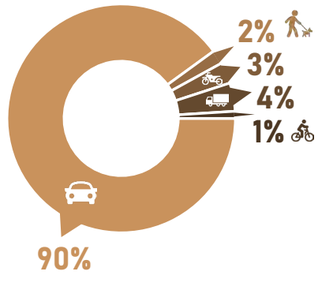
CHAPTER 6.7: CITY OF WOODWAY

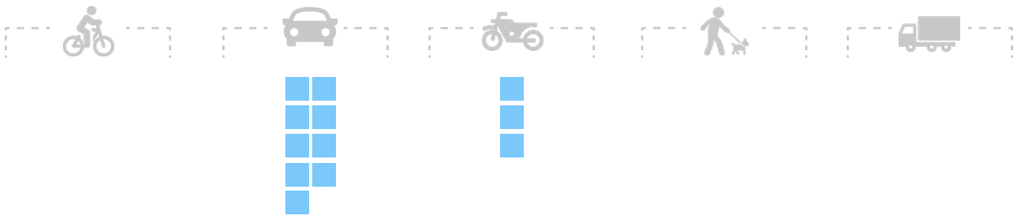
INTRODUCTION

Woodway, located southwest of Waco, is a city in central McLennan County. US-84 runs through Woodway. The city has an estimated population of 9,383 according to the 2020 census. This chapter provides information on the City of Woodway's collision statistics from 2014 to 2023. A total of 96 collisions occurred on Woodway streets in the last 10 years, including zero fatalities and 12 serious injuries. TxDOT roadways within Woodway city limits had 113 collisions during the same period, with four fatal injuries and nine serious injuries. On city-maintained roads, possible injuries accounted for the 50 percent of injury collisions. However, on roads maintained by TxDOT, the most common injury type is minor injury, representing 49 percent of injury collisions within their rights-of-way.

COLLISIONS 2014 TO 2023	CITY		TxDOT	
Total Collisions	**96**	**100 %**	**113**	**100 %**
Fatal Injury	0	0.00 %	4	3.54 %
Serious Injury	12	12.50 %	9	7.96 %
Minor Injury	36	37.50 %	55	48.67 %
Possible Injury	48	50.00 %	45	39.82 %
Total Persons Involved	**119**	**100 %**	**152**	**100 %**
Fatal Injury	0	0.00 %	4	2.63 %
Serious Injury	15	12.61 %	10	6.58 %
Minor Injury	45	37.82 %	70	46.05 %
Possible Injury	59	49.58 %	68	44.74 %

COLLISIONS BY MODE - CITY

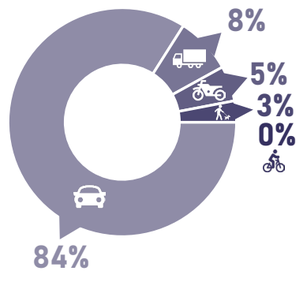


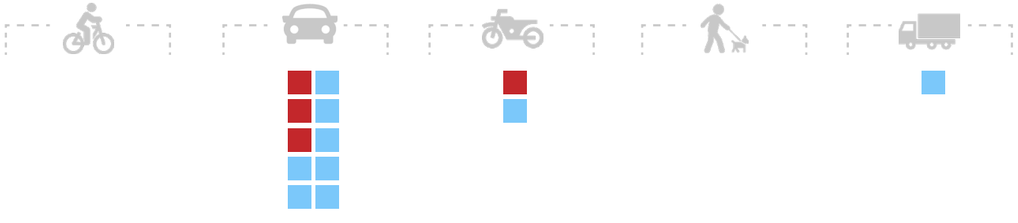


0 %	0 %	0 %	0 %	0 %	Fatal Injury
0 %	10 %	100 %	0 %	0 %	Serious Injury
100 %	37 %	0 %	100 %	25 %	Minor Injury
0 %	52 %	0 %	0 %	75 %	Possible Injury
100 %	100 %	100 %	100 %	100 %	

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

COLLISIONS BY MODE - TxDOT





0 %	3 %	17 %	0 %	0 %	Fatal Injury
0 %	7 %	17 %	0 %	11 %	Serious Injury
0 %	46 %	67 %	100 %	44 %	Minor Injury
0 %	43 %	0 %	0 %	44 %	Possible Injury
0 %	100 %	100 %	100 %	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 Woodway's city streets, TxDOT facilities, and McLennan County across various categories.

On Woodway city streets, there were a total of 96 collisions that resulted in 119 persons injured. In comparison, TxDOT reported a total of 113 collisions resulting in 152 persons injured within Woodway city limits.

This section also identifies several major collision trends on Woodway city streets, including broadside collisions, hit object collisions, right-of-way violations by automobiles, and unsafe speed violations. On TxDOT roadways, the prominent trends were broadside collisions, rear-end collisions, unsafe speed violations, and right-of-way violations by automobiles. 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. Of the speed limits examined, the charts indicate that roads with a 60 mph speed limit accounted for the highest proportion of KSI collisions.

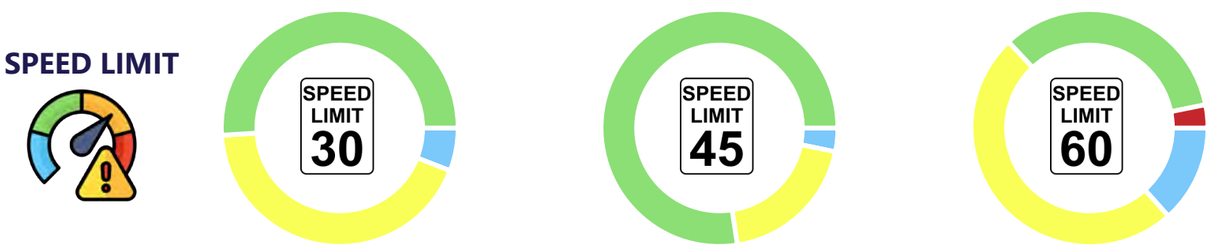
CITY	TxDOT
96	113
TOTAL COLLISIONS	TOTAL COLLISIONS
119	152
TOTAL PERSONS INJURED	TOTAL PERSONS INJURED

PERSONS INVOLVED								
	CITY				TxDOT			
MODE								
	■	■	■	■	■	■	■	■
Bicycle	0 %	0 %	1 %	0 %	0 %	0 %	0 %	0 %
Car	0 %	10 %	35 %	49 %	2 %	6 %	41 %	45 %
Motorcycle	0 %	3 %	0 %	0 %	1 %	1 %	3 %	0 %
Pedestrian	0 %	0 %	2 %	0 %	0 %	0 %	2 %	0 %
Truck	0 %	0 %	0 %	1 %	0 %	0 %	1 %	0 %
AGE								
Below 15	0 %	1 %	3 %	3 %	0 %	0 %	1 %	1 %
15 - 65	0 %	11 %	29 %	35 %	1 %	6 %	39 %	33 %
Above 65	0 %	1 %	6 %	11 %	1 %	1 %	5 %	10 %
GENDER								
Male	0 %	8 %	17 %	17 %	2 %	5 %	24 %	17 %
Female	0 %	5 %	21 %	33 %	1 %	2 %	22 %	28 %

CITY OF WOODWAY VS. McLENNAN COUNTY COLLISIONS - RELATIVE SHARES

CITY		TxDOT		McLENNAN COUNTY	
MODE					
Bicycle	1 %	Bicycle	0 %	Bicycle	1 %
Car	90 %	Car	84 %	Car	85 %
Motorcycle	3 %	Motorcycle	5 %	Motorcycle	4 %
Pedestrian	2 %	Pedestrian	3 %	Pedestrian	3 %
Truck	4 %	Truck	8 %	Truck	7 %
FIRST HARMFUL EVENT					
Motor Vehicle in Transport	64 %	Motor Vehicle in Transport	79 %	Motor Vehicle in Transport	72 %
Fixed Object	27 %	Fixed Object	11 %	Fixed Object	17 %
Parked Car	4 %	Overturned	7 %	Overturned	4 %
MANNER OF COLLISION					
Hit Object	36 %	Rear End	47 %	Broadside	42 %
Broadside	32 %	Broadside	24 %	Hit Object	28 %
Rear End	22 %	Hit Object	21 %	Rear End	24 %
Sideswipe	6 %	Sideswipe	6 %	Sideswipe	5 %
VIOLATION CATEGORY					
Distracted Driving	25 %	Distracted Driving	32 %	Unsafe Speed	23 %
Automobile Right-of-Way	17 %	Unsafe Speed	17 %	Automobile Right-of-Way	22 %
Traffic Signals and Signs	15 %	Traffic Signals and Signs	11 %	Traffic Signals and Signs	12 %
Unsafe Speed	8 %	Automobile Right-of-Way	7 %	Distracted Driving	8 %
Other Unforeseen Reasons	8 %	Other Unforeseen Reasons	6 %	Other Improper Driving	6 %
Driver Condition	7 %	Other Improper Driving	4 %	Other Unforeseen Reasons	6 %
LOCATION					
Intersection	61 %	Intersection	42 %	Intersection	59 %
Roadway	39 %	Roadway	58 %	Roadway	41 %
LIGHTING					
Daylight	76 %	Daylight	74 %	Daylight	70 %
Dark, Lighted	11 %	Dark, Not Lighted	13 %	Dark, Lighted	16 %
Dark, Not Lighted	8 %	Dark, Lighted	6 %	Dark, Not Lighted	11 %

SPEED LIMIT



BICYCLE & PEDESTRIAN COLLISION BY SEVERITY

The map displays the location of injury collisions involving bicyclists and pedestrians in Woodway. In total there were six bicycle and pedestrian minor injury collisions which involved one bicyclist and five pedestrians.

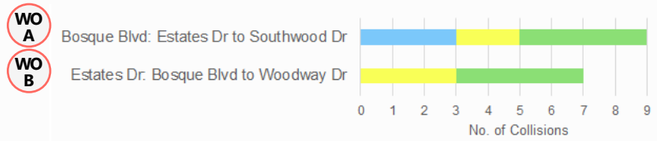
SEVERITY INDEX

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.

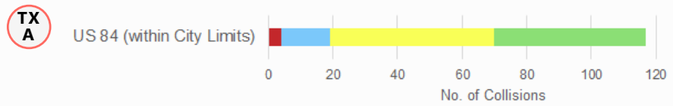
This data-driven analysis allows the project team to prioritize infrastructure improvements and safety countermeasures in high-risk areas. Visualizing the severity index through a color-coded collision heat map further highlights the geographic concentrations of injury crashes, guiding decision-makers 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

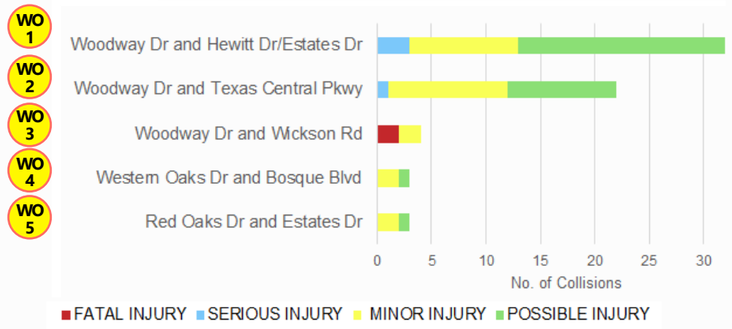
ROADWAYS



TxDOT ROADWAYS



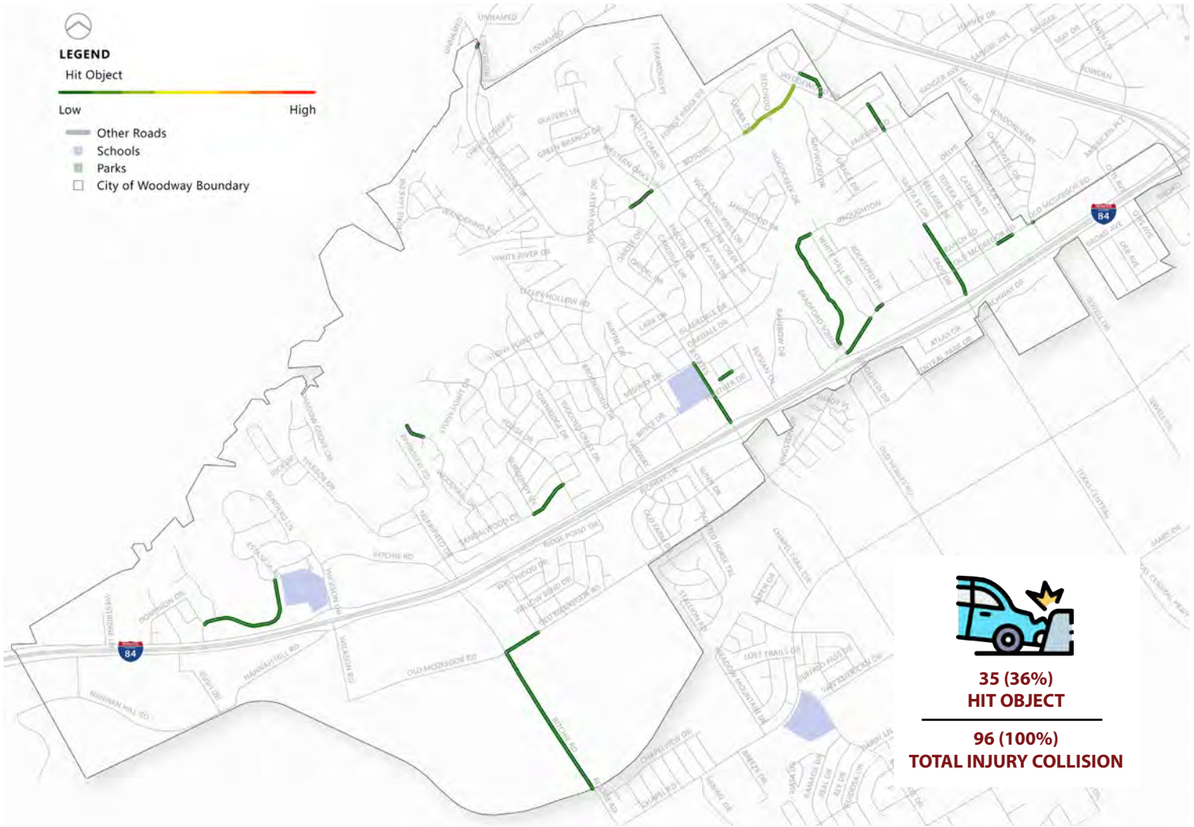
INTERSECTIONS



This section lists high risk roadway segments and intersections within Woodway city limits. 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



35 (36%)
HIT OBJECT

96 (100%)
TOTAL INJURY COLLISION

SEVERITY

0 %

15 %

54 %

31 %

LOCATION

20 %

80 %

LIGHTING

57 %

6 %

17 %

20 %

35 COLLISIONS

BY MODE

83 % CAR

CONTRIBUTING FACTOR

20 % DRIVER CONDITION

17 % DISTRACTED DRIVING

17 % OTHER UNFORESEEN REASONS

14 % DRIVING UNDER INFLUENCE

14 % UNSAFE SPEED

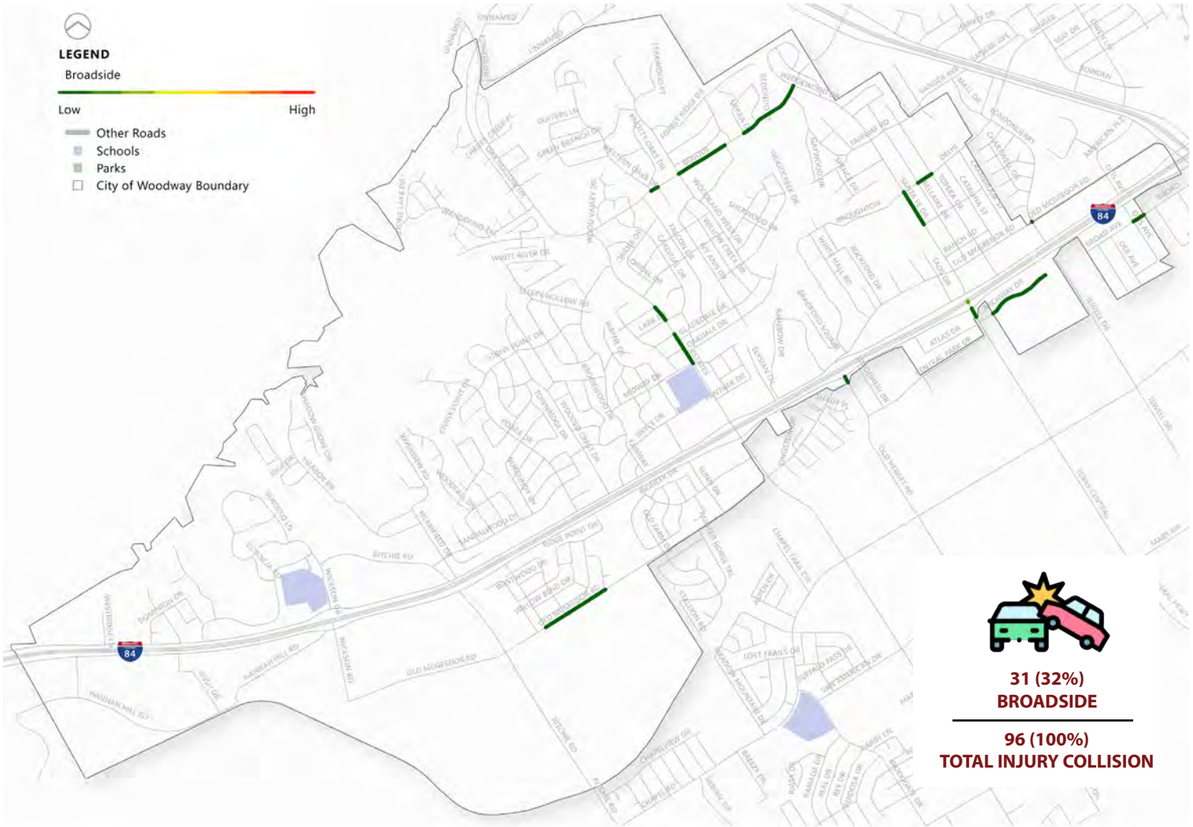
HARMFUL EVENT

74 % FIXED OBJECT

11 % PARKED CAR

0 % 25 % 50 % 75 % 100 %

PROFILE 2 - BROADSIDE



31 (32%)
BROADSIDE

96 (100%)
TOTAL INJURY COLLISION

SEVERITY

0 %

10 %

42 %

48 %

LOCATION

100 %

0 %

LIGHTING

87 %

3 %

6 %

3 %

31 COLLISIONS

BY MODE

97 % CAR

CONTRIBUTING FACTOR

45 % AUTOMOBILE RIGHT-OF-WAY

39 % TRAFFIC SIGNALS AND SIGNS

HARMFUL EVENT

100 % MOTOR VEHICLE IN TRANSPORT

0 % 25 % 50 % 75 % 100 %

PROFILES - CITY

PROFILE 3 - REAR END

21 (22%)
REAR END

96 (100%)
TOTAL INJURY COLLISION

SEVERITY

0 %
10 %
14 %
76 %

LOCATION

71 %
29 %

LIGHTING

90 %
0 %
10 %
0 %

21 COLLISIONS

BY MODE

90 % CAR
10 % TRUCK

CONTRIBUTING FACTORS

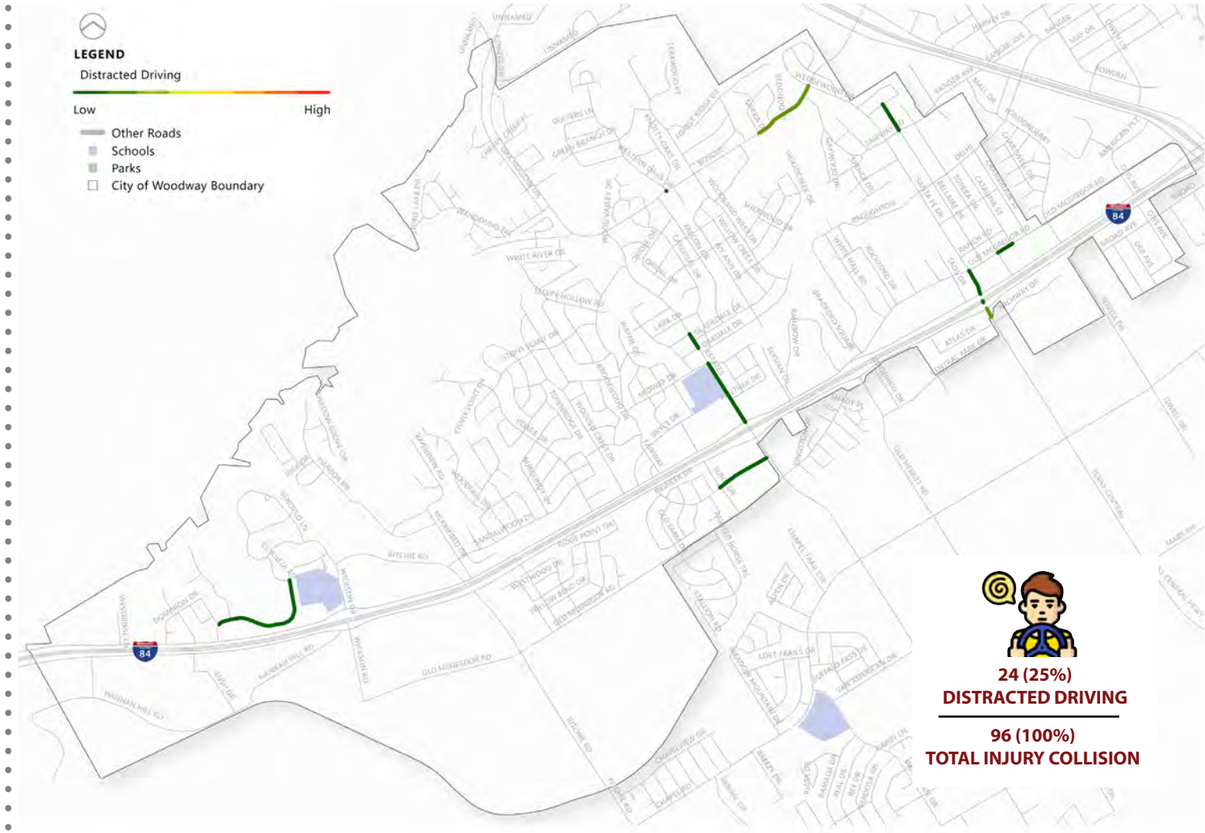
57 % DISTRACTED DRIVING
14 % FOLLOWING TOO CLOSELY
10 % UNSAFE SPEED

HARMFUL EVENT

50 % MOTOR VEHICLE IN TRANSPORT

0 % 25 % 50 % 75 % 100 %

PROFILE 4 - DISTRACTED DRIVING



24 (25%)
DISTRACTED DRIVING

96 (100%)
TOTAL INJURY COLLISION

SEVERITY

0 %
8 %
21 %
71 %

LOCATION

63 %
37 %

LIGHTING

71 %
8 %
17 %
4 %

24 COLLISIONS

BY MODE

92 % CAR

MANNER OF COLLISION

50 % REAR END
25 % HIT OBJECT

HARMFUL EVENT

75 % MOTOR VEHICLE IN TRANSPORT

0 % 25 % 50 % 75 % 100 %

PROFILES - TXDOT

PROFILE 1 - REAR END

53 (47%)
REAR END

113 (100%)
TOTAL INJURY COLLISION

SEVERITY

0 %

8 %

49 %

43 %

LOCATION

30 %

70 %

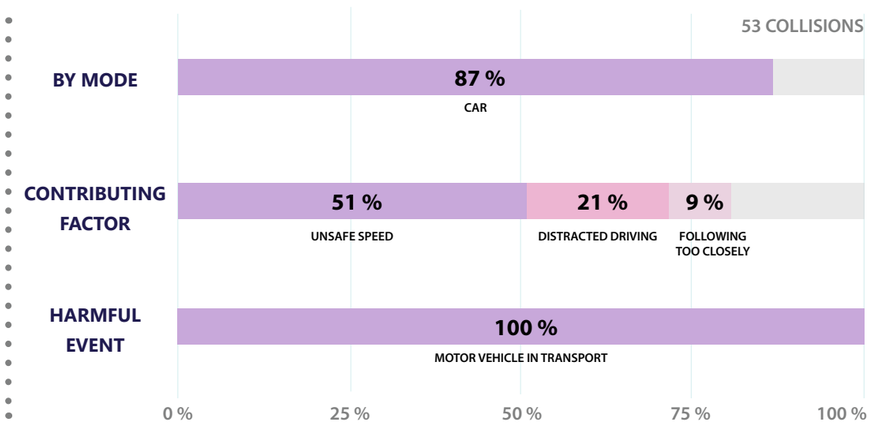
LIGHTING

83 %

6 %

8 %

4 %



PROFILE 2 - HIT OBJECT

24 (21%)
HIT OBJECT

113 (100%)
TOTAL INJURY COLLISION

SEVERITY

8 %

21 %

42 %

29 %

LOCATION

8 %

92 %

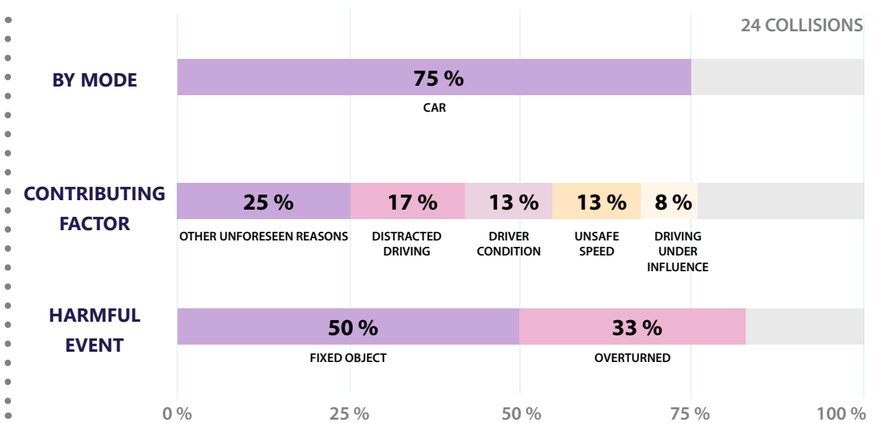
LIGHTING

46 %

8 %

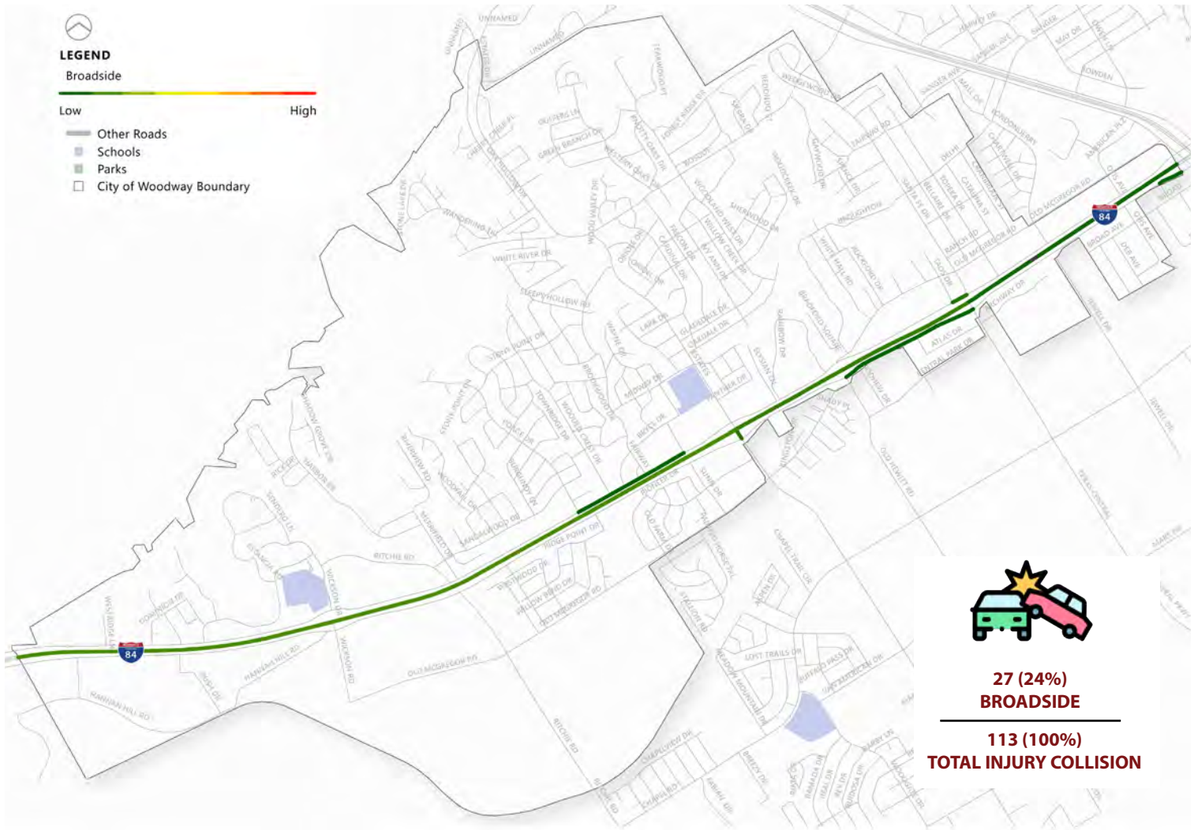
8 %

38 %



PROFILES - TXDOT

PROFILE 3 - BROADSIDE



27 (24%)
BROADSIDE

113 (100%)
TOTAL INJURY COLLISION

SEVERITY
8 % 0 %
48 % 45 %

LOCATION
100 % 0 %

LIGHTING
78 % 8 %
4 % 11 %

27 COLLISIONS

BY MODE
85 %
CAR

CONTRIBUTING FACTORS
41 % TRAFFIC SIGNALS AND SIGNS
19 % AUTOMOBILE RIGHT-OF-WAY
15 % DISTRACTED DRIVING
11 % UNSAFE SPEED

HARMFUL EVENT
100 %
MOTOR VEHICLE IN TRANSPORT

0 % 25 % 50 % 75 % 100 %

PROFILE 4 - DISTRACTED DRIVING

36 (32%)
DISTRACTED DRIVING

113 (100%)
TOTAL INJURY COLLISION

SEVERITY
3 % 3 %
58 % 36 %

LOCATION
33 % 67 %

LIGHTING
81 % 3 %
6 % 11 %

36 COLLISIONS

BY MODE
86 %
CAR

MANNER OF COLLISION
75 %
REAR END

HARMFUL EVENT
89 %
MOTOR VEHICLE IN TRANSPORT

0 % 25 % 50 % 75 % 100 %

NEIGHBORHOOD TRAFFIC CALMING PROGRAM

Residential streets in Woodway would benefit from a Neighborhood Traffic Calming Project due to cut-through traffic and speeding issues. 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.

ACTIVE TRANSPORTATION PLAN

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

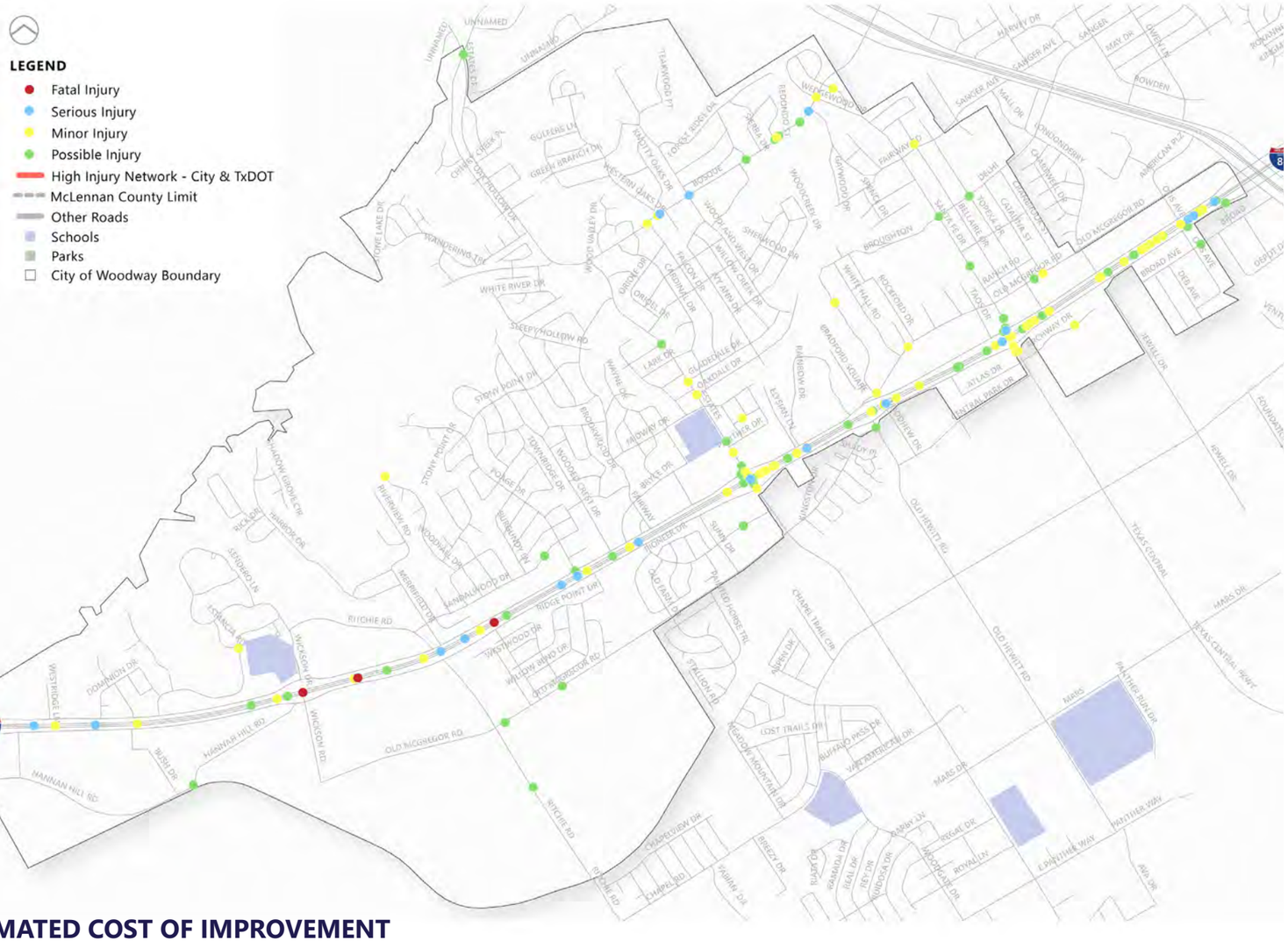
The ATP would entail an evaluation of existing multi-modal infrastructure improvements and safety measures, while also identifying gaps and deficiencies in infrastructure such as sidewalks and bike lanes. Additionally, the plan would focus on raising awareness about the benefits of walking and cycling,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

Furthermore, the ATP would 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.

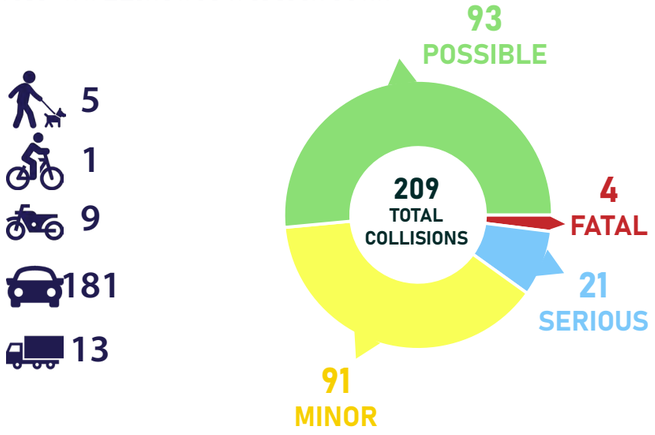
Moreover, the ATP would provide an opportunity to integrate with public transit systems by ensuring seamless connectivity between walking, cycling, and public transit networks. By fostering a more pedestrian and cyclist-friendly environment, the ATP would aim to promote healthier lifestyles, reduce traffic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

PROJECT 1: CITYWIDE SIGN INVENTORY

The City of Woodway 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



TRENDS

INTERSECTION	REAR END	DISTRACTED DRIVING	HIT OBJECT
51%	35%	29%	28%
106 COLLISIONS	74 COLLISIONS	60 COLLISIONS	59 COLLISIONS

ESTIMATED COST OF IMPROVEMENT

	IMPROVEMENTS	LIMIT	ESTIMATED COST
	Sign Inventory, Replacement & Installation	Citywide	$758,400
	Citywide Pavement Delineation	Citywide	$4,368,300
		CONTINGENCY COST	$1,025,400
		ENGINEERING COST	$1,538,100
		TOTAL COST	**$7,690,200**

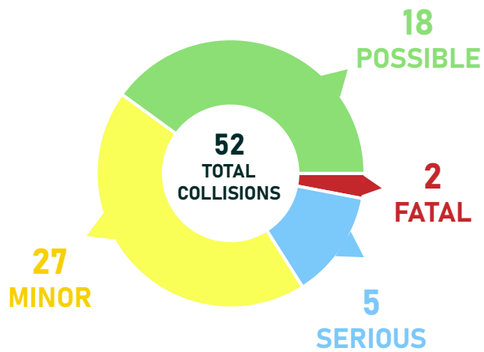
PROJECT 2: CITYWIDE STREET LIGHT INVENTORY

The City of Woodway 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 Woodway's streets during nighttime hours.

Note : Nighttime Injury Collisions

NIGHTTIME INJURY COLLISION STATISTICS

Pedestrian	1
Bicycle	1
Motorcycle	2
Car	48
Truck	0



TRENDS

HIT OBJECT	INTERSECTION	DISTRACTED DRIVING	BROADSIDE
54%	40%	27%	19%
28 COLLISIONS	21 COLLISIONS	14 COLLISIONS	10 COLLISIONS

ESTIMATED COST OF IMPROVEMENT

	IMPROVEMENTS	LIMIT	ESTIMATED COST
	Citywide Street Light Inventory	Citywide	$7,015,000
		CONTINGENCY COST	$1,403,000
		ENGINEERING COST	$2,946,300
		TOTAL COST	**$11,364,300**

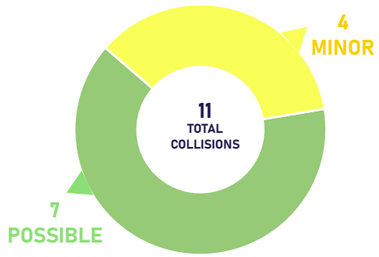
PROJECT 3: ESTATES DRIVE- CORRIDOR SAFETY IMPROVEMENTS

Fatal Injury Serious Injury Minor Injury Possible Injury

Estates Drive, a four-lane minor arterial with a center two-way left turn lane, provides direct access to Woodway Elementary School. The posted speed limit is 30 mph on this section of Estates Drive. The City has previously considered improvements along this segment. This project provides the highest safety and connectivity benefits to the City by meaningfully extending multimodal improvements on Estates Drive to benefit the Elementary School.

INJURY COLLISION STATISTICS

	0
	0
	0
	9
	2



TRENDS

INTERSECTION	BROADSIDE	REAR END	DISTRACTED DRIVING
73%	36%	36%	36%
8 COLLISIONS	4 COLLISIONS	4 COLLISIONS	4 COLLISIONS

EXISTING CONDITIONS

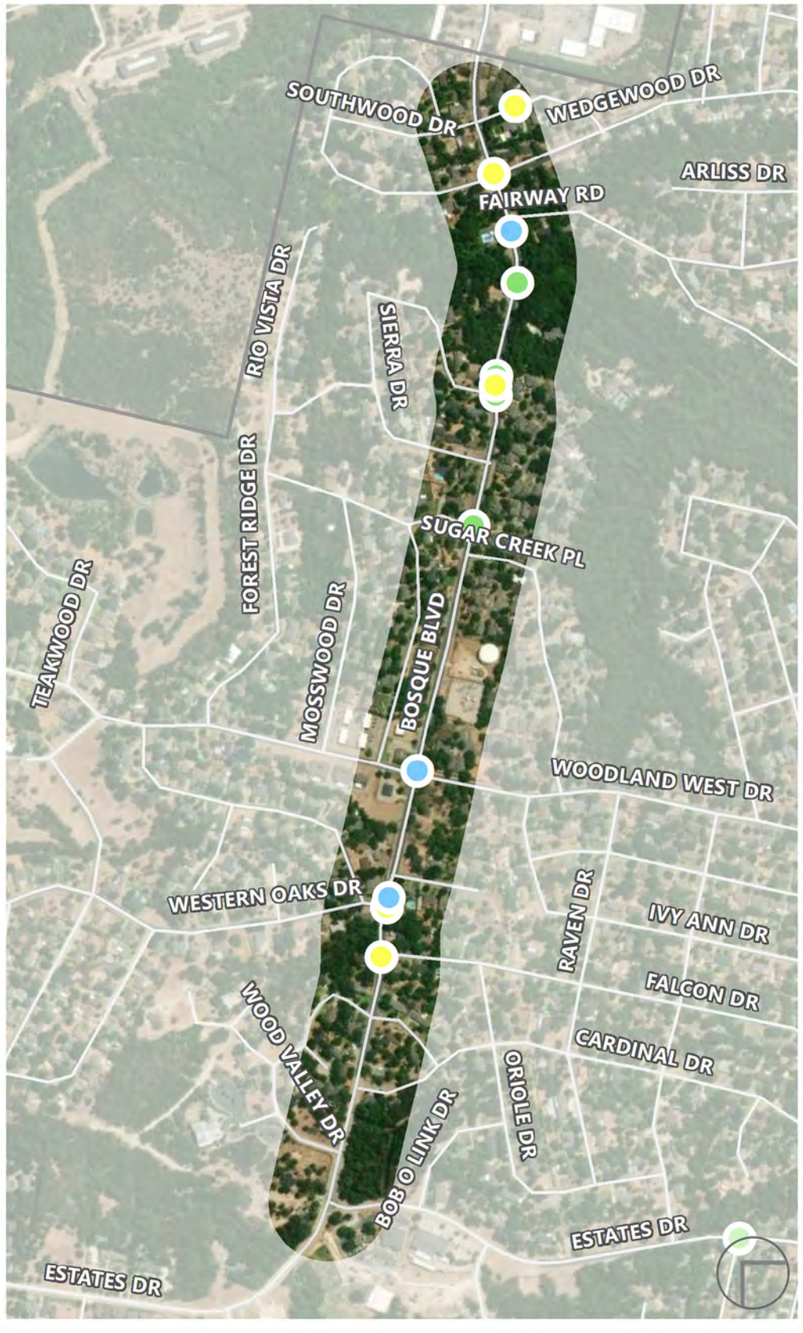
Existing Condition:
Estates Dr at Jordan Lane facing north

Existing Condition:
Estates Dr at Midway Dr facing south

ESTIMATED COST OF IMPROVEMENT

3: ESTATES DR- CORRIDOR SAFETY IMPROVEMENTS		
IMPROVEMENTS	LOCATIONS	ESTIMATED COST
Fill Sidewalk Gaps		$328,500
Speed Feedback Sign	From Midway Dr to US-84	$17,300
Install Bike Lane		$43,100
	CONTINGENCY COST	$77,800
	ENGINEERING COST	$163,400
	TOTAL COST	**$630,100**

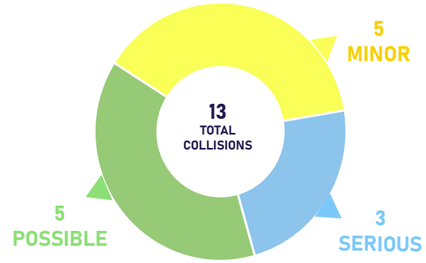
PROJECT 4: BOSQUE BOULEVARD- CORRIDOR SAFETY IMPROVEMENTS



Bosque Boulevard, a four-lane minor arterial, provides access to surrounding residential neighborhoods. The speed limit is set at 30 mph throughout the corridor. Bosque Boulevard has the highest 2022 AADT (8,594) in Woodway among local streets.

INJURY COLLISION STATISTICS

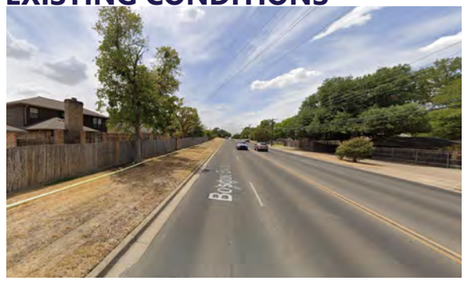
	1
	0
	1
	11
	0



TRENDS

INTERSECTION	BROADSIDE	HIT OBJECT	NIGHTTIME
69%	38%	38%	31%
9 COLLISIONS	5 COLLISIONS	5 COLLISIONS	4 COLLISIONS

EXISTING CONDITIONS



Existing Condition:
Bosque Blvd at Sugar Creek Place facing west

Existing Condition:
Bosque Blvd at Cardinal Dr facing east

ESTIMATED COST OF IMPROVEMENT

4: BOSQUE BLVD- CORRIDOR SAFETY IMPROVEMENTS

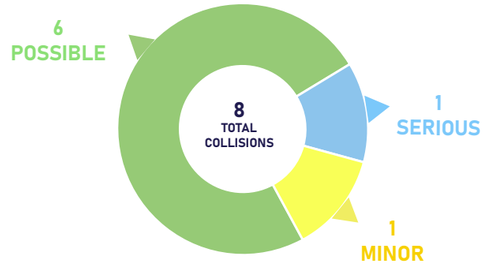
IMPROVEMENTS	LOCATIONS	ESTIMATED COST
Install Speed Feedback Sign	Phase 1: From Southwood Dr to Estates Dr	$34,500
Minor Streets Sign and Striping Improvements		$27,700
Install Roundabout	Phase 1: Bosque Blvd & Estates Dr	$460,000
Pedestrian Connectivity Improvements		$65,600
Road Diet	Phase 2: From Southwood Dr to Estates Dr	$164,300
	CONTINGENCY COST	$150,500
	ENGINEERING COST	$316,000
	TOTAL COST	**$1,218,600**

PROJECT 5: SANTA FE DRIVE- CORRIDOR SAFETY IMPROVEMENTS

Santa Fe Drive, a two-lane minor arterial with a bike lane on south side of the roadway, provides access to surrounding residential neighborhoods. The speed limit is set at 30 mph.

INJURY COLLISION STATISTICS

	0
	0
	0
	7
	1



TRENDS

INTERSECTION	BROADSIDE	DISREGARD OF SIGNS & SIGNALS	HIT OBJECT
75%	63%	63%	25%
6 COLLISIONS	5 COLLISIONS	5 COLLISIONS	2 COLLISIONS

EXISTING CONDITIONS

Existing Condition:
Santa Fe Dr at Delhi Rd facing north

Existing Condition:
Santa Fe Dr at Ranch Rd facing south

ESTIMATED COST OF IMPROVEMENT

5: SANTA FE DR- CORRIDOR SAFETY IMPROVEMENTS			
	IMPROVEMENTS	**LOCATIONS**	**ESTIMATED COST**
	Install Striping		$16,400
	Minor Streets Improvements	From Fairway Rd to Woodway Dr	$15,600
	Install Bike Lane (NB)		$20,500
		CONTINGENCY COST	$10,500
		ENGINEERING COST	$22,100
		TOTAL COST	**$85,100**

PROJECT 6: RITCHIE ROAD AND OLD MCGREGOR ROAD – INTERSECTION SAFETY IMPROVEMENTS

The intersection of Ritchie Road and Old McGregor Road is an all way stop controlled skewed-intersection. The speed limit approaching this intersection is 30 mph. Currently the intersection has an off-set geometry posing a safety challenge for drivers. Non-injury collisions have been reported at this intersection.

EXISTING CONDITIONS

Existing Condition:
Old McGregor Rd at Ritchie Rd facing east

Existing Condition:
Ritchie Rd at Old McGregor Rd facing north

ESTIMATED COST OF IMPROVEMENT

6: RITCHIE RD AND OLD MCGREGOR RD – INTERSECTION SAFETY IMPROVEMENTS

IMPROVEMENTS	LOCATIONS	ESTIMATED COST
Clear Sight Triangles		$5,800
Install Curb		$15,000
Sign Upgrade	Ritchie Rd and Old McGregor Rd	$3,700
Reduce Corner Radius		$34,500
Upgrade Striping and Pavement Marking		$1,700
	CONTINGENCY COST	$12,200
	ENGINEERING COST	$25,600
	TOTAL COST	**$98,500**