# ST. CHARLES PARISH COMPREHENSIVE PEDESTRIAN & **BICYCLE MASTER PLAN**

# FINAL REPORT State Project No. H.012462

### PROFECTIVATION

Regional Planning Commission for Jefferson, Orleans, Plaquemines, St. Bernard, St. Charles, St. John, St. Tammany and Tangjeanoa Parishes

#### PREPARED EVA

All South Consulting Engineers 652 Papworth Avenue Metairie Louisiana 70005

Dana Brown & Associates 1836 Valence Street New Orleans, LA 70115

Barowka & Bonura Engineers & Consultants 209 Canal Street Metairie, LA 70005



### **EXECUTIVE SUMMARY**

Walking and bicycling for transportation and recreation is increasing in popularity across the nation. Several benefits accompany this trend, including increased health, decongestion of roadway traffic, and community economic benefits. Within St. Charles Parish, there is a strong demand to support these methods of transit by supplying infrastructure and safety measures. However, the parish's land development patterns, such as industrial campuses and railroad lines, have created barriers to implementation. The overall transportation network that exists today is designed to make vehicular traffic movement efficient without regard to non-motorized travelers. As a result, implementing expanded pedestrian and bicycle networks within the parish's existing roadway infrastructure must address safety concerns.

This plan used a comprehensive process that involved public participation, professional collaboration, and additional research. To obtain public input, the project team held workshops in three areas of the parish and administered a survey to identify the demands of residents and facility users. Industrial company representatives also voiced their security concerns about pathways that could be placed in close proximity to their sites. Additional meetings with parish officials also contributed to the plan.

Public, industry, and stakeholder engagement resulted in the emergence of three main goals for improving pedestrian and bicycle networks:

- Improving safety
- · Increasing transportation options
- Spurring economic development

The project team conducted an existing conditions analysis of land development patterns, current design standards, obstacles to transportation, crash data, and existing facilities within the pedestrian and bicycle networks. The team performed a supplementary multi-modal analysis to recognize public benefits that would result from improved access management through additional transportation modes and connections among modes. Resulting

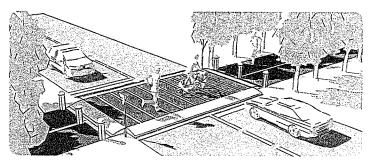


Figure 1 - Illustration of a Multi-Modal Transportation Intersection

network additions and improvements were developed and prioritized to match identified community needs and the project goals. The team's recommendations propose parish-wide treatments to existing routes, additional locations for pedestrian and bicycle routes, intersection safety improvements, and estimated construction and maintenance costs. In Section 5, priority improvement projects located in Table 19 were extracted from the comprehensive list in Table 20 to highlight projects that are expected to be the lowest in costs or generate the highest public benefits.

The report also details potential constraints to implementation. Strategies to facilitate the implementation of proposed facilities and programs that support safer walking and bicycling are discussed, including potential funding sources, enforcement and education approaches, the need for updated standards and policy changes, and a plan for parish coordination and programming going forward. Implementation of proposed pedestrian and bicycle facilities requires a long-term approach, wherein available funding, other roadway projects, and private developments will inform the pace at which improvements are built. Capital expenditures, which are funds used to improve existing or implement new facilities, will be necessary to implement the projects and thereby meet the Parish's goals for pedestrian and bicycle transportation networks.

The St. Charles Parish Comprehensive Pedestrian & Bicycle Master Plan is a framework for the parish to become more multi-modal, walkable, bikeable, livable, healthier, and safer for its residents.

### 1. INTRODUCTION

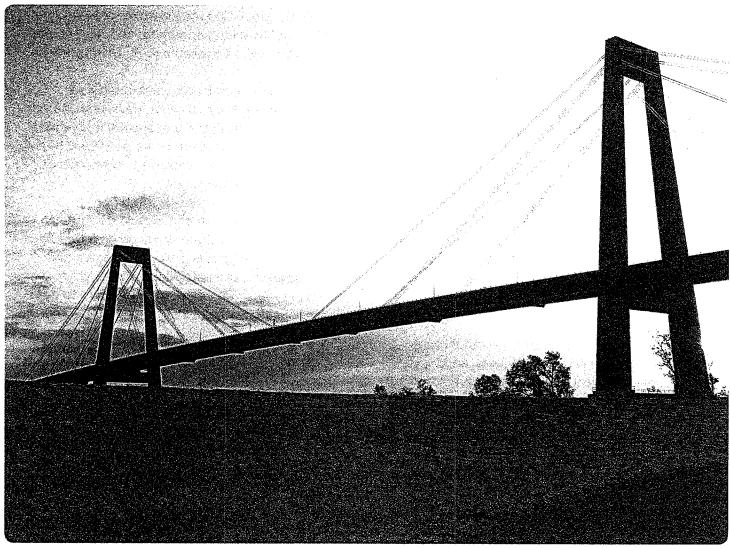


Figure 2 - Hale Boggs Memorial Bridge in Luling

### Overview

The primary goal of the St. Charles Parish Comprehensive Pedestrian & Bicycle Master Plan is to develop a complete framework for pedestrian and bicyclist circulation at a parish-wide level that will improve safety and increase access and mobility opportunities. The plan establishes a hierarchy of facility types dependent on site-specific conditions that build upon the existing pedestrian and bicycle networks of St. Charles Parish.

The scope of this plan includes the establishment of goals and objectives for improved transportation, an inventory of existing conditions that impact pedestrian and bicycle infrastructure, an inventory of existing networks across the parish, a compilation of pedestrian and bicycle incident reports and locations, documented efforts of public and stakeholder engagement, recommendations based on criteria and facility types, and suggested strategies for implementation.

The approach used to develop the plan involved reviewing previously adopted Parish Council master plans with significant pedestrian and bicycle policy or elements, dividing the parish into three sub-areas for distributed analysis, and following a comprehensive planning process.

The St. Charles Parish Comprehensive Pedestrian & Bicycle Master Plan will serve as a reference and guide for future improvements to pedestrian and bicycle infrastructure in St. Charles Parish. The plan proposes new networks and improvements to existing networks within the parish, with emphasis on locations where accidents involving pedestrians or bicyclists have occurred. Data and maps contained within this study can be reviewed independently as a resource for additional projects. This plan serves as a starting point for understanding and addressing the needs of pedestrians and bicyclists in the parish and, as a result, realizing the benefits that the parish will receive from continuous use by these facility users.

### Pedestrian & Bicycle Master Plans

A comprehensive master plan is created through collaboration among citizens, planners, and community leaders, and guides local governments and citizens in future development. A comprehensive pedestrian and bicycle master plan is a related, specialized plan that follows a similar process, while guiding the development of pedestrian and bicycle infrastructure and programs.

## St. Charles Parish Comprehensive Pedestrian & Bicycle Master Plan

The purpose of the St. Charles Parish Comprehensive Pedestrian & Bicycle Master Plan , also referred to here as the Pedestrian & Bicycle Master Plan, is to improve safety of the existing transportation network for non-motorized users and maximize opportunities for circulation.

St. Charles Parish covers over 400 square miles of land, located on both banks of the Mississippi River. The parish's roadway system totals approximately 4,500 miles, yet less than two percent of road mileage include sidewalks (43 miles) or bicycle routes (31 miles). Current crash data suggests that one in five fatal vehicular crashes in St. Charles Parish result in the death of a pedestrian or bicyclist. These statistics alone reinforce not only the need for additional routes for non-motorists, but also improvements in quality and safety of the existing

facilities. By expanding the networks of these facilities, additional transportation and recreational opportunities will be available to St. Charles Parish.

The expanded networks are envisioned as a comprehensive system of paths, trails, and shared-use routes. Increasing the presence of multi-modal transportation infrastructure in the parish will benefit all users and result in an improved awareness of roadway sharing for motorists.

The resulting pedestrian and bicycle master plan offers a tool that can strategically guide future capital investment and suggests policy, to improve and expand infrastructure for walking and bicycling along and across roadways where people desire to travel but cannot safely do so today.

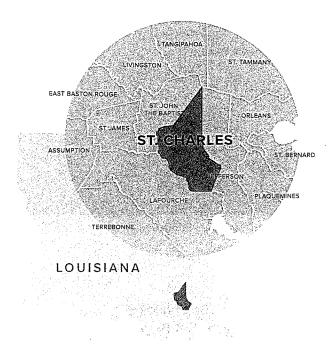


Figure 3 - Location Map of St. Charles Parish

### Study Area

This project encompasses the entirety of St. Charles Parish. St. Charles is bordered to the north by Lake Pontchartrain, to the east by Jefferson Parish, to the south by Lafourche Parish, and to the west by St. John the Baptist Parish. Within St. Charles Parish are the following areas: Ama, Bayou Gauche, Boutte, Des Allemands, Destrehan, Hahnville, Luling, Montz, Norco, Paradis, Killona, New Sarpy, Ormond, and St. Rose.

Given that a large portion of the parish consists of surface water and wetlands, which lack virtually any form of infrastructure, the project team restricted the study to areas where land is currently developed and habitable or where future development may occur. To facilitate the planning process, the parish was divided into East Bank, West Bank, and Bayou sub-areas, using logical geographical boundaries.

The East Bank sub-area encompasses the northern part of the Parish, which is on the eastern bank of the Mississippi River. Neighborhoods in the East Bank sub-area include St. Rose, Destrehan, Ormond, Norco, New Sarpy, and Montz.

The West Bank sub-area includes areas on the west bank of the Mississippi River that are north of LA 3127 and east of the I-310/US Highway 90 interchange. Neighborhoods in the West Bank sub-area include Ama, Luling, Boutte, Hahnville, and Killona.

The Bayou sub-area comprises the southernmost portion of St. Charles Parish. It contains communities along the US Highway 90 corridor and LA 306, and is bordered by Lafourche Parish to the south, Interstate 310/Highway 90 intersection and Boutte to the north and east Neighborhoods in the Bayou sub-area include Des Allemands, Paradis, and Bayou Gauche.

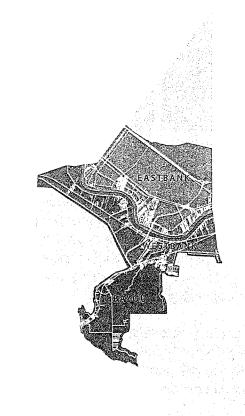


Figure 4 - Sub-Areas Map of St. Charles Parish

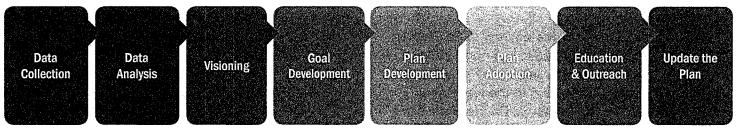


Figure 5 - Planning Process Flowchart

### **Planning Process**

In order to ensure that the plan was developed in a timely manner and that its goals are valid, the project team followed an interactive design approach. This approach allowed for the plan to evolve naturally over the course of the study, while preventing potential oversight of key opportunities.

Prior to beginning any data collection or analysis, a Project Steering Committee (PSC) was established to assist in further guiding the study. The PSC and its members are discussed in greater detail in Section 4 (Engagement).

The project team began with a thorough analysis of the existing conditions of the parish, focusing on existing transportation routes and the location of traffic incidents that involve pedestrians or bicyclists. The project team also reviewed data on zoning, land use, topography, population density, and other factors affecting transportation.

The collected data were used in combination with field measurements, information gathered from stakeholders, and feedback from public workshops to generate maps and conduct an analytical study. These efforts produced comprehensive documentation of the parish's existing conditions, potential assets, opportunities, and constraints. The project team used this documentation to identify locations for proposed improvements and potential expansion of existing pedestrian and bicycle networks.

The project team reviewed, discussed, and revised these proposed improvements based on feedback from the PSC and the general public. Finally, the team identified potential strategies to assist the parish in implementing the plan's proposed improvements.

### **Previous Studies & Related Documents**

This study references the following reports and uses them as planning precedents. These documents substantiate the need to improve upon existing multimodal transportation infrastructure, and, due to their assessment of or similarity to the conditions of St. Charles Parish, offer a guideline to address challenges that the study area presents.

### Louisiana Complete Streets Update 2017

Produced by the Louisiana Department of Transportation and Development (LADOTD), this update outlines state-specified goals for the inclusion of Complete Streets policies on state roadways. It encourages the implementation of policies and offers guidelines on the types of facilities that are appropriate for state roadways, and encourages (but does not require) Complete Streets implementation. Where applicable, LADOTD defers to the Complete Streets policy of the local municipality.

### St. Charles Parish 2030 Comprehensive Plan

The St. Charles Parish 2030 Comprehensive Plan (Plan 2030) was adopted by the Parish on June 20, 2011. Elements addressed in the plan include: Economic Development, Land Use, Housing and Community Character, Infrastructure, Community Facilities, Parks and Recreation, Natural and Cultural Resources, and Transportation. This plan supports three general transportation goals stated in Plan 2030: to "provide a variety of transportation choices and options," "to increase connectivity between destinations," and to "apply a 'livable community' perspective when addressing transportation needs." (94). A specific action item from Plan 2030, TR3, lays out the basis for a comprehensive evaluation and

plan for non-motorized transport, with an aim to provide "pedestrian and bicycle mobility throughout the Parish, with expanded provision of sidewalks, paths, and trails and encouragement of bicycle and pedestrian-friendly streets and land use and development patterns" (99).

### Paul Maillard Road Corridor Revitalization Plan

The Paul Maillard Road Corridor Revitalization Plan was completed in 2014 and adopted by the Parish in December 2015. It makes recommendations for land use and housing, economic development, infrastructure and public spaces, and transportation. The report sets forth seven transportation strategies for Paul Maillard directly related to the recommendations of the Pedestrian & Bicycle Master Plan. It aims to:

- •Reconstruct LA 52 to include a Complete Streets cross-section
- •Extend Complete Streets improvements beyond LA 52
- Improve accommodations for pedestrians and bicyclists to cross LA 52
- Create a network of recreational trails to interconnect neighborhoods, community facilities, and the LA 52 corridor
- Initiate a series of policy initiatives to support the Complete Streets approach (16)

### St. Charles Parish Parks & Recreation Master Plan

The Parks and Recreation Master Plan was last updated in 2012. It provides guidance for the "development of an interconnected, parish-wide system of parks, recreational facilities and programs, and public open spaces" (1). It also identifies the need for comprehensive networks that will create connections between properties maintained by the Parks and Recreation Department. Survey analysis from this report shows overwhelming residential support for expansion and improvement to the existing pedestrian and bicycle transportation system.

#### Conclusion

Walking and bicycling for transportation and recreation have become increasingly popular in recent years. As a result, there is a growing demand by pedestrians and bicyclists for additional resources. This plan defines specific treatments for roadways, intersections, and additional facilities to create a wellconnected overall network that people can use for walking and bicycling for recreation or transportation. This plan is the result of a multidisciplinary effort by the project team. The plan not only complies with and supports the objectives of previous planning work in St. Charles Parish but expands upon those plans by applying recommendations and strategies and fulfilling previously identified needs. The plan should inform and guide Parish officials, private/public land developers, and LADOTD in the implementation of transportation improvement projects and programs.

### 2. PLAN VISION AND GOALS

### **Vision Statement**

The vision of the St. Charles Parish Comprehensive Pedestrian & Bicycle Master Plan is to make walking and biking feasible and safe for all residents, through targeted improvements to infrastructure, programming, and enforcement.

## Pedestrian & Bicycle Master Plan Goals

The project team developed the goals for the Pedestrian & Bicycle Master Plan in collaboration with the Project Steering Committee, stakeholders, and the general public. They are intended to support the vision for pedestrian and bicycle transportation in St. Charles Parish.

- · Goal One: Improve safety
- Goal Two: Increase transportation options
- · Goal Three: Spur economic development

The goals identified within the Pedestrian & Bicycle Master Plan align with those of the LADOTD Complete Streets Policy (2010), the St. Charles Parish 2030 Comprehensive Plan, the St. Charles Parish Parks and Recreation Master Plan (2012), and the Paul Maillard Road Corridor Revitalization Plan (2014). The project goals and their related objectives are presented on the following pages. Proposed improvements to the transportation network that can realize these goals are provided in Section 5 (Proposed Improvements), and implementation strategies and recommended policy changes to encourage their establishment are provided in Section 6 (Implementation).



### **GOAL 1 IMPROVE SAFETY**

The primary goal of the Pedestrian & Bicycle Master Plan is to achieve greater safety for non-motorized users of the transportation network through strategic, consistent, and coordinated facility improvements, programming that includes ongoing education of all ages, and enforcement. Through effective planning and design of pedestrian and bicycling facilities, the Parish seeks to reduce crashes, injuries, and fatalities by creating safe walking and bicycling environments.

The project team reviewed crash data and collaborated with residents and industries to identify the most dangerous locations for non-motorized travel. The team then compared crash locations and existing facilities to determine significant nodes and neglected road segments that its recommendations should include.

The transportation network in St. Charles Parish lacks safe and practical routes for people to walk and bike. Facility design plays an important role in creating a safe environment, but a large responsibility also falls on motorists, pedestrians, and bicyclists to act in a lawful and safe manner. The parish needs additional education to inform and prepare residents about safe behavior for all road users and enforcement to follow-up when rules are not being adhered to.

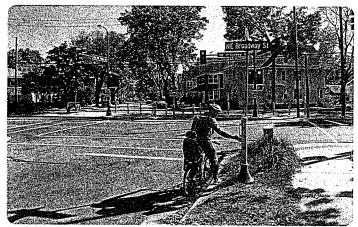


Figure 6 - Safety Signals

### Goal One Objectives

- Create strategic, consistent, and connected pedestrian and bicycle networks
- Improve intersections to provide a safe environment for pedestrians and bicyclists
- Involve residents to enhance awareness of travel laws and appropriate behavior by all roadway users
- Educate drivers, pedestrians, and bicyclists how to use the network together safely
- Improve crash data reporting and mapping to inform preventive/proactive safety strategies

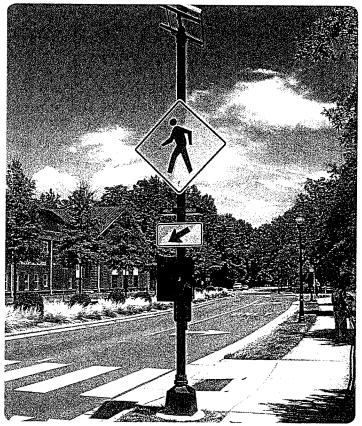


Figure 7 - Rapid Flash Beacon



### **GOAL 2 | INCREASE TRANSPORTATION OPTIONS**

The roadway network in St. Charles Parish is designed primarily for automobiles, and walking and bicycling are not yet viable means of transportation due to a lack of safe and interconnected networks and an absence of end-of-trip facilities.

Connections between neighborhoods and major destinations can be enhanced through coordinated land use and transportation planning. A shift towards a multi-modal transportation system that plans for and supports various transportation modes, not solely vehicular, can increase transportation options for residents. This shift from prioritizing high speeds, wide lanes, and other circumstances that are singularly advantageous for vehicular travel will require the Parish to not only revisit its standards but also to demand abidance and enforcement by those responsible for decision making on non-parish-owned roads. Recommended policy changes are listed in Section 6 (Implementation).

Investments in walking and biking infrastructure are crucial for making transportation more equitable by making transportation accessible and affordable transportation for all residents, particularly for those who do not own a car or are physically impaired. The Americans with Disabilities Act (ADA) of 1990 applies to public and private transportation and lays out policies that require transportation systems to be accessible for all users regardless of physical disabilities. Guaranteeing the presence of ADA accessible facilities will provide physically-impaired users with an environment that offers confidence of safety during travel and recreation.

#### Goal Two Objectives

- · Expand community-oriented pedestrian facilities
- Expand and connect local and regional networks of bicycle facilities
- Improve transportation equity, including ADA accessibility
- Provide and expand existing pedestrian and bicycle access to public facilities
- Provide performance monitoring to ensure continuous support of multi-modal facilities
- Provide neighborhood access to parks, schools, and shopping
- Provide end-of-trip facilities at trailheads and destinations
- St. Charles Parish must establish data-driven performance measures and targets for implemented projects. These measures and targets will allow the Parish to monitor the effect of its transportation investments and improve the transportation decision-making process.



Figure 8 - Neighborhood Sidewalks

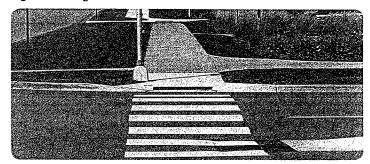


Figure 9 - High-Visibility Crosswalk



### **GOAL 3 | SPUR ECONOMIC DEVELOPMENT**

Bicycle and pedestrian corridors have proven to provide economic development benefits in areas with highly concentrated traffic. Coffee shops, bakeries, bike shops, and cafes often open along major pedestrian and bicycle corridors. Increased investment in pedestrian and bicycle projects can serve as catalysts for new development and revitalize commercial areas or neighborhoods. This approach would optimize the potential for a return on the parish's investment in non-motorized facility improvements.

Facilities for pedestrians and bicyclists also generate economic returns by improving health and safety, environmental conditions, raising property values, and enticing visitors to the parish. Through investments to infrastructure, St. Charles Parish can maximize its economic competitiveness with neighboring parishes by creating more attractive communities and by offering regional connections for use by the tourism industry. Major local precedents for these types of implementation are the Tammany Trace Bike Trail in St. Tammany Parish and the Lafitte Greenway in Orleans Parish.

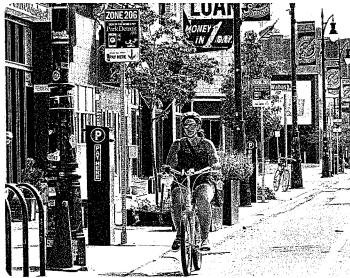


Figure 10 - Bicycle Corridor

### Goal Three Objectives

- Use transportation investments to support economic development
- Increase quality-of-life through walkable and bikeable communities
- Optimize returns on investments of bicycle and pedestrian facility improvements
- Increase active transportation investment to meet long-term needs
- Become a regional destination for bicycling
- · Improve livability of communities
- Attract younger generations

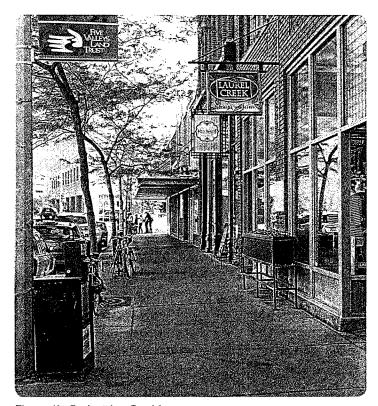


Figure 11 - Pedestrian Corridor

### **Complete Streets Ordinance**

In addition to the Pedestrian & Bicycle Master Plan, this project also involved development of a draft Complete Streets ordinance for St. Charles Parish. The ordinance was a collaborative effort by the project team with the St. Charles Parish Departments of Public Works and Planning and Zoning and is intended for consideration and adoption by the Parish Council. As a result, this plan incorporates Complete Streets principles and should continue to be guided by these principles, in addition to the ordinance, if adopted.

The ordinance will facilitate ensuring that the proposed Pedestrian & Bicycle Master Plan improvements will be implemented in an accurate and timely fashion and that street projects, whether they be public or private projects, address pedestrian and bicyclist needs as set forth in the plan. Implementation can be made possible by providing parish officials with the legal means for requiring the development of policies and programs that account for the interest of all forms of transportation, not just vehicular.

In 2010, the State of Louisiana adopted a Complete Streets Policy, which is intended to guide projects under the purview of LADOTD. Adoption of a Complete Streets policy in St. Charles Parish, through ordinance, would outline fundamental direction to guide transportation projects and land use development decision-making that impact the transportation system. Local policy can guide the retrofit and reconstruction of locally-owned roads, future maintenance, address the interaction with state-owned roads, and influence projects within the public domain. While LADOTD has its own Complete Streets policy, the department considers the policy of local municipalities when one is in place. Since many roadways in St. Charles Parish are state-owned roads, the state's policy, combined with a newly adopted parish Complete Streets policy, can be a valuable tool in meeting the vision of the Pedestrian & Bicycle Master Plan.

What is Complete Streets?
A Complete Streets policy is based on four principles, as offered by the National Complete Streets Coalition:

- Create a balanced transportation system that serves users of all abilities and all modes of transportation
- Provide and improve means for safe access to destinations
- Create pedestrian- and bicycle-friendly environments
- Provide true alternatives to driving

A Complete Streets policy encourages integrated planning of roadways to provide for users of all ages and abilities, including pedestrians and bicyclists, as well as motor vehicles. Parishes and cities that adopt a Complete Streets policy encourage, and in some cases require, designers and engineers to adopt a more holistic approach to right-of-way design by improving transportation, drainage, and utility infrastructure with all users in mind.

A copy of the draft St. Charles Parish Complete Streets Ordinance is located in Appendix D.

#### Conclusion

Goals and their objectives intend to improve the experiences of pedestrians and cyclists. The project team developed goal objectives to guide improvements to safety, transportation options, and the economy. The plan's goals are in alliance with the State's Complete Streets Ordinance and include components of Complete Streets designs to promote the recommendation of a Parish ordinance.