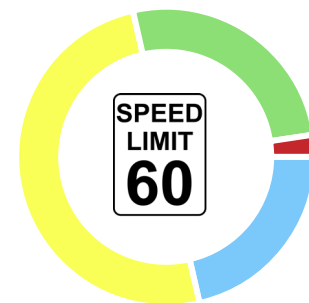
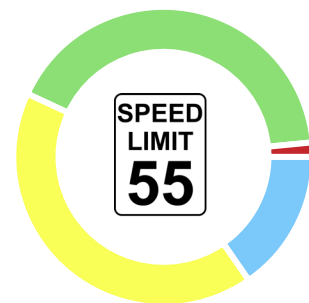
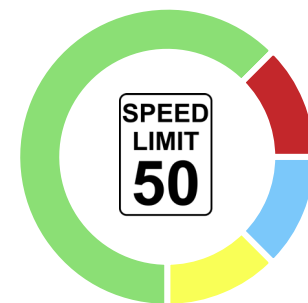
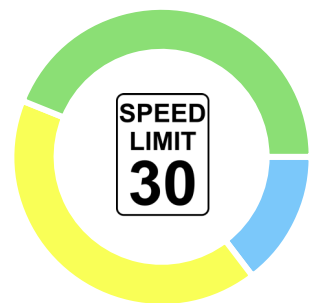
CITY OF MCGREGOR VS. McLENNAN COUNTY COLLISIONS - RELATIVE SHARES

CITY		TxDOT		McLENNAN COUNTY	
MODE					
Bicycle	9 %	Bicycle	0 %	Bicycle	1 %
Car	84 %	Car	87 %	Car	85 %
Motorcycle	0 %	Motorcycle	4 %	Motorcycle	4 %
Pedestrian	3 %	Pedestrian	2 %	Pedestrian	3 %
Truck	3 %	Truck	7 %	Truck	7 %
FIRST HARMFUL EVENT					
Motor Vehicle in Transport	47 %	Motor Vehicle in Transport	75 %	Motor Vehicle in Transport	72 %
Fixed Object	19 %	Fixed Object	15 %	Fixed Object	17 %
Overtaken	9 %	Overtaken	3 %	Overtaken	4 %
MANNER OF COLLISION					
Hit Object	53 %	Broadside	38 %	Broadside	42 %
Broadside	25 %	Rear End	32 %	Hit Object	28 %
Rear End	19 %	Hit Object	25 %	Rear End	24 %
Head-On	3 %	Sideswipe	4 %	Sideswipe	5 %
VIOLATION CATEGORY					
Unsafe Speed	28 %	Unsafe Speed	37 %	Unsafe Speed	23 %
Automobile Right-of-way	28 %	Automobile Right-of-way	29 %	Automobile Right-of-way	22 %
Driver Condition	9 %	Other Unforeseen Reasons	7 %	Traffic Signals and Signs	12 %
Traffic Signals and Signs	6 %	Distracted Driving	6 %	Distracted Driving	8 %
Distracted Driving	6 %	Unsafe Lane Change	4 %	Other Improper Driving	6 %
Other Improper Driving	6 %	Driver Condition	4 %	Other Unforeseen Reasons	6 %
LOCATION					
Intersection	59 %	Intersection	51 %	Intersection	59 %
Roadway	41 %	Roadway	49 %	Roadway	41 %
LIGHTING					
Daylight	69 %	Daylight	66 %	Daylight	70 %
Dark, Lighted	16 %	Dark, Lighted	8 %	Dark, Lighted	16 %
Dark, Not Lighted	16 %	Dark, Not Lighted	25 %	Dark, Not Lighted	11 %

CITY : **TxDOT**
32 : **158**
TOTAL COLLISIONS : **TOTAL COLLISIONS**
32 : **229**
TOTAL PERSONS INJURED : **TOTAL PERSONS INJURED**

PERSONS INVOLVED								
	CITY				TxDOT			
	MODE							
Bicycle	0 %	0 %	9 %	0 %	0 %	0 %	0 %	0 %
Car	3 %	3 %	41 %	38 %	1 %	10 %	41 %	43 %
Motorcycle	0 %	0 %	0 %	0 %	0 %	2 %	1 %	0 %
Pedestrian	0 %	3 %	0 %	0 %	0 %	0 %	0 %	0 %
Truck	0 %	3 %	0 %	0 %	0 %	0 %	0 %	1 %
AGE								
Below 15	0 %	0 %	9 %	3 %	0 %	0 %	3 %	6 %
15 - 65	3 %	9 %	41 %	28 %	1 %	11 %	34 %	33 %
Above 65	0 %	0 %	0 %	6 %	0 %	1 %	5 %	5 %
GENDER								
Male	3 %	6 %	31 %	6 %	1 %	6 %	24 %	21 %
Female	0 %	3 %	19 %	31 %	0 %	6 %	18 %	24 %

SPEED LIMIT



- Fatal Injury
- Serious Injury
- Minor Injury
- Possible Injury

BICYCLE & PEDESTRIAN COLLISION BY SEVERITY

The map shows the location of injury collisions involving bicyclists and pedestrians. In total there were seven bicycle and pedestrian collisions resulting in one fatal and two serious injury collisions.



SEVERITY INDEX

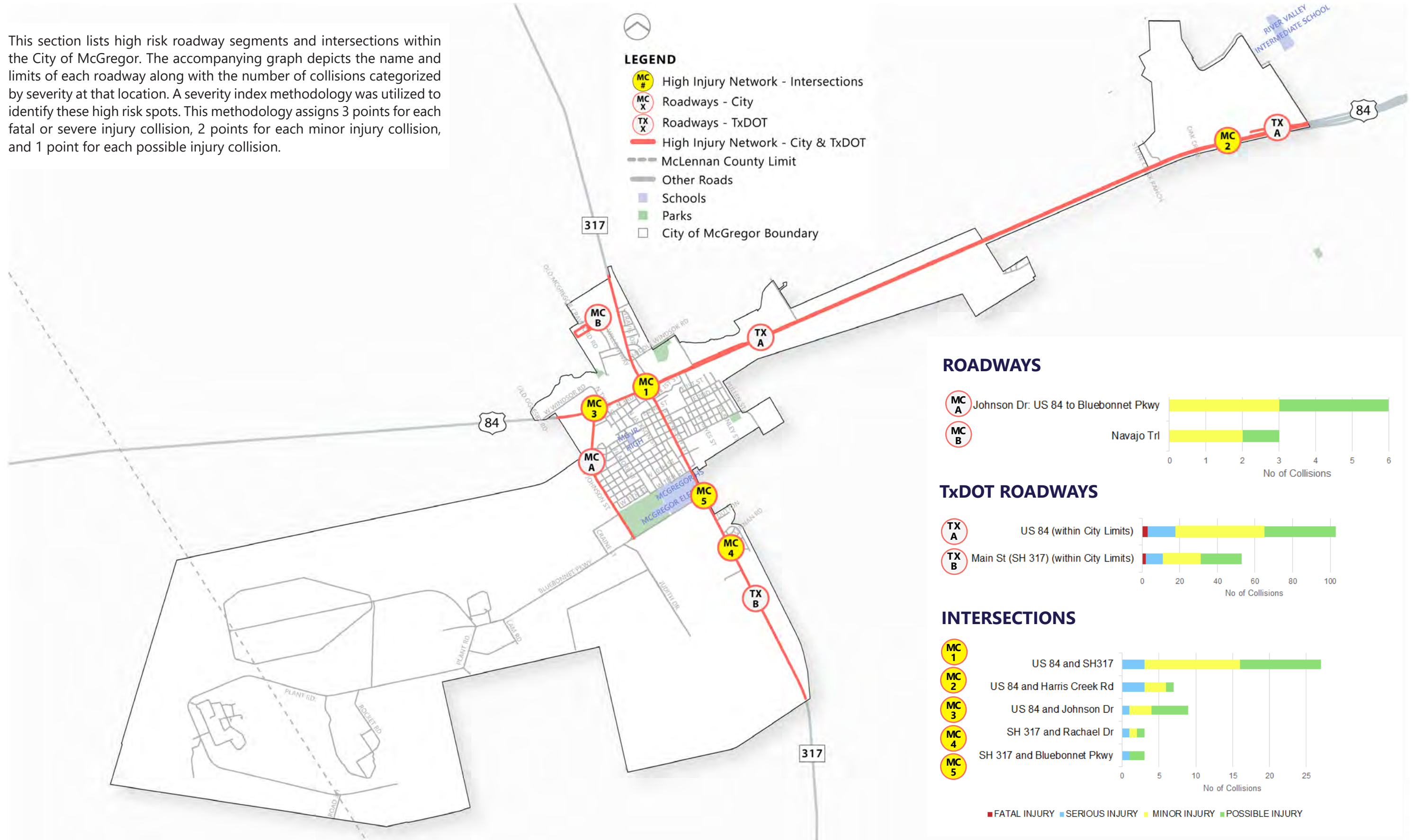
The Collision Severity Index methodology is used to identify the locations within a jurisdiction that are experiencing the most severe crashes. This approach assigns weighted point values based on the injury outcomes of individual collisions - 3 points for each fatal or severe injury, 2 points for minor injuries, and 1 point for possible injuries. By summing these scores for all crashes along defined roadway segments between intersections, locations with a history of the most severe crashes receive the highest overall severity index.

This data-driven analysis allows the project team to prioritize infrastructure improvements and safety countermeasures in high-risk areas. Visualizing the severity index through a color-coded collision heat map further highlights the geographic concentrations of injury crashes, guiding decision-makers to target the most vulnerable locations for mitigation. Locations with the highest severity scores are selected for inclusion in the High Risk Network, shown on this map.



ROADWAYS & INTERSECTIONS

This section lists high risk roadway segments and intersections within the City of McGregor. The accompanying graph depicts the name and limits of each roadway along with the number of collisions categorized by severity at that location. A severity index methodology was utilized to identify these high risk spots. This methodology assigns 3 points for each fatal or severe injury collision, 2 points for each minor injury collision, and 1 point for each possible injury collision.

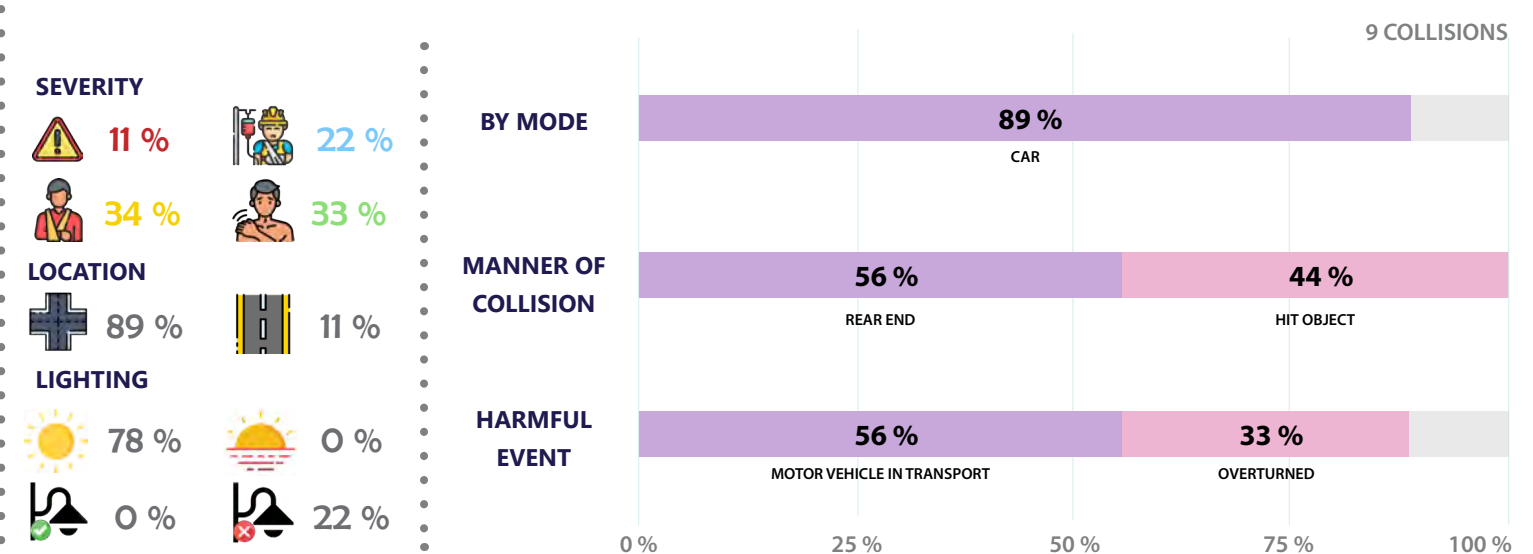
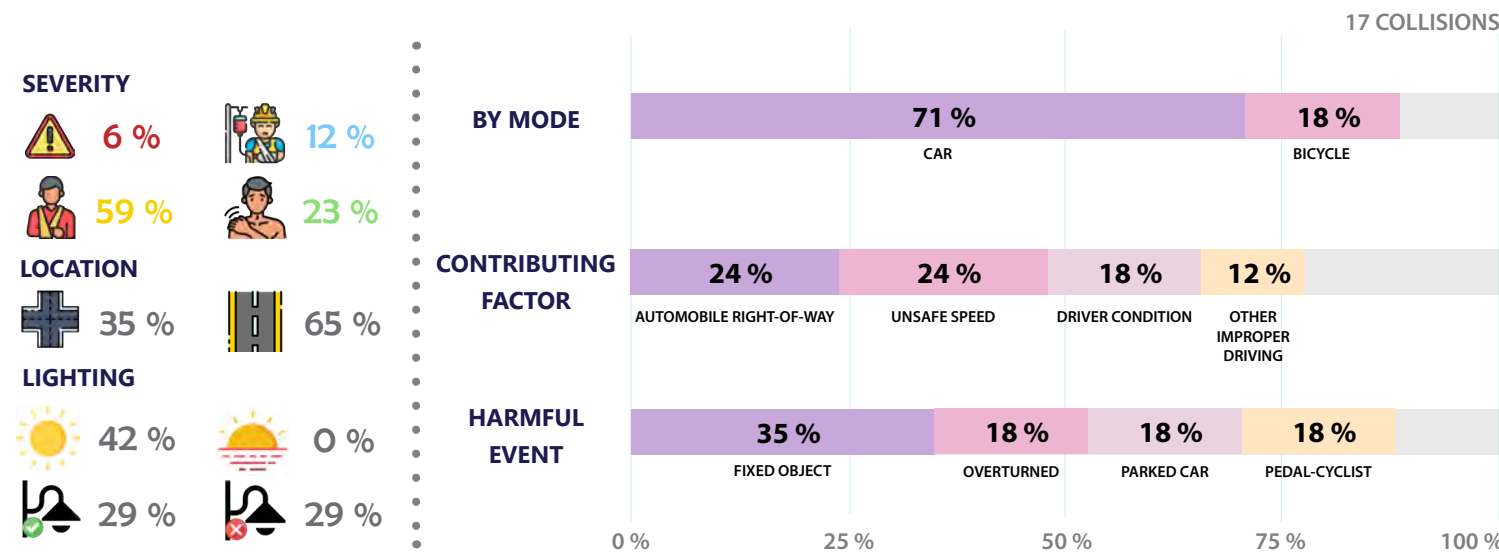


PROFILES - CITY

PROFILE 1 - HIT OBJECT



PROFILE 2 - UNSAFE SPEED

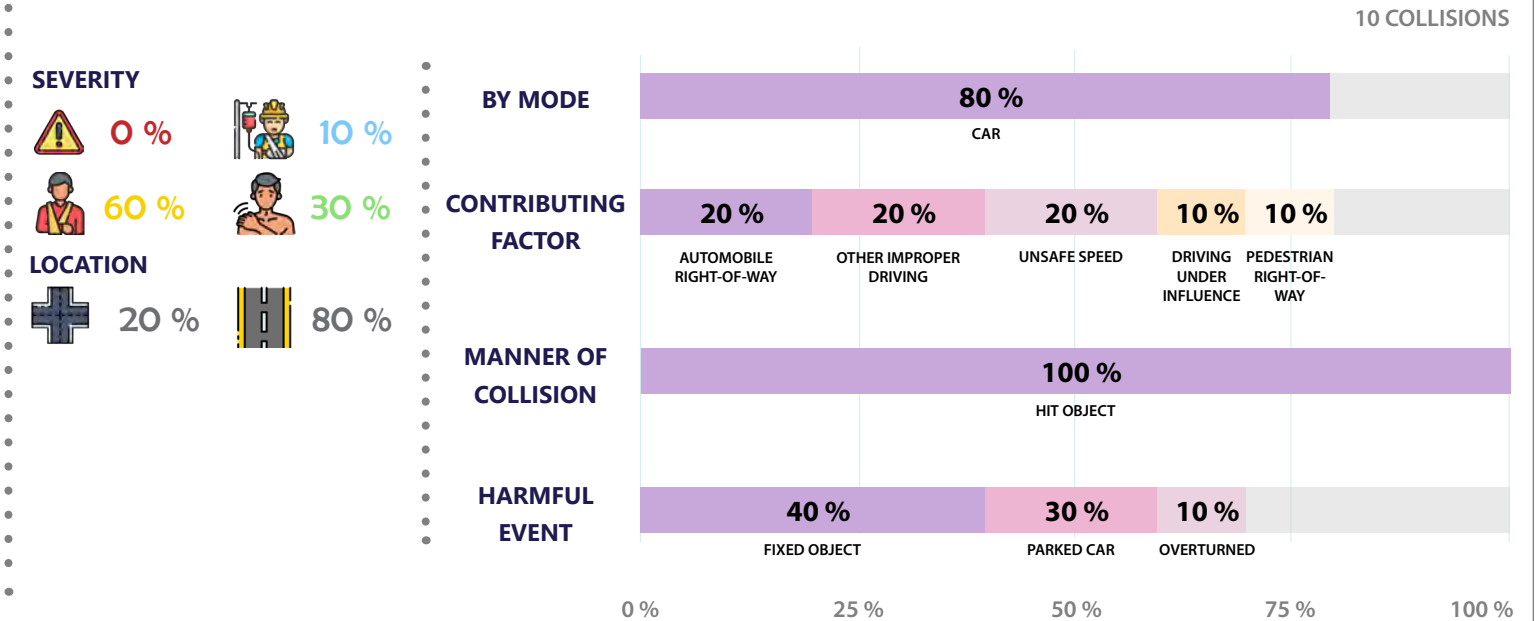
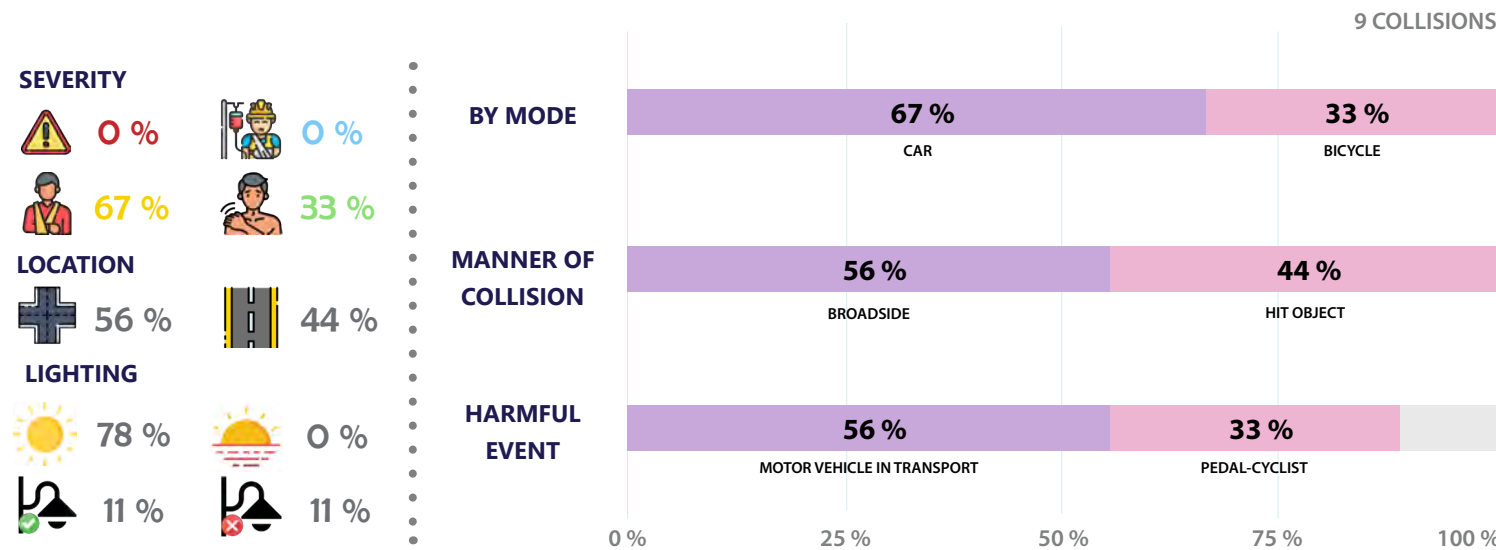
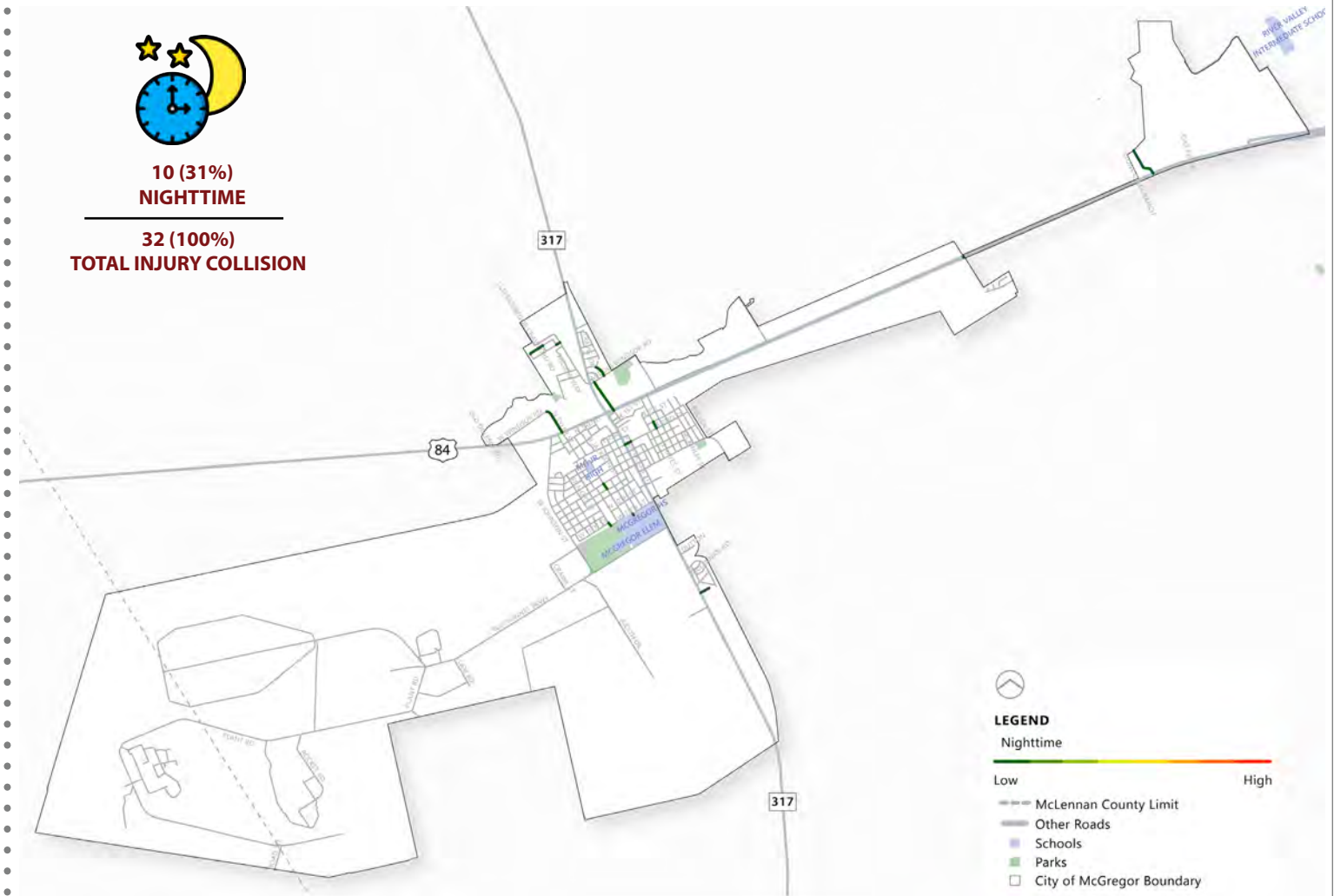


PROFILES - CITY

PROFILE 3 - AUTOMOBILE RIGHT-OF-WAY



PROFILE 4 - NIGHTTIME

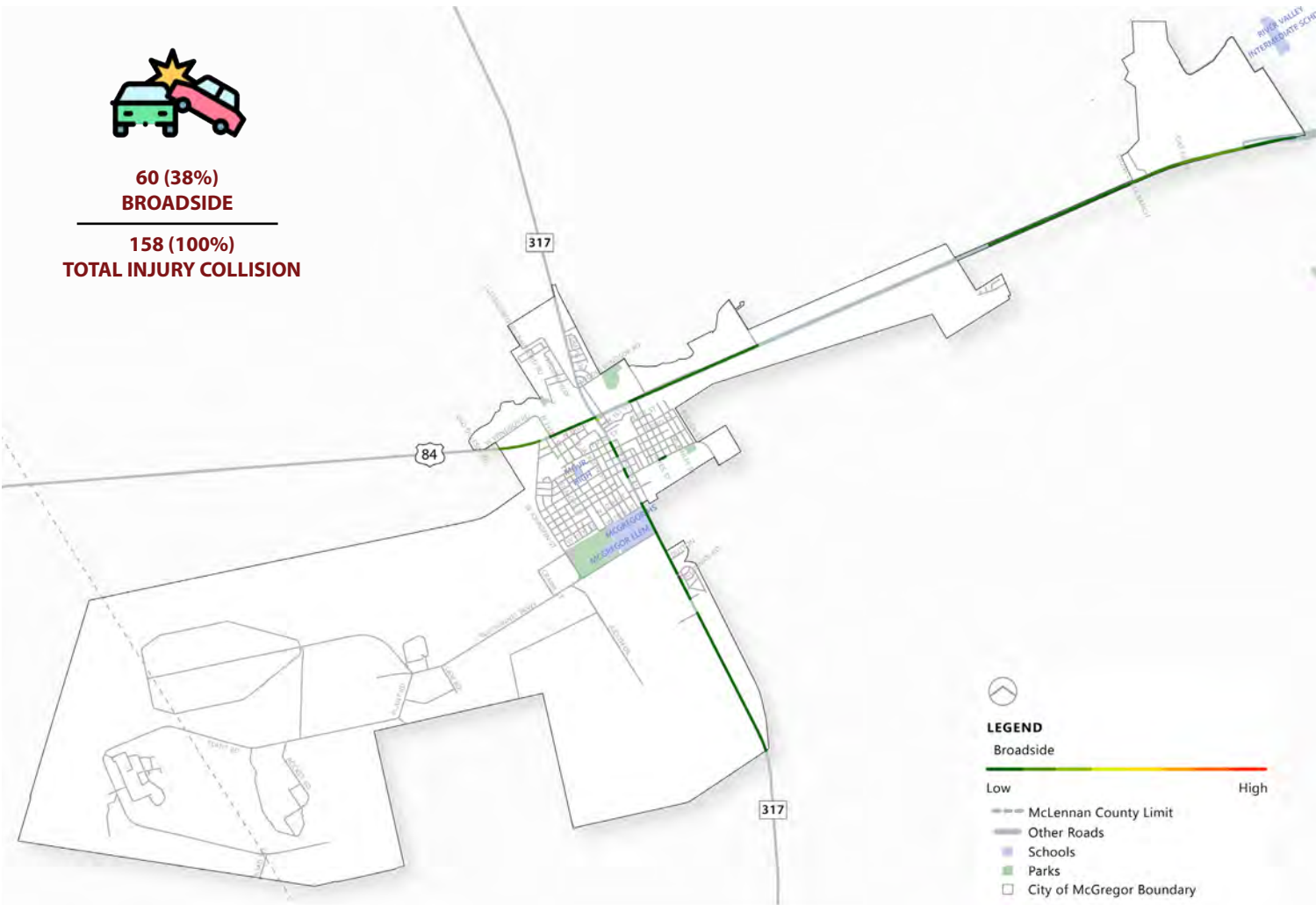


PROFILES - TXDOT

PROFILE 1 - BROADSIDE



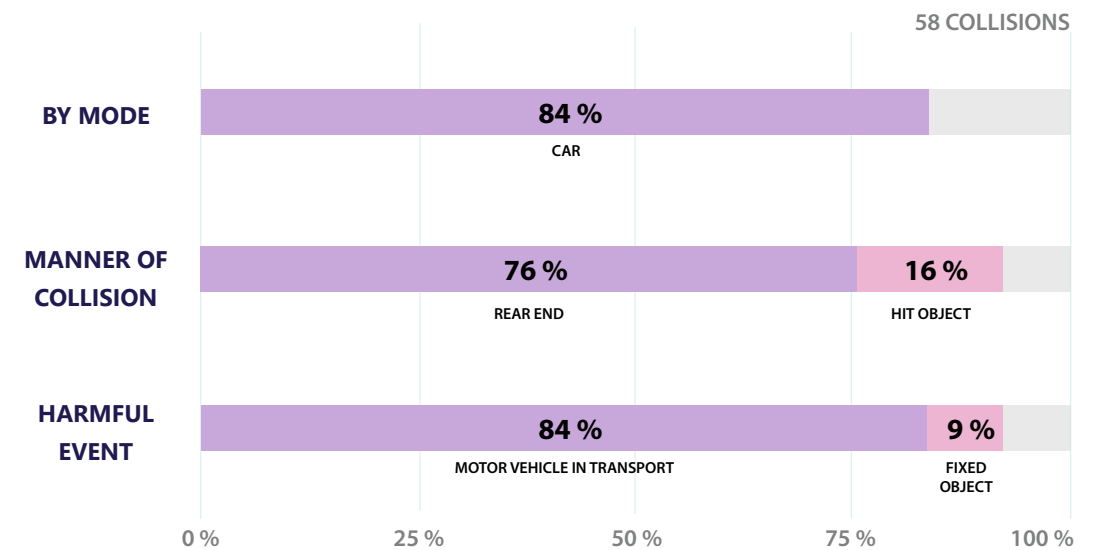
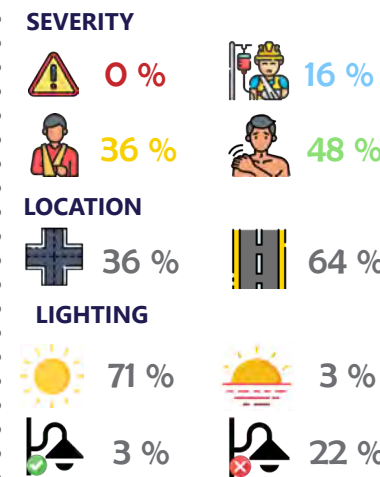
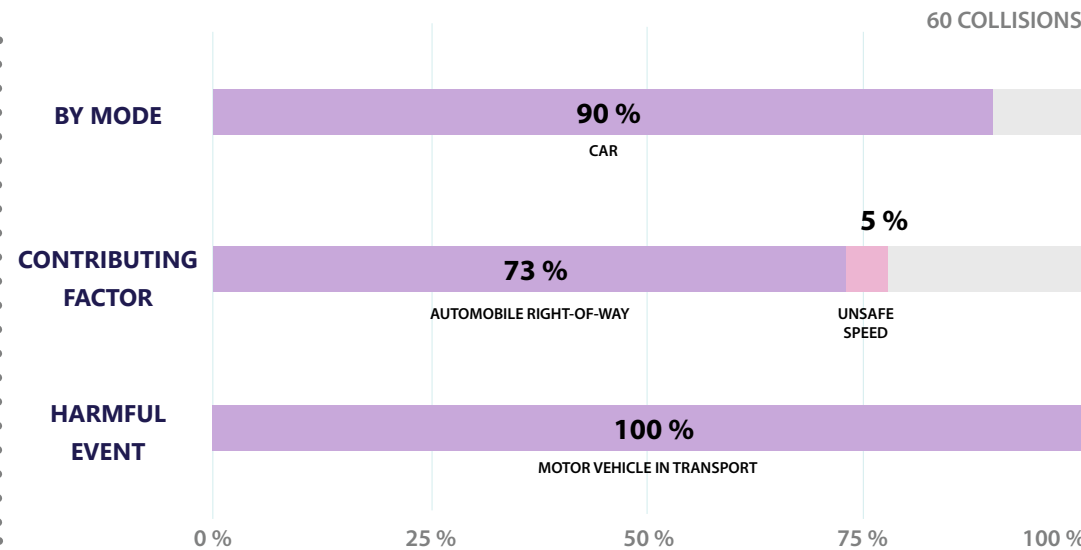
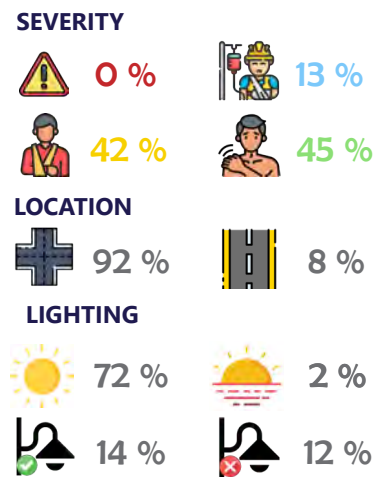
60 (38%)
BROADSIDE
158 (100%)
TOTAL INJURY COLLISION



PROFILE 2 - UNSAFE SPEED



58 (37%)
UNSAFE SPEED
158 (100%)
TOTAL INJURY COLLISION

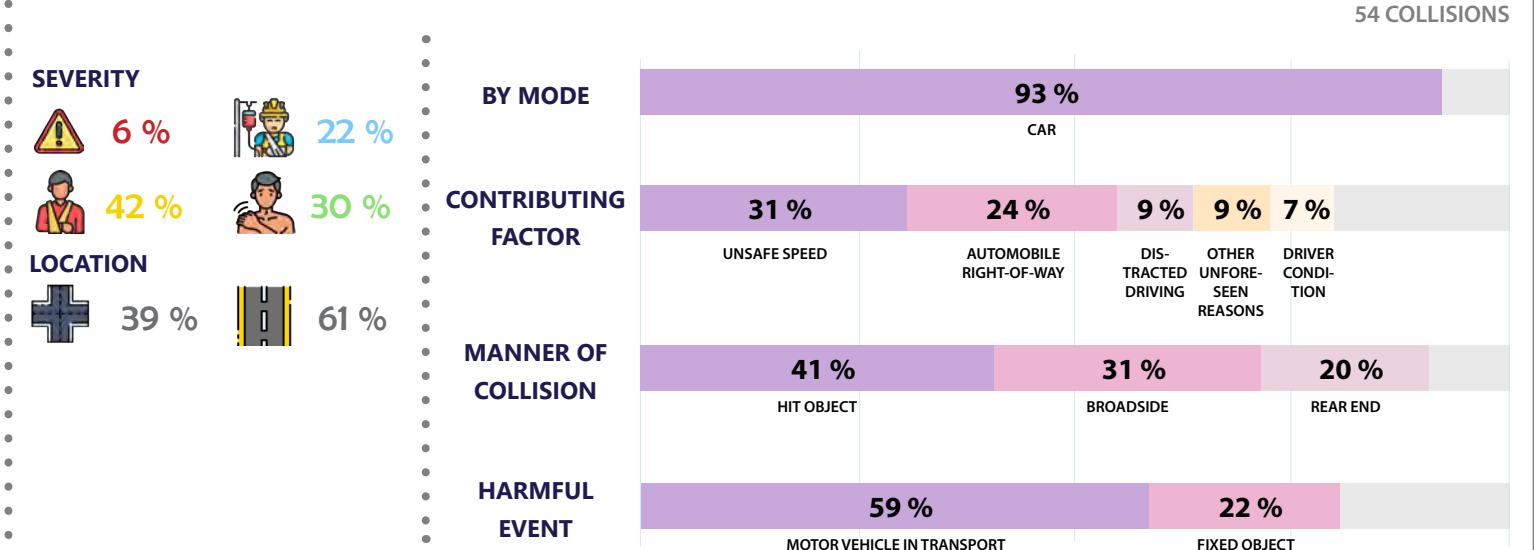
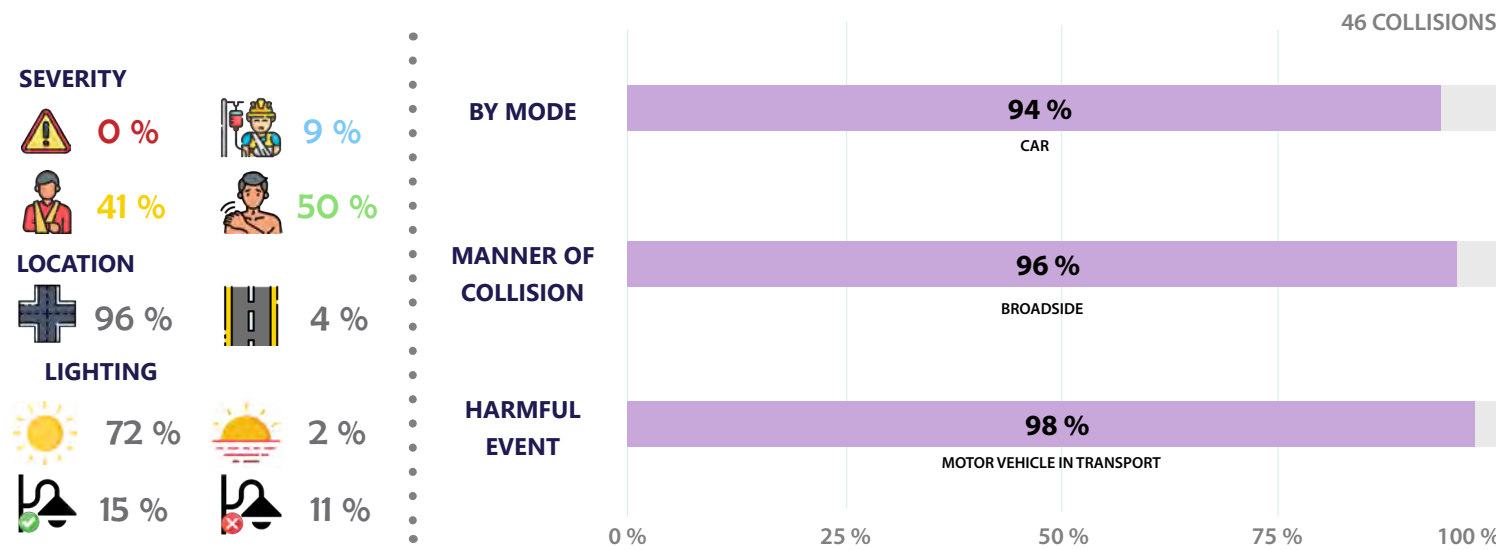
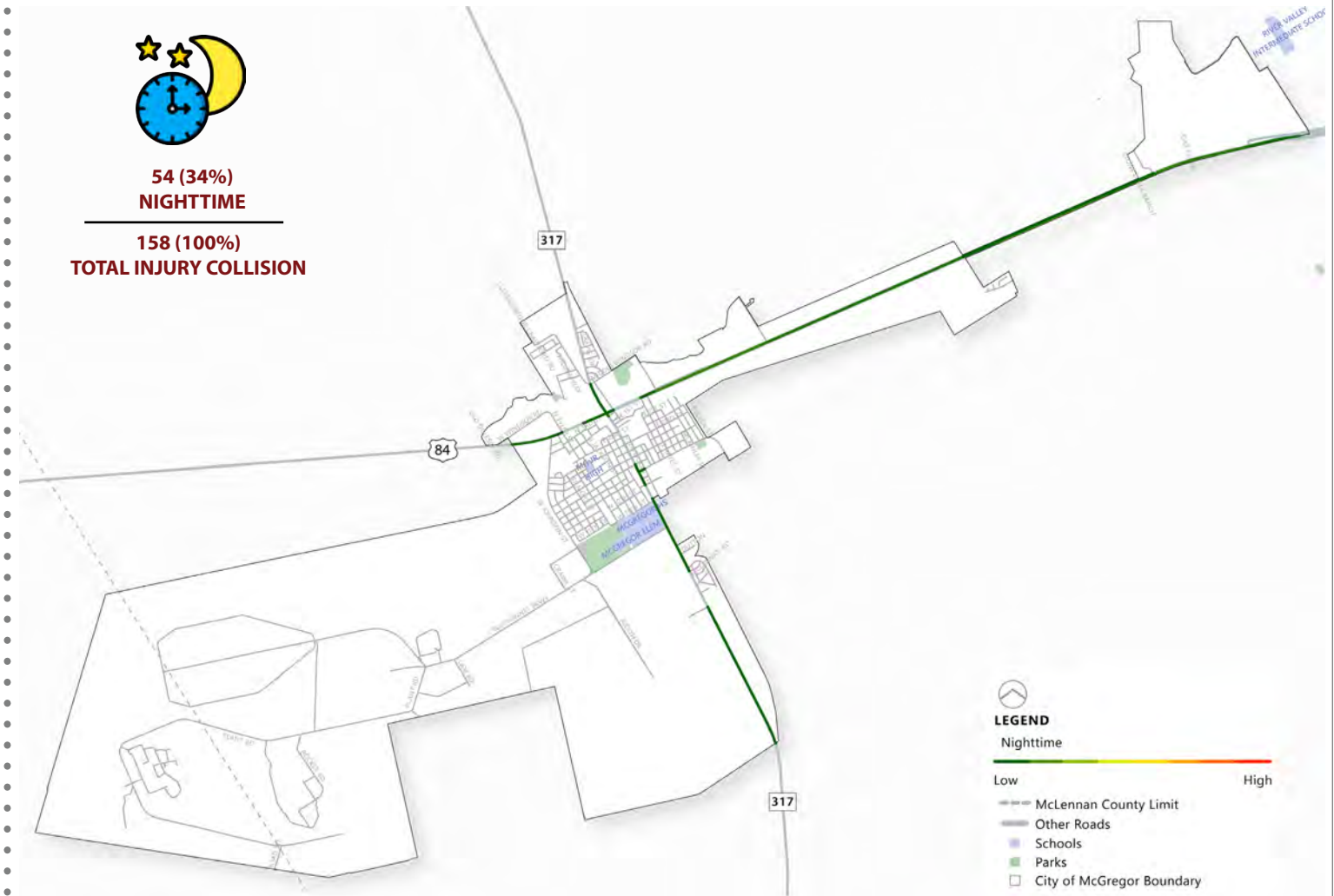


PROFILES - TXDOT

PROFILE 3 - AUTOMOBILE RIGHT-OF-WAY



PROFILE 4 - NIGHTTIME



NEIGHBORHOOD TRAFFIC CALMING PROJECT

The residential streets around Main Street between McGregor Dr. and 11th St need a Neighborhood Traffic Calming Project due to cut-through traffic and speeding issues created by the busy downtown corridor. A neighborhood traffic calming program typically involves initiatives aimed at reducing traffic speed and improving safety on residential streets. These programs often include measures such as speed humps, traffic circles, chicanes, curb extensions, and signage to encourage drivers to slow down and be more cautious in residential areas. The program also involves community engagement and input to identify specific traffic issues and develop appropriate solutions tailored to the neighborhood's needs. Overall, the goal of a neighborhood traffic calming program is to create safer and more livable streets for residents and pedestrians.

SAFE ROUTES TO SCHOOL

The City of McGregor is in need of implementing a Safe Routes to School program aimed at enhancing safety and accessibility for children who walk or bike to local schools. This program focuses on promoting walking and bicycling to school through various means, including infrastructure improvements, enforcement, tools, safety education, and incentives. Additionally, the program's scope includes evaluating arrival and dismissal procedures and identifying infrastructure needs such as sidewalks, bike lanes, and enhanced crossing locations around all schools.

MCGREGOR TEXAS TRAIN STATION CONNECTIVITY PLANNING

This plan aims to ensure safe, multi-modal access to the new train station from all parts of the city. Potential elements of this plan should include the development of pedestrian and bicycle pathways, along with infrastructure improvements to support these modes of transportation. Additionally, the plan should consider the implementation of parking facilities, public transit connections, and street redesigns aimed at enhancing vehicular access to the station area. By incorporating these elements, the plan seeks to provide residents with a variety of transportation options while facilitating convenient and safe access to the train station.

ACTIVE TRANSPORTATION PLAN (PED & BIKE FACILITY)

The City of McGregor is in need of implementing an Active Transportation Plan (ATP) to promote increased walking, biking, and the use of other non-motorized transportation modes. This comprehensive plan will delineate strategies, policies, and infrastructure enhancements aimed at fostering safer and more accessible environments for pedestrians and cyclists within the city.

The ATP will entail an evaluation of existing multi-modal infrastructure improvements and safety measures, while also identifying gaps and deficiencies in infrastructure such as sidewalks and bike lanes. Additionally, the plan will focus on raising awareness about the benefits of walking and cycling, as well as educating the community about road safety and the importance of sharing the road with other users.

Furthermore, the ATP will involve the implementation of policies and regulations to support active transportation, including the adoption of Complete Streets policies, zoning regulations prioritizing pedestrian and cyclist safety, and incentives for developers to incorporate active transportation infrastructure into new developments.

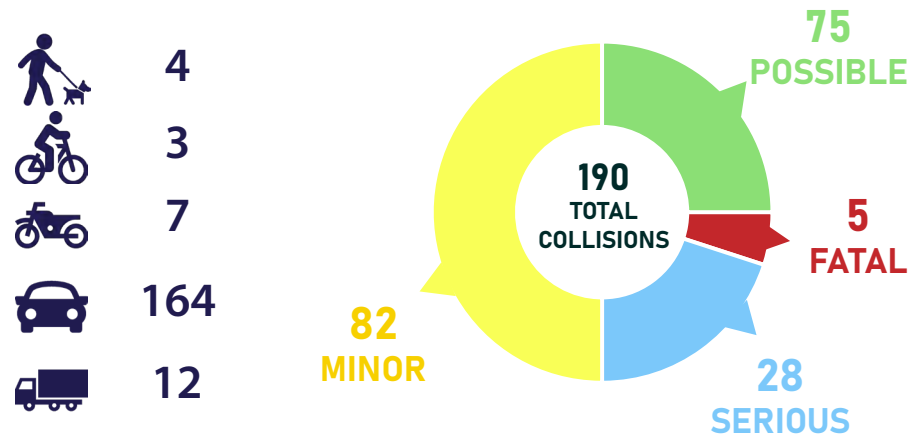
Moreover, the ATP will provide an opportunity to integrate with public transit systems by ensuring seamless connectivity between walking, cycling, and public transit networks. By fostering a more pedestrian- and cyclist-friendly environment, the ATP aims to promote healthier lifestyles, reduce traffic congestion, and create more vibrant and livable communities in McGregor.



PROJECT 1: CITYWIDE SIGN INVENTORY & PAVEMENT DELINEATION

The City of McGregor is proposing a Citywide Sign Inventory and Pavement Delineation project to improve roadway safety and navigation for drivers. The proposed initiative would commence with a thorough assessment of all existing traffic signs throughout the city to identify any that are damaged, faded, obstructed, or non-compliant with current regulations regarding reflectivity. Such signs would be replaced as necessary to ensure clear visibility during both day and night. Additionally, the project would encompass surveying all road markings, including lane lines, turn arrows, crosswalks, and other pavement delineations across the city.

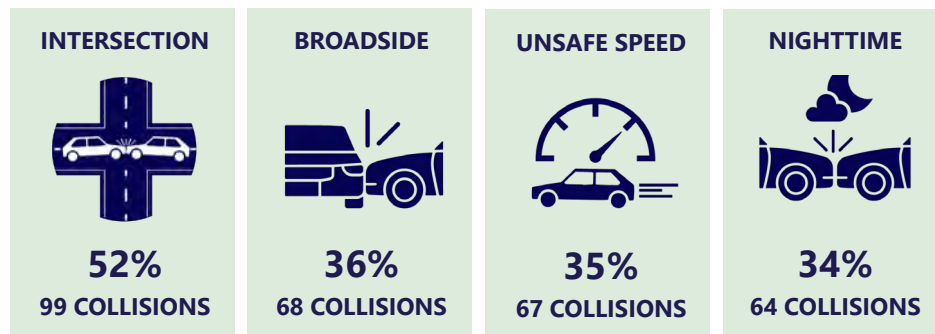
INJURY COLLISION STATISTICS



ESTIMATED COST OF IMPROVEMENT

	IMPROVEMENTS	LIMIT	ESTIMATED COST
	Sign Inventory, Replacement & Installation	Citywide	\$89,100
	Install Pavement Delineation	Citywide	\$3,416,000
		CONTINGENCY COST	\$701,100
		ENGINEERING COST	\$1,051,600
		TOTAL COST	\$2,257,800

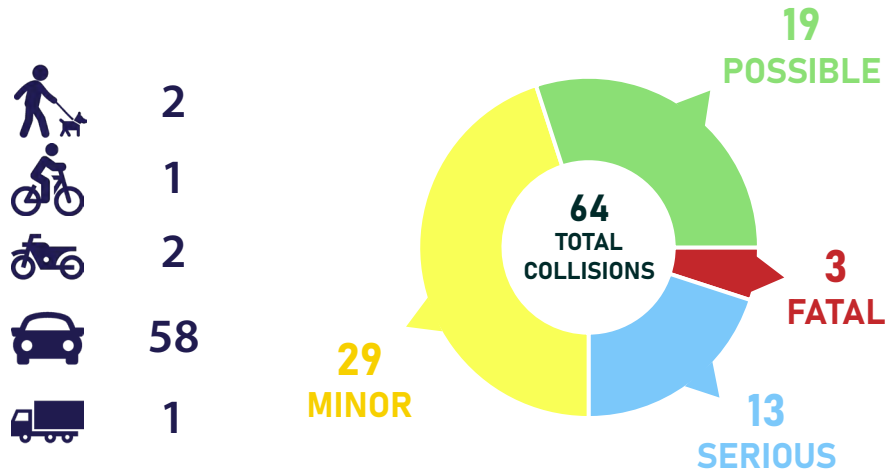
TRENDS



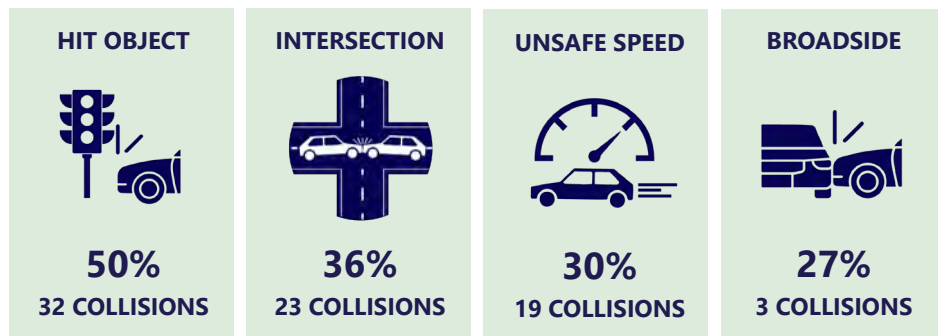
PROJECT 2: CITYWIDE STREET LIGHT INVENTORY

The City of McGregor is proposing a Citywide Streetlight Inventory and Replacement initiative designed to improve nighttime visibility and safety for motorists, cyclists, and pedestrians. This project involves conducting a comprehensive inventory of all current streetlights across the city to identify missing streetlights, update outdated inventories, generate reports for non-functioning fixtures, and identify types of lights. Subsequently, outdated, damaged, or inadequately illuminating lights will be replaced with new LED streetlights. It is expected that the enhanced lighting will reduce injury crashes and enhance safety for both residents and visitors navigating McGregor's streets during the nighttime hours.

NIGHTTIME INJURY COLLISION STATISTICS



TRENDS



ESTIMATED COST OF IMPROVEMENT

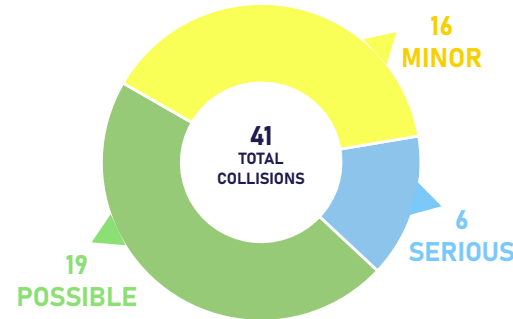
IMPROVEMENTS	LIMIT	ESTIMATED COST
Install/ Replace Street Lights	Citywide	\$2,522,000
	CONTINGENCY COST	\$504,400
	ENGINEERING COST	\$1,059,300
	TOTAL COST	\$4,085,700



Main Street (SH-317), a two-lane minor arterial with a center two-way left turn lane, runs through downtown and provides parallel parking from 1st Street to 6th Street. The speed limits vary, set at 30 mph through downtown and 50 mph between 11th Street and Bluebonnet Parkway. Main Street provides access to the McGregor Primary, Elementary and High Schools. The McGregor Vision 2030 identifies a need for walkability and streetscape improvements.

INJURY COLLISION STATISTICS

- 1
- 1
- 3
- 35
- 1



TRENDS

INTERSECTION	BROADSIDE	AUTOMOBILE ROW	REAR END
83% 34 COLLISIONS	51% 21 COLLISIONS	41% 17 COLLISIONS	27% 11 COLLISIONS

EXISTING CONDITIONS



Existing Condition:
Main St (SH-317) at 7th St facing south



Existing Condition:
Main St (SH-317) at W 4th St facing north

ESTIMATED COST OF IMPROVEMENT

3A: MAIN STREET FROM US-84 (McGREGOR DR) TO 11th ST- SAFETY IMPROVEMENTS			
	IMPROVEMENTS	LOCATIONS	ESTIMATED COST
	Fill Sidewalk Gaps	US-84 (McGregor Dr) to W 1st St & 6th St to 11th St	\$1,114,600
	Crosswalk Enhancement	2nd, 4th & 9th St	\$340,400
	Install Speed Feedback Sign	Between 1st St & N 2nd St & 6th St & 7th St	\$34,500
	Install Street Lighting & Medians	US-84 (McGregor Dr) to 11th St	\$1,378,900
	Signalized Intersection Improvements	3rd St & 6th St	\$27,600
	Install Pedestrian Hybrid Beacon (PHB)	11th St	\$231,200
		CONTINGENCY COST	\$625,500
		ENGINEERING COST	\$1,313,500
		TOTAL COST	\$5,066,200

● Fatal Injury
 ● Serious Injury
 ● Minor Injury
 ● Possible Injury

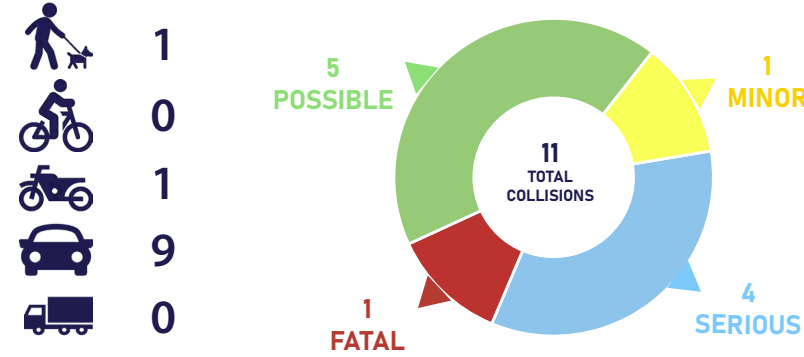
PROJECT 3-B: MAIN STREET (SH-317) : 11TH STREET TO RACHAEL ROAD- SAFETY IMPROVEMENTS



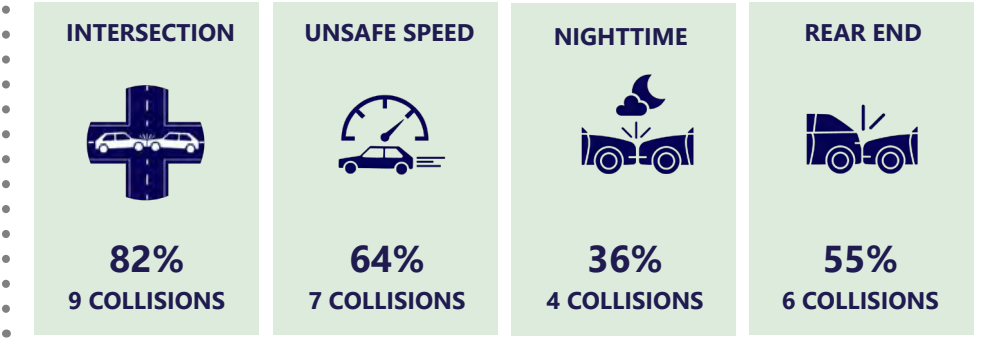
■ Fatal Injury
 ■ Serious Injury
 ■ Minor Injury
 ■ Possible Injury

Main Street (SH-317) is a two-lane minor arterial roadway, from 11th Street to Rachael Road. The speed limits vary, set at 50 mph between 11th Street and Bluebonnet Parkway and 55 mph south of Bluebonnet Parkway.

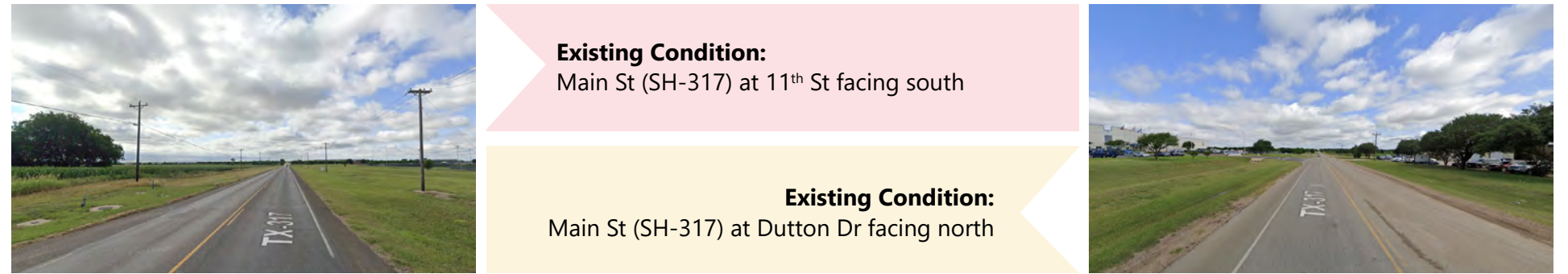
INJURY COLLISION STATISTICS



TRENDS



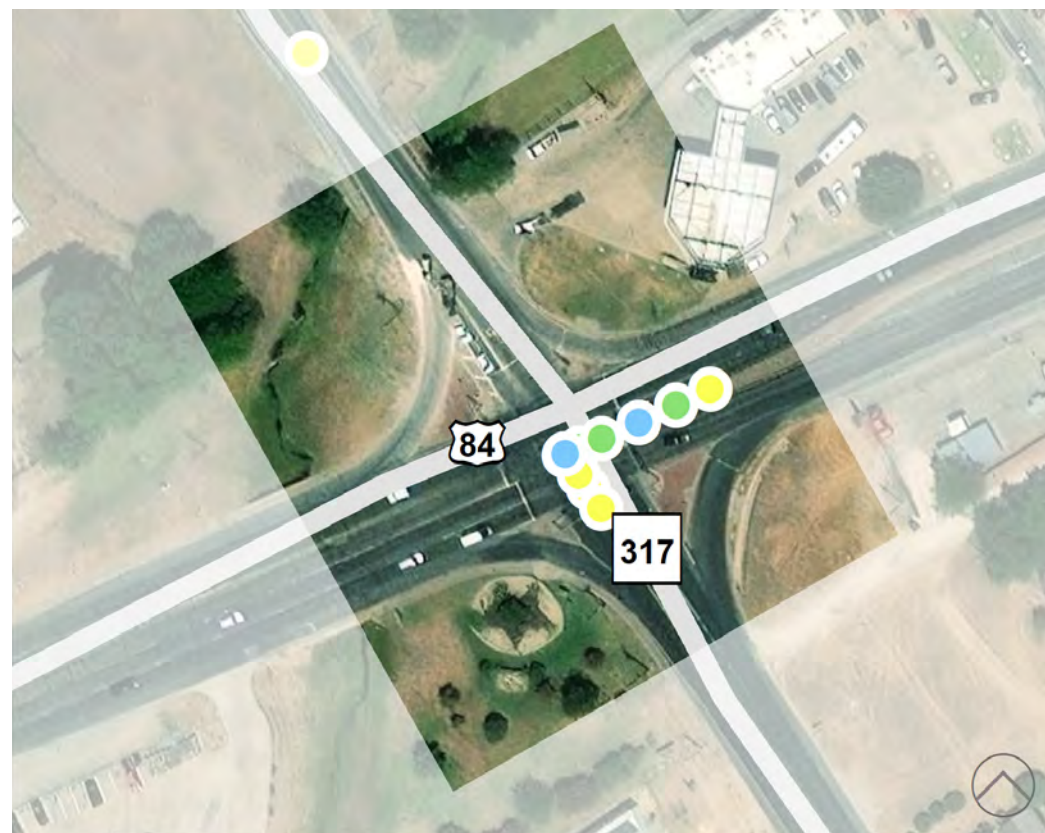
EXISTING CONDITIONS



ESTIMATED COST OF IMPROVEMENT

3B : MAIN STREET: 11TH STREET TO RACHAEL DR SAFETY IMPROVEMENTS			
	IMPROVEMENTS	LOCATIONS	ESTIMATED COST
	Install Intersection Warning Sign and Beacon	Between Bluebonnet Pkwy and Rachael Rd	\$17,300
	Install Speed Feedback Sign	Between Bluebonnet Pkwy and Rachael Rd	\$17,300
	Install Sidewalk	11th St to David Davis Dr	\$1,606,400
	Install Pedestrian Hybrid Beacon (PHB)	Bluebonnet Pkwy	\$231,200
		CONTINGENCY COST	\$374,500
		ENGINEERING COST	\$786,400
		TOTAL COST	\$3,033,100

PROJECT 4: US-84 (McGREGOR DRIVE)- INTERSECTION SAFETY IMPROVEMENTS



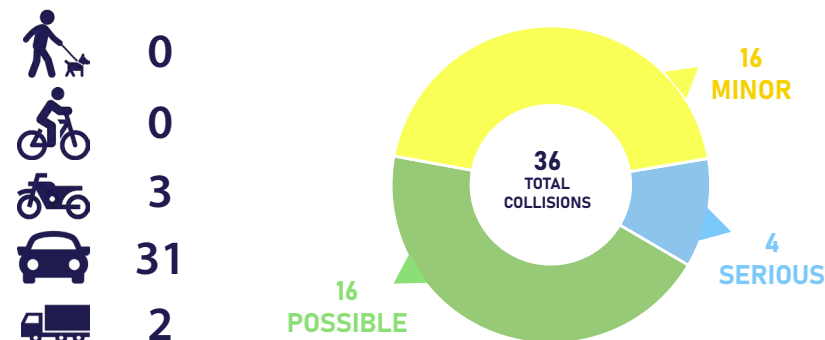
US-84 (McGregor Dr) & Main St (SH-317)



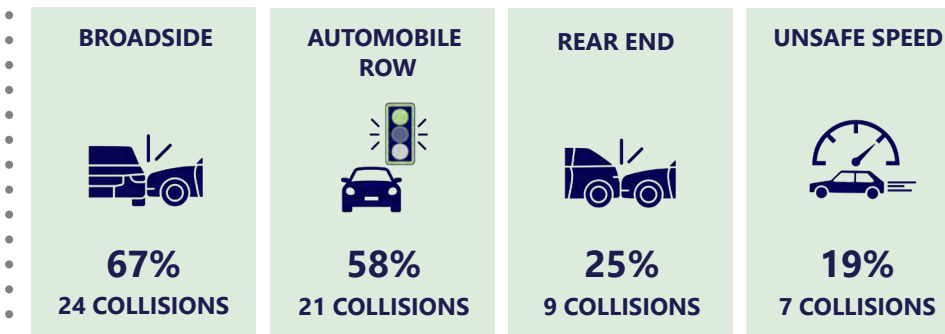
US-84 (McGregor Dr) & Johnson Dr

The US-84 (McGregor Drive) corridor features two essential intersections: a signalized four-way crossing with Main Street (SH-317) and a signalized T-intersection at Johnson Drive; The speed limit for approaching the US-84/Main Street intersection is 35 mph, whereas it ranges between 35 mph to 45 mph at Johnson Drive.

INJURY COLLISION STATISTICS



TRENDS



EXISTING CONDITIONS



Existing Condition:
Main St (SH-317) at US-84 (McGregor Dr) facing south

Existing Condition:
Johnson Dr at US-84 (McGregor Dr) facing east

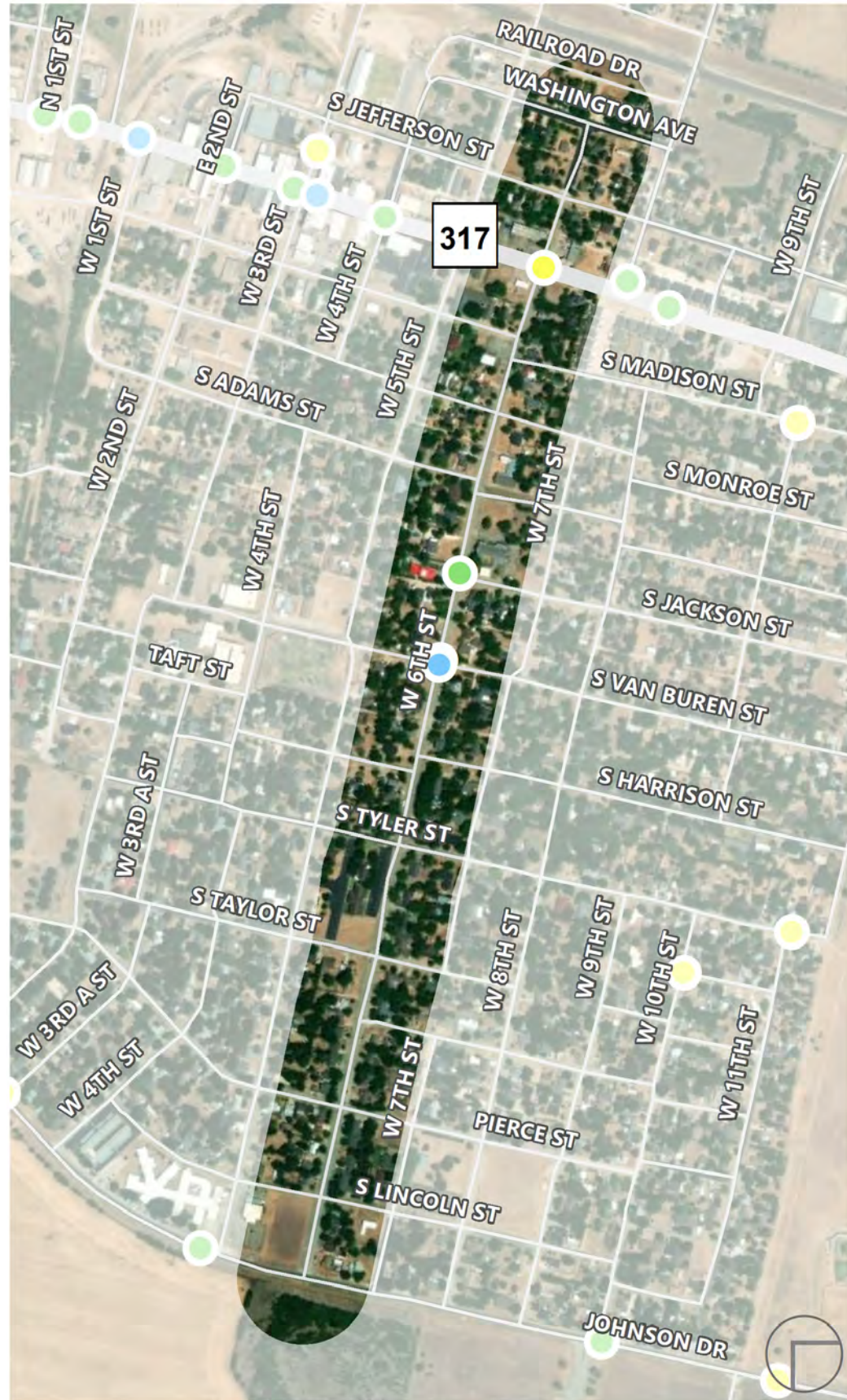


ESTIMATED COST OF IMPROVEMENT

4: US-84 (McGREGOR DR)- INTERSECTION SAFETY IMPROVEMENTS			
IMPROVEMENTS	LOCATIONS	ESTIMATED COST	
Intersection Improvements: Crosswalks, Sidewalks, Protected Lefts, Remove Slip Lanes, Signal Head Backplates, Warning Beacons	US-84 (McGregor Dr) & Main St (SH-317)	\$667,700	
Intersection Improvements: Crosswalks, Sidewalks, Protected Lefts, Remove Slip Lanes, Signal Head Backplates, Warning Beacons	US-84 (McGregor Dr) & Johnson Dr	\$579,300	
		CONTINGENCY COST	\$249,400
		ENGINEERING COST	\$523,800
		TOTAL COST	\$2,020,200

■ Fatal Injury
 ■ Serious Injury
 ■ Minor Injury
 ■ Possible Injury

PROJECT 5: W 6TH STREET SAFETY IMPROVEMENTS

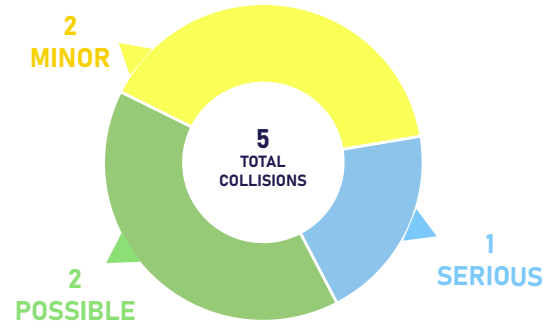


■ Fatal Injury
 ■ Serious Injury
 ■ Minor Injury
 ■ Possible Injury

W 6th Street is a residential street with two undivided lanes accommodating two-way traffic and maintaining a posted speed limit of 30 mph. It is bordered by concrete curbs on both sides and offers intermittent on-street parking spaces. W 6th street lies within 0.25 mile of McGregor Junior High School.

INJURY COLLISION STATISTICS

- 0
- 1
- 0
- 4
- 0



TRENDS

BROADSIDE	AUTOMOBILE ROW	HIT OBJECT	NIGHTTIME
60%	40%	40%	40%
3 COLLISIONS	2 COLLISIONS	2 COLLISIONS	2 COLLISIONS

EXISTING CONDITIONS



Existing Condition:
W 6th St at Johnson Dr facing east

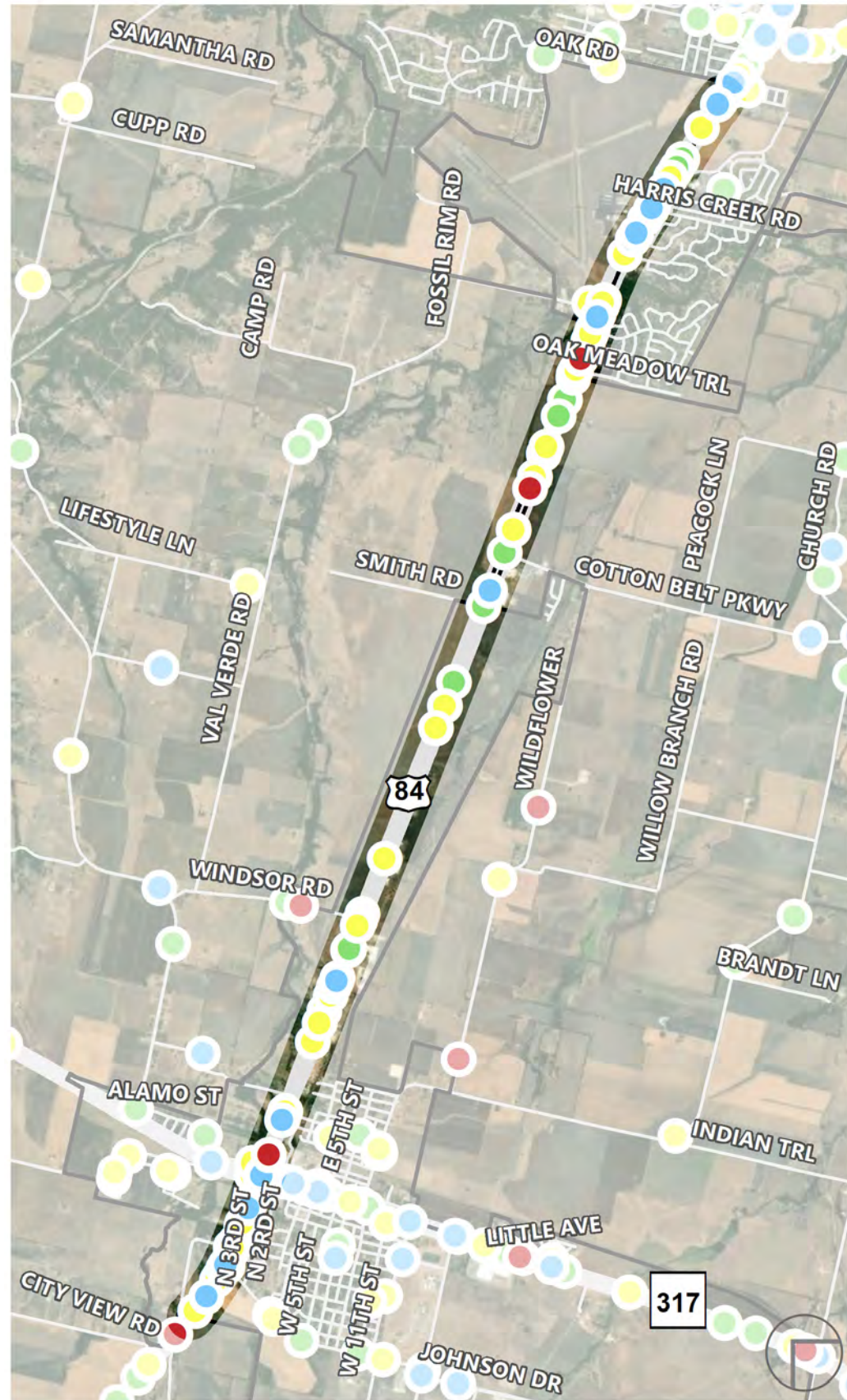


Existing Condition:
W 6th St at S Tyler St facing east

ESTIMATED COST OF IMPROVEMENT

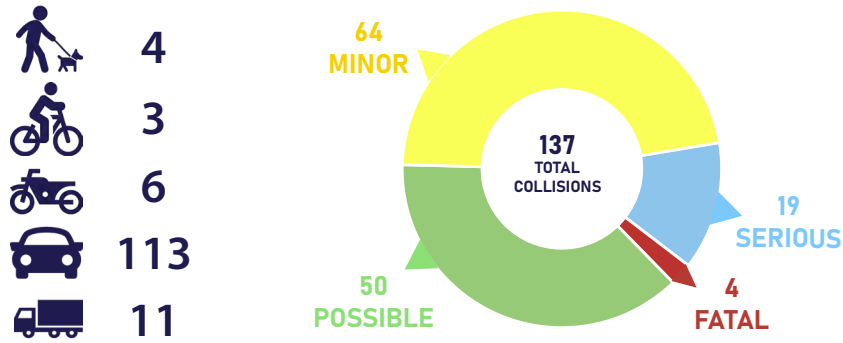
5 : W 6TH STREET: WASHINGTON AVE TO JOHNSON DR- SAFETY IMPROVEMENTS			
	IMPROVEMENTS	LOCATIONS	ESTIMATED COST
	Install Stop Bars		\$2,700
	Install Centerline Striping	From Washington Ave to Johnson Dr	\$28,100
	Install Street Lighting		\$453,100
	Sign Upgrades		\$13,800
		CONTINGENCY COST	\$99,600
		ENGINEERING COST	\$209,100
		TOTAL COST	\$806,400

PROJECT 6: US-84 (McGREGOR DRIVE): FROM CITY LIMIT EAST TO CITY LIMIT WEST- SAFETY IMPROVEMENTS

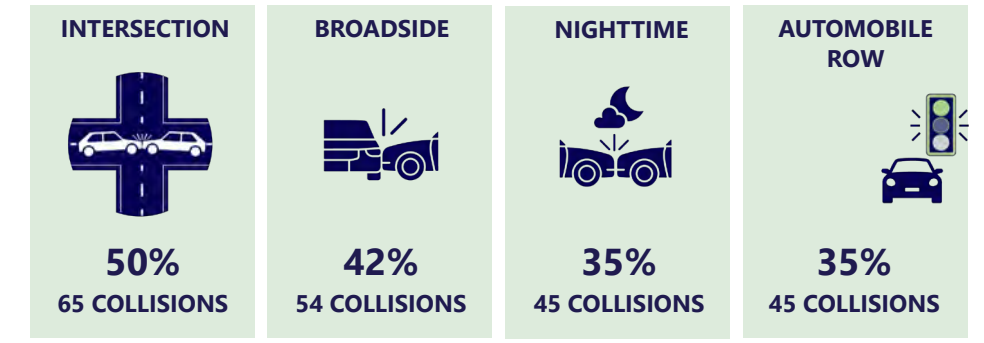


US-84 (McGregor Drive) is a major US highway designated as a principal arterial, traversing east-west through the City of McGregor. Within the city limits, this roadway is a four-lane divided highway to the east of N Main Street. However, to the west of N Main Street, US-84 expands to a five-lane configuration, incorporating a two-way left turn lane. The speed limit varies, it ranges from 50 mph to 70 mph within the city limits.

INJURY COLLISION STATISTICS



TRENDS



EXISTING CONDITIONS



Existing Condition:
US-84 (McGregor Dr) at SH-317 (Main St) facing east

Existing Condition:
US-84 (McGregor Dr) at Johnson Dr facing west



ESTIMATED COST OF IMPROVEMENT

6: US-84 (McGREGOR DR): FROM EAST OF CITY LIMITS TO WEST OF CITY LIMITS- SAFETY IMPROVEMENTS

IMPROVEMENTS	LOCATIONS	ESTIMATED COST
Install Street Lighting	From City Limit East to City Limit West	\$1,162,400
Install Guardrails	East of Main St and East of Garfield Ave	\$14,400
Install Median	Main St (SH-317) to City Limit West	\$1,336,300
Fill Sidewalk Gaps	Johnson Dr to West of City Limit	\$3,896,100
Install Shared Use Path	Along Railroad From Johnson St to Cotton Belt Pkwy	\$8,001,700
Install Shared Use Path	2nd and 3rd St from Main St to Johnson St	\$1,296,700
CONTINGENCY COST		\$3,141,600
ENGINEERING COST		\$6,597,300
TOTAL COST		\$25,446,500

● Fatal Injury
 ● Serious Injury
 ● Minor Injury
 ● Possible Injury