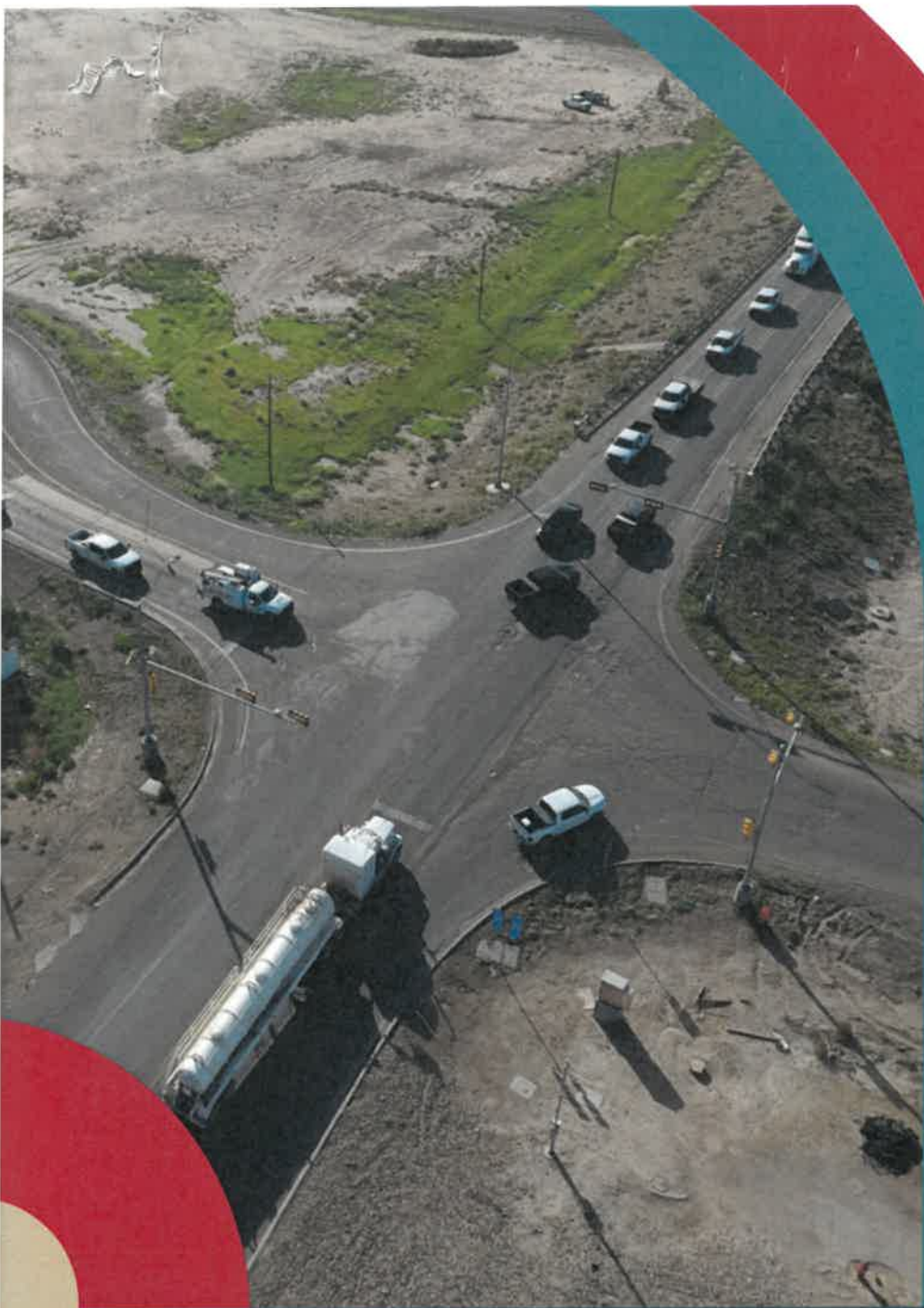




JUNE 2025

COMM COURT ITEM NO 15A
JUN 23 2025
REEVES COUNTY

REEVES COUNTY

COMPREHENSIVE SAFETY ACTION PLAN



PREPARED FOR



PREPARED BY

FXSA

Kimley»Horn

Expect More. Experience Better.

SPONSORING OFFICE:

Infrastructure Investment and Jobs Act - 2022
Safe Streets For All (SS4A) Grant Program - 2022
USDOT FHWA Washington D.C.

TABLE OF CONTENTS

PART I: BACKGROUND & PURPOSE	3
Chapter 1. Purpose	4
<i>Guiding Principles</i>	4
Chapter 2. Process	8
<i>Project Timeline</i>	8
<i>Zero Roadway Deaths Goal Committee (ZRDGC)</i>	9
<i>Public Engagement</i>	10
<i>Leadership Commitment</i>	14
PART II: REEVES COUNTY STATE OF SAFETY	17
Chapter 3. Crash History Analysis	18
<i>Countywide Crash Trends</i>	18
Chapter 4. High-Injury Network	41
<i>Critical Crash Rate Method</i>	41
PART III: IMPLEMENTATION PLAN	51
Chapter 5. Countermeasures	52
<i>Systemic Countermeasure Toolbox</i>	52
Chapter 6. Implementation Plan	85
<i>Education</i>	87
<i>Encouragement</i>	91
<i>Enforcement</i>	94
<i>Engineering</i>	97
<i>Equity</i>	101
<i>Evaluation</i>	102
<i>Annual Reporting & Transparency</i>	106
APPENDIX	109
A. <i>Vision Zero Resolution</i>	109
B. <i>Social Pinpoint–Public Engagement Results</i>	110
C. <i>Field Observations Memorandum</i>	111
D. <i>Study Corridor CMF Calculations</i>	112

LIST OF EXHIBITS

Exhibit 1. Map Survey Comments 12

Exhibit 2. Crash Heat Map..... 22

Exhibit 3. High Crash Intersections 24

Exhibit 4. Pedestrian and Bicyclist Crash Map 26

Exhibit 5. Freight Related Crashes 28

Exhibit 6. Motorcycle Crashes..... 30

Exhibit 7. Distracted Driving Crashes 32

Exhibit 8. Impaired Driving Crashes 34

Exhibit 9. Overall & Transportation Disadvantaged Census Tracts 40

Exhibit 10. Critical Crash Rate Ratio Results 44

Exhibit 11. High-Injury Network..... 48

Exhibit 12. Study Corridors..... 72

Exhibit 13. Corridor 1 Recommendations..... 76

Exhibit 14. Corridor 2 Recommendations..... 80

Exhibit 15. Corridor 3 Recommendations..... 84

LIST OF TABLES

Table 1. Project Timeline	9
Table 2. Total Crashes by Severity (2019-2023).....	18
Table 3. High Crash Intersections.....	23
Table 4. Vehicles vs. Bicyclist & Pedestrians by Crash Severity.....	25
Table 5. All Crashes vs. Freight Related Crashes by Severity	27
Table 6. All Crashes vs. Motorcycle Crashes by Severity	29
Table 7. All Crashes vs. Distracted Driving Crashes by Severity	31
Table 8. All Crashes vs. Impaired Driving Crashes by Severity	33
Table 9. Reeves County vs. Texas Emphasis Area Crash Percentages for Fatal and Severe Injury Crashes.....	37
Table 10. Countywide vs. Disadvantaged Census Tract Crashes by Severity.....	39
Table 11. High-Injury Network Facilities List	45
Table 12. Systemic Countermeasure Toolbox	53
Table 13. Study Corridors	71
Table 14. Recommendations for Corridor 1	75
Table 15. Recommendations for Corridor 2	79
Table 16. Recommendations for Corridor 3	83
Table 17. Safety Emphasis Areas and Six E's of Safety	85
Table 18. Education Focused Actions.....	87
Table 19. Encouragement Focused Actions.....	91
Table 20. Enforcement Focused Actions	94
Table 21. Engineering Focused Actions	97
Table 22. Equity Focused Action	101
Table 23. Evaluation Focused Actions	102
Table 24. Plan Updates and Timeframe	106



LIST OF FIGURES

Figure 1. Safe Systems Approach..... 5

Figure 2. USDOT 5 Complementary Objectives..... 5

Figure 3. Safe Systems Approach Six “E’s”..... 7

Figure 4. Three Primary Phases of CSAP 8

Figure 5. Photos from ZRDGC Meetings..... 10

Figure 6. Business Cards 10

Figure 7. Project Website Home Page 11

Figure 8. Interactive Map Comments Chart..... 11

Figure 9. Pictures from Pop-Up Event 1 13

Figure 10. Pictures from Pop-Up Event 2..... 14

Figure 11. Photos from Public Workshops 14

Figure 12. Total Crash Summary (2019-2023) 18

Figure 13. Top Contributing Factors (2019 - 2023) 19

Figure 14. Top Manners of Collision (2019-2023)..... 20

Figure 15. Crash Severity Breakdown 21

Figure 16. Simplified ArcGIS Model Process for HIN Analysis 42

Figure 17. Bike Lanes 55

Figure 18. Corridor Access Management 56

Figure 19. High Contrast Lane Markings Examples 57

Figure 20. Raised Median..... 58

Figure 21. Roadway Reconfiguration 59

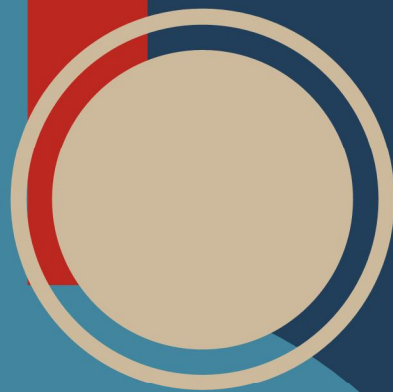
Figure 22. Centerline Rumble Strip 60

Figure 23. Transverse Rumble Strip 60

Figure 24. SafetyEdgeSM..... 61

Figure 25. Sidewalk	62
Figure 26. Speed Feedback Sign	63
Figure 27. Wider Edge Lines.....	64
Figure 28. Intersection with high contrast crosswalks	65
Figure 29. RRFB.....	66
Figure 30. Retroreflective Backplates.....	67
Figure 31. Roundabout	68
Figure 32. Low-cost Signage and Pavement Markings	69
Figure 33. Arial View of the SH 302 & US 285 Intersection.....	74
Figure 34. "Drive Sober. No Regrets" Campaign Poster for Young Adults.....	88
Figure 35. Dynamic and Traditional Message Boards for Safety Campaigns	88
Figure 36. Dynamic Message Board	89
Figure 37. TxDOT's Faces of Drunk Driving	90
Figure 38. MADD's Promposal Advertisement.....	92
Figure 39. MADD's Promposal Advertisement.....	92
Figure 40. Paramedics Administering Care Post Crash	93
Figure 41. Field Sobriety Test	95
Figure 42. Driver Texting While Driving	96
Figure 43. Example of Longitudinal Rumble Strip	98
Figure 44. Roundabout	99
Figure 45. Relative Impact on Pavement Conditions by Vehicle Type	100
Figure 46. Multi-use Path.....	101
Figure 47. NHTSA's "5-Star Safety Ratings" Database	103
Figure 48. Reeves County Study Corridors vs. HIN Segments	104







PART I

CHAPTER 1-2



PART I

This comprehensive strategy aims to enhance community safety, mobility, and overall quality of life by minimizing crash-related injuries.



PART I: BACKGROUND & PURPOSE

INTRODUCTION

The Reeves County Comprehensive Safety Action Plan (CSAP) was developed over an eleven (11) month period to help Reeves County achieve its goal of reducing severe injuries on County roads and ultimately reach its goal of zero traffic-related fatalities. This comprehensive safety action plan will equip city and county staff as well as local partners in informed decision-making when identifying traffic safety projects in the County. **Part I** (I of III) includes information detailing the guiding principles of the plan and the process of plan development.

Chapter 1: Purpose

- › Guiding Principles

Chapter 2: Process

- › Project Timeline
- › Zero Roadway Deaths Goal Committee
- › Public Engagement
- › Leadership Commitment

CHAPTER 1. PURPOSE

This chapter outlines the guiding principles of the Reeves County Comprehensive Safety Action Plan (CSAP) and its role in creating safer streets and roads for all users. These principles include Vision Zero, the Safe Systems Approach, and the Six 'E's' of Safety, each playing a vital role in the Safe Streets and Roads for All (SS4A) campaign and its initiatives.

GUIDING PRINCIPLES

VISION ZERO

The Vision Zero movement is a traffic safety initiative aimed at eliminating all traffic fatalities and severe injuries, prioritizing the principles of safe road design, enforcement, education, and community engagement to achieve this goal. It promotes a holistic approach to transportation safety, acknowledging that human error is inevitable and that road systems should be designed to reduce the impact of mistakes. This comprehensive strategy aims to enhance community safety, mobility, and overall quality of life by minimizing crash-related injuries.

SAFE SYSTEMS APPROACH

The Safe Systems Approach was pioneered in the 1990's by Swedish road safety expert, Claes Tingvall. The Safe Systems Approach is the framework and mechanism by which this Vision Zero Action Plan can be implemented. There are six key principles that can be utilized to implement the elements of the Safe System Approach, and are as follows (**Figure 1**):



DEATH OR SERIOUS INJURY IS UNACCEPTABLE

Prioritizing the prevention of fatal and severe crashes to enhance roadway safety for residents.



HUMANS MAKE MISTAKES

Human error is inevitable and can lead to crashes, but a roadway system designed to accommodate this reality can help prevent serious injuries or fatalities.



HUMANS ARE VULNERABLE

Human tolerance to crashes is a recognized, measurable benchmark—based on kinetic energy—and should be a key consideration in roadway design.



RESPONSIBILITY IS SHARED

Crash prevention is a shared responsibility among all parties, including transportation designers and engineers, road users, law enforcement, vehicle manufacturers, and public officials.



SAFETY IS PROACTIVE

Rather than responding to tragedy, measures should be taken beforehand to identify and mitigate potential risks.



REDUNDANCY IS CRUCIAL

Creating meaningful change requires strengthening all Safe System elements. If one element fails, built-in redundancies help prevent systemwide failure and keep people safe.



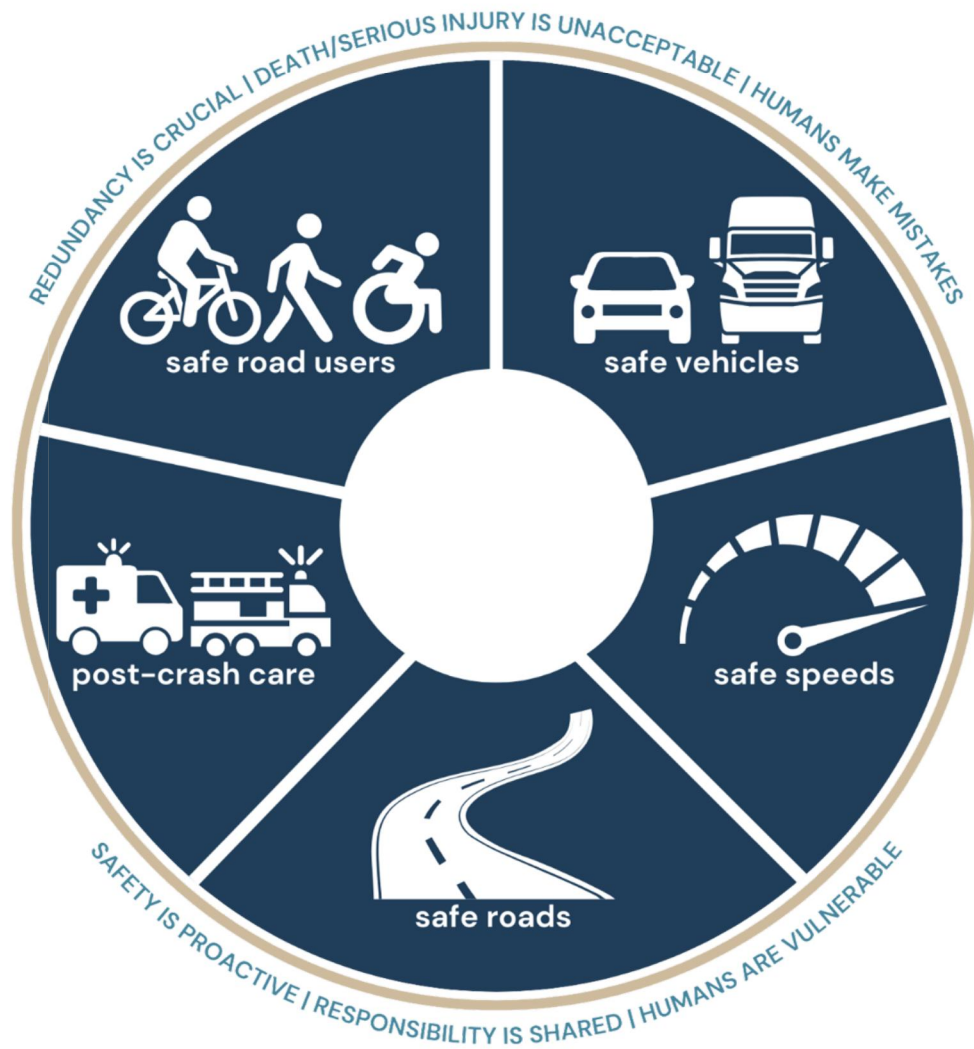
FIGURE 1. SAFE SYSTEMS APPROACH



The Safe System Approach is a principles-based strategy aimed at eliminating serious injuries and fatalities by accommodating human mistakes and ensuring potential impacts remain at tolerable levels. Accommodating human mistakes can be achieved through roadway design features and vehicle technological advancements such as lane departure assist and autonomous emergency braking. Efforts to reduce physical impacts on the human body include lowering speeds, physically separating automobiles from alternative mode users, and advancing vehicle safety technology. The U.S. Department of Transportation (USDOT) outlines the following five complementary objectives that support the implementation of this approach (**Figure 2**).

-  **Safe road users** bear the burden of responsibility for complying with rules and regulations of the roadway.
-  **Safe vehicles** are responsible for mitigating or preventing the potential impacts of crashes. Active safety measures can help prevent crashes from occurring, while passive measures can lessen the implications of a crash.
-  **Safe speeds** have a direct correlation with increased rate of survival in crashes. Reducing speeds reduce impact, improve visibility, and afford drivers additional braking time.
-  **Safe roads** are not defined by their design alone. Rather, the road design, construction, maintenance, operation, and countermeasures work collaboratively to improve safety.
-  **Post-crash care** accounts for the actions of those that respond to a crash, whether it be emergency services, law enforcement, or clean up.

FIGURE 2. USDOT 5 COMPLEMENTARY OBJECTIVES



Source: FHWA

THE SIX “E’S” OF SAFETY

Similar to the Safe Systems Approach, the Six ‘E’s’ of safety are key components of an integrated, comprehensive framework. While communities differ in composition and understanding of safety, the Six ‘E’s’ can be applied at all levels to enhance user experience and improve safety. The Comprehensive Safety Action Plan in this report uses each of the Six ‘E’s’ as a guiding framework for implementation as listed below and in **Figure 3**.

ENGINEERING

Engineering projects and inventions that support Vision Zero can be implemented through the built environment to improve safety. The primary goal is to calm traffic and enhance safety for all users. Proven examples of engineering projects include safety countermeasures and traffic calming measures that reduce speeding.

EDUCATION

Education can improve safety by raising awareness of transportation choices, promoting the benefits of multimodal transportation, and demonstrating proper system use, thereby reducing the margin of error.

EVALUATION

Evaluation supports both proactive and responsive measures. Understanding the when, where, and why of crashes allows us to address historical trends and improve future safety. Additionally, careful evaluation can help prevent potential issues before they escalate.

EQUITY

Equity efforts must address and correct the imbalance and additional burden faced by disadvantaged populations. These groups are historically hard to reach and deserve access to the same information and infrastructure as everyone else.

ENFORCEMENT

Enforcement ensures compliance with traffic laws and regulations while preventing profiling. It can also prioritize addressing dangerous behaviors, like speeding, over minor infractions.

ENCOURAGING

Encouraging the community to enhance their knowledge of safety principles can be both fun and interactive. Events and activities can promote better behavior and engagement.

FIGURE 3. SAFE SYSTEMS APPROACH SIX “E’S”



CHAPTER 2. PROCESS

This chapter outlines the project timeline and highlights key insights and feedback gathered from public engagement efforts throughout the project. Additionally, guidance from the Zero Roadway Deaths Goal Committee (ZRDGC), Reeves County Commissioner's Court and other county leadership played a crucial role towards the development of the Reeves County CSAP.

PROJECT TIMELINE

In order to focus on the safety issues present in Reeves County, county leadership elected to develop a comprehensive safety action plan specific to their jurisdiction. The development process of the Reeves County CSAP was divided into the following three primary phases: Discovery, Data Analysis, and Draft Plan.

Figure 4 provides more detail about each of the phases.

FIGURE 4. THREE PRIMARY PHASES OF CSAP



The Discovery phase began with a data exchange among relevant stakeholders to establish a strong foundation for the upcoming quantitative analysis. On October 23, 2024, the initial ZRDGC meeting was held to define the project scope, clarify roles and responsibilities, and develop a draft mission statement. A project website was launched alongside pop-up public engagement events to raise awareness and gather feedback. The project website served as a centralized location to capture valuable public feedback on locations with well-known safety concerns, disseminate a digital survey, and provide updates on the progress and development of the comprehensive safety action plan.

The Data Analysis phase incorporated both qualitative and quantitative analysis. The quantitative analysis focused on crash data and the development of the High-Injury Network (HIN) model. Qualitative analysis included field observations, countermeasure identification, and input from the public and the ZRDGC. Field observations provide an opportunity for the project team to witness traffic patterns and driver behavior in real-time. This is valuable experience when entering the countermeasure identification stage of the plan development because the project team can make recommendations based on historical data and first-hand experience.

The final phase of the project consists of the development of the draft plan. The draft plan is the culmination of the visioning and public involvement from phase 1; the data analysis including the development of the high-injury network; and the selection of proven countermeasures. The ZRDGC and the public were briefed and provided input on the direction of the Action Plan through this final phase. Feedback and input were incorporated into the draft and celebration through adoption on Monday, June 9th. **Table 1** contains a summarized version of the project time.



TABLE 1. PROJECT TIMELINE

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL
PHASE I: DISCOVERY										
ZRDGC Meeting 1: Kickoff	●									
ZRDGC Meeting 2: Existing Conditions/PI	●									
PHASE II: DATA ANALYSIS										
ZRDGC Meeting 3: HIN/Crash History		●								
Workshop 1		●								
ZRDGC Meeting 4: Policy			●							
Pop-Up 1			●							
PHASE III: DRAFT PLAN										
ZRDGC Meeting 5: Draft Recommendations						●				
Workshop 2						●				
Pop-Up 2							●			
ZRDGC Meeting 6: Plan Presentation							●			
Plan Adoption										●

ZERO ROADWAY DEATHS GOAL COMMITTEE (ZRDGC)

The Zero Roadway Deaths Goal Committee (ZRDGC) was established to guide the planning process, foster consensus, and provide critical feedback at key milestones. The ZRDGC worked closely with the project management team to develop and implement the Comprehensive Safety Action Plan and serve as county-wide champions for the Vision Zero message. Comprised of an interdepartmental working group of County staff and public and private entity representatives, the ZRDGC actively contributed throughout the project development process to ensure that received feedback was reflective of the county's needs. ZRDGC meetings were held on the following days:

- **Meeting 1:** Kickoff – October 2024
- **Meeting 2:** Existing Conditions/PI – October 2024
- **Meeting 3:** HIN/Crash History – November 2024
- **Meeting 4:** Policy – December 2024
- **Meeting 5:** Draft Recommendations – March 2025
- **Meeting 6:** Plan Presentation – June 2025

MISSION STATEMENT

Members of the ZRDGC served as ambassadors for the plan throughout its development and will continue to champion the Comprehensive Safety Action Plan and educate the community throughout its implementation. ZRDGC members gathered to draft a project mission statement to communicate the project's purpose and goal to the community and stakeholders (**Figure 5**).

FIGURE 5. PHOTOS FROM ZRDGC MEETINGS



To enhance the transportation, safety, and mobility of the Reeves County community by reducing roadway deaths through collaboration, education, and action.

PUBLIC ENGAGEMENT

Public engagement for the Reeves County Comprehensive Safety Action Plan included online participation opportunities, pop-up events, and promotional materials. Residents, community leaders, and key stakeholders played an active role in shaping the plan to address the safety concerns of all road users. To ensure equitable engagement, all materials were provided in both English and Spanish as shown in **Figure 6**.

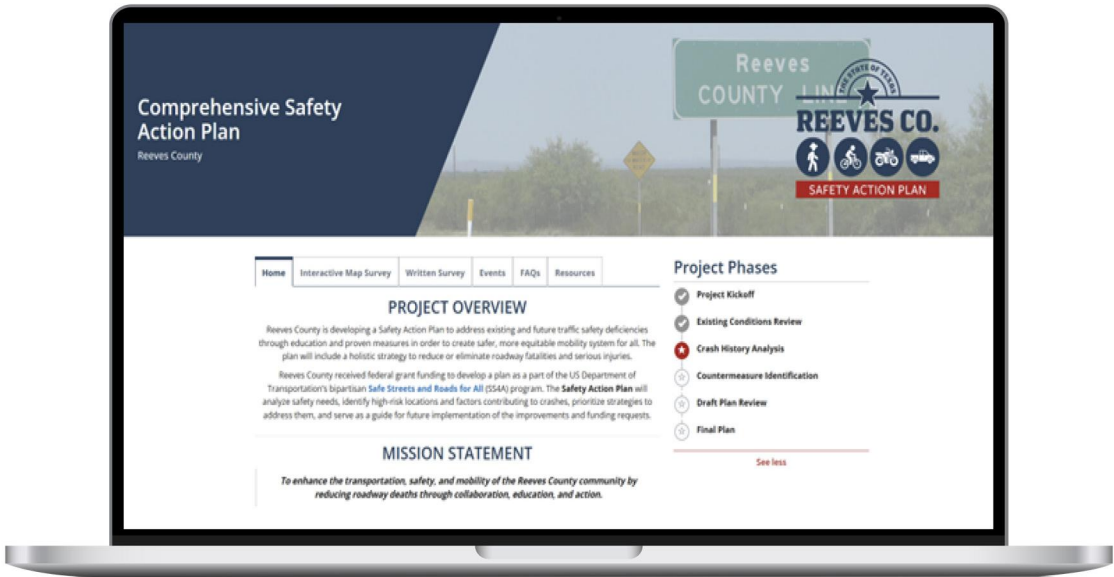
FIGURE 6. BUSINESS CARDS



ONLINE ENGAGEMENT

Social Pinpoint served as the central online hub for engagement throughout the plan’s development, providing event information, survey links, and access to the plan itself (Figure 7).

FIGURE 7. PROJECT WEBSITE HOME PAGE



INTERACTIVE MAP SURVEY

Through the use of the online platform Social Pinpoint as well as through map surveys at public events, the project team was able to gather location specific traffic safety concerns from the public. Community members were able to provide feedback on the current state of safety in Reeves County and ensure that their needs and concerns are reflected in the final plan. This process is invaluable to the plan’s development. Comment types included: “Blocked View”, “Intersection Safety”, “Signage Issue”, “Speeding Issue”, and “Other”. Of these traffic safety concerns (excluding other) “Intersection Safety” showed to be of the greatest concern for the community, particularly along Highway 285. This interactive map survey gathered seventeen (17) responses, shown below (Figure 8). Comment locations were also summarized in Exhibit 1.

FIGURE 8. INTERACTIVE MAP COMMENTS CHART

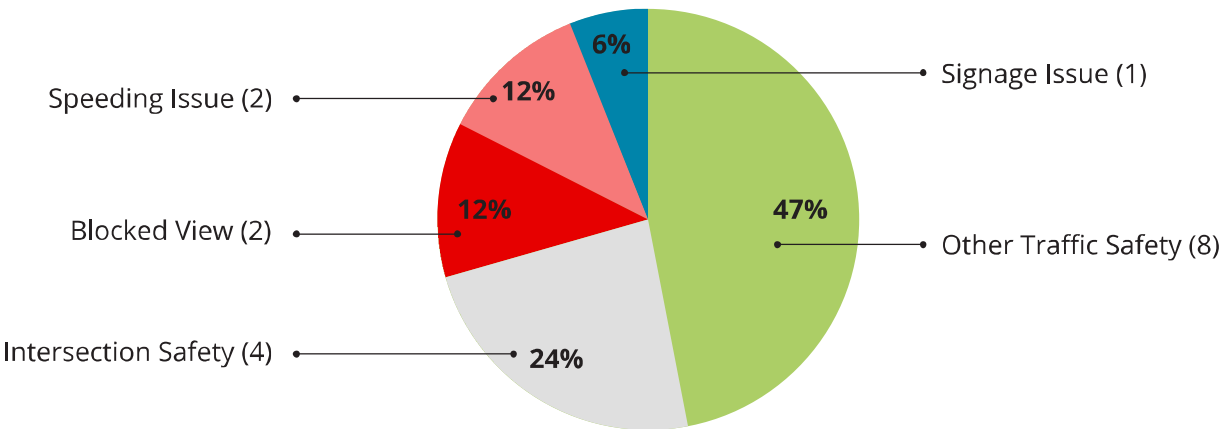
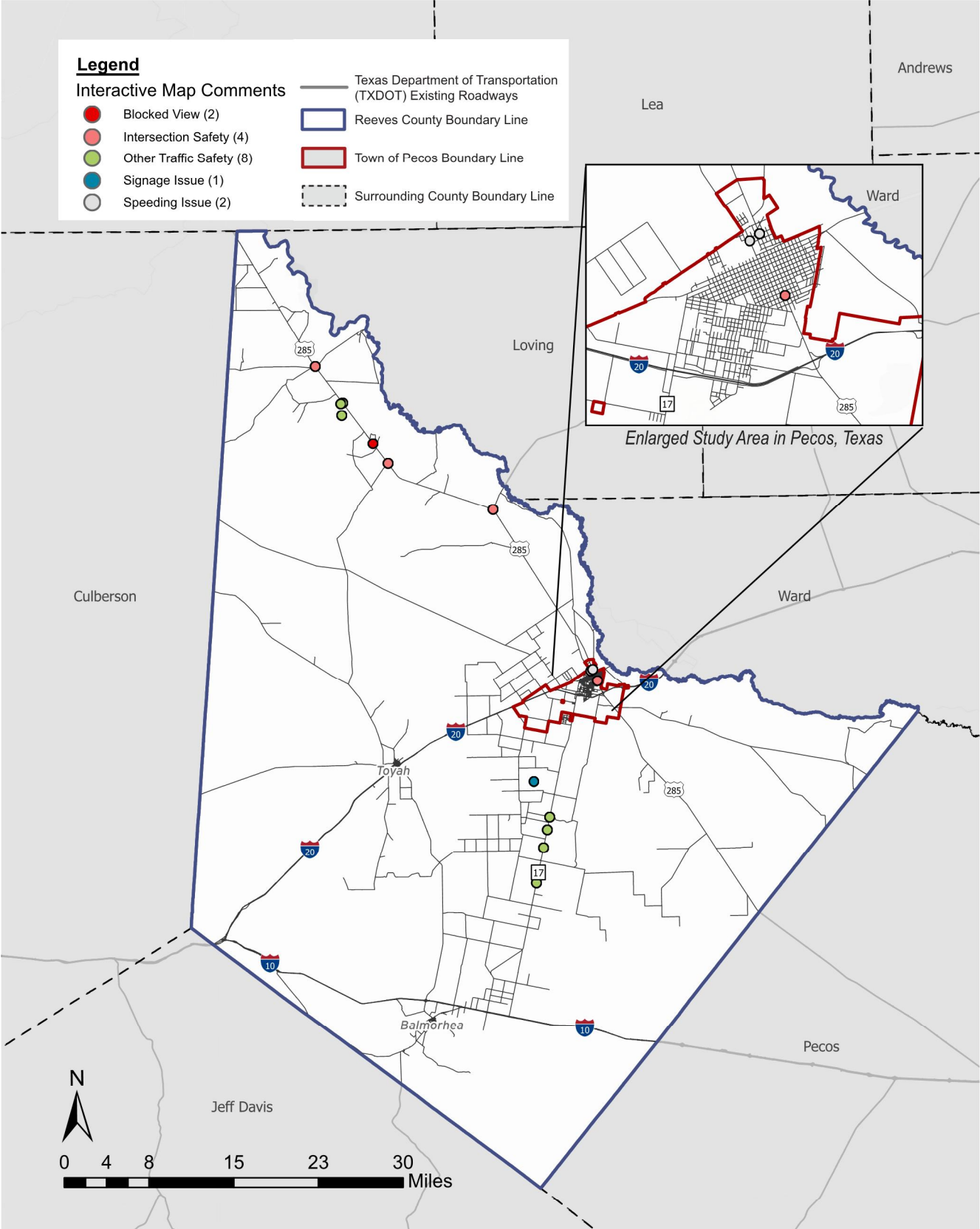


EXHIBIT 1. MAP SURVEY COMMENTS



ROADWAY SAFETY SURVEY

Reeves County also gathered community feedback through a Roadway Safety Survey. The Roadway Safety Survey was composed of thirty (30) questions and divided into four (4) sections. This accessible online survey served as a data collection agent aiming to gather information about the community's demographics, commute and mode choice, and roadway safety concerns. The data collected from this survey was utilized to tailor project recommendations to the community's needs and concerns.

PUBLIC EVENTS

In-person public pop-up events were also used to engage the public in the planning process. The pop-up events gave residents the chance to interact with the project team, understand the importance of safety in the County, and how residents could improve safety locally. These events were held in public settings with the intention of generating awareness about Reeves County Comprehensive Safety Action Plans and Vision Zero. Two Public Pop-Up Events and two Public Workshops were held over the course of the plan's development to gather community feedback.

POP-UP EVENTS

POP-UP 1: CHRISTMAS TREE LIGHTING – DECEMBER 3RD, 2024

In December 2024 Reeves County held its first Public Pop-Up Event at the Annual Town of Pecos City Christmas Tree Lighting Celebration. This event served as an opportunity to raise community awareness about Vision Zero and the Reeves County CSAP as well as gather feedback on traffic safety concerns in the area. Through these events project team members were able to interact with the public and gather invaluable information that would help guide the plans development (**Figure 9**).

The 26th Annual Town of Pecos City Christmas Tree Lighting Celebration was a family-friendly booth geared to spread awareness about the plan and its mission. English and Spanish traffic safety surveys were given out to attendees to gather feedback on the current state of safety and the community's concerns. Visual aids were also used to educate the community on Vision Zero, the CSAP, and the local road safety trends.

FIGURE 9. PICTURES FROM POP-UP EVENT 1

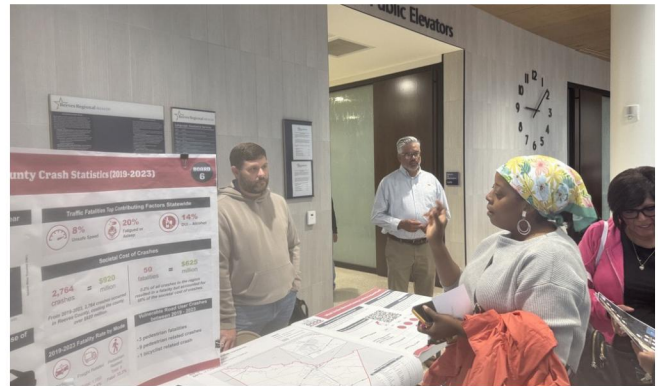


POP-UP 2: REEVES REGIONAL HEALTH ANNUAL HEALTH FAIR – APRIL 5TH, 2025

Reeves County CSAP's second Public Pop-Up Event was held on April 5th at the Reeves Regional Health Annual Health Fair. The Annual Regional Health Fair is a free event aimed at providing education and health screening to residents who may not have access to routine health care and human services information.

While the first pop-up event in December served as an opportunity for the project team to learn about residents' traffic safety concerns, the goal for this event was to gauge residents' support of the draft recommendations for the study corridors as well as raising awareness about the project. Additionally, the public was informed that the draft comprehensive action plan would be released to the public for comment before going to county commissioners' court for adoption soon. Materials used for this pop-up event included recommendation summary sheets for all study corridors, summary posters, and maps.

FIGURE 11. PICTURES FROM POP-UP EVENT 2



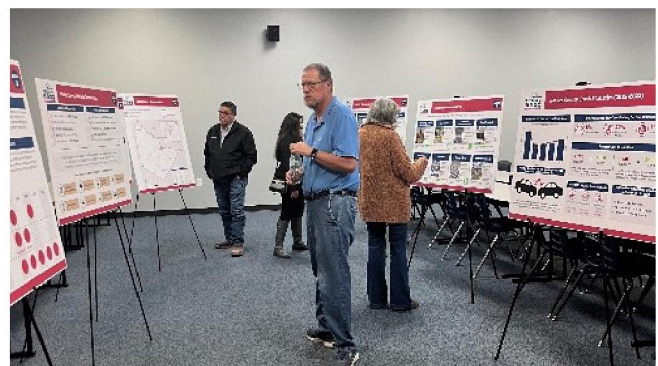
PUBLIC WORKSHOPS

WORKSHOP 1: NOVEMBER 18TH, 2024

WORKSHOP 2: MARCH 25TH, 2025

Two Public Workshops were held over the course of the plan's development. These Public Workshops were intended to raise awareness of the plan and its purpose. This was accomplished through disbursing information on traffic issues identified through the data analysis. Members of the public were also given the opportunity to share their opinions on what countermeasures they would like to see implemented in the plan and suggestions for improving traffic safety in the community. Workshops also included activities such as drunk goggles shown below (Figure 11).

FIGURE 10. PHOTOS FROM PUBLIC WORKSHOPS



LEADERSHIP COMMITMENT

County Commission played a crucial role in enacting a Vision Zero Resolution for their County by leading the initiative, setting goals, and garnering community support. They commit to eliminating traffic fatalities and severe injuries, allocating resources, and implementing policies that prioritize road safety. Through collaboration with various stakeholders, County leaders create and implement comprehensive strategies that include infrastructure improvements, education campaigns, and enforcement measures, to achieve the Vision Zero goals and create safer streets for all users.



