

**MANCHAC GREENWAY (LAPLACE GATEWAY)**  
**PEDESTRIAN AND BICYCLE CONNECTOR PATH STAGE 0 STUDY**  
**(FRENIER ROAD TO MISSISSIPPI RIVER TRAIL)**  
**ST. JOHN THE BAPTIST PARISH**  
**(RPC PROJECT NO. A-1.22MG: FY-22 UPWP)**

Prepared for

**REGIONAL PLANNING COMMISSION**

**JEFFERSON, ORLEANS, PLAQUEMINES, ST. BERNARD, ST. CHARLES, ST. JOHN THE BAPTIST, ST. TAMMANY, AND  
TANGIPAHOA PARISHES**

LaPlace, Louisiana



**FINAL REPORT**

**JANUARY 2023**



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## EXECUTIVE SUMMARY

The Regional Planning Commission for Jefferson, Orleans, Plaquemines, St. Bernard, St. Charles, St. John The Baptist, St. Tammany, and Tangipahoa Parishes (RPC) authorized Urban Systems Inc. (USI) together with Asakura Robinson Company, LLC (AR) and GIS Engineering LLC (GIS) to perform a Stage 0 Feasibility Study. The study included development of conceptual alternatives for improving pedestrian and bicycle safety and access within the urban sub-area of the *Manchac Greenway Laplace Gateway* (Manchac Greenway).

The study area was identified as the urbanized areas adjacent to US 51 in Laplace, Louisiana from Frenier Road to the Mississippi River Trail on the Mississippi River levee system. The study area also included Old US 51, Main Street, and Airline Highway near US 51 as well as nearby neighborhood roadways.

USI identified and evaluated existing motorized and non-motorized traffic, infrastructure, utilities, environmental concerns, and land uses. Meetings with stakeholders were held to review data collected and discuss each task to establish conceptual alternatives. Once conceptual alternatives addressing the project goals were identified and vetted for feasibility, graphical representations of the concepts were created and costs were estimated.

The concepts included two Phases, Phase I and Phase II. Phase I focused on a main Manchac Greenway shared use path from Frenier Road to planned pedestrian/bicycle facilities at Airline Highway and Main St. Phase II focused on neighborhood connectivity to the Manchac Greenway and other recreational land uses in the study area, as well as additional access to the Mississippi River trail.

USI approximates \$11,650,000 in costs of improvements to implement both Phase I (\$8,425,000) and Phase II (\$3,225,000) concepts. These costs are based on the assumed cross-sections and lengths of the proposed improvements and do not include right-of-way acquisition.

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## **1. INTRODUCTION**

### **1.1 PURPOSE**

In December 2021, the Regional Planning Commission for Jefferson, Orleans, Plaquemines, St. Bernard, St. Charles, St. John The Baptist, St. Tammany, and Tangipahoa Parishes (RPC) authorized Urban Systems Inc. (USI) together with Asakura Robinson Company, LLC (AR) and GIS Engineering LLC (GIS) to perform a Stage 0 Feasibility Study to develop conceptual alternatives for improving pedestrian and bicycle safety and access within the urban sub-area as it relates to the Manchac Greenway.

### **1.2 OBJECTIVE**

The objective of the study was to identify and evaluate existing motorized and non-motorized traffic, infrastructure, utility, environmental concerns, and land uses in the urban-sub area of the Manchac Greenway from Frenier Road to the Mississippi River Trail and use this data to develop the conceptual alternatives. Meetings with public agencies and stakeholders were scheduled to receive feedback and build consensus on the design options. Other objectives for this study include preliminary estimates of the probable construction costs.

### **1.3 STUDY AREA**

The project study area is in Laplace, LA in St. John The Baptist Parish. The study area is bounded to the west by a drainage canal just west of Cambridge Drive, to the east by Main Street, to the south by the Mississippi River and to the north by Frenier Road. Major study corridors include US 51/Old US 51 from Frenier Road North of I-10 to Airline Highway (US 61) and Main Street from US 51 to LA 44. The study area also includes local roads south of LA 44 and the Mississippi River Trail on top of the levee system. **Figure 1.1** presents a vicinity map of the study area.



Figure 1.1 – Vicinity Map – Manchac Greenway Urban Sub-area (Google Earth)

## 2. EXISTING ANALYSIS

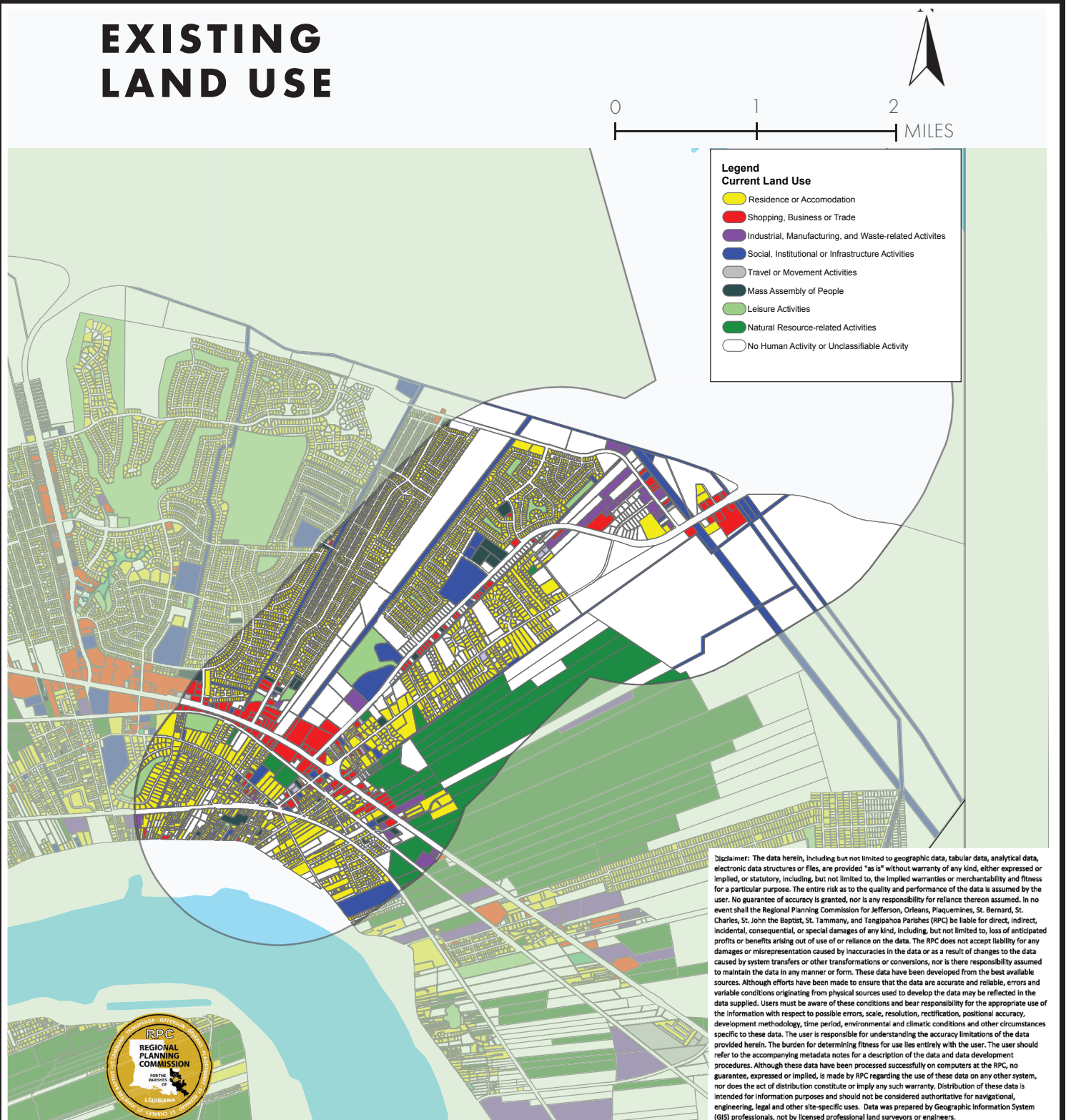
### 2.1 EXISTING AND FUTURE LAND USE

There are various land uses adjacent to the Manchac Greenway. South of I-10 the most notable land uses are residential and commercial. The area to the north of I-10 is mostly undeveloped or is used for environmental conservation. The immediate areas bordering Airline Highway in the study area are largely commercial land uses. Main Street, as it approaches LA 44 is composed of residential, commercial, and institutional. St. John The Baptist Library and Community Center, and the Thomas F. Daley Memorial Park is located adjacent to US 51 between Summerlin Drive and Airline Highway. **Figure 1.2** presents the existing land uses by color coordination. A higher resolution graphic with the existing land use information is presented in **Appendix A**.

Future land uses adjacent to the Manchac Greenway are expected to remain the same other than increased commercial land use along the US 51 corridor between US 61 and I-10. Most of the residential land uses are expected to fill out and expand outward from their current locations. Heavy industrial land use just south of I-10, where US 51 curves to the west, is expected to transition to more mixed use commercial and lighter industrial. **Figure 1.3** presents the expected future land uses by color coordination. A higher resolution graphic with the future land use information is presented in **Appendix A**.



# EXISTING LAND USE



Source: Asakura Robinson

**Figure 1.2**

Manchac Greenway Stage 0

Laplace, LA

NOT TO SCALE  
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# FUTURE LAND USE

0 1 2 MILES

## Legend

### Future Land Use

- Commercial Corridors
- High-Density Residential
- Historic Downtown Mixed-Use
- Industrial
- Mixed-Use Commercial Light Industrial
- Mixed-Use Residential Commercial
- Neighborhood Commercial
- Parks and Recreation
- Public, Educ., Rel., and Other Institutions
- Residential
- Residential - Mobile Home Appropriate
- Undeveloped or Agriculture
- Utilities and Transportation
- Vulnerable Residential

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**Figure 1.3**

Manchac Greenway Stage 0  
Laplace, LA

NOT TO SCALE  
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## 2.2 INFRASTRUCTURE, UTILITY, AND ENVIRONMENTAL DATA

Existing infrastructure, utility, and environmental information was compiled, and a site visit conducted to verify the existing conditions within the US 51 right-of-way between I-10 and US 61. The following paragraphs in this section provide a brief description of the data compiled and the observations documented during the sight visit to establish a general baseline for this study.

### *ROADS AND PAVEMENT CONDITIONS*

The LADOTD Functional Classification for the US 51 corridor within the study area is Principal Arterial Urban. Most of the US 51 corridor south of I-10 consists of a four-lane roadway with a continuous two-way left-turn lane (TWLTL) terminating at US 61 (Airline Highway).

The existing roadways are generally in good condition. Portions of US 51 are developing fatigue cracking in the asphalt pavement, especially at the edges of some driveways. This damage is often a sign of sub-base failure, poor drainage, or repeated over-loadings. These areas of US 51 are known to be submerged during and after storm events involving heavy rainfall.

### *GAS AND HAZARDOUS PIPELINES*

The National Pipeline Mapping System has natural gas and HAZMAT pipelines crossing US 51 at its intersection with I-10. Two more pipelines, one natural gas and one HAZMAT, cross US 51 approximately 1,000 feet northeast of its intersection with US 61. Graphics presenting the gas and-hazardous pipelines as they relate to the Manchac Greenway are presented in **Appendix B**.

### *POWER LINES*

Overhead power lines were identified in the field and digitized using satellite imagery. A graphic presenting the powerlines as they relate to the Manchac Greenway is presented in **Appendix B**.

### *DRAINAGE*

Existing drainage within the US 51 right-of-way flows in a northeast direction ultimately into Lake Pontchartrain. Most of the stormwater drainage network consists of a combination of open ditch and subsurface drainage under driveways between I-10 and US 61.

Evidence of ponding stormwater reflects drainage issues near I-10. The persistent inundation at the I-10/US 51 interchange suggests the need for drainage improvements. There were no identified outfalls at this location based on multiple site visits and laptop surveys. Drainage laterals and outfalls may be buried or submerged. The proposed West Shore Lake Pontchartrain Levee project is expected to reduce flooding from storm surges and high tides in Lake Pontchartrain, however, it is evident that conveyance improvements are needed to provide drainage during storms. Stagnant stormwater over driveways and in ditches were observed several days after rain events. **Photos 1** and **2** present evidences of such situations below:



*Photo 1: Left - Standing water on the truck entrance to Pilot on Aug 18, 2021, after three days with no rain.*

*Photo 2: Right – The ditch in front of Wendy's full of water on Oct 8, 2021, after three days with no rain.*

*Both photos are within approximately 1,000' south of the I-10 ramps.*

## **ELEVATIONS**

Elevations along US 51 generally slope from the natural high ground near the Mississippi River to the lower back swamps fringing Lake Pontchartrain. Elevations near US 61 range from 8 to 10 feet<sup>1</sup>. Near I-10, most of the roads, driveways, and parking lots have elevations approximately at or near 4 feet, only inches higher than the surrounding marshes. The infrastructure in this area has been known to be susceptible to flooding from Lake Pontchartrain. One such instance was in May of 2021. The I-10 and I-55 on and off ramps to/from US 51 were closed as high-water levels made parts of US 51 undrivable.

## **LIGHTING**

While a detailed inventory of light poles was not performed, windshield surveys indicate a relative scarcity of street lighting along US 51, including near the I-10 interchange.

## **STRIPING AND SIGNAGE**

Existing striping appears to be adequate and in reasonable condition. Existing regulatory and non-regulatory signage appear to be adequate and in reasonable condition. Non-regulatory signage includes the painted tanks at the Woodland Booster Station that are partially screened from view by existing power lines and the dated, badly damaged "Welcome to Laplace" sign on US 51.

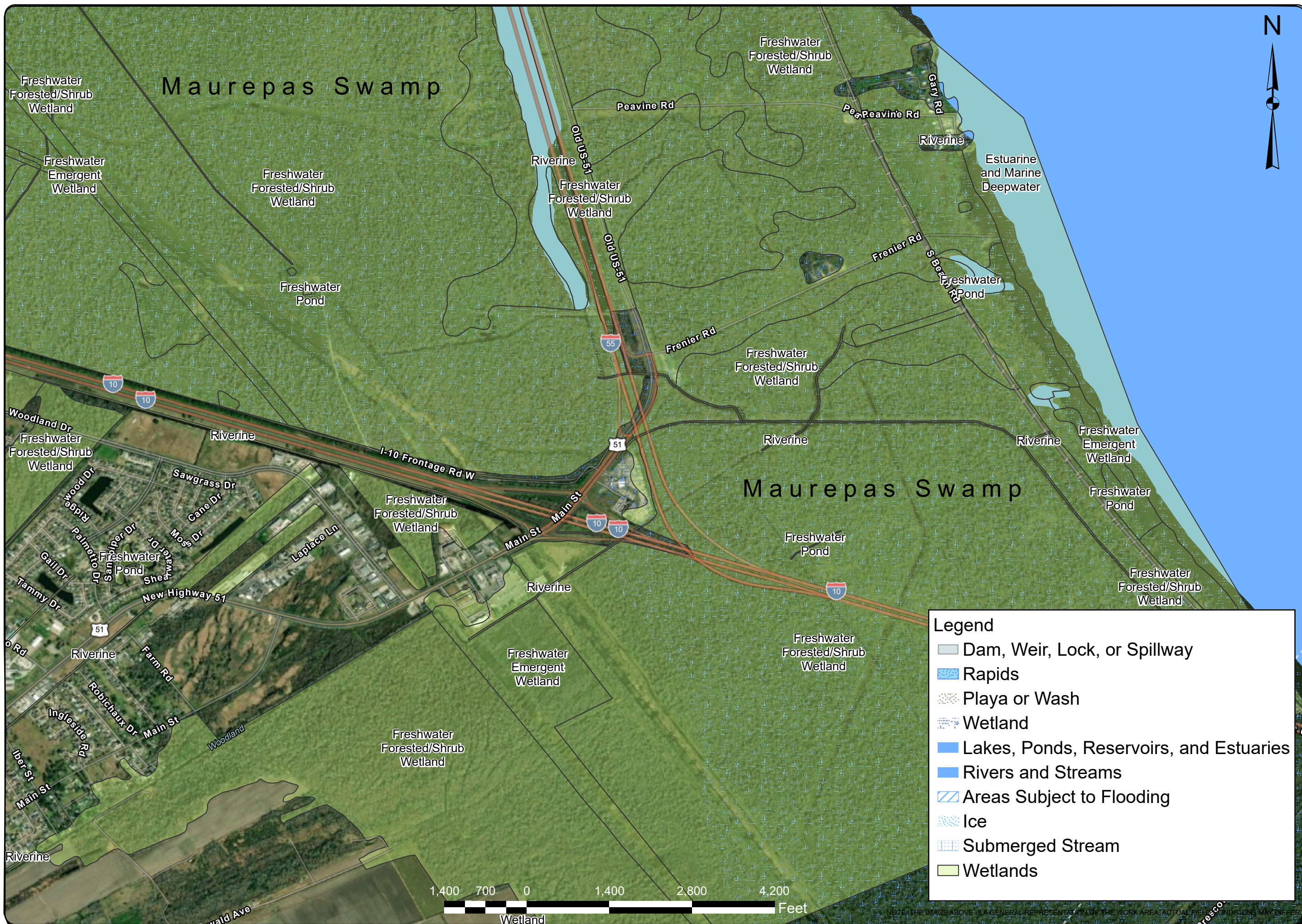
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<sup>1</sup> All elevations refer to the North American Vertical Datum of 1988 (NAVD88) unless otherwise noted.

## *ENVIRONMENTAL DOCUMENTATION*

Environmental data from the National Wetlands Inventory is presented graphically in **Figure 2.1**. The figure presents a wetland and a hydrography map indicating areas of environmental concern. The study area north of I-10 is comprised mostly of The Maurepas Swamp, Manchac, and Joyce Wildlife Management areas. No major environmental concerns exist south of I-10. Data from the National Wetlands Inventory is for planning purposes only; it is not sufficient to determine permitting requirements.








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ST. JOHN  
THE BAPTIST PARISH  
ST. JOHN THE BAPTIST PARISH  
I-10 AND US-51  
GATEWAY CORRIDOR STUDY

WETLANDS  
AND  
HYDROGRAPHY MAP

Project Number	39145-1333
Date	JAN 2022
Designed by	
Drawn by	LKS
Checked by	KJG
Checked by	
Date Printed:	

Figure 2.1

**Legend**

- Dam, Weir, Lock, or Spillway
- Rapids
- Playa or Wash
- Wetland
- Lakes, Ponds, Reservoirs, and Estuaries
- Rivers and Streams
- Areas Subject to Flooding
- Ice
- Submerged Stream
- Wetlands



## 2.3 DEFICIENCY ANALYSIS

Deficiencies were documented relating to pedestrian and cyclist safety. These deficiencies include the following:

- **Lack of sidewalks:** No sidewalks were observed along the full length of US 51, Woodland Drive, Indigo Parkway, or US 61 within the study area. Sidewalks were not observed adjacent to Main Street from US 51 to US 61. Along Main Street south of Airline, there were non-continuous sidewalks that were in poor condition.
- **Lack of bicycle facilities:** Currently there no dedicated or shared lane bicycle facilities in the study area apart from two multi-use paths in poor condition. One path is located behind the hotel, gas, and restaurant land uses just south of I-10, and the other is located behind the neighborhoods adjacent to US 51.
- **Lack of pedestrian refuge / crosswalks:** The entirety of US 51 from US 61 to just south of I-10 is a four-lane roadway with a two-way left turn lane. Pedestrians seeking to cross US 51 must cross five lanes of traffic, presenting a potential safety concern.
- **Traffic signaling:** The signalized intersections of US 51 at US 61, Main Street at US 61, and Woodland Drive at US 51 lack pedestrian signal heads, push buttons, or crosswalks to assist pedestrians or cyclist from safely traversing the intersections.

**Photos 3 through 9** illustrate the above listed conditions:



*Photo 3 (US 51 between Bamboo Road and Palmetto Drive): Lack of sidewalks, bicycle facilities, and pedestrian refuge along US 51*



*Photo 4 (US 51 I-10 and Woodland Drive): Lack of sidewalks, bicycle facilities, and pedestrian refuge along US 51*



*Photo 5 (Main Street between US 51 and US 61): No shared/dedicated bike lanes for cyclists*





*Photo 6 (Main Street/LA 44 Between US 61 and W 6<sup>th</sup> St): Sidewalks in poor condition and do not connect, no bicycle facilities*



*Photo 7 (US 61 at Main Street): Lack of crosswalks, pedestrian push buttons, and pedestrian signal heads*





Photo 8 (US 61 at US 51): Lack of crosswalks, pedestrian push buttons, and pedestrian signal heads



Photo 9 (Woodland Drive at US 51): Lack of crosswalks, pedestrian push buttons, and pedestrian signal heads

## 2.4 EXISTING, PREVIOUS, AND PLANNED STUDIES

The purpose of this section is to present data from existing/ongoing studies in the vicinity of the study area. Data from past and planned studies were reviewed that coincide with or could impact the study objective. Knowledge of these projects is important for establishing improvements or making decisions for the study area and corresponding facilities.

### *I-10/US-51 GATEWAY CORRIDOR STUDY (GIS ENGINEERING LLC)*

GIS Engineering (GIS) conducted an engineering study for improving the I-10 at US-51 interchange in LaPlace, LA. The purpose of the study was to develop concepts for improving aesthetics, drainage, and traffic safety at the interchange that will create a “Gateway Corridor” into St. John The Baptist Parish. The study includes brief descriptions of existing conditions, existing/past projects, relevant studies associated with the project corridor, conceptual project proposals to achieve the Parish’s goals for the project, and discussion of implementation and

funding strategies. Applicable concepts from the study were incorporated into the proposed projects in this Stage 0. The report is presented in **Appendix C**.

#### *WEST SHORE LAKE PONTCHARTRAIN LEVEE PROJECT*

The West Shore Lake Pontchartrain Levee Project (WSLP) is a US Army Corps of Engineers (USACE) project that is aimed at reducing potential hurricane impacts for LaPlace, Reserve, and Garyville. Clearing, stockpiling, access road construction, and levee test sections are currently in progress, and levee construction is expected to begin in 2023. More details on the study are presented in the *I-10/US-51 Gateway Corridor Study (GIS ENGINEERING LLC)* in **Appendix C**.

#### *ST. JOHN THE BAPTIST EAST BANK DRAINAGE STUDY PHASE I*

Burk-Kleinpeter, Inc. completed a study in 2013 to perform hydraulic modeling of existing and proposed drainage conditions. The report focused heavily on drainage and may be useful in developing alternatives. More details on the study are presented in the *I-10/US-51 Gateway Corridor Study (GIS ENGINEERING LLC)* in **Appendix C**.

#### *I-10 RESERVE RELIEF CANAL – I-155 NB RAMP – STAGE 0 REPORT*

A Stage 0 Feasibility Study on I-10 near the I-55 ramps was conducted in 2015. The study identified and addressed existing roadway inadequacies during storm events. Alternatives to elevate I-10 to alleviate flooding were evaluated in this study. More details on the study are presented in the *I-10/US-51 Gateway Corridor Study (GIS ENGINEERING LLC)* in **Appendix C**.

#### *LAPLACE MULTI-MODAL TRANSPORTATION CENTER PLAN*

Passenger rail service between Baton Rouge and New Orleans is, at the time of this study, an attractive concept to the community and interested stakeholders. The LaPlace Multi-Modal Transportation Center Plan is a feasibility study to introduce a transportation center near the Main Street intersection with Airline Highway. The center would facilitate rail travel between Baton Rouge, LaPlace, and New Orleans. More details on the study are presented in the *I-10/US-51 Gateway Corridor Study (GIS ENGINEERING LLC)* in **Appendix C**.

#### *AIRLINE AND MAIN COMPLETE STREETS*

St. John the Baptist Parish has a planned project, Airline and Main Complete Streets, to improve aesthetics and rehabilitate facilities for pedestrians and bicyclists near the intersection of Main Street and Airline Drive. The project is also anticipated to improve drainage and traffic issues. As planned, this project is expected to overlap with the Manchac Greenway Stage 0 Study. The sidewalks on Main Street south of Airline Highway will be used to tie into the proposed Manchac Greenway. The final plan set for the Airline and Main Complete Streets is presented in **Appendix C**. A summary of the Airline and Main Complete Streets project is also presented in **Appendix C**.

## *MANCHAC GREENWAY COMPREHENSIVE PLAN WHITE PAPER*

The Manchac Greenway Comprehensive Plan White Paper was developed to summarize the existing infrastructure, flood risk, environmental integrity, and economic/recreational activity. The White Paper described the goals for the Manchac Greenway Comprehensive Plan and the plans of action/strategies to reach these goals. This Stage 0 Feasibility Study is part of Strategy 2 presented in the White Paper which involves building pedestrian/bicycles networks and facilities. The Manchac Greenway Comprehensive Plan White Paper is presented in **Appendix C**.

## *EXISTING SAFETY DATA*

Collision data in the vicinity of the study area was provided by RPC for the years 2016 through 2020. The data was reviewed and filtered by pedestrian/bicycle involvement. The collision data was used as a reference to help vet future alternatives for upgrading pedestrian and bicycle facilities along the Manchac Greenway. A condensed list of pedestrian/bicycle collisions are presented in **Appendix C**.

## *US 61: CARDINAL DRIVE TO BERT STREET STAGE 0 FEASIBILITY STUDY – H.014305*

A safety study to identify safety issues and evaluate reasonable alternatives on US 61 from Cardinal Drive to Bert Street. At the time of this study the study was on-going and LADOTD was not able to provide any deliverables on this project.

## *TANGIPAHOA PARISH MANCHAC GREENWAY MASTER PLAN (2019)*

A concept plan for the Manchac Greenway in Ponchatoula, LA was conducted in 2019. The purpose of the plan was to identify alternatives for a multi-use path connecting downtown Ponchatoula near LA 22 to Akers, LA. The plan proposed alternatives to improve the safety of the existing Share the Road bike trail using present sources and funding and divided the alternatives into sections or phases of construction. The Tangipahoa Parish Manchac Greenway Master Plan is presented in **Appendix C**.

## *THE PONTCHARTRAIN TRACE MASTER PLAN (1997)*

A Master Plan was proposed in December of 1997 for an estimated 160-mile multi-use corridor circulating Lake Pontchartrain in LA. The plan would connect Orleans, Jefferson, St. Charles, St. John The Baptist, Tangipahoa, and St. Tammany Parishes via the proposed multi-use corridor. A few potential benefits to implementing such a plan would be an increase in economic development, tourism, and recreational opportunities for the parishes involved. The Pontchartrain Trace Master Plan is presented in **Appendix C**.

*This is prepared solely for the purpose of identifying, evaluating and planning safety improvements on a public road; and is therefore exempt from discovery or admission under 23 U.S.C. 407.*

## LOUISIANA BOOTLACE TRAIL NETWORK

The Louisiana Bootlace Trail Network has been developed to link existing and future trails/greenways together to provide safe opportunities for biking and walking, more connections to nature, active transportation opportunities, and stimulation tourism from Baton Rouge to the Gulf Coast of LA. An excerpt from the Rails to Trails website is presented in **Appendix C**.

### 2.5 MOTORIZED AND NON-MOTORIZED TRAFFIC DATA COLLECTION

#### MOTORIZED 7-DAY DATA COLLECTION

The objective of this section is to describe the methodology for the collection and processing of 7-day 24-hour vehicle volumes to determine peak periods for future turning movement counts and pedestrian/bicycle collection.

7-day 24-hour vehicle volumes with classification were collected between February 14, 2022 and February 21, 2022. Volumes were collected while study area schools were in session and while COVID-19 protocols were in effect. The 7-day 24-hour volumes were collected at the following locations:

1. US 61 East of Main Street
2. US 61 West of US 51
3. US 51 between US 61 and Main Street
4. US 51 between Main Street and Woodland Drive
5. US 51 North of I-10
6. Old Highway 51 North of Frenier Road
7. Old Highway 51 South of Sunset Park

Maps with the corresponding count locations and the raw 7-day 24-hour counts are presented in the *Manchac Greenway Initial Data Collection Report* in **Appendix D**.

The 7-day 24-hour vehicle volumes were reviewed and graphed to identify weekday and weekend anomalies, trends, and peak periods. These graphs are presented in the *Manchac Greenway Initial Data Collection Report* in **Appendix D** in the following figures:

**Figure A1:** US 61 East of Main Street

**Figure A2:** US 61 West of US 51

**Figure A3:** US 51 between US 61 and Main Street

**Figure A4:** US 51 between Main Street and Woodland Drive

**Figure A5:** US 51 North of I-10

**Figure A6:** Old Highway 51 North of Frenier Road

**Figure A7:** Old Highway 51 South of Sunset Park

**Figure A8:** Saturday Bi-Directional Volumes by Location

**Figure A9:** Sunday Bi-Directional Volumes by Location

A review of **Figures A1 – A9** indicated no significant anomalies during the collection period. The figures also presented daily trends at each data collection location. Volumes tended to peak during the AM portion of the day from vehicles commuting to work. Volumes also tended to peak during the PM portion of the day from vehicles commuting from work. The Saturday and Sunday volumes at each location tended to remain constant throughout the mid-day period with an expected slight peak near noon on Saturday for lunch.

The 7-day 24-hour counts were used to recommend two (2), 3-hour peak periods to collect turning movement counts. The peak period determination included one (1) peak period on a weekday and one (1) peak period on a weekend. The peak periods were selected based on the vehicle activity along with consideration for anticipated bicycle and pedestrian activity. Based on a review of **Figures A1 through A7**, the recommended weekday peak period for additional data collection was **3:00 PM – 6:00 PM**. Based on a review of **Figures A8 and A9**, the recommended weekend peak period for additional data collection was on a Saturday from **11:00 AM – 2:00 PM**.

#### MOTORIZED TURNING MOVEMENT COUNT DATA

Turning movement counts were collected during the peak periods at the following study intersections:

- **Location 1** – US 61 (Airline Highway) at Main Street.
- **Location 2** – US 61 (Airline Highway) at US 51 (New Highway 51)
- **Location 3** – US 51 (New Highway 51) at Main Street.
- **Location 4** – US 51 (New Highway 51) at Woodlands Drive.
- **Location 5** – US 51 (New Highway 51) at Palmetto Drive.
- **Location 6** – US 51 (New Highway 51) at Bamboo Road.
- **Location 7** – US 51 (New Highway 51) at Summerlin Drive.
- **Location 8** – Frenier Road at Old US 51
- **Location 9** – US 51 (New Highway 51) at I-10 EB Ramps
- **Location 10** – US 51 (New Highway 51) at I-10 WB Ramps
- **Location 11** – US 51 (New Highway 51) at I-55 SB Off-Ramp

These turning movement counts (TMCs) include classifications categorized by motorcycles, cars and light goods, buses, single-unit trucks (FHWA classes 5-7), articulated trucks (FHWA classes 8-13), pedestrians crossing approaches, and bicycles in the roadway/crossing approaches. The raw turning movement counts are presented in the *Manchac Greenway Final Data Collections Report* in **Appendix E**.

The turning movement counts were reviewed and tabularized to identify peak hours to collect 15-minute driveway counts. The peak hour determination is presented in **Table B.1** in the *Manchac Greenway Final Data Collections Report* in **Appendix E**. A review of **Table B.1** indicated the peak hours for vehicular traffic for the study area were **4:30-5:30 PM** on Thursday April 7<sup>th</sup> and **12:15-1:15PM** on Saturday April 9<sup>th</sup>.

Turning movement counts were collected at non-residential driveways for a 15-minute interval during the identified peak hours in the urbanized portion (south of I-10) of the study area. These counts included pedestrian activity in the vicinity of the driveway. During the initial collection of the driveway data, heavy winds affected the video collection, and these driveways were counted later. The driveways were identified as high-turnover vehicular generators.

The driveway count locations are listed below:

- **Driveway 1** – Chevron
- **Driveway 2** – Chevron
- **Driveway 3** – Circle K
- **Driveway 4** – Circle K
- **Driveway 5** – Hampton / Holiday Inn
- **Driveway 6** – Wendys
- **Driveway 7** – Hampton Inn
- **Driveway 8** – Pilot
- **Driveway 9** – Pilot
- **Driveway 10** – McDonalds
- **Driveway 11** – Best Western
- **Driveway 12** – Best Western / Marriot
- **Driveway 13** – St. John the Baptist Library / Community Center
- **Driveway 14** – Suburban Extended Stay
- **Driveway 15** – Shell

These 15-minute driveway counts were multiplied by four (4) to estimate an hourly volume which was displayed graphically with the peak hour turning movement counts. The through volumes at each driveway location were balanced using the turning movement counts from the preceding intersection south of the driveway. The driveways and the intersections used to balance are presented below:

- Driveways 1-12 were balanced from the intersection of US 51 and Woodland Drive.
- Driveway 13 was balanced from the intersection of US 61 and US 51.
- Driveways 14 and 15 were balanced from the intersection of US 51 at I-10 Westbound Ramps.

The raw driveway count data is presented in the *Manchac Greenway Final Data Collections Report* in **Appendix E**.

The resulting peak hour intersection and balanced driveway counts are considered the Base Volumes and are presented in **Figure 2.2**.



LEGEND:

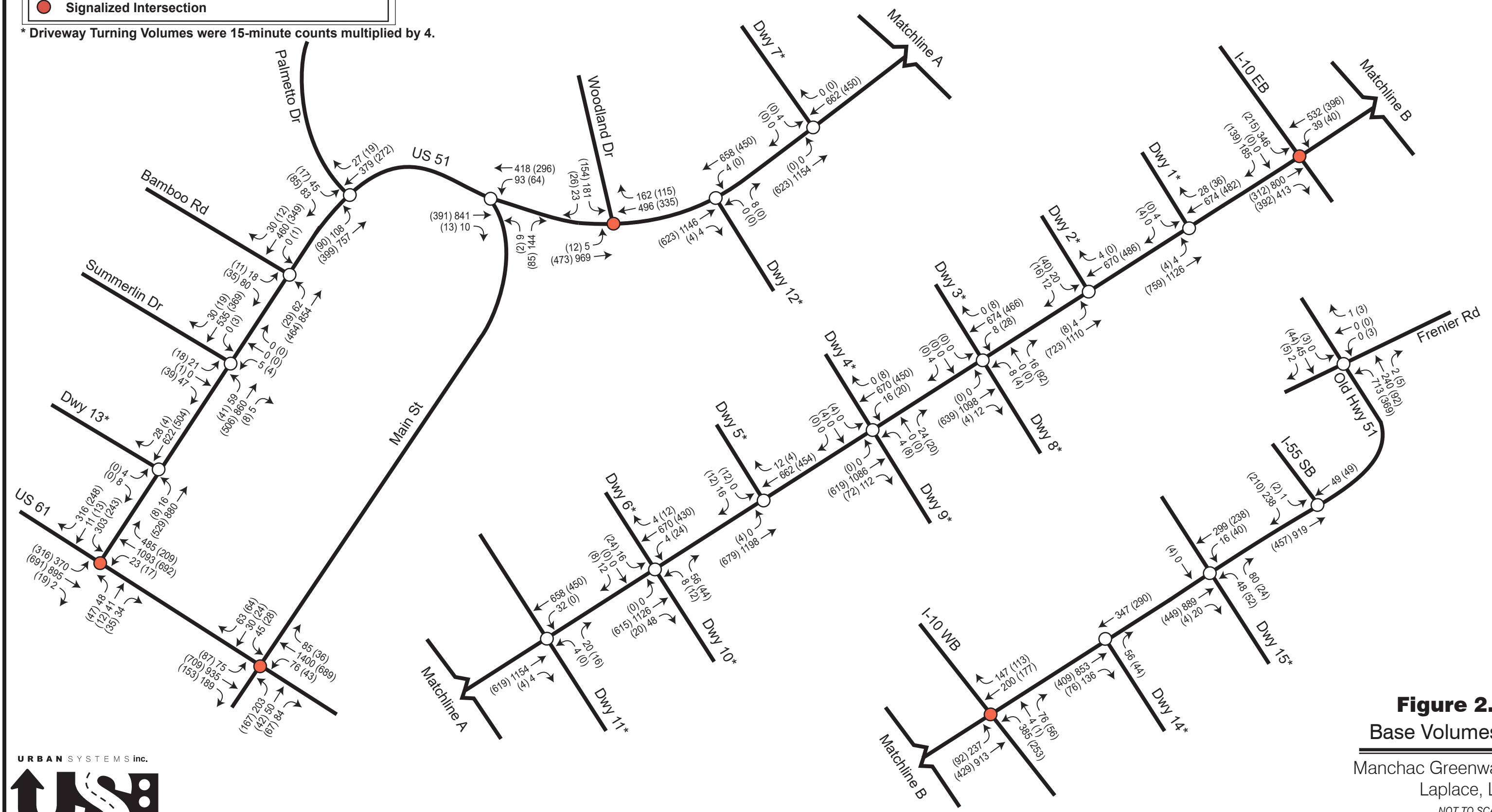
X Thursday Evening Peak Hour (4:30 PM - 5:30 PM)

(X) Saturday Midday Peak Hour (12:15 PM - 1:15 PM)

○ Unsignalized Intersection

● Signalized Intersection

\* Driveway Turning Volumes were 15-minute counts multiplied by 4.



**Figure 2.2**  
Base Volumes  
Manchac Greenway  
Laplace, LA  
NOT TO SCALE  
FOR PLANNING PURPOSES ONLY



## NON-MOTORIZED COUNT DATA

Bi-directional non-motorized pedestrian and bicycle data was collected for twenty-four (24) hours on Thursday April 7<sup>th</sup> and Saturday April 9<sup>th</sup> at the following locations:

- **Location 1** – Mississippi multi-use level levee trail near Redwood Street at LA 636-3.
- **Location 2** – US 51 (New Highway 51) between St. John the Baptist Library and Summerlin Drive
- **Location 3** - Main Street north of US 61 (Airline Highway)
- **Location 4** - Main Street south of US 51 (New Highway 51)
- **Location 5** – US 51 (New Highway 51) just north of Woodland Drive
- **Location 6** - Old US 51 north of Frenier Road
- **Location 7** - Old US 51 south of Sunset Park
- **Location 8** - Main Street South of US 61 (Airline Highway)

These non-motorized counts include pedestrians and bicycles traveling bi-directionally adjacent to or on the associated roadway. The 24-hour Thursday and Saturday hourly volumes were tabularized and are presented in **Table B.2** in the *Manchac Greenway Final Data Collections Report* in **Appendix E**. A review of **Table B.2** indicated the non-motorized peak hours for the study area were **5:00-6:00 PM** on Thursday April 7<sup>th</sup> and **7:00-8:00PM** on Saturday April 9<sup>th</sup>, and most of the pedestrian activity in the study area was located near Main Street and US 51.

## 2.6 EXISTING TRAFFIC ANALYSIS

### MOTORIZED TRAVEL ANALYSIS

Capacity analysis was performed to estimate operational conditions during the selected peaks. This type of analysis is the widely accepted industry standard for evaluating traffic operations. The Measures of Effectiveness (MOE) reported for this capacity analysis were chosen to be

Levels of Service (LOS), approach delay (sec), volume-to-capacity ratios (v/c), and 95<sup>th</sup> percentile queue length (feet).

Levels of Service (LOS) represent a qualitative and quantitative evaluation of the traffic operation of a given intersection using procedures developed by the Transportation Research Board and contained in the Highway Capacity Manual Special Report 209. The Highway Capacity Manual (HCM) procedures have been adapted to computer-based analysis packages, which include signalized and unsignalized intersection modules.

Levels of Service range from LOS A, a condition of little or no delay, to LOS F, a condition of capacity breakdown represented by heavy delay and congestion. LOS B is characterized as stable flow. LOS C is considered to have a stable traffic flow but is becoming susceptible to congestion with general levels of comfort and convenience declining noticeably. LOS D approaches unstable flow as speed and freedom to maneuver are severely restricted and LOS E

represents unstable flow at or near capacity levels with poor levels of comfort and convenience. **Tables 1** and **2** present the Level of Service criteria for unsignalized and signalized intersections, respectively.

**Table 1**  
**Level of Service Criteria**  
**Unsignalized Intersections**

Level of Service	Average Total Delay (Sec/Veh)
A	< 10
B	> 10 and < 15
C	> 15 and < 25
D	> 25 and < 35
E	> 35 and < 50
F	> 50

**Table 2**  
**Level of Service Criteria**  
**Signalized Intersections**

Level of Service	Average Total Delay (Sec/Veh)
A	≤ 10
B	> 10 and ≤ 20
C	> 20 and ≤ 35
D	> 35 and ≤ 55
E	> 55 and ≤ 80
F	> 80

The volume-to-capacity (v/c) ratio assesses the amount of traffic data that an approach roadway can handle before traffic operations become unstable. As the v/c ratio approaches 1.0, traffic operations deteriorate and v/c ratios over 1.0 indicate failing operations.

Existing conditions traffic volumes and intersection control were input into HCS 7 software to generate the MOEs for the study intersections. These MOEs will be used as a base to compare potential alternatives that may change the operation or geometry of study intersections. The signal phasing and timing were based on the Traffic Signal Inventories (TSI). **Table 3** presents the results of the analysis. Analysis reports and TSIs are presented in **Appendix F**.

<p><b>Table 3</b> <b>Existing Conditions Capacity Analysis</b></p>									
Intersection	Approach/ Movement	Thursday PM				Saturday MID			
		LOS	Delay (sec/veh)	V/C Ratio	95% Queue (ft)	LOS	Delay (sec/veh)	V/C Ratio	95% Queue (ft)
Old Hwy 15 at Frenier Rd	Frenier Rd Westbound	A	9.1	0.00	0	C	17.8	0.02	3
	Old Hwy 15 Northbound	B	7.6	0.55	88	A	6.5	0.27	28
	Old Hwy 15 Southbound	A	0.0	0.00	0	A	0.4	0.00	0
I-55 SB at US 51	I-55 SB Eastbound	A	9.9	0.27	28	A	9.6	0.23	23
I-10 WB at US 51	<b>Overall</b>	<b>B</b>	<b>19.8</b>	-	-	<b>B</b>	<b>12.6</b>	-	-
	I-10 WB Westbound	D	46.7	0.97	363	C	22.4	0.79	161
	US 51 Northbound	B	12.7	0.52	172	B	10.4	0.20	71
	US 51 Southbound	A	7.6	0.18	41	A	6.0	0.12	27
I-10 EB at US 51	<b>Overall</b>	<b>B</b>	<b>11.4</b>	-	-	<b>A</b>	<b>6.5</b>	-	-
	I-10 EB Eastbound	C	21.5	0.85	244	B	16.7	0.74	130
	US 51 Northbound	B	10.6	0.62	191	A	3.8	0.18	41
	US 51 Southbound	A	4.0	0.31	26	A	2.7	0.18	13
Woodland Dr at US 51	<b>Overall</b>	<b>A</b>	<b>8.0</b>	-	-	<b>A</b>	<b>7.5</b>	-	-
	Woodland Dr Eastbound	C	28.0	0.69	133	B	19.1	0.60	72
	US 51 Northbound	A	5.2	0.44	80	A	4.2	0.24	20
	US 51 Southbound	A	5.8	0.26	60	A	6.4	0.22	32
Main St at US 51	US 51 Westbound	B	2.1	0.16	15	A	1.5	0.06	5
	Main St Northbound	C	20.6	0.45	55	B	10.3	0.12	10
Palmetto Dr at US 51	Palmetto Dr Eastbound	C	17.1	0.26	25	B	10.7	0.11	10
	US 51 Northbound	A	1.1	0.11	10	A	1.5	0.08	8
Bamboo Rd at US 51	Bamboo Rd Eastbound	C	16.7	0.28	28	B	11.3	0.08	8
	US 51 Northbound	A	0.6	0.08	5	A	0.5	0.03	3
Summerlin Dr at US 51	Summerlin Dr Eastbound	C	20.7	0.25	25	B	13.9	0.14	13
	Summerlin Dr Westbound	E	45.7	0.06	5	C	21.8	0.02	3
	US 51 Northbound	A	0.6	0.07	5	A	0.6	0.04	3
	US 51 Southbound	A	0.0	0.00	0	A	0.1	0.00	0
US 61 at US 51	<b>Overall</b>	<b>D</b>	<b>35.4</b>	-	-	<b>D</b>	<b>36.6</b>	-	-
	US 61 Eastbound	C	31.6	0.82	341	C	31.1	0.83	261
	US 61 Westbound	C	33.0	0.80	567	C	25.3	0.37	377
	Raising Canes Northbound	E	61.3	0.70	107	F	80.9	0.66	90
	US 51 Southbound	D	44.9	0.87	381	E	61.6	0.88	397
US 61 at Main St	<b>Overall</b>	<b>B</b>	<b>14.0</b>	-	-	<b>B</b>	<b>14.6</b>	-	-
	US 61 Eastbound	A	7.7	0.44	195	A	6.6	0.30	171
	US 61 Westbound	B	11.7	0.43	260	A	8.4	0.19	123
	Main St Northbound	D	40.9	0.80	316	D	52.3	0.78	331
	Main St Southbound	C	32.1	0.52	111	C	32.2	0.41	95

A review of **Table 3** did not indicate any specific capacity constraints. The delay and queuing on the Raising Canes driveway approach occur on private property and not on the US highways.

## NON-MOTORIZED TRAVEL ANALYSIS

An existing travel analysis was conducted for 3 walksheds/bikesheds in the study area. The areas consisted of US 51 from Frenier Road to Bamboo Road, US 51 from Bamboo Road to US 61, and US 61 from US 51 to Main Street. Existing roadway profiles, land uses, demographics and latent demand of the study area were documented and used to conduct the analysis.

The analysis resulted in a qualitative assessment of facility demand potential for each walkshed/bikeshed. The assessment is summarized below:

- *US 51 from Frenier Road to Bamboo Road* – Sidewalks and crossing treatments could benefit pedestrians, but potential use is limited by low population density, lack of destinations, low existing pedestrian volumes, and lack of zero-car households. A pedestrian fatality occurred in 2019 and four pedestrian injuries occurred between 2017 and 2020 along the segment serving the hotels located to the south of the I-10 interchange. Each of these crashes involved a pedestrian crossing US 51 mid-block. Bike lanes and cycle tracks could attract highly confident users, but concerned users are unlikely to utilize them. As traditionally designed, shared use paths could attract concerned users but may not attract highly confident users unless designed at an appropriate width to accommodate both high speed bicyclists and pedestrians, such as through separate walking and biking lanes.
- *US 51 from Bamboo Road to US 61* – Sidewalks may attract the potential latent walking demand based on the high concentration of residents/destinations in this area. Bike lanes and cycle tracks could attract highly confident users; however, the absence of shoulders and high speeds of the adjacent highway may not attract concerned/interested users. Shared use paths are more likely to be used by less confident users and less likely to be used by highly confident users.
- *US 61 from US 51 to Main Street* – Sidewalks could increase existing walking trips in the area given the concentration of commercial land uses. A pedestrian fatality occurred at the intersection of US 61 and Main Street in 2017. Bike lanes and cycle tracks could attract highly confident users; however, the absence of shoulders and high speeds of the adjacent highway may not attract concerned/interested users. Shared use paths are expected to attract all users due to the complex traffic geometry/conditions in the area.

A more detailed analysis with inputs is presented in **Table 4**. Walkshed/bikeshed footprints are along with maps displaying pedestrian related crashes with crash codes from the years 2016 – 2022 are presented in **Appendix G**.

Table 4				
Non-Motorized Pedestrian Analysis				
	Segment	US 51 from Frenier Road to Bamboo Road	US 51 from Bamboo Road to U.S. 61	US 61 from US 51 to Main Street
Existing Roadway Profile	Facilities	Four 12' through lanes One 12' center turning lane Two 10' shoulders No curbs or sidewalks	Four 12' through lanes One 12' center turning lane Barrier curbs and no sidewalks	Four 12' through lanes Two 12' left turn lanes/median One 12' right-turn slip lane (eastbound) One 12' right turn lane (westbound) Some barrier curbs and no sidewalks
	Posted Speed Limit	45 mph	45 mph	45 mph
	Observed motor vehicle traffic (Thursday Peak Hour Volumes)	At Woodland Drive: 371	At Summerlin Drive: 162	West of US 51: 2,724 East of US 51: 2,833
	24 hr pedestrian/bicyclist count	8,2	4,2	Not collected
Local walking latent demand profile	One mile walkshed area	0.75 sq. mi.	0.57 sq. mi.	1.58 sq. mi.
	Total population	382	1,114	2,490
	Population density (per sq. mi)	511	1,963	1573
	Number and percent of people under	107 (28%)	301 (27%)	530 (21.3%)
	Number and percent of people over	11 (2.8%)	36 (3.2%)	146 (5.8%)
	Number and percent of people under	118 (30.1%)	337 (30.2%)	676 (27.1%)
	Number and Percentage of	0 (0%)	1 (0.3%)	17 (1.8%)
	Number and Percentage of	25 (19.4%)	80 (21.3%)	312 (33.1%)
	Total jobs and density	689 (922/sq mi)	794 (1399 sq. mi.)	2360 (1492)
	Civic, institutional and other high intensity uses in the walkshed for which employment inadequately captures level of trip generation	Six inns/hotels are located within the one-mile walkshed, adjacent to the Interstate 10 interchange with Highway 51. Overnight guests at these businesses generate trips and increase daytime population and may increase demand for walking trips in the immediate vicinity, such as to adjacent gas stations and restaurants.	The walkshed holds a concentration of civic and institutional uses, including three churches, Lake Pontchartrain Elementary School, the Parish library and the Parish community center. It also contains a cluster of high-intensity commercial uses on Highway 61, including "big box" retailers, as well as a cluster of small businesses along Laplace's historic Main Street corridor, and the future site of the regional commuter rail station providing service to Baton Rouge, Louis Armstrong International Airport, and downtown New Orleans.	The walkshed contains all of central Laplace, including the Parish Community Center and library, big box retail, the historic Main Street corridor, and access to the Mississippi River Trail.
	Adjacent destinations outside of the segment for which the segment may comprise part of a longer trip	Three churches and Lake Pontchartrain Elementary School are located immediately to the south of the one-mile walkshed, and the Parish library and community center are located approximately one mile to the south on US 51. Destinations are sparse north of the walkshed, which land uses consist primarily of undeveloped wetlands.	Large lot, highway-oriented, commercial uses front Airline Highway east and west of the walkshed. Six inns/hotels are located north of the one-mile walkshed on Highway 51, adjacent to the Interstate 10 interchange.	Three churches and Lake Pontchartrain Elementary School are located immediately to the north of the one-mile walkshed on Highway 51. Additional big box retail and grocery stores are located immediately to the west of the walkshed on Airline Highway
Local biking latent demand profile:	3 mile bikeshed area	4.9 square miles	8.5 sq. mi.	10.6 sq. mi.
	Total population	9,729	21,622	27,479
	Population density (per sq. mi)	1,993	2,531	2603
	Number and Percentage of households without a vehicle	43 (1.3%)	300 (3.8%)	363 (3.6%)
	Number and Percentage of households with one vehicle	729 (21.4%)	2728 (34.1%)	3422 (33.8%)
	Number and percentage of residents under the age of 50	6,905 (71%)	14,735 (68.1%)	18,512 (67.4%)
	Total number of jobs and density	2,889 (592)	8002 (936)	9,120 (864)
	Civic, institutional and other high intensity uses in the bikeshed for which employment inadequately captures level of trip generation	The bikeshed contains the Parish library and community center, Lake Pontchartrain Elementary School, and a cluster of high-intensity commercial uses on Highway 61, including "big box" retailers, as well as the future site of the regional commuter rail station providing service to Baton Rouge, Louis Armstrong International Airport, and downtown New Orleans. The bikeshed also reaches the levee-top Mississippi River Trail, which allows people to bike east or west along the riverfront.	The bikeshed contains nearly all of the Laplace community, including its most intense land uses and multiple access points to the Mississippi River Trail.	The bikeshed contains nearly all of the Laplace community, including its most intense land uses and multiple access points to the Mississippi River Trail.
	Adjacent destinations outside of the segment for which the segment may comprise part of a longer trip	Beyond the bikeshed, this segment comprises a link between the Mississippi River Trail and Ring Around the Lake route on Old US 51, a popular attraction for long-distance recreational bicycling.	Beyond the bikeshed, this segment comprises a link between the Mississippi River Trail and Ring Around the Lake route on Old US 51, a popular attraction for long-distance recreational bicycling.	Beyond the bikeshed, this segment comprises a link between the Mississippi River Trail and Ring Around the Lake route on Old US 51, a popular attraction for long-distance recreational bicycling.
Qualitative assessment of facility demand potential	Potential sidewalk usage	Sidewalks with appropriate buffers from roadway traffic would more comfortably serve pedestrians than existing shoulders, but the following factors limit potential usage: - low population density - lack of zero-car households, - lack of destinations - low pedestrian/bicyclist count	Sidewalks with appropriate buffers from roadway traffic would serve walking trips to the civic institutions from the surrounding residential neighborhoods. The absence of shoulders or sidewalks suggests potentially higher latent demand for walking considering the higher concentration of residents and destinations on this segment.	This segment's high concentration of commercial uses and function as a link between Main Street and Highway 51 suggest that provision of adequate sidewalks and crosswalks on this segment would increase existing walking trips in the area.
	Potential users of bike lanes	Bike lanes could attract Highly Confident Users, such as recreational riders connecting from the Mississippi River Trail to the Ring Around the Lake route. Somewhat Confident cyclists are less likely, and Interested but Concerned users are unlikely to be comfortable using bike lanes for transportation on this high traffic and high speed corridor.	Bike lanes could attract Highly Confident Users, such as recreational riders connecting from the Mississippi River Trail to the Ring Around the Lake route. Somewhat Confident cyclists are less likely, and Interested but Concerned users are unlikely, to be comfortable using bike lanes for transportation on this high traffic and high speed corridor. However, the absence of shoulders or sidewalks suggests that bike lanes may attract bicycling trips between the higher concentration of residents and destinations on this segment .	Bike lanes could attract Highly Confident Users, such as recreational riders connecting from the Mississippi River Trail to the Ring Around the Lake route. Somewhat Confident cyclists are less likely, and Interested but Concerned users are unlikely, to be comfortable using bike lanes for transportation on this high traffic and high speed corridor. However, the absence of shoulders or sidewalks suggests that bike lanes may attract bicycling trips between the higher concentration of residents and destinations on this segment .
	Potential users of cycle tracks (one- and two-way separated bike lanes).	Cycle tracks could attract Highly and Somewhat Confident bicyclists, such as recreational riders connecting from the Mississippi River Trail to the Ring Around the Lake route. Interested but Concerned users are unlikely to use them.	Cycle tracks could attract Highly Confident Users, such as recreational riders connecting from the Mississippi River Trail to the Ring Around the Lake route. Somewhat Confident cyclists are less likely, and Interested but Concerned users are unlikely, to be comfortable using cycle tracks for transportation on this high traffic and high speed corridor. However, the absence of shoulders or sidewalks suggests that cycle tracks may accomodate bicycling trips through this central segment of the Laplace transportation network.	Cycle tracks could attract Highly Confident Users, such as recreational riders connecting from the Mississippi River Trail to the Ring Around the Lake route. Somewhat Confident cyclists are less likely, and Interested but Concerned users are unlikely, to be comfortable using cycle tracks for transportation on this high traffic and high speed corridor. However, the absence of shoulders or sidewalks suggests that cycle tracks may accomodate bicycling trips through this central segment of the Laplace transportation network.
	Potential users of sidepaths/shared use trails	Sidepaths and shared use trails are more likely to be used by Somewhat Confident and Interested but Concerned cyclists, but may not attract more Highly Confident cyclists than traditional bike lanes or cycle tracks.	Sidepaths and shared use trails are more likely to be used by Somewhat Confident and Interested but Concerned cyclists, but may not attract more Highly Confident cyclists than traditional bike lanes or cycle tracks, given the low frequency of driveways and intersections in this segment.	The number of turning lanes and movements along this segment suggest that a sidepath or shared use trail would attract all users through this complex traffic segment.

### 3. CONCEPT DEVELOPMENT

#### 3.1 CONCEPTUAL PLAN

A meeting was held with the Regional Planning Commission, St. John The Baptist Parish, LADOTD, and other project stakeholders to discuss concepts for the implementation of the Manchac Greenway. From these discussions, concepts to identify feasible routes for the Manchac Greenway and concepts to increase connectivity to existing neighborhoods were identified. The full conceptual plan is comprised of two (2) phases:

- Phase 1 – Focused on creating the main Manchac Greenway route from Frenier Road to the Mississippi River Trail.
- Phase 2 – Focused on connectivity between the existing neighborhoods/community to the proposed Manchac Greenway route.

Phase 1 and Phase 2 concepts are presented graphically in **Figures 3.1** and **3.2**, respectively.

##### *PHASE 1*

Phase 1 of the conceptual plan focused primarily on creation of the main Manchac Greenway route from Frenier Road to the Mississippi River Trail. The study area lacks the facilities needed to allow recreational users to travel from North of I-10 to the Mississippi River Trail. Phase 1 aims to address this need using construction/rehabilitation of shared use paths, construction of sidewalks, implementation of shared bicycle/vehicular lanes, implementation of hybrid beacon crosswalks, implementation of crosswalks at existing signalized intersections, and construction of a median along US 51 from just south of I-10 to just north of Airline Highway.

Starting in the north of the study area, Phase 1 recommends construction of a shared use path starting at Frenier Road north of I-10 and continuing south along US 51. Upon reaching the I-10 westbound off-ramp, the shared use path would continue east along the off ramp and then proceed underneath the raised portion of I-10 where clearance allows it. Two bridged connections over a canal underneath I-10 would be necessary for this path. The path would continue behind the commercial land uses south of I-10 until the path meets up with Woodland Drive at US 51. A portion of this recommended shared use path already exists and was found to be somewhat maintained during a field visit. **Photo 10** presents a picture from the field visit of a sign adjacent to the existing shared use path from the field visit.



Manchac Greenway, Urban Segment -- Bicycle & Pedestrian Concepts: Phase I

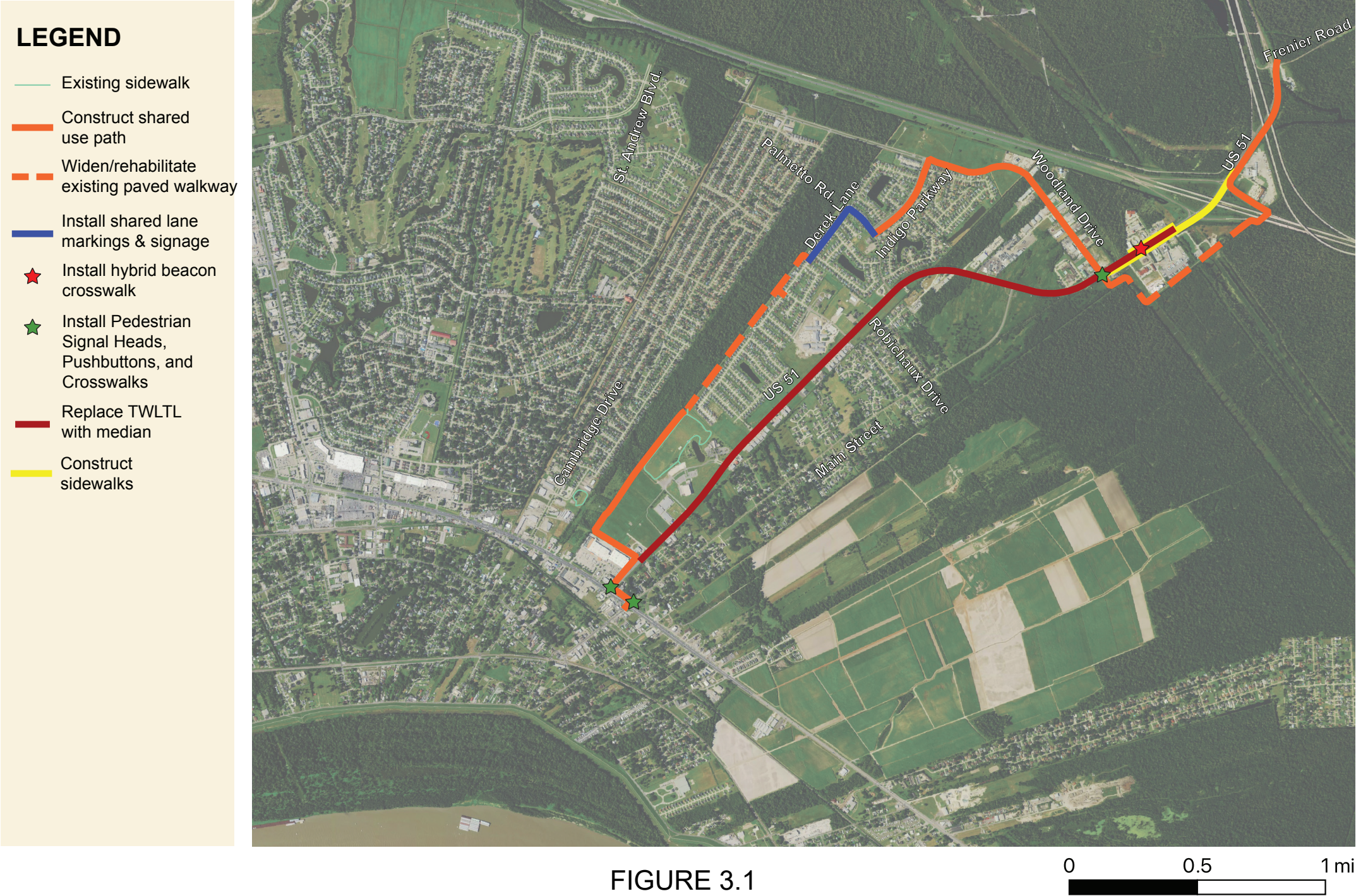


FIGURE 3.1



Manchac Greenway, Urban Segment -- Bicycle & Pedestrian Concepts: Phase II



FIGURE 3.2





*Photo 10: Signage Adjacent to Existing Shared Use Path*

Pedestrian audible pushbuttons, signal heads, and crosswalks at the intersection of Woodland Drive at US 51 are recommended to facilitate users of the Manchac Greenway connection across US 51 to Woodland Drive. These intersection treatments are expected to reduce the frequency of pedestrian related crashes identified in this area.



The shared path would continue west of US 51 inside the existing median on Woodland Drive to Indigo Parkway. The shared use path would then turn and continue south adjacent to Indigo Parkway via a proposed crosswalk until it reaches Palmetto Road. At this point, the route would be converted into shared use lanes for bicyclists and sidewalks for pedestrians. These facilities would continue west on Palmetto Road/Derek Lane until just south of Tammy Drive, where the route would turn into an existing shared use path that travels south behind the neighborhoods. **Photos 11** and **12** present pictures from a field visit of the existing shared use path in need of rehabilitation.



*Photo 11: Existing Shared Use Path Connection South of Tammy Drive*





*Photo 12: Existing Shared Use Path Behind Neighborhoods*

The shared use path would continue south until it reaches the Thomas F. Daley Memorial Park located behind the St. John The Baptist Parish Community Center. The route would continue from that point via a newly constructed shared use path behind Thomas F. Daley Memorial Park and continue southbound, turning to the east behind the existing Home-Depot until reaching US 51. The shared use path would continue southbound on the west side of US 51 until reaching Airline Highway.

A proposed crosswalk with audible pushbuttons and pedestrian signal heads would allow Manchac Greenway users to cross the north leg of US 51 and continue east along Airline Highway until reaching the proposed crosswalks at Main Street allowing users to cross Airline Highway. After crossing Airline Highway, users would continue along the newly constructed paths on Main Street included in the on-going Airline and Main Complete Streets project.

Along with these Manchac Greenway facilities, the idea of converting the two-way left turn lane on US 51 from South of I-10 to US 61 to a median would provide refuge for pedestrians who choose to cross US 51 at non-designated pedestrian crosswalks and is expected to reduce the number of pedestrian related accidents for the length of the proposed median on US 51. The medians would also provide access management along US 51 and is predicted to reduce the number of left-turn and right-angle conflict points for vehicular users.

The Phase 1 Conceptual Plan is presented in **Figures L-00 to L-13** in **Appendix H**.

## *PHASE 2*

Phase 2 of the conceptual plan focused primarily on providing optional connectivity between the Manchac Greenway route establish in Phase 1 and the nearby neighborhoods in the study area. This connectivity could increase pedestrian/bicycle internal trips between the neighborhoods, the St. John the Baptist Community Center, the nearby playgrounds/parks, and the Manchac Greenway.

An existing break in the wooded areas on the west side of US 51 just south of the St. John Community Center was identified as a potential connection between the community center and the Wildlife Park on the opposite side of the wooded areas. An electrical tower is positioned inside of this area and appears to be maintained regularly. Construction of a shared use path between the Thomas F. Daley Memorial Park and the Wildlife Park would provide the neighborhoods beyond the wetlands access to the Manchac Greenway. Constructing sidewalks on Colony Park Drive and Cambridge Drive that would tie into future planned sidewalks on Airline Highway could increase the number of trips to the Manchac Greenway and provide increased neighborhood connectivity. **Figure 3.3** below presents an aerial with these proposed connections.



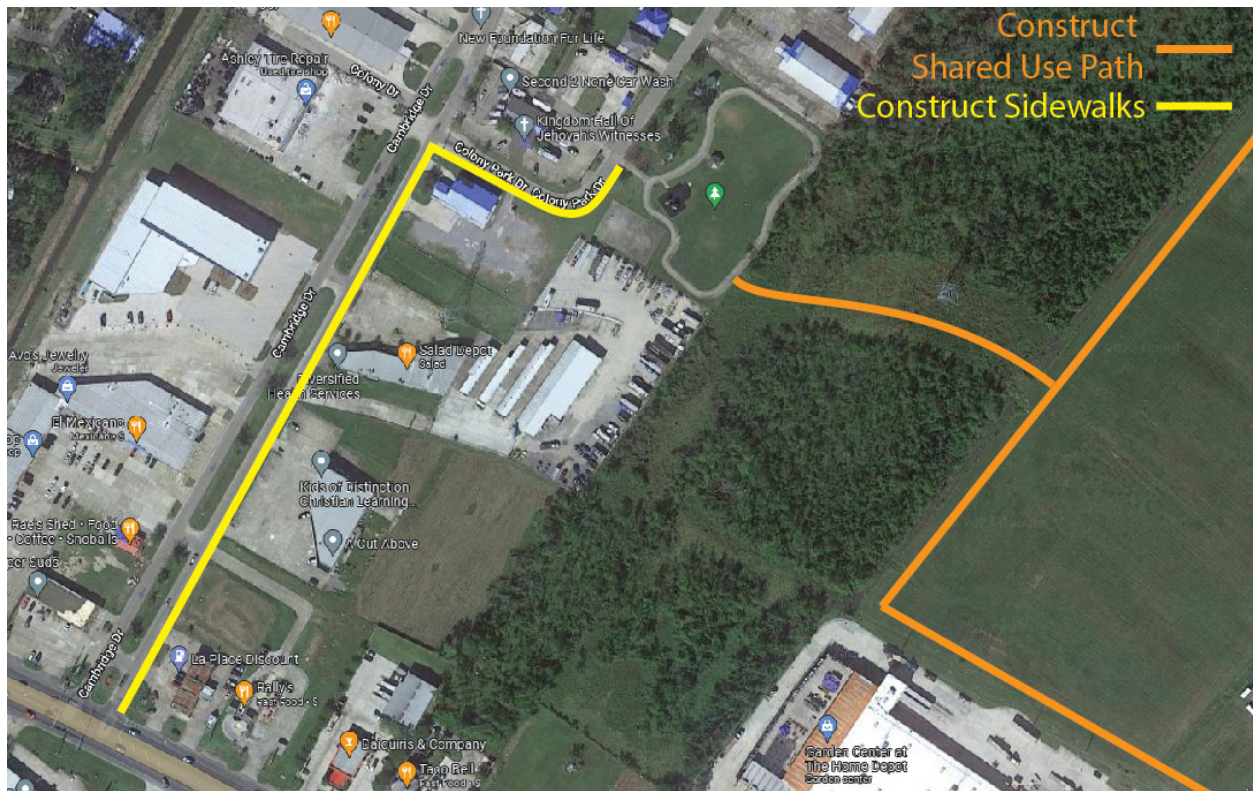


Figure 3.3 – Wildlife Park Connections

Currently, pedestrian or bicycle access is not provided from Main Street to US 51 between Woodland Drive and US 61. Construction of a new shared use path and the installation of a pedestrian hybrid beacon at US 51 just north of Bamboo Road could increase connectivity between these neighborhoods. Sidewalks and shared bike lanes on Robichaux Drive east of US 51 along with a hawk signal could allow bicyclists and pedestrians to cross US 51 and create connectivity between the associated neighborhoods. **Photos 13** and **14** document the Robichaux Drive terminus and the potential land used for a connection to US 51, respectively. **Figure 3.4** presents an aerial with these proposed connections.





*Photo 13: Robichaux Drive Terminus (Facing West away from Main Street)*



*Photo 14: Potential Land Used for Connection (Facing East towards Robichaux Drive Terminus from US 51)*



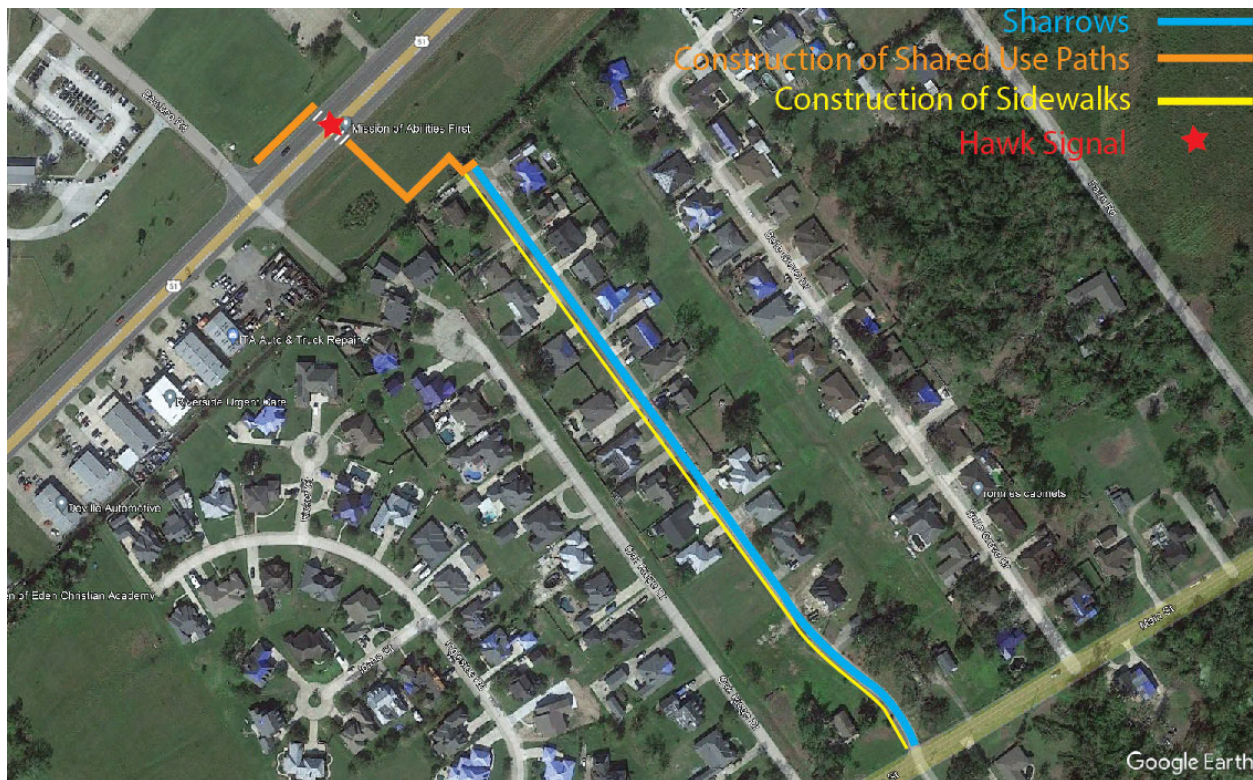


Figure 3.4 – Main Street to US 51 Pedestrian/Bicyclist Connections

An additional option to expand on the crossing at Bamboo Street and US 51 would be to construct sidewalks adjacent to Bamboo Street in the northwestern direction and connect them to the existing sidewalks in the neighborhood. Sharrows on Bamboo Street from the US 51 crossing would connect bicycle users to the proposed Manchac Greenway shared use path behind the neighborhood. Additionally, sidewalks could be constructed alongside the western side of US 51 from Palmetto Drive to the St. John the Baptist Community Center to allow connectivity between the associated neighborhoods and the community center. **Figure 3.5** presents an aerial with these proposed connections.

An option to allow higher speed bicyclists to bypass the neighborhoods through main Manchac Greenway route would be the construction of a traditional bike path that begins at the Woodland Drive at US 51 connection and continues south through an existing dirt road terminating at Main Street. From this point, bicyclists would enter Main Street as a shared road user and continue Southbound through the US 61 intersection. From there, bicyclists would continue down Main Street then navigate a few local roads converted to shared roadways to eventually gain access to the Mississippi River trail by crossing LA 636-3 and proceeding up the existing levee via a new shared use connection. Bicyclists also have the option of heading southeast along LA 628 on a new shared use path until reaching Emily C Watkins elementary School and cross LA 628 to reach the Mississippi River trail. **Figures 3.6, 3.7 and 3.8** present these new connections.





Figure 3.5 – US 51 Sidewalk Connections

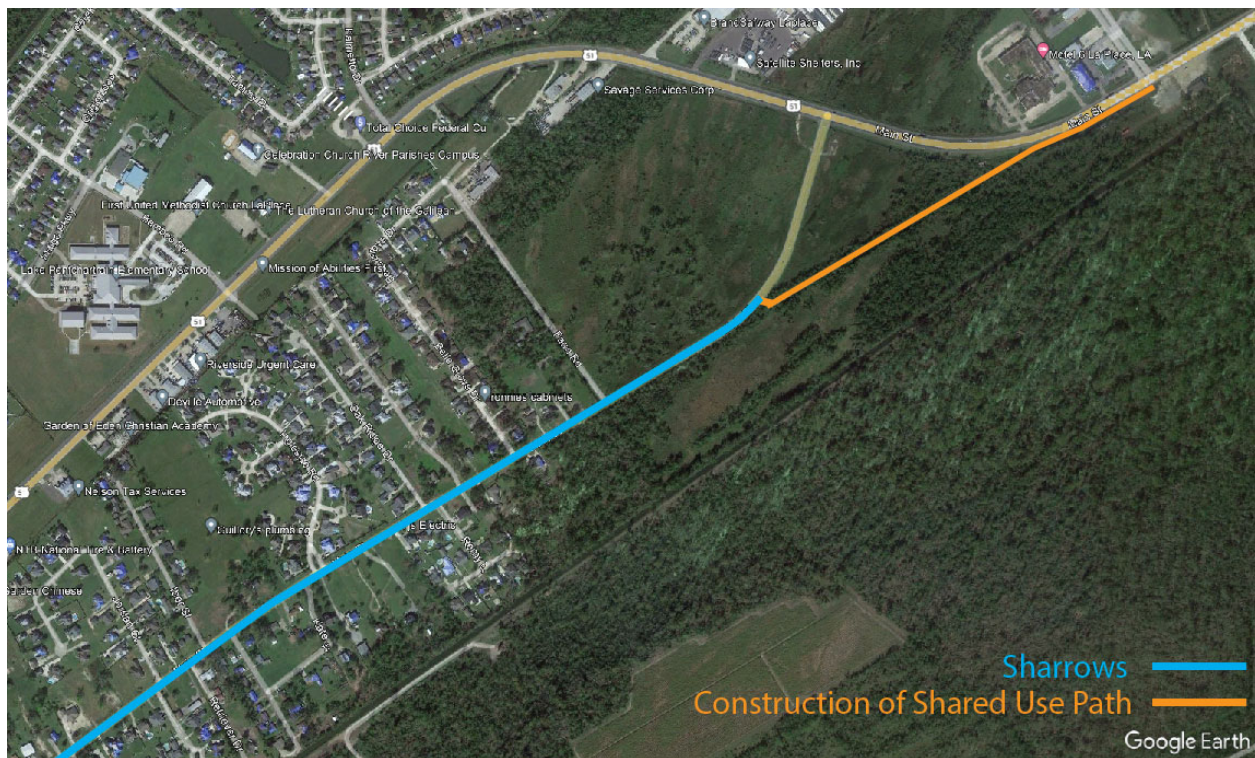


Figure 3.6 – Woodland Drive to Mississippi River Trail High-Speed Bicyclist Connection (1 of 2)



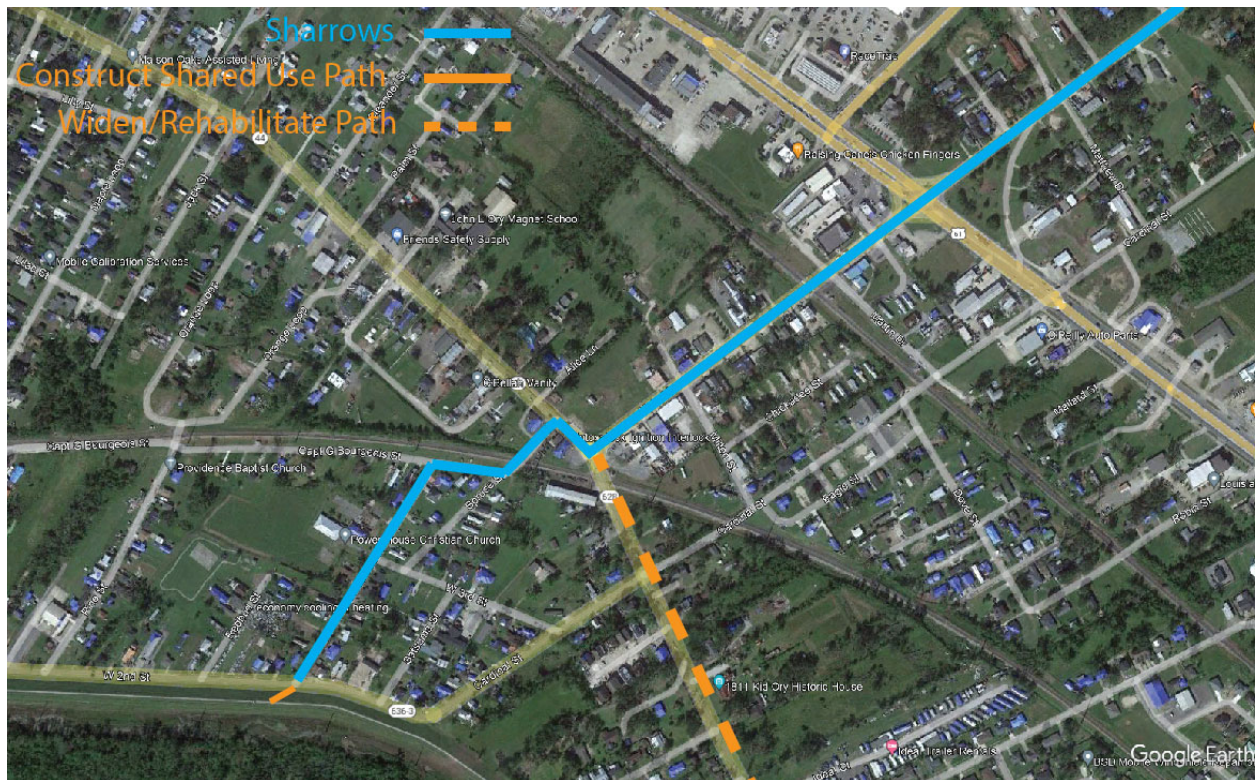


Figure 3.7 – Woodland Drive to Mississippi River Trail High-Speed Bicyclist Connection (2 of 2)

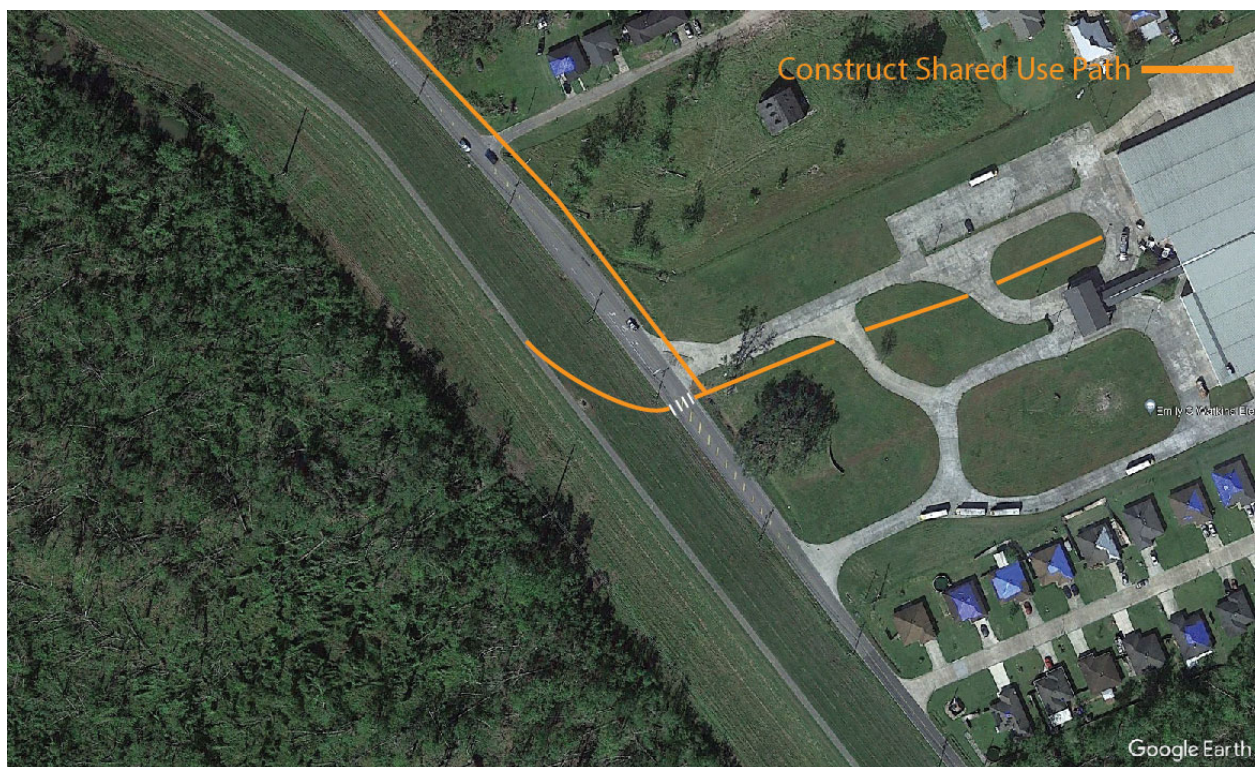


Figure 3.8 – Emily C Watkins Elementary School Connection



An option that could increase the number of neighborhoods that have access to the proposed Manchac Greenway and promote pedestrian activity in the area would be to extend the construction of the shared used path in the median of Woodland Drive from Inidigo Parkway to the end of Woodland Drive to the west. From there, the shared used path would continue west over an existing drainage canal and through the wooded area on top of what appears to be an existing utility roadbed and terminate at St. Andrews Boulevard. **Photo 15** documents the canal and wooded area beyond Woodland Drive. **Figure 3.9** presents an aerial with this proposed connection.



*Photo 15: Potential Land Used for Woodland Drive Shared Use Path Extension (Woodland Drive West Terminus)*



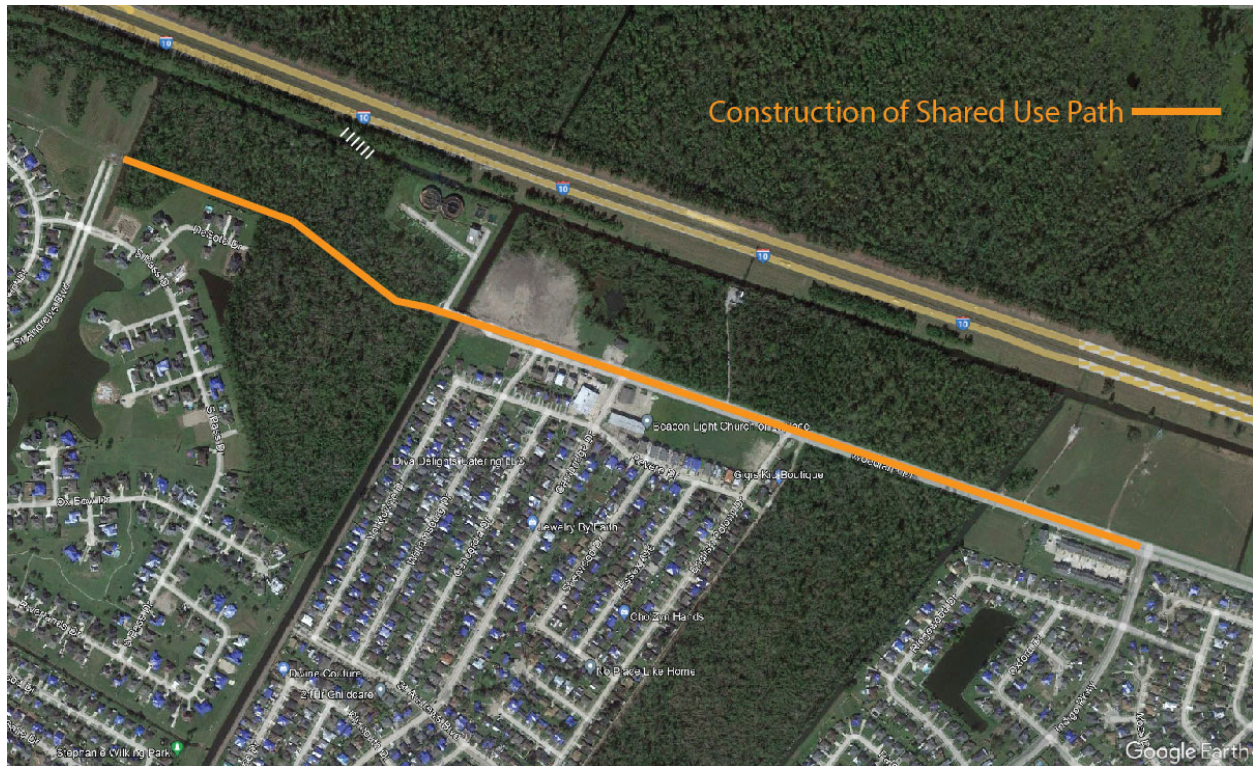


Figure 3.9 – Woodland Drive Shared Use Path Extension

Higher resolution graphics of **Figures 3.3** through **3.9** are presented in **Appendix I**.

### 3.2 PRELIMINARY COST ESTIMATES

An approximate cost estimate was developed for each phase of the proposed project concept. Due to the conceptual nature of the proposed project, the breadth of the project area, and the lack of detailed design and information regarding existing conditions, the cost estimate relies on broad assumptions. Construction quantities were calculated based on the assumed cross-section for each type of facility and the proposed length of each feature in the conceptual plan. Unit costs were estimated based on recent bid tabulations from DOTD and other projects known to the project team. In addition to construction items, the estimate includes the costs of surveys and engineering and design. It does not include potential costs for servitude acquisition or environmental mitigation.

The total estimated construction cost for the proposed bicycle and pedestrian facilities are:

Phase I: \$8.42M

Phase II: \$3.22M

It is important to note that these estimates are based on high level conceptual proposals. A more detailed cost estimate should be developed after additional concept selection and design has been completed. Additional cost estimate information is presented in **Appendix J**.

### 3.3 ENVIRONMENTAL ACTIONS

With four exceptions, the proposed facilities lie within rights-of-way for existing roads and will not require environmental permitting.

The proposed shared use path connecting the St. John the Baptist Parish Community Center to the park on Colony Park Drive crosses a wooded property through an apparent Entergy servitude. Due to the existing servitude and the relatively high elevation of this area (9-10 ft NAVD88), environmental permits should not be required. **Figure 3.3** presents the servitude.

The proposed shared use path at the end of Woodland Drive lies on an existing roadbed, so environmental permits should not be required. However, if the path is widened, the surrounding low-lying wooded areas will be impacted, which may trigger environmental permitting requirements. **Figure 3.9** presents the wooded area at the end of Woodland Drive.

The proposed bike path connecting Main Street to US 51 at the intersection with Woodland Drive lies on an existing roadbed. However, the roadbed ends approximately 200' from the highway right-of-way, and any widening will impact the surrounding low-lying wooded areas. Environmental permits will likely be required. **Figure 3.6** presents the low-lying wooded areas.

The proposed shared use path connecting the urbanized area south of I-10 to the Manchac Greenway north of I-10 requires impact to wetlands under and adjacent to I-10. Environmental permits will be required. **Figure 3.10** presents the impacted wetland area near I-10.



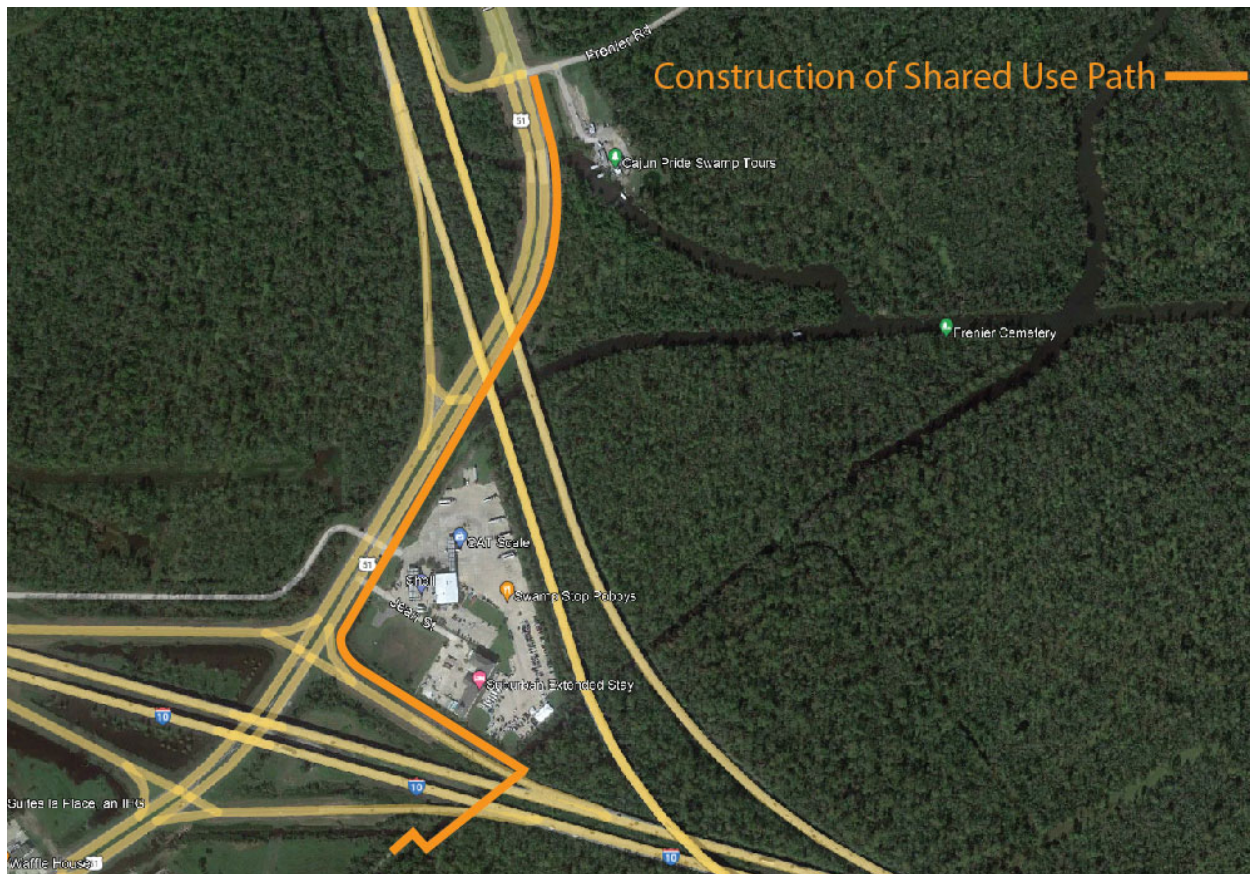


Figure 3.10 – Impacted Wetland Area Near I-10

Where required, environmental permits will include Coastal Use Permits from the Louisiana Department of Natural Resources, Section 10/404 Permits from the US Army Corps of Engineers, and Water Quality Certifications from the Louisiana Department of Environmental Quality. Mitigation for impacted wetlands will be required, and mitigation costs must be added to the project costs.

### 3.4 RIGHT-OF-WAY ACQUISITIONS

Several of the proposed facilities cross privately owned property, State highways, railroad servitudes, and utility servitudes.

The proposed shared use path connecting the St. John the Baptist Parish Community Center to the park on Colony Park Drive and proposed bike path connecting Main Street to US 51 cross private property. The project owner will have to purchase servitude from private landowners for the proposed facilities. Appraisals will be required to determine the fair market value of these servitudes, and those costs must be added to the project costs.

Several of the proposed facilities are within DOTD servitudes for Airline Highway, US 51, and I-10. These projects will require project permits from DOTD. The proposals that impact existing

traffic (crossings and new medians) will require additional traffic analyses to justify the projects and ensure they maintain or enhance traffic safety.

The proposed shared bike lane connecting the bike path on the Mississippi River levee to Main Street crosses two railroads at existing grade crossings. Because the grade crossings already exist, coordination with the railroad owners for approval may be minimal. However, the project team should coordinate with the railroad owners during the early design phases to determine requirements.

The proposed shared use path connecting the St. John the Baptist Parish Community Center to the park on Colony Park Drive follows an existing apparent right-of-way for overhead power lines. The project team will have to coordinate with Entergy to ensure that the proposed path does not interfere with Entergy's operations. Several of the proposed facilities cross existing underground pipelines. The project team will likely have to secure Letters of No Objection from pipeline owners. While the proposed facilities will have very little impact to these pipelines, the administrative requirements to coordinate with owners may be significant.

### **3.5 UTILITY RELOCATIONS**

Utility relocations are not anticipated for these projects. Required foundation construction for the proposed facilities (for signs, signals, and small bridges) will most likely have a small enough footprint to avoid underground utilities. If foundations do conflict with underground utilities, minor offsets will likely be sufficient to resolve them. Overhead powerlines exist near almost all the proposed facilities, so connecting proposed signals and lights will be relatively simple. Contractors constructing the proposed facilities will be required to follow typical safety protocols for working near utilities and powerlines. Any proposed lighting in areas remote from powerlines could employ solar lights.

### **3.6 PRELIMINARY SCOPE, BUDGET, AND ENVIRONMENTAL CHECKLISTS**

A Preliminary Scope and Budget Checklist and a Stage 0 Environmental Checklist is used to aid in the preparation of Stage 0 studies. A Preliminary Scope and Budget Checklist provides information such as project location, project category, purpose and need, description of existing facility, description of proposed facility, cost estimates, expected funding source(s), etc. Likewise, the Environmental Checklist is used to aid in the preliminary review of potential impacts to the natural and human environment. These checklists are completed using LADOTD guidance, online tools, and online information databases. **Appendix K** presents the Preliminary Scope and Budget Checklist and the Stage 0 Environmental Checklists along with websites and online databases used to complete the checklists.