Lake Charles Safety Action Plan

September 2025

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Photo Source: Cover Page - Adobe Stock, Above - ATG|DCCM

Contents

Disclaimer: *The information contained herein is prepared solely for the purpose of identifying, evaluating, and planning safety enhancements and/or strategies of crash sites. This is pursuant to Section 148 of Title 23 of the United States Code and was implemented utilizing federal-aid highway funds. Therefore, the data is not subject to discovery nor may be admitted into evidence in a Federal or State court proceeding pursuant to 23 USC 407.*

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Source: ATG|DCCM

Introduction

Overview

The Lake Charles Safety Action Plan is a comprehensive action plan that identifies the most significant roadway safety issues and recommends projects and strategies to improve transportation safety in the city. The plan is made possible through a planning grant from the Safe Streets and Roads for All (SS4A) program. This plan contains documentation of all required elements under the SS4A Program, ensuring projects listed in Chapter Six are eligible for implementation grants under the same program. Projects can also be implemented through other programs, such as the Better Utilizing Investments to Leverage Development (BUILD) Grant, Surface Transportation Block Grant (STBG) program, Highway Safety Improvement Program (HSIP), Transportation Alternatives program, the general fund, and others.

Safe Systems Approach

The purpose of the Safety Action Plan is to prevent roadway deaths and serious injuries, which supports the US Department of Transportation's (USDOT's) goal of achieving zero roadway deaths nationwide.

The plan is guided by the Safe System Approach framework, a holistic and comprehensive approach to addressing and mitigating risks by 1) preventing crashes from happening in the first place and 2) minimizing the harm caused to those involved when crashes do occur. Principles of the Safe Systems Approach are:

- » Death and serious injuries are unacceptable
- » Humans make mistakes
- » Humans are vulnerable
- » Responsibility for safety is shared
- » Safety is proactive
- » Redundancy is critical

The principles support the overall goals of safer people, safer vehicles, safer speeds, safer roads, and providing post crash care (Figure 1).

Figure 1: Safe System Approach

Source: USDOT

Our vision for the future is to eliminate all traffic deaths and serious injuries on Lake Charles roadways by 2050.

Goals

In addition to the Safe System Approach, the Safety Action Plan advances the following goals, which are local priorities for transportation safety.

Lake Charles Safety Action Plan Goals:

- Protect vulnerable road users through street design
- Reduce speeds to prioritize safety
- Collect and use data to enhance safety at critical locations
- Change the culture and policies around transportation safety
- Collaborate and engage partners

In order to make significant improvements to transportation safety across the network, we must change the way we think about and respond to safety issues. The Lake Charles Safety Action Plan aims to champion a shift in the culture surrounding transportation safety.

While this shift may seem challenging, there are strong examples of successful changes in the way that society views and accepts issues regarding public health and safety. Smoking in public indoor spaces used to be ubiquitous, but bans imposed by localities and businesses have effectively eliminated this practice in most places. In addition, drinking and driving used to be much more common, but the efforts of organizations such as Mothers Against Drunk Driving (MADD) in the 1980s helped to change social norms and establish minimum drinking age laws and drunk driving laws. Like drunk driving and smoking, transportation safety is a matter of public health and affects the whole community.

Traditional Approach to Safety	Safe System Approach
Problem to Target	
Crashes	**Fatalities and Serious Injuries**
Cause of the Problem	
Human behavior	**A system of factors related to context and conditions**
Responsible Party	
Individual road users	**Policymakers, planners, engineers, and agencies**
Intervention Approach	
Reactive and incremental	**Proactive and systemic**
Ultimate Goal	
An optimal number based on past crash trends	**Zero fatalities and serious injuries from crashes**

Source: Vision Zero Network; Towards Zero Foundation.

Source: ATG|DCCM

Plan Development

The plan was developed through the analysis of crash data from 2019-2023, robust public engagement, and input from stakeholders and a Technical Advisory Committee, with adherence to engineering best practices and existing plans. The plan emphasizes the protection of vulnerable road users such as pedestrians and bicyclists through the incorporation of analysis and recommendations for active transportation improvements. It also gives consideration to performance measures to establish and maintain transparency on the progress of plan implementation. The plan culminates in the Action Plan in Chapter 6, which details the projects and strategies that were identified, refined, and prioritized through the plan development process.

Source: ATG|DCCM

Source: ATG|DCCM

Context

In the aftermath of Hurricanes Delta and Laura in 2020, the City of Lake Charles was in a position to make significant changes to its transportation system. In the last five years, the City has taken charge of its direction by creating a variety of plans and projects to build a more resilient, connected, and safe transportation system for all users. For bicyclists and pedestrians, visionary plans for the One Lake Charles Bike Trail, the Bayou Greenbelt, and the Nellie Lutcher District build on the City's 2012 Bicycle and Pedestrian Master Plan and will provide safe and comfortable paths separated from car traffic. Post-hurricane planning efforts have also led to progress on large projects that will change how vehicles navigate the city. The I-10 Calcasieu River Bridge Project is expected to be complete in 2031. A new Contraband Bayou bridge will link Nelson Road and West Sallier Street by 2027, providing a key new route between Southwest and Central Lake Charles for all transportation modes. Creating a Safety Action Plan for the entire City of Lake Charles fits squarely in this context of investing in quality of life improvements for all those living in and visiting Lake Charles. The project and program recommendations which follow will help prioritize and implement high-impact investments which bring to life the vision of a safer, more connected, more resilient city.

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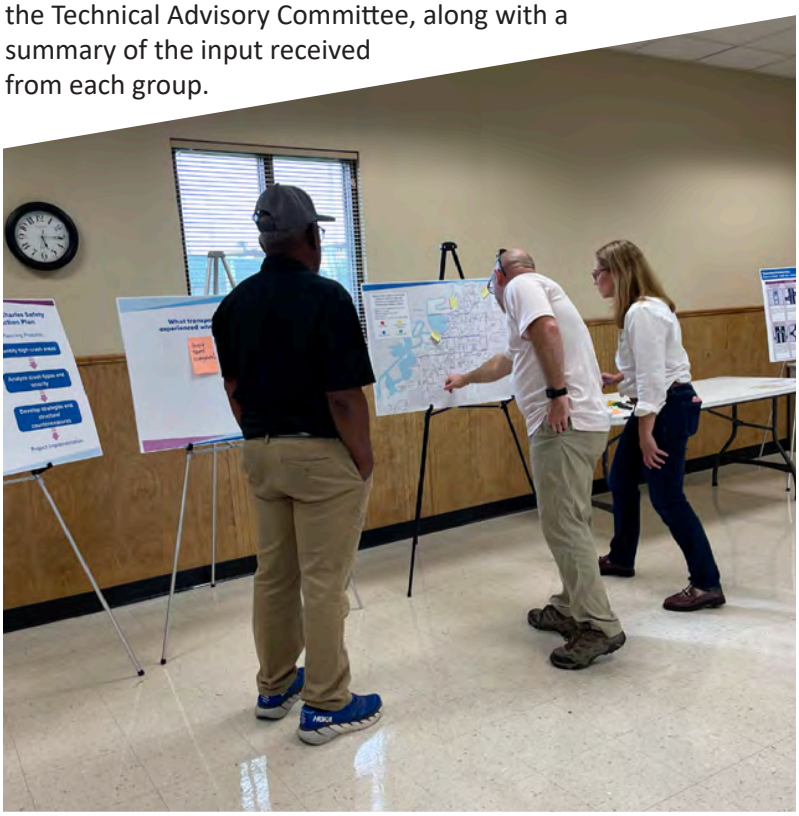
Source: ATG|DCCM

Public Engagement

Public Engagement

Throughout the development of the plan, community members and relevant stakeholders were encouraged to provide input on their transportation safety concerns, priorities, and ideas. This input is reflected in the plan's goals and in the recommended projects and strategies identified in chapter 5. Public engagement efforts involved a variety of strategies to reach as many people as possible, so that the plan is reflective of local concerns and satisfies the requirements set forth in the SS4A program. This chapter details the activities and methods used to engage the public, stakeholders, and the Technical Advisory Committee, along with a summary of the input received from each group.



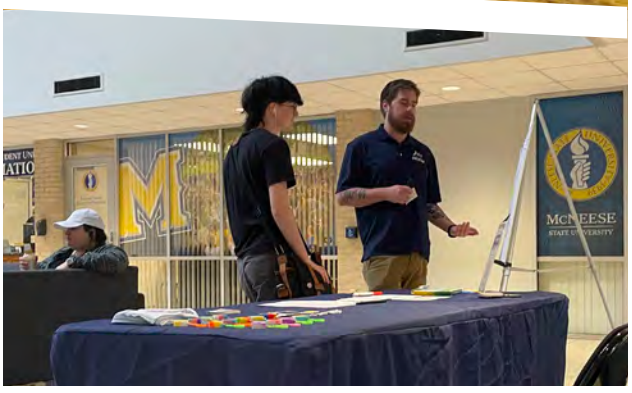


Photo Sources: ATG|DCCM

Community Engagement Objectives

Input from the public to brings local concerns and priorities to the forefront of roadway safety initiatives. Community input defines existing safety issues and specific locations where it feels unsafe to walk, drive, or ride a bike. This is a crucial component of the plan, as residents can identify dangerous locations, network gaps, or other transportation challenges that crash data alone cannot.

The plan's public engagement objectives are:

- » Involve stakeholders and the public early and consistently
- » Make project involvement information easily accessible
- » Give advanced notice of participation opportunities
- » Make project involvement easy and convenient for people
- » Create a variety of digital and physical materials to communicate effectively
- » Collaborate with community members and seek out a diverse range of viewpoints

Public Engagement Strategies

Strategies to gather public feedback included both in person and online methods. A website hosted information about the plan, an interactive feedback map for comments, and a survey about safety priorities and preferences. People were directed to the website via social media posts, news articles and broadcasts, email, flyers, and QR codes placed on banners and yard signs.

In-person public engagement efforts consisted of two public meetings and six pop-up events. The public meetings were held on April 3rd, 2025 at the Martin Luther King Jr. Community Center and the University Park Family Recreation Center. The pop-up events sought to intercept people where they are or regularly go. On April 4th and 5th, the project team gathered input from community members at the following locations and events:

- » McNeese State University Student Union
- » Southwest Louisiana (SOWELA) Technical Community College Student Center
- » Calcasieu Parish Carnegie Memorial Branch Library
- » City of Lake Charles Transit Center
- » Meet Me at the Market Farmers Market
- » Junior League Touch A Truck Event

At the pop-up events and the public meetings, residents were encouraged to mark up maps with problem areas, ideas, and concerns. In addition, people were encouraged to visit the plan's website to take the survey.

Technical Advisory Committee (TAC)

The project team assembled a Technical Advisory Committee (TAC) to assist city leadership in plan and project development. The TAC was comprised of subject matter experts, and leaders from organizations across public safety, health, economic and community development, and education. For a list of TAC members, see page 2.

The TAC met in March of 2025 to guide public engagement efforts and provide input on technical analyses. The TAC met again in June and August to discuss the results of the crash analysis along with strategy and countermeasure recommendation alignment. TAC members also provided feedback for the draft plan document and championed outreach efforts throughout the course of the project.

Source: KPLC News Publication March 27, 2025

Source: Lake Charles Safety Action Plan Website

Stakeholder Engagement

Stakeholders were identified by the TAC and invited to join a virtual meeting on May 21st, 2025. Stakeholders that participated included news outlet and nonprofit organization representatives.

Input Received

In addition to speaking with community members at engagement events, the team designed an online survey to identify local transportation safety concerns and gauge interest in various safe streets interventions. An online map was also used to allow community members to mark specific locations and provide comments. Both tools were available on the project website from March 27th to May 29th, 2025 and were advertised at events, on social media, and via flyers. The survey closed with 120 responses, and the project website and engagement events provided a collective 187 map pins throughout the city (see Figure 2).

Public Engagement at a Glance

380 residents engaged at intercept events

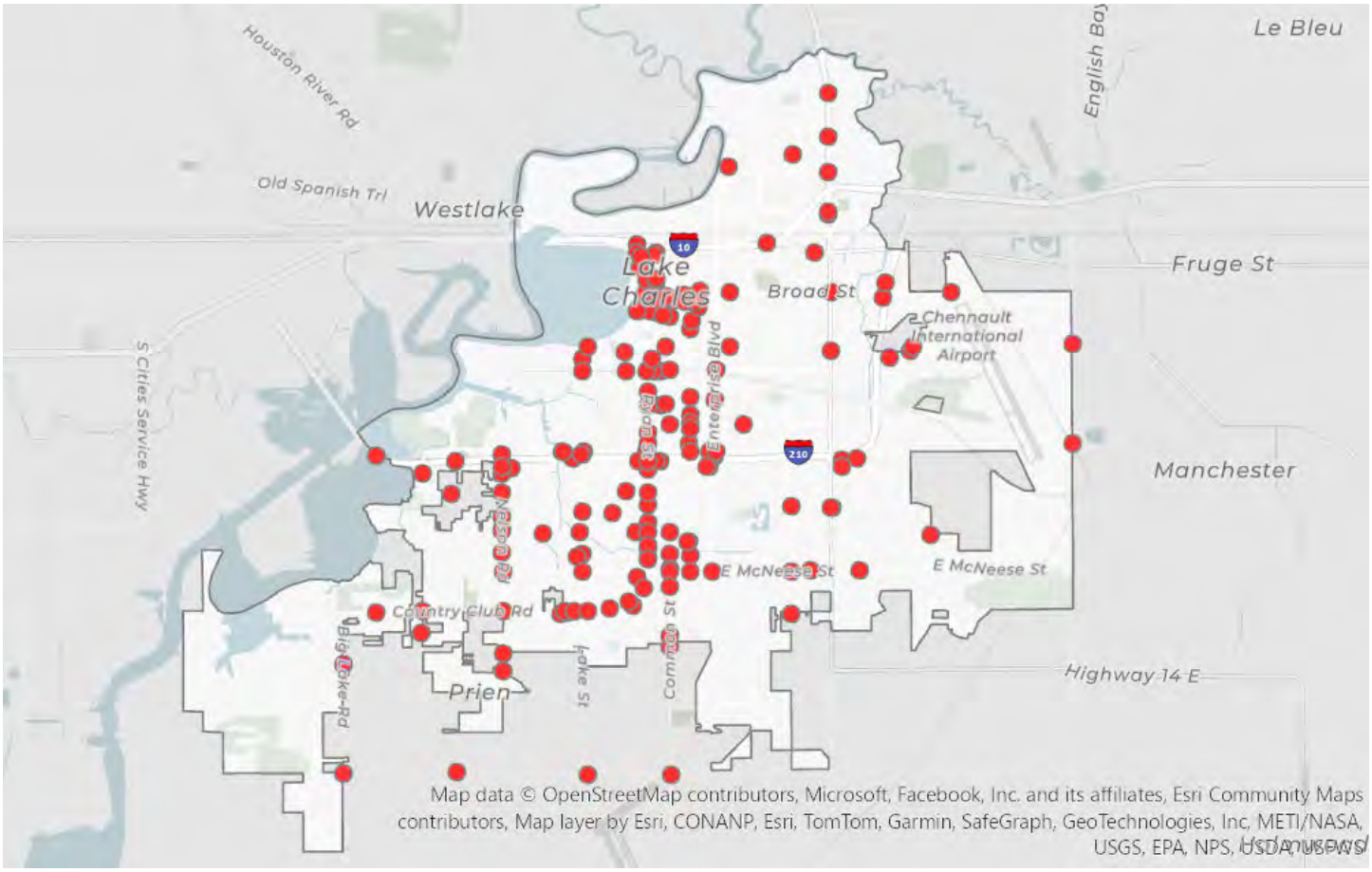
3 stakeholder groups reached at meetings

187 map pins dropped

120 survey results collected

"Crashes in our community increase auto insurance rate[s], cause a loss of income due to recovery time when injured, and interfere with personal safety"
- Website comment from a community member

Figure 2: Comment Map



187 map pins from in-person engagement and an online mapping tool. Source: ATG | DCCM

Survey responses showed that dangerous driver behaviors and poorly maintained roads were the top safety concerns. When asked about which dangerous driver behaviors they had seen recently, over half of respondents reported spotting phone usage, speeding, aggressive driving, or running red lights or stop signs. Poor road conditions were the most frequent topic of the free-response question.

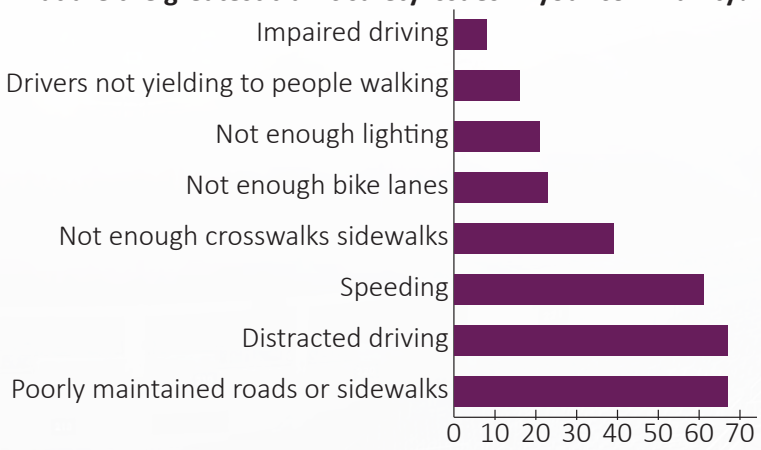
Survey results also highlighted the lack of safe walking and bicycling opportunities in Lake Charles. Respondents complained about limited options or unsafe conditions from both the pedestrian and driver perspectives. While many pedestrians must walk on the edges of ditches or along bridge guardrails, drivers are often startled by pedestrians in low-visibility conditions.

A lack of lighting was less frequently cited as a top safety issue (only 18% of respondents ranked it as a top 3 concern), but half of respondents selected it as a top intervention to improve safety. Dedicated turn lanes and bike lanes were also popular infrastructure recommendations, with other pedestrian interventions receiving varying levels of interest.

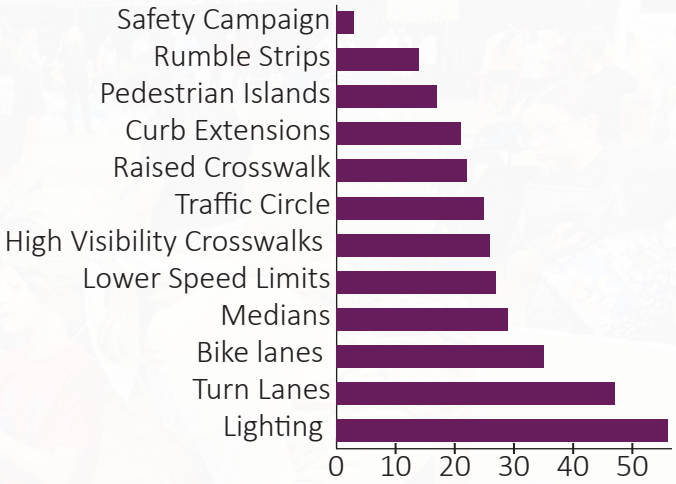
The 188 map pins with comments cover the City of Lake Charles. High traffic areas like downtown and major arterials like Ryan Street and Nelson Road have a high concentration of pins (see Figure 2). The comments attached to these pins offered a variety of feedback on where safety could be improved. Similar to the survey, poor road conditions, high driver speeds, and a lack of pedestrian infrastructure were common complaints.

Even though survey respondents may disagree on how to address problems, they are in overwhelming support of Lake Charles adopting a Vision Zero Policy.

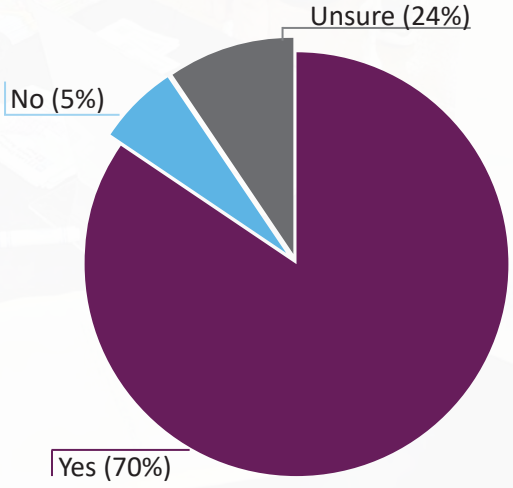
What are the greatest traffic safety issues in your community?



Which strategies do you think would be effective in preventing crashes in your community?



Do you think a policy of working to eliminate fatal and severe injury crashes would be beneficial?



Transit

Photo: Lake Charles Transit Terminal. Source: ATG|DCCM

Public transit is crucial in Lake Charles, especially for residents without a car. It offers access to jobs, schools, healthcare, and daily needs for those who might otherwise be isolated.

The transit system follows a hub-and-spoke model with five fixed routes connecting through the downtown terminal on Ryan Street. While efficient and cost-effective, this model can result in long, inconvenient trips to key destinations outside downtown, such as SOWELA Technical Community College. The City also provides on-demand paratransit service for people with disabilities.

Fixed-route and paratransit services run Monday through Friday, from 5:45 a.m. to 5:45 p.m., with no weekend service.

Public feedback emphasized that the city often feels too car-dependent. Transit coverage is limited, and sidewalks are sparse or unsafe due to poor conditions or proximity to traffic.

Photo: Bus stop at N Simmons St and Poplar St. Source: ATG|DCCM.

Most buses have bike racks, a helpful step toward supporting active transportation and offering alternatives to driving.

Still, more can be done to improve service coverage and frequency. Limited pedestrian and bike infrastructure also make transit less convenient than driving for most. Expanding transit hours, route connections, and walk-bike access would make the system work better for all.

Transit Benefits

Accessibility: Expanding transit hours and improving routes helps more residents reach jobs, schools, and services. Reliable, affordable transit reduces barriers and connects people to daily needs.

Convenience and Connection: Improving sidewalks and bike access to transit makes travel safer and more comfortable. Better connections also reduce risky walking conditions near busy roads.

Economic Opportunity: Transit connects people to jobs, education, and businesses. A stronger system supports growth by improving access for workers, customers, and employers.

Quality of Life: Fewer cars on the road means less traffic and lower emissions. Investing in transit supports a cleaner and healthier community with more travel options.

3

Source: Adobe Stock

Crash Analysis

Analysis of Crash Data

This analysis examines crash types, severity, contributing factors, and other key factors to identify patterns and insights into location specific safety issues. A review of the roadway network was conducted to gain systemic insights a city-wide scale, highlighting a High Injury Network (HIN). Segments and intersections on the HIN each have associated recommended future projects in Chapter 5.

An additional analysis of active transportation modes and their unique issues, dangers, and patterns supports the crash analysis and brings special attention to vulnerable road users. This chapter presents the results of the crash analyses and the High Injury Network.

Methodology

The crash analysis uses 2019 to 2023 data from the Louisiana State University (LSU) Center for Analytics and Research in Transportation Safety (CARTS).

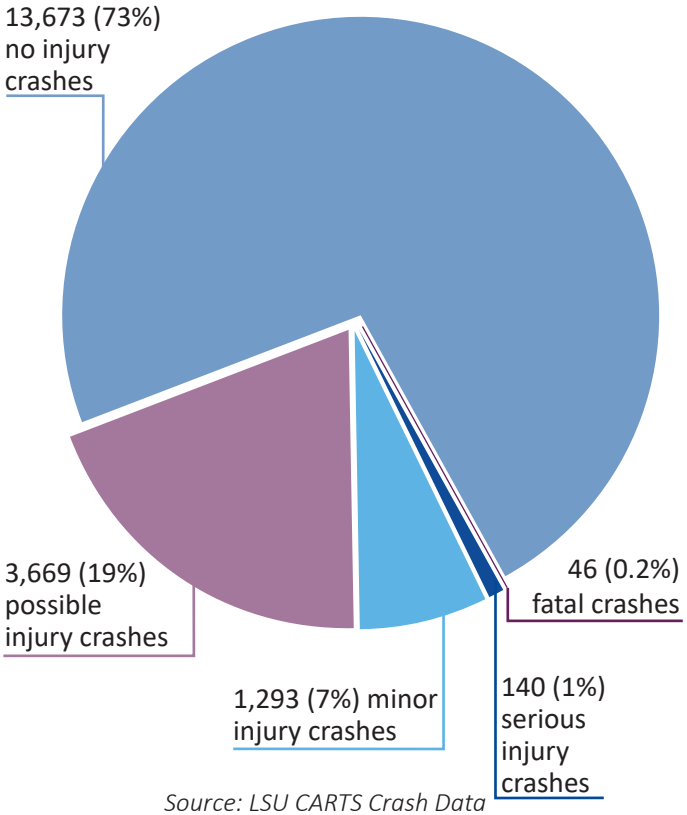
Crash Severity

From 2019-2023, there were 18,821 total crashes in Lake Charles. While the majority of crashes do not result in injuries, there were 46 fatal crashes and 140 serious injury crashes within city limits over the five year period (Figure 3).

For fatal crashes, there has been an overall decline since 2019, with a slight uptick in 2021, whereas serious injury crashes have grown over the five year period[1] (Figure 4). Overall, the total number of crashes of all severity levels decreased each year from 4,613 in 2019 to 3,176 in 2023.

Source: Adobe Stock

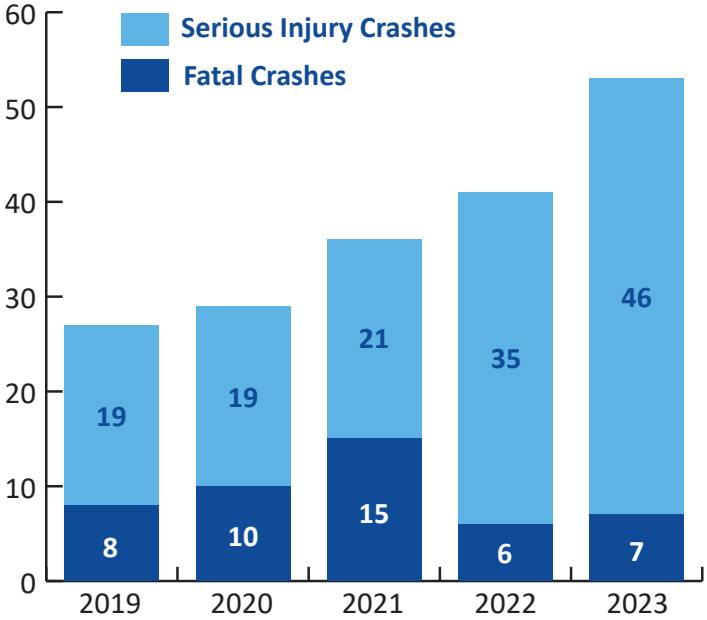
Figure 3: All Crashes by Severity, 2019-2023



Source: LSU CARTS Crash Data

An average of nine lives were lost each year from crashes in our city.

Figure 4: Crash Severity by Year, 2019-2023



Source: LSU CARTS Crash Data

[1] *The increase in serious injury crashes may be related to a change in reporting due to the correlation with the designation of Lake Charles Memorial Hospital receiving the designation of a level III Trauma Center in 2020.*

See disclaimer on page 5.

Manner of Collision

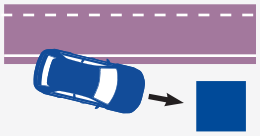
Understanding which types of crashes most often result in fatalities and serious injuries helps the city to focus efforts on addressing the most dangerous types of crashes. These crashes should first be prevented and then mitigated so that when they do occur, they do not result in loss of life or serious injuries.

Most Common

Rear end collisions are the most common type of crash, comprising 33% of all crashes. Rear end crashes are tied with perpendicular/angle crashes for the second most dangerous kinds of crashes at 15% of fatal and serious injury crashes. The top five most common types of crashes are:

1. **Rear End**
2. **Perpendicular/Other Angle**
3. **Sideswipe**
4. **Angle - Left**
5. **Not a Collision with a Motor Vehicle**

Most Dangerous



The most dangerous type of crash is categorized as "not a collision with a motor vehicle," which makes up around *half* of fatal and serious injury crashes. This category includes roadway departures and bike/pedestrian crashes. The top five most dangerous crashes are:

1. **Not a Collision with a Motor Vehicle**
2. **Perpendicular/Other Angle**
3. **Rear End**
4. **Angle - Left**
5. **Head On**

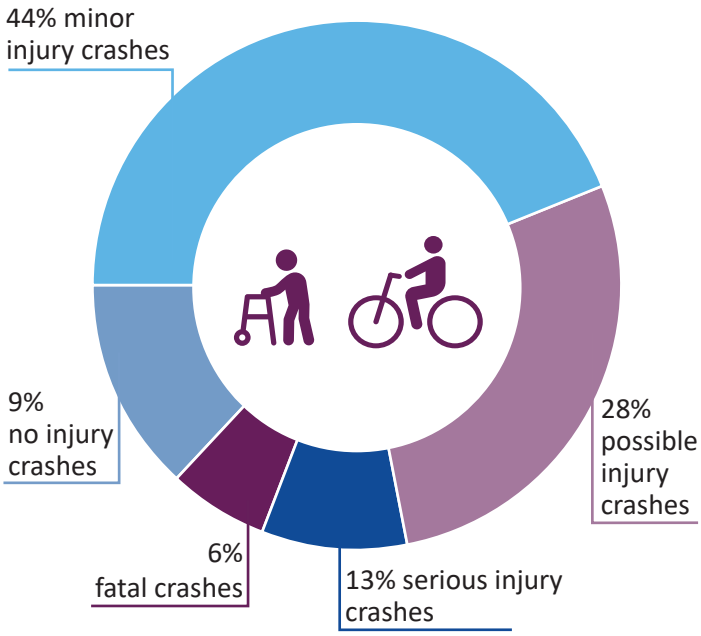
Bicycle and Pedestrian Crashes

There were 267 reported crashes involving bicyclists or pedestrians in Lake Charles over the five-year period. Bicycle and pedestrian crashes tend to be significantly more severe—about 17 times more likely to result in a serious injury and 23 times more likely to be fatal. Figure 5 shows a breakdown of bicycle and pedestrian involved crashes by severity.

Over the five year period, total crashes decreased over time, but bicycle and pedestrian crashes did not. Overall, bicycle and pedestrian crashes made up around 1.42% of all crashes, but 26.3% of fatal and serious injury crashes.

Thoughtful infrastructure planning for both motorized and non-motorized users helps prevent crashes. Features like mountable curbs, such as those on portions of Lakeshore Drive, can increase danger by making roadway departures onto pedestrian spaces easier. Ensuring redundancy in design—where one failure does not compromise overall safety—is key to the Safe System Approach, anticipating human mistakes and reducing crash severity.

Figure 5: Bike & Pedestrian Crashes by Severity



Source: LSU CARTS Crash Data, 2019-2023

Photo: Pedestrian crossing Ryan Street. Source: ATG|DCCM

See disclaimer on page 5.

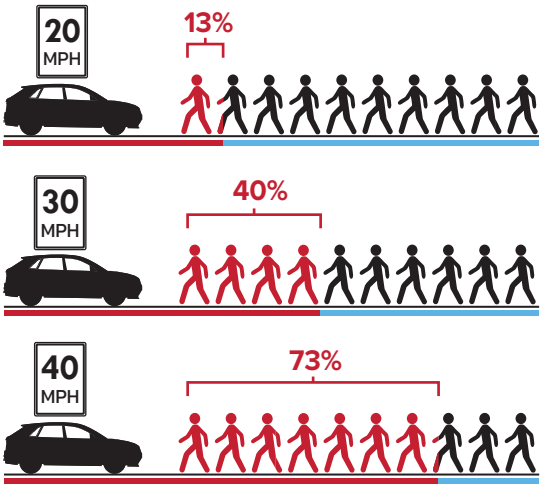
Figure 6 shows a heat map of the 267 bicycle- and pedestrian-involved crashes to identify potential patterns or high-risk areas. Two corridors had the highest concentrations of fatal or serious injury crashes for bicyclists and pedestrians:

- » Broad St between 6th Ave and Martin Luther King Hwy
- » E McNeese St from Ryan St to Common St

Photo: W Prien Lake Road Bicyclist. Source: ATG|DCCM

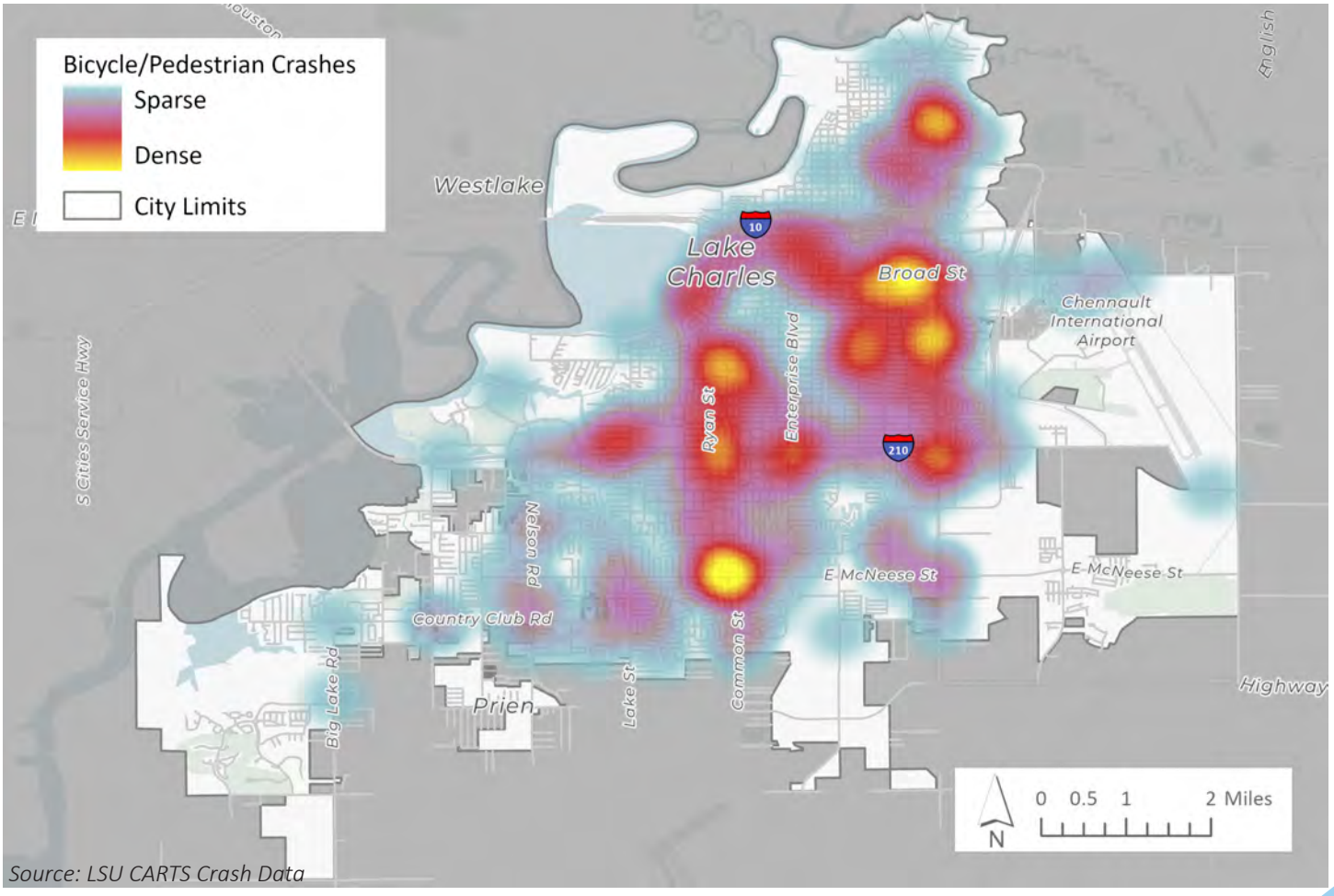
Why Speed Matters

Likelihood a pedestrian is killed or severely injured if struck at the following speeds:



Source: NHTSA Pedestrian Safety Month - Resource Guide (2022)

Figure 6: Fatal and Serious Injury Bike & Pedestrian Crash Hotspots, 2019-2023



Source: LSU CARTS Crash Data

See disclaimer on page 5.

Source: ATG|DCCM

Sight Distance

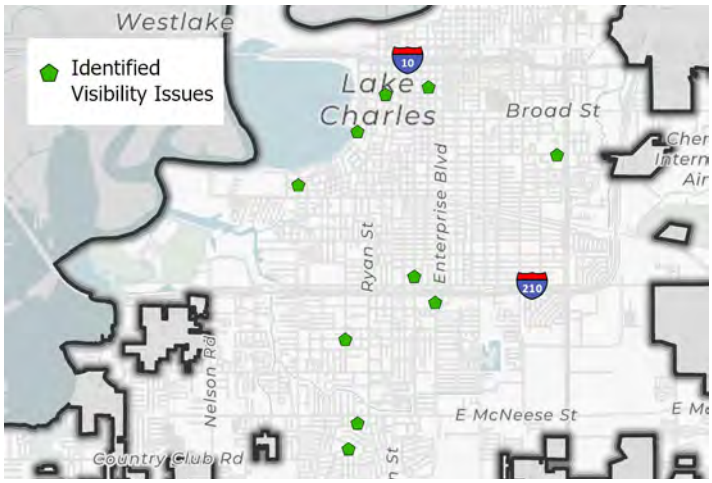
Visibility issues, such as when trees, signs, fences, or buildings block a driver's view, can create severe safety risks and lead to crashes. Overgrown vegetation, utility poles, and improperly parked vehicles can also obstruct sightlines, at intersections in particular.

Some of these issues can be addressed through local code enforcement by clearing vegetation, relocating signs, or restricting parking near intersections. When enforcement is not enough, planning and engineering teams can explore design solutions such as modifying curb lines, adjusting signal placement, or reconfiguring intersections.

Improving sight distance gives drivers more time to see, react to, and navigate safely through potential conflicts. This is especially important at pedestrian crossings, where limited visibility can prevent drivers from seeing people in the roadway in time to stop. High-visibility treatments, such as brightly marked crosswalks or enhanced signage, can reduce this risk by making pedestrian activity more noticeable from farther away.

Photo: Shrub obscures vision on Kirkman St and Dora St. Source: Google Street View.

Through public input and field review, several areas have been identified with limited sight distance.



Source: ATG|DCCM.

Some examples in Lake Charles include:

- State Street at Sheridan Street – A building on the northeast corner blocks visibility at the intersection
- Rosteet Street at 6th Street – Parked vehicles from nearby businesses limit drivers' line of sight
- Oak Lane at Ernest Street – An offset intersection layout reduces visibility for approaching traffic

In areas where minor physical improvements are not feasible, more extensive improvements, such and intersection realignments, may be necessary to increase visibility.

Other Factors

There are many other factors that are important to understand when evaluating crashes and crash patterns, such as weather, time of day, characteristics of drivers, road width, and speed limit. The following sections discuss findings for these additional factors.

Environmental Factors

Environmental conditions can contribute to crashes. The crash analysis found that fatal and serious injury crashes are about 34% less likely to occur in daylight compared to all crashes. Crashes are more likely to result in a fatality or serious injury when they occur at night, and nighttime conditions without lighting had drastically higher amounts of fatal and serious crashes. As for surface conditions, the analysis found little variance between crash severity based on wet or dry conditions.

Temporal Patterns

Crashes that occurred between midnight and 6 AM had a higher likelihood of being fatal or serious. When looking at crashes by day of the week, most crashes happen Monday to Friday, but the serious crashes tended to occur on Fridays, Sundays, and Mondays. Seasonally, the spring and summer months tend to see higher numbers of fatal and serious injury crashes.

Age

Out of the 18,821 total crashes reported in Lake Charles between 2019 and 2023, the proportion of crashes involving people aged 65 or older roughly matches their share of the population. However, around 37% of all crashes involved young drivers, although people aged 15 to 24 made up only 19% of the population. This suggests that young drivers are more likely to be involved in crashes. Neither older drivers nor younger drivers were more likely to be involved in fatal or serious injury crashes during the time period analyzed. However, age does typically correspond to higher fatal and serious injury crash rates. The Louisiana Strategic Highway Safety Plan (SHSP) includes strategies for addressing the issue of young and older individuals involved in serious crashes because it is a major concern across the state.

Alcohol

Of all crashes in Lake Charles, 940 (5%) were reported to involve alcohol.[2] Predicted alcohol crashes were 2.57 times more likely to result in a serious injury, and 7.38 times more likely to result in a fatality.

Number of Lanes

Roadways in Lake Charles with over three lanes have a higher likelihood of crashes, with an even higher likelihood of fatal and serious injury crashes. Half of all reported fatal and serious injury crashes occurred on four-lane roadways, while these roads accounted for less than 10% of overall system mileage. Almost 6% of fatal and serious injury crashes occurred on six-lane roadways, despite these accounting for less than 1% of overall system mileage. This may be due to higher speeds and volumes, a perceived sense of space encouraging faster driving, and increased lane-changing opportunities.

Posted Speeds

Although roads with speed limits of 50 mph or more make up just over 6% of the network, they account for nearly 13% of all crashes and 15% of fatal and serious injury crashes. This highlights the increased danger of higher-speed roadways.

Photo: Pedestrian in Lake Charles. Source: ATG|DCCM

[2] *LSU CARTS data uses the "predicted alcohol" field from law enforcement crash reports, which indicates when a driver's blood alcohol content is estimated to be ≥ 0.02%.*

See disclaimer on page 5.

Source: Adobe Stock

Nighttime Crashes

Although crashes occur most frequently during the afternoon rush hour, crash rates (or the proportion of crashes relative to traffic volume) tend to rise after dark, particularly in areas without adequate lighting. Limited visibility at night reduces sight distance and makes it harder for drivers to detect curves, intersections, or people walking and biking along the roadway. As a result, nighttime conditions can significantly increase the risk of crashes.

Although only around 20% of all crashes occurred at night, approximately 45% of fatal and serious crashes occurred during this time (from 6 PM to 6 AM). This shows that crashes occurring at night are much more likely to result in serious injury or death compared to crashes during the day.

In Lake Charles, the most common manner of collision for nighttime crashes is reported as "Not a collision between two vehicles." This is likely due to nighttime crashes more often involving a single vehicle running off the road or striking a pedestrian or bicyclist. Both of these types of incidents are more likely to result in serious injuries or fatalities.

Reducing nighttime crashes requires a combination of improved lighting and thoughtful roadway design. Adding or upgrading streetlights, increasing the visibility of crosswalks and road markings, and improving pedestrian and bike infrastructure can help create safer nighttime travel conditions for everyone.

Figure 7: All Crashes by Lighting

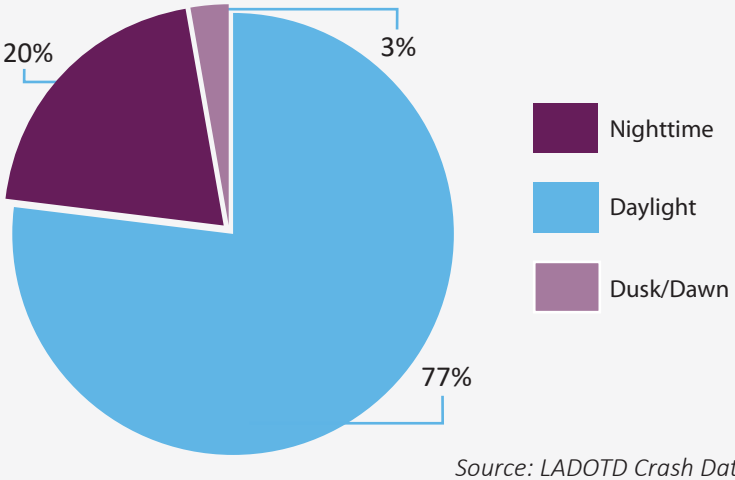
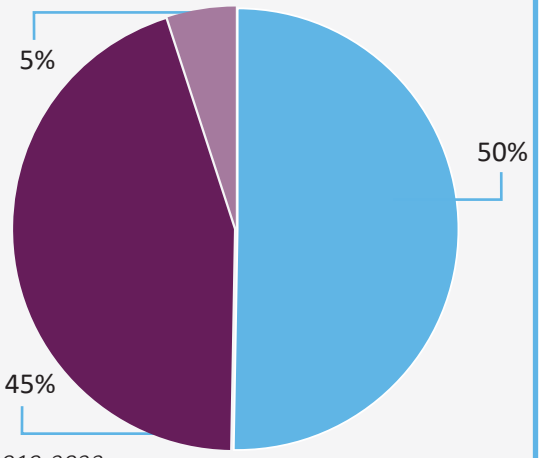


Figure 8: Fatal/Serious Crashes by Lighting



Source: LADOTD Crash Data, 2019-2023

High Injury Network

The High Injury Network (HIN) identifies where a relatively high number of fatal and serious injury crashes have occurred. The HIN for Lake Charles was developed to identify high-risk intersections and roadway segments within the city and prioritize them for project recommendations. By focusing on the HIN, efforts to improve transportation safety can have the highest impact.

The methodology used to develop the HIN involved reviewing crash data over the five year period from 2019 to 2023. Roadway segments and intersections with the highest rates of total crashes were identified and weighted based on severity.[3]

There are both local and state roads on the HIN, which underscores the necessity for cooperation between the City, LADOTD, and regional partners in addressing safety issues. HIN intersection locations are listed in Table 1 and roadway segments are listed in Table 2, in order of HIN crash rate. The entire HIN is illustrated in Figure 9 (page 23).

[3] *FHWA's person-injury unit costs. Crash Costs for Highway Safety Analysis, pg 63. Federal Highway Administration.*

Photo: Lake Street. Source: ATG|DCCM

The High Injury Network makes up 16 percent (80 miles) of the road network in Lake Charles.

Table 1: Lake Charles High Injury Network Intersections

Intersections	
Broad St & 6th Ave	Prien Lake Rd & Gerstner Memorial Blvd
W Prien Lake Rd & Ryan St	E Prien Lake Rd & Enterprise Blvd
Country Club Rd & Nelson Rd	College St & Ryan St
W McNeese St & Nelson Rd	I-210 S On/Off Ramp & Gerstner Memorial Blvd
Fruge St & S Martin Luther King Hwy/US 171	W Prien Lake Rd & Lake St
Broad St & Enterprise Blvd	E McNeese St & Common St
E Prien Lake Rd & Derek Dr	Taylor St/E Prien Lake Rd & Gerstner Memorial Blvd
Blackwell St & N Martin Luther King Hwy (US 171)	E McNeese St & University Dr
W Prien Lake Rd & Holly Hill Rd	Broad St & Gerstner Memorial Blvd
Enterprise Blvd & Pine St	Sale Rd & Ryan St
Belden St & Ryan St	W Sale Rd & Nelson Rd
12th St & 7th Ave	E Prien Lake Rd & Common St
Bienville St & Common St	E College St & Enterprise Blvd
1st St & Enterprise Blvd	E Prien Lake Rd & Louisiana Ave
W Tank Farm Rd & Big Lake Rd	University Dr & Lake St
Commercial St & Booker St	I-210 N On/Off Ramp & Nelson Rd
James Ct & Corbina Rd	E Prien Lake Rd & Kirkman St
E McNeese St & Gerstner Memorial Blvd	

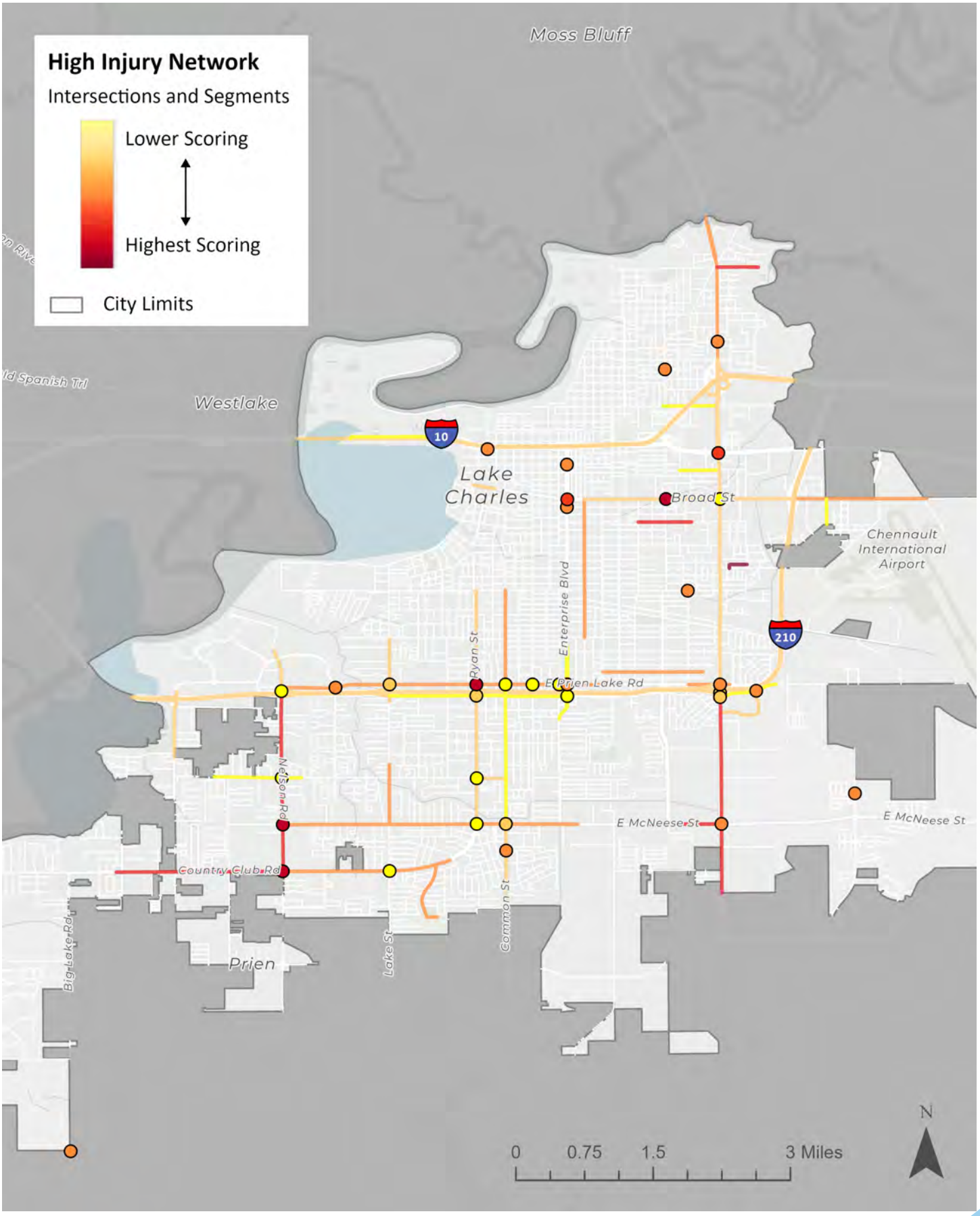
See disclaimer on page 5.

Table 2: Lake Charles High Injury Network (HIN) Segments

Road	From	To
Hinton Dr	Legion St	McNabb St
Nelson Rd	I-210	Country Club Rd
Fitzenrieter Rd	US 171	End
Gerstner Memorial Blvd	I-210	~Carlo Henry Rd
3rd St	4th Ave	~8th Ave
E McNeese St	~Bethel Presbyterian Church	Gerstner Memorial Blvd
Country Club Rd	~S Prien Lake Rd	Nelson Rd
W Prien Lake Rd	Nelson Rd	Lake St
Prien Lake Rd	7th Ave	~General Twining St
E Prien Lake Rd	Ryan St	~3rd Ave
Central Pkwy	University Dr	Avalon St
Country Club Rd	Nelson Rd	Jefferson Dr
US 171	N City Limits	I-10 Interchange
W Prien Lake Rd	Lake St	Ryan St
1st Ave	Broad St	18th St
Common St	12th St	I-210
W McNeese St	Nelson Rd	~Central Park Strip Center
22nd St	2nd Ave	Common St
Lake St	Quilty St	W McNeese St
E Broad St	I-210	Cappo Rd
US 171	I-10 Interchange	Broad St
Ryan St	I-210	E McNeese St
Lake St	W 18th St	~Briarwood Dr
Gerstner Memorial Dr	Broad St	I-210
I-10	E City Limits	W City Limits
Nelson Rd	~L`Auberge Blvd	I-210
Broad St	Lakeshore Dr	Bilbo St
I-210	E City Limits	W City Limits
E Sale Rd	Ryan St	Common St
Common St	E McNeese St	S City Limits
Ryan St	E Sallier St	I-210
Derek Dr	Gerstner Memorial Dr	~E Prien Lake Rd
Broad St	1st Ave	I-210
W Prien Lake Rd	~I-210	N Locke Point Dr
W Sale Rd	Burton Ln	Alma Ln
Opelousas St	Booker St	US 171
E Prien Lake Rd	Gertsner Memorial Blvd	~Venture Park Dr
College St	Lake St	~Enterprise Blvd
N Lakeshore Dr	I-10 Underpass	I-10 Off Ramp
Main St	E Broad St	Avenue J
Cline St	Kingsley St	US 171
Enterprise Blvd	~Oak Park Blvd	Louisiana Ave
Common St	I-210	E McNeese St

See disclaimer on page 5.

Figure 9: Lake Charles High Injury Network



See disclaimer on page 5.

Source: ATG|DCCM

Commercial Vehicles

Between 2018 and 2022, there were 451 crashes involving Commercial Motor Vehicles (CMVs) in Lake Charles. A crash is reported as involving a CMV when it includes a vehicle weighing over 10,000 pounds, designed to carry nine or more people, or used to transport hazardous materials.

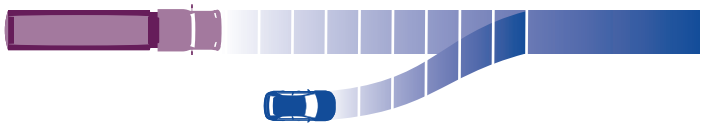
Several corridors in Lake Charles experience recurring CMV crashes. The highest concentrations are found on the following corridors:

- I-10 near the Belden St on-ramp
- I-10 at the interchange with Hwy 171
- W Sale Rd at Nelson Rd
- E Prien Lake Rd, at multiple intersections between Ryan St and Gerstner Memorial Blvd
- Hwy 171, from I-10 to the northern city limits

Because of their size and operating characteristics, CMVs interact with the transportation system differently than other vehicles. They often travel along freight-heavy corridors with multiple access points, increasing crash risk. According to the Federal Motor Carrier Safety Administration (FMCSA), understanding these differences is key to crash prevention. Like other types of crashes, CMV crashes can be prevented using the Safe System approach, which emphasizes layered strategies to reduce risk. Improving safety requires a mix of driver education, public awareness, and infrastructure strategies tailored to truck operations. This approach supports efficient freight movement and keeps the system safe for all users.

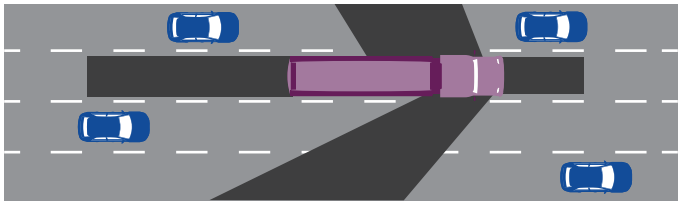
Longer Braking Time

Trucks need about 40 percent more distance to stop than a passenger vehicle. This longer braking time means that cars should avoid cutting in front of trucks.



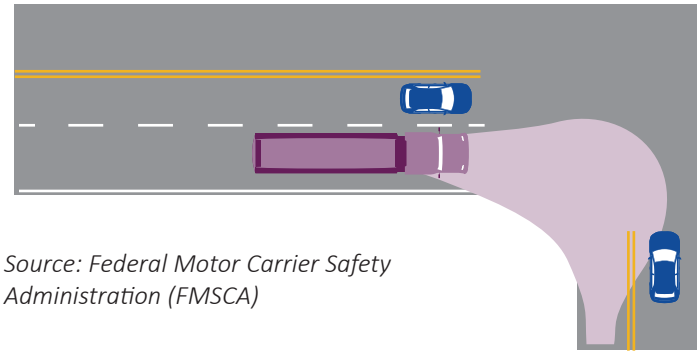
Blind Spots

Because of their size, trucks have large blind spots on all sides. Passenger vehicles can disappear from a truck driver's view in these zones. Drivers should avoid staying in these areas.



Larger Turning Radius

CMVs require a wider turning radius, often up to 55 feet. Tight corners or standard intersections can be difficult for large trucks to navigate, and surrounding road users should be prepared to yield space.



Source: Federal Motor Carrier Safety Administration (FMSCA)

4

Source: ATG|DCCM

Active Transportation

Active Transportation Improvements

Pedestrians, wheelchair users, and bicyclists are particularly vulnerable to serious injury when involved in crashes. Planning for and investing in high quality and city wide active transportation facilities is an important way to address safety issues for these vulnerable road users (VRUs), while also improving access and mobility.

This chapter presents the findings of active transportation analyses and carries forward the past and current efforts to improve the active transportation network in Lake Charles, with emphasis on safety for vulnerable road users. The City's goal in advancing bike and pedestrian network recommendations through its Safety Action Plan is to create safe and comfortable transportation and recreation options for community members. With this in mind, active transportation recommendations are made with "interested but concerned" users in mind – individuals of all ages and abilities that are willing to bike or walk if the infrastructure is safe and available for both transportation and recreational purposes.

Process for Developing Active Transportation Recommendations

Evaluate past active transportation plans and projects

Incorporate active transportation analysis on level of traffic stress, latent demand, and crash history

Evaluate potential recommendations using key data, best practices, and design guidance

Incorporate feedback received from public and stakeholder outreach

Prioritize active transportation improvements that are on the High Injury Network

Past Plans and Projects

The Lake Charles region has continuously worked to develop a multimodal transportation network that includes options for people walking and biking. Past planning efforts include the Lake Charles Bicycle and Pedestrian Master Plan, which was adopted in 2012. Projects from the plan that have yet to be completed were evaluated for level of priority and alignment with the Safety Action Plan's goals and vision.

In addition to the City's previous plan, the updated active transportation network recommendations (Chapter 6) also include or are informed by other planned and programmed projects with bike and pedestrian facilities, intersections, or related Complete Streets treatments at the state, parish, and local levels:

- Nine (9) active transportation projects from the Southwest Louisiana Regional Planning Commission's 2050 Metropolitan Transportation Plan
- Bike facility projects and over 100 sidewalk segment projects from the City of Lake Charles Capital Improvement Plan
- The One Lake Charles Bike Trail, a major active transportation project in development by the City
- The 2025 Bayou Greenbelt Master Plan

Active Transportation Data Analyses

The following analyses factor into the prioritization and identification of facility recommendations, especially when considering the required level of separation from vehicular traffic:

- Crash History
- Latent Demand
- Pedestrian Level of Traffic Stress (PLTS)
- Bicycle Levels of Traffic Stress (BLTS)

Chapter 3 describes the history of crashes involving pedestrians and bicyclists, while the following sections present information and findings from the Latent Demand, PLTS, and BLTS analyses.

Photo: Pedestrian push button in Lake Charles. Source: ATG|DCCM

Latent Demand Analysis

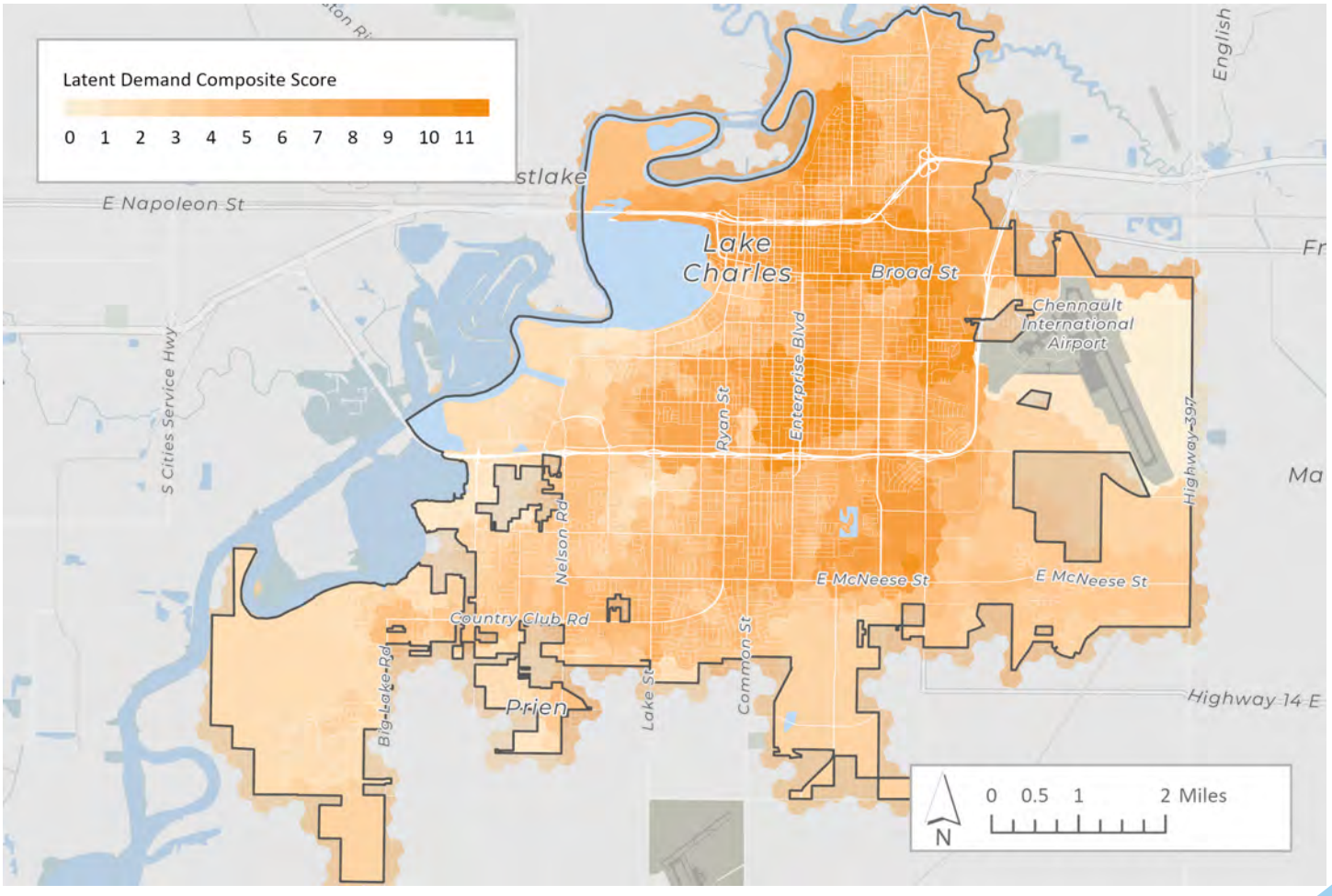
Latent demand is typically understood as a business concept: there is an existing but unmet desire for a product, service, or resource within a market. It represents potential demand that is unfulfilled for a variety of reasons including a lack of availability, awareness, affordability, or accessibility. In Lake Charles, there is latent demand for more active transportation options - bicycling and walking in particular - in a region largely designed for and dominated by the automobile. For some residents, they may have limited access to personal vehicles, or the cost of owning one may be prohibitive. Others may want to bike or walk more, but infrastructure is insufficient, unsafe, or nonexistent. The latent demand analysis supports the prioritization of future active transportation projects and investments.

The latent demand analysis combines and scores geospatial data on factors that represent the potential want and need for active transportation options:

- » Population and employment densities
- » Minority population
- » Senior population (over age 65)
- » Youth population (under age 18)
- » Zero-car households
- » Low-income households
- » Households with a disability
- » Commute modes
- » Proximity to community destinations (i.e. grocery stores, parks, libraries, schools, and health care)
- » Access to public transit
- » Proximity to existing active transportation facilities

Composite latent demand scores for the factors listed above are illustrated in Figure 10. Areas with the highest demand for active transportation facilities should be targeted for sidewalk and bicycle facility improvements that facilitate safe and well connected movement for vulnerable road users.

Figure 10: Latent Demand for Active Transportation Map



Pedestrian Level of Traffic Stress Analysis (PLTS)

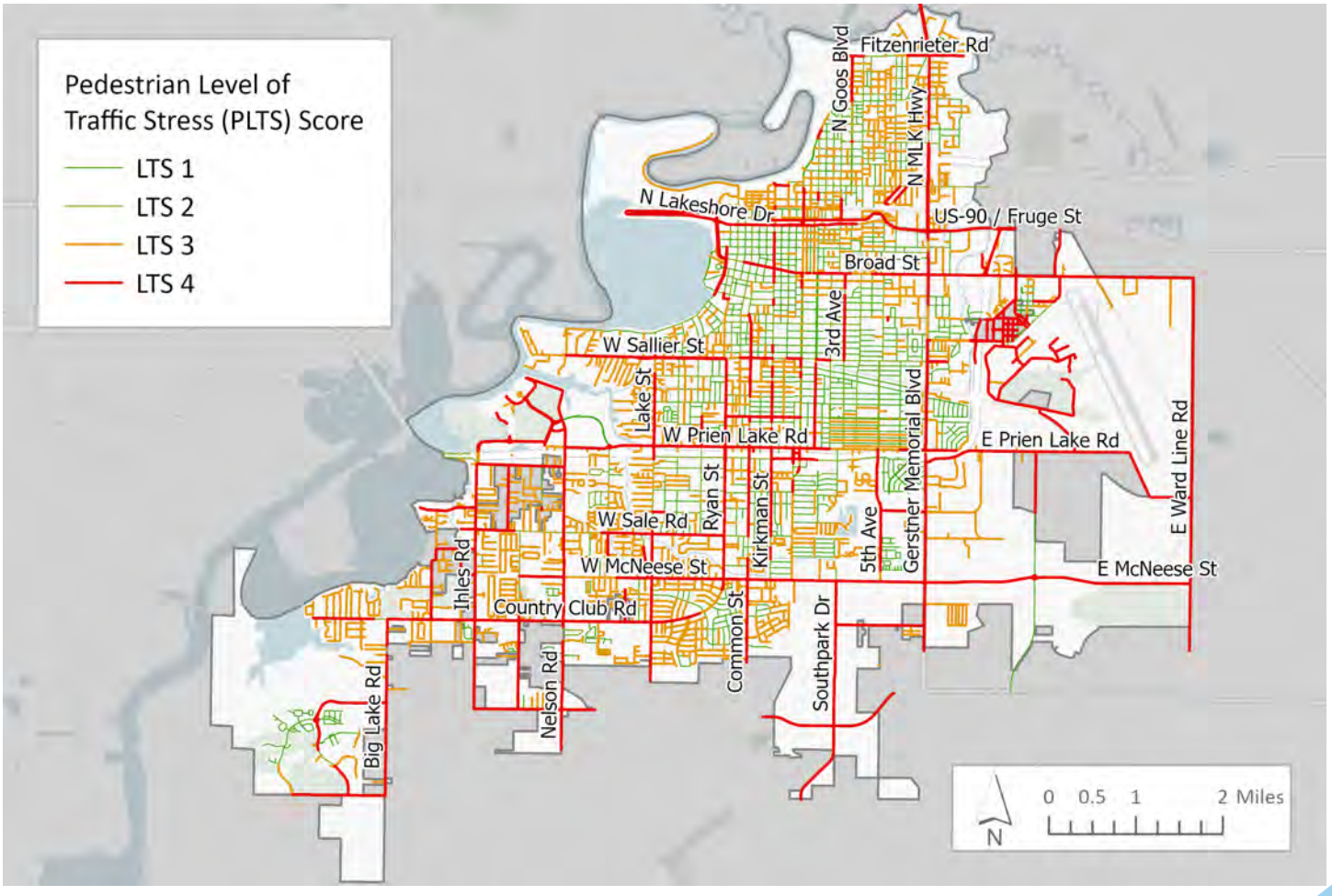
When walking on a given street, a pedestrian's level of comfort is largely determined by the roadway's characteristics. PLTS is determined by roadway speed, number of thru lanes, traffic volume, and the presence or lack of sidewalks and buffer space. This analysis focuses on variables that inform a pedestrian level of traffic stress, where roadways with several lanes, high traffic volumes, or high vehicle speeds may be especially stressful for pedestrians, particularly when there is no existing sidewalk. In general, roadways with a sidewalk are lower stress for pedestrians, even more so when there is a buffer between the pedestrian and traffic.

Figure 11 and Figure 12 show the breakdown of network PLTS scores. Most of the major thoroughfares in the city are high stress for vulnerable roadway users. In addition, gaps in the sidewalk network are an issue throughout the city, contributing to high PLTS. Segments with PLTS scores of four were the highest priority locations for review and project development (see Chapter 6).

Figure 11: Pedestrian Level Of Traffic Stress by Scores

1 Low Stress, High Comfort	Streets are pedestrian friendly, safe, and comfortable for users of all ages and abilities.	28% of Lake Charles roads (153 miles)
2	Buffers between pedestrians and traffic enhance comfort and encourage walking.	11% of Lake Charles roads (63 miles)
3	Walking is possible but often uncomfortable. Sidewalks may be inconsistent or missing, and roadway conditions create an uninviting walking environment.	39% of Lake Charles roads (216 miles)
4 High Stress, Low Comfort	Walking is very uncomfortable or impossible. There is little or even no accommodation for pedestrians, and only those without other options walk here.	21% of Lake Charles roads (116 miles)

Figure 12: Pedestrian Level Of Traffic Stress Map



Bicycle Level of Traffic Stress Analysis (BLTS)

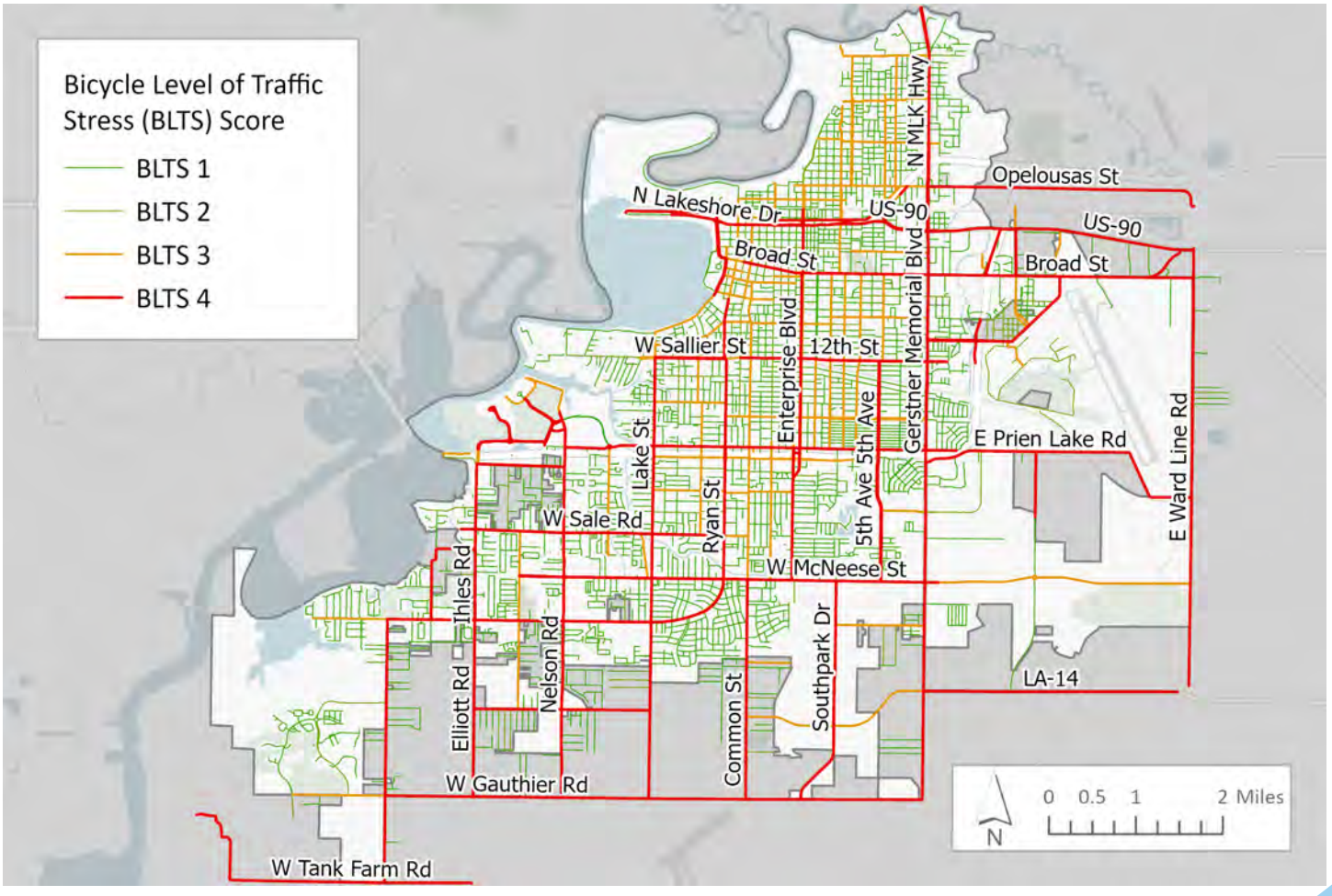
Similar to PLTS, Bicycle Level of Traffic Stress (BLTS) is influenced by roadway characteristics such as speed, number of lanes, and volume, as well as the presence or lack of dedicated bicycle facilities. Smaller, low volume, and low speed roads are low stress for bicyclists, while higher speed roads with heavy traffic and four or more lanes are high stress. Regardless of roadway characteristics, the presence of separated bicycle infrastructure creates a lower stress environment that enables more people to feel comfortable riding bikes.

The BLTS analysis found that the roadways that connect *between* neighborhoods, communities, and destinations in the city, including those on higher volume collectors and arterials, are consistently much higher stress for bicycle travel. This means that only a "strong and fearless" few feel comfortable even considering bicycling as a practical mode of transportation to destinations. Segments with BLTS scores of four were the highest priority locations for review and project development (see Chapter 6).

Figure 13: Bicycle Level Of Traffic Stress by Scores

1 Low Stress, High Comfort	Streets have fully separated bike lanes or are small local streets with little traffic and slower speed.	63% of Lake Charles roads (712 miles)
2	Streets are calm or have buffered bike lanes. Most adults feel safe riding here.	7% of Lake Charles roads (77 miles)
3	Streets are busy, but there are narrow bike lanes or usable shoulders. Only confident cyclists feel safe riding here, but they prefer to have their own space.	12% of Lake Charles roads (130 miles)
4 High Stress, Low Comfort	Streets are busy, wide, and fast with minimal or no dedicated bike facilities. Only the most confident cyclists with experience riding in mixed traffic would feel comfortable here.	19% of Lake Charles roads (209 miles)

Figure 14: Bicycle Level Of Traffic Stress Map



Facility Design Guidance

Developing active transportation facilities goes hand in hand with improving transportation safety for vulnerable road users. By updating and connecting past active transportation project recommendations based on demand and crash analyses, Lake Charles can continue to work towards the vision established by the Safety Action Plan with safe, robust infrastructure.

The Lake Charles Non-Motorized Design Guide (Appendix B) is a reference built upon current best practices published by Federal Highway Administration (FHWA), National Association of City Transportation Officials (NACTO), and American Association of State Highway and Transportation Officials (AASHTO).

The technical and design specifications from these publications helped to inform project details for the recommended active transportation projects that are listed in Chapter 6.

Public Feedback on Active Transportation

As described in Chapter 2, around 60% of the people surveyed indicated that they would like to walk or bike more frequently as a mode of transportation. This will only be possible if the active transportation network is well connected, comfortable, and safe to use. Public input provides insight into active transportation priorities that are incorporated into project recommendations. Common concerns included:

- » The current lack of pedestrian and bicycle facilities
- » The poor quality and condition of existing facilities
- » Lack of accessibility for wheelchair users

The recommendations that follow consider and seek to address each of these issues.

Proposed Network

The result of analysis and alignment with past efforts, design guidance, and public input is an updated active transportation network that supports the safe movement of pedestrians and bicyclists. With 313 projects (listed in detail in Appendix A), the recommended network includes 173 miles of sidewalks and bike facilities and 88 intersection improvements. The proposed network is shown in Figure 15 on page 31 (bicycle and shared use path facilities) and Figure 16 on page 32 (sidewalks).

Photo: Pedestrian sign in Lake Charles. Source: ATG|DCCM

Figure 15: Proposed Active Transportation Network (Bike and Shared Use Paths)

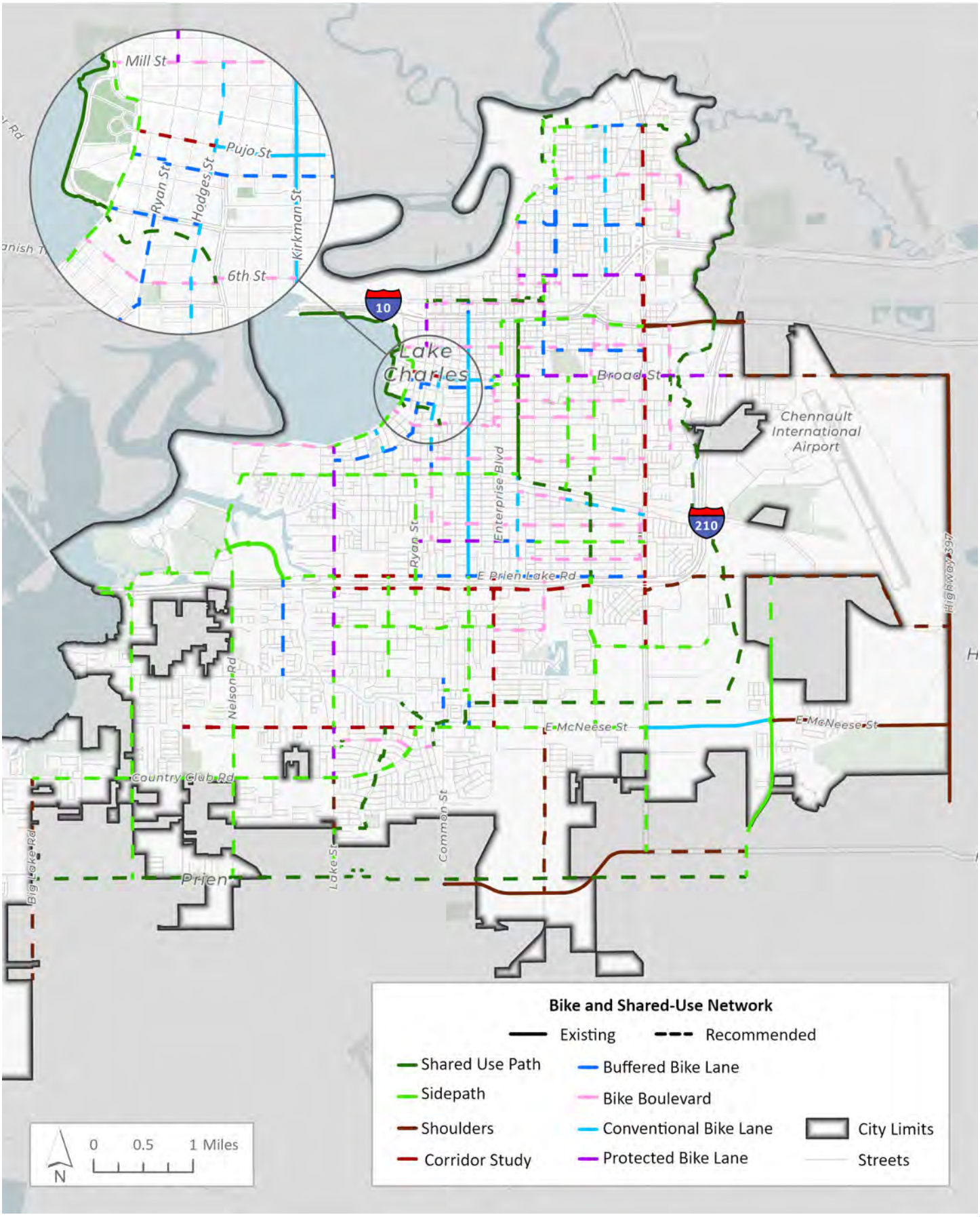
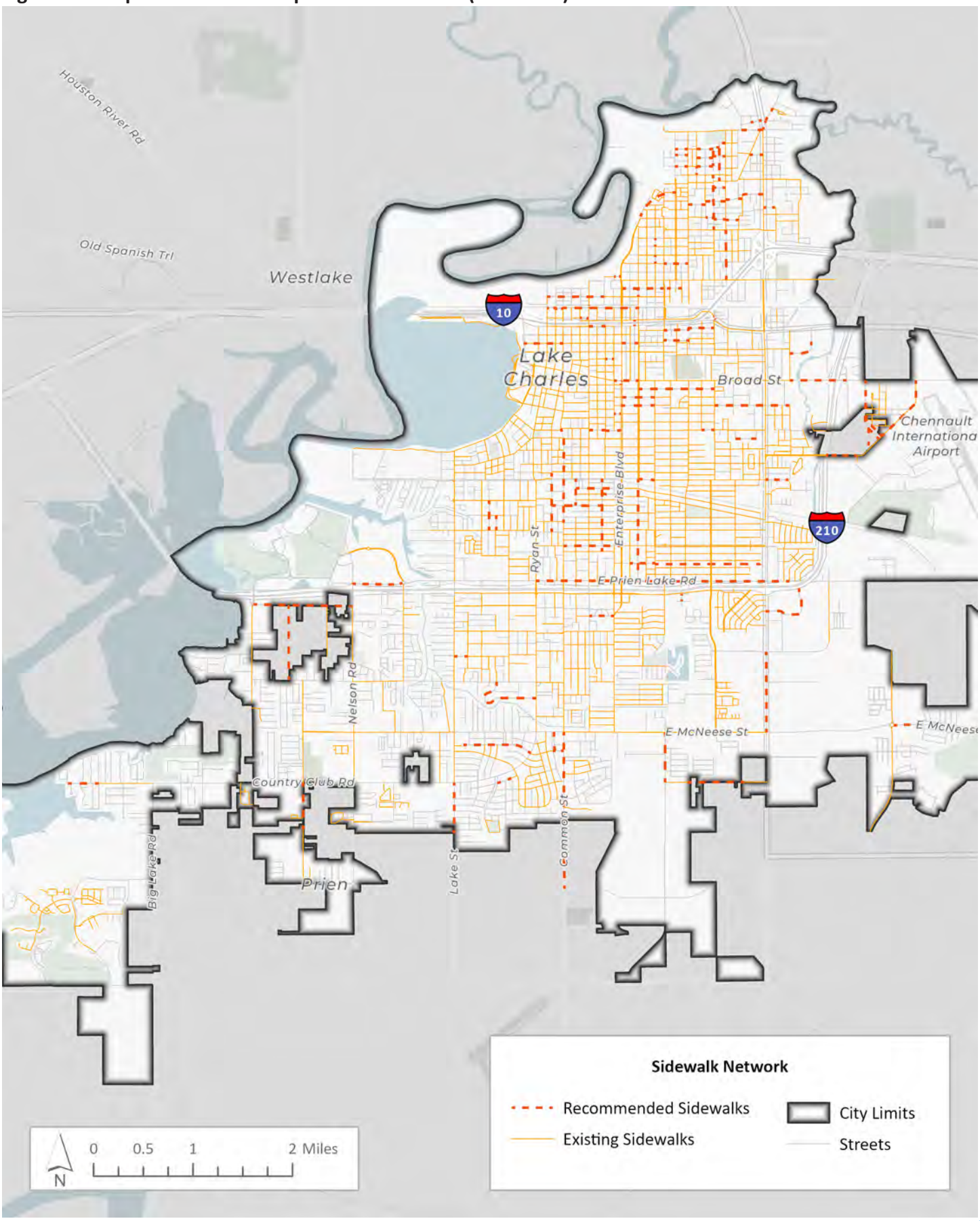


Figure 16: Proposed Active Transportation Network (Sidewalks)



Source: ATG|DCCM

5 Safety Countermeasures

Physical Countermeasures

The U.S. Federal Highway Administration (FHWA) has a list of twenty-eight proven safety countermeasures that support the goals of Vision Zero, an effort to eliminate traffic fatalities and serious injuries. The countermeasures are separated into categories that each address a safety focus area:

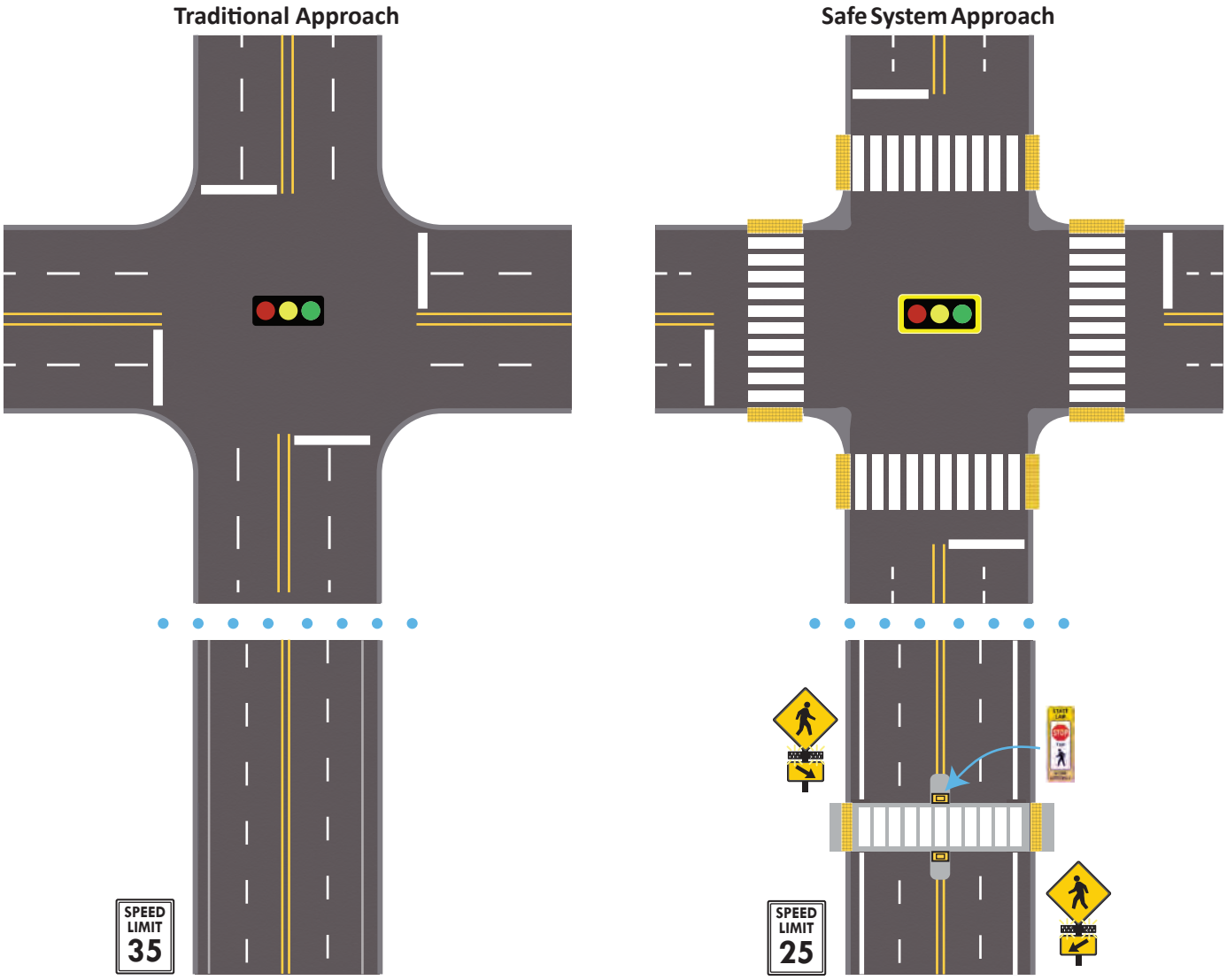
- » Speed Management
- » Pedestrian/Bicyclists
- » Roadway Departures
- » Intersections
- » Integrative Approaches

This chapter describes each countermeasure and its effectiveness. While these are not the only options available to improve safety conditions, they have been proven to be effective based on FHWA's case study research.[4] Countermeasure effectiveness is shown as Crash Reduction Factors (CRF), or the associated expected percentage decrease in crashes, according to FHWA's Crash Modification Factors Clearinghouse.

A shift in how we approach traffic safety requires a change in roadway design to prioritize human lives over all other factors. The past approach utilized designs with wide lanes and other characteristics that encouraged high speeds. To change the status quo, jurisdictions should use roadway design to manage speeds and support the safety of all users.

While some of the physical countermeasures described in this chapter require construction, there are several that are low cost and have a low barrier for implementation. Enhanced signage, pavement markings, lighting, and retroreflective backplates are all low cost strategies that can be used to retrofit existing roads for improved safety.

[4] *FHWA Proven Safety Countermeasures*



Proven Safety Countermeasures - Pedestrian and Bicyclist

Bicycle Lanes

Most fatal or seriously injured bicyclist crashes occur at non-intersection locations. Nearly one-third of these crashes occur when a motorist attempts to pass a bicyclist. Providing a dedicated bicycle lane reduces interactions, conflicts, and crashes between bicyclists and motor vehicles. See the Non-Motorized Design Guide for more information.

Crash Reduction Factor:

49% on 4-Lane Roadway

30% on 2-Lane Roadway

Source: ATG|DCCM

Medians and Pedestrian Islands

A median is an area between opposing lanes of traffic. Medians in urban areas can be defined by pavement markings or raised medians. A raised median can act as a pedestrian refuge island by allowing people to cross the road in two stages if necessary.

Crash Reduction Factor:

56% in Pedestrian Crashes

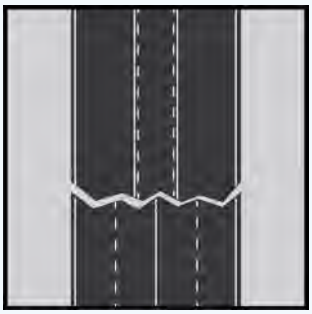
Source: ATG|DCCM

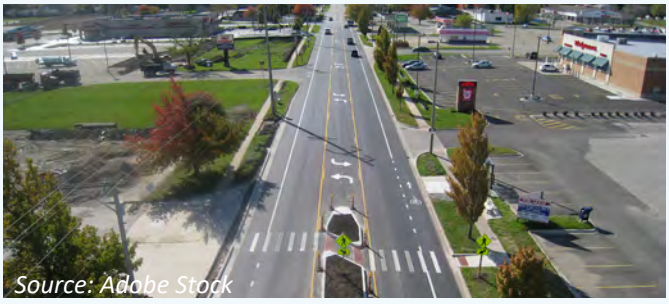
Road Diets

A road diet reconfigures a road to improve safety, calm traffic, and provide better mobility and access for all users. A road diet typically involves converting an existing four-lane undivided road into a three-lane roadway consisting of two thru lanes and a center two way left turn lane. This can also create additional space for installing sidewalks and bike lanes.

Crash Reduction Factor:

47%





Source: Adobe Stock

Crosswalk Enhancements

Crosswalk enhancements improve visibility for both drivers and pedestrians. Three types of enhancements are most effective: high visibility crosswalk patterns, additional lighting, and upgraded crosswalk signage and pavement markings.

Crash Reduction Factor:

42% in Pedestrian Crashes

Source: ATG|DCCM

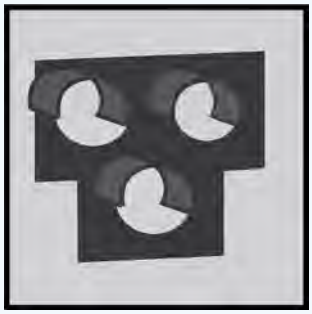
Proven Safety Countermeasures - Pedestrian and Bicyclist

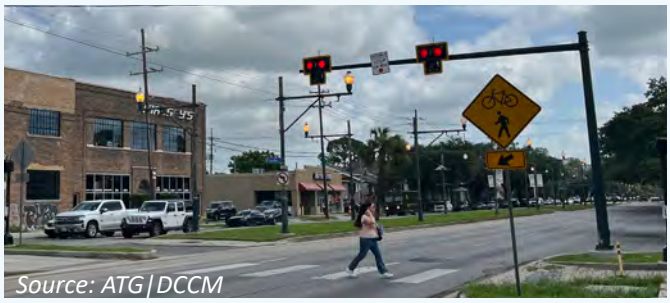
Pedestrian Hybrid Beacons (PHB)

Pedestrian hybrid beacons are used at mid-block crossings and uncontrolled intersections to help pedestrians safely cross higher-speed or wide roads. The PHB is activated by pedestrians and runs through a cycle that stops traffic while pedestrians are crossing.

Crash Reduction Factor:

29%





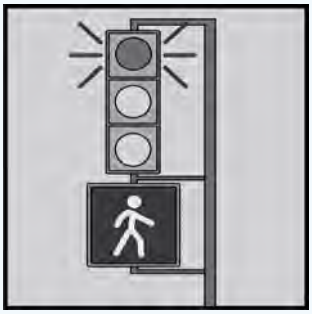
Source: ATG|DCCM

Leading Pedestrian Interval

Leading pedestrian intervals allow pedestrians to enter an intersection three - seven seconds before vehicles are given a green light. This gives pedestrians the opportunity to establish their presence before any vehicles enter the intersection.

Crash Reduction Factor:

13% in Pedestrian Crashes



Source: ATG|DCCM

Rectangular rapid Flashing Beacons

Rectangular rapid flashing beacons (RRFBs) are LED lights used on pedestrian warning signs to alert drivers of pedestrians entering a sidewalk. These are pedestrian activated and significantly increase visibility in all conditions.

Crash Reduction Factor:

47% in Pedestrian Crashes

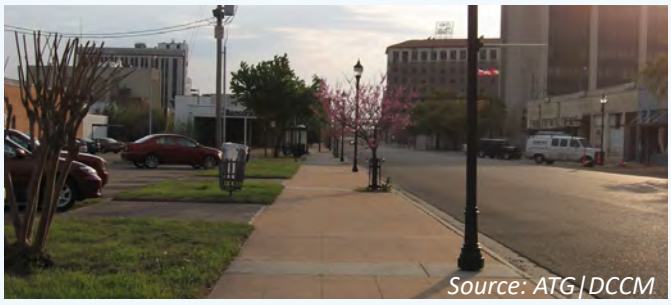
Source: ATG|DCCM

Walkways

Walkways are defined spaces for pedestrians to travel along roadways. These include sidewalks, shared use paths, or roadway shoulders.

Crash Reduction Factor:

71% in Pedestrian Crashes



Source: ATG|DCCM

Proven Safety Countermeasures - Roadway Departure

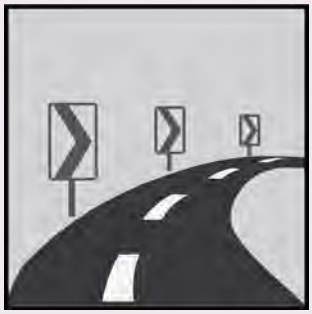
Enhanced Curve Delineation

Crash Reduction Factor:

38%

Enhanced delineation uses a combination of strategies to make horizontal curves safer and more visible. Potential strategies include:

- In-lane curve warning pavement markings
- Retroreflective strips on signposts
- Chevron signs
- Delineators



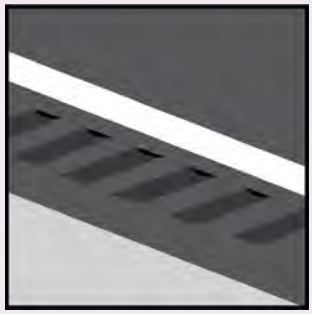
Source: Adobe Stock

Rumble Strips

Crash Reduction Factor:

20%

Longitudinal rumble strips are milled or raised elements on the surface of the road that alert drivers that their vehicle has left the travel lane, reducing roadway departure crashes. The rumble strips alert the driver through vibrations and sound.



Source: Adobe Stock

Roadside Design Improvements

Crash Reduction Factor:

22%

Design improvements at curves are used to reduce the frequency and severity of single-vehicle crashes involving roadway departures. Potential improvements include:

- Slope Flattening
- Widening Shoulders
- Metal-beam guardrails
- Unobstructed roadside areas

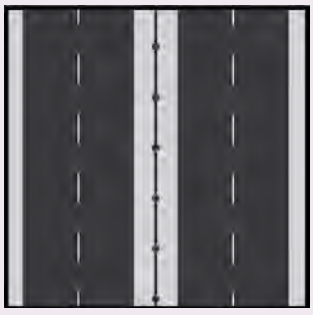
Source: ATG|DCCM

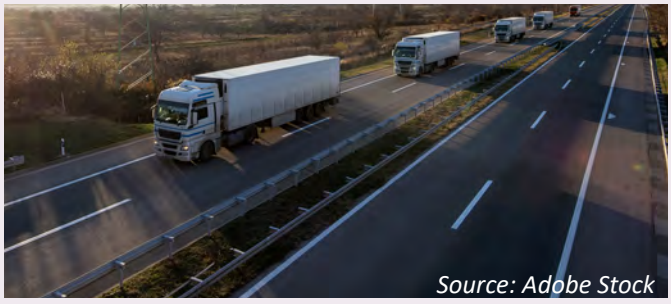
Median Barriers

Crash Reduction Factor:

39% in Fatal and Serious Injury Crashes

Median barriers separate opposing traffic on divided highways. Median barriers can significantly reduce head on crashes by preventing vehicles from crossing the median. Barriers can be constructed with cable, metal beams, or concrete.





Source: Adobe Stock

Proven Safety Countermeasures - Roadway Departure (Continued) and Intersection

Safety Edge℠

Safety Edge technology is used to eliminate vertical drop-offs on the sides of rural roads. A safety edge ensures the edge of the road will maintain a 30-degree angle as the land along the road erodes away. These edges also improve durability by reducing the edge raveling of asphalt.

Crash Reduction Factor:

21% in Run-off the Road Crashes

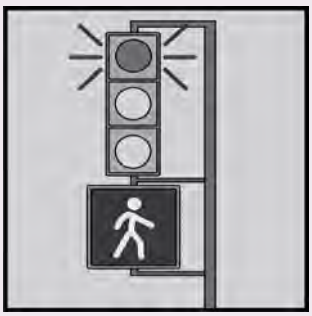
Source: Adobe Stock

Wide Edge Lines

Increasing the width of the white line on the edge of the road from the minimum normal width of four inches to the maximum width of six inches can greatly enhance the visibility of travel lane boundaries. This is a relatively low cost countermeasure that helps to address reduce roadway departure crashes.

Crash Reduction Factor:

37% in Fatal and Injury Crashes



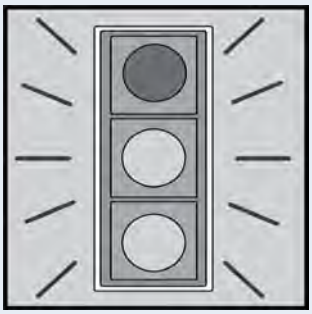
Source: Adobe Stock

Retroreflective Borders

Adding backplates with retroreflective borders to traffic signals can improve the visibility of traffic signals to drivers. Backplates can also alert drivers of an intersection if a power outage causes a signal to go dark.

Crash Reduction Factor:

15%



Source: ATG|DCCM

Corridor Access Management

Access management involves controlling the amount of entry and exit points along a roadway. This includes other roadways as well as driveways, as these are potential conflict points. Access management examples include raised medians, driveway consolidation, and turn lanes.

Crash Reduction Factor:

31% in Fatal and Injury Crashes

Source: ATG|DCCM

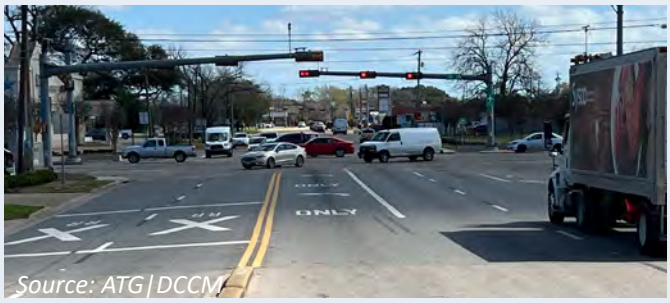
Proven Safety Countermeasures - Intersection

Dedicated Turn Lanes

Dedicated turn lanes can provide separation between turning traffic that is slowing or stopped and through traffic. Left or right turn lanes allow for deceleration prior to a turn, as well as storage of vehicles that are stopped and waiting for the opportunity to turn.

Crash Reduction Factor:

28%



Source: ATG|DCCM

Reduced Left-Turn Conflicts

Reducing left-turn conflict intersections involves altering intersection geometry to minimize the potential for high severity crashes. This is done through restricted crossing U-turn (RCUT) or median U-turn (MUT) designs. Both types utilize U-turns to reduce head-on and side collision crashes.

Crash Reduction Factor:

54% in Fatal and Injury Crashes

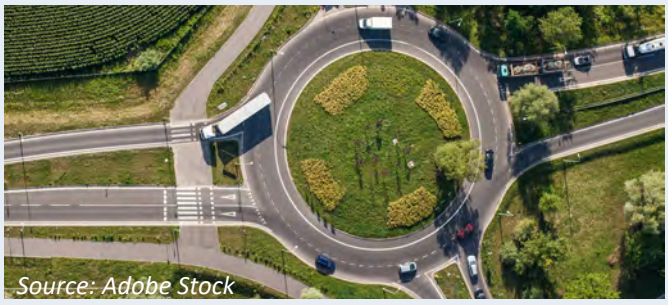
Source: Adobe Stock

Roundabouts

Roundabouts direct traffic counter-clockwise around a circular central island. The curved design of roundabouts encourages drivers to slow down and yield when entering the intersection, but the flow of traffic keeps moving. This is efficient for traffic operations and also minimizes fatal and serious injury crashes.

Crash Reduction Factor:

82% in Fatal and Injury Crashes



Source: Adobe Stock

Low-cost Intersection Countermeasures

Consistently combining low-cost countermeasures, including enhanced signing and pavement markings, at a large number of intersections can increase driver awareness and recognition of potential conflicts.

Crash Reduction Factor:

10% in Fatal and Injury Crashes

Sources: ATG|DCCM

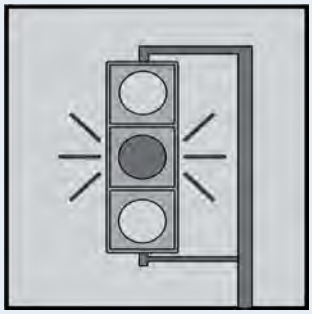
Proven Safety Countermeasures - Intersection (Continued) and Speed Management

Yellow Change Interval

The yellow change interval is the amount of time that a yellow signal indication is displayed at an intersection. Setting an appropriate amount of time for the yellow change interval can reduce crashes by lowering instances of red light running.

Crash Reduction Factor:

14%



Source: ATG|DCCM

Speed Limits

Appropriate speed limits are those that account for the safety of all roadway users in the context of a given corridor. This essential step should be paired with other speed management strategies to reduce fatalities and serious injuries.

Crash Reduction Factor:

16%

Source: ATG|DCCM

Variable Speed Limits

Variable speed limits are used to adjust the speed of traffic to account for changing roadway conditions. Speed limits are set based on real-time information about conditions such as congestion, work zones, crashes and inclement weather.

Crash Reduction Factor:

34%

Source: Virginia DOT

Speed Cameras

Speed cameras are used to enforce speed limits by capturing evidence of violations. There are three types of speed cameras: fixed, point-to-point, and mobile. Speed cameras can be especially effective when deployed in settings like school or construction zones, deterring speeding where students or workers may be present.

Crash Reduction Factor:

54%

Source: Adobe Stock

Proven Safety Countermeasures - Integrative Approaches

Lighting

At night traffic is normally much lighter, allowing drivers to travel at faster speeds. Providing adequate lighting at intersections, crosswalks, and along roadways can help drivers identify and avoid obstacles in the road as they travel at faster speeds.

Crash Reduction Factor:

38% in Nighttime Crashes

Source: Adobe Stock

Local Road Safety Plans

A local road safety plan provides a structure for identifying, analyzing, and prioritizing roadway safety improvements on local roads.

Crash Reduction Factor:

Varies

Source: Adobe Stock

Pavement Friction Management

Pavement friction treatments can help stabilize vehicles on the road and help reduce crashes in areas where vehicles are turning slowing or stopping. High friction surface treatment (HFST) can enhance skid resistance.

Crash Reduction Factor:

20%

Source: Adobe Stock

Road Safety Audit

Road safety audits are performed by a multidisciplinary team focusing on a particular roadway. Road safety audits consider the safety of all road users and account for human factors and road user capabilities to develop potential road projects.

Crash Reduction Factor:

Varies

Source: ATG|DCCM

Day Time Visibility

Sight distance, or the length of roadway a driver can see down the road, plays a key role in determining safety. Adequate sight distance gives drivers enough time to perceive upcoming road signs, traffic signals, pedestrians, and other vehicles. With proper sight distance, drivers have time to perceive objects, make a decision, and take action, such as slowing down, stopping, or changing lanes.

Improvements and regulations related to improving visibility or sight distance are sometimes referred to as "daylighting." This includes removing or preventing visual obstructions at intersection approaches and strategically adding visual contrast.

Examples include:

- » Preventing parking within 20–25 feet of an intersection through city wide policies as well as bollards, striping, or other physical markers
- » Ensuring trees and tree limbs are a minimum of five feet from an intersection
- » Installing pedestrian scaled lighting to increase visibility
- » Adding visual interest such as artwork and streetscaping that draws attention to high volume pedestrian crossings
- » Utilizing Rectangular Rapid Flashing Beacons (RRFBs) for mid-block crossings

Nighttime Visibility

At night, less traffic encourages faster speeds. This, in combination with higher rates of impaired driving, fatigue, and limited visibility makes nighttime conditions especially dangerous.

The crash analysis showed that while the majority of crashes in Lake Charles occur during the day time, crashes that occur at night in dark conditions (without lighting) are more likely to result in fatalities and serious injuries.

To reduce crashes and crash severity at night, countermeasures which improve visibility for drivers, reduce risk for pedestrians, and manage speeds should be considered.

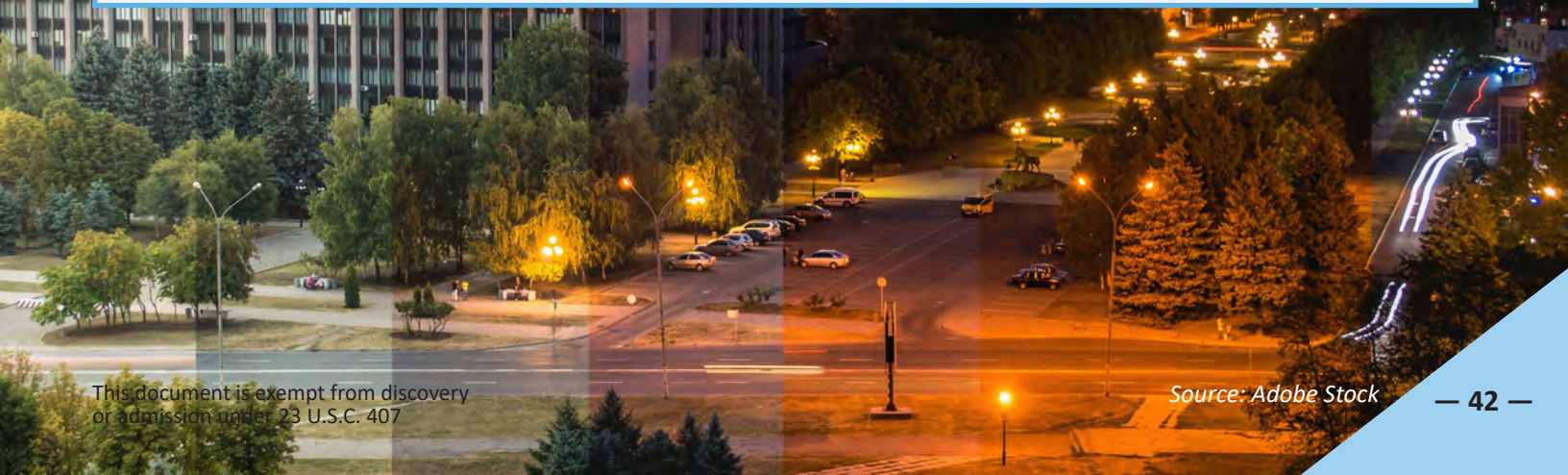
Nighttime visibility can be improved with lighting, RRFBs, high visibility crosswalks and other countermeasures that help to increase driver awareness of their surroundings.

Pedestrians are at a higher risk of injury or death in dark conditions. Because of this, it is important that pedestrians have adequate walkways and dedicated crossings that minimize the amount of exposure to spaces occupied by moving vehicles. Examples include:

- » Median refuge islands
- » Curb extensions
- » Sidewalks and shared use paths

What does speed and visibility have to do with stopping distance?

At night (or in low visibility conditions) and at faster speeds, drivers take longer to detect objects. In addition, the faster a vehicle is moving, the longer it takes to come to a stop. **Lower speeds allow for enough time and space to see, react, and stop for pedestrians during the day and night.**



Source: Adobe Stock

Non-Infrastructure Strategies

Proactive policies and programs that support and complement engineering interventions are essential in protecting all roadway users. Non-infrastructure strategies aim to create changes in behavior that work alongside changes to the built environment to create a safer transportation system. Grouped into the "5 E's" - education, enforcement, evaluation, encouragement, and engineering - these strategies, policies, and programs can be used to improve safety in a holistic manner.

Existing Non-Infrastructure Strategies

- **Louisiana Strategic Highway Safety Plan:** This LADOTD plan advances the state's Destination Zero Deaths initiative, which seeks to decrease fatalities and serious injuries on the state's roads with data driven and targeted traffic safety resources and strategies.
- **Regional Safety Coalitions:** These groups are involved at a regional level in transportation safety training and education, data evaluation, and engagement activities.
- **Louisiana's Complete Streets Policy:** This policy requires efforts to accommodate pedestrians, cyclists, and transit users on all new and reconstruction roadway projects as appropriate.
- **Lake Charles Code of Ordinances:** The city establishes speed limits, sidewalk standards and requirements, land use policies, and other codes that pertain to transportation safety.

Education

Education involves informing road users to increase awareness of how they can help prevent a crash from happening.

Awareness Campaigns

Awareness campaigns present an opportunity to further reach the community through online, print, radio, and television materials. For example, a campaign could raise driver awareness about "sharing the roadway" while also reminding bicyclists of their rights and responsibilities as they travel. In addition, media campaigns can also celebrate the opening or groundbreaking of new facilities, and usher them into the community.

Transportation Connection to Public Health

Motor vehicle crashes are the leading cause of injury among individuals 24 years old or younger, and the second leading cause of injury among adults 25 and older.[4] Because of this, public health officials are becoming more involved in transportation and land use planning as a public health issues. Both the health and transportation sectors have the core goals of preventing and reducing injuries.

One objective of the Safe System Approach is Post Crash Care, which aims to enhance the survivability of crashes through emergency medical care and the prevention of secondary crashes. First responders and medical personnel play an important role in transportation safety and provide insight into human vulnerability to crashes.

Transportation projects can bring other positive public health benefits as well. Projects that provide dedicated space for pedestrians and cyclists not only improve safety, but also enable more physical activity for the community. Transportation projects and policies such as Complete Streets can also be a tool for reducing traffic, pollution exposure, and even crime. The Lake Charles Safety Action Plan incorporates feedback from public health stakeholders and seeks to facilitate continued coordination that supports a healthy and safe city.

Source: Adobe Stock

[4] *Source: The Safe States Alliance, "The Public Health Approach to Risky Driving" AAA Foundation for Traffic Safety, 2019.*

Bicycle Education

These programs are a great way to educate the public about bicycle skills, safety, and use of bicycles for transportation. This might include working with advocacy organizations and agencies to provide bicycle and safety education, including bike light and helmet resources.

Media Narrative Training

Training journalists on how traffic conditions are reported involves making changes to how crashes are discussed in media. Shifting to acknowledge the active role of drivers and infrastructure in safety incidents, as well as reframing "accidents" as "crashes" reminds the community that crashes are not inevitable.

Encouragement

Encouragement works by motivating people to make safe choices, take certain actions, or put into practice skills that they have learned.

Open Street Initiatives

Open Street initiatives are temporary closures of public streets to motor vehicle traffic and designed in coordination with a municipality to provide the public access to streets for walking, biking, and recreation. These initiatives may include street festival activities as well as activities to promote walking and biking, and to expose attendees to the economic, health, and social benefits of active transportation.

Employer Incentive Programs

The location where individuals are employed often directly impacts their travel behavior. Employer incentive programs are a tool for public and private employers interested in encouraging their employees to walk or bike to work. Incentives can be physical such as loaner day trip bikes and secure bike parking, or monetary (e.g., transit vouchers or a monthly stipend).

Enforcement

Enforcement involves the fair application of laws that apply to motorists, bicyclists, and pedestrians to make trips safer for all users. Education and encouragement for safe and lawful travel behavior should be accompanied by real consequences for dangerous and unlawful behaviors.

Ordinance Enforcement

Laws, enforcement procedures, and penalties should be stringent enough to influence motorist behavior. Key ordinances and citation structures that should be evaluated include speed limits, safe passage ordinances, crosswalk encroachments, and right-of-way violations.

Law Enforcement Training

Law enforcement officers are champions of safety when equipped with the appropriate training. Law enforcement training should include knowledge of bicycle and pedestrian facilities in their jurisdiction, current bicycle and pedestrian laws at the local and state levels, common collision types and locations, and community education program opportunities. In addition, officers should review protocols for properly completing collision forms when pedestrians and bicyclists are involved. Such protocols ensure the necessary details of the crash are properly recorded for later crash analyses.

Evaluation

Evaluation and monitoring of key performance metrics assesses the efficacy of safety improvement projects to understand their impacts.

Project Implementation

Prioritizing project implementation allows the city to complete the most important and effective improvements first. By creating a list of projects ranked by importance and need, initial project phasing/scheduling can be implemented to give the community an idea of what to expect and when improvements will take place. Project implementation should be documented to track progress towards achieving the plan's goals and vision.

Access to detailed data on crashes is a requisite for developing, prioritizing, and implementing safety projects. As projects are implemented, it is also important that crash data continues to be collected and analyzed so that the impact of safety improvements can be quantified and measured.

Engineering

Engineering refers to the creation of physical improvements to the transportation network to promote safety and accessibility for all users. The practices below are included here as "non-infrastructure" because they can be implemented at a wider scale than individual construction projects through policy actions.

Planning, Zoning, and Development Ordinances

To ensure that the built environment supports system-wide safety, the Development Code can include requirements for sidewalks and bike facilities, traffic calming measures, street lighting, and crosswalks. Other tools to manage the built environment include zoning regulations and land use planning. These tools and regulations can guide the design and physical characteristics of the City towards safety

Speed Management

Policies can be used to establish lower speed limits. Additionally, support for reducing speed limits when a neighborhood requests a change moves the city further towards a safer transportation system.

The Technical Advisory Committee (TAC) identified the following non-infrastructure strategies as the most important for improving safety in the City:

Data Collection and Reporting

While obtaining comprehensive local road crash data is time and resource intensive, the collection of crash details enables the city to analyze and pinpoint safety issues. In addition, crash data is used to demonstrate the change in fatalities and serious injuries over time. For these reasons, is necessary to continuously evaluate, train, and improve methodology to ensure that officials have access to adequate crash data.

Speed Management

Perhaps one of the most important strategies to reduce traffic fatalities and serious injuries is ensuring that speed limits are safe and contextually appropriate. Speeding is a safety concern across all road types and users. Speed management can be implemented through policy changes, high visibility speed enforcement activity, speed feedback trailers/signs, additional signage, and awareness campaigns.

Local Land Use Planning or Zoning Initiatives

Land use and zoning are tools that can be used to support active transportation and overall safety. Land use should be designed to protect vulnerable users. Examples include: sidewalk requirements/standards, bicycle parking, maximum block lengths, reduction or elimination of parking minimums, and orientation of entrances to reduce conflict points. Special zones can also be created to add unique provisions on top of existing zoning regulations.

Public engagement activities highlighted the following as major issues observed in Lake Charles, which require non-infrastructure strategies to address:

Distracted Driving

Of those surveyed, 56% identified distracted driving as one of the top traffic safety issues in their community. Moreover, 69% reported that they had recently observed drivers using a phone while driving. Distracted driving is dangerous, and it is not limited to cell phone use. Anything that takes attention away from driving (eating, adjusting controls, passenger conversations, etc.) increases the risk of crashes. One of the Safe System Approach principles is that responsibility for safety is shared, including vehicle drivers and passengers. Widespread education about the risk of distracted driving is one way to address this issue (e.g. Louisiana's Graduated Driver Licensing (GDL) program or Destination Zero Deaths "Buckle Up, Phones Down"). At large, a cultural behavior change regarding distracted driving is necessary. Enforcement of cell phone laws is also an important strategy for addressing distracted driving.

Aggressive Driving

Aggressive driving actions include excessive speeding, tailgating, making unsafe lane changes, blocking cars from passing, and running red lights. Over half of survey respondents reported that they had recently observed aggressive driving behaviors in Lake Charles. To address this issue, reckless driving laws and enforcement are essential, along with public information and awareness campaigns. Tailored messaging and sanctions for repeat offenders will also help to deter aggressive driving behaviors.

6

Source: ATG|DCCM

Action Plan

This chapter provides specific actions for the City of Lake Charles to take in order to achieve the vision of eliminating traffic fatalities and serious injuries. Because this plan follows the Safe System Approach, which calls for shared responsibility for safety, coordination with other agencies and organizations is critical. Examples include the Lake Charles Metropolitan Planning Organization (MPO), Calcasieu Parish, Southwest Louisiana Regional Planning Commission (RPC), law enforcement, medical professionals, and others.

Action items are divided into physical projects and non-infrastructure strategies. Both are necessary to prevent and minimize the severity of crashes.

This chapter also describes ways in which the city will maintain transparency with the public on progress implementing the action plan.

Physical Projects

The physical projects in this section were developed through evaluation of crashes on the High Injury Network (HIN), input from the public and stakeholders. These infrastructure projects incorporate FHWA's Proven Safety Countermeasures (see Chapter 4).

Risk Identification

1. High Injury Network (HIN) identification based on crash data
2. Location condition evaluation (e.g. speed limits, crash factors, behaviors)
3. Public input about issues and concerns

Intervention Development

1. Countermeasure selections
2. Location specific project descriptions
3. Project prioritization

Project Prioritization

The project prioritization process includes factors for safety, multimodal transportation, and input from the public and TAC. Each project is scored and ranked based on the rubric shown in Table 3. The maximum amount of points that a project can receive is 18. Projects that scored 12 or above are considered to be high priority projects, with a suggested implementation time-frame of 0 to 5 years. Projects that scored between 9 and 10 points are medium priority, with an implementation time-frame of 6 to 10 years. Lastly, projects with scores of 8 or below have a recommended implementation time-frame of greater than 10 years. This prioritization method was used to order the project lists in Table 4. This prioritization rubric is also the basis for ranking the active transportation projects listed in Appendix A.

Table 3: Prioritization Rubric

Factor	Criteria	Score
Vulnerable Road Users and Latent Demand	Latent Demand of 8+ or within an identified LADOTD Vulnerable User Target Analysis Area	2 OR 4
	Latent Demand score of 10+	
System Safety	On the High Injury Network	4 OR 6
	On the top 5 HIN	
Bike and Pedestrian Safety	Within 250 feet of fatal/serious bike or pedestrian crash OR Within 250 feet of 2 or more bike or pedestrian crashes	2
Public Engagement	Identified as a safety concern by public input process (within 100 feet)	2
Connectivity	Identified as a key connector or connectivity area by project team or Technical Advisory Committee	4

LADOTD's Vulnerable Road User (VRU) Assessment: https://destinationzerodeaths.com/application/files/4417/4534/7793/LADOTD_Vulnerable_Road_User_Assessment.pdf

VRU Safety Assessment Polygon Planning Tool: https://experience.arcgis.com/experience/184b586cca6a4cf7bb010010dd3c1a66

Table 4: Recommended Roadway Safety Projects

ID	Location	Description	Cost Estimate	Time Frame
R1	1st Ave from Broad St to 18th St	Install gate arms at the railroad crossing between 12th and 13th St, and install stop signs and striping as necessary in the median.	$607,000	High
R2	Broad St from Enterprise Blvd to I-210	Implement a road diet and install signal head retroreflective backplates.	$432,000	High
R3	Common St from W McNeese St to Sale St	Conduct a corridor study and implement a road diet.	$113,000	High
R4	Country Club Rd from S Prien Lake Rd to Jefferson Dr	LADOTD project H.011242: Construct sidewalks and crosswalks, convert to a 4-lane divided section from Jefferson Dr to Nelson Rd, and construct a 2-lane section with a two-way left-turn Lane and intersection turn lanes from Nelson Rd to S Prien Lake Rd.*	$40,000,000	High
R5	E McNeese from Ryan St to Gerstner Memorial Blvd	Install retroreflective backplates at signalized intersections.*	$29,000	High
R6	E Prien Lake Rd from Ryan St to Gerstner Memorial Blvd	Conduct a corridor study, conduct an intersection study at Louisiana Ave, implement a road diet, replace signal heads, and install signal head retroreflective backplates.	$977,000	High
R7	E Sale Rd from Ryan St to Common St	Extend the left-turn lane at Ryan Street.*	$62,800	High
R8	Enterprise Blvd from Rosetta St to Oak Park Blvd	Restripe the roadway, remove permitted left-turn phasing, install retroreflective backplates on signals, apply high-friction surface treatment at East Prien Lake Rd, and construct crosswalks at Alamo St.	$477,000	High
R9	Gerstner Memorial Blvd from Fruge St to Red Davis McCollister Rd	Conduct a corridor study, implement corridor access management which includes limiting left turns at identified intersections, construct crosswalks, and install retroreflective backplates at signals.*	$4,039,000	High
R10	Lake St from W McNeese St to W 18th St	Conduct a corridor study and intersection traffic study, and install signal head retroreflective backplates.	$686,000	High
R11	Martin Luther King Hwy from Opelousas St to English Bayou	Conduct a corridor study, implement corridor access management, and install retroreflective backplates at signals.	$1,305,000	High
R12	Nelson Rd from Country Club Rd to Contraband Pkwy	Conduct a corridor study, implement corridor access management, and install retroreflective backplates at signals. At the I-210 Westbound ramp intersection, construct raised medians, restripe the intersection, and replace signal heads at the off-ramp.*	$1,539,000	High
R13	Ryan St from W McNeese St to W Sallier St	Conduct a corridor study and install signal head retroreflective backplates.*	$668,000	High
R14	W College St from Lake St to Enterprise Blvd	Restripe the roadway.	$63,000	High

ID	Location	Description	Cost Estimate	Time Frame
R15	W Prien Lake Rd from Nelson Rd to Ryan St	Conduct a corridor study, conduct an intersection study at Lake St, implement corridor access management, construct a pedestrian bridge over Bayou Contraband, replace signal heads, and install signal head retroreflective backplates*	$ 5,645,000	High
R16	3rd St from 4th Ave to Gerstner Memorial Blvd	Construct a sidewalk.	$275,000	Med
R17	Cline St from Kingsley St to Martin Luther King Hwy	Restripe the roadway centerline and install raised pavement markings.	$4,000	Med
R18	Common St from Link Rd to W McNeese St	Conduct a corridor study and implement corridor access management.	$663,000	Med
R19	Opelousas St from N Booker St to Martin Luther King Hwy	Restripe the roadway, install raised pavement markings, and install signal head retroreflective backplates at MLK Hwy.	$36,000	Med
R20	W McNeese from Nelson Rd to Ryan St	Conduct a corridor study, improve pavement markings, and install signal head retroreflective backplates.	$500,000	Med
R21	Common St from E Prien Lake Rd to 12th St	Restripe the roadway, install raised pavement markings, install retroreflective backplates, and construct a roundabout at East Prien Lake Road.	$ 6,107,000	Low
R22	Fitzenreiter Rd from Martin Luther King Hwy to End (east)	Mill and overlay asphalt pavement.	$373,000	Low

** Projects marked with an asterisk currently have proposed projects at "Stage 0" through LADOTD. Stage 0 is the beginning of the project delivery process, and involves a feasibility study to determine if the project should move forward towards implementation. Though there is an existing project concept, it may not currently include safety measures. LADOTD projects that are determined to be feasible and selected to advance in the delivery process should be evaluated for inclusion of the safety components listed in this plan.*

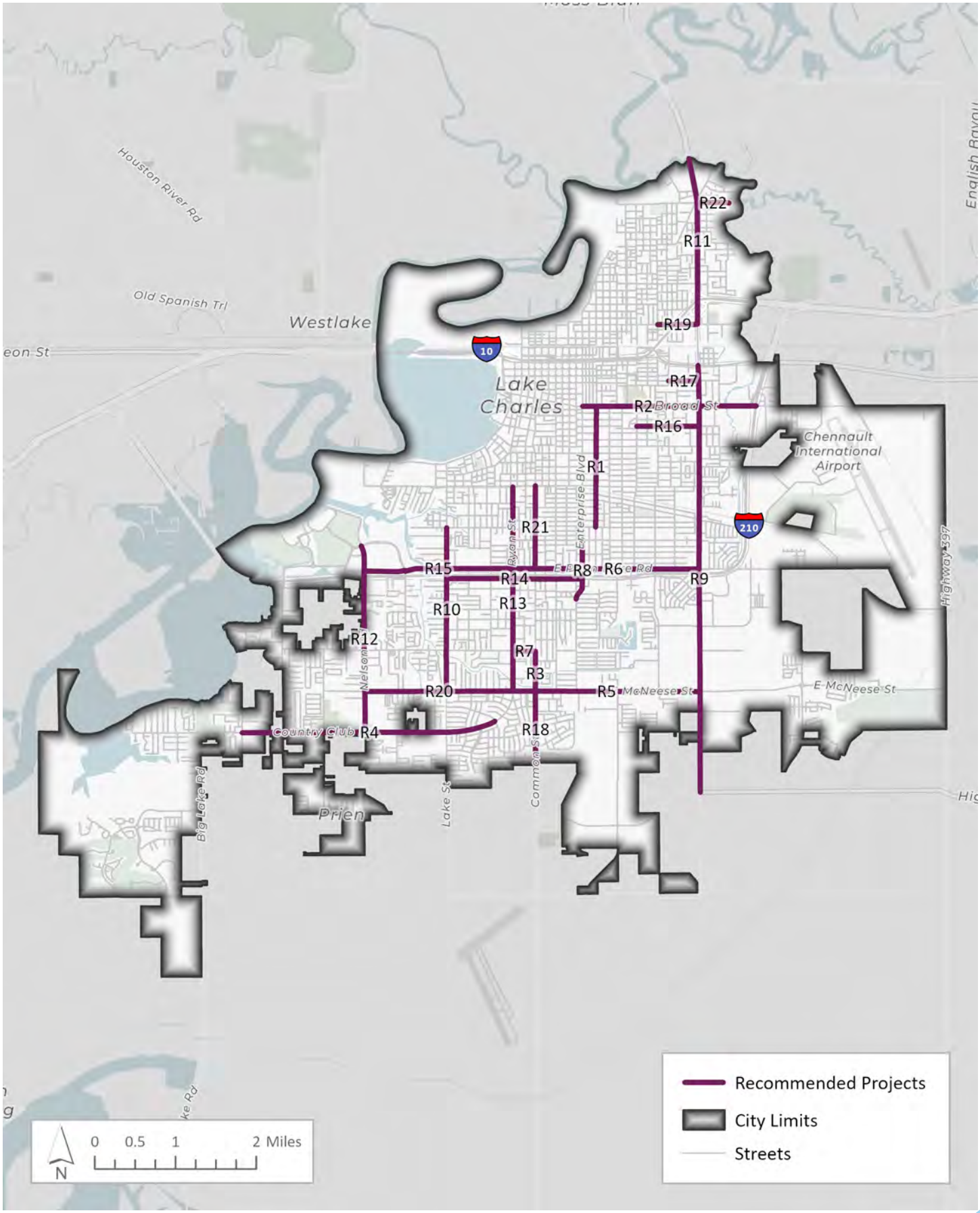
The following pages provide more information and context for each of the 22 safety projects. Each roadway safety project has associated or nearby recommendations for active transportation improvements (described in Chapter 5). The pages that follow describe roadway safety project context and details, with project IDs listed for active transportation improvements and any LADOTD stage 0 projects, as applicable. For more details on the active transportation projects, see Appendix A, which includes tables and maps showing:

- » Intersection improvement projects
- » Sidewalk projects
- » Shared use paths and bicycle projects

Each project has an associated project cost, which are rounded estimates with a 20% contingency for planning purposes and do not include professional services, right of way, or utility relocation. Cost values are intended for planning purposes only.

The estimated impact for each project is shown as crash reduction percentages, which are based on data from FHWA'S Crash Modification Factor Clearinghouse. These estimates are for informational purposes only.

Figure 17: Recommended Roadway Safety Projects



Project ID: R1

1st Ave

from 18th St to Broad St

Length: 1.50 mi | Cost: $607,000 | High Priority

Context

This segment of 1st Avenue has a posted speed limit of 35 MPH and had an Annual average daily traffic (AADT) of around 2,200 vehicles in 2024. The train crossing south of 12th Street has no guard arms and poor visibility that present significant hazards. Along the 1st Avenue Trail, the width of the medians make it unclear for drivers where they should stop, when they have the right of way, or how they should interact with trail users. Adding stop signs within the medians will prompt crossing drivers to slow down and reduce the likelihood of a crash with a pedestrian or another vehicle.

Between 2019 and 2023, this segment had:

9 total crashes
2 fatalities

See Also:

Intersection recommendation: X2
Sidewalk project: S25
Bike/Shared Use Path project: B1

Recommendations

» Install gate arms at rail road crossing to provide better visibility of the railroad and limit the ability to cross when a train is approaching
» Install stop signs and striping as necessary in the median

15% Crash Reduction

Project ID: R2

Broad St

from Enterprise Blvd to I-210

Length: 2.00 mi | Cost: $432,000 | High Priority

Context

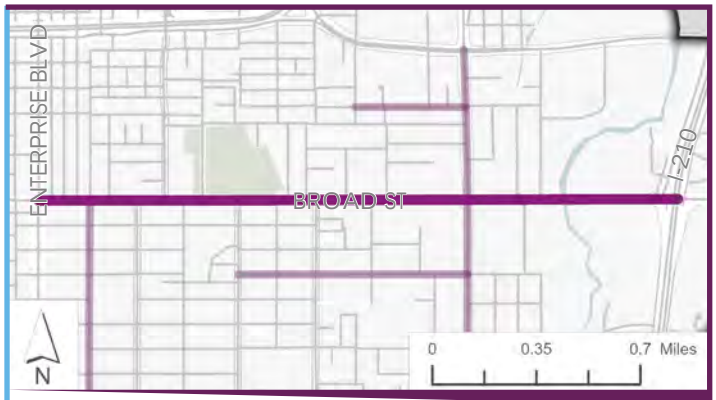
This segment of Broad has posted speed limits of 35 - 45 MPH and an AADT of around 9,300 vehicles in 2025. There were 263 crashes on this segment between 2019 and 2023, including 9 crashes involving bicyclists or pedestrians and 3 fatalities. A road diet will provide a center turn lane which reduces turning conflicts, as well as create space for robust bike and pedestrian facilities.

Between 2019 and 2023, this segment had:

263 total crashes
3 fatalities
3 serious injuries

See Also:

LADOTD Project: Feasibility Study
Intersection recommendations: X9, X2, X3, X4, X47
Sidewalk projects: S6, S7
Bike/Shared Use Path project: B6



Recommendations

» Implement a road diet to convert 4-lane section to 3-lane section
» Install retroreflective backplates at signals to increase signal head visibility and driver awareness

29% Crash Reduction

Project ID: R3

Common St

from E McNeese St to E Sale Rd

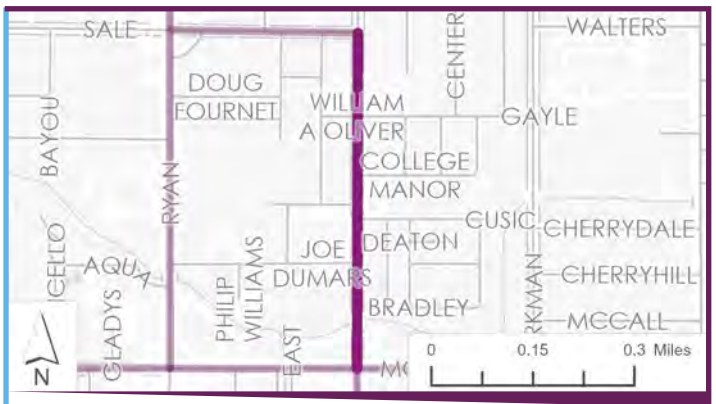
Length: 0.47 mi | Cost: $113,000 | Medium Priority

Context

This segment of Common has posted speed limits of 25 – 35 MPH and had an AADT of around 11,000 vehicles in 2024. Rear endings accounted for nearly 70% of crashes, likely because driveways are frequent but there are few designated turn lanes. The segment's traffic patterns and volume make it a strong candidate for a road diet, with a center turn lane that provides clear space for left turns and for safer bike and pedestrian facilities near campus. Common St north of Sale Rd has already been reconfigured with a center turn lane, and a similar alignment on this segment preserves a consistent and clear flow of traffic.

Between 2019 and 2023, this segment had: **92** total crashes

See Also:
Intersection recommendation: X5
Bike/Shared Use Path project: B9



Recommendations

» Conduct a corridor study and implement a road diet to provide a center two-way turn lane for drivers and space for enhanced bike and pedestrian facilities near campus

19% Crash Reduction

Project ID: R4

Country Club Rd

from S Prien Lake Rd to Jefferson Dr

Length: 0.63 mi | Cost: $40,000,000 | High Priority

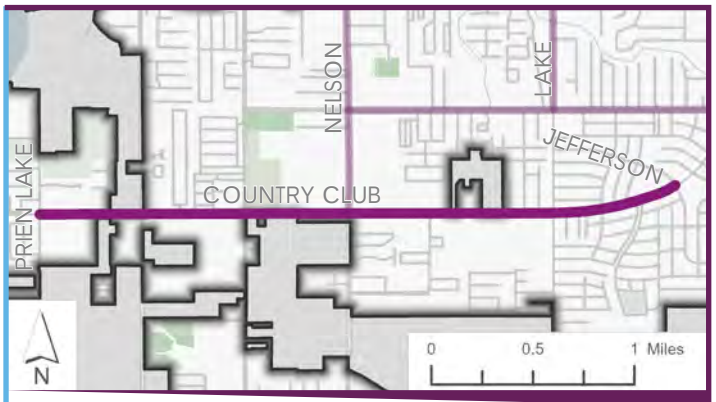
Context

This segment of Country Club Rd is located in south Lake Charles. It has posted speed limits of 35-45 miles per hour, and had an AADT of around 11,900 vehicles in 2024. Rear-ends are the most common crash type on this segment, making up around half of crashes. The Lake Charles MPO has identified this corridor as a top priority for multi-modal projects in its 2050 MTP. The planned LADOTD project here will include sidewalks along with pedestrian crosswalks.

Between 2019 and 2023, this segment had:
518 total crashes
4 fatalities
4 serious injuries

See Also:
LADOTD Stage 0 project: H.011242
Intersection recommendation: X40
Bike/Shared Use Path project: B10

Note: project cost estimate represents LADOTD project H.011242.



Recommendations

» LADOTD project H.011242: Construct sidewalks and crosswalks, convert to a four-lane divided section from Jefferson Dr to Nelson Rd, and construct a two-lane section with a two-way left-turn Lane (TWLTL) and intersection turn lanes from Nelson Rd to S Prien Lake Rd

51% Crash Reduction

Project ID: R5

E McNeese St

from Ryan St to Gerstner Memorial Blvd (LA 14)

Length: 2.30 mi | Cost: $29,000 | High Priority

Context

This segment of E McNeese has a posted speed limit of 40 MPH and had an AADT of around 20,900 vehicles in 2024. Nearly 74% of crashes were attributed to infrastructure. The area around this corridor includes major campus destinations and is experiencing rapid development.

Between 2019 and 2023, this segment had:

248 total crashes
1 fatality
5 serious injuries

See Also:

LADOTD Stage 0 project: H.012685
Intersection recommendations: X1, X5, X6
Bike/Shared Use Path project: B11

Recommendations

» Increase signal head visibility by installing retroreflective backplates at signalized intersections

14% Crash Reduction

Project ID: R6

E Prien Lake Rd

from Ryan St to Gerstner Memorial Blvd (LA 14)

Length: 2.30 mi | Cost: $977,000 | High Priority

Context

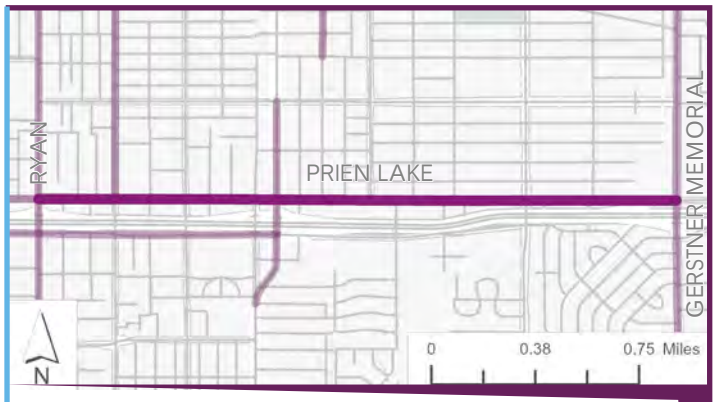
This segment has a posted speed limit of 40 MPH and had an AADT of around 10,600 vehicles in 2024. There were 628 crashes on this segment between 2019 and 2023, including 4 serious injuries and 3 crashes involving pedestrians. Over 40% of crashes were at angles due to failed left turns, and young drivers were involved in 43% of crashes. The MPO identified this corridor as a priority for signal and striping improvements. Further study is needed to confirm opportunities for a road diet and access management.

Between 2019 and 2023, this segment had:

628 total crashes
4 serious injuries

See Also:

Intersection recommendations: X11, X16, X17, X34, X42, X43, X44
Sidewalk project: S12
Bike/Shared Use Path project: B13



Recommendations

» Conduct a corridor study and an intersection study at Louisiana Ave
» Implement a road diet to convert 4-lane section to 3-lane section
» Install retroreflective backplates at signals
» Replace 5-section heads with 4-section heads with yellow arrows where appropriate to reduce driver right-of-way confusion

31% Crash Reduction

Project ID: R7

E Sale Rd

from Ryan St to Common St

Length: 0.28 mi | Cost: $62,800 | Low Priority

Context

This segment of E Sale near McNeese's campus has a posted speed limit of 25 MPH and had an AADT of around 8,500 vehicles in 2024. Installing higher visibility crosswalk signage and traffic signals will increase driver awareness of potential conflicts, and extending the westbound left-turn lane will preserve the orderly flow of traffic.

Between 2019 and 2023, this segment had: **13** total crashes **1** serious injury

See Also: *LADOTD Stage 0 project: H.012685*
Intersection recommendations: X45, X46

Recommendations

» Extend left turn lane at Ryan St
» Improve pedestrian crossing facilities by installing RRFBs in accordance with intersection recommendation
» Install retroreflective backplates at signals

15% Crash Reduction

Project ID: R8

Enterprise Blvd

from Rosetta St to Oak Park Blvd

Length: 0.76 mi | Cost: $477,000 | High Priority

Context

This segment of Enterprise Blvd has a posted speed limit of 35 MPH and had an AADT of around 13,600 vehicles in 2024. Over 44% of crashes were at angles due to failed left turns. Multiple intersections along this segment need attention, including at E College St, E Prien Lake Rd, and Alamo St/Oak Park Blvd. Recommendations focus on providing dedicated time for left turns to reduce conflict, as well as improving visibility at intersections for both drivers and pedestrians.

Between 2019 and 2023, this segment had: **284** total crashes

See Also: *Intersection recommendation: X66*

Recommendations

» Restripe roadway to increase lane visibility
» Provide protected-only phasing for left turns and a dedicated left turn lane at E College St
» Install retroreflective backplates at signals
» Apply high friction surface treatment at E Prien Lake Rd for better traction
» Provide a safe crossing point for pedestrians at the intersection

47% Crash Reduction

Project ID: R9

Gerstner Memorial Blvd (LA 14)

from Red Davis McCollister Rd to Fruge St

Length: 5.50 mi | Cost: $4,039,000 | High Priority

Context

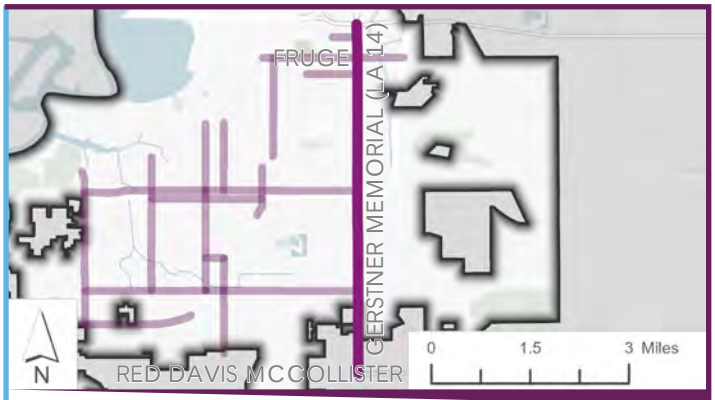
This long segment of Gerstner Memorial Blvd has a posted speed limit of 40 MPH and an AADT of around 19,700 vehicles in 2025. There were 815 crashes on this segment between 2019 and 2023, including 5 fatalities, 4 serious injuries, and 11 crashes involving pedestrians. Significant access management improvements are needed to reduce turning conflicts improve pedestrian facilities and crossings, both of which are priorities for the LADOTD project currently in Stage 0.

Between 2019 and 2023, this segment had:

815 total crashes
5 fatalities
4 serious injuries

See Also:

LADOTD Stage 0 project: H.015086
Intersection recommendations: X8, X9, X10, X11, X12, X13, X14, X15
Sidewalk project: S15
Bike/Shared Use Path project: B16



Recommendations

» Install retroreflective backplates at signals
» Construct safe crossing points for pedestrians
» Provide protected-only phasing for left turns
» Implement corridor access management
» Consider rerouting from the closely spaced interstate interchange and E Prien Lake Rd/Taylor St intersections to Derek St and McKinley St for safer left turns

24% Crash Reduction

Project ID: R10

Lake St

from W McNeese to W 18th St

Length: 2.00 mi | Cost: $686,000 | Medium Priority

Context

This segment of Lake has a posted speed limit of 40 MPH and had an AADT of around 10,700 vehicles in 2024. Crashes included a mix of rear-endings and angled crashes from turning vehicles. Corridor access management will reduce turning conflicts and support safer bike and pedestrian facilities in an area with high latent demand for active transportation, though further study is needed.

Between 2019 and 2023, this segment had:

177 total crashes
1 serious injury

See Also:

Intersection recommendation: X49
Bike/Shared Use Path project: B22

Recommendations

» Conduct a corridor study and intersection traffic study to determine the feasibility of corridor access management such as raised medians
» Install retroreflective backplates at signals

14% Crash Reduction

Project ID: R11

Martin Luther King Hwy (US-171)

from Opelousas St to English Bayou

Length: 2.00 mi | Cost: $1,305,000 | High Priority

Context

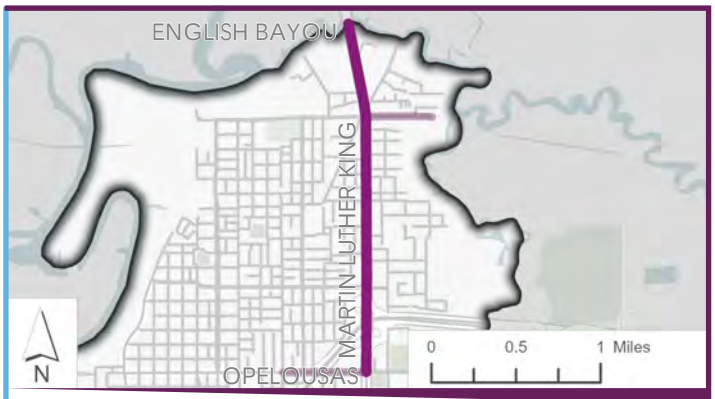
This segment of has a posted speed limit of 40 MPH and an AADT of around 27,100 vehicles in 2025. There 9 crashes involving bicyclists or pedestrians. The 2050 MTP identified access management along this corridor as a priority. A corridor study of the segment will identify recommendations for connectivity and access management, which can reduce conflict points, support safer turning movements, and better protect all roadway users. The most common type of crash was rear end (47%), but sideswipes were also common along this segment (28%).

Between 2019 and 2023, this segment had:

481 total crashes
3 fatalities
4 serious injuries

See Also:

Intersection recommendations: X18, X19, X20, X21, X22, X23
Bike/Shared Use Path project: B31



Recommendations

» Conduct a corridor study to determine if three northbound lanes are necessary, and evaluate connectivity with adjacent streets
» Implement corridor access management by constructing a raised median, reducing left turn conflict points, and providing U-turn locations
» Install retroreflective backplates at signals

34% Crash Reduction

Project ID: R12

Nelson Rd

from Country Club Rd to Contraband Pkwy

Length: 2.35 mi | Cost: $1,539,000 | High Priority

Context

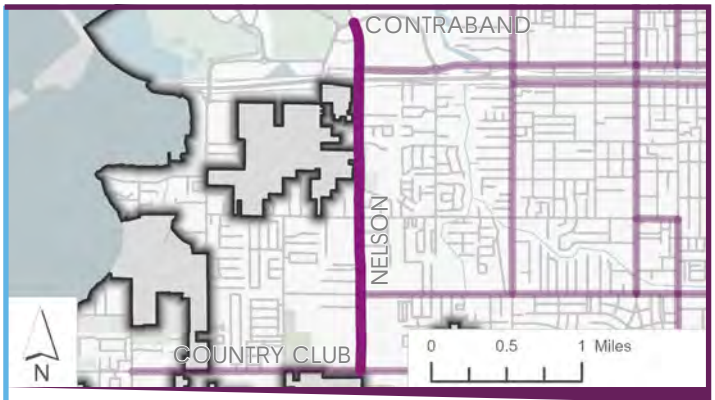
This segment has a posted speed limits of 45 MPH and an AADT of around 27,600 vehicles in 2025. Most crashes involved inattentive drivers during clear daylight conditions. The most common type of crash was rear end (37%) and perpendicular/other angle (19%). The Lake Charles MPO has identified the I-210 interchange at Nelson Rd as a top priority for major intersection redesign in its 2050 MTP. Just north of this segment, a new Nelson Rd bridge is currently under construction and will provide a link over Contraband Bayou for vehicular and active transportation.

Between 2019 and 2023, this segment had:

854 total crashes
2 fatalities
2 serious injuries

See Also:

LADOTD Stage 0 project: H.016037
Intersection recommendations: X48, X24
Bike/Shared Use Path project: B26



Recommendations

» Conduct a corridor study
» Install retroreflective backplates at signals
» Construct raised medians at I-210 WB ramp
» Restripe pavement at I-210 westbound ramp

16% Crash Reduction

Project ID: R13

Ryan St

from W McNeese St to W Sallier St

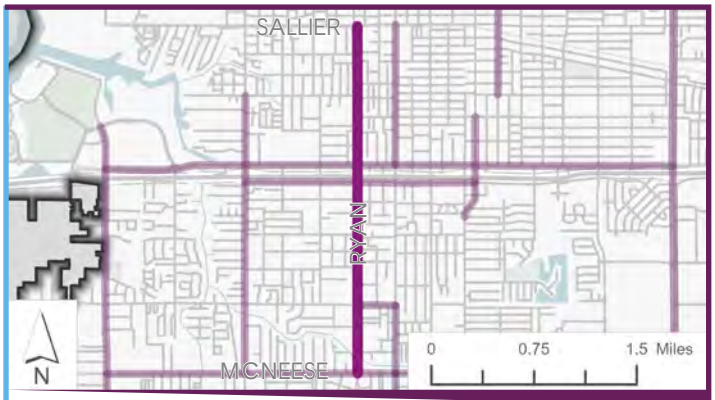
Length: 2.50 mi | Cost: $668,000 | High Priority

Context

This segment of Ryan has a posted speed limit of 35 MPH and an AADT of around 16,400 vehicles in 2025. Both LADOTD and the Lake Charles MPO have recognized this segment as a key target for improvements, with plans for better multimodal access, beautification, and a roundabout at the W Sallier and 12th St intersection. Further study of this segment will support these recommendations by improving signal visibility and timing to reduce traffic conflict.

Between 2019 and 2023, this segment had: **701** total crashes **2** serious injuries

See Also:
LADOTD Stage 0 project: H.012685
Intersection recommendations: X25, X26, X27, X28, X30
Bike/Shared Use Path project: B28



Recommendations

» Conduct a corridor study
» Install retroreflective backplates at signals
» Determine appropriate phasing, lane configuration, and signal heads for safe operation

9% Crash Reduction

Project ID: R14

W College St

from Lake St to Enterprise Rd

Length: 1.10 mi | Cost: $63,000 | High Priority

Context

This segment of W College has a posted speed limit of 35 MPH and had an AADT of around 6,700 vehicles in 2024. The top crash type was rear end (43% of crashes). As a couplet to East Prien Lake Rd, College St is also prioritized by the Lake Charles MPO in its 2050 MTP for signal and striping improvements. This project seeks to improve safety and traffic flow on both roadways which run parallel to I-210.

Between 2019 and 2023, this segment had: **100** total crashes

See Also:
Intersection recommendation: X38
Bike/Shared Use Path project: B8

Recommendations

» Restripe roadway to improve visibility of lane lines and centerline

17% Crash Reduction

Project ID: R15

W Prien Lake Rd

from Nelson Rd to Ryan St

Length: 1.85 mi | Cost: $5,645,000 | High Priority

Context

This segment has posted speed limits of 40 - 45 MPH and an AADT of around 12,300 vehicles in 2025. There were 551 crashes on this segment between 2019 and 2023, with seven involving bicyclists and pedestrians. At least one of the three fatalities on this segment involved a pedestrian crossing Bayou Contraband. Building sidewalks and a pedestrian bridge help to will prevent future tragedies. In its MTP, The Lake Charles MPO identified this corridor as a priority for signal and striping improvements, and further study is needed to identify opportunities for access management.

Between 2019 and 2023, this segment had:

551 total crashes
3 fatalities

See Also:

LADOTD Stage 0 project: H.016037
Intersection recommendations: X28, X56
Sidewalk project: S55
Bike/Shared Use Path project: B34

Recommendations

» Conduct a corridor study
» Implement corridor access management
» Install retroreflective backplates at signals
» Construct a pedestrian bridge over Bayou Contraband
» Construct sidewalks to connect bridge to existing facilities
» Install a mid-block RRFB
» Signal head replacement to 4-section heads with yellow arrows where appropriate

20% Crash Reduction

Project ID: R16

3rd St

from 4th Ave to Gerstner Memorial (LA 14)

Length: 0.51 mi | Cost: $275,000 | Medium Priority

Context

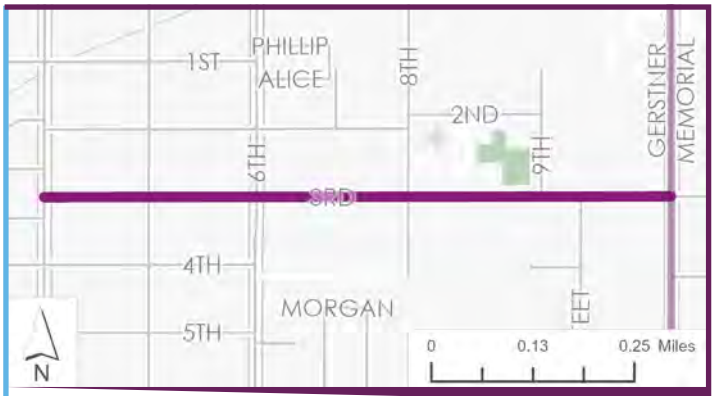
This segment of 3rd St has a posted speed limit of 35 MPH and had an AADT of around 1,600 vehicles in 2024. While the 2 most western blocks of this segment have consistent sidewalks, there are none for most of the segment. The lack of sidewalks and frequent ditches needlessly force drivers and pedestrians into dangerous proximity. This recommendation aligns to the City's most recent Capital Improvements Plan (CIP), which includes both drainage and sidewalk projects and will provide pedestrians with a safe buffer from traffic.

Between 2019 and 2023, this segment had:

2 total crashes
1 fatality

See Also:

Intersection recommendation: X57
Sidewalk project: S3
Bike/Shared Use Path project: B3



Recommendations

» Construct sidewalks

50% Crash Reduction

Project ID: R17

Cline St

from Kingsley St to S Martin Luther King Hwy

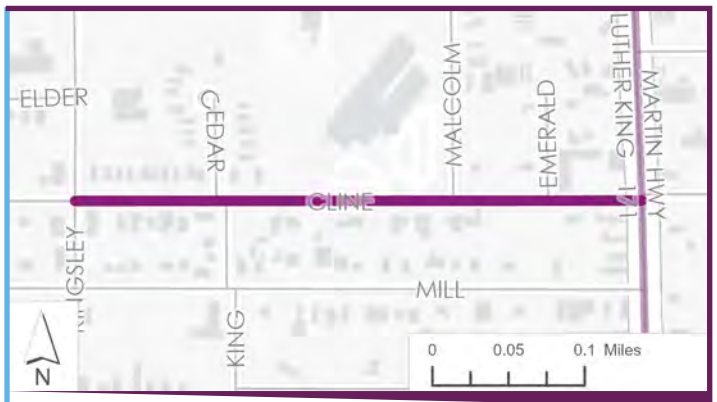
Length: 0.38 mi | Cost: $4,000 | Medium Priority

Context

This segment of Cline has a posted speed limit of 25 MPH and had an AADT of around 1,300 vehicles in 2024. Over 70% of crashes involved a vehicle leaving its lane or the road, which restriping the centerline and installing raised pavement markers will address. This segment includes an elementary school and is near other major community destinations.

Between 2019 and 2023, this segment had:

7 total crashes
1 serious injury



Recommendations

» Restripe roadway and install raised pavement markings to improve visibility of lanes

18% Crash Reduction

Project ID: R18

Common St

from Link Rd to E McNeese St

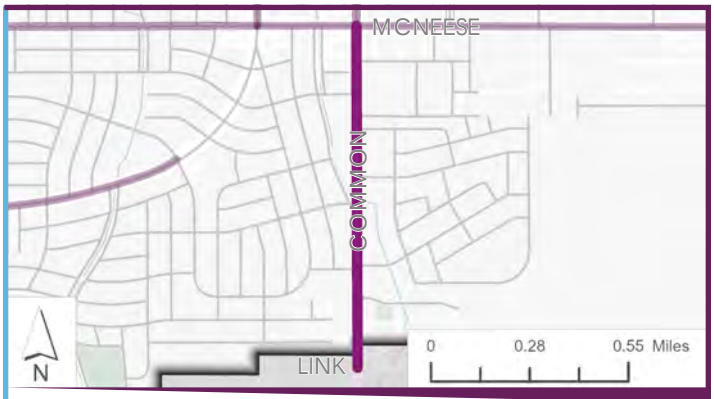
Length: 0.95 mi | Cost: $663,000 | Medium Priority

Context

This segment of Common has a posted speed limit of 45 MPH and had an AADT of around 15,400 vehicles in 2024. Crashes on this segment have been a mix of rear-endings and angled crashes due to numerous turning movements occurring along the corridor. The segment's northern end connects to major McNeese State campus destinations and off-campus housing.

Between 2019 and 2023, this segment had:

67 total crashes
1 fatality
3 serious injuries



Recommendations

» Conduct a corridor study
» Implement corridor access management to reduce left turn conflict points

9% Crash Reduction

See Also:

Intersection recommendations: X5, X39, X64
Sidewalk project: S9

Project ID: R19

Opelousas St

from N Booker St to N Martin Luther King Hwy

Length: 0.51 mi | Cost: $36,000 | Medium Priority

Context

This segment of Opelousas has a posted speed limit of 35 MPH and had an AADT of around 8,600 vehicles in 2024. There were 22 crashes on this segment between 2019 and 2023, which were primarily rear endings from inattentive drivers leading up to the intersection with Martin Luther King Hwy. This segment includes bike facility recommendations with connect with the City's One Lake Charles Bike Trail currently in development. Restriping this segment and enhancing the visibility of the MLK intersection will help improve drivers' awareness.

Between 2019 and 2023, this segment had:

22 total crashes
1 serious injury

See Also:

Intersection recommendation: X22
Bike/Shared Use Path project: B27

Recommendations

» Restripe roadway and install raised pavement markings to improve visibility of lanes
» Install retroreflective backplates at signals to improve visibility and driver awareness

18% Crash Reduction

Project ID: R20

W McNeese St

from Nelson Rd to Ryan St

Length: 1.85 mi | Cost: $500,000 | Medium Priority

Context

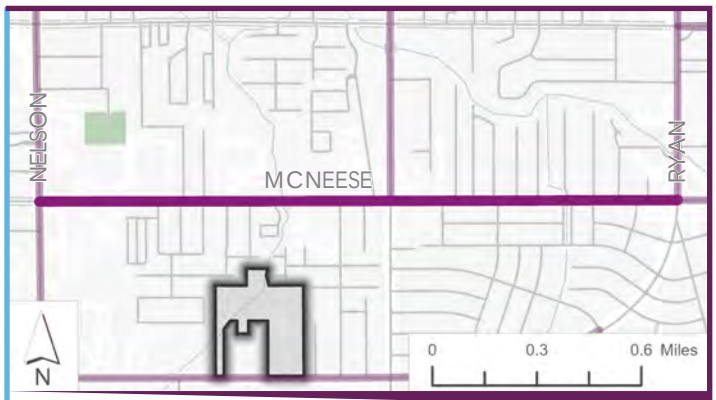
This segment of W McNeese St has a posted speed limit of 40 MPH and had an AADT of around 16,000 vehicles in 2024. Most crashes involved inattentive drivers during clear daylight conditions. The most common type of crash was rear end (43%). At the east end of this segment, McNeese State University is a significant driver of multi-modal traffic and is a terminus for the proposed Bayou Greenbelt trail.

Between 2019 and 2023, this segment had:

401 total crashes
1 fatality
2 serious injuries

See Also:

Intersection recommendations: X26, X54, X55
Bike/Shared Use Path project: B32



Recommendations

» Conduct a corridor study
» Install retroreflective backplates at signals
» Improve pavement markings

22% Crash Reduction

Project ID: R21

Common St

from E Prien Lake Rd to 12th St

Length: 1.00 mi | Cost: $6,107,000 | Low Priority

Context

This segment of Common has a posted speed limit of 35 MPH and had an AADT of around 11,000 vehicles in 2024. Two-thirds of crashes were attributed to inattentive drivers, so recommendations focus on increasing the visibility of signals and lane markers. A roundabout at the E Prien Lake intersection could help the flow of traffic, but further study is needed.

Between 2019 and 2023, this segment had:

42 total crashes
1 fatality

See Also:

Intersection recommendation: X43
Sidewalk project: S8

Recommendations

» Conduct a corridor study
» Restripe roadway and install raised pavement markings to improve visibility of lanes
» Install retroreflective backplates at signals
» Construct a roundabout at East Prien Lake Rd

18% Crash Reduction

Project ID: R22

Fitzenrieter Rd

from N Martin Luther King Hwy to End (East)

Length: 0.40 mi | Cost: $373,000 | Low Priority

Context

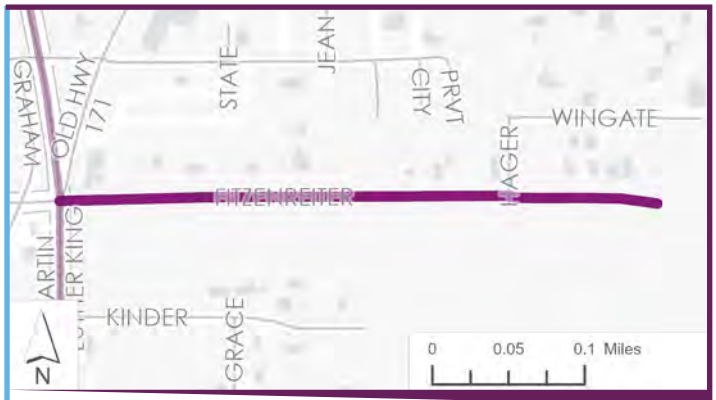
This segment of Fitzenreiter has a posted speed limit of 35 MPH and had an AADT of around 100 vehicles in 2024. There were 2 crashes on this segment between 2019 and 2023, which resulted in a fatality and a minor injury. Both crashes involved a car going off the road due to a mixture of driver error and the poor condition of the road.

Between 2019 and 2023, this segment had:

2 total crashes
1 fatalities

See Also:

Intersection recommendation: X18
Bike/Shared Use Path project: B4



Recommendations

» Prevent unnecessary vehicle movements that may lead to roadway departure crashes through mill and overlay pavement

50% Crash Reduction

Non-Infrastructure Actions

This section identifies specific action items that do not involve building or updating physical infrastructure. Non-infrastructure action items complement engineering and design to improve and take responsibility for safety. These action items were developed based on a review of best practices (Chapter 5) and community and Technical Advisory Committee input.

Table 5: Recommended Non-Infrastructure Actions

Action	Time-frame
Adopt Safety Action Plan	Short
Pursue funding for the Roadway Safety Projects and Active Transportation Projects identified in this plan	Short
Develop and/or implement targeted educational programming and awareness campaigns to inform people about safety and safe transportation behaviors, including: » *Roundabout education* » *Car seat fitting events and education* » *Bicycle law education* » *Speeding campaign* » *Aggressive driving awareness campaign* » *Distracted driving campaign*	Medium
Explore opportunities for Open Street initiatives and events	Long
Consider employer incentive programs to encourage people to walk, bike, and take the bus to work	Long
Implement demonstration projects with low cost and temporary materials to test high visibility crossings, road diets, and other countermeasures	Short
Conduct media narrative training to frame crashes as preventable	Medium
Complete corridor studies to improve operation, connectivity, and safety of specific corridors	Medium
Evaluate the Code of Ordinances for opportunities to improve safety, reduce speeds, and require active transportation facilities	Short
Purchase and use Intelligent Transportation Systems (ITS) technology	Long
Conduct high visibility enforcement for speeding, impaired driving, and cell phone usage	Medium
Improve the collection and reporting of crash data	Long
Develop a fatal crash review committee to understand, respond to, and learn from fatal crashes after they occur.	Short
Track progress towards implementation and monitor and report fatal and serious injury crashes	Ongoing
Educate people about the purpose and benefits of physical projects as they are being constructed using nearby signage and media coverage	Medium

Progress and Transparency

As the City of Lake Charles works to implement the action items outlined in this chapter, it will maintain transparency and accountability by recording progress towards eliminating roadway fatalities and serious injuries. Performance evaluation is a required component of the SS4A grant program. At a minimum, the City will provide annual public progress reports and publish the Action Plan online.

Progress Measurement

The annual report card is a method to show progress toward reducing roadway fatalities and serious injuries over time. The Safety Action Plan's vision is to eliminate fatal and serious injury crashes by 2050. Therefore, the key metric monitored will be the year over year change in the number of fatal and serious crashes. An annual report card could also track elements that demonstrate progress for each of the plan's goals.

Vision	Performance Measures
Eliminate all traffic deaths and serious injuries on Lake Charles roadways by 2050	Number and rate of fatalities Number and rate of serious injury crashes Number and rate of vulnerable road user crashes

Goal	Performance Measures
Protect vulnerable road users through street design	Number of physical safety projects completed Number of active transportation projects completed
Reduce speeds to prioritize safety	Number of traffic calming measures implemented
Collect and use data to enhance safety at critical locations	Progress report completed (Yes/No) Review of crash data completed (Yes/No)
Change the culture and policies around transportation safety	Number of non-infrastructure strategies completed Fatal crash review committee active (Yes/No)
Collaborate and engage partners	List of efforts to maintain two-way communication between City and stakeholders

What You Can Do

Achieving the goal of zero traffic fatalities and serious injuries requires commitments from individuals, businesses, leaders, and organizations to do the following:

Drive Safely and Respectfully

When driving, follow the rules of the road and be safe behind the wheel.

Stop for Pedestrians

Pedestrians have the right-of-way. Stop for people crossing the road and share the road with cyclists.

Slow Down

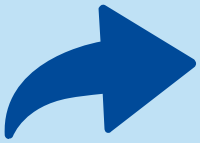
Speeding is dangerous for drivers, passengers, pedestrians, and cyclists. Slow down so that everyone reaches their destinations.

Bike Safely

Wear a helmet and reflective material, look before turning, and follow the rules when cycling.

Remain Alert

Do not text and drive or drive while impaired. Be aware of traffic and use crosswalks to cross the road.



Share Your Support

Share this information with family and friends. Show your support for projects that improve roadway safety.

Lake Charles Safety Action Plan

Active Transportation Projects

Appendix A

Lake Charles Safety Action Plan

Active Transportation Projects

This document contains the details of active transportation projects developed alongside 22 the roadway safety projects listed in the final chapter of the Lake Charles Safety Action Plan. For more information on how the recommended projects were developed, see the full Safety Action Plan. Each project has an associated project cost, which are rounded estimates with a 20% contingency for planning purposes and do not include professional services, right of way, or utility relocation. Cost values are intended for planning purposes only.

Recommended projects are divided into the following categories:

Priority

Active transportation project recommendations are listed in order of priority, based on the prioritization rubric shown below. The maximum amount of points that a project can receive is 18. High priority projects have a suggested implementation time-frame of 0 to 5 years, medium priority projects have a suggested implementation time-frame of 6 to 10 years, and low priority projects have a recommended implementation time-frame of 10+ years.

Factor	Criteria	Score
Vulnerable User and Latent Demand	Latent Demand above 8 or within an identified LADOTD Vulnerable User analysis area	2 OR 4
	Latent Demand score of 10+	
System Safety	On the High Injury Network	4 OR 6
	On the top 5 HIN	
Bike and Pedestrian Safety	Within 250 feet of fatal/severe bike or pedestrian crash OR Within 250 feet of 2 or more bike or pedestrian crashes	2
Public Engagement	Identified as a safety concern by public input process (within 100 feet)	2
Connectivity	Identified as a key connector by project team or Technical Advisory Committee	4

Priority values by project type

Intersection Projects:
» Scores of 4 and Below = Low Priority
» Scores of 5 to 8 = Medium Priority
» Scores of 9 and Above= High Priority

Sidewalk Projects:
» Scores of 2 and Below = Low Priority
» Scores of 3 to 8 = Medium Priority
» Scores of 9 and Above= High Priority

Bike/Shared Use Projects:
» Scores of 4 and Below = Low Priority
» Scores of 5 to 8 = Medium Priority
» Scores of 9 and Above= High Priority

Implementation Level

Right-of-way (ROW) limitations, existing roadway characteristics, and other physical constraints can make even the highest priority projects difficult to implement. Each recommended project includes an implementation scale, or feasibility level, from 1 to 4 to denote the relative ease of facility construction.

●○○○ **1) Striping and signage only:** These facility types fit within the existing ROW and are generally easy to implement.

●●○○ **2) Reallocation of Space:** These facility types can fit withing the existing ROW, but require removal of travel lanes or on-street parking.

●●●○ **3) Construction Required:** These facility types may fit within existing ROW but require moving the curb, construction of a new facility, or significant electrical work.

●●●● **4) Major Construction or ROW Acquisition Required:** These facilities likely require substantial ROW purchase or other major construction investments.

Bike and Shared Use Path Project Recommendations

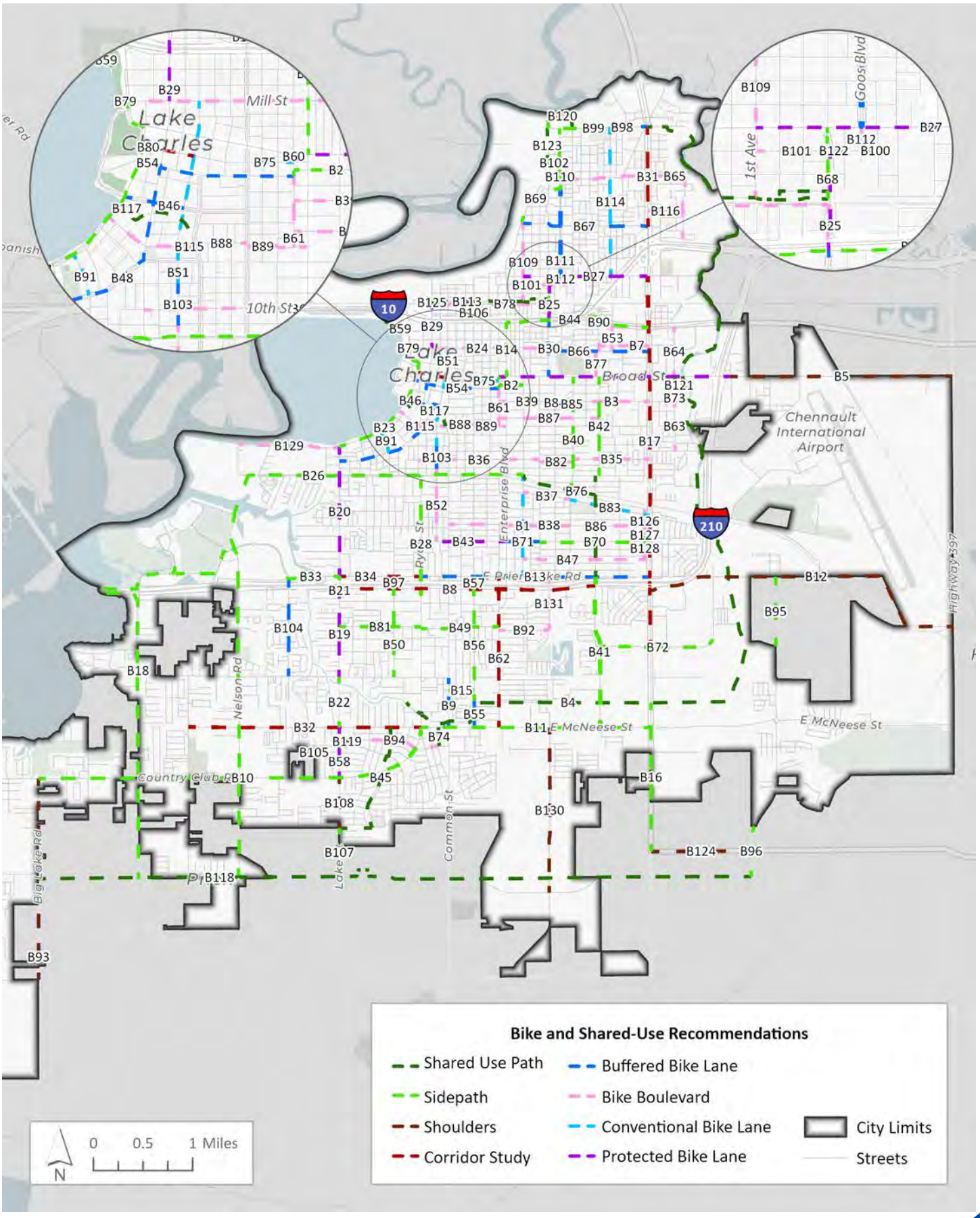


Table 3: Bike and Shared Use Path Project Recommendations

ID	Roadway	From	To	Recommendation	Length (mi.)	Cost Estimate	Priority	Implement. Level
B1	1st Ave	12th St	Prien Lake Rd	Conventional Bike Lane	1.03	$195,400	High	●○○○
B2	1st St	Louisiana Ave	1st Ave	Sidepath	0.25	$519,400	High	●●●○
B3	3rd St	4th Ave	Gerstner Memorial Dr	Bike Boulevard	0.77	$92,700	High	●○○○
B4	Bayou Greenbelt Path	N Martin Luther King Hwy	-	Shared Use Path	11.24	$19,110,900	High	●●●●
B5	Broad St	Falconer Ln	E Ward Line Rd	Shoulders	2.23	$4,245,700	High	●●●○
B6	Broad St	Louisiana Ave	Falconer Ln	Protected Bike Lane	2.34	$561,100	High	●●○○
B7	Cline St	Albert St	Martin Luther King Hwy	Bike Boulevard	0.51	$60,800	High	●○○○
B8	College St	Lake St	5th Ave	Corridor Study	2.58	$400,000	High	**Study**
B9	Common St	E Sale Rd	E McNeese St	Buffered Bike Lane	0.50	$118,900	High	●●○○
B10	Country Club Rd	Big Lake Rd	E McNeese St	Sidepath	4.11	$8,629,100	High	●●●○
B11	E Mcneese St	Ryan St	Gerstner Memorial Dr	Sidepath	2.32	$4,864,400	High	●●●○
B13	E Prien Lake Rd	Ryan St	Gerstner Memorial Dr	Buffered Bike Lane	2.30	$552,200	High	●●○○
B12	E Prien Lake Rd	Gerstner Memorial Dr	Hwy 397	Shoulders	3.41	$6,472,700	High	●●●○
B14	Enterprise Blvd	Belden St	Broad St	Sidepath	0.55	$1,154,800	High	●●●○
B15	Gayle St	Common St	Kirkman St	Sidepath	0.26	$543,400	High	●●●○
B17	Gerstner Memorial Dr	Opelousas St	Power Centre Pkwy	Corridor Study	3.74	$400,000	High	**Study**
B16	Gerstner Memorial Dr	E McNeese St	Red Davis McCollister Rd	Sidepath	1.50	$3,153,600	High	●●●○
B18	Ihles Rd/W Prien Lake Rd/ Cove Ln	Nelson Rd	Ham Reid Rd	Sidepath	5.07	$10,657,300	High	●●●●
B21	Lake St	W Prien Lake Rd	Contraband Ln	Sidepath	0.15	$320,200	High	●●●○
B20	Lake St	Shell Beach Dr	W Prien Lake Rd	Protected Bike Lane	1.31	$313,800	High	●●○○
B19	Lake St	Contraband Ln	W Sale Rd	Protected Bike Lane	0.86	$206,700	High	●●○○
B22	Lake St	W Sale Rd	W McNeese St	Sidepath	0.51	$1,068,500	High	●●●○
B23	Lakeshore Dr	W Mill St	Lake St	Sidepath	1.46	$3,062,200	High	●●●●
B24	Mill St	Veterans Memorial Pkwy	Goos Blvd	Bike Boulevard	1.56	$187,000	High	●○○○
B25	N Shattuck St	Fournet St	Belden St	Protected Bike Lane	0.36	$86,100	High	●●○○

Active Transportation Projects

ID	Roadway	From	To	Recommendation	Length (mi.)	Cost Estimate	Priority	Implement. Level
B26	Nelson Rd/W Sallier Rd	Ham Reid Rd	1st Ave	Sidepath	6.85	$14,383,600	High	●●●●
B27	Opelousas St	N 1st Ave	N Martin Luther King Hwy	Protected Bike Lane	1.25	$300,200	High	●●○○
B29	Ryan St	S Railroad Ave	W Mill St	Protected Bike Lane	0.44	$106,200	High	●●○○
B28	Ryan St	E Sallier St	~W Lagrange St	Sidepath	1.20	$2,514,400	High	●●●●
B30	Shattuck St	Belden St	Broad St	Buffered Bike Lane	0.57	$137,200	High	●○○○
B31*	US Hwy 171	Fitzenreiter Rd	Moeling St	Corridor Study	1.01	$400,000	High	Study
B32	W McNeese St	Weaver Rd	Ryan St	Corridor Study	2.35	$400,000	High	Study
B33	W Prien Lake Rd	Holly Hill Rd roundabout	Lake St	Sidepath	0.59	$1,243,700	High	●●●●
B34*	W Prien Lake Rd	Lake St	Ryan St	Corridor Study	0.82	$400,000	High	**Study**
B36	10th St	Ryan St	2nd Ave	Bike Boulevard	1.22	$146,500	Med	●○○○
B35	10th St	4th Ave	Gerstner Memorial Dr	Bike Boulevard	0.78	$93,100	Med	●○○○
B37	14th St	1st Ave	4th Ave	Bike Boulevard	0.48	$58,100	Med	●○○○
B38	18th St	Common St	Gerstner Memorial Dr	Bike Boulevard	2.03	$243,700	Med	●○○○
B39	3rd St	Louisiana Ave	3rd Ave	Bike Boulevard	0.57	$67,900	Med	●○○○
B40	4th Ave	Broad St	Railroad Xing	Sidepath	1.14	$2,395,700	Med	●●●○
B41	5th Ave	Prien Lake Rd	E McNeese St	Sidepath	1.53	$3,209,100	Med	●●●○
B42	6th Ave	Broad St	12th St	Sidepath	1.00	$2,099,300	Med	●●●○
B43	Alamo St	Ryan St	Enterprise Blvd	Protected Bike Lane	0.86	$205,600	Med	●●○○
B44	Belden St	Enterprise Blvd	Martin Luther King Hwy	Sidepath	1.47	$3,082,700	Med	●●●○
B45	Central Pkwy/ Proposed SUP	E McNeese St	Lake St	Shared Use Path	1.43	$2,429,600	Med	●●●●
B46	Clarence St	Lakeshore Dr	Hodges St	Buffered Bike Lane	0.33	$79,700	Med	●○○○
B47	Craft St	1st Ave	Service alley	Bike Boulevard	1.22	$146,500	Med	●○○○
B48	Dr Michael Debakey Dr/ Ryan St	Kirby St	Lake St	Buffered Bike Lane	1.38	$331,000	Med	●●○○
B49	E School St	Ryan St	Louisiana Ave	Sidepath	0.79	$1,649,700	Med	●●●○
B50	Ernest St	College St	W Sale Rd	Sidepath	0.89	$1,875,500	Med	●●●○
B51	Hodges St	Mill St	East St	Conventional Bike Lane	1.00	$190,100	Med	●○○○
B52	Hodges St	W 11th St	Alamo St	Bike Boulevard	0.73	$88,100	Med	●○○○
B53	Kingsley St	Fruge St	Mill St	Bike Boulevard	0.27	$32,500	Med	●○○○

** See Safety Project R11 and R15. Where corridor studies are recommended in both the Active Transportation Plan and as part of a comprehensive roadway safety project, separate cost estimates are included in both tables. A blanket unit cost of $400,000 is used for a corridor study, but costs and study limits should be refined at the time of the study.*

Active Transportation Projects

ID	Roadway	From	To	Recommendation	Length (mi.)	Cost Estimate	Priority	Implement. Level
B54	Kirby St	Lakeshore Dr	Louisiana Ave	Buffered Bike Lane	0.86	$205,400	Med	●○○○
B57	Kirkman St	Prien Lake Rd	College St	Sidepath	0.13	$275,200	Med	●●●○
B56	Kirkman St	College St	Bayou Contraband	Sidepath	1.12	$2,361,200	Med	●●●○
B55	Kirkman St	Bayou Contraband	E McNeese St	Buffered Bike Lane	0.27	$64,000	Med	●●○○
B58	Lake St	W McNeese St	Country Club Rd	Protected Bike Lane	0.51	$121,500	Med	●●○○
B59	Lakefront Path Connector	-	Veterans Memorial Park path	Shared Use Path	0.20	$334,000	Med	●●●●
B61	Louisiana Ave	Kirby St	6th St	Bike Boulevard	0.39	$46,300	Med	●○○○
B60	Louisiana Ave	Broad St	Kirby St	Sidepath	0.12	$246,900	Med	●●●○
B62	Louisiana Ave	Prien Lake Rd	E McNeese St	Corridor Study	1.52	$400,000	Med	**Study**
B63	McNabb St	3rd St	Legion St	Bike Boulevard	0.51	$60,800	Med	●○○○
B64	McNabb St	Hwy 90 E	Broad St	Bike Boulevard	0.51	$60,700	Med	●○○○
B65	Medora St/ Cathy St	N Goos Blvd	J B Carter Ln	Bike Boulevard	1.92	$230,900	Med	●○○○
B66	Mill St	Goos Blvd	Martin Luther King Hwy	Buffered Bike Lane	0.89	$213,400	Med	●○○○
B67	Moeling St	N Enterprise Blvd	Martin Luther King Hwy	Buffered Bike Lane	1.29	$309,100	Med	●○○○
B68	N Shattuck St	N Railroad Ave	Opelousas St	Sidepath	0.31	$648,600	Med	●●●○
B69	New connection	Moeling St	N Goos Blvd	Sidepath	0.56	$1,182,600	Med	●●●○
B70	Oak Park Blvd	2nd Ave	Gerstner Memorial Dr	Sidepath	1.11	$2,332,200	Med	●●●○
B71	Oak Park Blvd	Enterprise Blvd	2nd Ave	Buffered Bike Lane	0.34	$82,500	Med	●○○○
B72	Power Centre Pkwy	5th Ave	Ward 3 Recreation entrance	Sidepath	1.30	$2,738,700	Med	●●●○
B73	Proposed SUP	Broad St	3rd St	Shared Use Path	0.26	$442,000	Med	●●●●
B74	Proposed SUP	E McNeese St	Contour St	Shared Use Path	0.19	$325,300	Med	●●●●
B75	Pujo St	Reid St	Louisiana Ave	Conventional Bike Lane	0.17	$32,300	Med	●○○○
B76	Railroad Connector Trail	12th St	5th Ave	Shared Use Path	0.78	$1,333,500	Med	●●●●
B77	Rhodes St	Mill St	Broad St	Bike Boulevard	0.26	$30,800	Med	●○○○
B78	S Railroad Ave	Ryan St	Shattuck St	Bike Boulevard	1.31	$157,400	Med	●○○○
B79	W Mill St	Existing sidewalk	Veterans Memorial Pkwy	Shared Use Path	0.02	$36,800	Med	●●●○
B80	W Pujo St	Lakeshore Dr	Hodges St	Corridor Study	0.28	$400,000	Med	**Study**
B81	W School St	Lake St	Ryan St	Sidepath	0.82	$1,730,700	Med	●●●○

Active Transportation Projects

ID	Roadway	From	To	Recommendation	Length (mi.)	Cost Estimate	Priority	Implement. Level
B82	10th St	2nd Ave	4th Ave	Bike Boulevard	0.34	$40,600	Low	●○○○
B83	14th St	4th Ave	Gerstner Memorial Dr	Conventional Bike Lane	0.82	$155,300	Low	●○○○
B84	3rd Ave	3rd St	Bryant Ct	Sidepath	0.03	$58,900	Low	●●●○
B85	3rd St	3rd Ave	4th Ave	Bike Boulevard	0.18	$22,000	Low	●○○○
B86	5th Avenue Trail	12th St	Prien Lake Rd	Shared Use Path	1.02	$1,741,600	Low	●●●●
B87	5th St	Louisiana Ave	6th Ave	Bike Boulevard	1.01	$121,000	Low	●○○○
B88	6th St	Common St	Kirkman St	Bike Boulevard	0.28	$33,700	Low	●○○○
B89	6th St	Kirkman St	Enterprise Blvd	Bike Boulevard	0.32	$38,600	Low	●○○○
B90	Albert St	Fruge St	Mill St	Bike Boulevard	0.34	$41,400	Low	●○○○
B91	Alvin St	Shell Beach Dr	Dr Michael Debakey Dr	Conventional Bike Lane	0.24	$46,000	Low	●○○○
B92	Arkansas St	Louisiana Ave	Texas St	Bike Boulevard	0.51	$61,200	Low	●○○○
B93	Big Lake Rd	Country Club Rd	Haymark Rd	Shoulders	2.09	$3,963,000	Low	●●●○
B94	Contour St	End of street (W)	East Pkwy	Bike Boulevard	0.93	$111,700	Low	●○○○
B95	Corbina Rd	E Prien Lake Rd	Kayouche Coulee	Sidepath	0.70	$1,472,400	Low	●●●○
B96	Corbina Rd	Kayouche Coulee	Ricky Ln	Sidepath	0.51	$1,076,900	Low	●●●○
B97	Ernest St	W Prien Lake Rd	W College St	Sidepath	0.12	$259,900	Low	●●●○
B99	Fitzenreiter Rd	Riverside Park Complex	Combre-Fondel east exit	Sidepath	0.55	$1,150,700	Low	●●●○
B98	Fitzenreiter Rd	Combre-Fondel east exit	Martin Luther King Hwy	Buffered Bike Lane	0.51	$121,800	Low	●●●○
B101	Fournet St	N 1st Ave	N Shattuck St	Bike Boulevard	0.25	$30,400	Low	●○○○
B100	Fournet St	End of street (W)	Orrin St	Bike Boulevard	0.15	$18,000	Low	●○○○
B102	Harless St	N Shattuck St	N Goos Blvd	Sidepath	0.11	$224,700	Low	●●●○
B103	Hodges St	East St	W 11th St	Buffered Bike Lane	0.23	$54,900	Low	●○○○
B104	Holly Hill Rd	W Prien Lake Rd	W Sale Rd	Buffered Bike Lane	0.98	$234,100	Low	●○○○
B105	Jefferson Dr	Lake St	Jefferson Dr SUP Recommendation	Sidepath	0.08	$167,300	Low	●●●○
B106	Kirkman St	N Railroad Ave	Church St	Buffered Bike Lane	0.13	$31,900	Low	●●●●
B108	Lake St	University Dr	Lake St SUP Recommendation	Shoulders	0.51	$969,300	Low	●●●○
B107	Lake St	Lake St SUP Recommendation	Ham Reid Rd	Sidepath	0.49	$1,026,000	Low	●●●○

Active Transportation Projects

ID	Roadway	From	To	Recommendation	Length (mi.)	Cost Estimate	Priority	Implement. Level
B109	N 1st Ave	Moeling St	N Railroad Ave	Bike Boulevard	0.79	$94,800	Low	●○○○
B111	N Goos Blvd	Woodring St	Opelousas St	Buffered Bike Lane	0.88	$212,300	Low	●●○○
B110	N Goos Blvd	Fitzenreiter Rd	Woodring St	Sidepath	0.61	$1,279,100	Low	●●●○
B112	N Goos St	Opelousas St	Fournet St	Bike Boulevard	0.08	$9,900	Low	●○○○
B113	N Railroad Ave/Lewis St	Ryan St	N Shattuck St	Shared Use Path	1.42	$2,413,600	Low	●●●●
B114	N Simmons St	Fitzenreiter Rd	Opelousas St	Conventional Bike Lane	1.50	$285,900	Low	●○○○
B115	Park Ave/6th St	Shell Beach Dr	Common St	Bike Boulevard	0.53	$63,700	Low	●○○○
B116	Pineview St	N Martin Luther King Hwy	Cathy St	Bike Boulevard	0.35	$42,300	Low	●○○○
B117	Pithon Coulee Trail	Shell Beach Dr	6th St	Shared Use Path	0.56	$945,500	Low	●●●●
B122	Proposed SUP	Service Rd	Fournet St	Shared Use Path	0.03	$45,700	Low	●●●○
B120	Proposed SUP	Fitzenreiter Rd	Fitzenreiter Rd	Shared Use Path	0.40	$688,500	Low	●●●○
B119	Proposed SUP	Contour St	Jefferson St	Shared Use Path	0.08	$128,400	Low	●●●○
B118	Proposed SUP	Big Lake Rd	Corbina Rd	Shared Use Path	7.30	$12,406,200	Low	●●●●
B121	Proposed SUP	Kayouche Coulee	-	Shared Use Path	0.08	$134,800	Low	●●●●
B123	Proposed SUP	Fitzenreiter Rd	Harless St	Shared Use Path	0.37	$635,800	Low	●●●○
B124	Red Davis McCollister Rd	Gerstner Memorial Dr	Corbina Rd	Shoulders	1.01	$1,914,500	Low	●●●○
B125	Ryan St	W Railroad Ave	S Railroad Ave	Sidepath	0.04	$78,300	Low	●●●●
B126	Service alley	13th St	19th St	Bike Boulevard	0.24	$28,700	Low	●○○○
B128	Service alley	Proposed SUP	Service alley SE corner	Bike Boulevard	0.23	$27,200	Low	●○○○
B127	Service alley	19th St	Unnamed street	Shared Use Path	0.04	$67,600	Low	●●●○
B129	Shell Beach Dr	Marine St	Lake St	Bike Boulevard	1.03	$123,200	Low	●○○○
B130	Southpark Dr	E McNeese St	Red Davis McCollister Rd	Shoulders	1.67	$3,165,200	Low	●●●○
B131	Texas St	Prien Lake Rd	Arkansas St	Bike Boulevard	0.54	$64,200	Low	●○○○

Sidewalk Recommendations

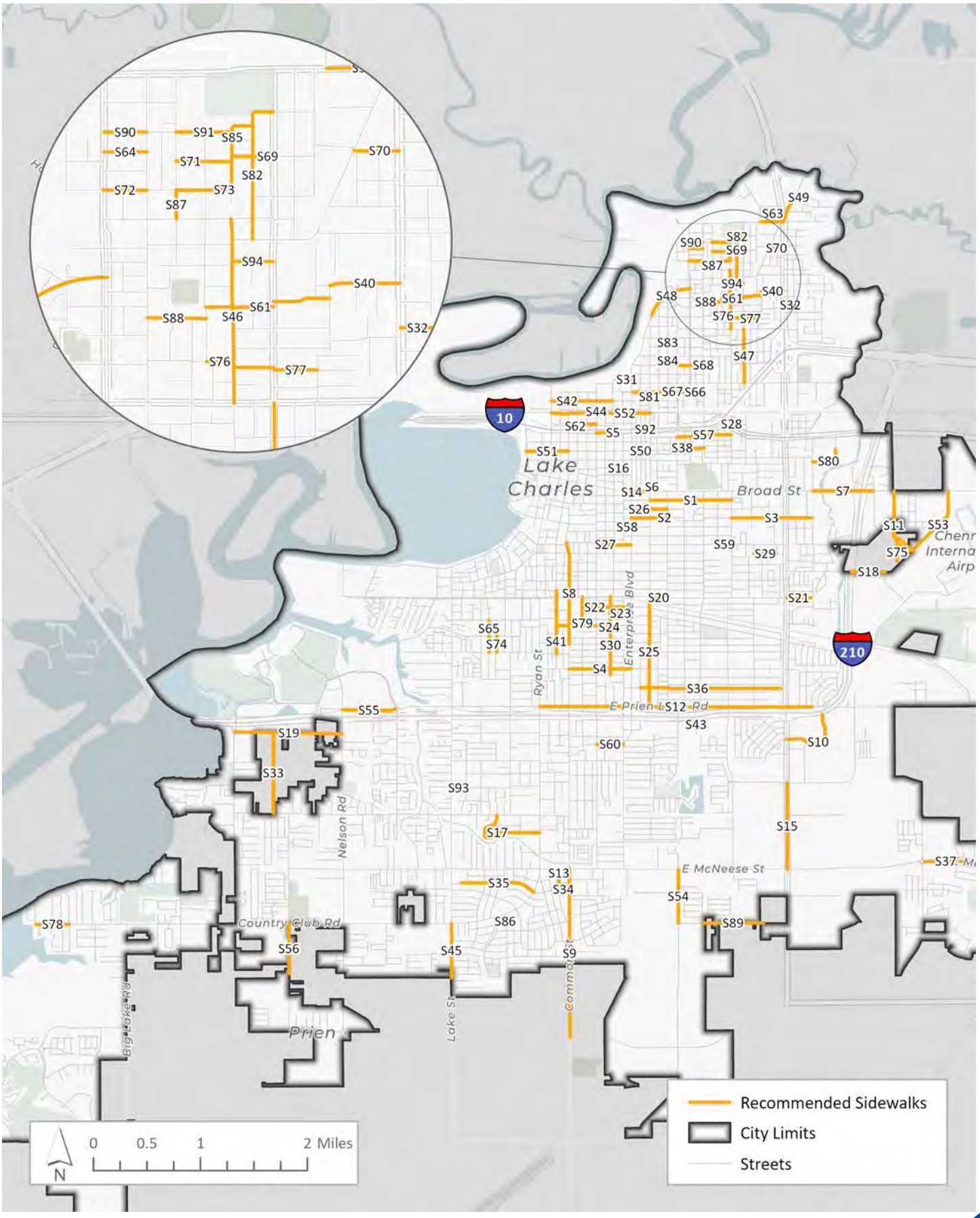


Table 4: Sidewalk Recommendations

ID	Roadway	From	To	Length (mi.)	Cost Estimate	Priority	Implement. Level
S1	1st St	1st Ave	6th Ave	0.76	$1,833,000	High	●●●○
S2	3rd St	Enterprise Blvd	2nd Ave	0.34	$816,000	High	●●●○
S3	3rd St	6th Ave	McNabb St	0.75	$1,804,000	High	●●●○
S4	Alamo St	Common St	Enterprise Blvd	0.58	$1,390,000	High	●●●○
S5	Belden St	Kirkman St	Bank St	0.17	$409,000	High	●●●○
S6	Broad St	Louisiana Ave	1st Ave	0.25	$596,000	High	●●●○
S7	Broad St	McNabb St	Falconer Ln	0.57	$1,365,000	High	●●●○
S8	Common St	6th St	17th St	0.95	$2,287,000	High	●●●○
S9	Common St	E McNeese St	Red Davis McCollister Rd	1.58	$3,791,000	High	●●●○
S10	Derek Dr	E Prien Lake Rd	Gerstner Memorial Dr	0.62	$1,481,000	High	●●●○
S11	E Main St	Broad St	Sen. J Bennett Johnston Ave	1.03	$2,468,000	High	●●●○
S12	E Prien Lake Rd	Ryan St	General Marshall Dr	2.55	$6,118,000	High	●●●○
S13	East Pkwy	E McNeese St	Contour St	0.19	$460,000	High	●●●○
S14	Enterprise Blvd	Broad St	Pujo St	0.04	$106,000	High	●●●○
S15	Gerstner Memorial Dr	Power Centre Pkwy	E McNeese St	0.81	$1,944,000	High	●●●○
S16	N Division St	Bank St	Louisiana Ave	0.09	$206,000	High	●●●○
S17	Orchard Dr	W Sale Rd	Ryan St	0.80	$1,920,000	High	●●●○
S18	Senator J Bennett Johnston Ave	I-210 on/off ramp	Merganser St	0.39	$925,000	High	●●●○
S19	W Prien Lake Rd	Srv Rd roundabout	Nelson Rd	1.01	$2,427,000	High	●●●○
S20	12th St	1st Ave	2nd Ave	0.16	$389,000	Med	●●●○
S21	12th St	Gerstner Memorial Dr	Russell St	0.23	$545,000	Med	●●●○
S22	13th St	Moss St	Enterprise Blvd	0.46	$1,094,000	Med	●●●○
S23	14th St	Bank St	Enterprise Blvd	0.19	$463,000	Med	●●●○
S24	15th St	Hodges St	Bank St	0.51	$1,213,000	Med	●●●○
S25	1st Ave	12th St	Prien Lake Rd	1.03	$2,469,000	Med	●●●○
S26	2nd St	Enterprise Blvd	2nd Ave	0.33	$784,000	Med	●●●○
S27	6th St	Kirkman St	Enterprise Blvd	0.32	$772,000	Med	●●●○
S28	Albert St/Fruge St	Church St	Belden St	0.07	$158,000	Med	●●●○
S29	Anita Dr	Ryder Ave	Anita Dr (E intersection)	0.21	$510,000	Med	●●●○
S30	Bank St	12th St	Gulf St	0.73	$1,761,000	Med	●●●○
S31	Bauer St	N Louisiana Ave	N Enterprise Blvd	0.07	$161,000	Med	●●●○

Active Transportation Projects

ID	Roadway	From	To	Length (mi.)	Cost Estimate	Priority	Implement. Level
S32	Blackwell St	N Martin Luther King Hwy	N Grace St	0.12	$281,000	Med	●●●○
S33	Burton Ln	W Prien Lake Rd	W Sale Rd	0.76	$1,813,000	Med	●●●○
S34	Contour St	East Pkwy	Common St	0.11	$263,000	Med	●●●○
S35	Contour St	University Dr	End of street (W)	0.70	$1,687,000	Med	●●●○
S36	Craft St	Warren St	Service alley	1.30	$3,125,000	Med	●●●○
S37	E McNeese St	Corbina Rd roundabout	Lake Crest Blvd	0.40	$958,000	Med	●●●○
S38	Evans St	Shattuck St	Prater St	0.26	$625,000	Med	●●●○
S39	Fitzenreiter Rd	Ory Rd	N Martin Luther King Hwy	0.22	$518,000	Med	●●●○
S40	Griffin St	Sally Mae St	N Martin Luther King Hwy	0.21	$510,000	Med	●●●○
S41	Hodges St	11th St	18th St	0.60	$1,429,000	Med	●●●○
S42	Jackson St	Ryan St	N Bank St	0.57	$1,378,000	Med	●●●○
S43	Kingham Rd	Mark St	Ike St	0.08	$186,000	Med	●●●○
S44	Kirkman St	N Railroad Ave	S Railroad Ave	0.03	$68,000	Med	●●●○
S45	Lake St	University Dr	~Dianne Ln	0.51	$1,224,000	Med	●●●○
S46	N Booker St	Knapp St	Moeling St	0.55	$1,330,000	Med	●●●○
S47	N Simmons St	Moeling St	Opelousas St	0.50	$1,209,000	Med	●●●○
S48	New connection	~Katherine St	N Goos Blvd	0.47	$1,117,000	Med	●●●○
S49	Old Hwy 171	Fitzenreiter Rd	Laurel Ridge Ct	0.23	$561,000	Med	●●●○
S50	Pine St	Enterprise Blvd	1st Ave	0.17	$407,000	Med	●●●○
S51	Pine St	Veterans Memorial Pkwy	Hodges St	0.40	$951,000	Med	●●●○
S52	S Railroad Ave	Ryan St	1st Ave	0.93	$2,241,000	Med	●●●○
S53	Senator J Bennett Johnston Ave	E Main St	Broad St	0.70	$1,687,000	Med	●●●○
S54	Southpark Dr	E McNeese St	Smith Rd	0.50	$1,207,000	Med	●●●○
S55	W Prien Lake Rd	L'Auberge Blvd	Holly Hill Rd roundabout	0.50	$1,202,000	Med	●●●○
S56	Weaver Rd	Country Club Rd	Plainview Dr	0.47	$1,122,000	Med	●●●○
S57	Winterhalter St	Shattuck St	Albert St	0.52	$1,251,000	Med	●●●○
S58	4th St	Louisiana Ave	Enterprise Blvd	0.07	$166,000	Low	●●●○
S59	6th St	5th Ave	6th Ave	0.13	$314,000	Low	●●●○
S60	Azalea St	Kirkman St	Louisiana Ave	0.25	$598,000	Low	●●●○
S61	Channel St	N Junior St	Sally Mae St	0.37	$898,000	Low	●●●○
S62	Church St	Ford St	Kirkman St	0.09	$212,000	Low	●●●○

Active Transportation Projects

ID	Roadway	From	To	Length (mi.)	Cost Estimate	Priority	Implement. Level
S63	Conoco St	N Malcolm St	N Martin Luther King Hwy	0.11	$267,000	Low	●●●○
S64	Courtney St	N Goos Blvd	N Prater St	0.13	$313,000	Low	●●●○
S65	Cypress St	Louie St	W 18th St	0.30	$723,000	Low	●●●○
S66	Fournet St	Orrin St	End of street (W)	0.15	$361,000	Low	●●●○
S67	Fournet St	N Enterprise Blvd	N Shattuck St	0.41	$990,000	Low	●●●○
S68	Gieffers St	N Shattuck St	N Prater St	0.25	$589,000	Low	●●●○
S69	Hagan St	N Booker St	N Simmons St	0.12	$298,000	Low	●●●○
S70	Hagan St	Graham St	N Martin Luther King Hwy	0.14	$329,000	Low	●●●○
S71	Hagan St	Pear St	N Booker St	0.17	$400,000	Low	●●●○
S72	Harless St	N Goos Blvd	N Prater St	0.13	$316,000	Low	●●●○
S73	Harless St	Pear St	N Booker St	0.17	$398,000	Low	●●●○
S74	Hazel St	Penn St	W 18th St	0.15	$362,000	Low	●●●○
S75	Honker St	Avenue E	~Sen J Bennett Johnston Ave	0.17	$398,000	Low	●●●○
S76	Katherine St	N Junior St	N Booker St	0.08	$197,000	Low	●●●○
S77	Katherine St	N Booker St	N Lincoln St	0.25	$604,000	Low	●●●○
S78	Lisle Peters Rd	Riverview Ln	E St Charles Ave	0.31	$752,000	Low	●●●○
S79	Moss St	12th St	15th St	0.27	$650,000	Low	●●●○
S80	Mount Talbot St	McNabb St	Baseball fields entrance	0.30	$726,000	Low	●●●○
S81	N 1st Ave	Fournet St	Jackson St	0.08	$200,000	Low	●●●○
S82	N Adams St	N Simmons St	Medora St	0.44	$1,058,000	Low	●●●○
S83	N Blake St	Commercial St	Martha St	0.08	$204,000	Low	●●●○
S84	N Blake St	Cessford St	Gieffers St	0.08	$204,000	Low	●●●○
S85	N Booker St	N Adams St	N Booker St	0.25	$599,000	Low	●●●○
S86	Overhill Dr	Central Pkwy	Beauregard St	0.15	$357,000	Low	●●●○
S87	Pear St	Harless St	Knapp St	0.09	$209,000	Low	●●●○
S88	See St	N Prater St	N Junior St	0.18	$423,000	Low	●●●○
S89	Smith Rd	Hebert's Pass	8th Ave	0.57	$1,366,000	Low	●●●○
S90	Theriot St	N Goos Blvd	N Prater St	0.13	$308,000	Low	●●●○
S91	Theriot St	Pear St	N Booker St	0.17	$404,000	Low	●●●○
S92	VE Washington Ave	I-10 Srv Rd	Belden St	0.06	$150,000	Low	●●●○
S93	W Claude St	Lake St	Kingston Pl	0.14	$329,000	Low	●●●○
S94	Woodring St	N Booker St	N Simmons St	0.12	$294,000	Low	●●●○

Intersection Recommendations

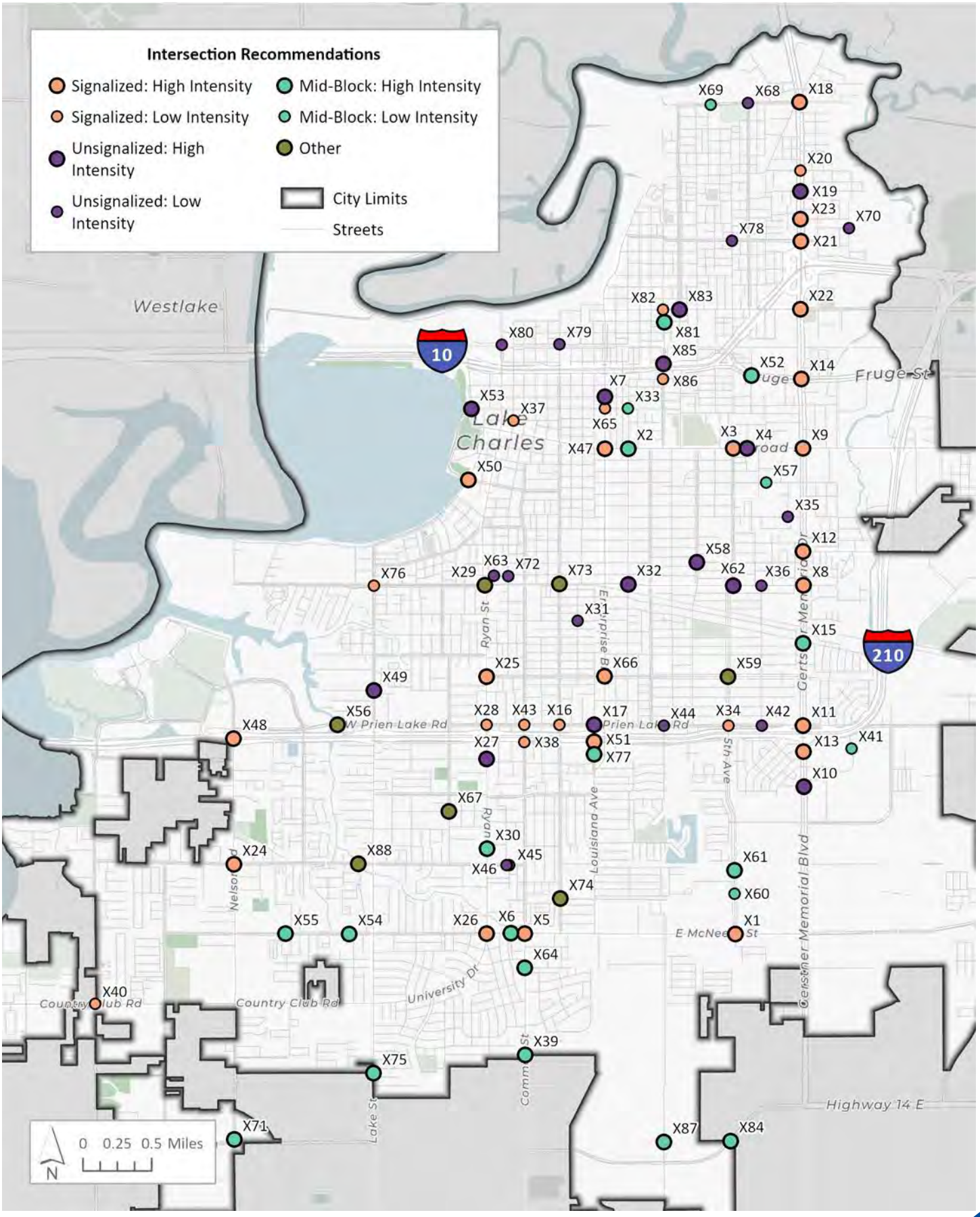


Table 1: Intersection Recommendations

ID	Location	Description	Cost Estimate	Priority	Implement. Level
X1	5th Ave & E McNeese St	Install pedestrian signal heads, stripe crosswalks on all approaches, install ADA ramps. Construct sidewalks on all corners.	$175,000	High	●●●○
X2	Broad St & 1st Ave	A signal warrant analysis should be performed prior to the installation of the PHB. If the signal warrant is not met then a PHB with high-visibility crosswalk is recommended for this location. Additionally, curb ramps should be installed.	$219,000	High	●●●○
X3	Broad St & 6th Ave	Install pedestrian signal heads, install ADA ramps on north side, stripe crosswalks on east, west, and south.	$85,000	High	●●●○
X4	Broad St & Kingsley St	Stripe crosswalk, install ADA ramps, install PHB, construct pedestrian refuge.	$241,000	High	●●●○
X5	E McNeese St & Common St	Restripe crosswalks, install ADA ramp on SW corner with sidewalk connecting to Shell service station parking lot.	$64,000	High	●●●○
X6	E McNeese St (Mid-Block)	Stripe crosswalk, install PHB, install ADA ramps, construct sidewalks on north and south sides, construct pedestrian refuge island.	$385,000	High	●●●○
X7	Enterprise at Pine (per provided GIS)	Stripe crosswalks on west, north, and east approaches, install ADA ramps, install RRFBs on north and south approaches.	$99,000	High	●●●○
X8	Gertsner Memorial Dr/LA-14 & 12th St	Install pedestrian heads, ADA curb ramps, and crosswalk striping on all approaches.	$95,000	High	●●●○
X9	Gertsner Memorial Dr/LA-14 & Broad St	Install pedestrian heads, ADA curb ramps, and crosswalk striping on all approaches. Construct sidewalk from Gersten Memorial to Scottish Inn Suites Hotel and around curve on the Exxon service station corner.	$208,000	High	●●●○
X10	Gertsner Memorial Dr/LA-14 & Coolidge St	Stripe east and north approach crosswalks, install ADA ramps on west side, construct sidewalks on west side, install PHB. Construct pedestrian refuge island on north approach	$265,000	High	●●●○
X11	Gertsner Memorial Dr/LA-14 & E Prien Lake Rd	Install pedestrian heads, ADA curb ramps, and crosswalk striping on north and east approaches. Construct pedestrian refuge island on north approach. Construct sidewalks on NE and NW corners.	$234,000	High	●●●○
X12	Gertsner Memorial Dr/LA-14 & Legion St	Restripe crosswalks, install pedestrian signal heads, install ADA curb ramps where necessary, construct pedestrian refuge island on southern intersection approach.	$137,000	High	●●●○
X13	Gertsner Memorial Dr/LA-14 & McKinley St	Install pedestrian signal heads on east and west approaches, stripe crosswalks on east, west, and south approaches, install ADA ramps, construct sidewalks on NE and SE corners and extend to nearest driveway on east approach.	$129,000	High	●●●○
X14	Gertsner Memorial Dr/LA-14 & US-90/Fruge St	Install pedestrian signal heads, stripe crosswalks, and install ADA ramps on the south and east approaches. Construct sidewalks on the SW, SE, and NE corners.	$161,000	High	●●●○

Active Transportation Projects

ID	Location	Description	Cost Estimate	Priority	Implement. Level
X15	Gertsner Memorial Dr/LA-14 (Mid-Block)	Restripe crosswalk, install RRFBs.	$39,000	High	●●●○
X16	Kirkman St & E Prien Lake Rd	Install pedestrian signal heads, stripe crosswalks on all approaches, install ADA ramps. Extend concrete on SE corner.	$106,000	High	●●●○
X17	Louisiana Ave & E Prien Lake Rd	See Project X51.	$231,000	High	●●●○
X18	N. MLK Hwy/US-171 & Fitzenrieter Rd	Install raised concrete medians.	$221,000	High	●●●○
X19	N. MLK Hwy/US-171 & Griffin St	Access management, as recommended in the MTP.	Included in Safety Project R19	High	●●●●
X20	N. MLK Hwy/US-171 & Medora St	Stripe crosswalks and add pedestrian signal heads on 3 of 4 approaches. Access management included in Project R19.	$40,000	High	●●●○
X21	N. MLK Hwy/US-171 & Moeling St	Access management, as recommended in the MTP.	$4,000,000	High	●●●●
X22	N. MLK Hwy/US-171 & Opelousas St	Install pedestrian signal heads on west and north approaches, stripe crosswalks on west and north approaches, install ADA ramps, construct sidewalks on SW corner from driveway to driveway.	$118,000	High	●●●○
X23	N. MLK Hwy/US-171 & Pineview St	Access management, as recommended in the MTP.	Included in Safety Project R19	High	●●●●
X24	Nelson Rd & Nelson Rd (W Sale Rd per provided GIS map)	Install pedestrian signal head, stripe crosswalk on all approaches, install ADA ramps.	$140,000	High	●●●○
X25	Ryan St & Alamo St	Install pedestrian signal heads, restripe crosswalks on all approaches, install ADA ramps.	$118,000	High	●●●○
X26	Ryan St & E McNeese St	Construct pedestrian refuge island on east approach right-turn splitter island. Mark sharrow lane and signage.	$28,000	High	●●●○
X27	Ryan St & W LaGrange St	Recommend the installation of a PHB, crosswalks, pedestrian signal heads, and ADA ramps.	$211,000	High	●●●○
X28	Ryan St & W Prien Lake Rd / E Prien Lake Rd	Stripe crosswalks on all approaches.	$42,000	High	●○○○
X29	Ryan St & W Sallier St	Roundabout at Ryan and Sallier in conjunction with rail realignment, as recommended in the MTP.	$15,000,000	High	●●●●
X30	Ryan St (Mid-Block)	Install PHB, stripe crosswalk, install ADA ramps where appropriate.	$207,000	High	●●●○
X31	15th St & Bank St	Install ADA ramps on all corners.	$18,000	Med	●●●○

ID	Location	Description	Cost Estimate	Priority	Implement. Level
X32	1st Ave & 12th St	Install RRFBs on all approaches, stripe crosswalk across, install ADA ramps at existing trail end.	$79,000	Med	●●●○
X33	1st Ave & Mill St	Install "cross traffic does not stop" signage on pedestrian path.	$1,000	Med	●○○○
X34	5th Ave & E Prien Lake Rd	Install pedestrian signal heads at 5th Ave and College. Restripe existing crosswalks at both intersections. If road diet is constructed on E Prien Lake, pedestrian refuge islands can be built on the east and west approaches and still maintain a through lane and left turn lane at the intersection. Islands are assumed to be 10 feet wide by 70 feet long.	$167,000	Med	●●●○
X35	6th St & Roseteet St	Stripe north approach crosswalk.	$5,000	Med	●○○○
X36	7th Ave & 12th St	Stripe crosswalk on north and east approaches, install ADA ramps.	$25,000	Med	●●●○
X37	Bilbo St & Division St	Stripe crosswalks on all approaches, install ADA ramps, extend concrete to avoid signal poles and other utilities.	$53,000	Med	●●●○
X38	Common St & College St	Install pedestrian heads, restripe crosswalks.	$90,000	Med	●●●○
X39	Common St (Mid-Block)	Stripe crosswalk, install PHB, install ADA ramps, construct sidewalks, construct pedestrian refuge island.	$309,000	Med	●●●○
X40	Country Club Rd & Elliot Rd / Ihles Rd	Install pedestrian signal heads, stripe crosswalks on all approaches, install ADA ramps. Construct sidewalks on all corners.	$169,000	Med	●●●○
X41	Derek Dr (Mid-Block)	Install RRFBs, stripe crosswalk, and install ADA ramps.	$80,000	Med	●●●○
X42	E Prien Lake Rd & 7th Ave	Stripe crosswalks on the north and west approaches, install ADA ramps, install RRFBs.	$ 64,000	Med	●●●○
X43	E Prien Lake Rd & Common St	Install pedestrian signal heads, stripe crosswalks on all approaches.	$87,000	Med	●●●○
X44	E Prien Lake Rd & Texas St	Stripe crosswalks on the south and east approaches, install ADA ramps, install RRFBs, construct sidewalks on SE corner.	$67,000	Med	●●●○
X45	E Sale Rd & Allen Dr	Restripe existing crosswalks and install RRFBs.	$42,000	Med	●●●○
X46	E Sale Rd & Hodges St	Stripe crosswalk on north approach. Replace yield with stop sign, install RRFBs.	$37,000	Med	●●●○
X47	Enterprise at Broad (per provided GIS)	Install pedestrian signal heads, stripe crosswalks on south, east, and north approaches, install ADA ramps, construct pedestrian refuge island on south approach.	$155,000	Med	●●●○
X48	I-210 & Nelson Rd	Diverging Diamond Interchange recommended by 2050 MTP.	$45,000,000	Med	●●●●
X49	Lake St & Deesport St	Stripe crosswalks on north and west approaches, install ADA ramps, construct sidewalks on SW and NW corners.	$38,000	Med	●●●○
X50	Lakeshore Dr & W Clarence St	Install pedestrian signals, install ADA ramps on SE corner, and restripe crosswalks on all approaches.	$98,000	Med	●●●○

Active Transportation Projects

ID	Location	Description	Cost Estimate	Priority	Implement. Level
X51	Louisiana Ave & College St	Install pedestrian signal heads, restripe crosswalks (Louisiana at College). Stripe north-south crosswalks, install ADA ramps. Construct pedestrian refuge splitter islands on east and west side (Louisiana at WB ramps). Stripe crosswalk on south approach, install ADA ramps. Additional recommendations based on signal warrant analysis results (E Prien at Louisiana).	$231,000	Med	●●●○
X52	US-90/Fruge St & Kingsley St	Stripe crosswalk on east and north approaches, install ADA ramps, install RRFBs, construct sidewalks on NE and NW corners, create median opening for pedestrian refuge island.	$119,000	Med	●●●○
X53	Veterans Memorial Blvd & Mill St	Install PHB, stripe crosswalks, and install ADA ramps. Construct sidewalk on Mill St to connect to existing sidewalk.	$240,000	Med	●●●○
X54	W McNeese St (Mid-Block)	Stripe crosswalk, install PHB, install ADA ramps, construct sidewalks on north and south sides.	$281,000	Med	●●●○
X55	W McNeese St (Mid-Block)	Stripe crosswalk, install PHB, install ADA ramps. Extend concrete bulb-out on school property.	$233,000	Med	●●●○
X56	W Prien Lake Rd (Mid-Block)	See Safety Project #5.	Included in Safety Project R15	Med	●●●●
X57	3rd St (Mid-Block)	Stripe crosswalk, install advance warning signage, construct sidewalks on NE and SE corners.	$32,000	Low	●●●○
X58	4th Ave & 10th St	Add stop sign on 10th Ave.	$1,000	Low	●○○○
X59	5th Ave & Oak Park Blvd	Install RRFBs on all approaches. Existing sidewalks and striping adequate.	$128,000	Low	●●●○
X60	5th Ave (Mid-Block)	Install RRFBs, stripe crosswalk, install ADA ramps.	$82,000	Low	●●●○
X61	5th Ave (Mid-Block)	Recommend the installation of RRFB, stripe crosswalk, create a cutout in existing median to create pedestrian refuge, install ADA ramps, construct sidewalks on west side of 5th Ave.	$181,000	Low	●●●○
X62	6th Ave & 12th St	Stripe crosswalks on north and east approaches, install ADA ramps. East approach crosswalk should be shifted as far east as possible to have southern landing outside of the residential driveway footprint. Install RRFBs on east and west approaches.	$52,000	Low	●●●○
X63	Bilbo St & 11th St	Stripe crosswalks on west, north, and east approaches, install ADA ramps, extend sidewalks where applicable, install advanced warning signage.	$37,000	Low	●●●○
X64	Common St (Mid-Block)	Stripe crosswalk, install PHB, install ADA ramps, construct sidewalks, construct pedestrian refuge island.	$293,000	Low	●●●○
X65	Enterprise at Mill St (per provided GIS)	Install pedestrian signal heads, restripe existing crosswalks.	$75,000	Low	●●●○

Active Transportation Projects

ID	Location	Description	Cost Estimate	Priority	Implement. Level
X66	Enterprise Blvd & Oak Park Blvd / Alamo St	Install pedestrian heads, ADA curb ramps, and crosswalk striping on all approaches if not included in the current ongoing project. Construct sidewalk on north side of Alamo to connect Enterprise to Louisiana.	$160,000	Low	●●●○
X67	Ernest St & W Oak Ln	Stripe crosswalk on north approach, install advance warning signage.	$ 8,000	Low	●○○○
X68	Fitzenrieter Rd & Simmons St	Add crosswalks to connect Simmons to northside sidewalk. Stripe crosswalk on west and south approaches, install ADA ramps, extend sidewalk on SW and SE corners.	$34,000	Low	●●●○
X69	Fitzenrieter Rd (Mid-Block)	Stripe crosswalk, install RRFBs, construct pedestrian refuge.	$71,000	Low	●●●○
X70	Guy St & Cathy St	Stripe crosswalks on all approaches, install ADA ramp on east side, install RRFBs due to proximity to school.	$51,000	Low	●●●○
X71	Ham Reid at Nelson	Install RRFBs on north approach.	$32,000	Low	●●●○
X72	Hodges St & 11th St	Stripe east, west, and section between 11th St intersections. Install ADA ramps.	$45,000	Low	●●●○
X73	Kirkman St & 12th St	Stripe crosswalks on all approaches, install ADA ramps, install signage.	$45,000	Low	●●●○
X74	Kirkman St (Mid-Block)	Pedestrian bridge.	$827,000	Low	●●●●
X75	Lake between Oxford and Diane (per provided GIS)	Installation of RRFBs, striping crosswalk, install ADA ramps, construct sidewalk for future pedestrian path connection.	$56,000	Low	●●●○
X76	Lake St & W Sallier St	Install pedestrian signal heads, stripe crosswalks on south and east approaches, install ADA ramps, construct sidewalk in SE corner and splitter island.	$114,000	Low	●●●○
X77	Louisiana Ave (Mid-Block)	Recommend the installation of RRFBs, stripe crosswalk, construct sidewalks on west side, install ADA ramps where appropriate.	$175,000	Low	●●●○
X78	Moeling St & Booker St	Stripe crosswalk on east approach.	$7,000	Low	●○○○
X79	N Kirkman St & Railroad Ave	Install crosswalk and ADA ramps on north approach.	$14,000	Low	●○○○
X80	N Ryan St & Railroad Ave	Install crosswalk and ADA ramps on south approach.	$14,000	Low	●○○○
X81	N Shattuck St & Fournet St	RRFB on N Shattuck would be the preferred advanced warning system at this location. In addition to the installation of the RRFB, it is recommended to install a crosswalk on Fournet St and include ADA ramps at all access points.	$97,000	Low	●●●○
X82	N Shattuck St & Opelousas St	Stripe crosswalk on north approach.	$34,000	Low	●○○○

Active Transportation Projects

ID	Location	Description	Cost Estimate	Priority	Implement. Level
X83	Opelousas St & N Goos Blvd	Construct pedestrian crossing facilities across N Goos Blvd on north side to utilize existing sidewalks. Construct pedestrian facilities across Opelousas for future projects. Stripe crosswalks on north, east, and west approaches, install ADA ramps where appropriate, construct sidewalks on SE and SW corners.	$56,000	Low	●●●○
X84	Red Davis McCollister E of Coulee Hippolyte	Installation of RRFBs, striping crosswalk, install ADA ramps, construct sidewalk for future pedestrian path connection.	$56,000	Low	●●●○
X85	S Shattuck St & I-10 Service Rd	Install RRFBs (west approach at Belden, east and south approach at I-10 Service Rd), install crosswalk and ADA ramps at Belden east approach.	$110,000	Low	●●●○
X86	S Shattuck St & Winterhalter St	Install crosswalks on all approaches, install ADA ramps, construct sidewalk on NE and SE corners. Residential street unsignalized.	$53,000	Low	●●●○
X87	Southpark N of Red Davis McCollister	Installation of RRFBs, striping crosswalk, install ADA ramps, construct sidewalk for future pedestrian path connection.	$56,000	Low	●●●○
X88	W Sale Rd (Mid-Block)	Construct pedestrian bridge and connecting sidewalks.	$719,000	Low	●●●●

Non-Motorized Facility Design Guide

Lake Charles Safety Action Plan

August 2025

Legal Disclaimer: This document and the information contained herein is prepared solely for the purpose of identifying, evaluating and planning improvements on public roads which may be implemented utilizing federal aid highway funds; and is therefore exempt from discovery or admission into evidence pursuant to 23 U.S.C. 407.

Introduction

This guide describes the types of non-motorized facilities that can be implemented to create a safe, connected, and complete bicycle and pedestrian network. It is intended to inform decision making regarding improvements to the Lake Charles multimodal transportation system.

Non-motorized facilities facilitate the movement of people walking, using wheelchairs, or riding bicycles, scooters, and other micromobility devices such as e-bikes and e-scooters. This guide categorizes facility types into the various treatments that can be applied along corridors, at intersections, and at mid-block crossings.

Context

Constructing and improving non-motorized facilities helps to address safety concerns, since pedestrians and bicyclists are especially vulnerable in crashes with vehicles. This guide accompanies the Lake Charles Safety Action Plan, which identifies crash hot spots and recommends projects to improve safety for all road users.

The City of Lake Charles is working to identify potential improvements and funding sources for the active transportation network.

Needs

Investing in active transportation offers numerous benefits for Lake Charles residents and visitors. Facilities that are designed with pedestrians and cyclists in mind create safer, more comfortable options for both transportation and recreation.

As part of the Lake Charles Safety Action Plan development, a data driven needs assessment was conducted to understand both existing conditions and demand for walking or biking. Analysis for Latent Demand, Bicycle Level of Traffic Stress (BLTS), Pedestrian Level of Traffic Stress (PLTS), and crash history help identify locations that would benefit most from non-motorized facilities. These analyses are described below.

Latent Demand Analysis

Latent demand represents potential unfulfilled demand for various reasons. Throughout the project study area there is latent demand for more active transportation options because the built environment is designed for and dominated by the automobile.

The latent demand analysis combines geospatial data which cumulatively represents want and need for active transportation options. Population density, demographic factors, employment density, and local destinations are used as factors for analysis to identify areas which will see the most impact from bike and pedestrian infrastructure.

Bicycle Level of Traffic Stress (BLTS) Analysis

A Bicycle Level of Traffic Stress analysis examines roadway characteristics to determine how comfortable bicyclists would be when riding throughout the city. In general, roadways that have bicycle infrastructure including shared use paths or bike lanes separated from vehicular traffic are lower stress for bicyclists. Additionally, roadways with fewer lanes, fewer vehicles, and slower speeds are considered less stressful for bicyclists.

The BLTS analysis shows that roadways in Lake Charles that connect *between* neighborhoods, communities, and destinations, including higher volume collectors and arterials, are consistently much higher stress for bicycle travel. Roadways with existing bike or shared use facilities are markedly lower stress, and they become a more feasible option for use by a wider share of the public. Connecting these facilities into a safe, comfortable network will require significant but worthwhile time and investment.

Pedestrian Level of Traffic Stress (PLTS) Analysis

Similar to the BLTS analysis, the Pedestrian Level of Traffic Stress analysis focuses on roadway characteristics that inform the level of comfort for people walking. The PLTS analysis reviewed all roadways in Lake Charles to determine whether sidewalks are present and if there is a buffer between pedestrians and traffic. Around 40% of roadways in Lake Charles have existing sidewalks, and PLTS varies widely across the network. Improving sidewalk connectivity along major thoroughfares in particular will make walking safer for more people.

Crash Analysis

A thorough analysis of crash history was conducted for the Lake Charles Safety Action Plan. Part of this analysis included an examination of crashes that involved pedestrians and bicyclists from 2019 to 2023. While active transportation users were involved in a small percentage of total crashes (1.42%), these crashes were about 17 times more likely to result in a serious injury and 23 times more likely to be fatal.

Resources

The design and facility selection guidance in the Lake Charles Non-motorized Facility Design Guide is based on a review of guides from peer cities and a review of multiple national and statewide resources. These resources, listed below, establish current standards and best practices related to bikeway design elements, materials, and appropriate placement. While this guide aims to provide relevant information for informed decision making, officials, engineers, and planners are encouraged to consult the latest available federal and state standards to ensure compliance.

Louisiana DOTD Complete Streets Minimum Design Guidelines (2017)

The Department of Transportation and Development (LADOTD) design guidelines specify dimensions, speed limits, and other variables for urban and rural roadways. It also describes the preferred and minimum acceptable widths of pedestrian and bicycle facilities in urban and rural settings. See LADOTD EDSM II.2.1.14 guidelines.

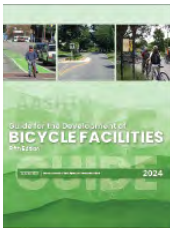
Louisiana DOTD Complete Streets Engineering Directives and Standards (EDSM) (2016)

EDSM No II.2.1.14 implements a complete street policy within the state, and identifies the circumstances that require the planning, funding, and design of pedestrian, bicycle, and transit facilities.

Louisiana DOTD Sidepath Suitability Analysis for Road Crossings

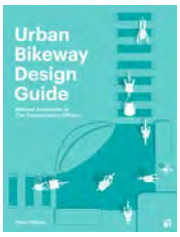
This chart provides specific state guidance for the implementation of sidepaths based on the number of residential driveway and road crossings per mile.

AASHTO Guide for the Development of Bicycle Facilities (Fifth Edition, 2024)



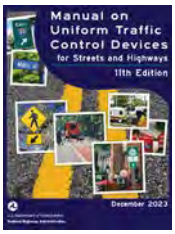
This guide from the American Association of State Highway and Transportation Officials (AASHTO) provides bicycle infrastructure specifications and assists in selecting appropriate bikeway elements.

NACTO Urban Bikeway Design Guide (Third Edition, 2025)



This guide from the National Association of City Transportation Officials (NACTO) describes how cities can create safe and well connected bicycle facilities for a wide range of users.

FHWA Manual on Uniform Traffic Control Devices – 11th Edition (2023)

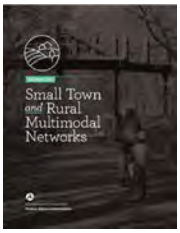


The Federal Highway Administration's recently updated MUTCD establishes national standards for streets, highways, and pedestrian and bicycle facilities.

FHWA Bikeway Selection Guide (2019)

This guide provides information about factors to be considered in the selection of bikeway types.

FHWA Small Town and Rural Multimodal Networks (2016)



This publication is focused on the implementation of active transportation facilities in rural and small town areas.

Facility Guidelines

The design guide provides details for different types of facilities for active transportation, based on the previously described resources. There are recommendations for both corridor, intersection, and mid block treatments, with typical design standards, standard use, and implementation details for each. This design guide is intended to be a resource for general design information and does not replace the need for professional design services and engineering judgment.

Facility Guideline Contents

Implementation

Right-of-way (ROW) limitations, existing roadway characteristics, and other physical constraints can make even the highest priority projects difficult to implement. Each facility type described in the guide includes an implementation scale, or feasibility level, from 1 to 4 to denote the relative ease of facility construction.

Level 1 - Striping and signage only
These facility types fit within the existing ROW and are generally easy to implement.

Level 3 - Construction Required
These facility types may fit within existing ROW but require moving the curb, construction of a new facility, or significant electrical work.

Level 2 - Reallocation of Space
These facility types can fit withing the existing ROW, but require removal of travel lanes or on-street parking.

Level 4 - Major Construction or ROW Acquisition Required
These facilities likely require substantial ROW purchase or other major construction investments.

Pedestrian Facility Selection

Every trip in Lake Charles involves being a pedestrian at some point, even if only for a short time. People range in their abilities and comfort while walking or rolling in a wheelchair in the public right of way. The following groups require special attention when selecting facilities for pedestrians.

- Children walk at slower speeds, and they require plenty of space for strollers, walking next to an adult, and as a precaution for impulsive movements.
- Older adults may have physical impairments and require more time at crossings.
- People with disabilities require accessible curb ramps for mobility aids or devices. They are comfortable on facilities that are separated from fast moving vehicles.

The proper facility for pedestrians also depends on the land use in the surrounding area and the expected level of facility use. For example, in *some* rural contexts, roadway shoulders can be utilized for pedestrian movement. In urban contexts, the number of destinations, length of blocks, density of driveways, and presence of landscaping all impact the comfort of pedestrian facilities.

Pedestrian Crossings

Marked crosswalks should be provided frequently for pedestrians to conveniently and safely cross the street. There are different types of crosswalks, depending on location (intersection or midblock) and roadway characteristics. Because pedestrians are particularly vulnerable to injury when involved in crashes, it is important that they are highly visible to drivers. Elements to enhance crosswalk visibility include: improved street lighting, pavement markings, and signage.

Crosswalk design guidelines

- The crossing distance should be minimized.
- Crosswalk striping should be as wide as or wider than the connecting sidewalk or walkway.
- Crosswalks should not force pedestrians to deviate from the pedestrian through zone, to encourage walking and proper crosswalk use.
- Stop bars for vehicles should be located prior to the crosswalk.

Intersection lighting can reduce pedestrian crashes up to 42%

(FHWA-SA-21-049 Proven Safety Countermeasures)

ADA Accessible Infrastructure

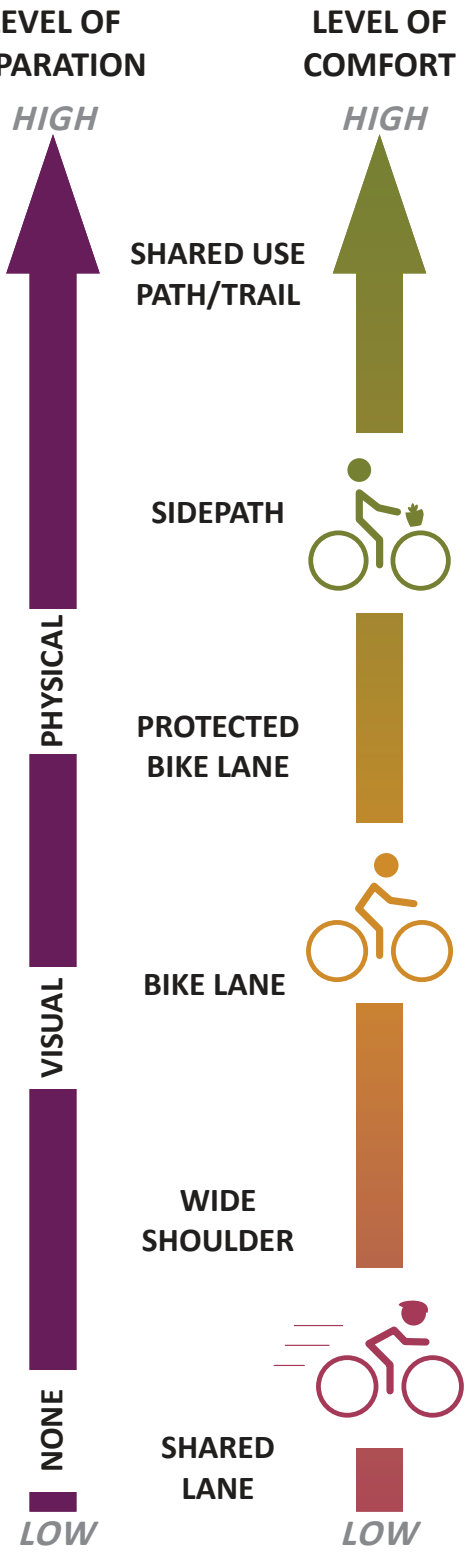
The Americans with Disabilities Act (ADA) ensures accessibility and usability of pedestrian facilities for persons with disabilities. Accessible infrastructure is a requirement that benefits all pedestrians. Curb ramps are accessibility features that improve usability for those using wheelchairs or mobility aids. In addition, it is important that sidewalks have smooth surfaces that are free of debris, major cracks, and other obstructions. Tactile warning surfaces help to inform those with vision impairments of roadway edges.

Curb ramp at intersection in Pearland, Texas. Credit: ATG|DCCM 2024

Pedestrian push button with audible feedback. Lafitte Greenway, New Orleans. Credit: ATG|DCCM 2024

Facility Selection for Bicyclists

Different types of bicyclists feel most comfortable on different types of facilities. The user and their skill level and comfort should be considered when selecting bicycle facility types. The graphic below shows how different bicycle facilities align with levels of comfort and separation from vehicular traffic.



Physical separation is where the bicycle facility is separate from the roadway or where there is a vertical barrier between cars and bicycles.

Visual separation is where the bicycle facility is marked by paint or other surface markings.

No separation, visual or physical, requires vehicles and bicycles to share the same space.

TYPE OF RIDER

Interested but Concerned Cyclists:

Those new to cycling, young, or casual riders that are willing to bike if there is high quality infrastructure that is fully separated from vehicle traffic. These riders are cautious and/or inexperienced.

Enthused and Somewhat Confident Cyclists:

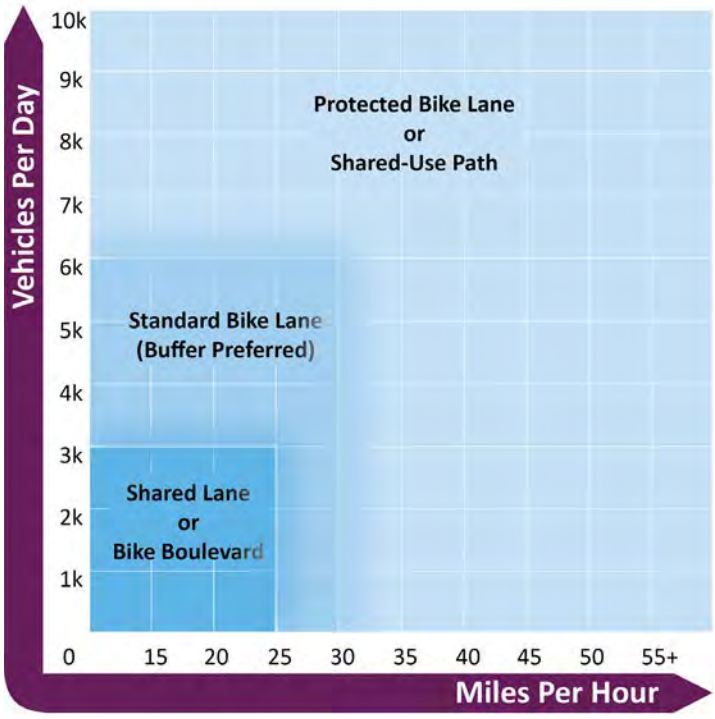
Those that have some cycling experience and are comfortable if there is some dedicated bicycle infrastructure present.

Highly Confident Cyclists:

Those that are skilled riders and willing to bike on roads with no dedicated bicycle infrastructure. May travel at speeds of 20+ mph.

Bicycle facility selection is greatly influenced by traffic volume and speed. Roads with fast and heavy traffic require full separation for bicyclist safety and comfort. Roads with slow and infrequent traffic can have facilities with less separation. For a low-stress bicycle network for all ages and abilities, the emphasis should be on facility quality and appropriate contexts rather than simply the presence or lack of bicycle facilities.

Bicycle Facility Selection by Road Speed and Volume



Credit: FHWA Bikeway Selection Guide page 23

Regardless of the type of bicycle facility, pavement markings and signage are essential for facilitating predictable and intuitive movement.

Green pavement markings enhance awareness and help reduce collisions by clearly delineating space for cyclists. Where a facility is solely dedicated to bicycles, solid green paint should be used to provide differentiation from the street and sidewalk. At conflict points such as intersections, the surface of the street can be painted with green stripes to highlight shared spaces that both vehicles and bicycles utilize. Ultimately, green pavement sends a clear signal to motorists, pedestrians, and bicyclists that there is a designated space for biking and all users should pay attention.

Bicycle signalization, including dedicated bike signals and leading bike intervals, provides cyclists with clearer guidance and priority at intersections, helping to separate bicycle movements from vehicle turning movements. By providing cyclists with their own signals, conflicts with turning vehicles and pedestrians are reduced. Signals can also clarify who has the right of way and improve cyclist's feelings of safety. Together, these treatments support a more predictable and intuitive experience for all road users.

By utilizing these treatments, roadways can become safer and more inviting for all users. Clarifying who has the right of way or increasing awareness of different types of road users can reduce crashes and allows everyone to move around safely.

Safety in Numbers

The 2024 AASHTO Guide for Bicycle Facilities describes how there is safety in numbers for bicyclists due to increased motorist awareness. Adding bike facilities supports more bicyclists, which in turn correlates with more safety overall in a positive feedback loop.

This guide provides general direction based on the key roadway characteristics of traffic speed and volume, but it is not prescriptive. Rather, it is for reference when evaluating other corridor specific data including crash history, BLTS, PLTS, and latent demand.

Facility Type: Sidewalks

Sidewalks are a universal facility for pedestrians, but they should still be designed in a context-sensitive manner. Sidewalks should be designed at the appropriate scale for a corridor, exist on both sides of the street, and provide a clear path for pedestrians following ADA accessibility guidelines. Sufficient lighting, shade, buffers, and street level activities should be considered in accordance with neighborhood and roadway characteristics.

Typical Design Standards:

» Absolute minimum width of 5 ft

» In residential settings, sidewalks should be 5-8 ft; In downtown areas or commercial zones, sidewalks should be 8-12 ft

» A minimum buffer of 2 ft for street furniture and utilities is needed if the sidewalk is directly adjacent to moving traffic. A buffer of 4 ft is more desirable to accommodate trees and space for car door opening when street parking is present.

» Shoulders should not serve as sidewalks in urban areas. Safety measures should be installed to separate pedestrians and moving traffic.

Standard Use

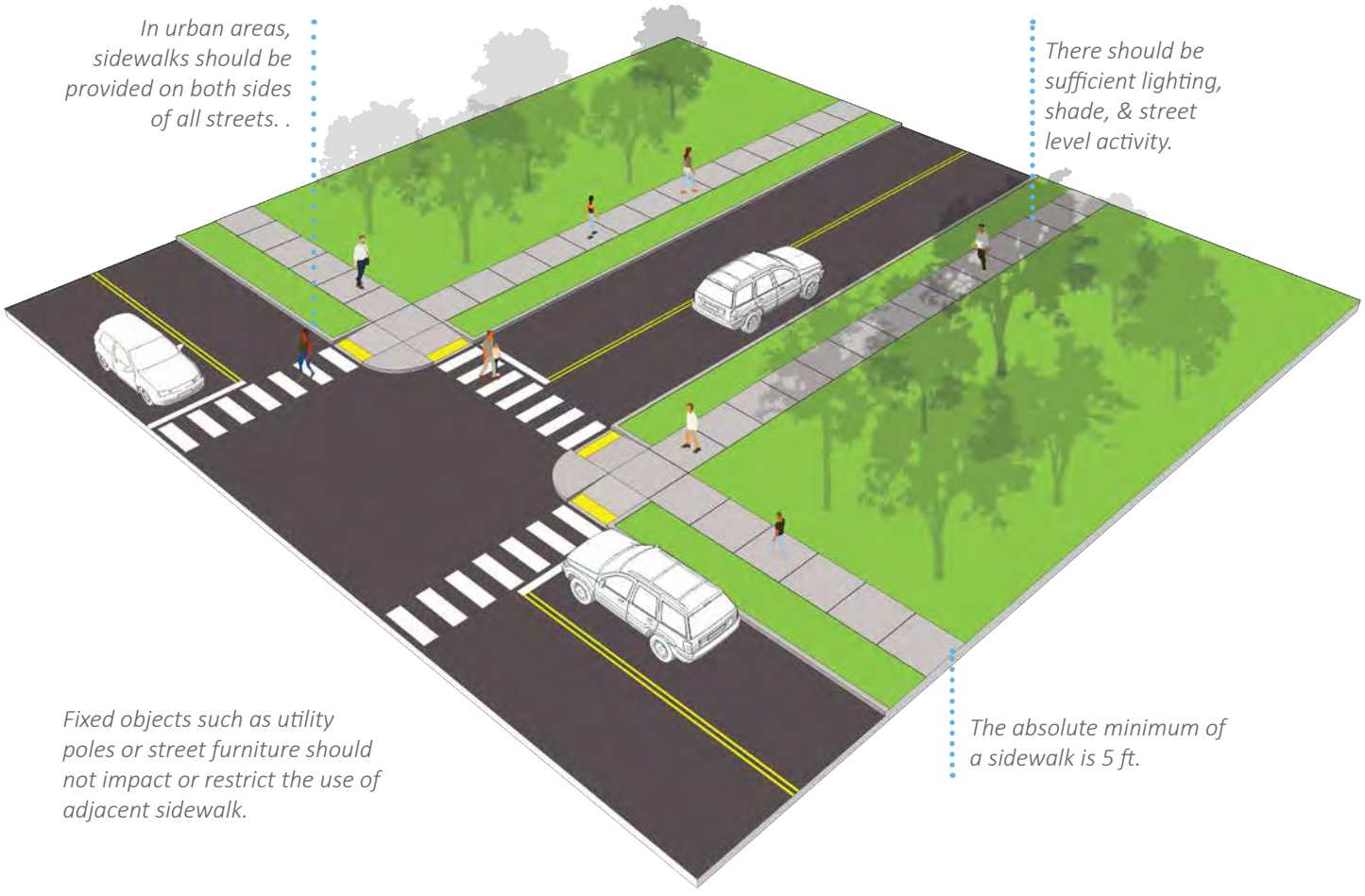
» Appropriate for most contexts

Implementation ●●●○

» Some construction is required, with costs varying depending on location and context.

» Sidewalks should be included with all new road projects. Adding sidewalks to existing roadways can be more difficult if right-of-way is limited.

» Priority corridors for sidewalk construction include those that lead to parks, schools, and other major public destinations. In addition, roadways with bus routes should be prioritized for sidewalks, as all transit users are pedestrians at the beginning and end of their trip.



Benefits

- » Sidewalks enhance retail and commercial areas by increasing street life and activity from residents and visitors
- » Neighborhood sidewalks improve connectivity and promote walking for residents – increasing property values
- » Sidewalks facilitate outdoor exercise, benefiting public health both physically and mentally
- » Sidewalks serve as "civic infrastructure" which provide space for community members to interact and build trust
- » Sidewalks that are ADA compliant are suitable for users of all ages and abilities

Pedestrian Sidewalk Zones

The National Association of City Transportation Officials (NACTO) identifies four distinct zones for urban sidewalks.

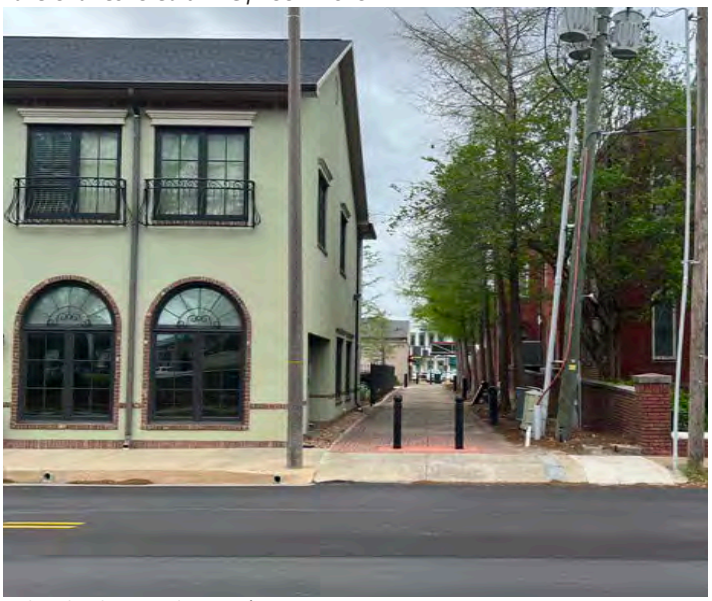
1. Frontage Zone: The space closest to buildings fronting the street is the frontage zone. It includes entryways and may have signage. This space allows people to walk a comfortable distance from building facades.

2. Through Zone: Next to the frontage zone is the space where pedestrians walk parallel to the street.

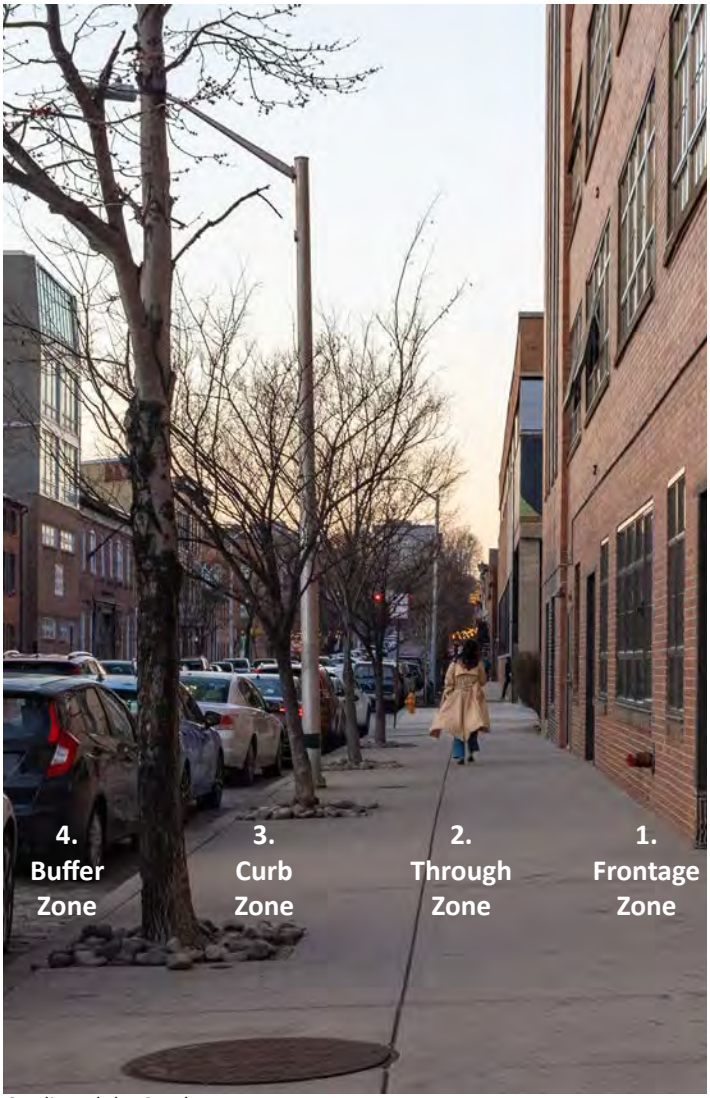
3. Curb Zone: The curb zone is section of the sidewalk between the curb and the through zone. It can include amenities such as benches, street signs, bicycle parking, vegetation, and light poles.

4. Buffer Zone: the space immediately next to the sidewalk may consist of different elements. This area separates the sidewalk from the street and can incorporate bike lanes, curb extensions, or stormwater management features.

Lake Charles. Credit: ATG|DCCM 2025



Lake Charles. Credit: ATG|DCCM 2025



Credit: Adobe Stock

Facility Type: Shared Use Paths

Shared use paths, or trails, are paved paths that are fully separated from and independent of the roadway. They provide safe, low-stress connectivity and recreation opportunities for both cyclists and pedestrians. When along natural features such as levees, water bodies, or through forested areas, these are sometimes called greenways.

Shared use paths provide a high level of comfort and attract a wide range of users of all ages and abilities. The width of the shared use path determines functionality and capacity for users.

Standard Use

» Ideal for corridors along bodies of water, irrigation channels, drainage canals, utility right of ways, and existing or abandoned rail lines

Implementation ●●●●

» Major construction or ROW acquisition required

» Widths need to allow for comfortable passing space and side by side walking or cycling

Typical Design Standards

» Shared use paths should intersect roadways at mid block crossings or at signalized/stop controlled intersections

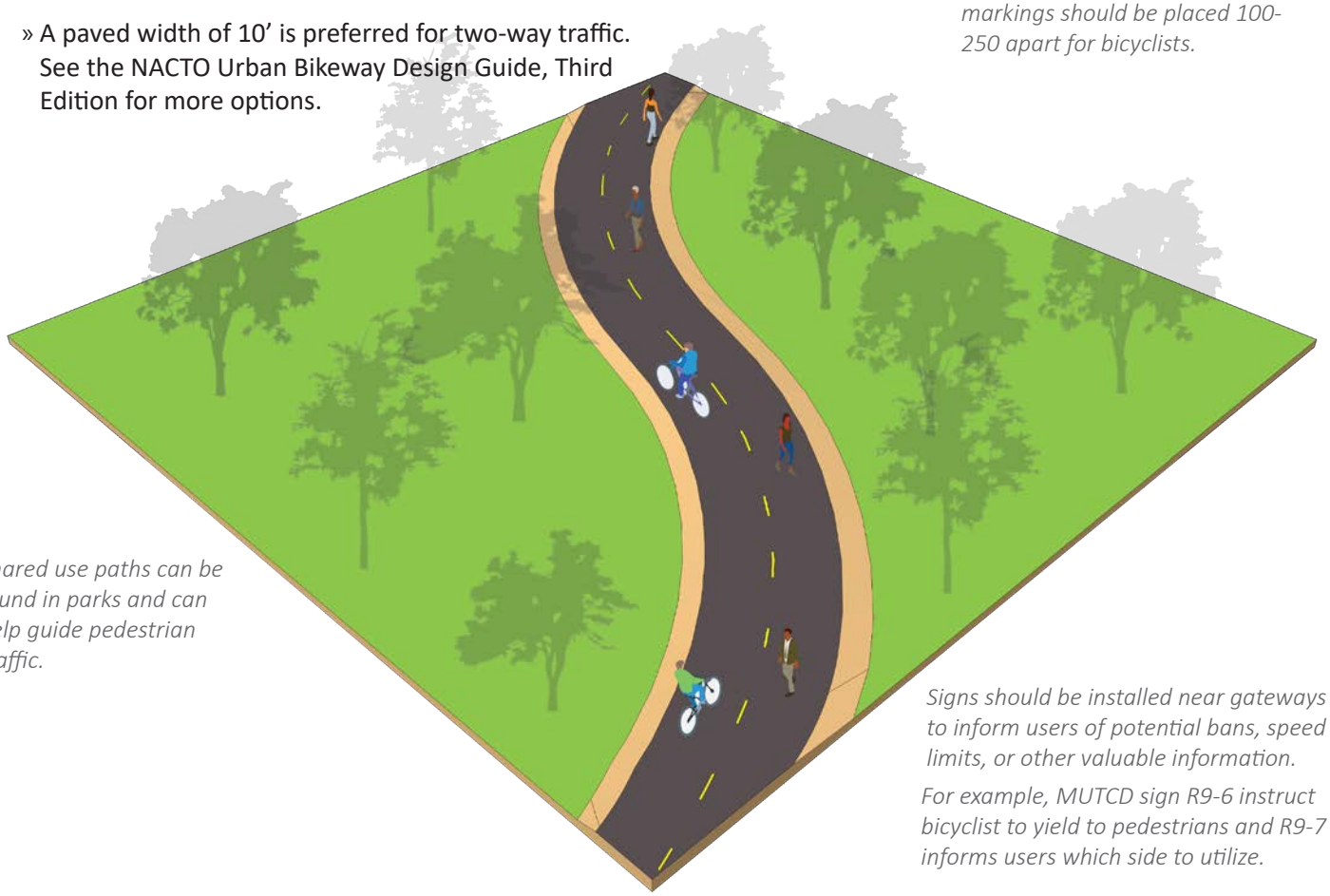
» Grade separation from roadways or railroads can be used to maintain user comfort and minimize interactions

» Intended for two-way travel for a variety of users

» A paved width of 10’ is preferred for two-way traffic. See the NACTO Urban Bikeway Design Guide, Third Edition for more options.

Shared use paths extend and compliment the on street network of non-motorized facilities.

Shared lane markings or bikeway markings should be placed 100-250 apart for bicyclists.



Shared use paths can be found in parks and can help guide pedestrian traffic.

Signs should be installed near gateways to inform users of potential bans, speed limits, or other valuable information.

For example, MUTCD sign R9-6 instruct bicyclist to yield to pedestrians and R9-7 informs users which side to utilize.

Source: Based on NACTO Urban Bikeway Design Guide, Third Edition

Benefits

» Removes cyclists from the roadway and minimizes or eliminates conflicts with vehicles

» Can provide connection within and between parks or other open spaces

» Encourages a wide variety of users by increasing a sense of safety and comfort: Bicyclists, pedestrians, runners, wheelchairs, and those using in-line skates, skateboards, scooters, etc. are accommodated

» Supports socializing while traveling

» Can connect to sidepaths along the roadway

Credit: ATG | DCCM

User Conflicts on Shared Use Paths

While conflicts with motor vehicles is minimized on a shared use path, there are still potential conflicts between users to keep in mind:

» Path users traveling at different speeds

» Path users passing one another

» Inadequate sight lines

Lake Charles. Credit: ATG|DCCM 2025

Facility Type: Sidepaths

Sidepaths are shared use paths that run parallel to a roadway. These paths are physically separated from the roadway and safely support both pedestrian and cyclist traffic. The co-location of a sidepath and a sidewalk may be appropriate in locations with high pedestrian traffic, but in most circumstances, they are appropriate where bicycle and pedestrian interactions won't create continual conflict. Sidepaths are suitable for streets that have heavy traffic, high speed limits, and fewer driveway crossings. While they can provide two-way bicycle flow on one side of the street, they typically support one way bicycle travel on each side of the street.

Typical Design Standards

» Sidepaths can be designed for two-way travel bicycle and pedestrian travel, though LADOTD design guidance typically requires sidepaths on both sides of the street to support one way bicycle travel

» The minimum width for a two-directional sidepath is 10 ft, with the desired width of 12-14 ft

Standard Use

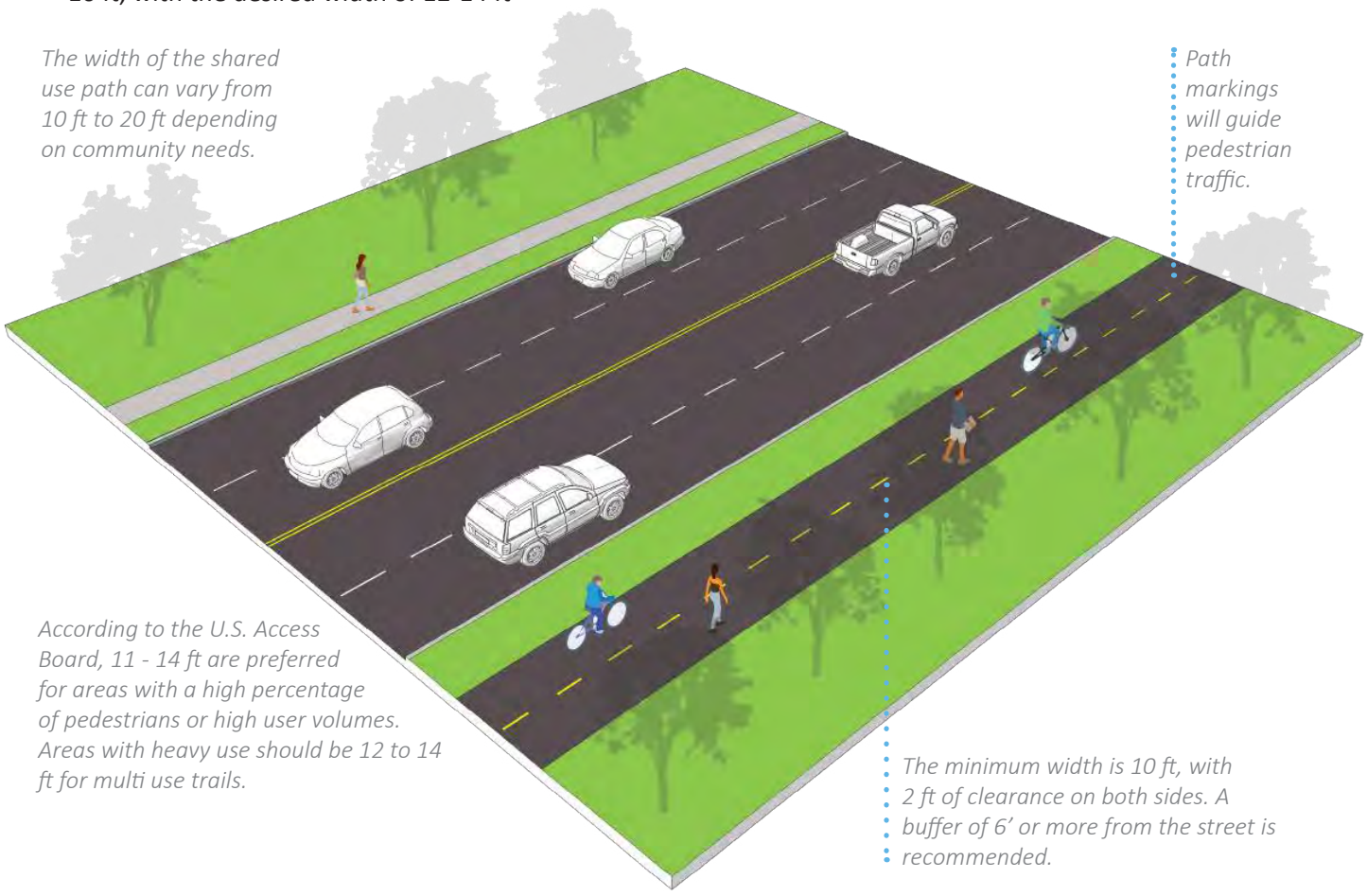
» Suitable for streets that have heavy traffic, high speed limits, and few driveway crossings

» LADOTD guidance determines that sidepaths are most suitable for roads if there is fewer than 3 major or commercial road crossings and less than 9 residential driveway crossings per mile

Implementation ●●●○

» Major construction and right-of-way may be required, unless retrofitting an existing roadway through a road diet to reduce the number of traffic lanes.

» Widths needs to allow for comfortable passing space



Source: Based on NACTO Urban Bikeway Design Guide, Third Edition; AASHTO Guide for the Development of Bicycle Facilities, 5th Edition; LADOTD EDSM No. II.2.1.14

Benefits

» Removes bicyclists from the roadway while keeping them connected to the overall street network

» Accommodates a wide variety of uses, including bikes and walking, along with skates, skateboards, scooters, etc.

» Offer a high quality experience that is appropriate for all ages and abilities

» Increases safety and comfort by separating bicyclists and pedestrians from traffic

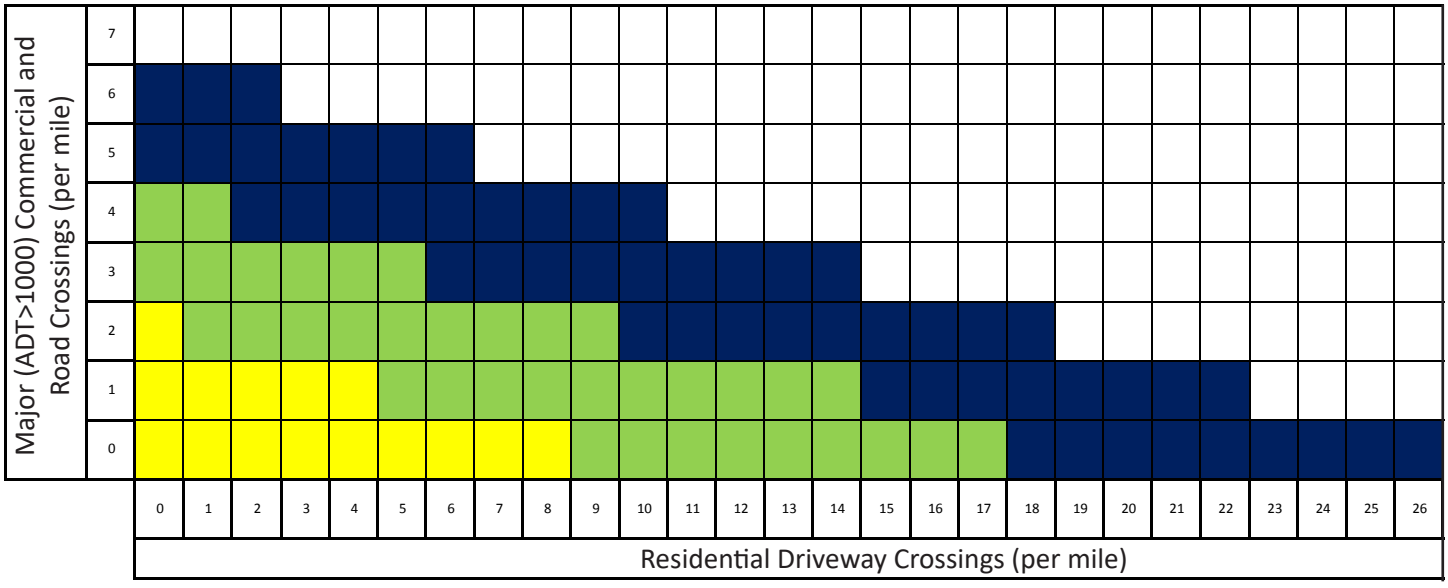
» Facilitates transportation and recreational use

Lafitte Greenway, New Orleans. Credit ATG | DCCM

LADOTD Sidepath Suitability Chart

Legend	
	Most Suitable
	Somewhat Suitable
	Least Suitable
	Not Suitable

*Assumes: Speed Limit of Parallel Road ≥45 mph, Traffic Volume of Parallel Road >10000 ADT, Medium Level Pedestrian Use, 8 ft or More Width of Sidewalk/Sidepath, 1 Mile of Roadway



Credit: LADOTD Sidepath Suitability Chart

Facility Type: Standard Bike Lanes

Standard, or conventional, bike lanes use pavement markings and signage to designate space for bicycles on roadways. Bike lanes are generally found on the right side of the street between the adjacent travel lane and the curb, road edge, or parking lane. Bike lanes traffic typically flow in the same direction as motor traffic.

Typical Design Standards:

» Minimum 6 ft width

» When adjacent to a parking lane, an additional buffer should be added to minimize conflict with opening doors

» Bike lane markings should be used to designate the cycling space

» A 6 in solid white line should be used to mark the boundaries of the bike lane

» Gutter seams, drainage inlets, and utility covers should be flush with the ground to prevent conflicts with bike tires

Standard Use

» Streets with average daily traffic of less than or equal to about 3,000 vehicles

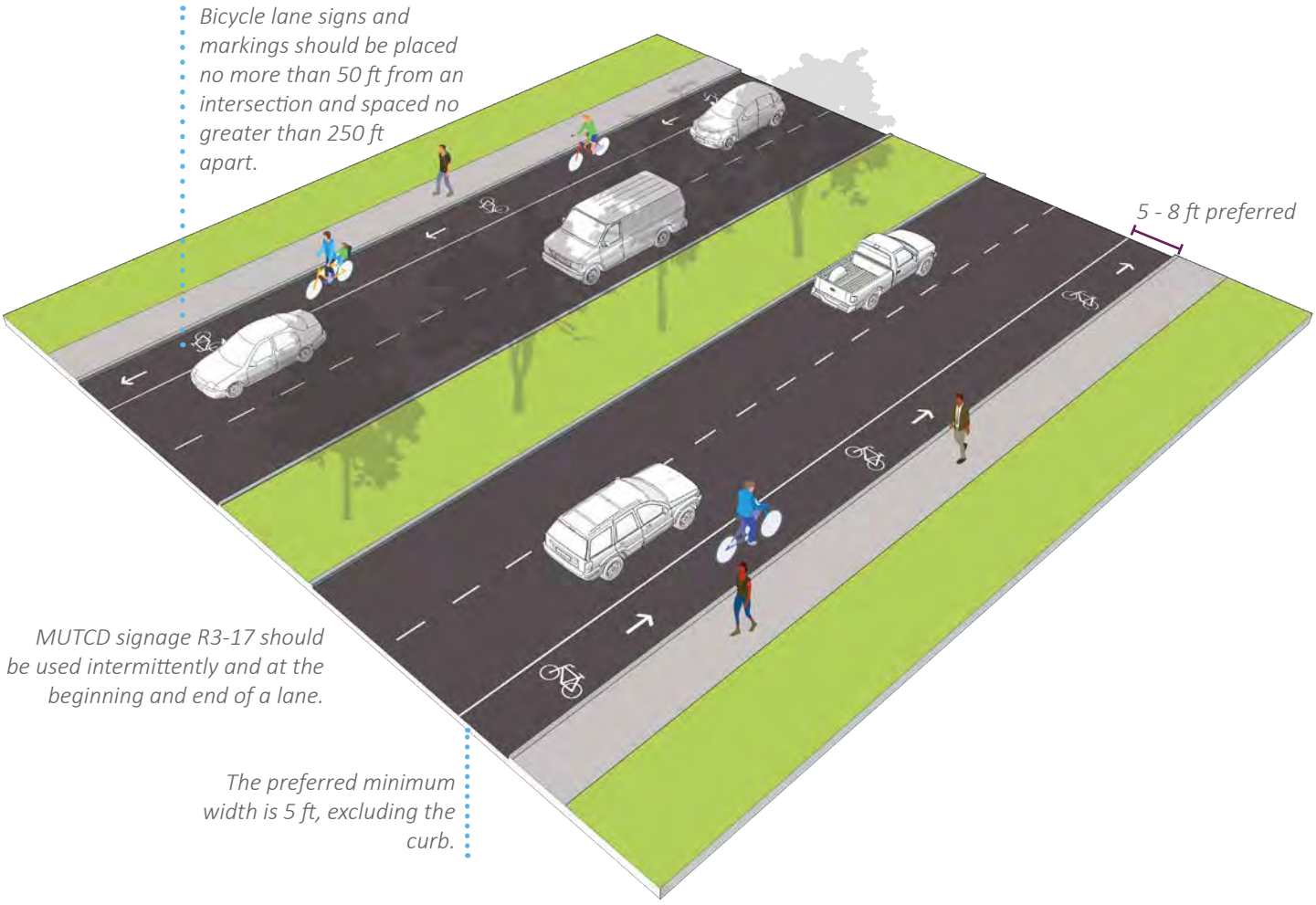
» Streets with a posted speed less than or equal to 25-35 mph

» Streets with high transit vehicle volumes

Implementation ●○○○

» Retrofit installations are lower cost and can serve as pilot projects

» Require only an allocation of space, signage, and ground markings



Source: Based on NACTO Urban Bikeway Design Guide, Third Edition; AASHTO Guide for the Development of Bicycle Facilities, 5th Edition

Benefits

» Provides a more comfortable, designated space outside of vehicle travel lanes

» Increases the predictability of bicyclist and motorist movements and interactions

» Bicyclists can ride at comfortable speeds

MUTCD R3-17

Lake Charles. Credit: ATG|DCCM 2025

Lake Charles. Credit: ATG|DCCM 2025

Facility Type: Buffered Bike Lanes

A buffered bike lane is a conventional bike lane paired with a designated buffer space separating the bike lane from the adjacent motor vehicle travel lane and/or parking lane. The buffer space may include painted stripes, rumble strips, textured pavement, or similar ground-level restrictions. Buffered bike lanes do not provide physical barrier between the bikeway and the roadway.

Buffers are not part of the bike lane, but they should be as wide as right-of-way will allow to increase space between bicyclists and motor vehicles.

Typical Design Standards:

» Typical width for a buffered bike lane is 8 ft: a 5 ft bike lane and a 3 ft buffer

» A standard buffer width is 2 ft to 4 ft, with cross hatching marks spaced 5 ft to 20 ft apart. For buffers less than 2 ft in width, two 6 in solid white lines separated by 4 in should be used

» Buffer boundary lines should be solid if crossing is discouraged and dashed if crossing is permitted

Standard Use

» Appropriate anywhere a conventional bike lane is being considered

» Streets where existing paving allows for wider bicycle facilities, but frequent driveways or other access management challenges make fully protected lanes less feasible

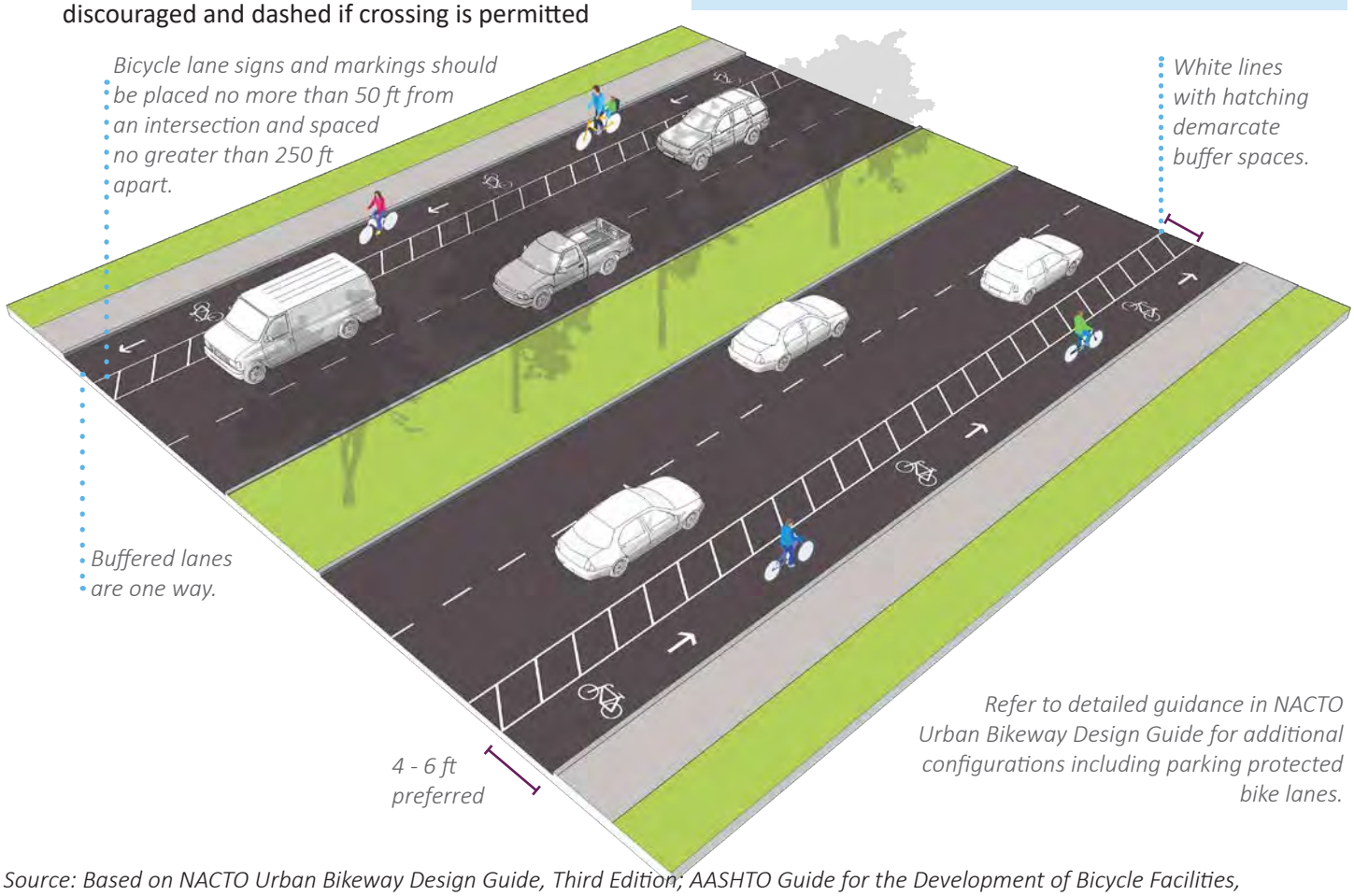
» Should be used for streets with speeds less than or equal to 30 mph and volumes less than or equal to 6,000 vehicles per day

» Buffers are desirable between through lanes and turn lanes

Implementation ●●○○

» Retrofit installations are lower cost and can serve as pilot projects

» Require only an allocation of space, signage, and ground markings



Source: Based on NACTO Urban Bikeway Design Guide, Third Edition; AASHTO Guide for the Development of Bicycle Facilities, 5th Edition

Benefits

- » Buffered bike lanes create a designated space outside of the vehicle travel lane for cyclists
- » Buffers increase the distance between motor vehicles and bicyclists, reducing potential conflicts with vehicles
- » Next to a parking lane, buffers reduce instances of "dooring," or conflicts caused by opening car doors
- » Buffers provide increased comfort level for less confident riders

Credit: Adobe Stock

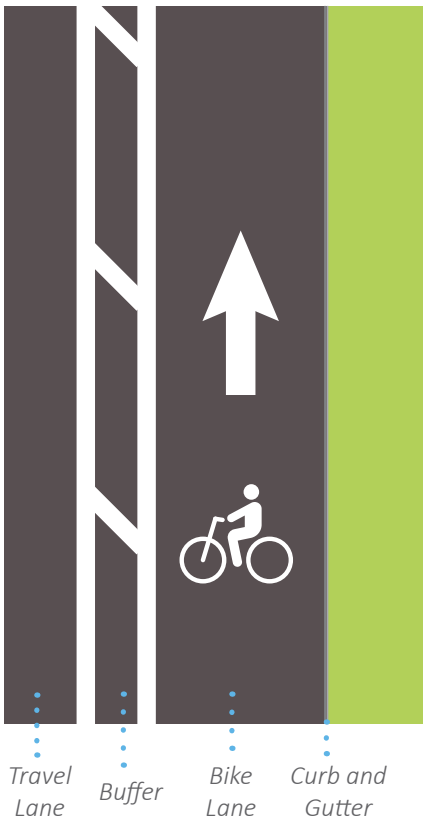
Longitudinal Buffer Markings

Narrow Buffer:

*<2 ft width with two 6 in solid white lines separated by 4 in OR a single solid white line 8 to 16 in wide**

Standard Buffer:

2-4 ft width with two solid white lines with 45° cross hatches spaced 20 ft apart (typical) or less as appropriate



Wide Buffer:

>4 ft width with two solid white lines separated by chevron cross hatches spaced 20 ft apart (typical) or less as appropriate

**6" solid white lines recommended to match anticipated changes to LA DOTD guidance.*

Source: Based on AASHTO Guide for the Development of Bicycle Facilities, 5th Edition page 9-18

Facility Type: Protected Bike Lanes

A protected bike lane, also known as a separated bike lane or cycle track, is a conventional bike lane paired with a physical barrier in a designated buffer space separating the bike lane from the adjacent motor vehicle travel lane and/or parking lane. The barrier and buffer space includes ground-level restrictions with vertical separation elements such as medians or delineator posts. Protected bike lanes can be one-way or two-way.

Protected bike lanes should be prioritized in corridors with high vehicular traffic, such as commercial districts. They should also be prioritized on roadways with high existing bicycle use.

Typical Design Standards:

» Minimum buffer width is 2 ft, or 3 ft if next to parking lane

» Vertical elements such as flex posts should be no more than 1.5 ft tall, and medians should be the same height as the curb

» Minimum desired one-way width is 6 ft, and two-way width minimum is 8 ft

» Directional configuration is determined on a case by case basis, but it is generally desirable for two-way streets to have a protected bike lane on either side and one-way streets to have a two-way protected bike lane

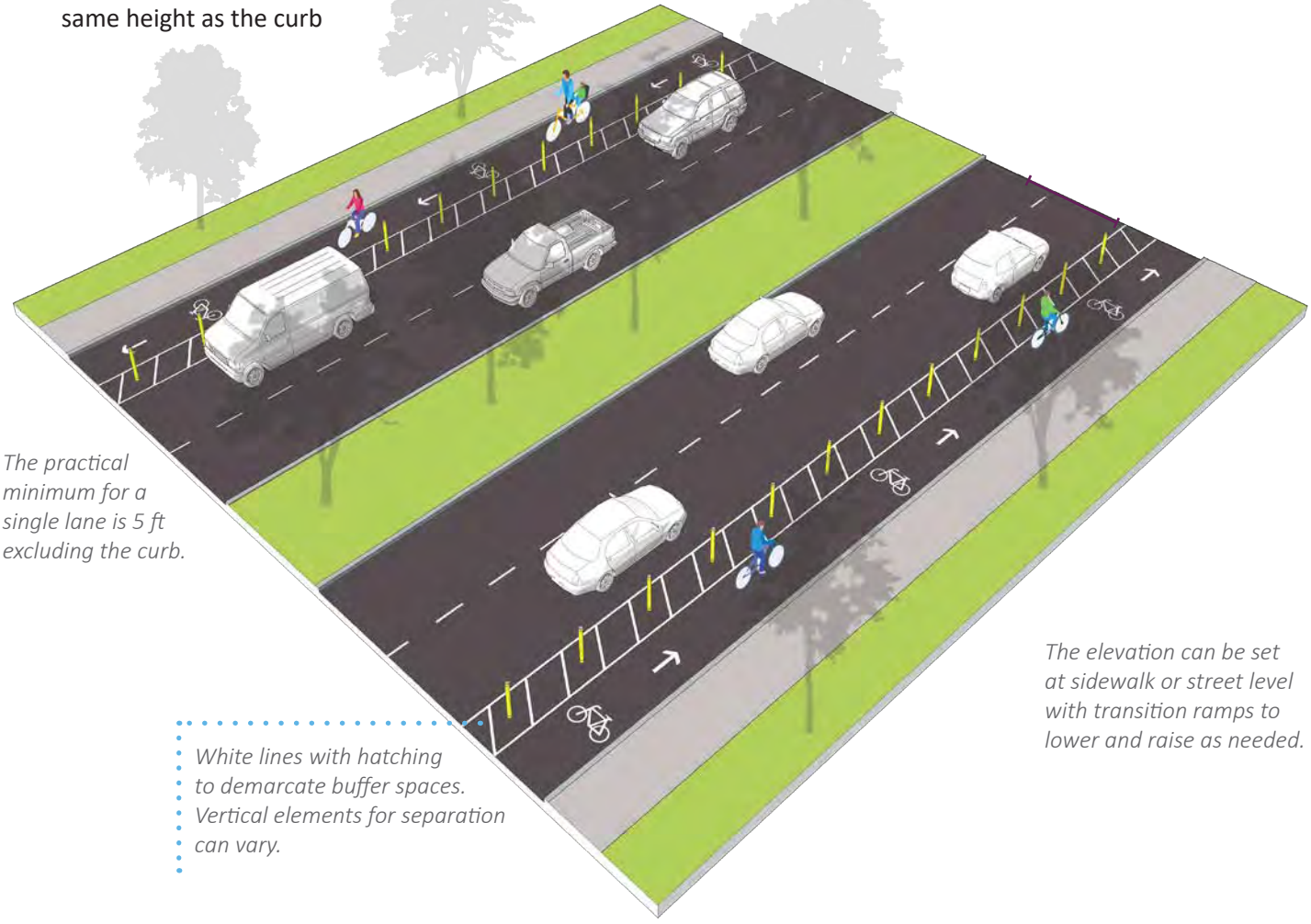
Standard Use

» Protected bike lanes should be used on streets with higher volumes, speeds over 25 mph, or with more than one travel lane in each direction

Implementation ●●○○

» Projects can incorporate low cost measures initially, and then be replaced with more permanent barriers at a later point

» Consider maintenance requirements when selecting vertical barrier elements



The practical minimum for a single lane is 5 ft excluding the curb.

White lines with hatching to demarcate buffer spaces. Vertical elements for separation can vary.

The elevation can be set at sidewalk or street level with transition ramps to lower and raise as needed.

Source: Based on NACTO Urban Bikeway Design Guide, Third Edition

Benefits

» These facilities add protection from motorized traffic create separated and designated travel spaces for cyclists

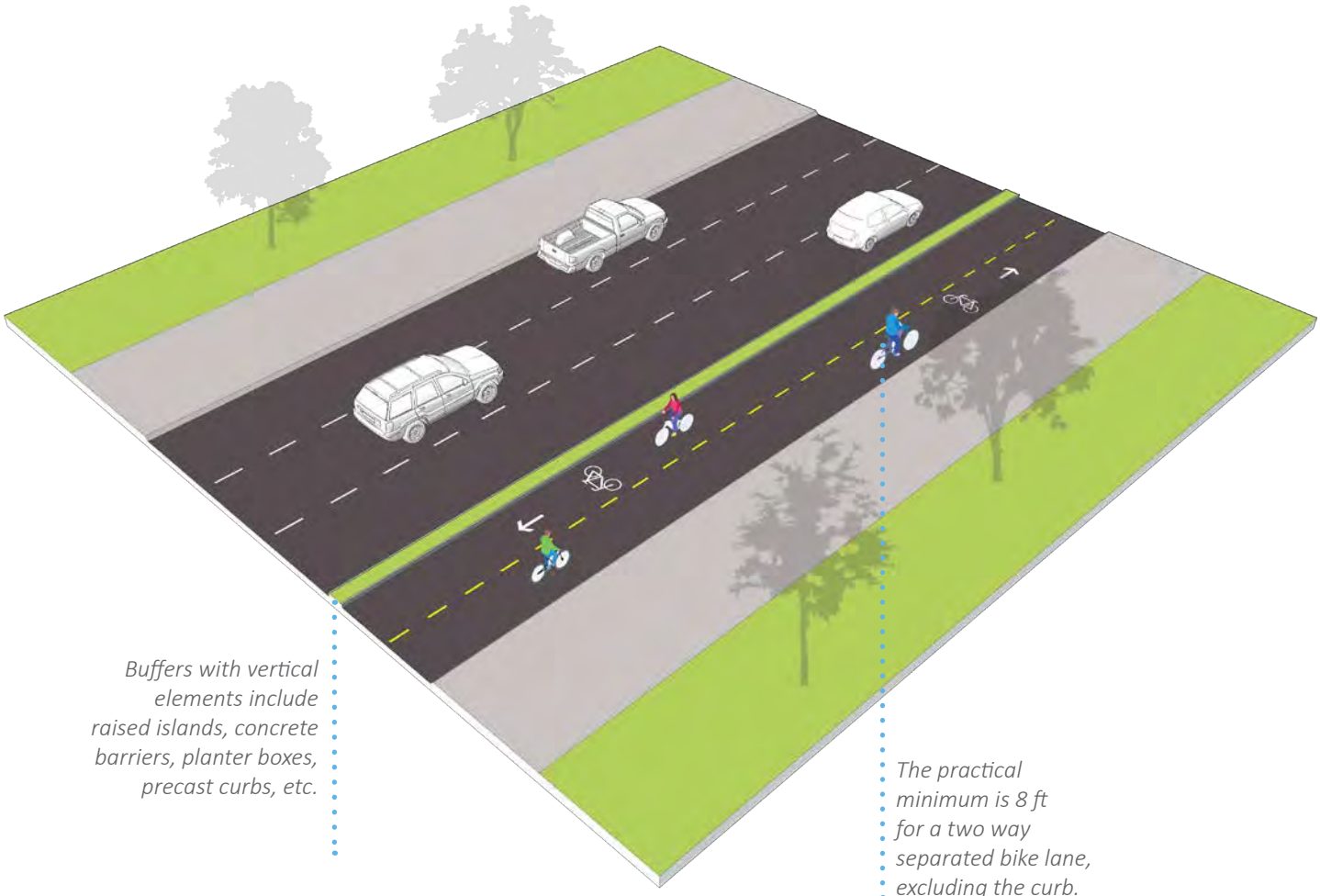
» Interactions with vehicles are minimized due to the buffer space and physical vertical markers

» Increased protection and reduction of perceived risks of collisions attracts a wide range of cyclists

Lakeshore Drive, New Orleans, LA, Credit: ATG | DCCM

Parking Protected Bike Lanes

Parking can also be used as the "vertical element" separating the bicycle lane from vehicular traffic. When used, a buffer space should be provided that separates the bike lane from the "door zone" of parked cars.



Buffers with vertical elements include raised islands, concrete barriers, planter boxes, precast curbs, etc.

The practical minimum is 8 ft for a two way separated bike lane, excluding the curb.

Facility Type: Bicycle Boulevards

A bicycle boulevard is a shared street with low motorized traffic volumes and speeds that are designed to encourage bicycle travel. Bicycle boulevards use signs, pavement markings, and volume or speed management strategies to discourage through trips by motorists and create safer bicycle crossings at intersections.

Signs should be used to emphasize that bicyclists have priority. Speed humps and other traffic calming measures, such as chicanes and neighborhood mini traffic circles, may also be used to decrease speeding.

Standard Use

» Suitable for streets with low traffic volume with a maximum ADT of 3,000

» Suitable for streets with low speed limits: preferred 15 MPH and maximum 25 MPH

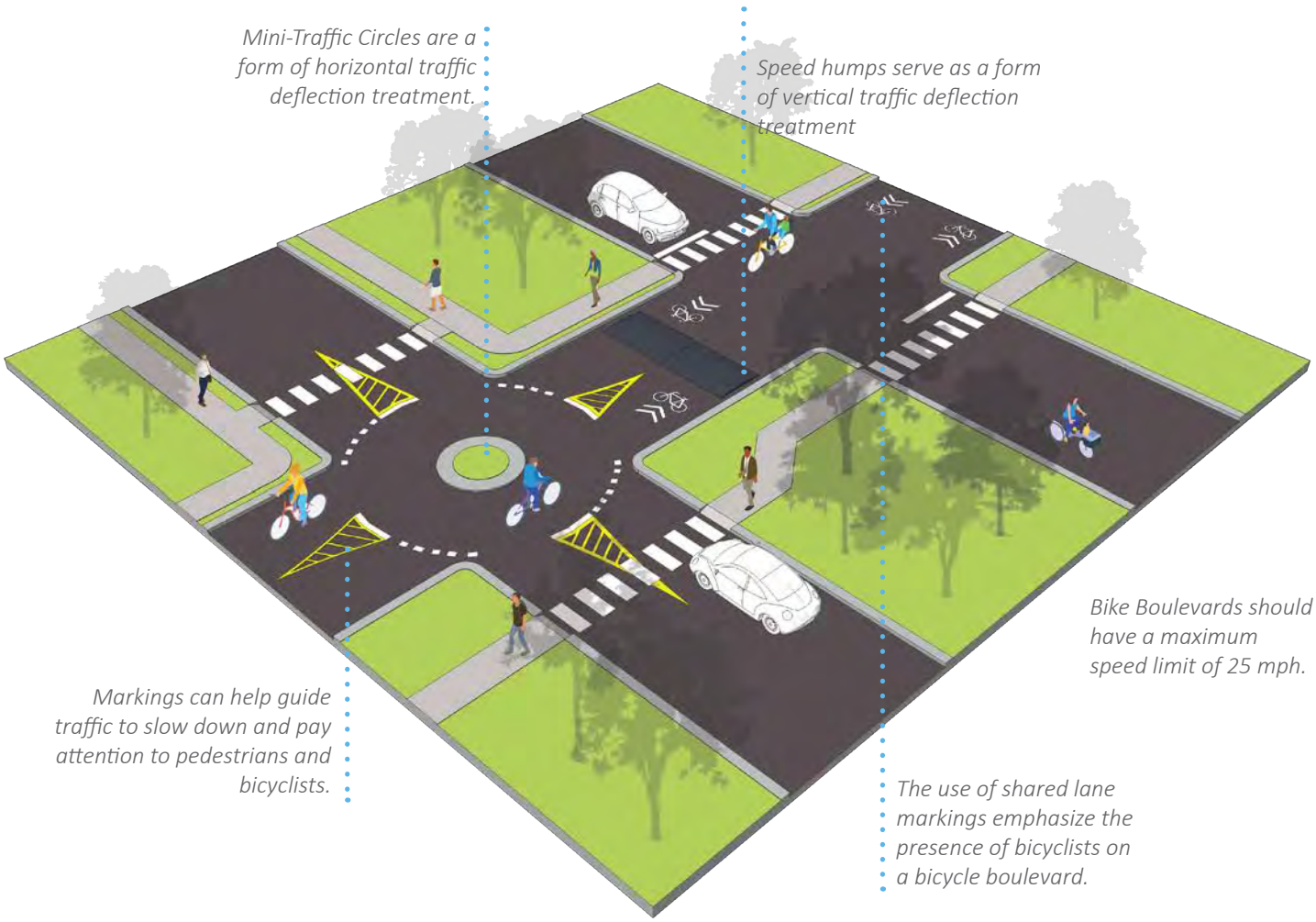
» Can often be used as an alternative to placing a facility on parallel busy arterial or collector roadways

Implementation ●○○○

» Shared lane markings or "sharrows" alone do not effectively slow traffic or protect bicyclists

» Other volume and speed management techniques should also be implemented where appropriate.

MUTCD R4-11



Source: Based on NACTO Urban Bikeway Design Guide, Third Edition

Typical Design Standards

» Volume and speed management techniques should be implemented where necessary

» Treatments for minor street crossings, major street crossings, and offset intersections should be implemented to minimize bicyclist delay and maximize bicyclist safety and comfort

» Intersection improvements should take advantage of actuated signaling, such as bicycle activated signals, bicycle sensitive loop detectors, or push button signals that bicyclists can access

Benefits

» Increases comfort and safety for bicyclists

» Cost effective, as relatively minor treatments can substantially improve bicycling conditions

» Creates alternate routes for bicycles that are still connected to the street network

Credit: PBIC - Transportation Research and Education Center

Facility Type: Shared Lanes

A shared lane is a travel lane that serves both cyclists and motor vehicles, often in rural areas. This treatment is often used on streets where there is insufficient width for a bicycle lane but where bicycle travel is also likely. Shared lanes are marked with sharrows to alert motorists of potential cyclists, and typically also incorporate bikeway signage.

While there are no bicycle specific design standards for shared lanes, it is beneficial to have good pavement quality, adequate sight distances, and speed or traffic calming measures.

Alone, shared lane signage does not improve operational conditions for bicyclists. Physical and geometric improvements to the roadway are desired for optimal multi-modal safety and functionality.

Standard Use

» Suitable only on streets with low traffic volumes and low speeds: maximum ADT of 3,000 and speed limit of 25 MPH

» Widening curb lanes are not encouraged, due to the tendency to increase vehicle speeds

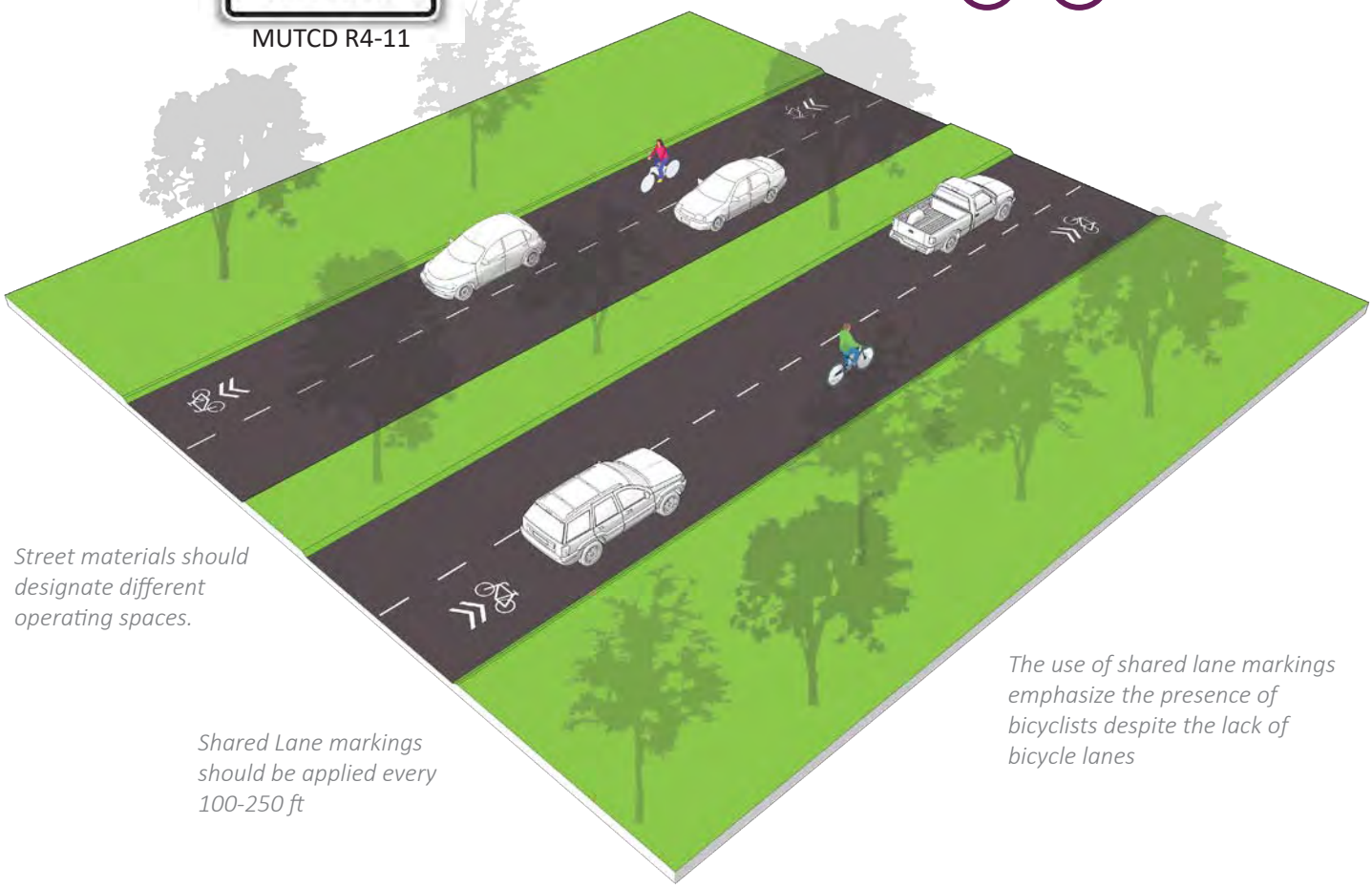
Implementation ●○○○

» Low cost implementation

» Shared lane markings or "sharrows" alone do not effectively slow traffic or protect bicyclists

» Other volume and speed management techniques should also be implemented where appropriate

MUTCD R4-11



Street materials should designate different operating spaces.

Shared Lane markings should be applied every 100-250 ft

The use of shared lane markings emphasize the presence of bicyclists despite the lack of bicycle lanes

Source: Based on NACTO Urban Bikeway Design Guide, Third Edition; FHWA Small Town and Rural Multimodal Networks

Typical Design Standards

» The shared lane pavement marking, also called a "sharrow," includes a bicycle below two chevron markings

» Shared lane markings should not be used on shoulders, in designated bike lanes, or to designate bicycle detection at signalized intersections

» Lateral placement of the marking within the travel lane is critical to encourage cyclists to avoid the "door zone" and to encourage safe passing behavior

Credit: Adobe Stock

Benefits

» Motorists are made aware of the presence of bicycles within the travel lane

» Low cost to implement

» Provides cyclists guidance and wayfinding within the street cross section

Credit: PBIC - Lyubov Zuyeva

Facility Type: Paved Shoulders

In rural areas where dedicated bicycle lanes may not be possible, paved shoulders can improve non-motorist conditions when traveling. Visually separated shoulders can provide a level of comfort and safety when traveling in higher speed and/or volume situations. These shoulders, however, must be visually delineated from the main travel lanes to allow for increased awareness and safety for motorists and bicyclists.

Typical Design Standards

» Width of 4 ft is the practical minimum, while 6-8 ft is preferable. Where ADT is greater than 10,000, or there is heavy truck traffic, a width of 10-12 ft is preferred. Please see the NACTO Urban Bikeway Design Guide for more options.

» Where guardrails are present, an additional 2 ft should be added to the shoulder width

» Markings should be clearly delineated with a solid 6 inch white line

» Signs are recommended to inform motorists and bicyclists that these shoulders can be used as a bicycle lane

Standard Use

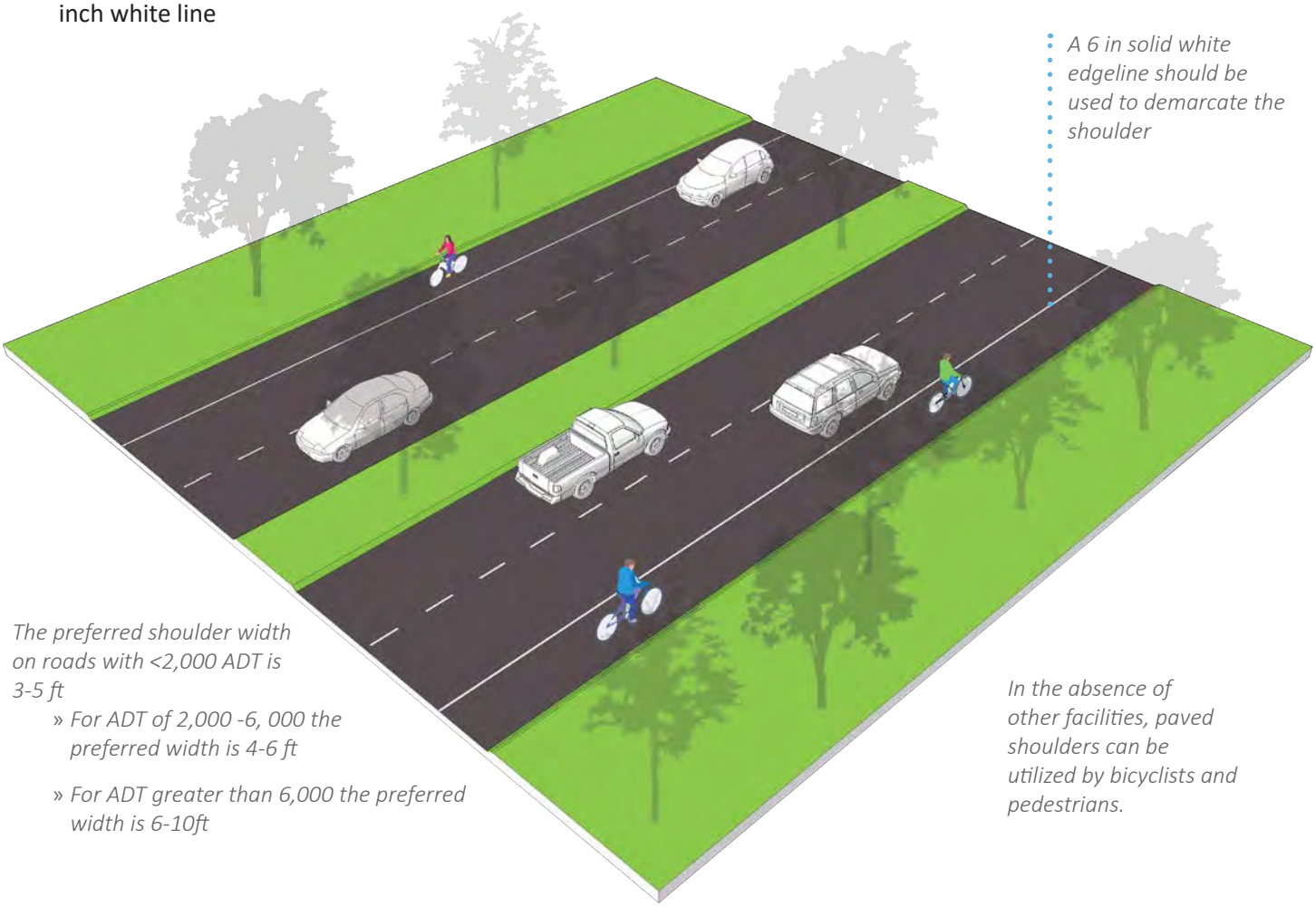
» Common for rural contexts

» May also be appropriate for other contexts where there is inadequate sight distances or where greater than 10% of traffic consists of heavy vehicles

Implementation ●●○○

» Some construction may be required if retrofitting an existing unpaved shoulder

» If used, rumble strips should be "bicycle friendly" - providing gaps for bicyclists to enter and exit, and be placed so as to maximize available space for bicyclists.



A 6 in solid white edgeline should be used to demarcate the shoulder

The preferred shoulder width on roads with <2,000 ADT is 3-5 ft

» *For ADT of 2,000 -6, 000 the preferred width is 4-6 ft*

» *For ADT greater than 6,000 the preferred width is 6-10ft*

In the absence of other facilities, paved shoulders can be utilized by bicyclists and pedestrians.

Source: Based on NACTO Urban Bikeway Design Guide, Third Edition; FHWA Small Town and Rural Multimodal Networks

Benefits

» Improves non-motorist experiences along high-volume and high speed roadways.

» Reduces pedestrian “walk along roadway” crashes and bicyclist “struck from behind” crashes

» Paved shoulders have additional benefits for other road users, including a reduction in run-off-the road crashes for motorists and providing a temporary space for disabled vehicles.

» Paved shoulders reduce ongoing maintenance costs by reducing edge deterioration

Shoulder Enhancements

To discourage vehicles from using the shoulder, it can be enhanced with different color or texture from travel lanes, extra wide white edgelines, or rumble strips.

Rumble strips are tactile grooves or bumps in the pavement that warn drivers of lane departure. Because some types of rumble strips can be difficult for bicyclists to traverse, the design and placement of rumble strips should consider bicyclist mobility along and across paved shoulders.

Credit: Adobe Stock

Lake Charles. Credit: ATG|DCCM 2025

Lake Charles. Credit: ATG|DCCM 2025

Facility Type: Curb Extensions

Curb extensions, or bulbouts, are street interventions that visually and physically narrow the roadway to create safer and shorter pedestrian crossings. These extensions also increase space on the sidewalk for furniture, plantings, lights, and activity spaces. The flexibility in their applications are invaluable and can be segmented to tackle traffic, parking, or pedestrian safety issues. These different applications are called Gateways, Pinchpoints, Chicanes, and Bus Bulbs.

Typical Design Standards

» Pinchpoint extensions should be 1–2 ft narrower than the parking lane

» Bus bulbs should be the length of two buses and have a width that accommodates a bus shelter

Standard Use

» Appropriate at unsignalized intersections, transit stops, and at high crossing locations

Implementation ●●○○

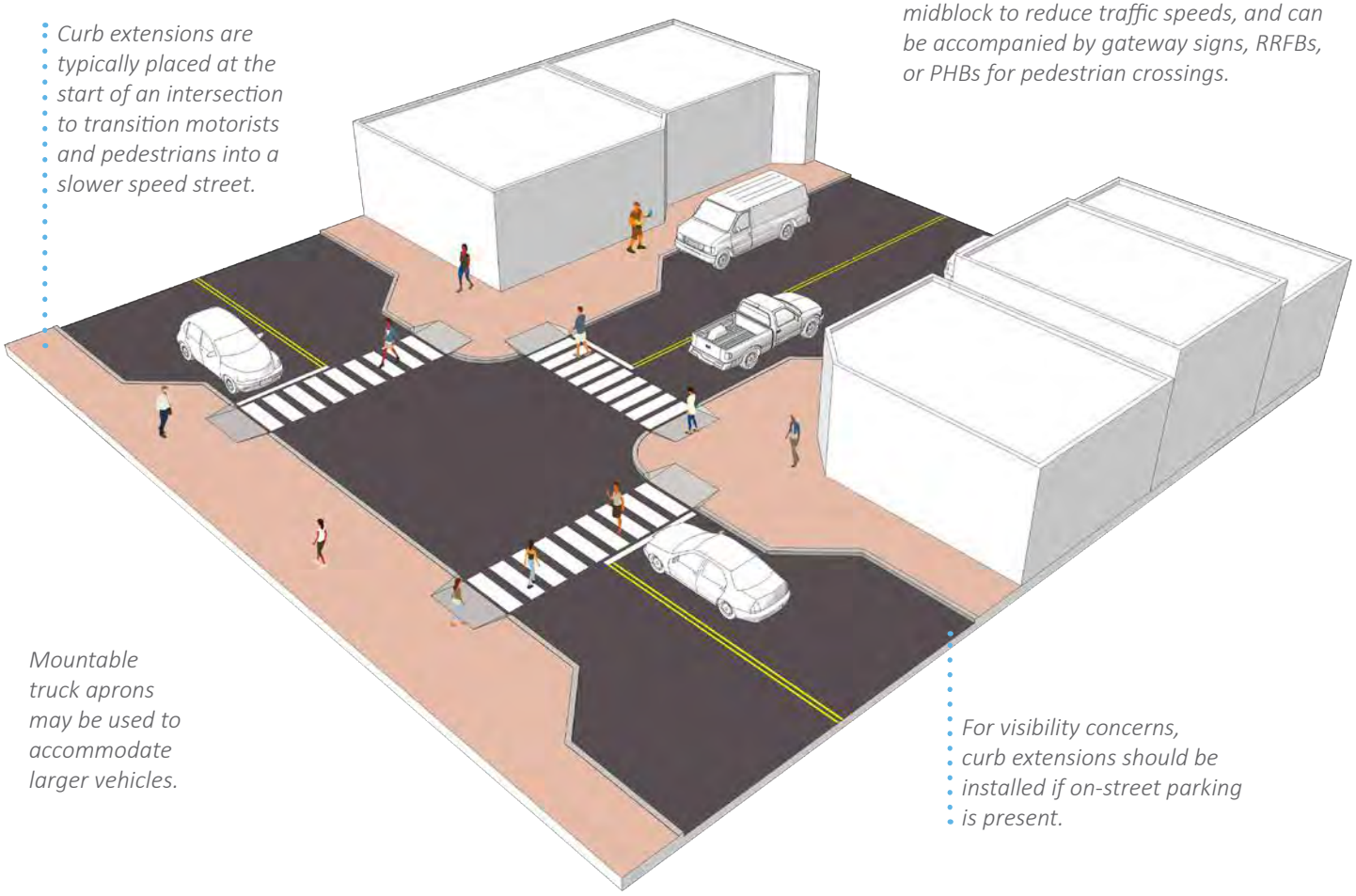
» Moderate construction cost, primarily requiring a reallocation of space within the existing right-of-way

» Curb extensions should be designed with drainage in mind

» Consider the turn radius to determine if mountable truck aprons are necessary for larger vehicles

Curb extensions are typically placed at the start of an intersection to transition motorists and pedestrians into a slower speed street.

Chicanes, neckdowns, or pinchpoints are similar to curb extensions but are used midblock to reduce traffic speeds, and can be accompanied by gateway signs, RRFBs, or PHBs for pedestrian crossings.



Mountable truck aprons may be used to accommodate larger vehicles.

For visibility concerns, curb extensions should be installed if on-street parking is present.

Source: Based on NACTO Urban Bikeway Design Guide, Third Edition

Benefits

- » Curb extensions decrease the overall width of the travel lane and encourage motorists to slow down
- » The overall visibility of pedestrians or non-motorists increases with curb extensions
- » Curb extensions reduce the crossing distance for pedestrians
- » Utilized as a bus bulb, curb extensions improve bus travel times as it can reduce the time a bus needs to merge into traffic post boarding
- » Curb extensions can be created using low-cost materials such as temporary curbs, bollards, planters, or striping
- » Implementation utilizes the existing cross section and does not require additional right-of-way

Credit: PBIC - Dan Burden

Credit: PBIC - Dan Burden

Facility Type: Median Refuge Islands

Median Refuge Islands, also known as pedestrian islands, reduce the overall time a pedestrian is exposed to oncoming traffic. While these islands can be used on wide and narrow streets, they are generally applied at roadways where speeds and volumes make crossings unsafe. These spaces can be enhanced using plantings and/or street trees. Their presence also encourages motorists to slow down and be aware of pedestrian traffic.

Typical Design Standards

» Islands have a minimum width of 6 ft but a preferred width of 8-10 ft The island should be a minimum of 6 ft long

» Curb extensions should be installed if on-street parking is present to increase pedestrian visibility

» The crosswalk should cut through the median, but ramps are also useful

Standard Use

» Beneficial on most types of roads, especially for wide roads

» Particularly beneficial for high volume or high speed roads where crossing is difficult

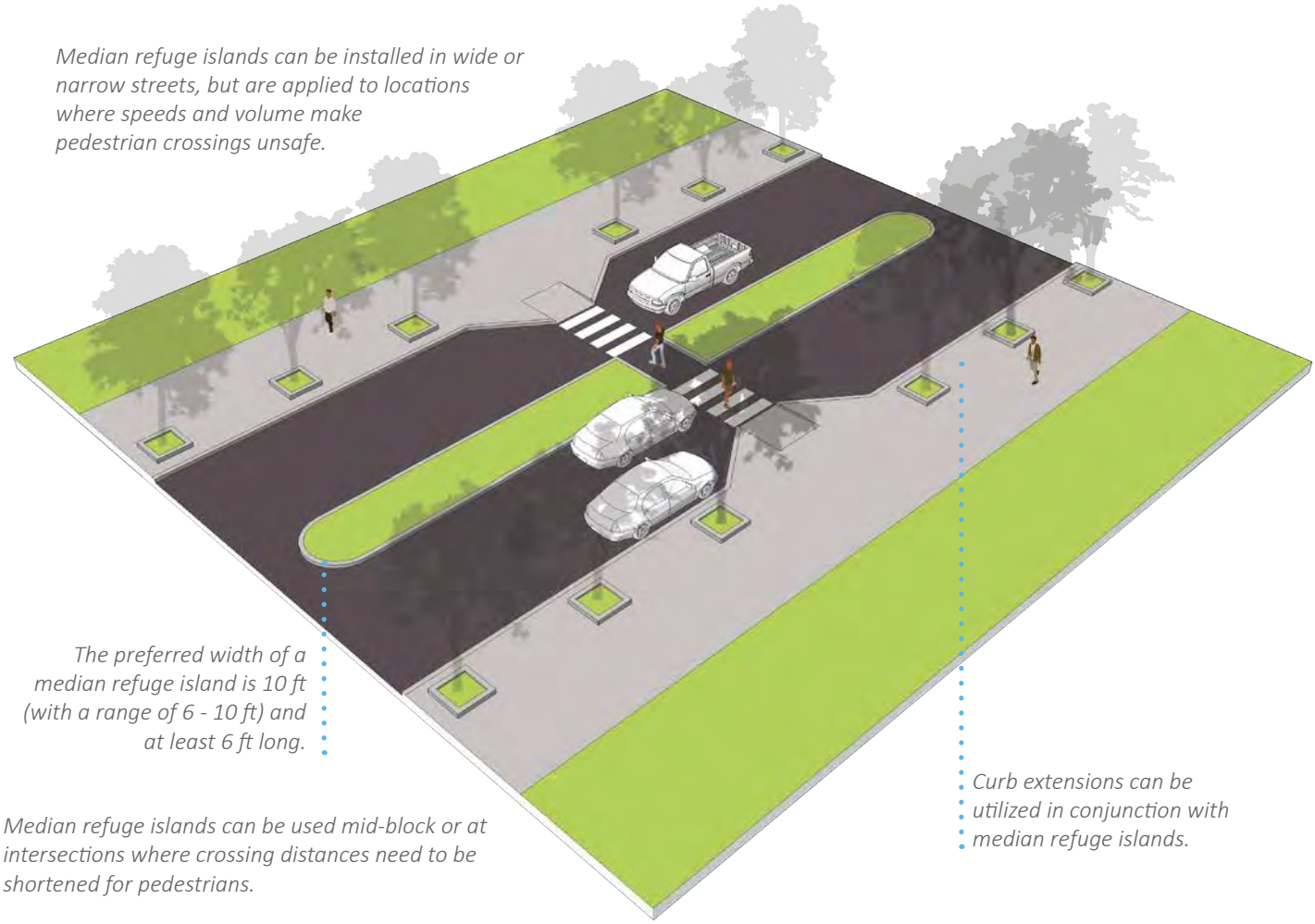
» Useful near destinations where groups of people wish to cross the street at the same time

» Can be appropriate for roundabouts

Implementation ●●●○

» Moderate construction cost

» Can incorporate landscaping elements

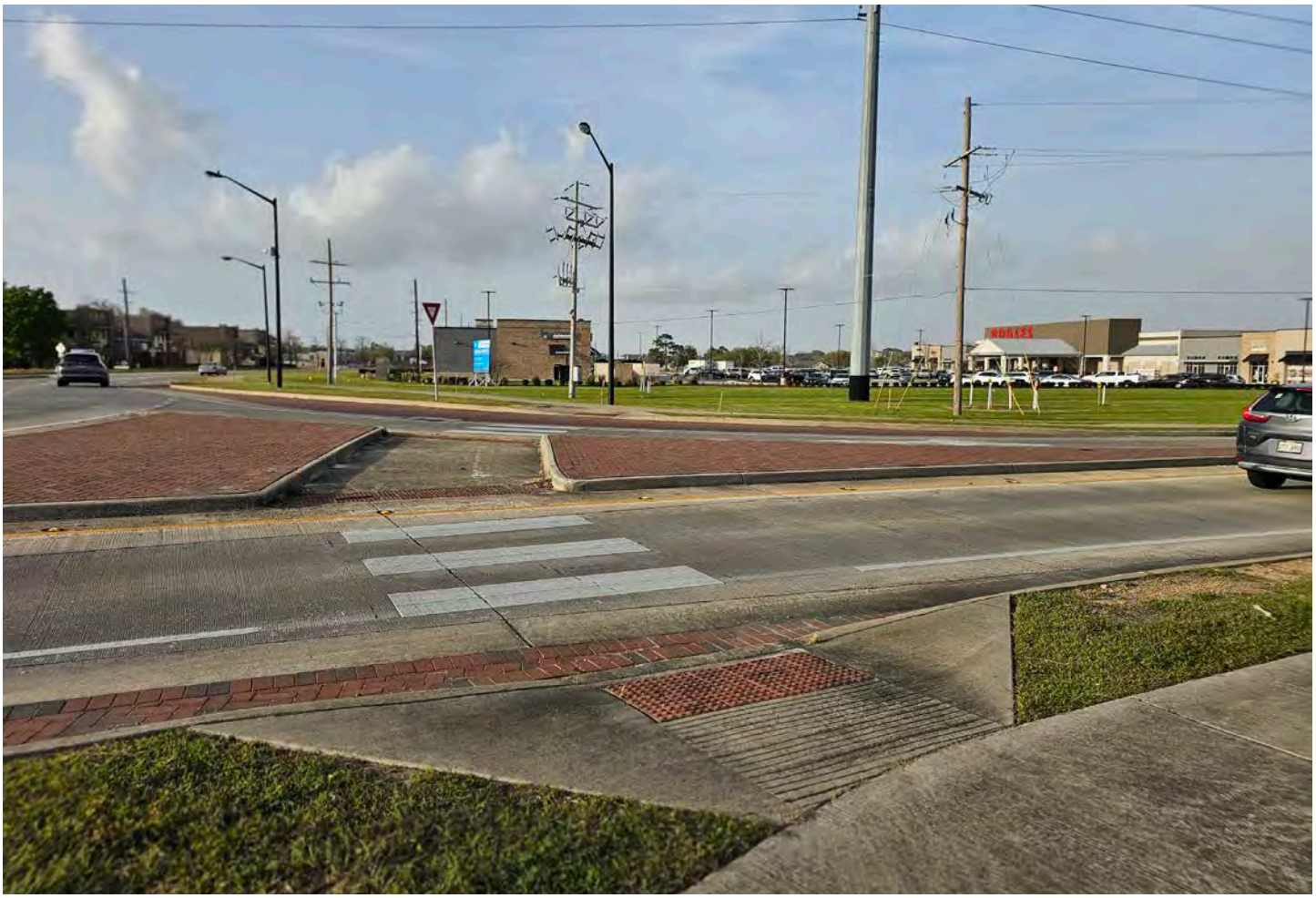


Source: Based on AASHTO Guide for the Development of Bicycle Facilities, Fifth Edition; FHWA Manual on Uniform Traffic Control Devices, 11th Edition

Benefits

- Median refuge islands allow for pedestrian crossing in two stages and encourages motorists to slow down
- The overall visibility of pedestrians increases and driver yield rate significantly increases with raised medians
- Utilized with curb extensions, refuge islands improve overall safety for on-street parking and pedestrians queuing
- Median refuge islands benefit all who require more time to cross the street, including individuals with disabilities, small children, or elderly people

Lakeshore Drive, New Orleans, LA. Credit: ATG | DCCM



Lake Charles. Credit: ATG|DCCM 2025

Facility Type: Rectangular Rapid Flashing Beacons (RRFB)

In scenarios where a marked crosswalk or median refuge island are not sufficient enough for motorists to yield to pedestrians, rectangular rapid flashing beacons can increase pedestrian visibility and encourage motorists to slow down. RRFB's consist of two rectangular shaped indicators that have a light emitting source. Paired with a pedestrian warning sign, the flashing lights inform motorists of present pedestrians and warn them to slow down and stop.

Typical Design Standards

» RRFBs are applied in multilane crossings with speed limits less than 40 miles per hour

» RRFBs should not be overused as effectiveness can be diminished with overexposure

» If a median is present, RRFBs should be installed there as well or mounted overhead

Standard Use

» RRFBs are used at mid-block crossings or unsignalized intersections

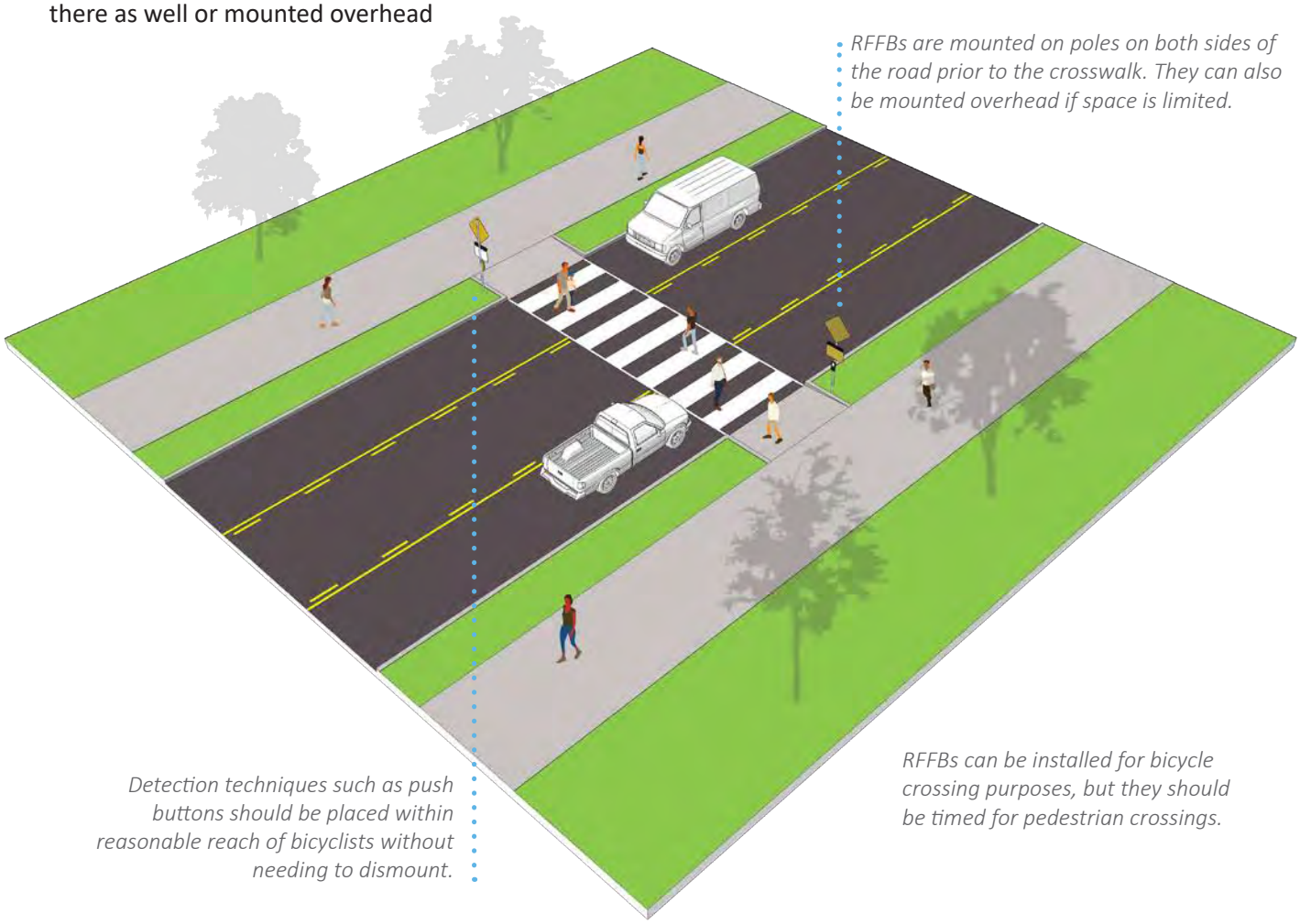
» RRFBs are most effective if they are distinctive and not frequently used in the same area

» Most appropriate for roads with speed limits of 40 and below and only two lanes, though four lane roads with medians are also candidates for RRFB treatments

Implementation ●●○○

» Minor construction is required for installation of the RRFB

» RRFBs can also be used in roundabouts



Source: Based on AASHTO Guide for the Development of Bicycle Facilities, Fifth Edition; FHWA Manual on Uniform Traffic Control Devices

Benefits

» Improves visibility for pedestrians in high traffic and high volume roads

» Reduces pedestrian-vehicular crashes as motorists are warned to slow down and stop

» Motorist yield rates increase and can be between 80 and 100 percent with RRFB implementation[1]

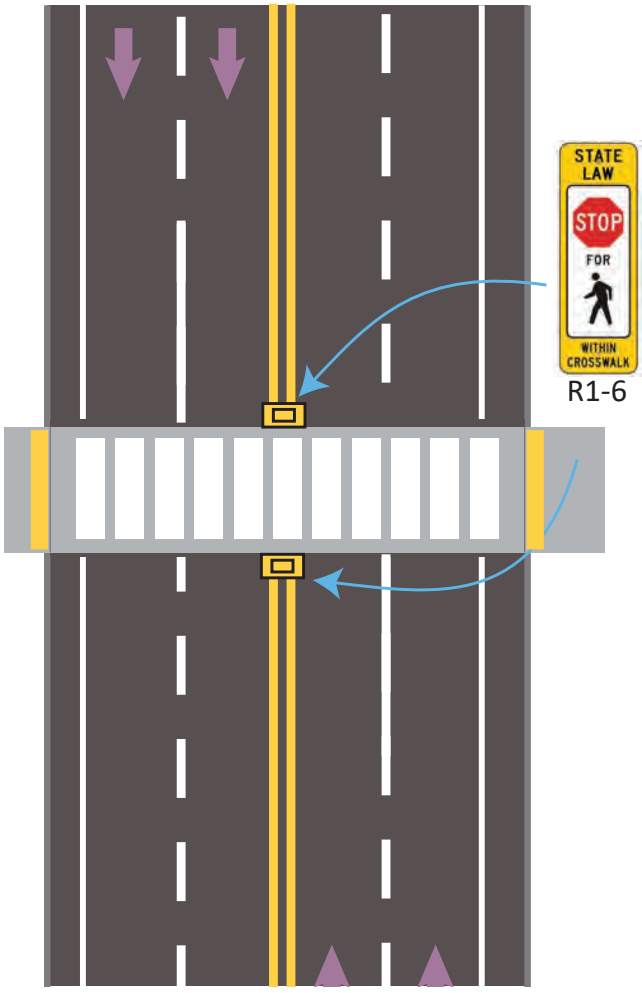
Types of RRFB Detection

» Push button activation by bicyclist or pedestrian

» Passive detection using sensors

Gateway Treatment

Gateway treatment signs are inexpensive signs placed in the middle of the roadway (MUTCD R1-6) and can accompany RRFBs. RRFBs can also be used in conjunction with midblock curb extensions (see page 93).



R1-6

Lake Charles. Credit: ATG|DCCM 2025

Natchitoches. ATG|DCCM 2023

1 Shurbutt and Van Houten, 2010 as cited in AASHTO Guide for the Development of Bicycle Facilities, 5th Edition

Facility Type: Pedestrian Hybrid Beacons (PHB)

Pedestrian hybrid beacons are effective pedestrian safety tools on high speed and high volume roads. Inactive when not in use, PHBs flash two red and a one yellow light to motorists when pressed by pedestrians desiring to cross the roadway. This stops traffic and provides pedestrians with the right of way needed to safely cross the street. Cars may proceed after stopping when beacons flash red on and off, then the beacon returns to dark until activated again.

Typical Design Standards

» Placed on streets where no gaps in traffic are present or speed limits exceed 35 MPH

» Should be installed in areas where three or more lanes will be crossed or there are more than 9,000 cars using the roadway in a day

» Marked crosswalks and pedestrian countdown signage should also be used in conjunction with PHBs

» Parking and other obstructions should be prohibited 100 ft prior to and 2 ft after PHB site to ensure adequate sight lines

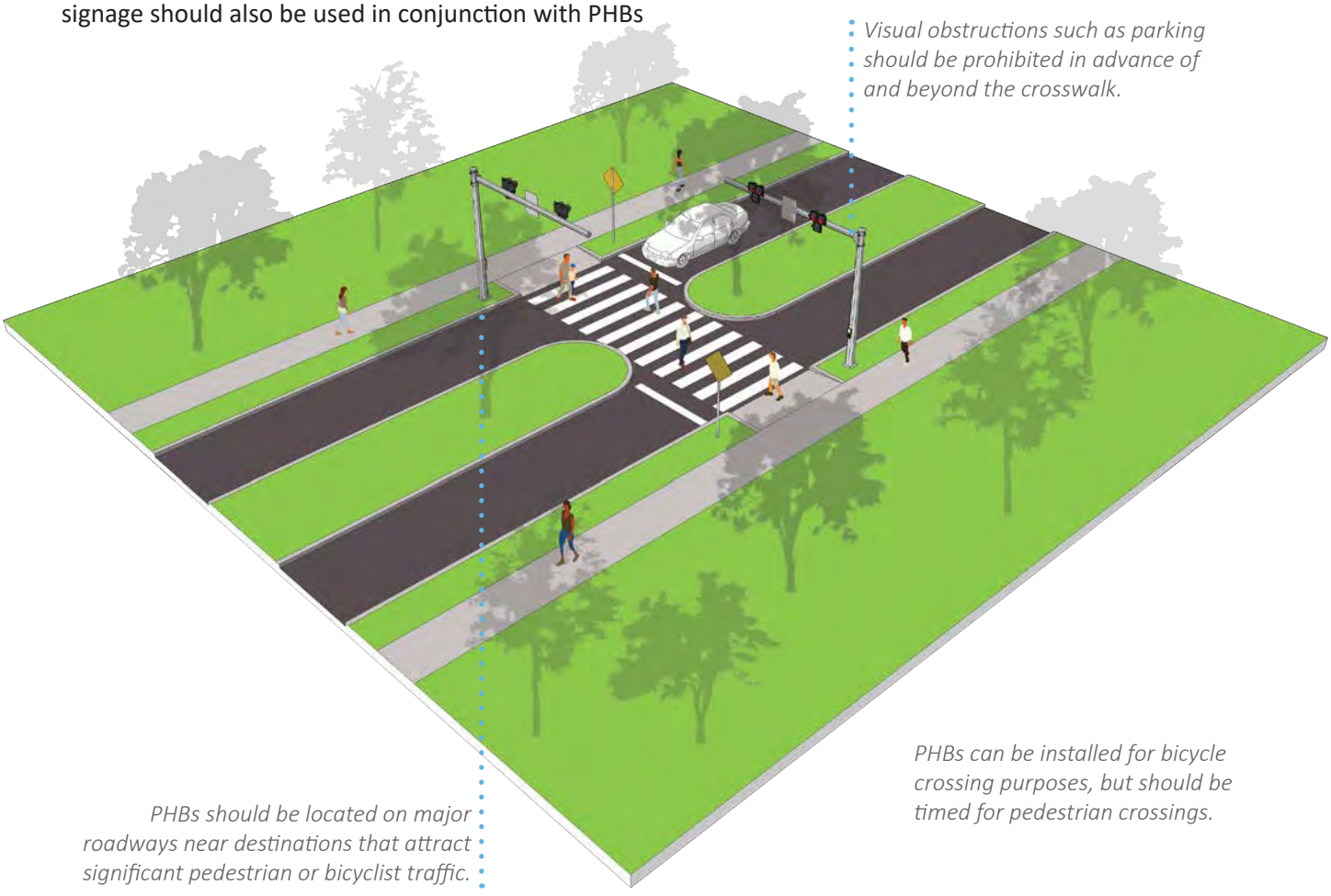
Standard Use

» May be placed mid-block or at unsignalized intersections

Implementation ●●○○

» Minor construction is required for installation of the PHB

» A separated bike lane should be considered at a PHB installation at an intersection if bike lane is connected to or crossing the PHB location



Source: Based on AASHTO Guide for the Development of Bicycle Facilities, Fifth Edition; FHWA Manual on Uniform Traffic Control Devices

Benefits

» Improves visibility for pedestrians in high traffic and high volume roads

» Reduces pedestrian-vehicular crashes as motorists are required by law to slow down, stop, and allow pedestrians and bicyclists to cross the street

PHB Signal Phases

1. Dark until activated
2. Flashing yellow when activated
3. Steady yellow
4. Steady red for pedestrian crossing interval
5. Alternating flashing red
6. Dark until activated

Lafitte Greenway at Carollton Ave, New Orleans. Credit: ATG|DCCM

While not a PHB, this crosswalk near the McNeese State University campus operates in a similar manner by stopping traffic for pedestrians when the push button is activated.

Lake Charles. Credit: ATG|DCCM 2025

Implementation Considerations

The bicycle and pedestrian network in Lake Charles should be built to support growth in these modes of transportation. Low counts of bicyclists and pedestrians are often a reflection of a lack of facility connectivity, poor quality, or safety issues. The more the network connects and supports users of all ages and abilities, the higher the expected volumes of bicyclists and pedestrian activity.

The implementation of retrofitting roadways, conducting demonstration or pilot projects, or developing new facilities must be context appropriate and include a range of facility types.

The flow chart to the right provides guidance on working the implementation of non-motorized facilities into roadway resurfacing activities.

Maintenance

Ongoing maintenance of non-motorized facilities is essential for functionality and safety of the system. Maintenance includes surface repairs, clearing and sweeping, vegetation removal, replacing signage, and restriping.

End of Trip Facilities

For bike lanes and other non-motorized facilities to be effective, it is important to consider end of trip facilities such as bicycle parking. Adequate bicycle parking helps bicyclists feel confident that their bike is secure, whether in long term or short term parking facilities. In addition, bike racks on buses help to enable multimodal trips.

A robust and comprehensive network for non-motorized transportation helps the city to actualize the numerous benefits of active transportation.

Credit: Adobe Stock

Process for incorporating the implementation of non-motorized facilities as part of ongoing road maintenance activities

Source: FHWA bike facility selection guide page 7