

May 2026

Osage Beach

Vision Zero Action Plan



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Dedication

We would like to dedicate this plan to all the members of our community who have lost loved ones or who have experienced life-changing injuries due to traffic crashes. From parents, children, grandparents, caretakers, and friends, we have all been affected by traffic violence in some way.

To those who are working to make them safer, we thank you.



The Vision:

The City of Osage Beach strives to eliminate all traffic fatalities and serious injury crashes on local roads by 20XX.



Acknowledgements

Elected Officials

- Michael Harmison, Mayor
- Bob O'Steen, Ward 1
- Kevin Rucker, Ward 1
- Justin Hoffman, Ward 2
- Phyllis Marose, Ward 2
- Rebecca Collins, Ward 3
- Celeste Barela, Ward 3

Osage Beach Safety Action Committee

- | | |
|---|--|
| Heather Brown, Lake of the Ozarks Convention & Visitor Bureau | Celeste Barela, Osage Beach Alderman Ward 3 |
| Amy Hernandez, Branches for the Lake | Summer Phillips, City of Osage Beach Officer |
| Lee Schuman, Alpha Engineer & Surveying | Pete Leyva, City of Osage Beach Corporal |
| Adam Vanderpool, APV Strategy | David Dawson, School of the Osage Principal |
| Colton Witt, Witt Properties | Jason Price, School of the Osage Superintendent of Schools |
| Devin Lake, City of Osage Beach City Administrator | John Delaney, City of Osage Beach Construction Inspector |
| April White, City of Osage Beach Assistant City Administrator | Tim Taylor, Osage Beach Police Patrol Lieutenant |
| Jeff Fisher, City of Osage Beach Public Works Director | Paul Berardi, Osage Beach Fire Chief |
| Colten Wright, City of Osage Beach Project Manager | |

Safe Streets and Roads for All Safety Action Plan Checklist

The Osage Beach Vision Zero Action Plan (OBVZAP) meets requirements of the U.S. Department of Transportation’s Safe Streets and Roads for All (SS4A) program. The SS4A’s Self Certification Eligibility Worksheet was used to guide the development of the OBVZAP. The Vision Zero Action Plan provides a framework to guide the City of Osage Beach in achieving its goal of reducing roadway fatalities and serious injuries. It also establishes the City’s eligibility to pursue SS4A Implementation Grant funding to advance safety improvements throughout the community. The SS4A Safety Action Plan Checklist requirements are located within the following chapters:

Vision Zero Resolution

Leadership Commitment and Goal Setting: This plan will be adopted by Osage Beach’s City Council to further the goal of reducing roadway fatalities and serious injuries.

Chapter 1: Introduction

This section introduces Osage Beach’s community and transportation context, including details on existing post-crash care and enforcement. No SS4A Checklist items are specifically addressed in this section.

Chapter 2: Planning Structure, Engagement, and Collaboration

Planning Structure: The development of this plan was guided by a Safety Action Committee comprised of the police department, fire department/EMS, public works, city administration, school administration, business owners, community organizations, and other community leaders.

Engagement & Collaboration: Public engagement with the City of Osage Beach’s community informed them of safety concerns and potential solutions outlined in this plan.

Chapter 3: Policy & Process

Policy and Process Changes: An assessment of current policies, plans, and standards has been reviewed and analyzed with the goal of prioritizing safety.

Chapter 4: Transportation & Safety Networks

Safety Analysis: This chapter provides information related to the existing conditions of the City of Osage Beach’s transportation network. Baseline conditions, crash data analysis, crash severity, and strategic safety needs are outlined in this chapter.

Chapter 5: Strategies & Project Selections

Strategy and Project Selections: A comprehensive set of prioritized projects and strategies is identified to guide the City of Osage Beach as roadway safety goals are pursued.

Chapter 6: Implementation

Progress and Transparency: A description of how progress will be measured over time is detailed in this chapter.

Leadership and Goal Setting

Board of Aldermen Resolution

VISION ZERO RESOLUTION OR ORDINANCE

BILL NO. XX-XX [RESOLUTION OR ORDINANCE] NO. [X]

A [RESOLUTION OR ORDINANCE] BY THE CITY OF OSAGE BEACH PROCLAIMING THE CITY'S COMMITMENT TO A 50 PERCENT REDUCTION IN FATAL AND SERIOUS INJURY CRASHES ON LOCAL STREETS BY THE YEAR 2030. FURTHER, THE BOARD OF ALDERMEN IS COMMITTED TO ELIMINATING ALL FATAL AND SERIOUS INJURY CRASHES IN OSAGE BEACH BY 2050.

WHEREAS, in 2021 the Bipartisan Infrastructure Law established the Safe Streets and Roads for All (SS4A) discretionary program which funds regional, local and Tribal initiatives through grants to prevent roadway deaths and serious injuries; and,

WHEREAS, in 2023 the city of Osage Beach received a SS4A Planning and Demonstration grant from the U.S. Department of Transportation to create an SS4A compliant action plan; and

WHEREAS, the SS4A program supports the U.S. Department of Transportation's National Roadway, Safety Strategy and the goal of zero roadway deaths using a Safe System Approach; and,

WHEREAS, Osage Beach's Vision Zero policy supports the Missouri Department of Transportation's Show Me Zero program and the goals of the Missouri Strategic Highway Safety Plan; and,

WHEREAS, 5 individuals were needlessly killed, and 48 individuals injured on Osage Beach roadways between 2020 and 2024; and,

WHEREAS, Osage Beach recognizes the need for action to increase safety and to prevent deaths and injuries on Osage Beach streets; and,

WHEREAS, SS4A program provides a framework for eliminating traffic deaths and serious injuries through intergovernmental and community partnerships leveraging resources and funds to ensure safe and efficient multimodal transportation; and,

WHEREAS, A comprehensive Vision Zero policy unifies existing safety efforts and elevates improvements through engineering and street design, education and engagement efforts, enforcement and technology, evaluation and data analysis, and equity; and,

WHEREAS, Osage Beach policies and practices support Vision Zero efforts to lead with roadway design that prioritizes safety and plans for a safe network for all modes of transportation; and,

WHEREAS, Osage Beach recognizes the need to prioritize hearing from the entire community and supports Vision Zero efforts to address inequities by prioritizing interventions in areas most in need of safety improvements; and,

WHEREAS, Osage Beach commits to build and sustain leadership, collaboration and accountability in partnership with public health, law enforcement, policy makers, elected officials, and community members in traffic safety work to advance the strategies of the SS4A plan and the Vision Zero policy; and,

WHEREAS, Osage Beach recognizes the need for action to increase safety and to prevent deaths and injuries on Osage Beach streets; and,

BE IT ORDAINED BY THE BOARD OF ALDERMEN OF THE CITY OF OSAGE BEACH, AS FOLLOWS, TO WIT:

Section 1. The Osage Beach Vision Zero policy is adopted with the goal of achieving zero fatalities and serious injuries by the 2050.

Section 2. The Osage Beach Vision Zero Action Plan, attached hereto as Exhibit A, is adopted.

READ FIRST TIME: [X] day, 2026 READ SECOND TIME: [X] day, 2026

I hereby certify that the above Ordinance No. XX.XX was duly passed on [X] day of MONH, 2026, by the Board of Aldermen of the City of Osage Beach. The votes thereon were as follows:

Ayes: **X** Nays: **X** Abstain: **X** Absent: **X**

This Ordinance is hereby transmitted to the Mayor for his signature.

Date _____

Tara Berreth, City Clerk

Approved as to form:

Cole Bradbury, City Attorney

I hereby approve Ordinance No. XX.XX

Michael Harmison, Mayor

Date _____

Executive Summary

Vision Statement

The City of Osage Beach is committed to improving safety for all road users. This plan is guided by the following vision statement:

The City of Osage Beach strives to eliminate all traffic fatalities and serious injury crashes on local roads by 20XX.

Overview

By developing the OBVZAP, the City of Osage Beach has taken a critical first step toward its long-term goal to eliminate traffic-related deaths and serious injuries by XXXX.

The plan was shaped through a combination of community input and data analysis, helping to identify the key factors affecting roadway safety in Osage Beach. Grounded in the Safe System Approach and Vision Zero principles, the OBVZAP pinpoints the areas of highest safety risk and outlines targeted strategies to reduce those dangers.

Between 2020 and 2024, Osage Beach experienced 1,138 crashes, resulting in 5 fatalities and 48 serious injuries. In Osage Beach, motorcycle crashes make up 3% of all crashes but make up 34% of all fatal and serious injury crashes.

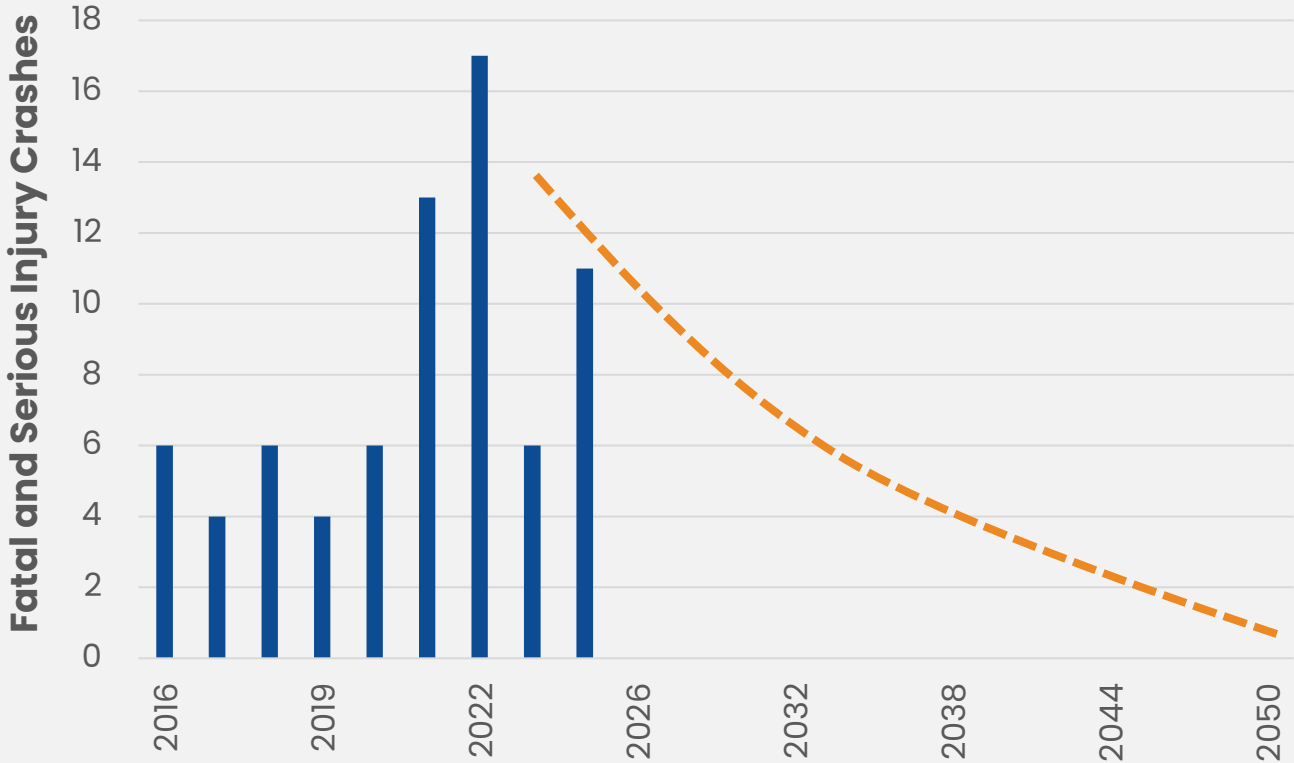
To reach the goal of zero traffic fatalities and serious injuries, this plan emphasizes a holistic approach that prioritizes safety for everyone, especially those most at risk. The recommendations focus on infrastructure improvements, policy changes, and community engagement to create a safer transportation system for all users.

Throughout the spring and summer of 2026, the community had the opportunity to review the findings and provide input that was used to create the final plan. More than XXX people participated in this planning effort. The most common theme gathered from community input was focused on pedestrian safety and lack of sidewalks.

How we got here

The City of Osage Beach, Missouri, initiated the Vision Zero Action Plan (VZAP) to establish a comprehensive strategy for reducing and ultimately eliminating roadway fatalities and serious injuries. Funded through the United States Department of Transportation’s (USDOT) Safe Streets and Roads for All (SS4A) program, the plan provides a data-driven framework to improve transportation safety for residents, visitors, and all roadway users.

Fatal and Serious Injury Crashes per Year with a Goal of Vision Zero



GOALS

- Establish a safe and accessible transportation system for all road users by protecting vulnerable road users, promoting multimodal connectivity, and implementing universally accessible infrastructure improvements.
- Use data and community input to prioritize projects, measure outcomes, and maintain transparent communication with the public.
- Anticipate and mitigate safety impacts from future development through best practices in corridor design, access management, and capital improvements.
- Strengthen collaborative partnerships and funding strategies to enhance coordination, support emergency management, and improve post-crash response.
- Address seasonal and behavioral safety challenges by reducing crashes on high-risk corridors and intersections through targeted education, infrastructure improvements, and operational strategies.

How the plan will be used

The Vision Zero Action Plan provides a framework to guide the City of Osage Beach in achieving its goal of reducing roadway fatalities and serious injuries. It also establishes the City’s eligibility to pursue SS4A Implementation Grant funding to advance safety improvements throughout the community.

Recommendations

Recommendations identify opportunities for the City of Osage Beach to advance roadway safety through strategy and policy-based actions that support the Safe System framework. The recommendations are grounded in the five Safe System objectives and identify key areas where targeted actions can improve roadway safety. Key short-term recommendations include:

Strategy

- Install more wrong-way signage and explore additional technology solutions to reduce the likelihood of crashes.
- Conduct signal timing studies and left turn warrants
- Promote educational campaigns about motorcycles and alternative modes of traffic.
- Support driver safety education programs with different audiences, topics, and formats.
- Adequately communicate information for construction projects and new & existing designs.
- Avoid removing safety improvements from projects because of budget concerns or public pressure.
- Implement the recommendations of the Osage Beach Road Safety Audit to improve safety along the corridor.

Policy

- Implement an Access Management Policy.
- Adopt an ADA transition plan using PROWAG standards.
- Update roadway design standards to meet design best practices.

- Adopt a Buckle Up Phone Down policy.
- Coordinate the CIP process with OBVZAP priority projects.

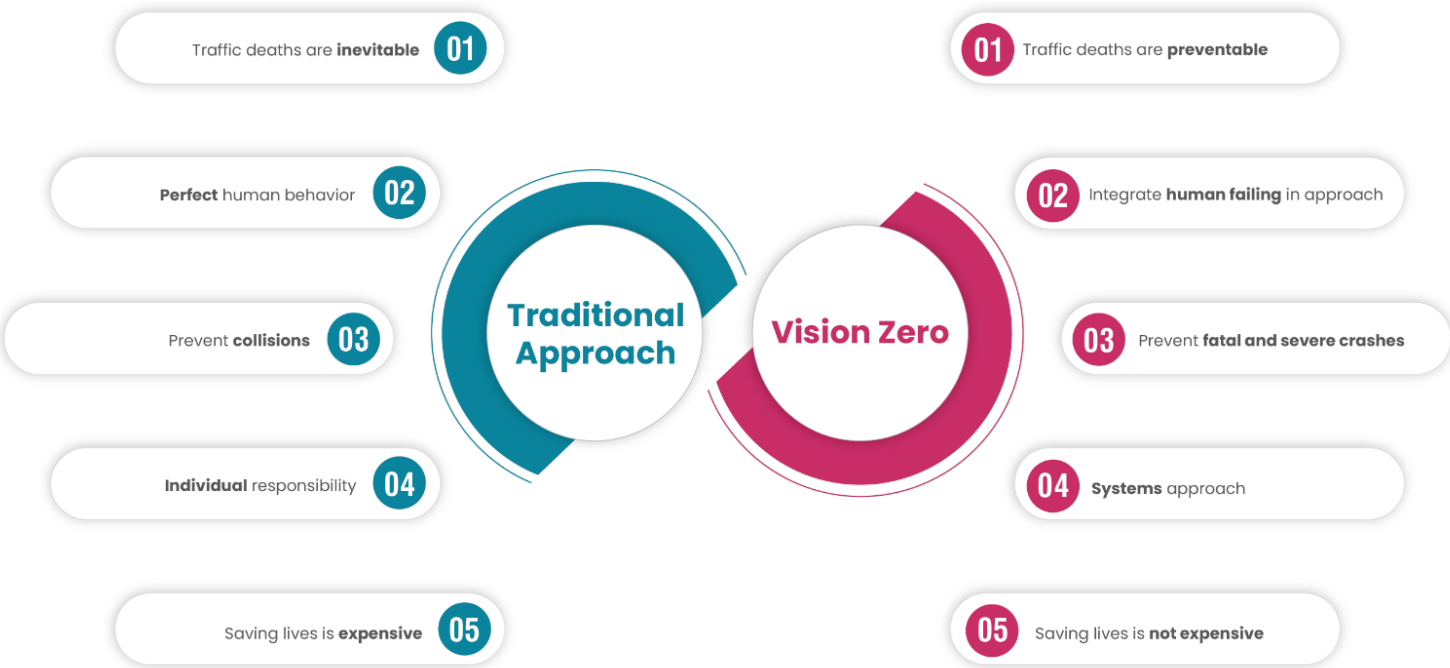
Safe System Approach

This plan is built around the Safe Systems Approach and Vision Zero Concept. The United States Department of Transportation (USDOT) Safe System Approach is a comprehensive, proactive framework for reducing fatalities and serious injuries on roadways. Grounded in the principle that these outcomes are preventable, the approach emphasizes shared responsibility among system designers, policymakers, and road users.



Vision Zero vs. Traditional Approach

Vision Zero is a multidisciplinary strategy aimed at eliminating all traffic fatalities and serious injuries while improving safety, health, and mobility for all road users. At its core is the belief that everyone has the right to travel safely within their communities. By prioritizing the prevention of severe crashes and working toward zero fatalities, communities also benefit from reductions in minor injury and property damage only crashes.



Created with You

Public engagement served as a foundational component of the Osage Beach Vision Zero Action Plan. The project team implemented a comprehensive engagement strategy involving residents, visitors, city leadership, first responders, business representatives, and community organizations. This process helped validate safety findings, identify community concerns, and build consensus around strategies to improve roadway safety.

Community input was gathered through multiple engagement methods designed to meet stakeholders where they are. An interactive online engagement platform provided residents and visitors opportunities to complete surveys, contribute comments through an interactive mapping tool, and stay informed on project progress and upcoming events. In-person outreach included pop-up events at community gatherings. A Safety Action Committee, consisting of representatives from public safety agencies, schools, public works, businesses, and community organizations, met throughout the project to review data findings, discuss strategies, and guide development of recommendations. In addition, regular presentations to the Board of Aldermen ensured decision-makers remained informed and engaged during key milestones of the planning process.

A public open house provided an additional opportunity for community members to review draft recommendations and discuss proposed strategies with the project team. Complementing these efforts, a Share the Road education campaign promoted safer travel behaviors and increased awareness of vulnerable roadway users through supportive safety messaging, billboards, social media, and community outreach.

Transportation & Safety Networks

Osage Beach’s transportation system is shaped by the geography of the Lake of the Ozarks, seasonal tourism, and a roadway network that balances regional mobility with local access. Osage Beach Parkway and U.S. 54 serve as the primary transportation corridors, carrying residents and visitors to commercial destinations, recreational areas, and essential services. Seasonal travel patterns significantly influence traffic conditions, with volumes increasing by approximately 34% during peak travel months, creating additional safety challenges related to congestion, unfamiliar drivers, motorcycles, pedestrians, and recreational vehicles. Limited pedestrian infrastructure, particularly the absence of sidewalks on many roadways and bridges, creates connectivity and safety challenges for vulnerable road users.

To guide future safety investments, the plan developed a High Injury Network (HIN) and High Risk Network (HRN) to identify locations with documented crash history and roadway characteristics associated with severe crash potential, supporting a proactive, data-driven approach to reducing fatalities and serious injuries in Osage Beach.

Emphasis Areas

The emphasis areas are derived from the Missouri Strategic Highway Safety Plan (SHSP) and have been tailored to address the specific safety challenges within Osage Beach. These focus areas were selected based on an analysis of fatal and serious injury crashes over a five-year period (2020–2024) in Osage Beach.

- Intersections
- Speeding and Aggressive Driving
- Roadway Departure
- Impaired Driving
- Vulnerable Road Users (VRU)
- Motorcycles



Priority Projects

While projects are assigned priority levels to support decision-making and phased implementation, all recommended improvements are considered important to improving transportation safety throughout Osage Beach. Prioritization is intended to provide guidance on project timing and resource allocation and should not limit the City’s ability to pursue safety improvements as opportunities, partnerships, or funding sources become available.

Priority Safety Projects were selected through a data-driven process informed by historical crash analyses, roadway safety concerns, and community input gathered throughout the planning process. Projects were categorized by infrastructure type — corridors, intersections, and bridges — and evaluated using factors including crash history, roadway risk characteristics, project feasibility, and public and stakeholder support. Priority 1 projects represent locations with the greatest potential to reduce fatal and serious injury crashes and received strong community and agency support. Priority 2 projects address corridors and locations with elevated crash risk but less severe crash history, while Priority 3 projects remain important long-term safety investments to be advanced as resources allow.

The plan identifies 12 corridor segments, 11 intersections, and 8 bridges as Priority Safety Projects. Corridor recommendations include the full extent of Osage Beach Parkway, segmented based on roadway characteristics and ownership, as well as additional state and local routes with elevated crash risk. 11 intersections were prioritized, most located along Osage Beach Parkway, and may be implemented independently or as part of broader corridor improvements. All 8 bridges in Osage Beach, owned by MoDOT, were identified as priority projects due to the absence of pedestrian accommodations. Emphasis was placed on the Grand Glaize Bridge, a critical regional connection carrying U.S. 54 across the lake, which presents unique safety and multimodal access challenges due to its scale, function, and crash history.

Priority 1 Projects

CORRIDORS

- Osage Beach Parkway: Route KK to Jeffries Road
- Osage Beach Parkway: Grand Glaize to Wal-Mart Entrance
- Osage Beach Parkway: Wal-Mart Entrance to Route 42
- Osage Beach Parkway: Route 42 to City Limits
- Route 42: Osage Beach Parkway to Norwood Road

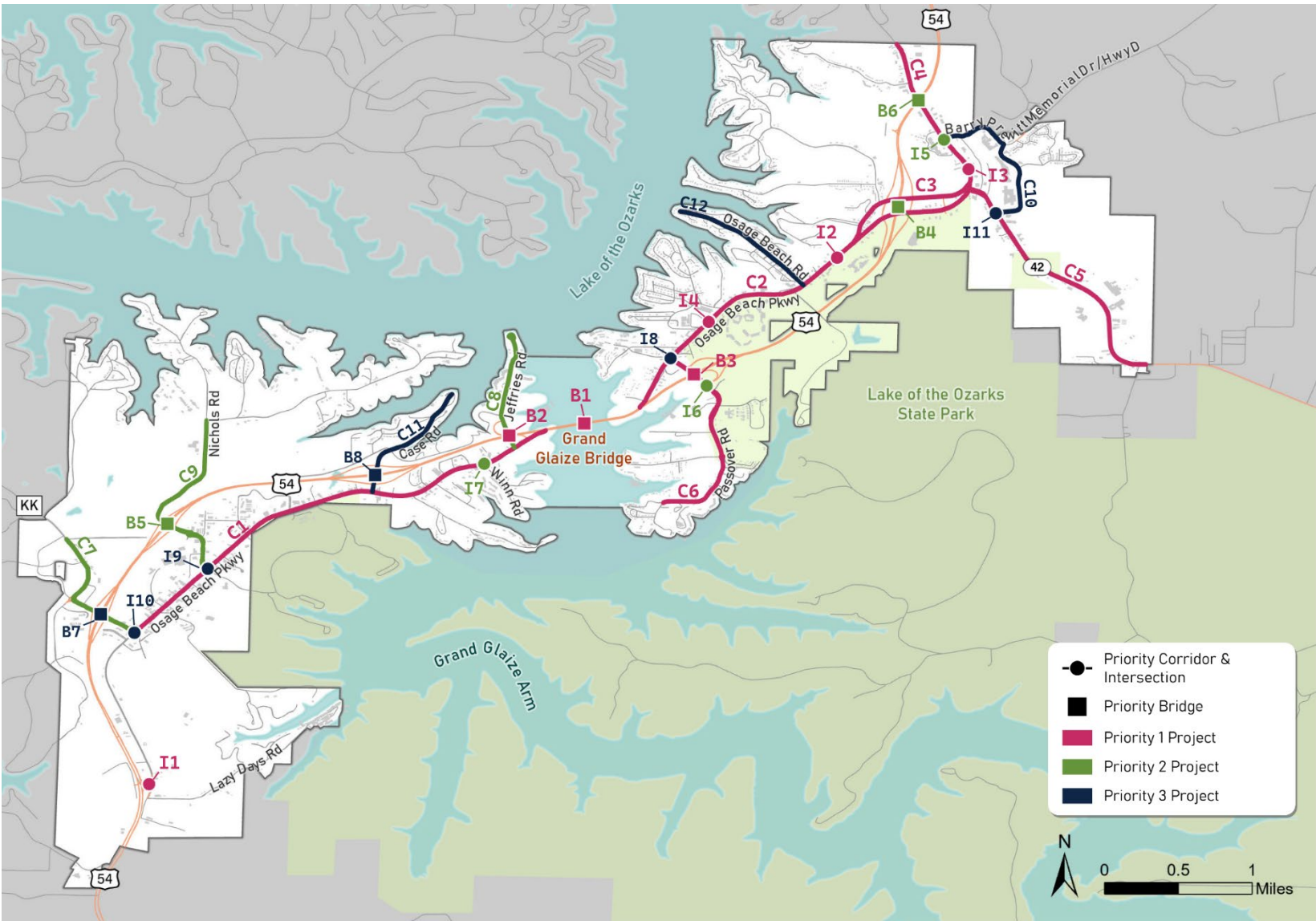
- Passover Road: Osage Beach Parkway to Robins Circle

INTERSECTIONS

- U.S. 54 interchange – Osage Beach Parkway, Key Largo Road
- Wal-Mart Entrance & Osage Beach Parkway
- Goldie Pearl Boulevard & Osage Beach Parkway
- Lakeview Pointe Drive & Osage Beach Parkway

BRIDGES

- Grand Glaize Bridge
- Jeffries Road
- Passover Road



Chapter 1

Introduction

About the Osage Beach Vision Zero Action Plan

In X of Y, Osage Beach passed Resolution XXXXXX, adopting a Safe System Approach to roadway safety with the goal of eliminating traffic deaths and serious injuries by 20XX. To advance this goal, Osage Beach received a grant in 2023 from the United States Department of Transportation (USDOT) to prepare a Safe Streets and Roads for All (SS4A) action plan. Established under the Infrastructure Investment and Jobs Act (IIJA), the SS4A program provides funding to communities to prevent roadway fatalities and serious injuries in support of the USDOT's National Roadway Safety Strategy.

The OBVZAP provides the city with strategies to reach the goal of zero traffic fatalities and serious injuries. The project also includes a demonstration project, giving residents and visitors the chance to see firsthand how safety-focused infrastructure improvements can enhance roadway safety.

Safety is essential in a community like Osage Beach, where thousands of people rely on the transportation system each day. Traffic volumes increase significantly during the summer months as visitors travel to the area, placing additional strain on roadways, especially at busy intersections. Higher volumes and congestion elevate the risk of collisions, which can result in serious injuries, fatalities, and lasting impacts on families and the community.

Prioritizing roadway safety means designing streets to reduce both the likelihood and severity of crashes. Proven strategies include lower speed limits, improved signage, enhanced lighting, and safer pedestrian crossings.

The annual societal cost of motor vehicle crashes in the State of Missouri exceeds \$10 billion (Source: Missouri SHSP Blueprint 2023). This figure includes economic impacts such as lost household productivity, reduced economic output, and medical expenses, as well as quality-of-life impacts associated with injury and loss of life, including pain and suffering.

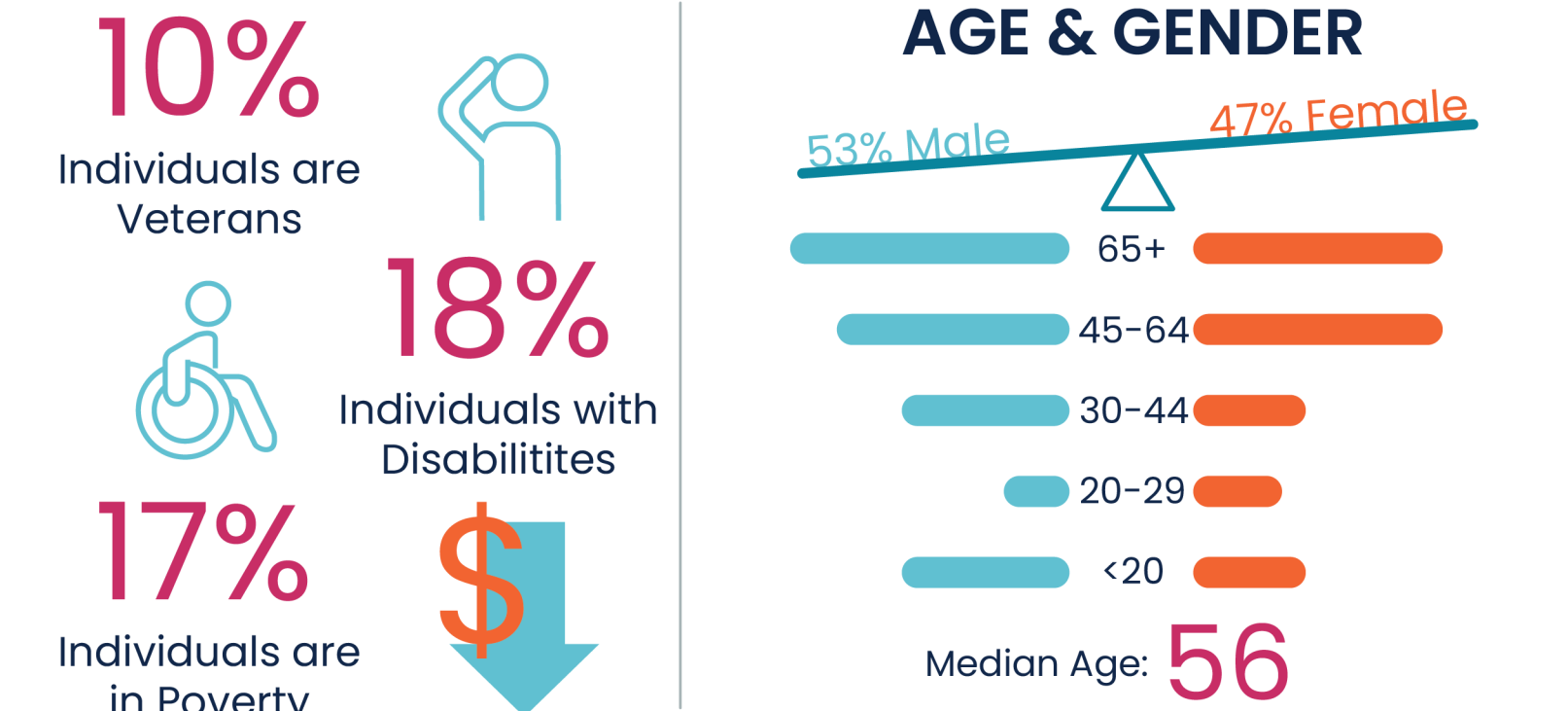
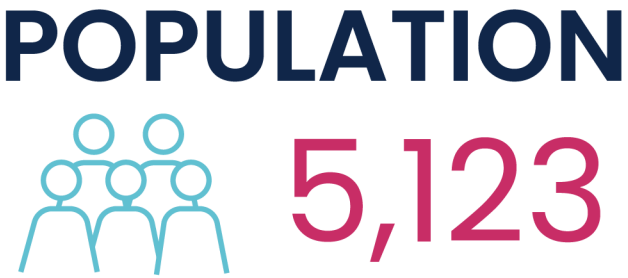
By prioritizing crash prevention and mitigation, Osage Beach can significantly reduce both the frequency and severity of crashes. This approach helps protect its residents, workers, and visitors, creating a safer, more resilient transportation network for everyone.

Community Analysis

Situated along the eastern shore of the Lake of the Ozarks, Osage Beach extends through both Camden and Miller counties in central Missouri and is part of the Lake of the Ozarks Council of Governments. The community is well-known as a vacation destination due to its lakefront setting and recreational opportunities, including access to state parks and trail systems. In addition to its tourism appeal, Osage Beach is the largest community in the lake area and serves as a regional commercial hub, hosting a concentration of grocery stores, big-box retail, and restaurants that attract both residents and visitors from surrounding communities, including Lake Ozark, Sunrise Beach, Camdenton, and Kaiser, and the Village of Four Seasons.

Osage Beach has a population of approximately 5,123 year-round residents, however, the city’s population swells during the summer, accommodating more than 240,000 annual visitors, according to the Osage Beach Economic Development Department. The city’s distinctive combination of regional shopping activity and tourism contributes to a mix of roadway users, including local traffic, seasonal visitors, and vehicles hauling boats, campers, and trailers. These larger vehicles influence traffic by requiring additional space for turning, merging, and parking maneuvers, and can contribute to increased conflict potential.

To the right is a snapshot of the city’s demographics and key factors commonly associated with mobility needs, including population with disabilities, commuting patterns, and vehicle ownership. The statistics shown are sourced from the 2024 American Community Survey.



AGE & GENDER

53% Male

47% Female

65+

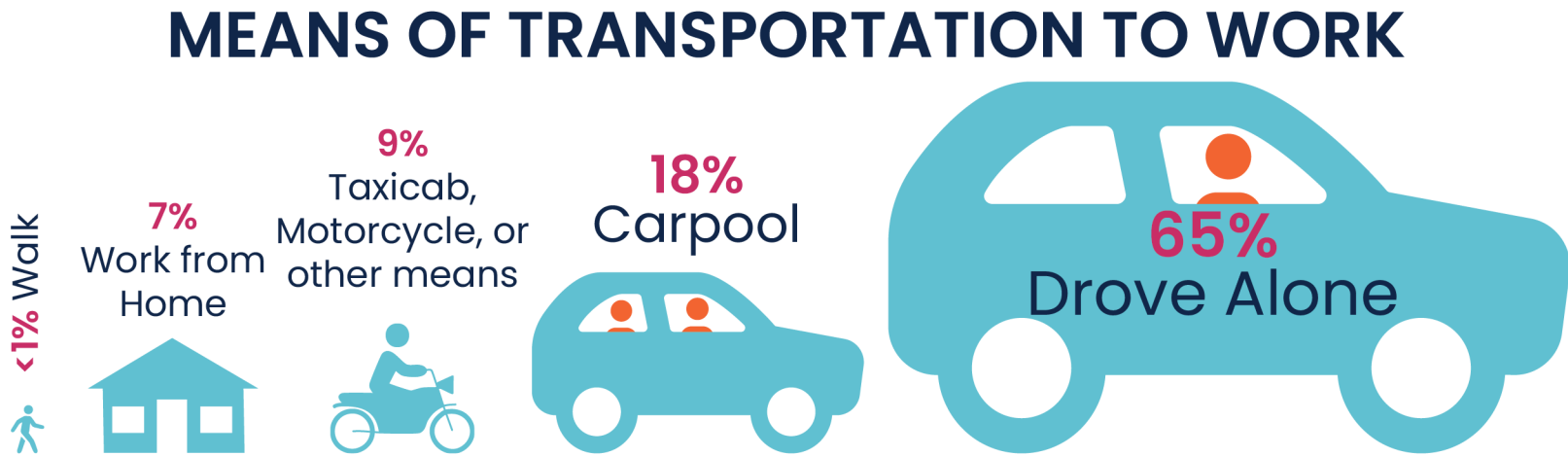
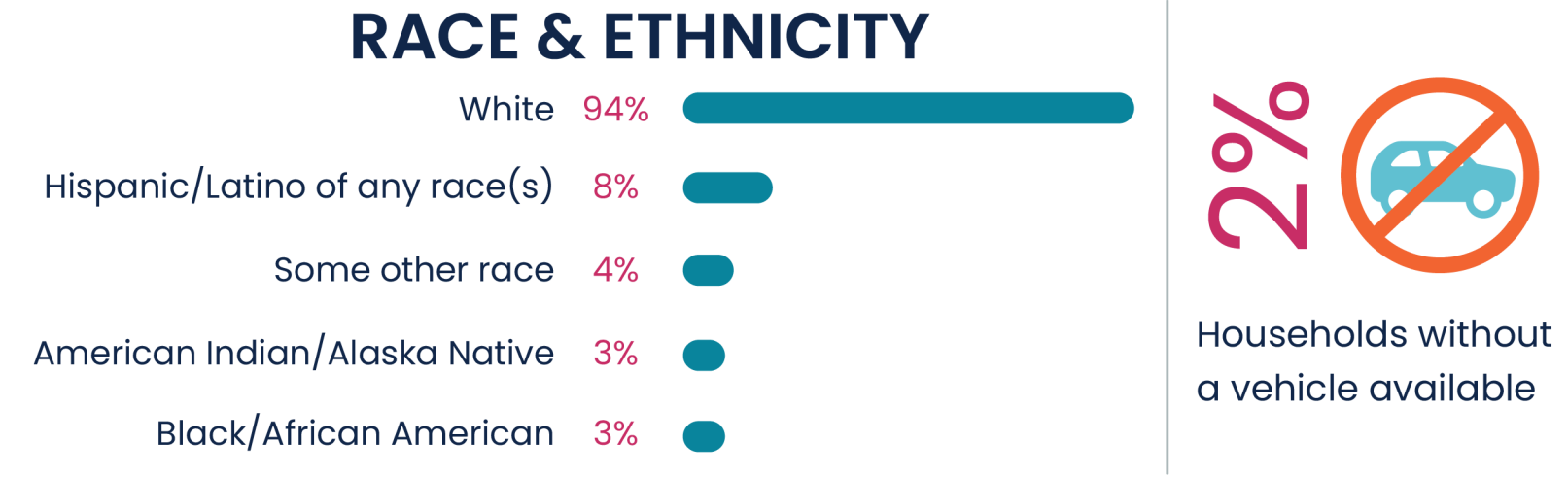
45-64

30-44

20-29

<20

Median Age: 56



Chapter 2

Engagement & Collaboration

Overview

The OBVZAP prioritizes projects that address safety challenges faced by travelers in Osage Beach. To better understand these challenges the project team, comprised of the City of Osage Beach and the project consultant, utilized a public engagement approach that incorporated a variety of community stakeholders, first responders, and city leaders. Involving a range of perspectives was essential to confirm the safety data and analysis, identify community priorities for roadway safety, and to establish a framework of strategies to achieve Osage Beach's goal of zero traffic fatalities and serious injuries by XXXX. The following engagement strategies and resources were used to collect public feedback and develop the OBVZAP. Additional engagement results and information are provided in Appendix D.

Online Engagement

An online platform was developed to collect additional feedback, inform the community of pop-up events, and share project progress and information. Throughout the project, XX total visitors interacted with the site through XX unique visits and provided XX contributions. The site was a major component of the planning process that supported community involvement, transparency, and the incorporation of community input into the project recommendations.

Visitors were able to leave their input through a survey as well as an interactive map. The survey and project website were promoted at each of the pop-up events and Osage Beach's social media and website.

<graphic, perhaps blocks with comments, images, etc.>

Pop-Up Events

The project team hosted two pop-up events at existing events to reach a wide range of community members. This offered a casual, convenient way to participate in the plan. These events raised awareness of the planning process, gathered insightful feedback from the community, and provided more opportunities for the community to become involved.

Fall Fest

Fall Fest is an annual event in Osage Beach attracting hundreds of residents and visitors from the city and surrounding areas. The event was hosted on October 11, 2025. Several community members stopped by to talk with the project team about the project. Additionally, 10 attendees participated in a mapping exercise that highlighted where roadway improvements are needed in Osage Beach.

Real Life PAW Patrol

The city hosted a “Real Life PAW Patrol” event at Osage Beach City Hall on March 7, 2026, to showcase first responders and allow children to interact with local police, firefighters, emergency medical services, and watch a PAW Patrol movie. At the event, approximately 30-40 parents voiced their input on Road Safety Audit (RSA) segment prioritization through interacting with a board exercise. During the board exercise, Osage Beach Parkway was divided into six segments, allowing community members to select up to two segments to prioritize safety improvements.

Community Cup

Safety Action Committee

The Safety Action Committee served as a backbone for community engagement and the creation of the final plan. This group was comprised of a wide range of community members including the police department, fire department/EMS, public works, city administration, school administration, business owners, community organizations, and other community leaders. The Safety Action Committee met four times throughout the course of the project to validate findings, provide their input, and discuss strategies to help Osage Beach reach its goal of eliminating fatal and serious injury traffic crashes. The meeting schedule of the Safety Action Committee is in **Table 1**.

Table 1: Safety Action Committee Meeting Schedule

Meeting Date	Subject	Location
September 22, 2025	Collected input on concerns and review data analysis	City Hall
December 4, 2025	Discussed demonstration project and access management	City Hall
February 11, 2026	Reviewed of High Injury Network and High Risk Network and Grand Glaize Bridge Concepts	City Hall
Q2/3 2026	Reviewed of the draft plan and recommendations	City Hall



Osage Beach
PAW Patrol Event



Board of Aldermen Presentations

June 2026. This messaging was supportive, not blaming, and focused on displaying positive roadway safety behaviors.

Meeting #1

The first Board of Aldermen meeting was held on September 18, 2025, at City Hall. The project team presented an overview of the project, initial crash data findings, engagement goals, and some conceptual ideas for restriping Osage Beach Parkway west of the Grand Glaize Bridge to include bike facilities.

Meeting #2

The second meeting with the Board of Aldermen was on December 4, 2025. The project team presented an alternative option for the demonstration project along Osage Beach Parkway and the potential impact of access management policies. The Board determined that the original demonstration project that included bicycle lanes or a shared use path would not move forward.

Meeting #3

Meeting #4

Public Open House

A public open house was held on XXXX, at XXXX. Community members were invited to review and discuss the project recommendations with the project team.

<add in context post-open house>

<photo or graphic>

Share the Road Campaign

The Share the Road campaign aimed to increase awareness of non-motorized and more vulnerable transportation users within the Osage Beach community. The campaign also focused on reducing unsafe roadway behaviors like aggressive driving, speeding, and distracted driving.

As spring changes to summer in Osage Beach, the number of visitors and seasonal residents increases. This means there is a larger population that can be impacted by unsafe roadway behaviors. To combat this, educational safety reminder messages were displayed on billboards to emphasize the importance of roadway safety, running through

Chapter 3

Policy & Process

Connectivity and pedestrian safety are key priorities reflected through several of Osage Beach's planning initiatives. Whether the focus is on improving existing pedestrian infrastructure in city parks, identifying gaps in accessibility, or implementing additional safety measures for crossing Osage Beach Parkway, Osage Beach has consistently emphasized the importance of a safe, accessible, and connected network for all users.

Community priorities were identified through the review of the most recent and relevant local plans. These priorities and shared objectives found in relevant plans lay the foundation for the proven, actionable strategies the OBVZAP details to improve connectivity and transportation safety. Overviews of the supportive planning efforts and their relevance to this plan are described in the following pages.

Current Policy Review

Osage Beach Comprehensive Plan (2006)

In 2006, the City of Osage Beach completed the current comprehensive plan to establish a future vision. When developing the plan, the City took into consideration the community's needs and issues as well as assessments of current infrastructure. Goals and objectives were developed around these communal desires and standards were adopted to support predicted growth. The plan guides decision-making focused on benefiting the City and its residents. This plan was created when Osage Beach Parkway served as U.S. 54 and the current U.S. 54 was under construction.

**CITY OF OSAGE BEACH
COMPREHENSIVE PLAN**



Supported Goals & Objectives

- Encourage commercial developments to incorporate more pedestrian-friendly amenities
- Standardize safe, convenient access solutions that connect residential and non-residential spaces
- Focus on beautifying existing roads and trails
- Maintain streets to improve safety while also minimizing long-term maintenance costs
- Establish separated networks for pedestrians and cyclists from vehicular traffic
- Explore safe crossing options for pedestrians on U.S. 54 and the Grand Glaize Bridge

Overlap with HIN or HRN

Grand Glaize Bridge

- Pursue pedestrian mobility on the Grand Glaize Bridge, as the community desires a multi-modal connection between the western and eastern sections of Osage Beach.
- Consider traffic calming techniques and protected cyclist and pedestrian paths. Grand Glaize Bridge has been the location for 9% of all serious injury and fatal crashes in the past 5 years.

U.S. 54 & Osage Beach Parkway

- Consider countermeasures to alleviate the concentration of crashes occurring at the couplet interchange of Osage Beach Parkway and U.S. 54. This interchange has been noted by the public as a high priority for improving safety conditions in Osage Beach.

Osage Beach Park Master Plan (2023)

The City of Osage Beach developed the Park Master Plan in 2023 to reimagine two focal parks, Peanick Park and City Park. Recommendations are focused on improving existing infrastructure and identifying the need for ADA accessibility infrastructure. While focused heavily on amenities located within these two parks, the Park Master Plan reiterates the need for connectivity for pedestrians and cyclists as well as improved signage and wayfinding elements.

Supported Goals & Objectives

- Indicated the need for ADA accessibility improvements in both parks and access road improvement for City Park specifically
- Improve wayfinding within the park system towards lake access
- Construct paved walking trails at City Park, Peanick Park, and Parkway Dog Park

Overlap with HIN or HRN

Peanick Park Area

- Consider the area to further connectivity for pedestrians and cyclists between the middle and high schools and points of interest within Osage Beach

All Corridors

- Improve wayfinding elements to alleviate the confusion visitors experience when navigating Osage Beach

Lake of the Ozarks Trail and Connectivity Master Plan (2022)

The Lake of the Ozarks Trail and Connectivity Master Plan provide strategies for improving pedestrian and cyclist networks in the Lake of the Ozarks Area. This community driven and developed master plan established recommendations for a fully connected system of greenways and on-road connections between defined zones of the community. The master plan focuses on both improving conditions of pathways and implementing techniques to protect cyclists and pedestrians from vehicular traffic, allowing Osage Beach to become desirable destination for outdoor recreation.

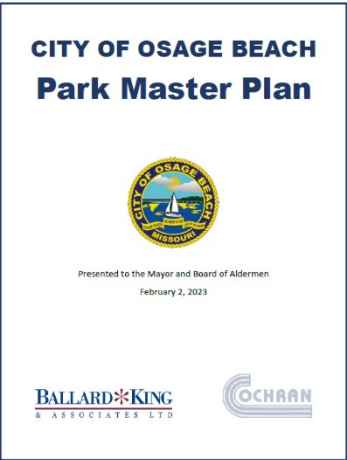
Supported Goals & Objectives

- Establish a protected cycle track and side path on Route KK through implementing road diet measures and pedestrian facilities over U.S. 54
- Implement additional safety measures such as pedestrian activated beacons, such as RRFBs and HAWK signals for bicycle and pedestrian crossings
- Improve bikeability and walkability in the downtown area and on the Osage Beach Parkway corridor
- Establish a safe pedestrian network between the middle and high school of Route 42
- Focus on improved safety on Osage Beach Parkway with wider side paths, protected bicycle lanes, and traffic calming elements
- Create a greenway that promotes more accessibility between homes and recreational amenities, such as the YMCA and city parks

Overlap with HIN or HRN

Osage Beach Parkway

- Consider traffic calming measures and pedestrian activated beacons at several intersections to reduce the risk of severe crashes. Priority intersections include Route KK, Jefferies Road, and Passover Road
- Support and pursue the planned connectivity trails. Incorporate protected pedestrian and cyclist amenities to improve bikeability and walkability along the corridor, specifically near YMCA and Prewitt’s Point shopping center



Route KK

- Move forward with safety measures to counteract the concentration of crashes occurring at the interchange of Route KK and U.S. 54
- Improve pedestrian crossing safety along Route KK near Dogwood Hills Golf Course and Arrowhead Senior Living with elements such as RRFBs and shared-use paths

Route 42

- Fill in pedestrian network gaps near the middle school and high school while creating separation between the vehicles and VRUs through curb extensions or alternative positioning of side paths

**Lake of the Ozarks Council of Local Governments:
Comprehensive Economic Development Strategy (2025)**

The Comprehensive Economic Development Strategy (CEDS) is the region’s economic development vision for maintaining and growing our economic base while creating jobs and supporting future development and growth within the region. It outlines a strategy for building Social Capital, Economic Cooperation, and Job Growth within the Lake of the Ozarks region. The goal in developing the CEDS strategy was to identify key priorities and principal organizations as planning partners that help bring both public and private investment into the region.

Supported Goals & Objectives

- Support complete streets and walkability initiatives
- Enhance pedestrian and bicycle access to recreation
- Invest in development of greenways
- Partner with schools to create safe routes between education and recreation nodes

Overlap with HIN or HRN

Nichols Road

- Invest in pedestrian amenities to connect the residential areas along the corridor to the Lake Regional Hospital. Community members identified that pedestrians frequent this corridor to reach the hospital
- Consider establishing safety measures near the elementary school

Stone Crest Mall Area

- Revisit safe crossing measures at Barry Prewitt Memorial Drive. The community has reported heavy pedestrian activity in the area, specifically during the lunch and dinner hours

MoDOT Central Districts Active Projects Directory (2025)

An inventory of active MoDOT projects in 2025 that details a project’s location, prime contractor, federal project number, and specific route.

Supported Goals & Objectives

- ADA improvements to be consistent with other towns in both Miller and Camden counties

Overlap with HIN or HRN

Various Corridors

- Pursue ADA improvements that are complimentary to MoDOT’s strategies



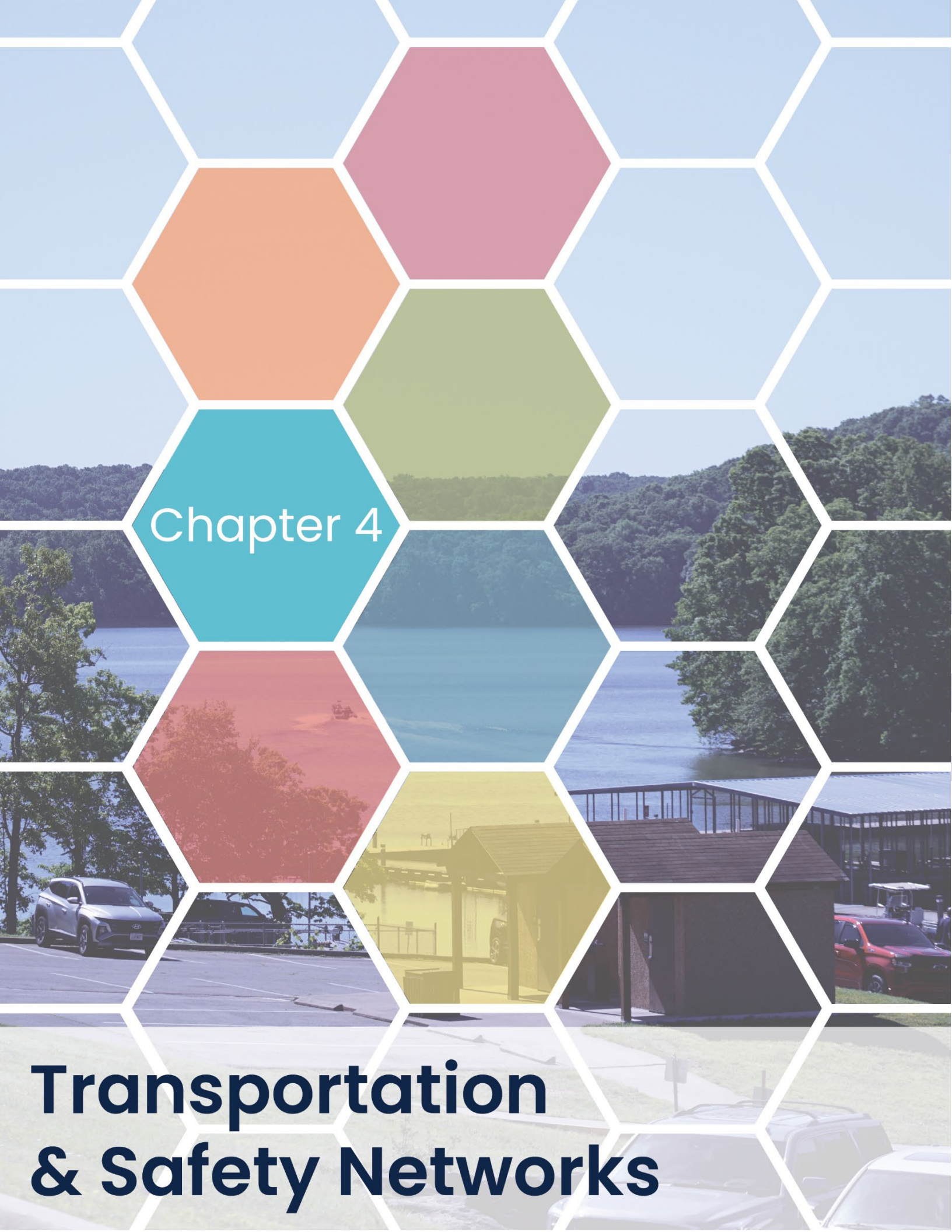
Additional Regional Plans

**Public Transit Human Services Transportation
Coordination Plan**

Developed with the Lake of the Ozarks Council of Local Governments, the purpose of this plan was to assess current transportation services and the needs of community members. The most recent update to the plan in 2018 analyzed demographics of the four-county area and identified gaps in transportation service accessibility, such as demand response buses. Funding opportunities were examined, and strategies were developed to expand the network of public transportation regionally to handle increased ridership and serve underserved populations.

**Design Guidelines – Section 5: Roads, Streets, and
Parking**

This section establishes design guidelines for the construction and maintenance of roads, streets, and parking areas in the City of Osage Beach. Design guidelines are based upon AASHTO policies design for highways and street and low volume local roads, such as roads with an Average Daily Traffic (ADT) volume of under 400.



Chapter 4

Transportation & Safety Networks

Transportation System

Osage Beach's transportation network is shaped by the geography of Lake of the Ozarks, which strongly influences the city's development patterns and street hierarchy. The lake's numerous coves and irregular shoreline have resulted in a network of residential streets, many of which are privately owned and maintained, that are narrow and winding, limiting connectivity and route options. This street pattern can also create challenges for emergency responders and efficient post-crash care.

The city's arterial and collector network, anchored by Osage Beach Parkway, serves as the primary commercial corridor and functional spine of the transportation system. This roadway bisects the city, providing access to key destinations such as the Prewitt's Point Shopping Center, Osage Beach Outlet Marketplace, Walmart, as well as various marinas and beaches, and supports local circulation throughout the community.

U.S. 54 runs parallel to Osage Beach Parkway, providing access to most other amenities within the city, including the regional hospital. U.S. 54 and Osage Beach Parkway converge at the Grand Glaize Bridge, which is the only motor vehicle access over the lake. There is no access over the lake for non-motorized road users.

While Osage Beach Parkway plays a critical role in distributing traffic, daily volumes remain moderate compared to U.S. 54, which has an Annual Average Daily Traffic (AADT) count of 45,000 vehicles per day. Osage Beach Parkway's daily volumes typically range from approximately 10,000 to over 20,000 trips per day. The busiest segment of the parkway, between Nichols Road and Passover Road, including Grand Glaize Bridge, carries more than 20,000 vehicles per day.

Roadway Ownership

State roadways are owned and operated by the Missouri Department of Transportation (MoDOT) and are designed to support regional and through traffic. While crashes on state routes significantly impact safety outcomes in Osage Beach, the City has limited authority over roadway design, operations, and maintenance on these corridors. Identifying state-controlled locations separately allows the City to document safety improvements, support coordination with MoDOT, and pursue collaborative solutions where feasible.

Osage Beach Parkway provides most of the access to commercial areas in Osage Beach. Ownership of the Parkway was transferred from MoDOT to Osage Beach in 2011 when the new U.S. 54 expressway opened. Private residential roads in Osage Beach typically provide access to residential areas with lake access. These private roads are not maintained by the City.

Figure 1 demonstrates roadway ownership across the city with a summary table providing the miles and percentage of roads by owner.

The Osage Beach Parkway segment from Wal-Mart to Route 42 is a couplet roadway, shown in **Figure 2**, consisting of two separate one-way roadways. This segment is owned and maintained by MoDOT and includes the interchange with U.S. 54, eight signalized intersections, and two unsignalized intersections. This couplet was built out when the U.S. 54 freeway was constructed, to maintain a certain level of traffic flow and accommodate future growth.

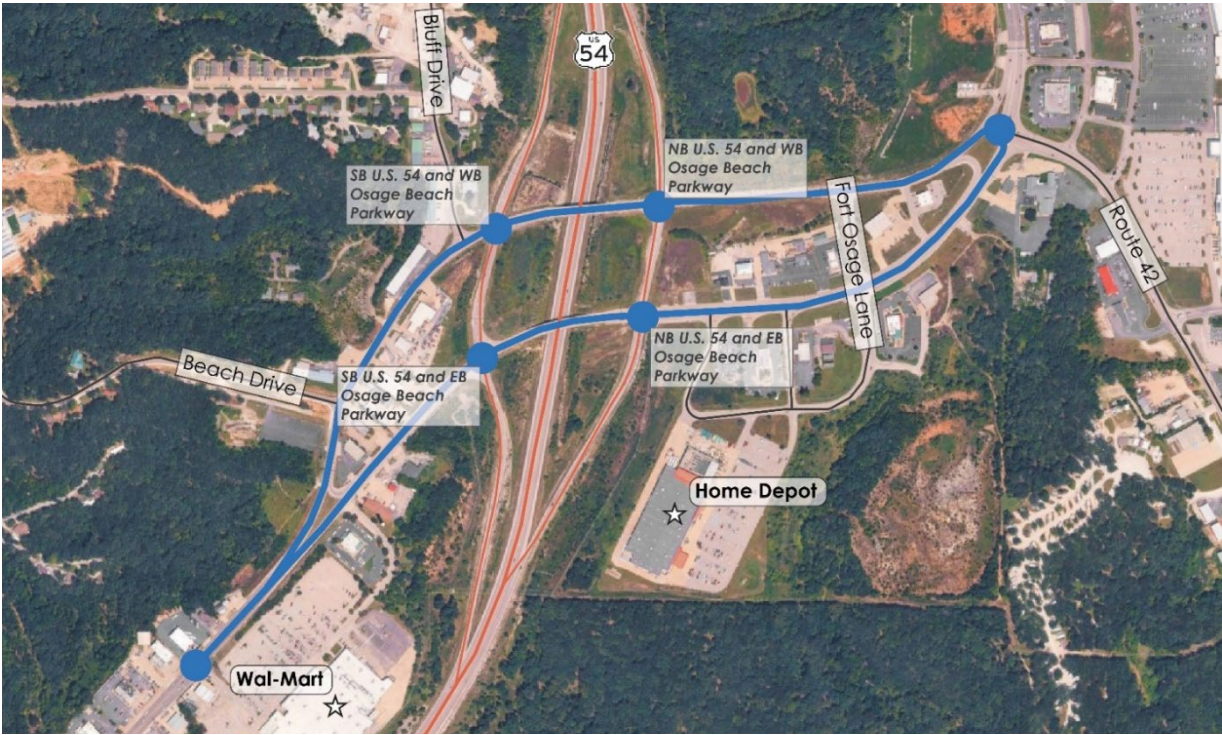


Figure 2: Northern Couplet Exchange at U.S. 54 and Osage Beach Parkway

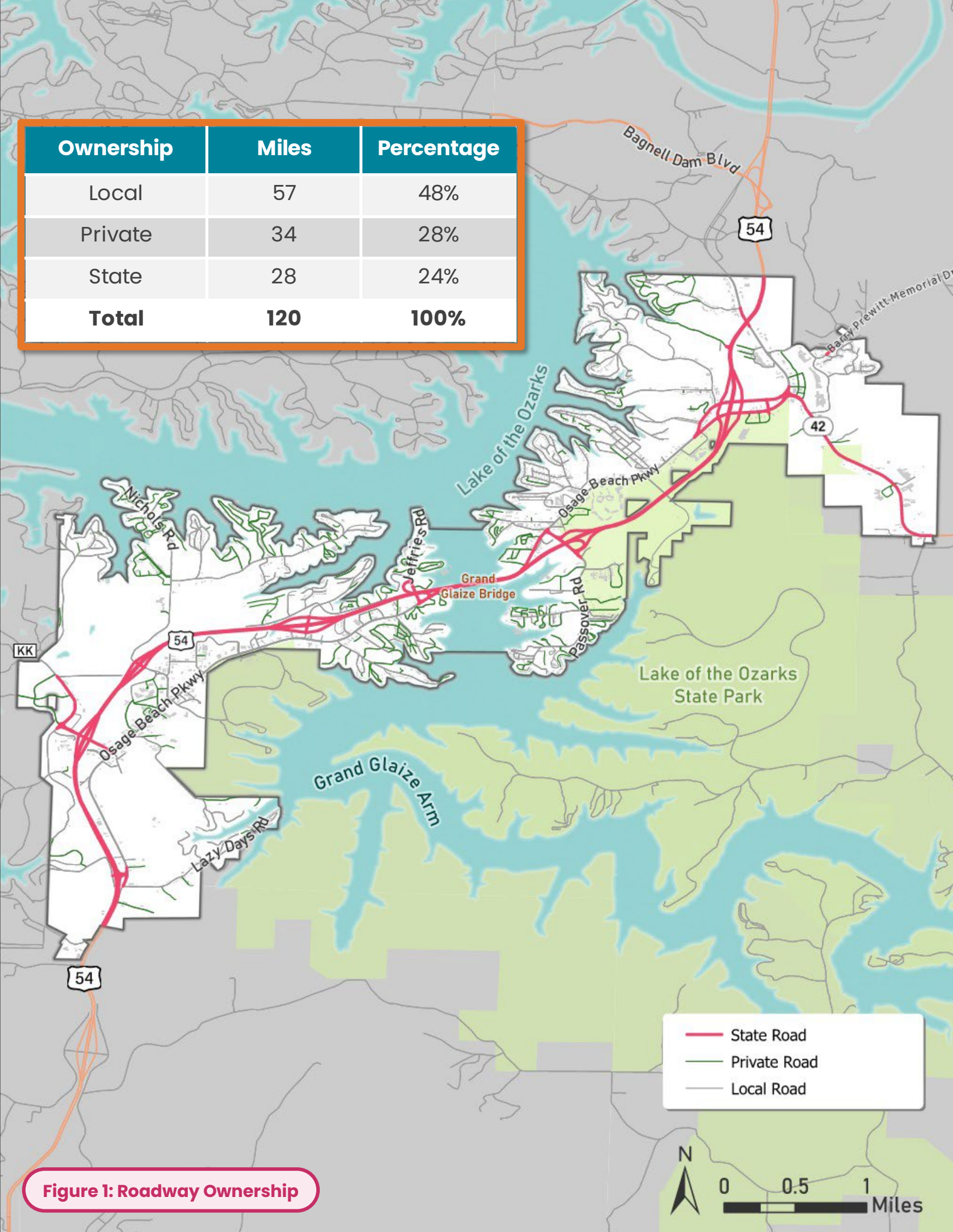


Figure 1: Roadway Ownership

Sidewalks

Many roadways in Osage Beach lack dedicated space for pedestrians, as shown in **Figure 3**. As a result, individuals tend to travel in vehicle lanes, along unpaved shoulders, or in adjacent grass areas, which increases exposure to vehicle traffic and elevates both crash risk and severity.

Figure 4 summarizes local and state roadway mileage by presence of sidewalks (this analysis excludes private roads and U.S. 54). 49 miles, or 77%, of the city’s roadways lack sidewalks, highlighting a substantial gap in safe and accessible pedestrian infrastructure.



Figure 4: Sidewalk Presence Mileage

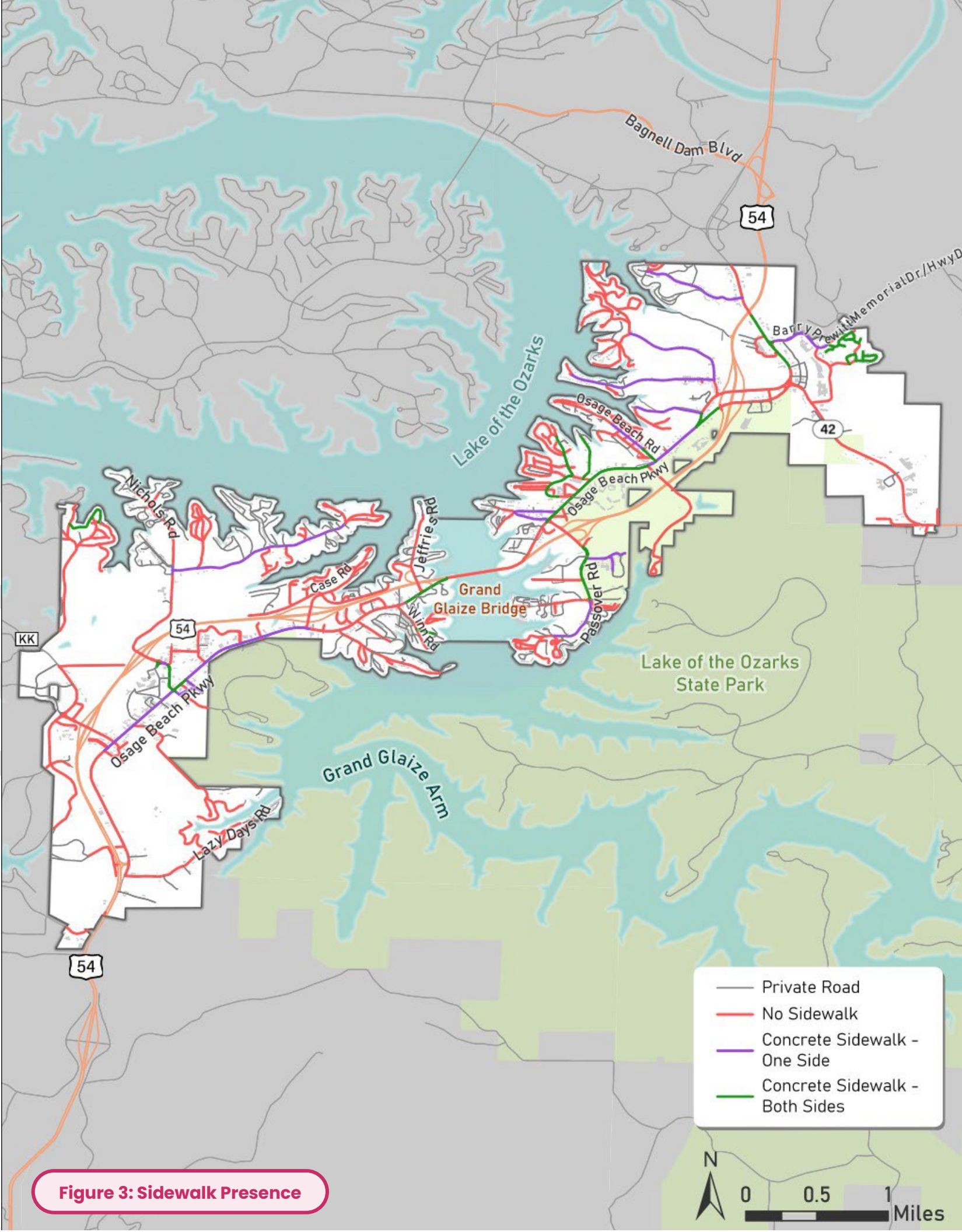


Figure 3: Sidewalk Presence

Safety Analysis

To identify where safety improvements are most needed, MoDOT crash data from 2020 to 2024 were analyzed. The dataset includes details such as crash location, severity, collision type, and contributing factors.

This analysis identified patterns within the transportation system, prioritized locations for safety improvements, and determined the most effective countermeasures to reduce both the frequency and severity of crashes.

During the five-year study period, a total of **1,138** crashes occurred in Osage Beach.

Fatal and Serious Injury (KSI) Crashes

Of the **1,138** total crashes in the five-year study period (shown in **Figure 5**), there were:

- **FATAL CRASHES: 5**
- **SERIOUS INJURY CRASHES: 48**

There is a concentration of crashes of all types, as well as fatal and serious injury crashes, at the U.S. 54 and Osage Beach Parkway interchange. In contrast, the Key Largo Road exit ramp to the south shows a concentration primarily of fatal and serious injury crashes.

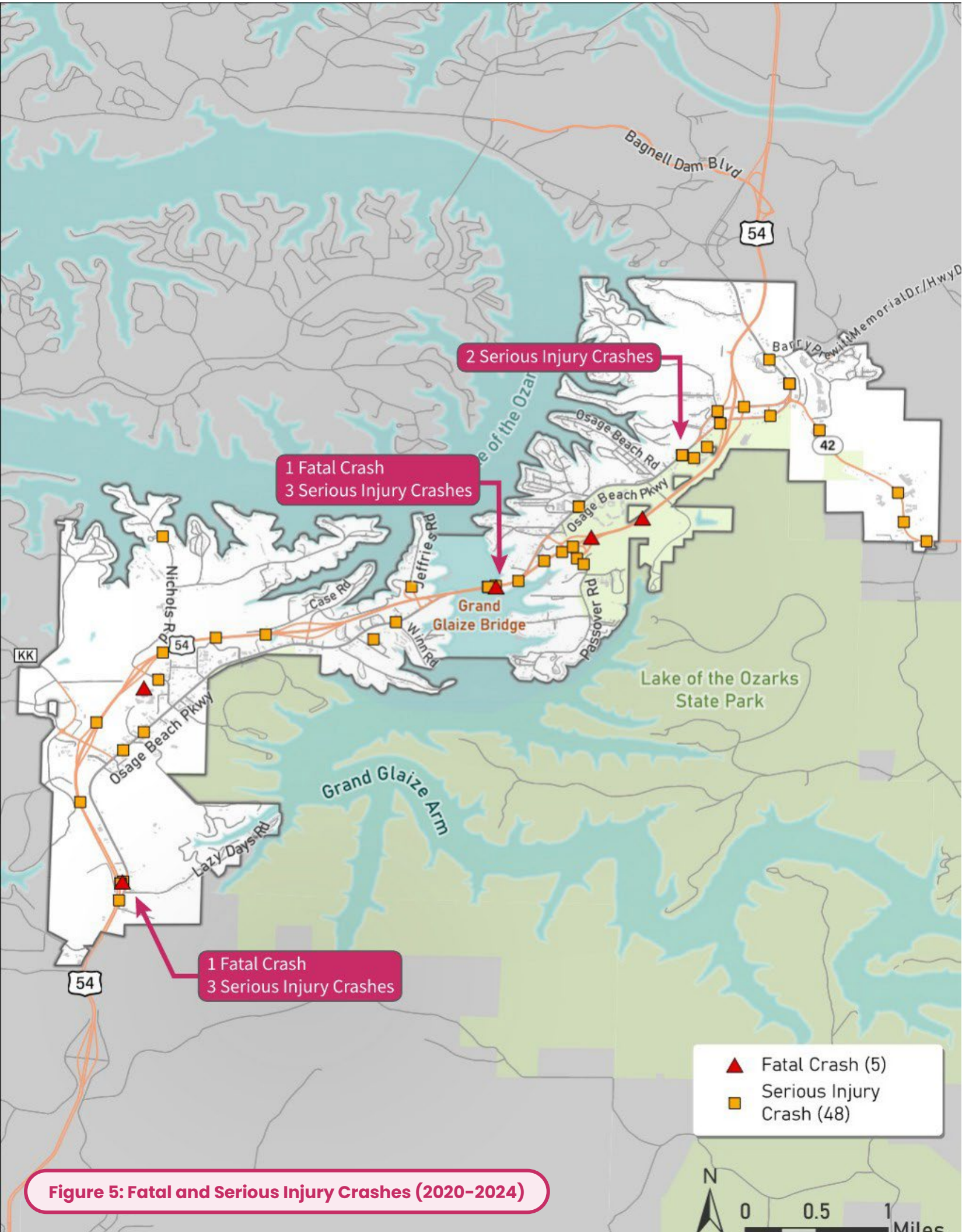
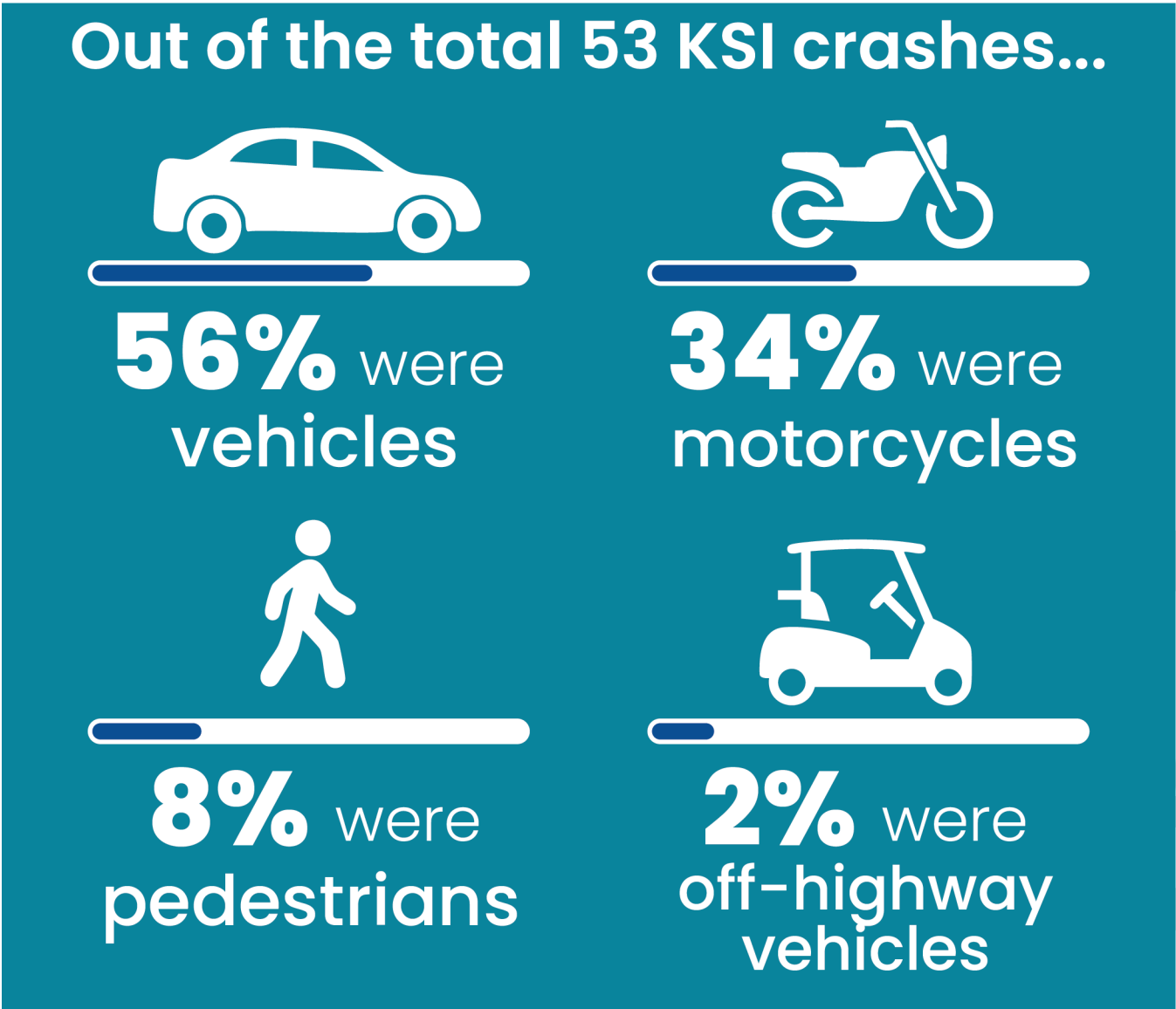


Figure 5: Fatal and Serious Injury Crashes (2020–2024)

Understanding fatal and serious injury crashes by road user type helps identify targeted safety interventions. Analysis of 2020–2024 KSI crashes show that:



Fatal and serious injury crash counts by road user type are:

- **Vehicles:** 3 fatal; 27 serious injury
- **Motorcycles:** 1 fatal; 17 serious injury
- **Pedestrians:** 1 fatal; 3 serious injury
- **Off-Highway Vehicles:** 0 fatal; 1 serious injury

It is important to note that the proportion of KSI crashes by road user type does not reflect the relative risk or vulnerability of each group. For example, pedestrians may represent a small share of total KSI crashes, but a significantly higher proportion of pedestrian crashes result in fatal or serious injuries compared to vehicle-related crashes. **Figure 6** breaks down the percentage of crash severity by road user type, providing a more contextual understanding of the differences in risk across users.

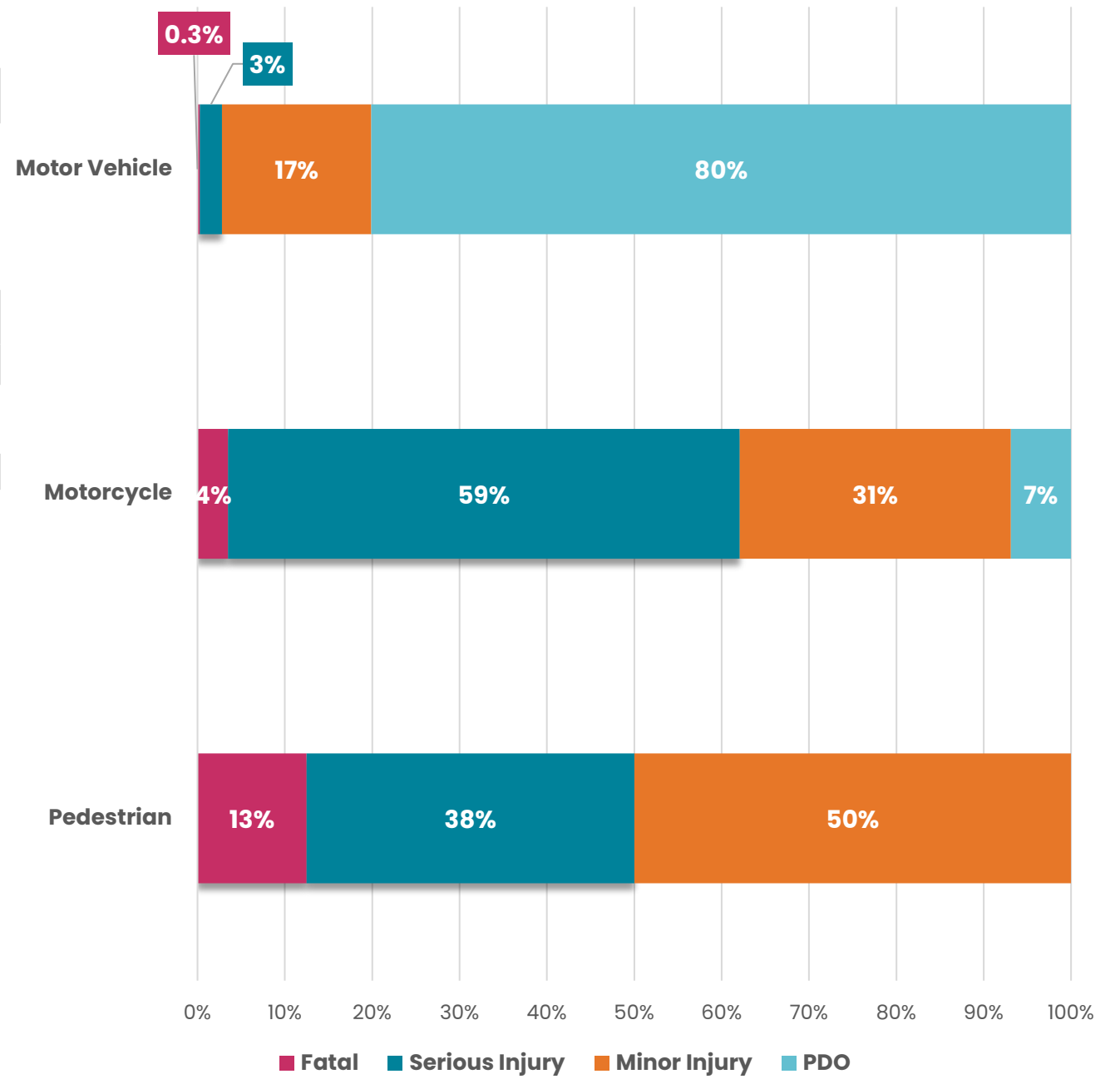


Figure 6: Crash Severity by Road User

Seasonal Traffic

Seasonal travel patterns can influence roadway safety by affecting traffic volumes, travel behavior, and the presence of vulnerable road users. In Osage Beach, traffic volumes increase during peak travel months due to tourism, recreation, and seasonal events associated with lake-related travel.

Lake of the Ozarks State Park, and other recreational destinations, are located within or adjacent to Osage Beach, which contributes to seasonal increases in travel demand. Recreational travel can also result in a higher proportion of unfamiliar drivers navigating the roadway network, increasing the likelihood of decision-making errors at access points, interchanges, and merge locations. Looking ahead, planned developments, such as a new amusement park and retail and dining destinations, may contribute to higher traffic volumes throughout the year.

Based on data from 2020–2024, fatal and serious injury crashes as the result of speeding and aggressive driving are increased during summer months when seasonal visitors are the highest. On average, traffic in Osage Beach increases by **34%** during peak travel months (May to September) with a concentration on weekend travel, according to StreetLight data.

An analysis of fatal and serious injury crashes by month from 2020 to 2024 (provided in **Figure 7** shows September had the highest number of crashes, accounting for 13 fatal or serious injury crashes. January had the second highest total, with six fatal or serious injury crashes recorded. The lowest month was November with one serious injury crash.

When compared to Osage Beach’s monthly AADT from 2022 to 2024 (shown as the orange line), the KSI crash analysis indicates that KSI crash rates do not directly align with seasonal traffic patterns. Although traffic volumes begin to decline from peak summer levels in September, fatal and serious injury crashes are significantly higher compared to other months, suggesting that factors beyond traffic volume are contributing to this trend. **Table 2** identifies notable events and holidays in Osage Beach that may contribute to the higher crash rates during certain months.

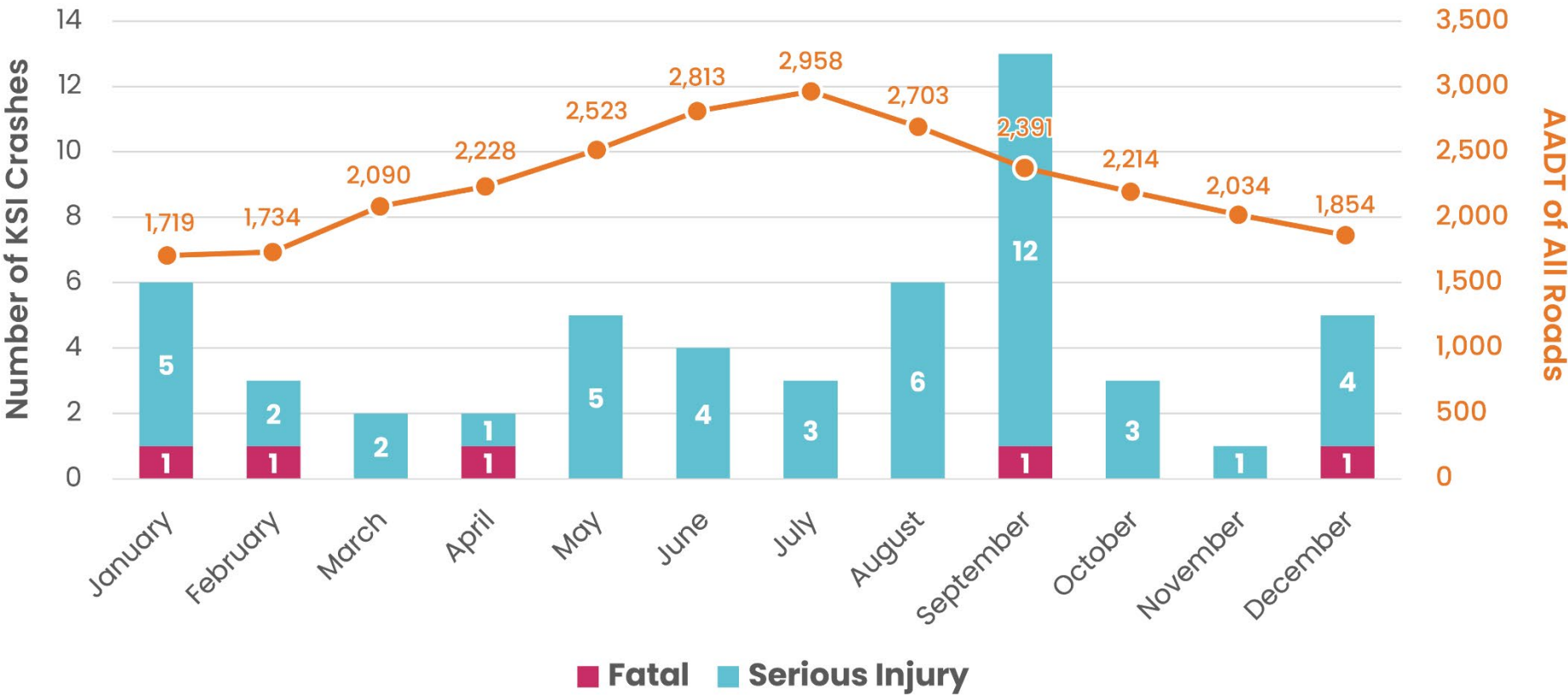


Table 2: Osage Beach Events and Holidays

Event/Holiday	Month
Memorial Day	May
Independence Day	July
LOZ Shootout	August
Labor Day	September
Bike Fest	September
Thanksgiving	November
Christmas	December

Figure 7: Fatal and Serious Injury Crashes + AADT by Month

Vulnerable Road User (VRU) Crashes

A Vulnerable Road User (VRU) is someone walking, biking, rolling, or otherwise traveling outside of a motor vehicle. From 2020 to 2024, there were **8** recorded VRU related crashes in Osage Beach (shown in **Figure 8**), all of which involved pedestrians. **Half of the VRU crashes in Osage Beach were Fatal or Serious Injury crashes.**

- 1 fatal VRU crash
- 3 serious injury VRU crashes
- 4 minor injury VRU crashes
- 0 property damage only VRU crashes

VRUs are at greater risk in crashes, due to the lack of physical protection compared to vehicle occupants. Although they represent a smaller share of total crashes, these incidents are far more likely to result in serious injury or fatality. The graphic below shows that seemingly small increases in speed significantly increase the likelihood of fatal outcomes for pedestrians, reinforcing the importance of designing and managing roadways to improve safety for all users.

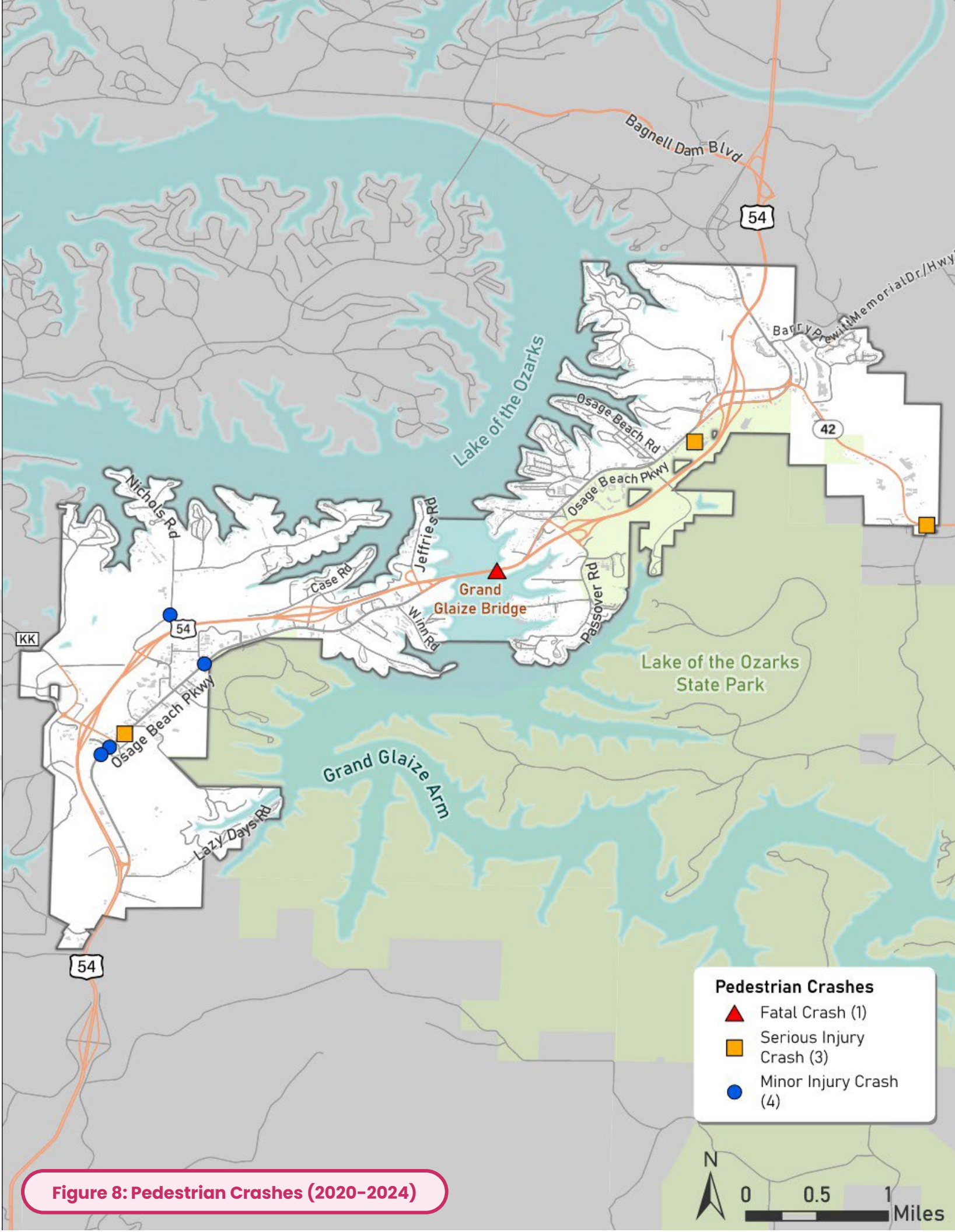
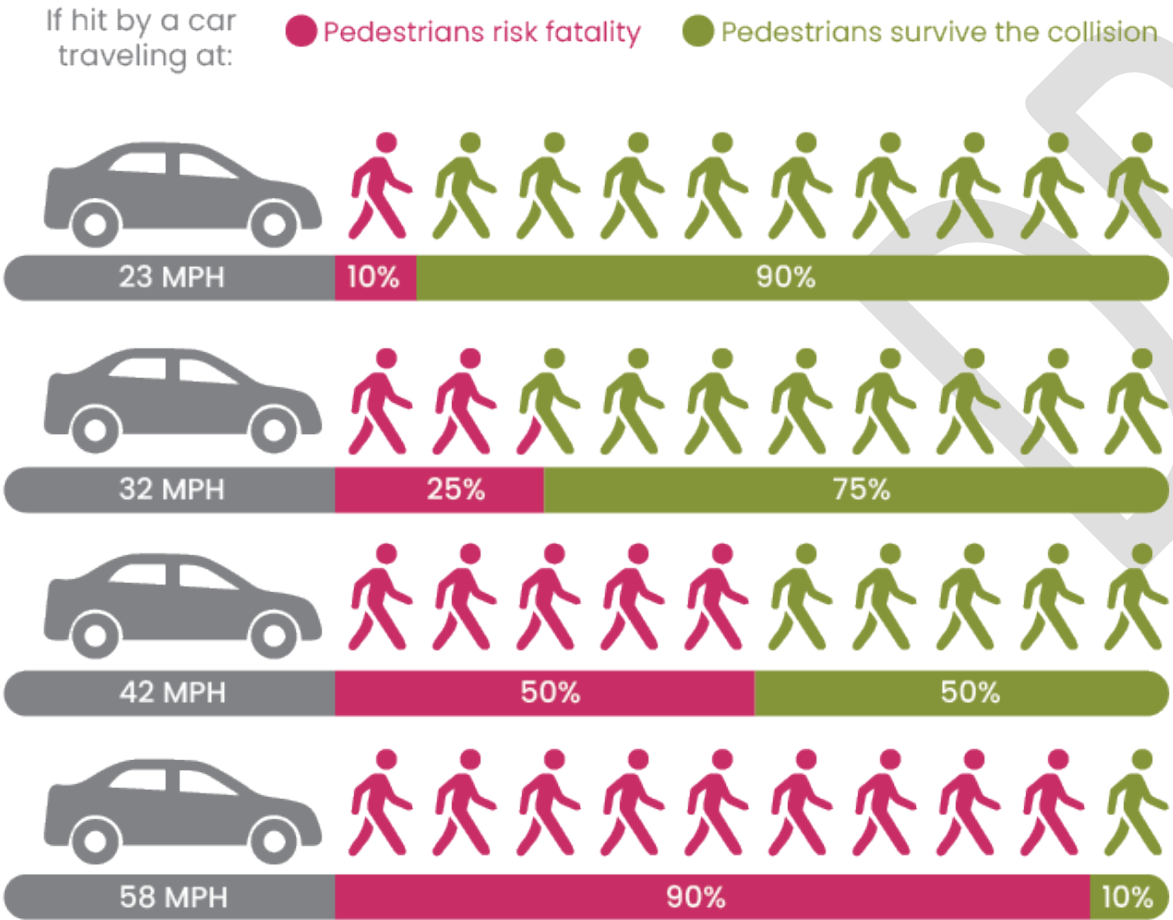


Figure 8: Pedestrian Crashes (2020–2024)

Motorcycle Crashes

There were 29 motorcycle crashes in Osage Beach from 2020 to 2024, illustrated in **Figure 9**. Motorcycle crashes make up **3%** of all crashes in Osage Beach Missouri from 2020-2024 but make up **34%** of Fatal and Serious injury crashes. **Figure 10** shows that September has a significantly higher rate of motorcycle crashes, compared to the rest of the year. Nearly half of all motorcycle crashes across the five-year analysis period occurred during this month. Most of these motorcycle crashes include a fatality or serious injury. Motorcycle crashes for this period are sorted by severity below:

- 1 fatal motorcycle crash
- 17 serious injury motorcycle crashes
- 9 minor injury motorcycle crashes
- 2 property damage only motorcycle crashes

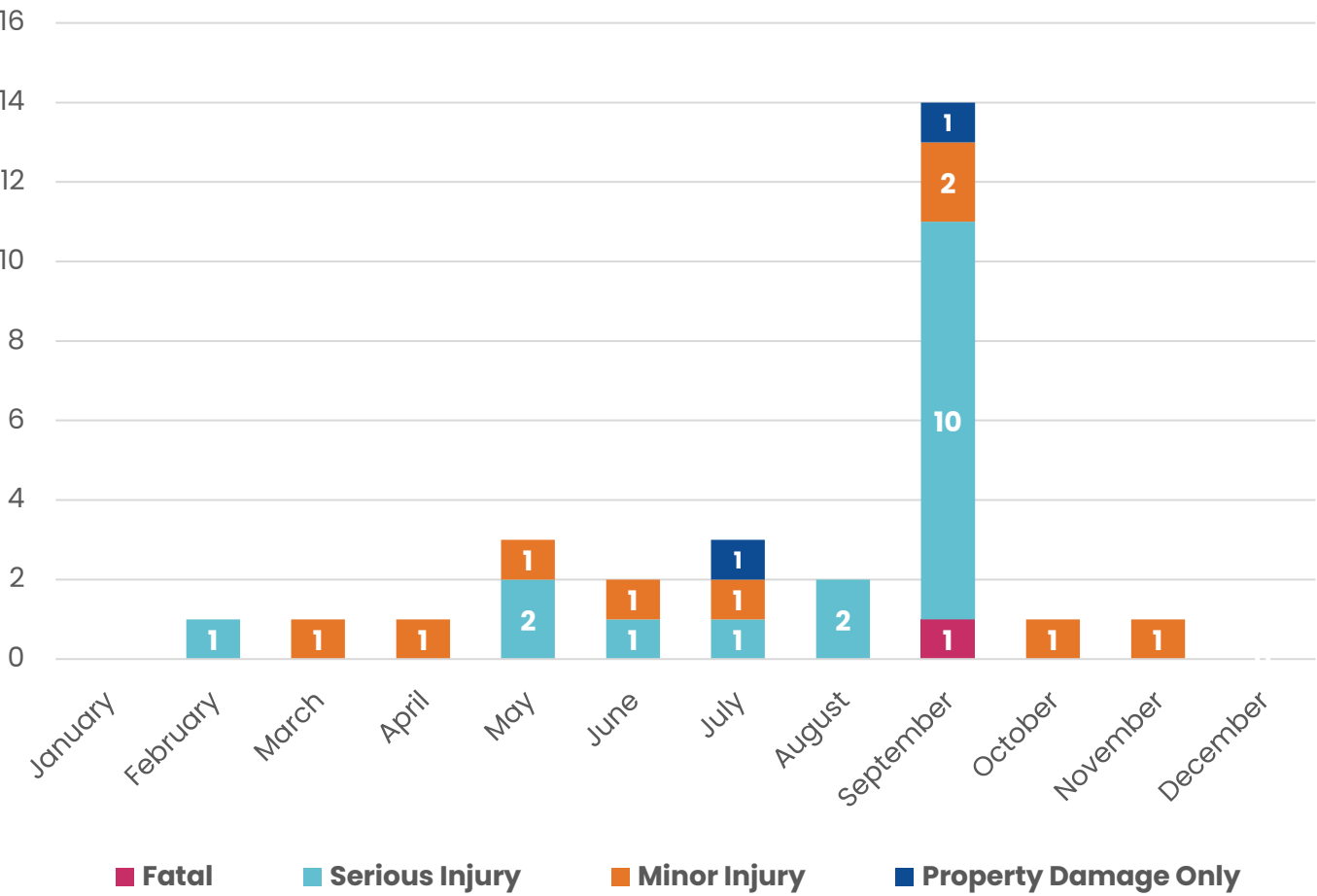
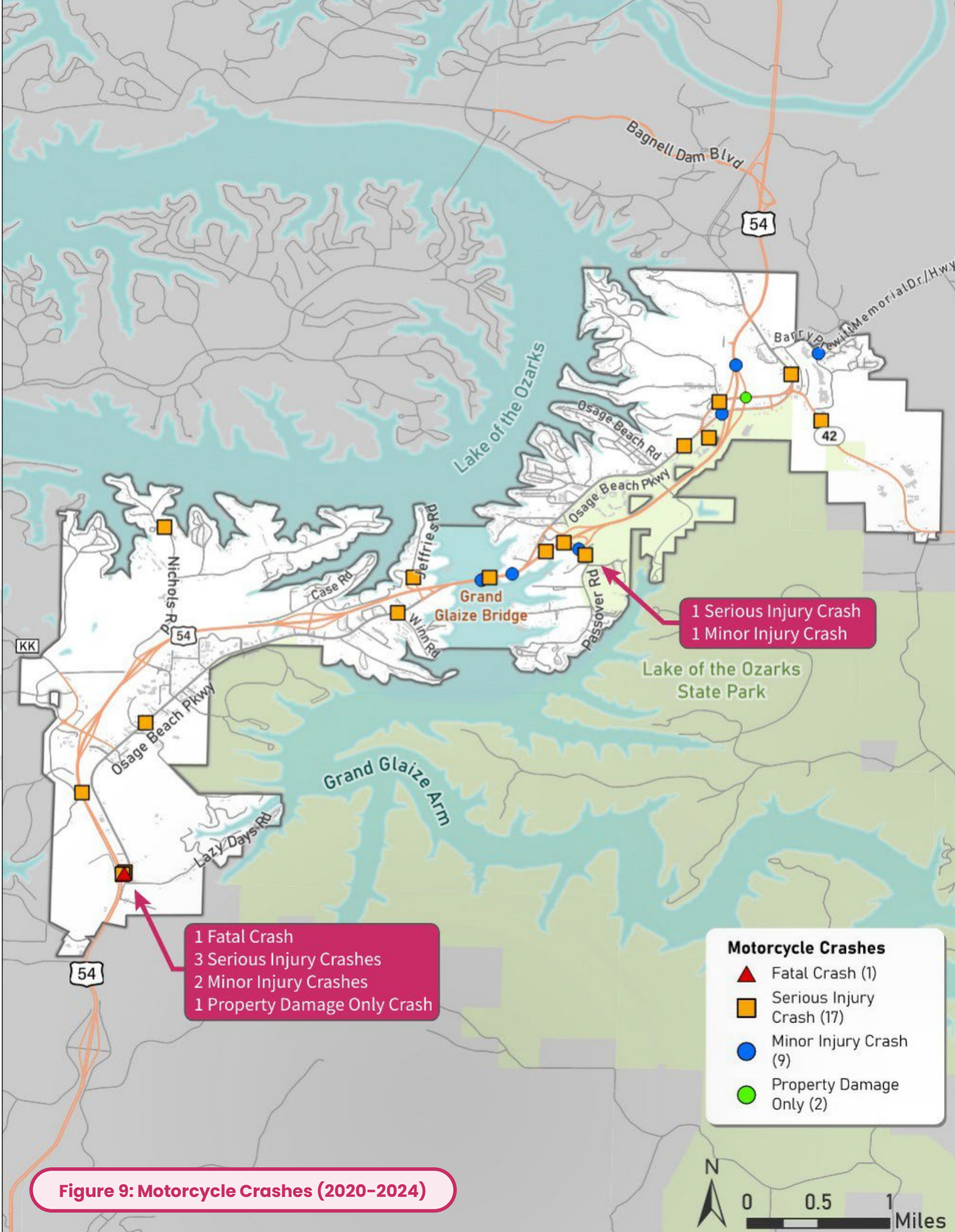


Figure 10: Motorcycle Crashes by Month



Specialty Vehicle Safety

Off-highway vehicles are a type of low-speed vehicle that include utility task vehicles (UTVs), all-terrain vehicles (ATVs), recreational off-highway vehicles (ROVs), and golf carts. This vehicle type presents unique safety risks, where they are commonly operated on or alongside public roadways. They often lack safety features such as occupant protection, lighting, and crashworthiness, and are frequently operated in mixed traffic environments with higher-speed vehicles. **Nationwide, Missouri ranks the highest in fatalities involving UTVs and ROVs and third in all OHV fatalities.**

While these crashes may occur less frequently than traditional motor vehicle crashes, they are often severe due to rollover potential, lack of restraints, and limited visibility. This risk is compounded by common contributing factors identified by MoDOT, including speed, distracted driving, and roadway departure.

In addition to off-highway vehicles, the community has identified safety concerns related to towing activities, including boat and camper hauling. These movements introduce additional risk factors such as longer stopping distances, reduced maneuverability, and increased likelihood of rear-end and roadway departure crashes.

Although these vehicle types are not widely represented in Osage Beach's severe crash data, their presence on the roadways represents a proactive opportunity for safety planning. Future efforts should focus on education, policy development, and roadway design considerations that account for mixed-traffic conditions, seasonal travel patterns, and the interaction between low-speed vehicles and higher-speed traffic.

Post-Crash Care

The Safe System Approach emphasizes the importance of rapid access to post-crash emergency medical care to improve crash survivability. Access to coordinated emergency and trauma care is critical and includes life-saving countermeasures such as effective emergency medical dispatch, timely on-scene treatment, rapid transportation to a trauma center, and ongoing performance measurement.

Roadway safety also affects emergency response operations. Safer roadway design reduces the frequency and severity of crashes, which can decrease demand on emergency services and improve response availability. Additionally, roadway conditions such as congestion, limited access points, and high operating speeds can influence how quickly emergency responders are able to reach a crash scene. Improving roadway safety and reliability helps support more efficient emergency response and can improve crash survivability by reducing the time required for victims to receive medical care.

Osage Beach's Fire Protection District consists of four stations that maintain 17 emergency response vehicles, including five fire engines and ladder trucks. In total, there are 37 fire

suppression personnel on staff responsible for emergency and non-emergency response activities.

The Osage Beach Ambulance Service provides advanced life support (ALS) emergency medical services (EMS) staffed by a team of 15 full-time and part-time paramedics and emergency medical technicians (EMTs) and maintains two advanced life support ambulances. There is only one ambulance bay, located on the west side of the Grand Glaize Bridge. This creates challenges for emergency responses to crashes occurring on the east side of the bridge, where response times may be longer and assistance from neighboring fire departments is sometimes required. Establishing an additional ambulance facility on the east side of the Grand Glaize Bridge can reduce response times and improve post-crash care outcomes.

The Osage Beach Police Department Patrol Division is organized into four squads, each led by a Sergeant and supported by a Corporal and a minimum of two Officers, for a total of 16 uniformed officers.

Lake Regional Hospital in Osage Beach, MO is a state-designated Level III Trauma Center. Level III trauma centers provide prompt assessment, resuscitation, emergency surgery, and stabilization for injured patients. While these centers have emergency medicine physicians and some surgical specialists, seriously injured patients requiring complex care are transferred to Level I or II trauma centers. The closest Level I Trauma Center is in just over an hour away in either Columbia or Springfield.

Safety Networks

Understanding both documented crash history and underlying risk factors strengthens Osage Beach’s ability to prevent future severe crashes. The High Injury Network (HIN) identifies corridors and intersections with a history of fatal and serious injury crashes, while the High Risk Network (HRN) identifies locations with characteristics associated with severe crash potential. Together, these networks guide strategic, prioritized recommendations to address both existing crash patterns and future risk.

Segment limits are listed and prioritized in Chapter 5.

High Injury Network (HIN)

The HIN (shown in **Figure 11**) identifies the locations that experience the most crashes resulting in fatal and serious injuries. It is a tool used to identify where safety improvements should be prioritized. The HIN reflects where past crashes have occurred based on the most recent five-year data, rather than where crashes may potentially occur.

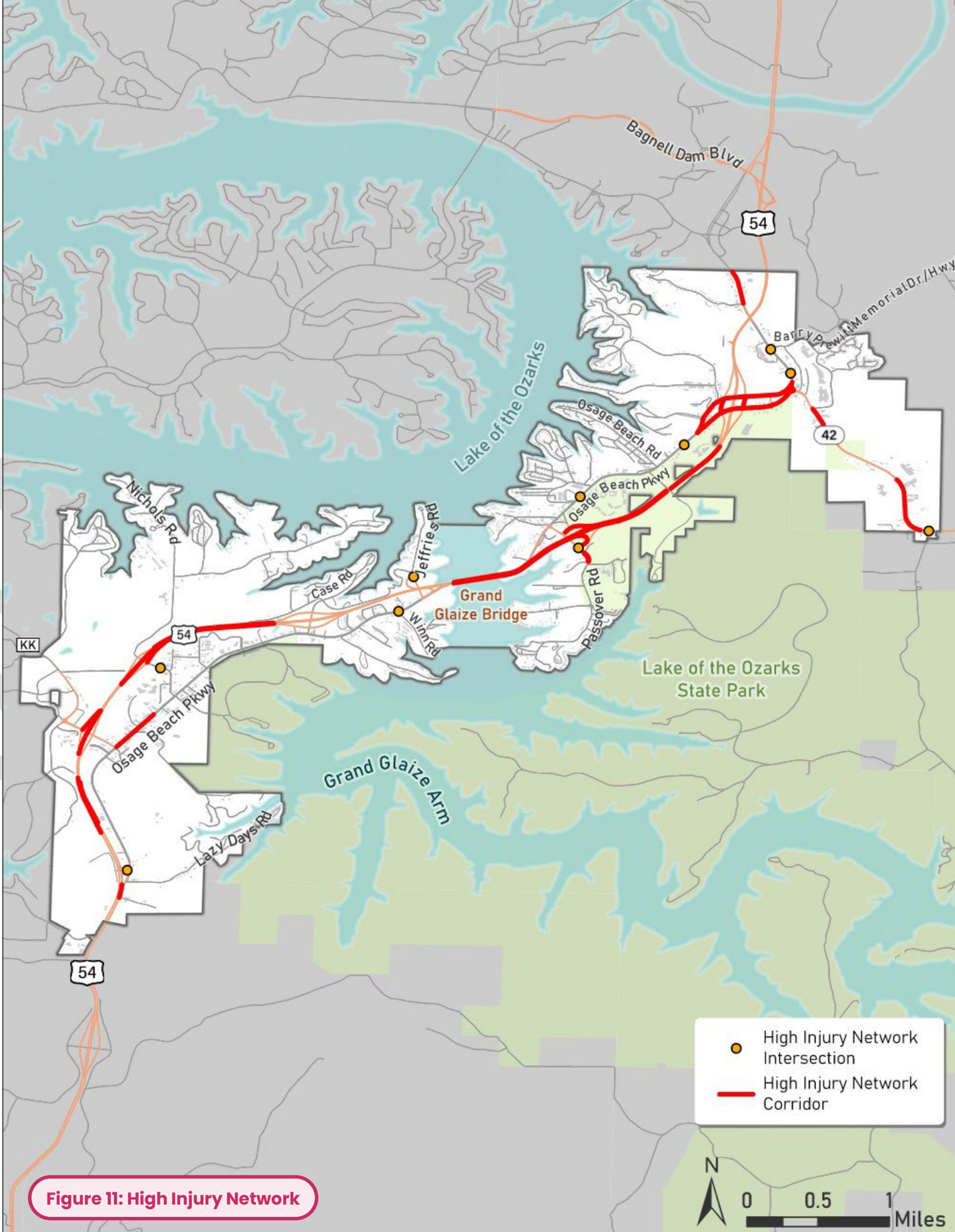


Figure 11: High Injury Network

High Risk Network (HRN)

The HRN (shown in **Figure 12**) refers to roadways or corridors that exhibit characteristics associated with a higher likelihood of severe crashes, even if severe injury crashes have not yet occurred at a higher frequency.

These corridors are identified based on factors such as:

- Number of roadway travel lanes
- Speed limits
- Pedestrian accommodations
- Roadway classifications
- Annual Average Daily Traffic (AADT)
- Proximity to schools, activity centers, and parks
- Driveways per lane mile

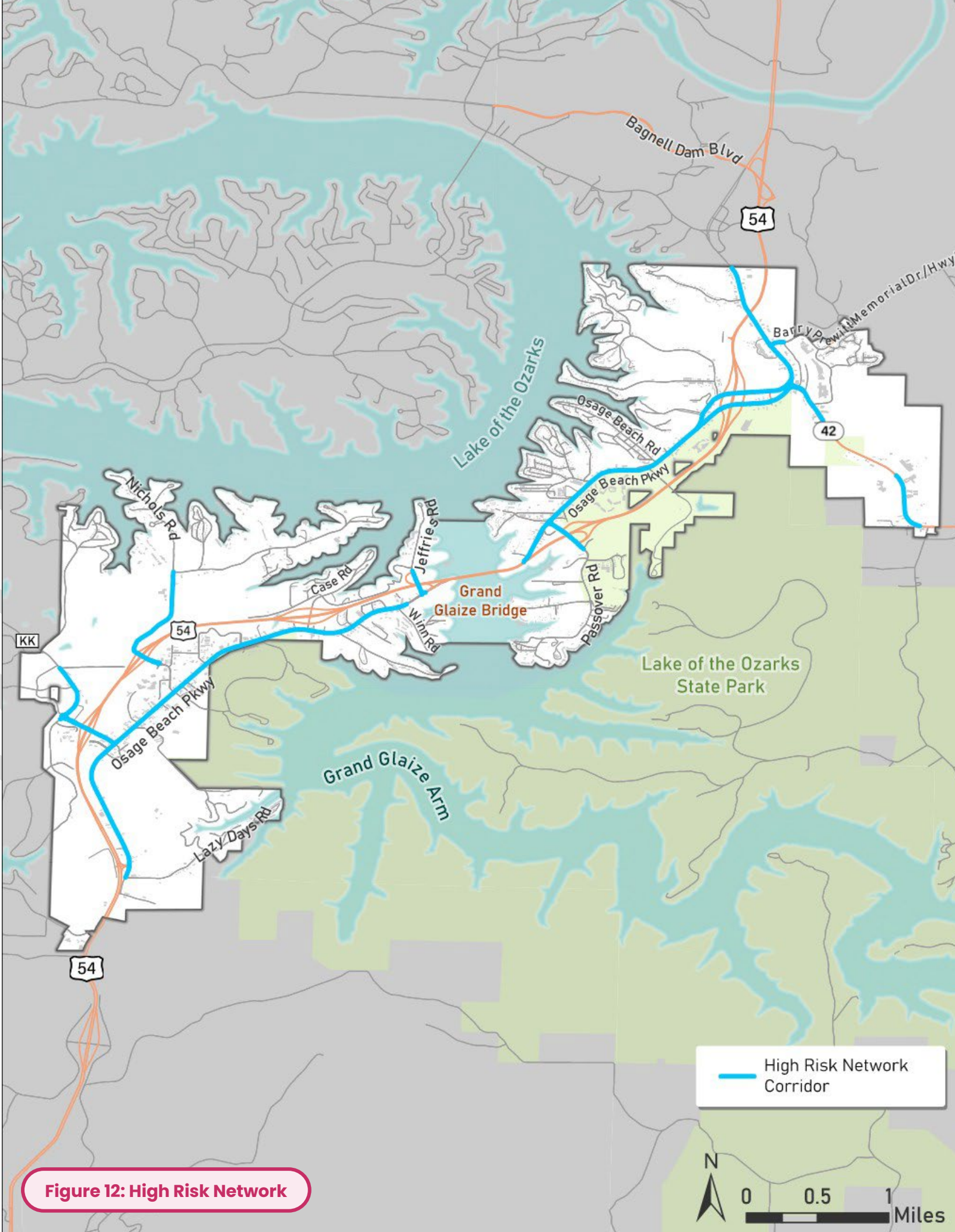


Figure 12: High Risk Network

Emphasis Areas

The emphasis areas are derived from the [Missouri Strategic Highway Safety Plan \(SHSP\)](#) and have been tailored to address the specific safety challenges within Osage Beach. These focus areas were selected based on an analysis of fatal and serious injury crashes over a five-year period (2020–2024) in Osage Beach. Together, these six emphasis areas guide the development of actionable recommendations and infrastructure improvements throughout the Vision Zero Action Plan.



Intersections

INTERSECTIONS

Intersections concentrate multiple travel movements including vehicles, pedestrians, and cyclists into a single location, increasing the potential for conflicts. Rear end collisions, often caused by distracted driving or sudden stops, are particularly common in these areas. In Osage Beach, **26%** of fatal and serious injury crashes occurred at intersections, with red-light running and left turn crashes being the most common intersection related crash types.



Speeding & Aggressive Driving

SPEEDING & AGGRESSIVE DRIVING

Speed and aggressive driving directly influence crash severity. Higher speeds reduce reaction time, increase stopping distance, and raise the likelihood of fatal or serious injuries. Speeding and aggressive driving contributed to at least **17%** of fatal and serious injury crashes in Osage Beach. When looking at fatal and serious crashes that were a result of speeding and aggressive driving in Osage Beach during the five-year period of 2020–2024 there is a trend that shows these crashes are more likely during the summer months when seasonal visitors are at their highest.



Roadway Departure

ROADWAY DEPARTURE

Roadway departure crashes often result in severe outcomes due to loss of control, head-on conflicts, or fixed-object impacts. These crashes are frequently linked to roadway design and make up **49%** of fatal and serious injury crashes in Osage Beach.



Impaired Driving

IMPAIRED DRIVING

Impaired driving undermines a driver’s ability to safely operate a vehicle and is a known contributor to high-severity crashes. Impairment may result from the use of alcohol, marijuana, prescription medications, or other drugs that affect reaction time, judgment, and motor skills. Addressing impaired driving supports a Safe System approach by reducing high-risk behaviors that lead to serious injuries and fatalities. In Osage Beach, impaired driving accounts for **26%** of fatal and serious injury crashes.



Vulnerable Road Users (VRUs)

VULNERABLE ROAD USERS (VRU)

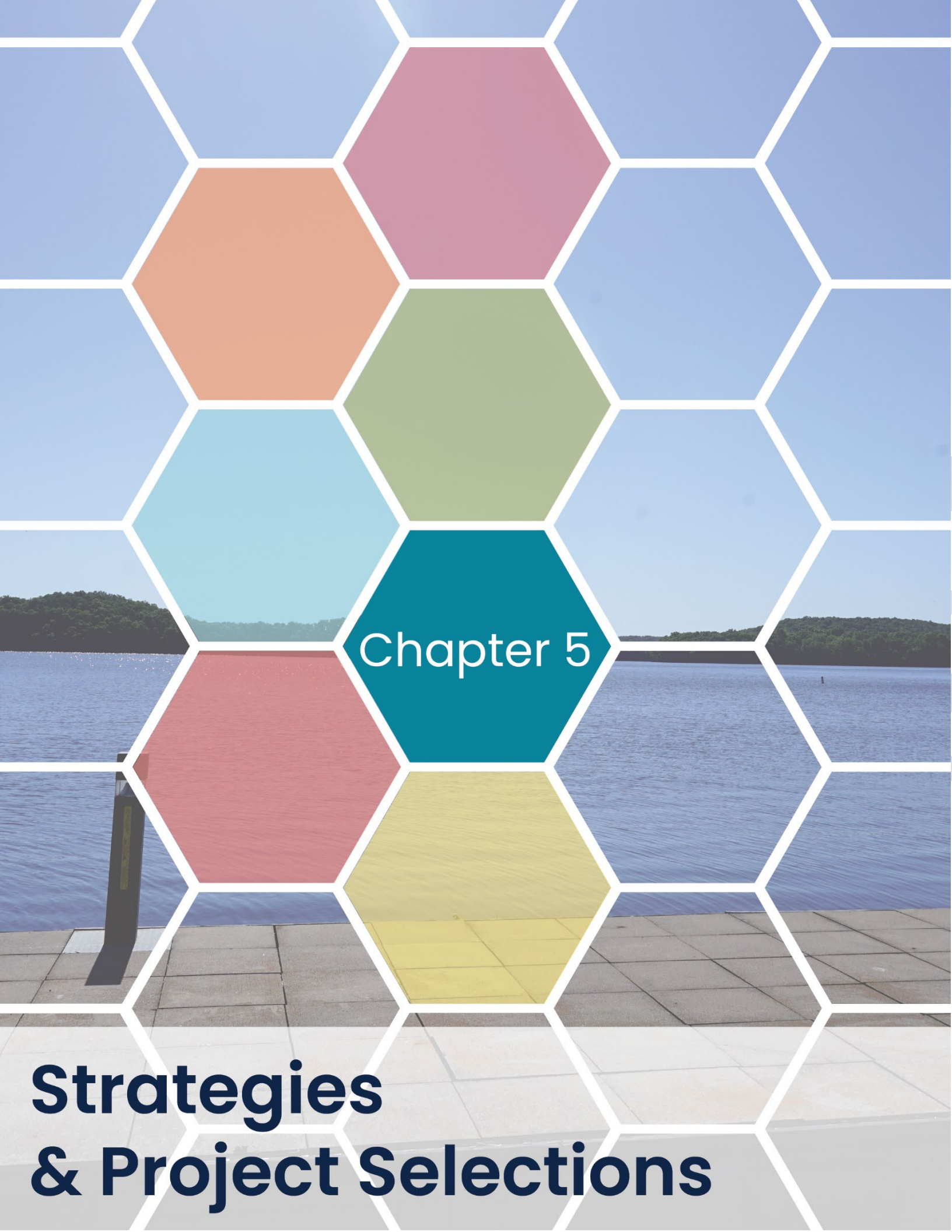
Although VRU's make up only 1% of all crashes in Osage Beach, **Half** of those crashes resulted in a fatal or serious injury crash. This highlights the opportunity to prioritize their safety.



Motorcycles

MOTORCYCLES

Motorcyclists are exposed road users with limited physical protection and are more susceptible to fatal and severe injury in crashes. Motorcycle crashes make up 3% of all crashes in Osage Beach Missouri from 2020–2024, but make up **34%** of fatal and serious injury crashes.



Chapter 5

Strategies & Project Selections

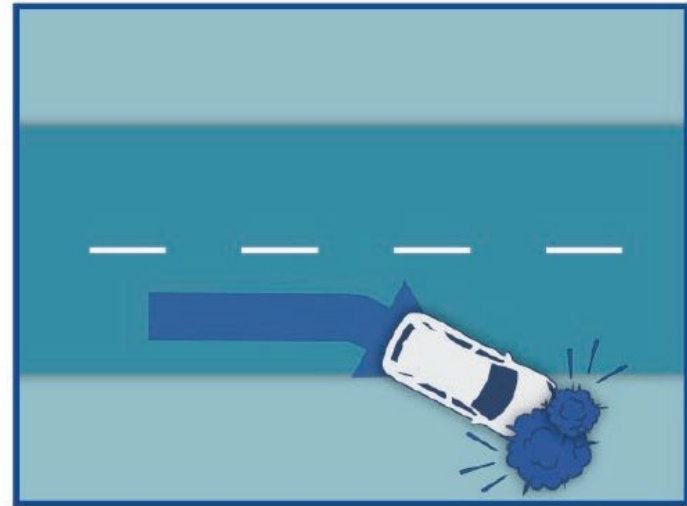
This section outlines the strategies and project selection approach used to improve roadway safety in Osage Beach. It builds on crash analysis to identify common crash types and applies proven safety countermeasures tailored to local conditions. A toolbox of strategies, ranging from quick, low-cost improvements to long-term infrastructure investments, provides flexible options to address safety issues across corridors, intersections, and pedestrian facilities.

Priority safety projects are identified and ranked based on crash risk, safety needs, and community input to guide implementation, with a focus on reducing fatalities and serious injuries. Policy and programmatic recommendations are aligned with the Safe System Approach, emphasizing safer roads, speeds, people, vehicles, and post-crash care. Together, these strategies and prioritized projects provide a coordinated, data-driven roadmap to advance Vision Zero goals in Osage Beach.

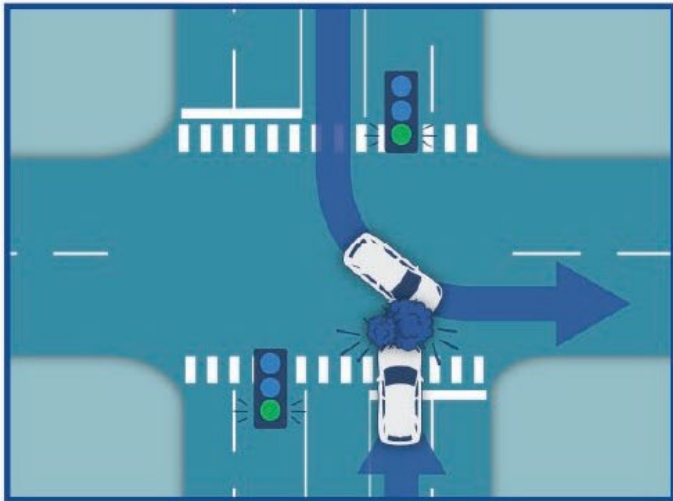
Crash Profiles

A crash profile is a summary of a specific crash type used to help understand patterns, identify safety issues, and guide improvements. Crash profiles were developed by analyzing the most common fatal and serious injury crash types. Four crash profiles were developed for vehicle to vehicle crash types, and three additional crash profiles were created for vehicle to pedestrian crash types. Countermeasures were also identified that best address each of the crash profiles. Appendix B includes a complete collection of crash profiles for Osage Beach.

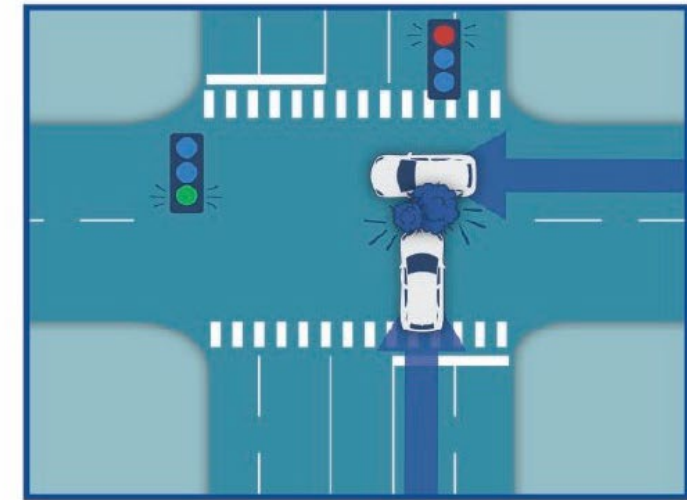
Roadway Departure



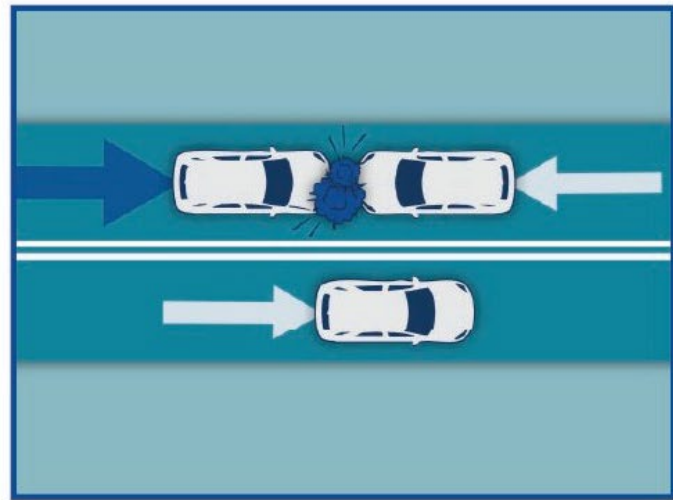
Left Turn at Signalized Intersection



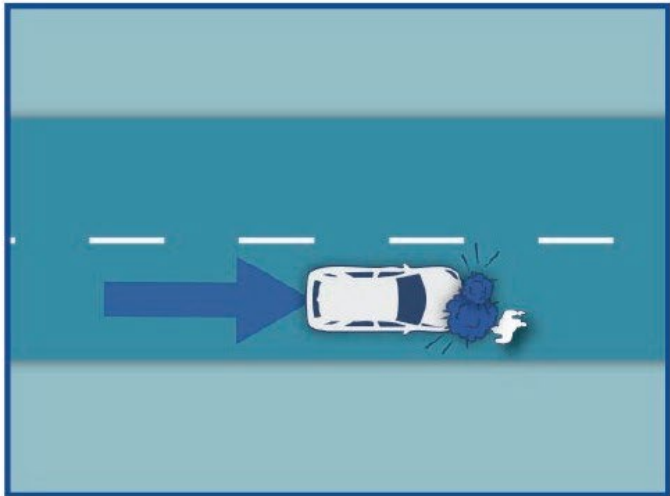
Red Light Running



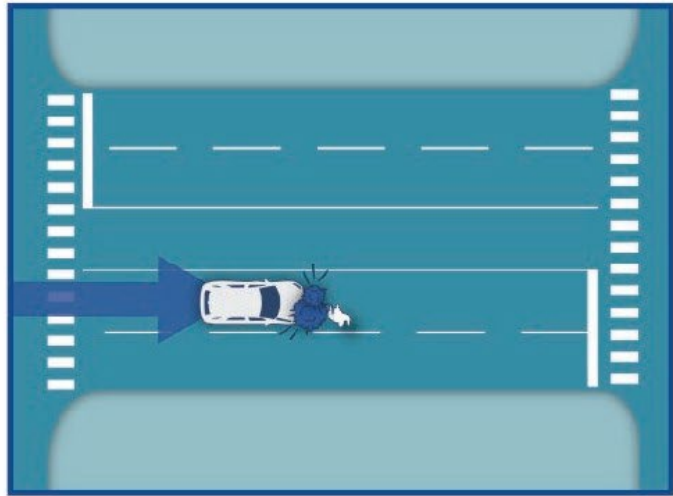
Wrong Way



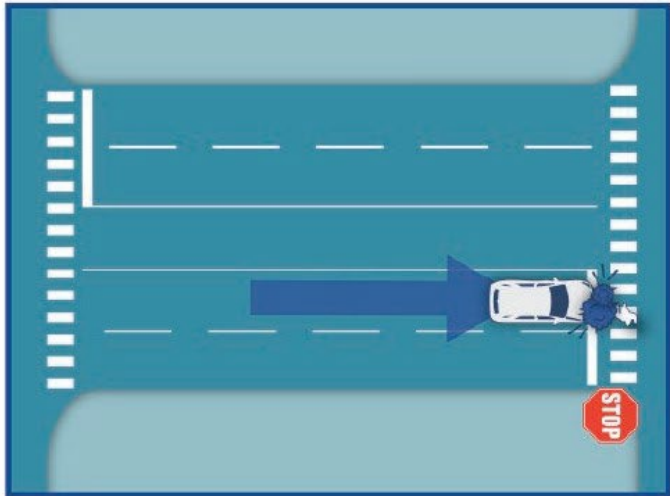
Pedestrian Walking in Roadway



Pedestrian Crossing Mid-Block



Pedestrian Crossing at Marked, Unsignalized Crosswalk



Crash Profiles found in Appendix B

Countermeasure Toolbox

Proven Safety Countermeasures are strategies shown to effectively reduce roadway fatalities and serious injuries. These interventions are backed by extensive research and real-world success, making them a key component to building safer transportation systems. The FHWA and other agencies have identified 28 [proven safety countermeasures](#) that can be adapted to fit local road needs.

Implementation of these countermeasures improves safety and boosts benefits to the community. Countermeasures can be quick builds, low-cost fixes, or long-term infrastructure projects. Adoption of these countermeasure solutions can help Osage Beach reduce the number of people killed or seriously injured on its roads. These countermeasures are prioritized on Priority Project corridors, intersections, and bridges. Refer to Appendix B for more detailed information on each of the identified countermeasures including crash reduction, estimated cost, crash types addressed, and countermeasure application guidance.

The countermeasures below are provided with more detail in the toolbox and are organized by which location the countermeasure fits into or if it addresses pedestrian or bicycle crash types.

ROADWAY CORRIDOR

- Appropriate Speed Limits
- Corridor Access Management
- Enhanced Delineation for Horizontal Curves
- Lighting
- Pavement Friction Management
- Rumble Strips
- Variable Speed Limits
- Wider Edge Lines

INTERSECTION

- Backplates with Retroreflective Borders
- Adjust Corner Radii
- Dedicated Left and Right Turn Lanes at Intersections
- Multiple Low-Cost Countermeasures at Stop Controlled Intersections (SCIs)
- Roundabouts
- Signal Operations Evaluation

PEDESTRIAN & BICYCLIST INFRASTRUCTURE

- Crosswalk Visibility Enhancements
- Medians and Pedestrian Refuge Islands
- Pedestrian Hybrid Beacons
- Shared Use Path
- Walkways



Medians and Pedestrian Refuge Islands

Providing a protected space for pedestrians to pause while crossing wide roads, reducing exposure to traffic and enhancing visibility

Anticipated Crash Reduction: 46-56%¹

Estimated Cost: \$\$\$²

1. Federal Highway Administration. (2021). Medians and pedestrian refuge islands in urban and suburban areas (FHWA-SA-21-046). U.S. Department of Transportation. <https://highways.dot.gov/safety/proven-safety-countermeasures/medians-refuge-islands>

2. Wasatch Front Regional Council. (2024, April). Appendix F: Safety countermeasures toolbox. <https://wfrc.org/wp-content/uploads/2024/04/Appendix-F.pdf>

Crash Types Addressed

- VRU

Application Guidance:

- Multi lane roadways
- 35 mph or greater
- AADT > 9,000¹

Example of Countermeasure Toolbox in Appendix B

Priority Safety Projects

Osage Beach projects are prioritized to guide implementation; however, all recommended actions are important to the overall safety of Osage Beach’s transportation network. Prioritization exists as a tool to support the goal of eliminating fatal and serious injuries on roads in Osage Beach by identifying ideal timeframes for project execution. Project prioritization is intended as a guide and should not limit when or how improvements are implemented. Osage Beach should pursue all opportunities to advance safety improvements as they become feasible, regardless of prioritization order.

Projects were selected based on historical crash analyses, roadway safety concerns, and community input. They are categorized by infrastructure type – **corridors, intersections, and bridges**, and are prioritized within each category. Project prioritization was developed based on factors including the crash risk score used in the identification of the HRN, the crash injury score used in the identification of the HIN, and the support and feasibility of each project. The three priority levels are defined as:

- **Priority 1:** These projects, when implemented, have the highest impact on reducing fatal and serious injury crashes in Osage Beach based on roadway crash risk characteristics and crash history. They all receive significant support through both public engagement and discussion with city departments.
- **Priority 2:** These projects show a risk for fatal and serious injury crashes based on roadway characteristics, but do not have as much crash history as priority 1 projects.
- **Priority 3:** While also integral to reducing fatal and serious injury crashes, these projects should be evaluated after addressing priority 1 and priority 2 projects.

ABOUT THE CORRIDORS: Twelve corridor segments are designated as Priority Safety Projects. The entirety of Osage Beach Parkway (OBP) is identified as a project and is split into four separate segments based on roadway characteristics and roadway ownership. In addition to the Osage Beach Parkway project corridors, two MoDOT routes are included as projects, and six local routes are included.

ABOUT THE INTERSECTIONS: Eleven intersections are identified as Priority Safety Projects, nine of which are located along Osage Beach Parkway. These projects may be implemented independently or integrated into larger corridor improvement efforts.

ABOUT THE BRIDGES: There are eight bridges in Osage Beach, all owned by MoDOT, and all of which are identified as a priority safety project due to their absence of sidewalks. Seven of these projects are overpass bridges crossing U.S. 54, while one project represents the Grand Glaize Bridge which is distinct in both function and scale. As the only bridge carrying U.S. 54 over water and the sole connection between east and west Osage Beach, it is significantly longer than the others and has experienced one of the highest crash injury rates.

Bridge projects are evaluated separately from corridor projects due to their unique structural characteristics and design constraints. These facilities create pedestrian connectivity challenges across the city, often resulting in individuals traveling along the side of bridges, where they are exposed to vehicle traffic and face an increased risk of crashes and severe injury.

The following pages present the Priority Safety Projects through tables and a map.

Table 5: Corridor Priority Projects

ID	Corridor Name	Roadway Limits	Owner
Priority 1			
C1	OBP Segment 2*	Route KK to Jeffries Road	Osage Beach
C2	OBP Segment 3*	Grand Glaize Bridge to Wal-Mart Entrance	Osage Beach
C3	OBP Segment 4*	Wal-Mart Entrance to Route 42	MoDOT
C4	OBP Segment 5*	Route 42 to City Limits	Osage Beach
C5	Route 42*	Osage Beach Parkway to Norwood Road	MoDOT
C6	Passover Road	Osage Beach Parkway to Robins Circle	Osage Beach
Priority 2			
C7	Route KK	Osage Beach Parkway to 3 Seasons Road	MoDOT
C8	Jeffries Road	Osage Beach Parkway to Circle View	Osage Beach
C9	Nichols Road*	Osage Beach Parkway to Dude Ranch Road	Osage Beach
Priority 3			
C10	Barry Prewitt Memorial Blvd/Columbia Blvd	Osage Beach Parkway to Route 42	Osage Beach
C11	Case Road	Osage Beach Parkway to Lois Lane	Osage Beach
C12	Osage Beach Road	Osage Beach Parkway to Lakehurst Circle	Osage Beach

Table 3: Bridge Priority Projects

ID	Bridge Name	Priority Level
Priority 1		
B1	Grand Glaize Bridge*	Priority 1
B2	Jeffries Road	Priority 1
B3	Passover Road	Priority 1
Priority 2		
B4	Osage Beach Parkway Couplet	Priority 2
B5	Nichols Road	Priority 2
B6	Osage Beach Parkway near Mace Road*	Priority 2
Priority 3		
B7	Route KK	Priority 3
B8	Case Road	Priority 3

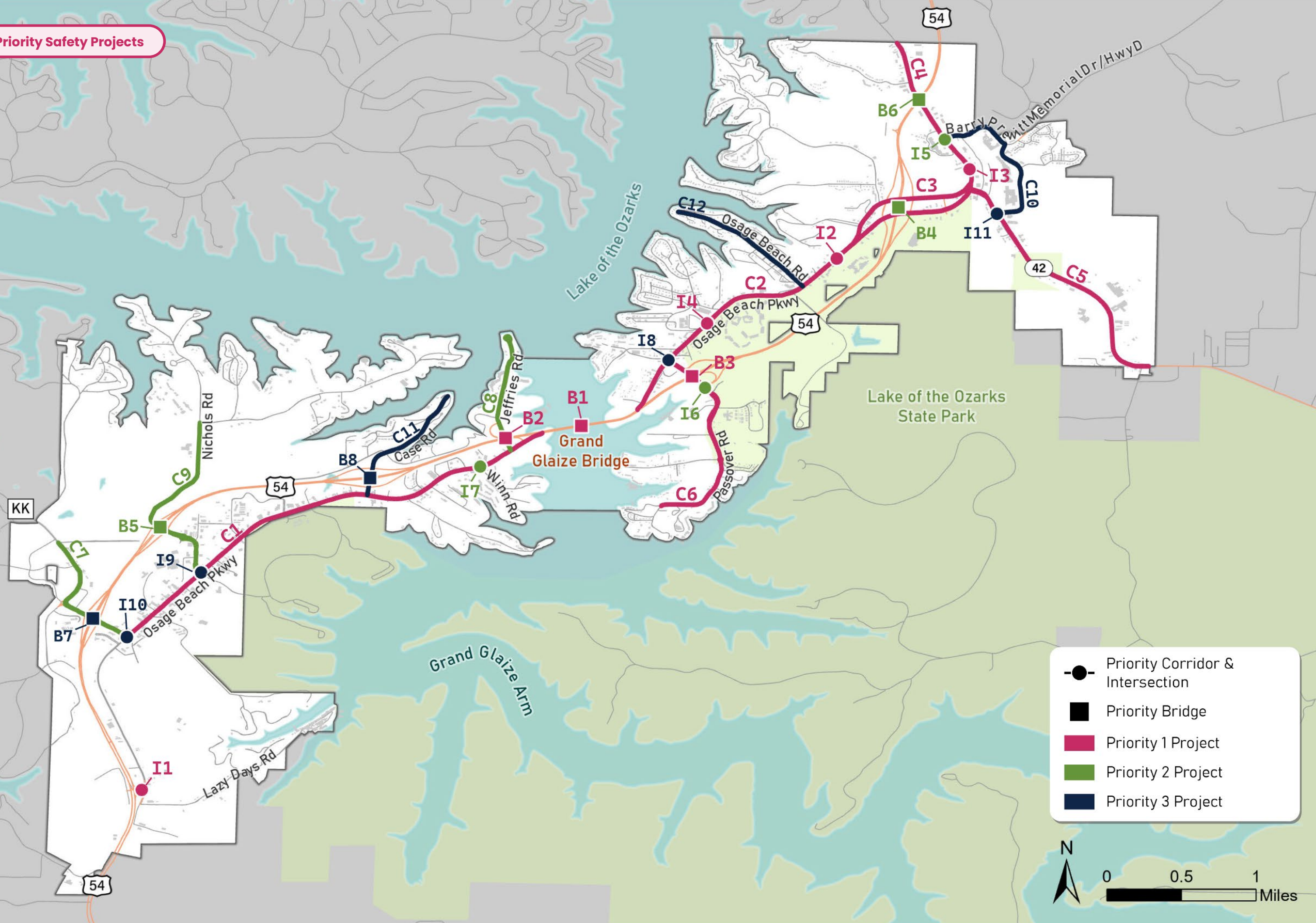
Overpass Bridges over U.S. 54

**Denotes a project that was analyzed as part of the RSA report found in Appendix C with more detailed recommendations.*

Table 4: Intersection Priority Projects

ID	Intersection Name	Owner
Priority 1		
I1	U.S. 54 Interchange – Osage Beach Parkway, Key Largo Road	MoDOT
I2	Wal-Mart Entrance & Osage Beach Parkway	Osage Beach
I3	Goldie Pearl Boulevard & Osage Beach Parkway	Osage Beach
I4	Lakeview Pointe Drive & Osage Beach Parkway	Osage Beach
Priority 2		
I5	Barry Prewitt Memorial Drive & Osage Beach Parkway	Osage Beach
I6	Passover Road & Eastbound U.S. 54 Ramp Terminal	MoDOT
I7	Winn Road & Osage Beach Parkway	Osage Beach
Priority 3		
I8	Passover Road & Osage Beach Parkway	Osage Beach/MoDOT
I9	Nichols Road & Osage Beach Parkway	Osage Beach
I10	Route KK & Osage Beach Parkway	Osage Beach
I11	Columbia Boulevard & Route 42	MoDOT

Figure 13: Priority Safety Projects



Safe System Recommendations

The Safe System Approach provides a comprehensive framework for improving roadway safety by addressing five key objectives: Safer Roads, Safer Speeds, Safer People, Safer Vehicles, and Post-Crash Care. Grounded in the goal of eliminating fatal and serious injury crashes, this multi-faceted approach recognizes that safety is a shared responsibility and requires coordinated actions across multiple disciplines to reach the goal of Vision Zero.

The following recommendations identify opportunities for the City of Osage Beach to advance safety through policy-based and strategy-based actions that support the Safe System framework. The recommendations are grounded in the five Safe System objectives and identify key areas where targeted actions can improve roadway safety:

- Safer People** focuses on education and awareness efforts that promote responsible behaviors and a shared understanding of safety among all road users.
- Safer Vehicles** emphasizes the role of vehicle design, technology, and maintenance in reducing the likelihood and severity of crashes.
- Safer Speeds** explores strategies to manage and reduce excessive speeds, a major factor contributing to the severity of traffic collisions.
- Safer Roads** highlights the importance of well-designed infrastructure that safely accommodates all users and travel modes.
- Post-Crash Care** addresses the effectiveness of emergency response, medical care, and incident management to improve outcomes following a crash.

Because the city has more influence over roadway design, operations, fleet vehicles, and enforcement, most recommendations focus on the Safer Roads, Safer Speeds, Safer Vehicles, and Safer People objectives.

These recommendations are categorized and identified as a **Strategy** – specific actions, programs, or initiatives that support implementation, or as a **Policy** – formalized directives that guide decision-making and institutional practices. Each recommendation includes an estimated timeline for completion and identifies the parties responsible to support effective implementation.



STRATEGY RECOMMENDATIONS



Create a Citywide Connectivity Plan.

Osage Beach currently has 64 miles of roads (excluding private roads and U.S. 54) and 15 miles of sidewalks – only 23% of roads have pedestrian infrastructure. This leads to gaps in the system where pedestrians may walk on the side of the road. The City is further divided by the Grand Glaize Arm of the lake, creating significant barriers between commercial areas and destinations. A Citywide Connectivity Plan will assess the existing pedestrian connections in Osage Beach, utilize data analysis and public engagement to understand where future connections can best be made. The plan will establish a framework for improving connectivity and guiding future investments in pedestrian, bicycle, and roadway infrastructure.

 **TIMEFRAME**
3 to 5 years

 **RESPONSIBLE AGENCY**
Planning and Public Works



Install more wrong-way signage and explore additional technology solutions to reduce the likelihood of crashes.

The crash analysis as well as comments from the public highlighted concerns over wrong way driving vehicles, especially around MoDOT on/off-ramps. While there are roadway design changes that deter wrong way drivers, Osage Beach can coordinate with MoDOT on improved Wrong Way signage and invest in Wrong Way Driver (WWD) Detection Systems to alert the police when a driver enters a road heading the wrong way. Other technology solutions to reduce the likelihood of crashes include:

- Intelligent transportation systems to detect and warn of adverse conditions
- Install additional retroreflective signs and markings
- Share traveler information and traffic control data with mobile providers

 **TIMEFRAME**
1 to 2 years

 **RESPONSIBLE AGENCY**
MoDOT, Public Works, Police



Add a second, 24-hour ambulance bay on the east side of Osage Beach.

Osage Beach currently has one 24-hour ambulance bay on the west of Osage Beach. Since the Grand Glaize Bridge is the only connection between the east and west side of the City, there are potential redundancy and response issues. Also, if there are multiple events requiring an ambulance response, neighboring ambulance districts in Miller and Camden Counties are needed to get involved. A second ambulance bay would improve the emergency response redundancy, reduce response times across the city, and improve the city's ability to respond to simultaneous events.

 **TIMEFRAME**
3 to 5 years

 **RESPONSIBLE AGENCY**
Police Department



Conduct signal timing studies and left turn warrants.

Crashes at signalized intersections, especially involving a left-turn, were some of the most common crash types in Osage Beach. To combat these crash types, Osage Beach should regularly conduct signal timing studies and adjust signal phasing based on traffic flow and safety concerns.

 **TIMEFRAME**
Ongoing

 **RESPONSIBLE AGENCY**
Public Works

STRATEGY RECOMMENDATIONS



Promote educational campaigns about motorcycles and alternative modes of traffic.

Road users in Osage Beach include not just vehicles and pedestrians, but also motorcyclists, bicyclists, OHVs, ATVs, golf carts, and trucks pulling trailers. Osage Beach should support educational campaigns for both these road users and others to help understand how best to share the road with these alternative road users. Educational campaigns may include branded product messaging (stickers, water bottles, t-shirts, etc.), partnerships with local businesses to distribute safety information, and targeted digital or in-person materials that highlight safe interactions with alternative road users.

 **TIMEFRAME**
Ongoing

 **RESPONSIBLE AGENCY**
Public Works,
Communications, Police



Support driver safety education programs with different audiences, topics, and formats.

Expand and support driver safety education programs through various partnerships to reach a wide range of audiences through varied topics and delivery methods. Opportunities include:

- **Audiences:** students at the School of the Osage, City of Osage Beach employees, companies operating UTVs, buyers of new vehicles, older drivers, the general public
- **Topics:** driver safety best practices, actions to take following a crash or roadside incident, vehicle safety features and safe operation, standardized training for UTV operation, impaired driving
- **Formats:** brochures, social media and digital content, recorded sessions, in-person presentations, multi-step training programs

 **TIMEFRAME**
Ongoing

 **RESPONSIBLE AGENCY**
Public Works, Police, School District, Local Businesses



Adequately communicate information for construction projects and new & existing designs.

Osage Beach experiences an influx of visitors every year unfamiliar with the City's roads. The City also has an aging population that takes longer to adapt to changes in the roadway and work zones. Osage Beach should improve how project information is shared to help road users anticipate changes and make safer decisions. Communication methods should include advance notification, temporary signage, online project updates, coordination with emergency services, and targeted outreach.

This is a solution listed in MoDOT's SHSP Blueprint 2025

 **TIMEFRAME**
Ongoing

 **RESPONSIBLE AGENCY**
Administration, Public Works,
Communications



Avoid removing safety improvements from projects because of budget concerns or public pressure.

Often during a project's planning and design, certain safety elements get cut. Osage Beach should consider safety measures as a larger part of an infrastructure project in pursuit of its goal of zero deaths and serious injuries.

This is a solution listed in MoDOT's SHSP Blueprint 2025

 **TIMEFRAME**
Ongoing

 **RESPONSIBLE AGENCY**
Public Works

POLICY RECOMMENDATIONS



Implement an Access Management Policy.

Access management is a planning tool used to standardize the number, location, and design of access points that private development has onto the Osage Beach’s transportation system. Each additional access point introduces conflict points for road users, increasing the potential for crashes, especially the closer the access points are to each other. By reducing and better managing access points, the City can lower crash risk while preserving the safety and traffic flow of commercial corridors. Common access management strategies include consolidating existing driveways, limiting the number of access points for new developments, directing access points to lower-volume local streets rather than directly onto major corridors, and managing effective spacing of access points between each other.

 **TIMEFRAME**
1 to 2 years

 **RESPONSIBLE AGENCY**
Planning and Public Works



Adopt an ADA transition plan using PROWAG standards.

An Americans with Disabilities Act (ADA) Transition Plan documents and evaluates the City’s pedestrian facilities within the public right-of-way to identify barriers to accessibility and guide improvements that provide safe equitable access for all users. In 2024, the USDOT adopted the Public Right-of-Way Accessibility Guidelines (PROWAG) as part of its ADA standards. PROWAG establishes consistent, enforceable criteria for the for the design and evaluation of public right-of-way elements, including sidewalks, streets, crosswalks, curb ramps, pedestrian signals, and on-street parking. Adopting an ADA Transition Plan will align the Public Works Department’s work with current federal standards.

 **TIMEFRAME**
1 to 2 years

 **RESPONSIBLE AGENCY**
Public Works



Update roadway design standards to meet design best practices.

Roadway design standards guide the typical design of all newly constructed and reconstructed roads in Osage Beach. Based on a review of roadway design standards, the City’s roadway design standards do not fully reflect current safety best practices for all roadway users. Updating these standards will incorporate safe streets principles with an emphasis on context-appropriate design speeds, design vehicles, pedestrian crossing treatments, and lane widths that support safer traffic operations

 **TIMEFRAME**
1 to 2 years

 **RESPONSIBLE AGENCY**
Public Works, Police, Fire, Parks & Rec



Adopt a traffic calming policy.

Speeding on local roads was noted as an issue in both the crash analysis and in public engagement. Roadway design often determines how fast a vehicle can travel on a road, making traffic calming an essential tool in reducing vehicle speeds. Osage Beach should adopt a traffic calming policy to identify and implement quick build traffic calming countermeasures where speeding has been observed as an issue. Effective traffic calming countermeasures for local and residential roads include:

- Speed tables
- Curb extension, chicane, lane narrowing
- Raised crosswalk, raised intersection
- Mini roundabout

 **TIMEFRAME**
2 to 3 years

 **RESPONSIBLE AGENCY**
Public Works

POLICY RECOMMENDATIONS



Update zoning code to require pedestrian facilities for private development.

The City should update the zoning code to require private developments to build out pedestrian facilities in the public right-of-way in context appropriate areas.

 **TIMEFRAME**
2 to 3 years

 **RESPONSIBLE AGENCY**
Planning and Public Works



Adopt a buckle up/ phone down policy for city employees.

In Missouri, its illegal to drive without a seatbelt and drive while distracted by an electronic device. The City should take the Buckle Up Phone Down pledge and commit to driving safer and more attentive. This pledge also sets a standard for the community and its residents, and one that can be promoted at community events, businesses, and in households.

 **TIMEFRAME**
1 to 2 years

 **RESPONSIBLE AGENCY**
Administration



Coordinate the CIP process with VZAP priority projects.

When developing a Capital Improvement Program (CIP), safety should always be a consideration as a performance criteria. Osage Beach should include the priority projects identified in the VZAP in the selection process for CIP projects.

 **TIMEFRAME**
Ongoing

 **RESPONSIBLE AGENCY**
Public Works

Chapter 6

Implementation

Implementation strategies outline the key actions that Osage Beach can take to reach the vision of **reducing traffic fatalities and serious injuries by XXXX**. While there is not a singular simple solution to achieve this goal, this section provides a framework for executing safety improvements to make important steps towards the goal.

Advancing safety improvements requires collaboration amongst elected officials, city staff, community members, and agency partners. Although Osage Beach has direct influence over locally maintained roadways, improvements on state routes require continued coordination and collaboration with MoDOT. Efforts to continue collaboration should include:

- Regular meetings with MoDOT's area engineer, district traffic engineer, and district design engineer to discuss projects and collaboration
- Working with the local regional planning committee to prioritize areas of concern

The recommended actions included in *Chapter 5: Strategies & Project Selections* are based on the result of crash data analysis, discussions with the Safety Action Committee, public input, and review of the City's current policies, programs, and processes related to transportation safety. The recommended actions range from broad to specific but include ideas such as strengthening partnerships and updates to city policies and procedures.

Funding Strategies

Identifying diverse funding sources is necessary to advance these safety improvements and turn recommendations into reality. Osage Beach now meets the primary requirement to apply for federal funds through the SS4A Program's Implementation Grant. In addition to implementation grants there are alternative federal, state, regional, and local funds that the City can apply for or reallocate funding for. State and federal options include:

- **State Programs**
 - Transportation Alternatives Program (TAP)
 - Surface Transportation Program (STP)
 - Statewide Transportation Improvement Program (STIP)
- **Federal Programs**
 - Better Utilizing Investments to Leverage Development (BUILD)
 - SS4A Implementation Grant

These funding opportunities should be tracked by Osage Beach city staff to further implement the safety improvements mentioned in Chapter 5 and the RSAs. Osage Beach should consider revising its Capital Improvement Program (CIP) priorities to place greater emphasis on transportation safety, particularly in areas identified as part of the HIN.

Progress and Transparency

Achieving the vision of XXXX over XXXX requires sustained commitment over time. The Safety Action Committee can continue to champion this implementation work following plan adoption. As Osage Beach grows and time passes, these strategies need to be monitored and revisited. Annual monitoring and reporting enhance transparency and keeps the community updated on what progress has been made towards the vision. Opportunities for measuring progress include:

- Annual review of plan recommendation completion: Osage Beach should review the recommendations of this plan annually to track and publish progress updates towards completion. This should include identifying updates to the plan to respond to trends and changes in transportation issues. Project progress and completion should be shared and celebrated regularly with the community through the Osage Beach Newsletter and social media accounts to maintain transparency.
- Annual review of crash data: MoDOT publishes crash data on an annual basis. This provides an opportunity each year for the City to assess safety performance. This data should be analyzed and summarized in a memo that is publicly available on the City of Osage Beach website. This analysis can provide insight into trends and overall progress toward a safer transportation network.

In addition to the recommended actions, an Implementation Matrix was developed for use by city staff to support progress tracking of the OBVZAP's project and Safe System policy-based recommendations. These tools provide actionable steps to improve transportation safety within Osage Beach and achieve the vision.





Appendices

- APPENDIX A:** Existing Conditions Report
- APPENDIX B:** Crash Profiles
- APPENDIX C:** Osage Beach/Spot Locations/School RSAs
- APPENDIX D:** Engagement Summary
- APPENDIX E:** Implementation Matrix

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