

# Program Delivery Plan

## Sanitary Sewer Overflow (SSO) Control and Wastewater Facilities Program



*Prepared for*  
**City of Baton Rouge/East Baton Rouge Parish**  
**Department of Public Works**

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# Acronyms and Abbreviations

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BOD	biochemical oxygen demand
BPS	Booster Pump Station
BTRSSO	Baton Rouge Sanitary Sewer Overflow
CCTV	closed circuit television
C-P	City of Baton Rouge, East Baton Rouge Parish
DPW	Department of Public Works
EPA	United States Environmental Protection Agency
GIS	Geographic Information System
gpd	gallons per day
gpm	gallons per minute
IAP	Immediate Action Project
I/I	inflow and infiltration
LAN	local area network
LSU	Louisiana State University
MG	million gallons
mgd	million gallons per day
MH	manhole
NPDES	National Pollution Discharge Elimination System
O&PA	Outreach and Public Awareness
PDP	Program Delivery Plan
PHF	peak hourly flow
PM	Program Manager
PMT	Project Management Team
PS	Pump Station
RDI	rainfall dependent infiltration
RDII	rainfall dependent infiltration/inflow
RFP	Request for Proposal
RMAP1	Remedial Measures Action Plan 1
RMAP2	Remedial Measures Action Plan 2
SC	solids contact

SCADA	Supervisory Control and Data Acquisition
SCBs	solids contact basins
SEPs	Supplemental Environmental Projects
SSO	Sanitary Sewer Overflow
STN	South Suburban Transportation Network
TDH	total dynamic head
TF	trickling filter
TSS	total suspended solids
UV	ultraviolet
VFD	variable frequency drive
WWTP	wastewater treatment plant
ZATNIP	Zachary Area Transmission Network Improvement Project

# Executive Summary

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## Overview

The City of Baton Rouge, Parish of East Baton Rouge (C-P) has contracted CH2M HILL to prepare a Program Delivery Plan (PDP) that summarizes the Sewer System Overflow (SSO) Control and Wastewater Facilities Program. This document is the fourth annual update of the original PDP published in January 2008.

This PDP incorporates several changes since the third annual update (published January 2011) and reflects the extensive design and construction progress made since the onset of the program. As of December 2011, 18 projects have completed construction, 37 projects have begun construction, and 35 projects have begun design, including both first and second Remedial Measures Action Plan (RMAP1 and RMAP2) projects.

The Program is divided into the following three wet weather components:

- Comprehensive rehabilitation projects
- Capacity improvement projects
- Wastewater treatment and storage improvements

This PDP describes a total of 94 RMAP2 wet weather projects to be constructed by January 1, 2015 at an estimated total program cost of **\$1.4 billion** in September 2007 dollars. These costs include construction, design engineering, construction engineering and management, and program management. Program management and construction management has an estimated cost of \$135 million. Costs stated herein do not include costs of city staff participation and projects previously undertaken by the C-P, such as RMAP1 projects.

This PDP also describes 14 preliminary Master Plan projects that have an estimated total program cost of \$155 million. The preliminary Master Plan projects include the master plan portion of the South Wastewater Treatment Plant (WWTP) improvements, the emergency generator program, Choctaw Maintenance Facility project, the Louisiana State University (LSU) Pump Station portion of the SGL-C-0002 (Multiple PS - Highland Road - Kenilworth Parkway) project, two North WWTP priority projects as well as projects for Supervisory Control and Data Acquisition (SCADA) and generator installation at the North WWTP, and two projects to implement a SCADA system for the wastewater system. The preliminary Master Plan also includes the North WWTP public project, which was added in 2011. The design of three additional projects, not included in this PDP to repair or replace aging pump stations, pipelines, and electrical items in the collection systems, also was added to the Master Plan. These projects will begin in 2017. They are not part of this PDP, since they are not included in the Consent Decree and will occur after the completion of the SSO Program.

The goals of the SSO Program are to:

- Reduce excess wet weather flows that cause SSOs
- Rehabilitate the collection system
- Increase the hydraulic capacity of the collection system



- Accommodate growth in project areas
- Comply with WWTP National Pollutant Discharge Elimination System (NPDES) permits
- Comply with the terms of the Consent Decree

The Consent Decree (Civil Action 01-978-B-M3 United States of America and State of Louisiana versus City of Baton Rouge, Parish of East Baton Rouge) states that the Collection System Remedial Program projects shall be completed by January 1, 2015. A proposed extended schedule through January 1, 2018 has been tentatively approved by the Louisiana Department of Environmental Quality and is in a final public comment period. Therefore, the proposed extended schedule is part of this PDP.

In preparing this PDP, the locations of known overflows are given highest priority in order to reduce the frequency of these overflows. Areas of the collection system that were found to have excessive levels of infiltration or inflow also are identified for rehabilitation. Hydraulic capacity improvement projects are sized to accommodate the predicted designed peak wet weather flows and anticipated growth in the project areas. Peak wet weather flows were predicted based on the previously selected 2-year frequency, 12-hour duration design storm. Figure ES-1 shows the ten hydraulic basins used in the evaluation of the program.

## Program Description

### Comprehensive Rehabilitation Projects

Sewer system comprehensive rehabilitation projects will be implemented to repair or replace components of the system that are defective and permit excessive infiltration and inflow.

The comprehensive rehabilitation portion of the program consists of 31 construction projects located throughout the C-P. The first projects began in 2008, and the last project is scheduled for completion in early 2017 (assuming that the extended schedule gets final approval following public comment). Approximately three projects will begin construction each year through 2015. Design and construction will be continuous through early 2017. About 5 million feet of the gravity sewer will be inspected through execution of these rehabilitation projects.

The areas selected for comprehensive rehabilitation are shown on Figure ES-2. Projects within these areas are described in detail in the body of this plan. The estimated total program cost of the comprehensive rehabilitation projects is approximately **\$260 million** in September 2007 dollars.

### Capacity Improvement Projects

Capacity improvement projects have been defined based on three factors:

1. Computer "InfoWorks Model" comparison of existing capacity to predicted peak wet weather flows
2. Physical evidence of inadequate capacity, based on C-P Department of Public Works (DPW) records
3. Predicted growth in demand for wastewater capacity

# Hydraulic Basins

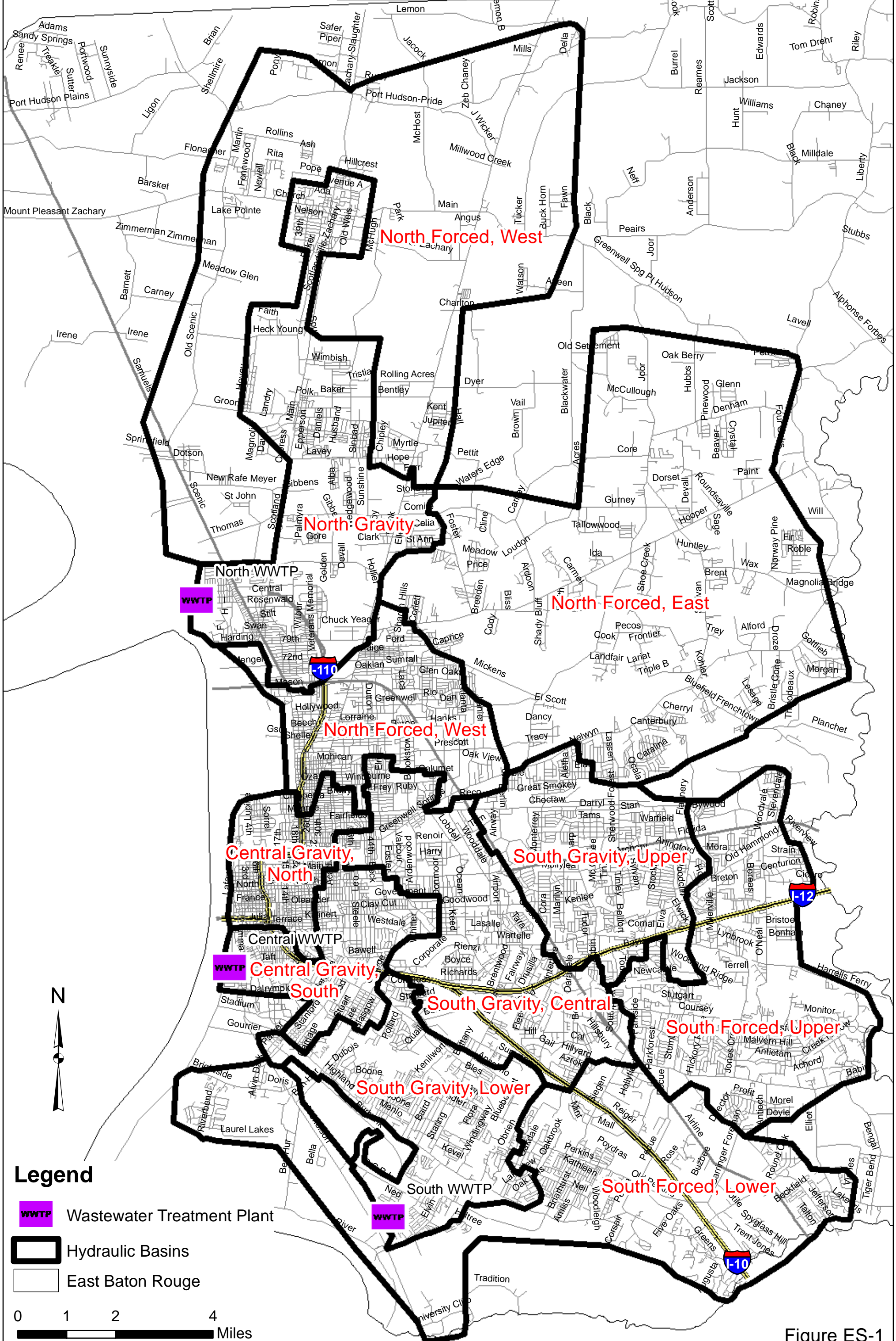


Figure ES-1



# Rehabilitation Project Areas

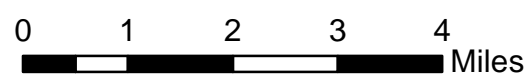
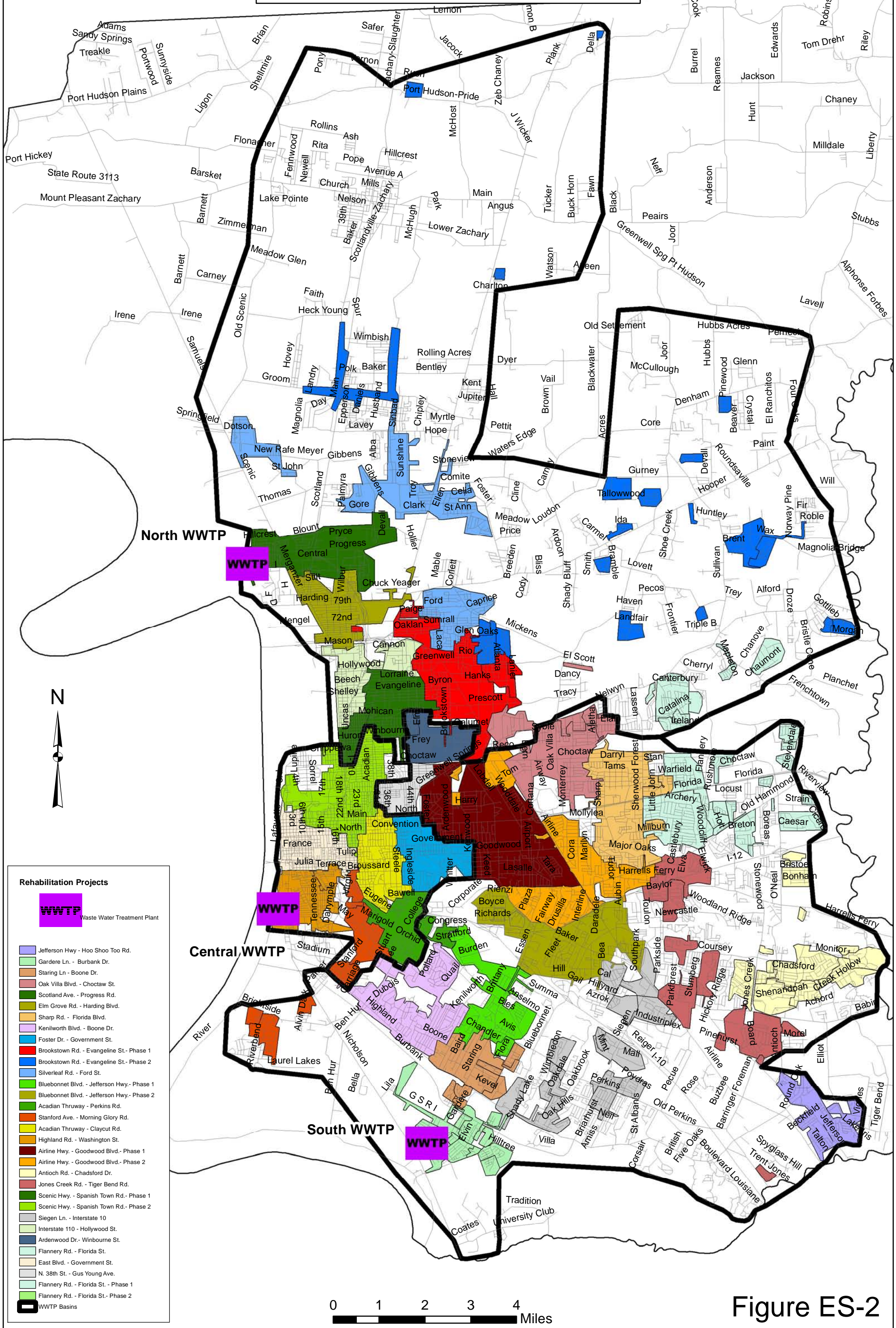


Figure ES-2



Capacity projects include replacement of inadequately sized gravity sewers and forcemains as well as rehabilitation or replacement of pump stations.

Those projects located nearest to the wastewater treatment plants are, in general, scheduled in the earlier years of the program.

The capacity improvements portion of the program consists of 57 projects located throughout the C-P. The first projects were started in 2007, and the last project is scheduled for completion in late 2017. Approximately, three to six projects will begin construction every year from 2012 through 2015 and design and construction will be continuous through 2017. Approximately 350,000 linear feet of gravity sewer, 670,000 linear feet of forcemain, and 155 pump stations (PSs) will be upgraded as a part of the capacity projects.

Figure ES-3 shows the location of the capacity improvement projects. Projects within these areas also are described in detail in the body of this plan. The estimated total program cost of the capacity improvement projects is approximately **\$650 million** in September 2007 dollars.

### Wastewater Treatment Improvements/Storage Projects

The PDP includes four reservoir storage and repumping projects, as noted in Table ES-1. The cost of the Zachary Area Transmission Network Improvements Project (ZATNIP) storage facility at Red Mud Lakes is included in a project that also includes collection system capacity improvements and therefore it is included in the aforementioned capacity projects.

**TABLE ES-1**  
Reservoir Storage and Repumping Projects

Location	Storage Volume
Choctaw Drive	26 MG
Hooper Road	10 MG
Red Mud Lakes (ZATNIP)	20 MG
South WWTP	66 MG

The PDP also includes three wastewater treatment capacity and/or compliance projects. The wet weather treatment capacity of the South WWTP will be expanded to accommodate the predicted peak flow of 200 million gallons per day (mgd) after peak shaving storage and to accommodate wet weather flows from the Central WWTP, which will be consolidated with the South WWTP, per the technical memorandum entitled *Consolidation of South and Central Wastewater Treatment Plants in Baton Rouge* (CH2M HILL, 2008). The wet weather treatment capacity improvements will be accomplished in two projects. The South WWTP Phase 1 project includes wet weather storage, influent pumping, and preliminary treatment. The South WWTP Phase 2 project (PDP portion) includes wet weather improvements within the treatment process

In addition to the wet weather improvement and storage projects, five Immediate Action Plan (IAP) projects have been undertaken at the South WWTP. The purpose of these projects is to bring the plant in compliance with current discharge limits. These projects are described throughout the body of this report. Two of these IAPs were either moved into another project (screenings improvements was moved to South WWTP Phase 1) or completed (Effluent Pumping Station project). The remaining three projects are being constructed as one construction project called South WWTP IAP (therefore, it has been counted and described as one project throughout this report).

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# Capacity and Wet Weather Treatment Projects

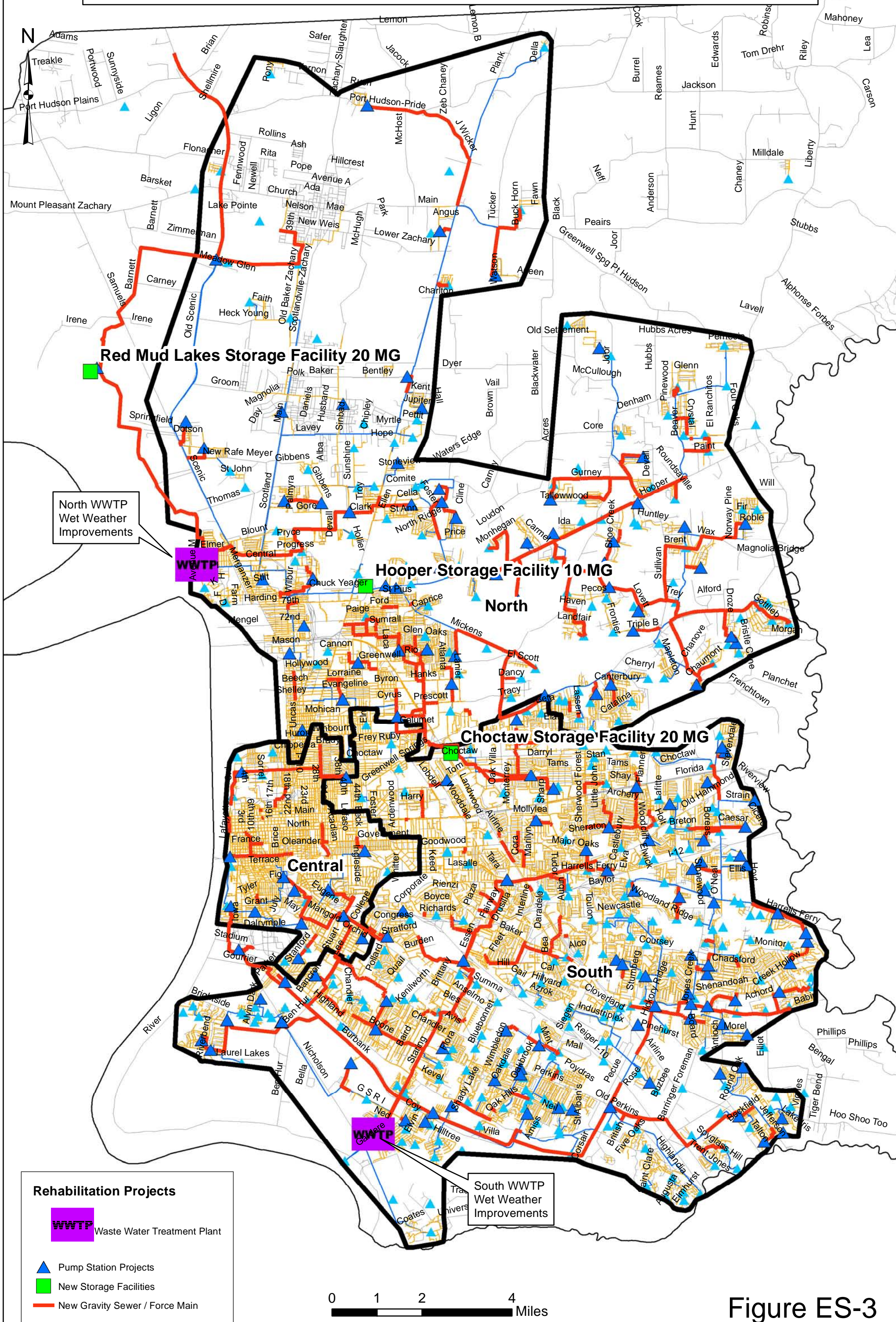


Figure ES-3





Design of the South WWTP IAP projects began in 2007. These projects are now under construction. The South WWTP - Phase 1 project and the Choctaw Storage and Pump Station Facility project also are under construction. The Hooper Storage project and South WWTP - Phase 2 project are both under design, with construction commencing in 2011. The Red Mud Lakes (ZATNIP) storage project is under construction..

Storage and treatment locations are shown on Figure ES-3. The total estimated program cost for the PDP portion of wastewater treatment and storage projects (excluding Red Mud Lakes) is **\$340 million** in September 2007 dollars.

### **Preliminary Master Plan Projects**

There are several additional projects that the C-P is already executing to continue to enhance performance of their WWTPs and collection systems and also improve compliance. The *Draft Master Plan* (CH2M HILL, 2008) outlined several improvements to the existing South WWTP facilities that are necessary to keep the plant in operation. These improvements are included in the South WWTP Phase 2 project (master plan portion).

In addition, due to the extended power outages experienced after Hurricane Gustav, the C-P would like to install emergency generators at each of the collection system pump stations and at each of the WWTPs as part of the preliminary master plan.

The *Draft Master Plan* (CH2M HILL, 2008) also outlined the need for a SCADA system. The design of the SCADA system is scheduled to begin in 2010, with construction beginning in 2011. SCADA components will be installed at all pump stations in the collection system as well as at the North WWTP. A SCADA system is already being designed for the South WWTP as part of the South WWTP - Phase 2 project.

The planned closure of the Central WWTP has led to a need to relocate the field pump maintenance staff and their warehouse, which are currently located at the Central WWTP. Since enough land was available at the Choctaw Storage site, and it is somewhat centrally located in the C-P, the Choctaw site was selected as the new location for this facility. A new preliminary master plan project was added to this PDP for the Choctaw Maintenance Facility.

The SGL-C-0002 (Multiple PS - Highland Road - Kenilworth Pkwy) project includes a new 7,000 gallons per minute (gpm) (10 mgd) pump station for LSU. This pump station will be designed as part of the overall SGL-C-0002 project, but its construction is dependent on the schedule for the construction of the gravity system that is needed to convey flow to the LSU pump station. Therefore, the construction cost for the LSU pump station was counted as a preliminary master plan, since it may or may not be constructed separately from the rest of the project.

The North WWTP priority one and priority two projects are outlined in the *Draft Master Plan* (CH2M HILL, 2008). The SCADA and secondary power sources are described in this PDP with the SCADA and generator chapters, respectively. The remaining portions of these projects are outlined in the North Basin Projects chapter of this PDP. While the projects are described as multiple projects, the design and construction will occur as one project. This project has been moved up in the proposed extended schedule, so that construction will begin in 2013.

To resolve odor control complaints from nearby residents of the North WWTP, the C-P has developed a public project for implementation which would create a buffer zone between

the North WWTP and the adjacent residential neighborhood. This public project has been added to this PDP and is described in Section 5.

The design of three additional preliminary master plan projects also has been added to Table 1-1. The three projects are: Collection System Electrical, Collection System Pipelines – Master Plan, and Collection System Pump Stations – Master Plan. The projects were first developed in the *Draft Master Plan* (CH2M HILL, 2008), but will need to be refined during project definition. Since these projects are not part of the Consent Decree, they are not further described in this document. The project definition and design of the projects will begin in 2017, and construction will follow as funding allows.

The total estimated program cost for the preliminary master plan is **\$155 million** in September 2007 dollars.

## List of Completed Projects, Active Projects, and Projects to be Appropriated in 2011

### Functionally Completed Projects

Table ES-2 shows the list of 18 completed projects. These projects have been completed or functionally completed as of the dates as shown in Table ES-2.

**TABLE ES-2**  
List of Completed Projects

<b>Project Number/Name</b>	<b>Status (December 2011)</b>	<b>Date</b>
SFL-R-0001 (Jefferson Hwy - HooShooToo Road)	Complete	3 <sup>rd</sup> Quarter 2009
03-RMP-S14 (RMAP1 – Kleinpeter Area Upgrades)	Complete	2 <sup>nd</sup> Quarter 2009
NFE-C-0001 (Gurney Road - Joor Road)	Complete	4 <sup>th</sup> Quarter 2009
SGC-C-PS58FM-A (Staring Lane FM Phase I - Burbank to Highland)	Functionally Complete	3 <sup>rd</sup> Quarter 2010
99-RMP-S16 (RMAP1 – PS 136 Upgrades)	Complete	3 <sup>rd</sup> Quarter 2010
NFE-C-0003 (Comite Drive - Foster Road - Phase 1)	Complete	3 <sup>rd</sup> Quarter 2010
SGL-R-0002 (Staring Lane - Boone Drive)	Complete	2 <sup>nd</sup> Quarter 2010
SSO Odor Control NWWTP (07-TP-BD-0030)	Functionally Complete	4 <sup>th</sup> Quarter 2010
NFE-C-0004 (Foster Road – Hooper Road)	Functionally Complete	4 <sup>th</sup> Quarter 2010
SGL-R-0001 (Burbank Road – Gardere Lane)	Functionally Complete	1 <sup>st</sup> Quarter 2011
99-RMP-S08 (RMAP1 – Industriplex Area Upgrades)	Complete	1 <sup>st</sup> Quarter 2011
NFE-C-0003 (Comite Drive – Foster Road – Phase 2)	Functionally Complete	1 <sup>st</sup> Quarter 2011
NFE-C-0002 (Sullivan Road/Lovett Road/Wax Road)	Functionally Complete	1 <sup>st</sup> Quarter 2011
South WWTP Immediate Action Projects	Functionally Complete	2 <sup>nd</sup> Quarter 2011
NGS-R-0002 (Scotland Avenue –Progress Road)	Functionally Complete	2 <sup>nd</sup> Quarter 2011
NGS-R-0001 (Elm Grove Garden Road – Harding Blvd)	Functionally Complete	3 <sup>rd</sup> Quarter 2011
CGS-C-0004 (Highland Road – Buchanan Street0	Functionally Complete	4 <sup>th</sup> Quarter 2011
SGU-R-0001 (Oak Villa Blvd – Choctaw Street)	Functionally Complete	4 <sup>th</sup> Quarter 2011

## Active Projects

Table ES-3 shows the list of active projects, which includes projects currently under design and/or construction. These projects have already been appropriated for design and/or construction as referenced in the table.

**TABLE ES-3**  
List of Active Projects

<b>Project Number/Name</b>	<b>Status (December 2011)</b>	<b>Appropriations</b>
SGU-R-0002 (Sharp Road - Florida Blvd)	Construction	Design & Construction
SGL-R-0003 (Kenilworth Blvd - Boone Drive)	Construction	Design & Construction
CGS-R-0001 (Foster Drive - Government Street)	Construction	Design & Construction
NFE-R-0001 (Silverleaf Road - Ford Street)	Construction	Design & Construction
NFW-R-0001a (Brookstown Road - Evangeline Street - Phase 1)	Construction	Design & Construction
NFW-R-0001b (Brookstown Road - Evangeline Street - Phase 2)	Construction	Design & Construction
SGC-R-0001a (Bluebonnet Blvd - Jefferson Hwy- Phase 1)	Construction	Design & Construction
SGC-R-0001b (Bluebonnet Blvd - Jefferson Hwy- Phase 2)	Construction	Design & Construction
CGS-R-0005 (Acadian Thruway - Perkins Road)	Construction	Design & Construction
CGS-R-0003 (Stanford Avenue - Morning Glory Road)	Construction	Design & Construction
CGS-R-0004 (Acadian Thruway - Claycut Road)	Construction	Design & Construction
CGS-R-0002 (Highland Road – Washington Street)	Construction	Design & Construction
SGC-R-0002a (Airline Highway - Goodwood Blvd - Phase 1)	Design	Design
SGC-R-0002b (Airline Highway - Goodwood Blvd - Phase 2)	Design	Design
SFU-R-0001 (Antioch Road – Chadsford Drive)	Design	Design
SFL-R-0002 (Jones Creek Road - Tiger Bend Road Area Rehabilitation Project)	Design	Design
CGN-R-0001a (Scenic Highway – Spanish Town Road – Phase I)	Design	Design
CGN-R-0001b (Scenic Highway – Spanish Town Road – Phase II)	Project Definition	Design
CGN-C-0001 (Capital Lake Drive - Gayosa Street)	Construction	Design & Construction
NFW-C-HWY61-I (ZATNIP, Phase I)	Construction	Design & Construction
NFW-C-HWY61-II (ZATNIP, Phase II)	Design	Design & Construction
NFW-C-HWY61-III (ZATNIP, Phase III)	Construction	Design & Construction
NFW-C-HWY61-IV (ZATNIP, Phase IV)	Construction	Design & Construction
CGN-C-0003 (South Blvd - St. Joseph Street)	Construction	Design & Construction
CGN-C-0005 (Downtown Area - PS 15, PS 19, & PS 59 Improvements)	Construction	Design & Construction
SGC-C-PS119 (Citiplace/Essen Area - PS119 & Forcemain Improvements)	Construction	Design & Construction
Group Project 1A (Metro Airport Area Sewer Upgrades)	Construction	Design & Construction
Group Project 1B (Metro Airport Area PS and FM Upgrades)	Design	Design & Construction
SFL-C-0004 (Group Project 2 - Highland Rd Area Sewer Upgrades)	Construction	Design & Construction
SFL-C-0005 (Highland Road - Burbank Drive)	Construction	Design & Construction
SGC-C-PS58A (Pump Station 58 Replacement)	Design	Design & Construction

**TABLE ES-3**  
List of Active Projects

<b>Project Number/Name</b>	<b>Status (December 2011)</b>	<b>Appropriations</b>
SGC-C-PS58FM-II (Staring Lane FM Phase II - Highland to Perkins)	Construction	Design & Construction
SGC-C-PS58FM-III (Staring Lane FM Phase III - Perkins to PS 58)	Construction	Design & Construction
SFL-C-0002 (Perkins/Old Perkins Area - Booster Pump Station 514 Improvements)	Construction	Design & Construction
SFL-C-0006a (Nicholson Dr - Highland Rd - Perkins Rd – Phase A)	Construction	Design & Construction
SFL-C-0006b (Nicholson Dr - Highland Rd - Perkins Rd – Phase B)	Design	Design & Construction
SGL-C-0005 (Bayou Duplantier Area Improvements Project)	Construction	Design & Construction
CGN-C-0002 (25th Street - North Acadian Thruway)	Design	Design*
CGS-C-0006 (Government St - South Acadian Thruway)	Design	Design & Construction
NGS-C-0002 (Plank Road - Kleinpeter Road)	Design	Design & Construction
SFL-C-0001 (Multiple PS - Nicholson Dr - Brightside Dr)	Design	Design & Construction
SFU-C-0001 (Multiple PS - Jefferson Hwy - Park Forest Dr)	Construction	Design & Construction
SFU-C-0005a (O'Neal Lane Pipeline Improvements – Group A)	Design	Design & Construction
SFU-C-0005b (O'Neal Lane Pipeline Improvements – Group B)	Design	Design & Construction
SGC-C-0002 (Airline Highway Pipeline Improvements)	Design	Design
SGL-C-0002 (Multiple PS – Highland Rd – Kenilworth Pkwy)	Design	Design
NFE-C-0005 (Hooper Road Pump Station Improvements)	Design	Design
NFE-C-0006a (Lovett Road – Greenwell Springs Road – Group A)	Design	Design
NFE-C-0006b (Lovett Road – Greenwell Springs Road – Group B)	Design	Design
SFU-C-0002a (O'Neal Lane Pump Station Improvements – Group A)	Design	Design
SFU-C-0002b (O'Neal Lane Pump Station Improvements – Group B)	Design	Design
SGC-C-0001 (Florida Blvd Pump Station Improvements)	Design	Design
SGL-C-0003a (Highland Road Pipeline Improvements – Group A)	Design	Design
SGL-C-0003b (Highland Road Pipeline Improvements – Group B)	Design	Design
SGU-C-0003 (Sherwood Forest Blvd – Goodwood Blvd Pipeline Improvements)	Design	Design
NFW-C-0010 (Multiple Pump Stations – Prescott Road – Greenwell Springs Road)	Design	Design
NFW-C-0001 (Joor Road – Greenwell Springs Road Sewer Area Upgrades)	Design	Design
SGU-C-0005 (Oak Villa Blvd – Monterey Blvd Sewer Area Upgrades)	Design	Design
NFW-C-0007 (Plank Road – Port Hudson Pride Road Sewer Area Upgrades)	Design	Design
NFW-C-0009 (Multiple Pump Stations – Highway 61 – Plank Road)	Design	Design
SFL-C-0003 (Multiple Pump Stations – Burbank Drive – Siegen Lane)	Design	Design
CC-WWTP-PS (PS-42)	Construction	Design & Construction
CC-EAST-FM-PhI (Central Consolidated FM – Phase I)	Construction	Design & Construction
CC-EAST-FM-PhII (Central Consolidated FM – Phase II)	Design	Design
CC-EAST-PS (Central Consolidated Pump Stations)	Construction	Design & Construction

**TABLE ES-3**  
List of Active Projects

<b>Project Number/Name</b>	<b>Status (December 2011)</b>	<b>Appropriations</b>
CC-WWTP-FM- PhI (PS-42 FM – Phase I)	Construction	Design & Construction
CC-WWTP-FM-PhII (PS 42 FM – Phase II)	Design	Design
NFW-C-0002 (Choctaw Storage, Pump Stations, and Forcemains)	Construction	Design & Construction
NFW-C-0004 (Hooper Storage)	Design	Design
STP-C-0001 (South WWTP - Phase 1)	Construction	Design & Construction
STP-C-0002 (South WWTP - Phase 2)	Construction	Design & Construction
Standby Generator Program	Construction	Design & Construction
EPA SCADA (03-GMP-0001)	Construction	Design & Construction
SCADA Master Plan (Collection System & Operations/Data Center)	Design	Design

\*Construction for 25th Street - North Acadian Thruway project has been split between Capital Lake-Gayosa Street and South Blvd - St. Joseph Street projects

## Projects for 2012

Table ES-4 shows the list of projects that are to be appropriated for design and/or construction in 2012. Some projects in Table ES-3 will be active in 2012 (moving from design to construction), so if they are appropriated for design and construction in Table ES-3, they are not included in Table ES-4 below, although they will be active in 2012. For instance, The Group Project 1B (Metro Airport Area PS and FM Upgrades) project is under design in 2011 and will begin construction in 2012, but it is fully appropriated for design and construction, so it is included in Table ES-3 only.

**TABLE ES-4**  
List of Projects for 2012

<b>Project Number/Name</b>	<b>Appropriations Needed for 2012</b>
SGC-R-0002a (Airline Highway - Goodwood Blvd - Phase 1)	Construction
SGC-R-0002b (Airline Highway - Goodwood Blvd - Phase 2)	Construction
SFU-R-0001 (Antioch Road – Chadsford Drive)	Construction
SFL-R-0002 (Jones Creek Road – Tiger Bend Road)	Construction
NFW-R-0002 (Interstate 110 – Hollywood Street)	Design
CGN-R-0002 (East Blvd – Government Street)	Design
SFU-C-0002a (O’Neal Lane Pump Station Improvements – Group A)	Construction
SFU-C-0002b (O’Neal Lane Pump Station Improvements – Group B)	Construction
CC-WWTP-FM-PhII (PS 42 FM – Phase II)	Construction
CC-EAST-FM-PhII (Central Consolidated FM – Phase II)	Construction
NFW-C-0004 (Hooper Storage)	Construction
SCADA Master Plan (Collection System & Operations/Data Center)	Construction
North WWTP Public Project	Land Acquisition
North WWTP Master Plan projects	Design

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# Overview

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## 1.1 Background

The purpose of the Sanitary Sewer Overflow (SSO) Control and Wastewater Facilities Program is to reduce sanitary sewer overflows while also planning for the future. The City of Baton Rouge, East Baton Rouge Parish (C-P) entered into a Consent Decree (Civil Action 01-978-B-M3) with the United States Environmental Protection Agency (EPA) and the State of Louisiana to take remedial actions in the collection system to reduce SSOs, and also to meet National Pollution Discharge Elimination System (NPDES) permit requirements at the wastewater treatment plants (WWTPs) by January 1, 2015. The Consent Decree details requirements for several components, including the following:

- Cross Connections
- Preventive Maintenance (Collection System and WWTPs)
- SSO Responses and Reporting
- Remedial Measures Action Plan 1 (RMAP1)
- Remedial Measures Action Plan 2 (RMAP2)
- Wastewater Treatment Facility Assessment
- Environmental Results Monitoring
- Outreach and Public Awareness (O&PA) Quarterly and Annual Reporting
- Supplemental Environmental Projects (SEPs)
- Recordkeeping

This document constitutes the RMAP2. The remaining portions of the Consent Decree are addressed in other documents. This document is the third annual update of the *Program Delivery Plan* (PDP) that was initially published in January 2008.

A proposed extended schedule through January 1, 2018 has been tentatively approved by the Louisiana Department of Environmental Quality and is in a final public comment period. Therefore, the proposed extended schedule is part of this PDP.

## 1.2 Major Program Goals

The major goals of the program are to:

- Reduce excess wet weather flows that cause SSOs
- Rehabilitate the collection system
- Increase the hydraulic capacity of the collection system
- Accommodate growth in project areas
- Comply with WWTP NPDES permit
- Comply with the terms of the Consent Decree

The preparation of the PDP considered the locations of known overflows to assure that the projects defined would reduce the frequency of these overflows. Areas of the collection system found to have defects also were identified for rehabilitation.



## 1.3 Program Description

The three types of projects identified for implementation are designated comprehensive rehabilitation projects, capacity improvement projects, and wastewater treatment improvement/storage projects. The following paragraphs define each project type.

### 1.3.1 Comprehensive Rehabilitation Projects

Areas targeted for sewer pipe rehabilitation work are those in which flow monitoring has indicated the highest levels of inflow and infiltration (I/I). Comprehensive rehabilitation projects are being implemented using a process developed and implemented by the Program Manager (PM) in association with Department of Public Works (DPW) technical staff. The I/I reduction plan for these projects has the following goals:

- Identify and reduce stormwater inflow sources into sanitary sewers
- Identify and reduce Rainfall Dependent Infiltration (RDI) sources in sanitary sewers
- Reduce overflow events
- Increase the sewer system useful life
- Minimize public inconvenience

The process chosen for rehabilitation and/or reconstruction is generally referred to as “Find and Fix.” As the process description suggests, there are two phases to this process. The first phase identifies areas that require rehabilitation or reconstruction, and the second phase determines the best engineering solution to fix the problem. After the “Find” phase, some portions of the system will have been identified as not requiring rehabilitation. In those portions of the system, the Engineer will recommend “No Action.”

The overall approach to the comprehensive rehabilitation portion of the program is to complete the following tasks:

1. Obtain basin data and perform basin field observations
2. Perform I/I testing and inspection, including
  - Flow monitoring assessment
  - Smoke testing
  - Manhole inspection
  - Closed circuit television (CCTV) inspection
3. Prepare an I/I reduction plan
4. Prepare plans, specifications, and cost estimates
5. Implement I/I reduction construction
6. Evaluate I/I reduction results and compare to pre-rehabilitation flow monitoring
7. Implement additional I/I reduction if goals are not met

Flow monitoring is an integral part of the overall rehabilitation and reconstruction portion of the program and will be an ongoing process. Pre-construction flow monitoring is required to establish existing conditions. Post-construction flow monitoring will gauge the effectiveness of the rehabilitation and reconstruction efforts. Flow monitoring will continue for the duration of the program in order to calibrate the rehabilitation progress.

### 1.3.2 Capacity Improvement Projects

Capacity improvement projects will reduce hydraulic bottlenecks in the system and convey wet weather flows to new upstream storage facilities and ultimately to the WWTPs. These projects will include the installation of larger pipes or the construction of parallel pipes to increase conveyance capacity, as well as the replacement of pump stations to handle future wet weather peak flows.

### 1.3.3 Wastewater Treatment Improvement/Storage Projects

Design and construction of WWTP wet weather improvement projects will occur early in the program to store and treat wet weather flows. Wastewater treatment projects at the South WWTP include the following:

- Immediate Action Projects (IAPs) for dry weather permit compliance
- Consolidation with the Central WWTP (Refer to the *Consolidation of South and Central Wastewater Treatment Plants in Baton Rouge*™ (CH2M HILL, 2008))
- Wet weather flow capacity increases to 200 million gallons per day (mgd) with hydraulic peak shaving
- Master Plan improvements

The South WWTP IAPs and other South WWTP projects are included in this document and are part of the RMAP2 projects. However, the South WWTP Phase 2 Master Plan project is described in a separate document (*Draft Master Plan*; CH2M HILL, 2008), though its construction cost estimate is included in the Preliminary Master Plan section of Table 1-1. There are no current capacity improvements required at the North WWTP, so there are no wet weather (RMAP2) projects included in this report for the North WWTP. However, there are several improvements needed at the North WWTP due to the age of the treatment plant. These are briefly described in the Section 5 - North Basin Projects chapter of this report. The *Draft Master Plan* (CH2M HILL, 2008) also describes in detail the needed improvements in the two priority areas at the North WWTP.

Storage projects will be designed and constructed early in the program to allow storage of wet weather flows upstream in the basins. These flows will be released back into the system after the wet weather event has passed. Storage facilities will be sized to store the peak flow from a 2-year frequency, 12-hour duration storm event, assuming rehabilitation projects are complete.

## 1.4 Project Delivery Summary

Projects have been scheduled for both design and construction activities based on funding considerations, and placed into a resource-loaded schedule shown in Table 1-1 and depicted graphically as Figure 1-1. Figure 1-2 presents the schedule for pre-construction and construction activities for all the program projects. Again, these schedules show the proposed extended schedule that is currently in a final public comment period.

**Note: Financial analysis and funding schedules are prepared by the C-P DPW and are not a part of this document.**

## 1.5 Report Contents

The content of this report includes the following.

- Section 2, Planning Description, presents the process used to define the projects in this document.
- Section 3, South Basin Projects, describes the projects located in the South Basin. Geographic Information System (GIS) maps that show locations of the work included in each project are located at the end of each project summary. The South Basin is the collection system that collects and conveys flow to the South WWTP.
- Section 4, Central Basin Projects, describes projects that are located in the Central Basin which collect and convey flow to the Central WWTP. In the future, these flows will be conveyed to the South WWTP.
- Section 5, North Basin Projects, details projects that are located in the North Basin that collect and convey flow to the North WWTP.
- Section 6, Emergency Generators, describes the stand-by engine generators that are to be located at each C-P pump station and at the two WWTPs.
- Section 7, Supervisory Control and Data Acquisition (SCADA), describes the SCADA system that is to be implemented in the collection system and at the North WWTP. The SCADA system for the South WWTP is being implemented as part of the South WWTP – Phase 2 project.

TABLE 1-1  
Project Funding Schedule  
Program Delivery Plan

Comprehensive Rehabilitation Projects												
Project Description	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Estimated Cost
SFL-R-0001 (Jefferson Hwy - HooShooToo Road Area Rehabilitation Project)												
Estimated Find Work		\$ -										\$ -
Estimated Survey		\$ -										\$ -
Estimated Design Engineering		\$ -										\$ -
Estimated Construction		\$ 1,770,000										\$ 1,770,000
Estimated SDC		\$ 114,000										\$ 114,000
Project Sub-Total	\$ -	\$ 1,884,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,884,000
SGL-R-0002 (Staring Lane - Boone Drive Area Rehabilitation Project)												
Estimated Find Work		\$ -										\$ -
Estimated Survey		\$ -										\$ -
Estimated Design Engineering		\$ -										\$ -
Estimated Construction		\$ 4,461,000										\$ 4,461,000
Estimated SDC		\$ -	\$ 163,485	\$ 34,515								\$ 198,000
Project Sub-Total	\$ -	\$ 4,461,000	\$ 163,485	\$ 34,515	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4,659,000
SGL-R-0001 (Burbank Drive - Gardere Lane Area Rehabilitation Project)												
Estimated Find Work		\$ -										\$ -
Estimated Survey		\$ -										\$ -
Estimated Design Engineering		\$ -										\$ -
Estimated Construction		\$ 6,127,000										\$ 6,127,000
Estimated SDC		\$ -	\$ 273,230	\$ 33,770								\$ 307,000
Project Sub-Total	\$ -	\$ 6,127,000	\$ 273,230	\$ 33,770	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 6,434,000
SGU-R-0001 (Oak Villa Blvd - Choctaw Street Area Rehabilitation Project)												
Estimated Find Work		\$ -										\$ -
Estimated Survey		\$ -										\$ -
Estimated Design Engineering		\$ -										\$ -
Estimated Construction		\$ 8,997,000										\$ 8,997,000
Estimated SDC		\$ -	\$ 9,990	\$ 273,060	\$ 49,950							\$ 333,000
Project Sub-Total	\$ -	\$ 8,997,000	\$ 9,990	\$ 273,060	\$ 49,950	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 9,330,000
NGS-R-0002 (Scotland Avenue - Progress Road Area Rehabilitation Project)												
Estimated Find Work		\$ -										\$ -
Estimated Survey		\$ -										\$ -
Estimated Design Engineering		\$ -										\$ -
Estimated Construction		\$ -	\$ 9,208,000									\$ 9,208,000
Estimated SDC		\$ -	\$ -	\$ 424,650	\$ 22,350							\$ 447,000
Project Sub-Total	\$ -	\$ -	\$ 9,208,000	\$ 424,650	\$ 22,350	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 9,655,000
NGS-R-0001 (Elm Grove Garden Road - Harding Blvd Area Rehabilitation Project)												
Estimated Find Work		\$ -										\$ -
Estimated Survey		\$ -										\$ -
Estimated Design Engineering		\$ -										\$ -
Estimated Construction		\$ -	\$ 12,989,000									\$ 12,989,000
Estimated SDC		\$ -	\$ -	\$ 466,830	\$ 46,170							\$ 513,000
Project Sub-Total	\$ -	\$ -	\$ 12,989,000	\$ 466,830	\$ 46,170	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 13,502,000
SGU-R-0002 (Sharp Road - Florida Blvd Area Rehabilitation Project)												
Estimated Find Work		\$ -										\$ -
Estimated Survey		\$ -										\$ -
Estimated Design Engineering		\$ -										\$ -
Estimated Construction		\$ -	\$ 17,493,000									\$ 17,493,000
Estimated SDC		\$ -	\$ -	\$ 22,365	\$ 341,649	\$ 115,986						\$ 480,000
Project Sub-Total	\$ -	\$ -	\$ 17,493,000	\$ 22,365	\$ 341,649	\$ 115,986	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 17,973,000
SGL-R-0003 (Kenilworth Blvd - Boone Drive Area Rehabilitation Project)												
Estimated Find Work		\$ -										\$ -
Estimated Survey		\$ -										\$ -
Estimated Design Engineering		\$ -										\$ -
Estimated Construction		\$ -	\$ 5,168,000									\$ 5,168,000
Estimated SDC		\$ -	\$ -	\$ -	\$ 84,036	\$ 242,964						\$ 327,000
Project Sub-Total	\$ -	\$ -	\$ 5,168,000	\$ -	\$ 84,036	\$ 242,964	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 5,495,000
CGS-R-0001 (Foster Drive - Government Street Phase A & Phase B Area Rehabilitation Project)												
Estimated Find Work		\$ -										\$ -
Estimated Survey		\$ -										\$ -
Estimated Design Engineering		\$ -										\$ -
Estimated Construction		\$ -	\$ 7,683,000									\$ 7,683,000
Estimated SDC		\$ -	\$ -	\$ 79,303	\$ 217,175	\$ 116,523						\$ 413,000
Project Sub-Total	\$ -	\$ -	\$ 7,683,000	\$ 79,303	\$ 217,175	\$ 116,523	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 8,096,000
NFW-R-0001a (Brookstown Road - Evangeline Street -Phase I Area Rehabilitation Project)												
Estimated Find Work		\$ -										\$ -
Estimated Survey		\$ -										\$ -
Estimated Design Engineering		\$ -										\$ -
Estimated Construction		\$ -	\$ 10,309,000									\$ 10,309,000
Estimated SDC		\$ -	\$ -	\$ -	\$ 232,692	\$ 434,308						\$ 667,000
Project Sub-Total	\$ -	\$ -	\$ 10,309,000	\$ -	\$ 232,692	\$ 434,308	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 10,976,000



TABLE 1-1  
 Project Funding Schedule  
 Program Delivery Plan

Comprehensive Rehabilitation Projects												
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Estimated Cost
<b>Project Description</b>												
NFW-R-0001b (Brookstown Road - Evangeline Street - Phase II Area Rehabilitation Project)												
Estimated Find Work			\$ -									\$ -
Estimated Survey			\$ -									\$ -
Estimated Design Engineering			\$ -									\$ -
Estimated Construction				\$ 5,468,000		\$ 588,255						\$ 5,468,000
Estimated SDC				\$ -	\$ 78,745	\$ -						\$ 667,000
<b>Project Sub-Total</b>	\$ -	\$ -	\$ -	\$ 5,468,000	\$ 78,745	\$ 588,255	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 6,135,000
NFE-R-0001 (Silverleaf Road - Ford Street Area Rehabilitation Project)												
Estimated Find Work			\$ -									\$ -
Estimated Survey			\$ -									\$ -
Estimated Design Engineering			\$ -									\$ -
Estimated Construction				\$ 8,025,000		\$ 593,581						\$ 8,025,000
Estimated SDC				\$ -	\$ 66,419	\$ -						\$ 660,000
<b>Project Sub-Total</b>	\$ -	\$ -	\$ -	\$ 8,025,000	\$ 66,419	\$ 593,581	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 8,685,000
SGC-R-0001a (Bluebonnet Blvd - Jefferson Hwy - Phase I Area Rehabilitation Project)												
Estimated Find Work			\$ -									\$ -
Estimated Survey			\$ -									\$ -
Estimated Design Engineering			\$ -									\$ -
Estimated Construction				\$ 3,849,000		\$ 380,079						\$ 3,849,000
Estimated SDC				\$ -	\$ 19,921	\$ -						\$ 400,000
<b>Project Sub-Total</b>	\$ -	\$ -	\$ -	\$ 3,849,000	\$ 19,921	\$ 380,079	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4,249,000
SGC-R-0001b (Bluebonnet Blvd - Jefferson Hwy - Phase II Area Rehabilitation Project)												
Estimated Find Work			\$ -									\$ -
Estimated Survey			\$ -									\$ -
Estimated Design Engineering			\$ -									\$ -
Estimated Construction				\$ 4,483,000		\$ 385,564						\$ 4,483,000
Estimated SDC				\$ -	\$ 14,436	\$ -						\$ 400,000
<b>Project Sub-Total</b>	\$ -	\$ -	\$ -	\$ 4,483,000	\$ 14,436	\$ 385,564	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4,883,000
CGS-R-0005 (Acadian Thruway - Perkins Road Area Rehabilitation Project)												
Estimated Find Work			\$ -									\$ -
Estimated Survey			\$ -									\$ -
Estimated Design Engineering			\$ -									\$ -
Estimated Construction				\$ 3,455,000		\$ 247,000						\$ 3,455,000
Estimated SDC				\$ -	\$ -	\$ -						\$ 247,000
<b>Project Sub-Total</b>	\$ -	\$ -	\$ -	\$ 3,455,000	\$ -	\$ 247,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,702,000
CGS-R-0003 (Stanford Avenue - Morning Glory Road Area Rehabilitation Project)												
Estimated Find Work			\$ -									\$ -
Estimated Survey			\$ -									\$ -
Estimated Design Engineering			\$ -									\$ -
Estimated Construction				\$ 4,991,000		\$ 413,880						\$ 4,991,000
Estimated SDC				\$ -	\$ 19,120	\$ -						\$ 433,000
<b>Project Sub-Total</b>	\$ -	\$ -	\$ -	\$ 4,991,000	\$ 19,120	\$ 413,880	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 5,424,000
CGS-R-0004 (Acadian Thruway - Claycut Road Area Rehabilitation Project)												
Estimated Find Work			\$ -									\$ -
Estimated Survey			\$ -									\$ -
Estimated Design Engineering			\$ -									\$ -
Estimated Construction				\$ -	\$ 6,297,000	\$ 467,000						\$ 6,297,000
Estimated SDC				\$ -	\$ -	\$ -						\$ 467,000
<b>Project Sub-Total</b>	\$ -	\$ -	\$ -	\$ -	\$ 6,297,000	\$ 467,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 6,764,000
CGS-R-0002 (Highland Road - Washington Street Area Rehabilitation Project)												
Estimated Find Work			\$ -									\$ -
Estimated Survey			\$ -									\$ -
Estimated Design Engineering			\$ -									\$ -
Estimated Construction				\$ 11,483,000		\$ 507,000						\$ 11,483,000
Estimated SDC				\$ -	\$ -	\$ -						\$ 507,000
<b>Project Sub-Total</b>	\$ -	\$ -	\$ -	\$ 11,483,000	\$ -	\$ 507,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 11,990,000
SGC-R-0002a (Airline Highway - Goodwood Blvd - Phase I Area Rehabilitation Project)												
Estimated Find Work			\$ -									\$ -
Estimated Survey			\$ -									\$ -
Estimated Design Engineering			\$ -									\$ -
Estimated Construction				\$ -		\$ 11,938,000						\$ 11,938,000
Estimated SDC				\$ -	\$ -	\$ 241,890	\$ 491,110	\$ -				\$ 733,000
<b>Project Sub-Total</b>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 12,179,890	\$ 491,110	\$ -	\$ -	\$ -	\$ -	\$ 12,671,000
SGC-R-0002b (Airline Highway - Goodwood Blvd - Phase II Area Rehabilitation Project)												
Estimated Find Work			\$ -									\$ -
Estimated Survey			\$ -									\$ -
Estimated Design Engineering			\$ -									\$ -
Estimated Construction				\$ -		\$ 11,938,000						\$ 11,938,000
Estimated SDC				\$ -	\$ -	\$ -	\$ 645,040	\$ 87,960				\$ 733,000
<b>Project Sub-Total</b>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 11,938,000	\$ 645,040	\$ 87,960	\$ -	\$ -	\$ -	\$ 12,671,000



TABLE 1-1  
Project Funding Schedule  
Program Delivery Plan

Comprehensive Rehabilitation Projects												
Project Description	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Estimated Cost
SFU-R-0001 (Antioch Road - Chadsford Drive Area Rehabilitation Project)												
Estimated Find Work					\$ -							\$ -
Estimated Survey					\$ -							\$ -
Estimated Design Engineering					\$ -							\$ -
Estimated Construction					\$ -	\$ 15,376,000						\$ 15,376,000
Estimated SDC					\$ -	\$ -	\$ 438,300	\$ 48,700				\$ 487,000
Project Sub-Total	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 15,376,000	\$ 438,300	\$ 48,700	\$ -	\$ -	\$ -	\$ 15,863,000
SFL-R-0002 (Jones Creek Road - Tiger Bend Road Area Rehabilitation Project)												
Estimated Find Work					\$ -							\$ -
Estimated Survey					\$ -							\$ -
Estimated Design Engineering					\$ -							\$ -
Estimated Construction					\$ -	\$ 5,157,000						\$ 5,157,000
Estimated SDC					\$ -	\$ -	\$ 245,250	\$ 81,750	\$ -			\$ 327,000
Project Sub-Total	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 5,157,000	\$ 245,250	\$ 81,750	\$ -	\$ -	\$ -	\$ 5,484,000
CGN-R-0001a (Scenic Highway - Spanish Town Road - Phase I Area Rehabilitation Project)												
Estimated Find Work					\$ -							\$ -
Estimated Survey					\$ -							\$ -
Estimated Design Engineering					\$ -							\$ -
Estimated Construction					\$ -	\$ -	\$ 8,595,000					\$ 8,595,000
Estimated SDC					\$ -	\$ -	\$ 266,500	\$ 266,500				\$ 533,000
Project Sub-Total	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 8,861,500	\$ 266,500	\$ -	\$ -	\$ -	\$ 9,128,000
CGN-R-0001b (Scenic Highway - Spanish Town Road - Phase II Area Rehabilitation Project)												
Estimated Find Work					\$ -							\$ -
Estimated Survey					\$ -							\$ -
Estimated Design Engineering					\$ -							\$ -
Estimated Construction					\$ -	\$ -	\$ -	\$ 8,595,000				\$ 8,595,000
Estimated SDC					\$ -	\$ -	\$ -	\$ 133,250	\$ 266,500	\$ 133,250		\$ 533,000
Project Sub-Total	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 8,728,250	\$ 266,500	\$ 133,250	\$ -	\$ 9,128,000
NFW-R-0002 (Interstate 110 - Hollywood Street Area Rehabilitation Project)												
Estimated Find Work						\$ 530,000						\$ 530,000
Estimated Survey						\$ 38,000						\$ 38,000
Estimated Design Engineering						\$ 360,000						\$ 360,000
Estimated Construction						\$ -	\$ 6,017,000					\$ 6,017,000
Estimated SDC						\$ -	\$ 38,000	\$ 342,000				\$ 380,000
Project Sub-Total	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 928,000	\$ 6,055,000	\$ 342,000	\$ -	\$ -	\$ -	\$ 7,325,000
SFL-R-0003 (Siegen Lane - Interstate 10 Area Rehabilitation Project)												
Estimated Find Work							\$ 530,000					\$ 530,000
Estimated Survey							\$ 38,000					\$ 38,000
Estimated Design Engineering							\$ 360,000					\$ 360,000
Estimated Construction						\$ -	\$ -	\$ 6,112,000				\$ 6,112,000
Estimated SDC						\$ -	\$ -	\$ 38,700	\$ 309,600	\$ 38,700		\$ 387,000
Project Sub-Total	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 928,000	\$ 6,150,700	\$ 309,600	\$ 38,700	\$ -	\$ 7,427,000
SGC-R-0003 (Ardenwood Drive - Winbourne Street Area Rehabilitation Project)												
Estimated Find Work							\$ 410,000					\$ 410,000
Estimated Survey							\$ 38,000					\$ 38,000
Estimated Design Engineering							\$ 280,000					\$ 280,000
Estimated Construction						\$ -	\$ -	\$ 4,680,000				\$ 4,680,000
Estimated SDC						\$ -	\$ -	\$ -	\$ 234,400	\$ 58,600		\$ 293,000
Project Sub-Total	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 728,000	\$ 4,680,000	\$ 234,400	\$ 58,600	\$ -	\$ 5,701,000
SGU-R-0003 (Flannery Road - Florida Blvd Area - Phase I Rehabilitation Project)												
Estimated Find Work							\$ 480,000					\$ 480,000
Estimated Survey							\$ 38,000					\$ 38,000
Estimated Design Engineering							\$ 300,000					\$ 300,000
Estimated Construction							\$ -	\$ 6,000,000				\$ 6,000,000
Estimated SDC							\$ -	\$ -	\$ 335,000	\$ 165,000		\$ 500,000
Project Sub-Total	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 818,000	\$ -	\$ 6,335,000	\$ 165,000	\$ -	\$ 7,318,000
SGU-R-0003 (Flannery Road - Florida Blvd Area - Phase II Rehabilitation Project)												
Estimated Find Work							\$ 480,000					\$ 480,000
Estimated Survey							\$ 38,000					\$ 38,000
Estimated Design Engineering							\$ 300,000					\$ 300,000
Estimated Construction							\$ -	\$ 6,000,000				\$ 6,000,000
Estimated SDC							\$ -	\$ -	\$ 50,000	\$ 450,000		\$ 500,000
Project Sub-Total	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 818,000	\$ -	\$ 6,050,000	\$ 450,000	\$ -	\$ 7,318,000
CGN-R-0002 (East Boulevard - Government Street Area Rehabilitation Project)												
Estimated Find Work						\$ 640,000						\$ 640,000
Estimated Survey						\$ 38,000						\$ 38,000
Estimated Design Engineering						\$ 400,000						\$ 400,000
Estimated Construction						\$ -	\$ 8,000,000					\$ 8,000,000
Estimated SDC						\$ -	\$ -	\$ 450,000	\$ 150,000			\$ 600,000
Project Sub-Total	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,078,000	\$ 8,000,000	\$ 450,000	\$ 150,000	\$ -	\$ -	\$ 9,678,000





TABLE 1-1  
 Project Funding Schedule  
 Program Delivery Plan

Comprehensive Rehabilitation Projects												
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Estimated Cost
<b>Project Description</b>												
SGC-R-0004 (North 38th Street - Gus Young Avenue Area Rehabilitation Project)												
Estimated Find Work								\$ 320,000				\$ 320,000
Estimated Survey								\$ 38,000				\$ 38,000
Estimated Design Engineering								\$ 220,000				\$ 220,000
Estimated Construction							\$ -		\$ 3,629,000			\$ 3,629,000
Estimated SDC									\$ 22,700	\$ 181,600	\$ 22,700	\$ 227,000
Project Sub-Total	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 578,000	\$ 3,651,700	\$ 181,600	\$ 22,700	\$ 4,434,000
Rehab Engineering Retainer Contracts												
Estimated Design Engineering		\$ 1,500,000	\$ 1,000,000	\$ 1,500,000	\$ 1,000,000							\$ 5,000,000
Estimated Construction												\$ -
Estimated SDC												\$ -
Project Sub-Total	\$ -	\$ 1,500,000	\$ 1,000,000	\$ 1,500,000	\$ 1,000,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 5,000,000
RMAP2 - PARISH WIDE PHYSICAL INSPECTION												
Estimated Design Engineering												\$ -
Estimated Construction		\$ 2,056,430			\$ 1,800,000							\$ 3,856,000
Estimated SDC												\$ -
Project Sub-Total	\$ -	\$ 2,056,430	\$ -	\$ -	\$ 1,800,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,856,000
<b>Comprehensive Rehabilitation Estimated Total Project Cost</b>	<b>\$ -</b>	<b>\$ 25,025,000</b>	<b>\$ 53,988,000</b>	<b>\$ 43,414,000</b>	<b>\$ 21,773,000</b>	<b>\$ 51,149,000</b>	<b>\$ 27,210,000</b>	<b>\$ 22,232,000</b>	<b>\$ 16,997,000</b>	<b>\$ 1,027,000</b>	<b>\$ 23,000</b>	<b>\$ 262,838,000</b>
Capacity Improvement Projects												
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Estimated Cost
<b>Project Description</b>												
CGN-C-0001 (Capital Lake Drive - Gayosa Street Area Capacity Improvements)												
Estimated Design Engineering	\$ 789,000											\$ 789,000
Estimated Construction				\$ 10,498,000								\$ 10,498,000
Estimated Land				\$ 58,000								\$ 58,000
Estimated SDC				\$ -	\$ 76,361	\$ 238,639						\$ 315,000
Project Sub-Total	\$ 789,000	\$ -	\$ -	\$ 10,556,000	\$ 76,361	\$ 238,639	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 11,660,000
NFE-C-0001 (Gurney Road - Joor Road Sewer Area Upgrades)												
Estimated Design Engineering	\$ 340,000											\$ 340,000
Estimated Construction		\$ 1,550,000										\$ 1,550,000
Estimated SDC		\$ 32,000										\$ 32,000
Project Sub-Total	\$ 340,000	\$ 1,582,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,922,000
NFE-C-0002 (Sullivan Rd./Lovett Rd./Wax Rd. Sewer Area Upgrades)												
Estimated Design Engineering	\$ 523,000											\$ 523,000
Estimated Construction		\$ 2,200,000										\$ 2,200,000
Estimated SDC		\$ -	\$ 24,700	\$ 40,300								\$ 65,000
Project Sub-Total	\$ 523,000	\$ 2,200,000	\$ 24,700	\$ 40,300	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,788,000
NFE-C-0003 (Comite Road - Foster Road Sewer Area Upgrades - Phase I)												
Estimated Design Engineering	\$ 469,000											\$ 469,000
Estimated Construction		\$ 1,940,000										\$ 1,940,000
Estimated SDC		\$ -	\$ 8,700	\$ 45,240	\$ 4,060							\$ 58,000
Project Sub-Total	\$ 469,000	\$ 1,940,000	\$ 8,700	\$ 45,240	\$ 4,060	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,467,000
NFE-C-0004 (Foster Road - Hooper Road Sewer Area Upgrades)												
Estimated Design Engineering	\$ 388,000											\$ 388,000
Estimated Construction		\$ 8,762,000										\$ 8,762,000
Estimated SDC		\$ -	\$ 63,600	\$ 201,400								\$ 265,000
Project Sub-Total	\$ 388,000	\$ 8,762,000	\$ 63,600	\$ 201,400	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 9,415,000
NFW-C-HWY61-I (Zachary Area Transmission Network Improvements - general)												
Estimated Design Engineering		\$ 5,720,000										\$ 5,720,000
Estimated Construction				\$ -								\$ -
Estimated Land		\$ 40,000	\$ 68,587	\$ 849,240								\$ 958,000
Estimated SDC				\$ -								\$ -
Project Sub-Total	\$ -	\$ 5,760,000	\$ 68,587	\$ 849,240	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 6,678,000
NFW-C-HWY61-I (Zachary Area Transmission Network Improvements - Ph I)												
Estimated Design Engineering		\$ -										\$ -
Estimated Construction				\$ 18,487,000								\$ 18,487,000
Estimated Land				\$ -	\$ 181,500	\$ 187,000	\$ 181,500					\$ 550,000
Estimated SDC				\$ -	\$ 181,500	\$ 187,000	\$ 181,500	\$ -	\$ -	\$ -	\$ -	\$ 19,037,000
Project Sub-Total	\$ -	\$ -	\$ -	\$ 18,487,000	\$ 181,500	\$ 187,000	\$ 181,500	\$ -	\$ -	\$ -	\$ -	\$ 19,037,000
NFW-C-HWY61-II (Zachary Area Transmission Network Improvements - Ph II)												
Estimated Design Engineering												\$ -
Estimated Construction					\$ 14,584,000							\$ 14,584,000
Estimated Land				\$ 1,425,000								\$ 1,425,000
Estimated SDC				\$ -	\$ -	\$ 225,500	\$ 225,500					\$ 451,000
Project Sub-Total	\$ -	\$ -	\$ -	\$ 1,425,000	\$ 14,584,000	\$ 225,500	\$ 225,500	\$ -	\$ -	\$ -	\$ -	\$ 16,460,000



TABLE 1-1  
Project Funding Schedule  
Program Delivery Plan

Capacity Improvement Projects												
Project Description	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Estimated Cost
NFW-C-HWY61-III (Zachary Area Transmission Network Improvements - Ph III)												
Estimated Design Engineering												\$ -
Estimated Construction				\$ 8,948,000								\$ 8,948,000
Estimated SDC				\$ -	\$ 88,440	\$ 91,120	\$ 88,440					\$ 268,000
Project Sub-Total	\$ -	\$ -	\$ -	\$ 8,948,000	\$ 88,440	\$ 91,120	\$ 88,440	\$ -	\$ -	\$ -	\$ -	\$ 9,216,000
NFW-C-HWY61-IV (Zachary Area Transmission Network Improvements - Ph IV)												
Estimated Design Engineering												\$ -
Estimated Construction				\$ 7,091,000								\$ 7,091,000
Estimated SDC				\$ -	\$ 84,800	\$ 84,800	\$ 42,400					\$ 212,000
Project Sub-Total	\$ -	\$ -	\$ -	\$ 7,091,000	\$ 84,800	\$ 84,800	\$ 42,400	\$ -	\$ -	\$ -	\$ -	\$ 7,303,000
CGN-C-0003 (South Boulevard - St. Joseph Street Sewer Area Upgrades)												
Estimated Design Engineering		\$ 848,000										\$ 848,000
Estimated Construction				\$ 17,970,000								\$ 17,970,000
Estimated SDC				\$ 5,979	\$ 133,046	\$ 400,975						\$ 540,000
Project Sub-Total	\$ -	\$ 848,000	\$ -	\$ 17,975,979	\$ 133,046	\$ 400,975	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 19,358,000
CGN-C-0005 (Downtown Area Pump Station Improvements)												
Estimated Design Engineering		\$ 1,457,000										\$ 1,457,000
Estimated Construction				\$ 4,841,000								\$ 4,841,000
Estimated SDC				\$ -	\$ 67,821	\$ 77,179						\$ 145,000
Project Sub-Total	\$ -	\$ 1,457,000	\$ -	\$ 4,841,000	\$ 67,821	\$ 77,179	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 6,443,000
CGS-C-0004 (Highland Road - Buchanan Street Area Sewer Upgrades)												
Estimated Design Engineering		\$ 647,000										\$ 647,000
Estimated Construction			\$ 4,326,000									\$ 4,326,000
Estimated SDC			\$ -	\$ 26,785	\$ 66,627	\$ 36,588						\$ 130,000
Project Sub-Total	\$ -	\$ 647,000	\$ 4,326,000	\$ 26,785	\$ 66,627	\$ 36,588	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 5,103,000
SGC-C-PS119 (Citiplace/Essen Area - PS119 & Forcemain Improvements)												
Estimated Design Engineering		\$ 508,000										\$ 508,000
Estimated Construction				\$ 2,802,000								\$ 2,802,000
Estimated SDC				\$ -	\$ 47,477	\$ 37,523						\$ 85,000
Project Sub-Total	\$ -	\$ 508,000	\$ -	\$ 2,802,000	\$ 47,477	\$ 37,523	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,395,000
Group Project 1A (Metro Airport Area Sewer Upgrades)												
Estimated Design Engineering		\$ 3,571,000										\$ 3,571,000
Estimated Construction				\$ 19,581,000								\$ 19,581,000
Estimated Land				\$ 840,000								\$ 840,000
Estimated SDC				\$ -	\$ 56,264	\$ 391,950	\$ 136,786					\$ 585,000
Project Sub-Total	\$ -	\$ 3,571,000	\$ -	\$ 20,421,000	\$ 56,264	\$ 391,950	\$ 136,786	\$ -	\$ -	\$ -	\$ -	\$ 24,577,000
Group Project 1B (Metro AirportSewer Area PS and FM Upgrades)												
Estimated Design Engineering		\$ 3,090,000										\$ 3,090,000
Estimated Construction					\$ 20,700,000							\$ 20,700,000
Estimated Land				\$ 635,000								\$ 635,000
Estimated SDC				\$ -		\$ 281,600	\$ 281,600	\$ 76,800				\$ 640,000
Project Sub-Total	\$ -	\$ 3,090,000	\$ -	\$ 635,000	\$ 20,700,000	\$ 281,600	\$ 281,600	\$ 76,800	\$ -	\$ -	\$ -	\$ 25,065,000
SFL-C-0002 (Perkins/Old Perkins Area - Booster Pump Station 514 Improvements)												
Estimated Design Engineering			\$ 1,500,000									\$ 1,500,000
Estimated Construction				\$ 8,387,000								\$ 8,387,000
Estimated Land				\$ 203,000								\$ 203,000
Estimated SDC				\$ -	\$ 1,870	\$ 248,130						\$ 250,000
Project Sub-Total	\$ -	\$ -	\$ 1,500,000	\$ 8,590,000	\$ 1,870	\$ 248,130	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 10,340,000
SFL-C-0004 (Group Project 2 - Old Perkins - Highland Road Area Sewer Upgrades)												
Estimated Design Engineering		\$ 641,000										\$ 641,000
Estimated Construction			\$ 3,476,000									\$ 3,476,000
Estimated SDC			\$ -	\$ 18,157	\$ 41,859	\$ 44,984						\$ 105,000
Project Sub-Total	\$ -	\$ 641,000	\$ 3,476,000	\$ 18,157	\$ 41,859	\$ 44,984	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4,222,000
SFL-C-0005 (Highland Road - Burbank Drive Capacity Improvements)												
Estimated Design Engineering		\$ 1,593,000										\$ 1,593,000
Estimated Construction				\$ 20,591,000								\$ 20,591,000
Estimated Land				\$ 430,000								\$ 430,000
Estimated SDC				\$ -	\$ 44,336	\$ 575,664						\$ 620,000
Project Sub-Total	\$ -	\$ 1,593,000	\$ -	\$ 21,021,000	\$ 44,336	\$ 575,664	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 23,234,000
SFL-C-0006 (Nicholson Dr - Highland Rd - Perkins Rd Capacity Improvements - Phase A)												
Estimated Design Engineering			\$ 1,615,000									\$ 1,615,000
Estimated Construction					\$ 2,592,000							\$ 2,592,000
Estimated Land					\$ 575,000							\$ 575,000
Estimated SDC					\$ 62,026	\$ 17,974	\$ -					\$ 80,000
Project Sub-Total	\$ -	\$ -	\$ 1,615,000	\$ -	\$ 3,229,026	\$ 17,974	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4,862,000
SFL-C-0006 (Nicholson Dr - Highland Rd - Perkins Rd Capacity Improvements - Phase B)												
Estimated Design Engineering		\$ -										\$ -
Estimated Construction					\$ 7,890,000							\$ 7,890,000
Estimated Land					\$ 575,000							\$ 575,000
Estimated SDC					\$ -	\$ 187,500	\$ 62,500					\$ 250,000
Project Sub-Total	\$ -	\$ -	\$ -	\$ -	\$ 8,465,000	\$ 187,500	\$ 62,500	\$ -	\$ -	\$ -	\$ -	\$ 8,715,000



TABLE 1-1  
Project Funding Schedule  
Program Delivery Plan

Capacity Improvement Projects												
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Estimated Cost
SGL-C-0005 (Bayou Duplantier Area Sewer Upgrades)			\$ 651,000		\$ 4,836,000		\$ 108,750	\$ 36,250				\$ 651,000
Estimated Design Engineering												\$ 651,000
Estimated Construction					\$ 4,836,000							\$ 4,836,000
Estimated Land					\$ 285,000							\$ 285,000
Estimated SDC												\$ 145,000
Project Sub-Total	\$ -	\$ -	\$ 651,000	\$ -	\$ 5,121,000	\$ 108,750	\$ 36,250	\$ -	\$ -	\$ -	\$ -	\$ 5,917,000
CGN-C-0002 (25th Street - North Acadian Thruway Capacity Improvements)			\$ 652,000									\$ 652,000
Estimated Design Engineering												\$ 652,000
Estimated Construction					\$ -							\$ -
Estimated SDC					\$ -							\$ -
Project Sub-Total	\$ -	\$ -	\$ 652,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 652,000
CGS-C-0006 (Government St - South Acadian Thruway Sewer Area Upgrades)			\$ 766,000		\$ 5,814,000		\$ 138,750	\$ 46,250				\$ 766,000
Estimated Design Engineering												\$ 766,000
Estimated Construction					\$ 5,814,000							\$ 5,814,000
Estimated Land					\$ 190,000							\$ 190,000
Estimated SDC												\$ 185,000
Project Sub-Total	\$ -	\$ -	\$ 766,000	\$ -	\$ 6,004,000	\$ 138,750	\$ 46,250	\$ -	\$ -	\$ -	\$ -	\$ 6,955,000
NGS-C-0002 (Plank Road - Kleinpeter Road Sewer Area Upgrades)			\$ 1,571,000		\$ 8,000,000		\$ 110,000	\$ 110,000	\$ 30,000			\$ 1,571,000
Estimated Design Engineering												\$ 1,571,000
Estimated Construction					\$ 8,000,000							\$ 8,000,000
Estimated Land					\$ 490,000							\$ 490,000
Estimated SDC					\$ -							\$ 250,000
Project Sub-Total	\$ -	\$ -	\$ 1,571,000	\$ -	\$ 8,490,000	\$ 110,000	\$ 110,000	\$ 30,000	\$ -	\$ -	\$ -	\$ 10,311,000
SFU-C-0005A (O'Neal Lane Pipeline Improvements - Group A)				\$ 4,171,000								\$ 4,171,000
Estimated Design Engineering												\$ 4,171,000
Estimated Construction					\$ 12,157,000							\$ 12,157,000
Estimated Land					\$ 1,035,000							\$ 1,035,000
Estimated SDC					\$ -		\$ 285,000	\$ 95,000				\$ 380,000
Project Sub-Total	\$ -	\$ -	\$ -	\$ 4,171,000	\$ 13,192,000	\$ 285,000	\$ 95,000	\$ -	\$ -	\$ -	\$ -	\$ 17,743,000
SFU-C-0005B (O'Neal Lane Pipeline Improvements - Group B)												\$ -
Estimated Design Engineering												\$ -
Estimated Construction					\$ 5,300,000							\$ 5,300,000
Estimated Land					\$ 1,035,000							\$ 1,035,000
Estimated SDC					\$ -		\$ 123,750	\$ 41,250				\$ 165,000
Project Sub-Total	\$ -	\$ -	\$ -	\$ -	\$ 6,335,000	\$ 123,750	\$ 41,250	\$ -	\$ -	\$ -	\$ -	\$ 6,500,000
SFL-C-0001 (Multiple PS - Nicholson Dr - Brightside Dr)			\$ 1,803,000		\$ 9,800,000		\$ 122,000	\$ 122,000	\$ 61,000			\$ 1,803,000
Estimated Design Engineering												\$ 1,803,000
Estimated Construction					\$ 9,800,000							\$ 9,800,000
Estimated Land					\$ 175,000							\$ 175,000
Estimated SDC												\$ 305,000
Project Sub-Total	\$ -	\$ -	\$ 1,803,000	\$ -	\$ 9,975,000	\$ 122,000	\$ 122,000	\$ 61,000	\$ -	\$ -	\$ -	\$ 12,083,000
SGC-C-PS58A (Pump Station 58 Replacement)			\$ 2,309,000		\$ 14,400,000		\$ 178,000	\$ 178,000	\$ 89,000			\$ 2,309,000
Estimated Design Engineering												\$ 2,309,000
Estimated Construction					\$ 14,400,000							\$ 14,400,000
Estimated SDC					\$ -							\$ 445,000
Project Sub-Total	\$ -	\$ -	\$ 2,309,000	\$ -	\$ 14,400,000	\$ 178,000	\$ 178,000	\$ 89,000	\$ -	\$ -	\$ -	\$ 17,154,000
SGC-C-PS58FM-A (Staring Lane FM (Phase I - Burbank Dr to Highland Rd))		\$ 1,607,000		\$ 4,616,000								\$ 1,607,000
Estimated Design Engineering												\$ 1,607,000
Estimated Construction					\$ 4,616,000							\$ 4,616,000
Estimated SDC				\$ 35,000								\$ 140,000
Project Sub-Total	\$ -	\$ 1,607,000	\$ 4,721,000	\$ 35,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 6,363,000
SGC-C-PS58FM-B (Staring Lane FM (Phase II - Highland Rd to Perkins Rd))				\$ 10,715,000								\$ -
Estimated Design Engineering												\$ -
Estimated Construction				\$ 10,715,000								\$ 10,715,000
Estimated SDC				\$ -	\$ 25,600							\$ 320,000
Project Sub-Total	\$ -	\$ -	\$ -	\$ 10,715,000	\$ 25,600	\$ 265,600	\$ 28,800	\$ -	\$ -	\$ -	\$ -	\$ 11,035,000
SGC-C-PS58FM-C (Staring Lane FM (Phase III - Perkins Rd to PS 58))			\$ 361,000		\$ 7,176,000		\$ 161,250	\$ 53,750				\$ 361,000
Estimated Design Engineering												\$ 361,000
Estimated Construction					\$ 7,176,000							\$ 7,176,000
Estimated Land					\$ 150,000							\$ 150,000
Estimated SDC					\$ -							\$ 215,000
Project Sub-Total	\$ -	\$ -	\$ 361,000	\$ -	\$ 7,326,000	\$ 161,250	\$ 53,750	\$ -	\$ -	\$ -	\$ -	\$ 7,902,000
SFU-C-0001 (Multiple PS - Jefferson Hwy - Park Forest Dr)			\$ 484,000		\$ 2,922,000		\$ 69,934					\$ 484,000
Estimated Design Engineering												\$ 484,000
Estimated Construction					\$ 2,922,000							\$ 2,922,000
Estimated Land					\$ 175,000							\$ 175,000
Estimated SDC					\$ 20,066							\$ 90,000
Project Sub-Total	\$ -	\$ -	\$ 484,000	\$ -	\$ 3,117,066	\$ 69,934	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,671,000
SGC-C-0002 (Airline Highway Pipeline Improvements)			\$ 4,287,000									\$ 4,287,000
Estimated Design Engineering												\$ 4,287,000
Estimated Construction						\$ 37,700,000						\$ 37,700,000
Estimated Land						\$ 575,000						\$ 575,000
Estimated SDC					\$ -	\$ 296,250	\$ 450,300	\$ 438,450				\$ 1,185,000
Project Sub-Total	\$ -	\$ -	\$ 4,287,000	\$ -	\$ -	\$ 38,571,250	\$ 450,300	\$ 438,450	\$ -	\$ -	\$ -	\$ 43,747,000



TABLE 1-1  
Project Funding Schedule  
Program Delivery Plan

Capacity Improvement Projects												
Project Description	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Estimated Cost
NFW-C-0009 (Multiple PS - Highway 61 - Plank Road)					\$ 1,298,000				\$ 5,919,000			\$ 1,298,000
Estimated Design Engineering												\$ 1,298,000
Estimated Construction									\$ 5,919,000			\$ 5,919,000
Estimated Land									\$ 183,000			\$ 183,000
Estimated SDC										\$ 138,750	\$ 46,250	\$ 185,000
Project Sub-Total	\$ -	\$ -	\$ -	\$ -	\$ 1,298,000	\$ -	\$ -	\$ -	\$ 6,102,000	\$ 138,750	\$ 46,250	\$ 7,585,000
SGL-C-0002 (Multiple PS - Highland Road - Kenilworth Parkway) - excluding LSU PS				\$ 1,866,000				\$ 8,927,000				\$ 1,866,000
Estimated Design Engineering				\$ 1,866,000				\$ 8,927,000				\$ 1,866,000
Estimated Construction								\$ 275,000				\$ 8,927,000
Estimated Land												\$ 275,000
Estimated SDC									\$ 137,500	\$ 137,500		\$ 275,000
Project Sub-Total	\$ -	\$ -	\$ -	\$ 1,866,000	\$ -	\$ -	\$ -	\$ 9,202,000	\$ 137,500	\$ 137,500	\$ -	\$ 11,343,000
SGC-C-0001 (Florida Blvd Pump Station Improvements)				\$ 2,554,000								\$ 2,554,000
Estimated Design Engineering				\$ 2,554,000								\$ 2,554,000
Estimated Construction							\$ 14,457,000					\$ 14,457,000
Estimated Land							\$ 447,000					\$ 447,000
Estimated SDC								\$ 146,850	\$ 222,500	\$ 75,650		\$ 445,000
Project Sub-Total	\$ -	\$ -	\$ -	\$ 2,554,000	\$ -	\$ -	\$ 14,904,000	\$ 146,850	\$ 222,500	\$ 75,650	\$ -	\$ 17,903,000
NGS-C-0003 (Plank Road Pump Station Improvements)					\$ 1,892,000							\$ 1,892,000
Estimated Design Engineering					\$ 1,892,000							\$ 1,892,000
Estimated Construction							\$ 9,315,000					\$ 9,315,000
Estimated Land							\$ 288,000					\$ 288,000
Estimated SDC							\$ 72,500	\$ 145,000	\$ 72,500			\$ 290,000
Project Sub-Total	\$ -	\$ -	\$ -	\$ -	\$ 1,892,000	\$ -	\$ 9,675,500	\$ 145,000	\$ 72,500	\$ -	\$ -	\$ 11,785,000
SGU-C-0003 (Sherwood Forest Blvd - Goodwood Blvd Pipeline Improvements)				\$ 1,300,000								\$ 1,300,000
Estimated Design Engineering				\$ 1,300,000								\$ 1,300,000
Estimated Construction								\$ 11,938,000				\$ 11,938,000
Estimated Land								\$ 375,000				\$ 375,000
Estimated SDC								\$ 93,750	\$ 281,250			\$ 375,000
Project Sub-Total	\$ -	\$ -	\$ -	\$ 1,300,000	\$ -	\$ -	\$ -	\$ 12,406,750	\$ 281,250	\$ -	\$ -	\$ 13,988,000
NFW-C-0001 (Joor Road - Greenwell Springs Road Sewer Area Upgrades)					\$ 1,268,000							\$ 1,268,000
Estimated Design Engineering					\$ 1,268,000							\$ 1,268,000
Estimated Construction									\$ 7,258,000			\$ 7,258,000
Estimated Land									\$ 228,000			\$ 228,000
Estimated SDC									\$ 57,500	\$ 172,500		\$ 230,000
Project Sub-Total	\$ -	\$ -	\$ -	\$ -	\$ 1,268,000	\$ -	\$ -	\$ -	\$ 7,543,500	\$ 172,500	\$ -	\$ 8,984,000
NFW-C-0007 (Plank Road - Port Hudson Pride Road Sewer Area Upgrades)					\$ 1,315,000							\$ 1,315,000
Estimated Design Engineering					\$ 1,315,000							\$ 1,315,000
Estimated Construction									\$ 4,584,000			\$ 4,584,000
Estimated Land									\$ 144,000			\$ 144,000
Estimated SDC									\$ 36,250	\$ 108,750		\$ 145,000
Project Sub-Total	\$ -	\$ -	\$ -	\$ -	\$ 1,315,000	\$ -	\$ -	\$ -	\$ 4,764,250	\$ 108,750	\$ -	\$ 6,188,000
SGL-C-0003A (Highland Road Pipeline Improvements - Group A)				\$ 2,108,000								\$ 2,108,000
Estimated Design Engineering				\$ 2,108,000								\$ 2,108,000
Estimated Construction									\$ 7,761,000			\$ 7,761,000
Estimated Land									\$ 306,000			\$ 306,000
Estimated SDC									\$ 122,500	\$ 122,500	\$ -	\$ 245,000
Project Sub-Total	\$ -	\$ -	\$ -	\$ 2,108,000	\$ -	\$ -	\$ -	\$ -	\$ 8,189,500	\$ 122,500	\$ -	\$ 10,420,000
SGL-C-0003B (Highland Road Pipeline Improvements - Group B)												\$ -
Estimated Design Engineering												\$ -
Estimated Construction									\$ 8,737,000			\$ 8,737,000
Estimated Land									\$ 255,000			\$ 255,000
Estimated SDC									\$ 137,500	\$ 137,500	\$ -	\$ 275,000
Project Sub-Total	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 9,129,500	\$ 137,500	\$ -	\$ 9,267,000
SGU-C-0005 (Oak Villa Boulevard - Monterey Boulevard Sewer Area Upgrades)				\$ 924,000								\$ 924,000
Estimated Design Engineering				\$ 924,000								\$ 924,000
Estimated Construction								\$ 7,354,000				\$ 7,354,000
Estimated Land								\$ 231,000				\$ 231,000
Estimated SDC								\$ 57,500	\$ 172,500			\$ 230,000
Project Sub-Total	\$ -	\$ -	\$ -	\$ 924,000	\$ -	\$ -	\$ -	\$ 7,642,500	\$ 172,500	\$ -	\$ -	\$ 8,739,000
NFE-C-0006A (Lovett Road - Greenwell Springs Road Sewer Area Upgrades - Group A)				\$ 3,069,000								\$ 3,069,000
Estimated Design Engineering				\$ 3,069,000								\$ 3,069,000
Estimated Construction								\$ 14,229,000				\$ 14,229,000
Estimated Land								\$ 475,000				\$ 475,000
Estimated SDC								\$ 111,250	\$ 333,750			\$ 445,000
Project Sub-Total	\$ -	\$ -	\$ -	\$ 3,069,000	\$ -	\$ -	\$ -	\$ 14,815,250	\$ 333,750	\$ -	\$ -	\$ 18,218,000
NFE-C-0006B (Lovett Road - Greenwell Springs Road Sewer Area Upgrades - Group B)												\$ -
Estimated Design Engineering												\$ -
Estimated Construction								\$ 8,117,000				\$ 8,117,000
Estimated Land								\$ 475,000				\$ 475,000
Estimated SDC								\$ 63,750	\$ 191,250			\$ 255,000
Project Sub-Total	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 8,655,750	\$ 191,250	\$ -	\$ -	\$ 8,847,000





TABLE 1-1  
Project Funding Schedule  
Program Delivery Plan

Capacity Improvement Projects												
Project Description	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Estimated Cost
NFE-C-0005 (Hooper Road Pump Station Improvements)				\$ 2,086,000			\$ 11,935,000					\$ 2,086,000
Estimated Design Engineering												\$ 11,935,000
Estimated Construction							\$ 650,000					\$ 650,000
Estimated Land												\$ 370,000
Estimated SDC								\$ 136,900	\$ 140,600	\$ 92,500		\$ 370,000
Project Sub-Total	\$ -	\$ -	\$ -	\$ 2,086,000	\$ -	\$ -	\$ 12,585,000	\$ 136,900	\$ 140,600	\$ 92,500	\$ -	\$ 15,041,000
NFW-C-0010 (Multiple PS - Prescott Rd - Greenwell Springs Rd)					\$ 894,000				\$ 4,754,000			\$ 894,000
Estimated Design Engineering												\$ 4,754,000
Estimated Construction									\$ 147,000			\$ 147,000
Estimated Land												\$ 145,000
Estimated SDC										\$ 108,750	\$ 36,250	\$ 145,000
Project Sub-Total	\$ -	\$ -	\$ -	\$ -	\$ 894,000	\$ -	\$ -	\$ -	\$ 4,901,000	\$ 108,750	\$ 36,250	\$ 5,940,000
SFU-C-0002A (O'Neal Lane Pump Station Improvements - Group A)				\$ 2,135,000		\$ 12,614,000						\$ 2,135,000
Estimated Design Engineering						\$ 390,000						\$ 12,614,000
Estimated Construction						\$ 97,500						\$ 390,000
Estimated Land							\$ 148,200	\$ 144,300				\$ 390,000
Estimated SDC												\$ 15,529,000
Project Sub-Total	\$ -	\$ -	\$ -	\$ 2,135,000	\$ -	\$ 13,101,500	\$ 148,200	\$ 144,300	\$ -	\$ -	\$ -	\$ 15,529,000
SFU-C-0002B (O'Neal Lane Pump Station Improvements - Group B)				\$ 1,925,000		\$ 9,800,000						\$ 1,925,000
Estimated Design Engineering						\$ 303,000						\$ 9,800,000
Estimated Construction						\$ 76,250						\$ 303,000
Estimated Land							\$ 115,900	\$ 112,850				\$ 305,000
Estimated SDC												\$ 12,333,000
Project Sub-Total	\$ -	\$ -	\$ -	\$ 1,925,000	\$ -	\$ 10,179,250	\$ 115,900	\$ 112,850	\$ -	\$ -	\$ -	\$ 12,333,000
SFL-C-0003 (Multiple PS - Burbank Drive - Siegen Lane)					\$ 960,000		\$ 3,978,000					\$ 960,000
Estimated Design Engineering							\$ 123,000					\$ 3,978,000
Estimated Construction							\$ 25,000	\$ 75,000	\$ 25,000			\$ 123,000
Estimated Land												\$ 125,000
Estimated SDC												\$ 5,186,000
Project Sub-Total	\$ -	\$ -	\$ -	\$ -	\$ 960,000	\$ -	\$ 4,126,000	\$ 75,000	\$ 25,000	\$ -	\$ -	\$ 5,186,000
CC-WWTP-PS (Pump Station 42)			\$ 2,162,000		\$ 10,527,000							\$ 2,162,000
Estimated Design Engineering												\$ 10,527,000
Estimated Construction												\$ 315,000
Estimated Land												\$ 13,004,000
Estimated SDC												\$ 13,004,000
Project Sub-Total	\$ -	\$ -	\$ 2,162,000	\$ -	\$ 10,527,000	\$ 138,600	\$ 176,400	\$ -	\$ -	\$ -	\$ -	\$ 13,004,000
CC-East-PS (Central Consolidated Pump Stations)			\$ 2,395,000		\$ 20,498,000							\$ 2,395,000
Estimated Design Engineering					\$ 20,498,000							\$ 20,498,000
Estimated Construction					\$ 335,000							\$ 335,000
Estimated Land												\$ 615,000
Estimated SDC												\$ 23,843,000
Project Sub-Total	\$ -	\$ -	\$ 2,395,000	\$ -	\$ 20,833,000	\$ 246,000	\$ 319,800	\$ 49,200	\$ -	\$ -	\$ -	\$ 23,843,000
CC-WWTP-FM (Pump Station 42 Forcemain - Phase I)			\$ 2,845,000		\$ 15,176,000							\$ 2,845,000
Estimated Design Engineering					\$ 15,176,000							\$ 15,176,000
Estimated Construction					\$ 375,000							\$ 375,000
Estimated Land												\$ 455,000
Estimated SDC												\$ 18,851,000
Project Sub-Total	\$ -	\$ -	\$ 2,845,000	\$ -	\$ 15,551,000	\$ 304,850	\$ 150,150	\$ -	\$ -	\$ -	\$ -	\$ 18,851,000
CC-WWTP-FM (Pump Station 42 Forcemain - Phase II)			\$ -			\$ 11,600,000						\$ -
Estimated Design Engineering						\$ 375,000						\$ 11,600,000
Estimated Construction						\$ 219,000						\$ 375,000
Estimated Land												\$ 365,000
Estimated SDC												\$ 12,340,000
Project Sub-Total	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 12,194,000	\$ 146,000	\$ -	\$ -	\$ -	\$ -	\$ 12,340,000
CC-East-FM (Central Consolidated Forcemain - Phase I)			\$ 1,599,000		\$ 11,155,000							\$ 1,599,000
Estimated Design Engineering					\$ 11,155,000							\$ 11,155,000
Estimated Construction					\$ 435,000							\$ 435,000
Estimated Land												\$ 335,000
Estimated SDC												\$ 13,524,000
Project Sub-Total	\$ -	\$ -	\$ 1,599,000	\$ -	\$ 11,590,000	\$ 224,450	\$ 110,550	\$ -	\$ -	\$ -	\$ -	\$ 13,524,000
CC-East-FM (Central Consolidated Forcemain - Phase II)			\$ -			\$ 8,300,000						\$ -
Estimated Design Engineering						\$ 435,000						\$ 8,300,000
Estimated Construction						\$ 174,200						\$ 435,000
Estimated Land												\$ 260,000
Estimated SDC												\$ 8,995,000
Project Sub-Total	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 8,909,200	\$ 85,800	\$ -	\$ -	\$ -	\$ -	\$ 8,995,000
<b>Capacity Improvement Estimated Total Project Cost</b>	<b>\$ 2,509,000</b>	<b>\$ 34,206,000</b>	<b>\$ 37,689,000</b>	<b>\$ 156,862,000</b>	<b>\$ 187,986,000</b>	<b>\$ 49,988,000</b>	<b>\$ 82,845,000</b>	<b>\$ 54,239,000</b>	<b>\$ 42,645,000</b>	<b>\$ 1,094,000</b>	<b>\$ 83,000</b>	<b>\$ 650,146,000</b>



TABLE 1-1  
Project Funding Schedule  
Program Delivery Plan

Wastewater Treatment/Storage Projects												
Project Description	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Estimated Cost
NFW-C-0002 (Choctaw Storage and Pump Station Facility)												
Estimated Design Engineering		\$ 6,781,000										\$ 6,781,000
Estimated Construction				\$ 43,237,000								\$ 43,237,000
Estimated Land	\$ 1,218,720			\$ 285,280								\$ 1,504,000
Estimated SDC			\$ -		\$ 750,000	\$ 750,000						\$ 1,500,000
Project Sub-Total	\$ 1,218,720	\$ 6,781,000	\$ -	\$ 43,522,280	\$ 750,000	\$ 750,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 53,022,000
NFW-C-0004 (Hooper Storage Facility)												
Estimated Design Engineering			\$ 3,600,000									\$ 3,600,000
Estimated Construction						\$ 19,115,000						\$ 19,115,000
Estimated Land						\$ 195,000						\$ 195,000
Estimated SDC						\$ 354,000	\$ 236,000					\$ 590,000
Project Sub-Total	\$ -	\$ -	\$ 3,600,000	\$ -	\$ -	\$ 19,664,000	\$ 236,000	\$ -	\$ -	\$ -	\$ -	\$ 23,500,000
STP-C-0001 (South WWTP - Phase 1)												
Estimated Design Engineering		\$ 8,208,000										\$ 8,208,000
Estimated Construction			\$ 108,200,000									\$ 108,200,000
Estimated Land			\$ 6,400,000									\$ 6,400,000
Estimated SDC				\$ 81,000	\$ 1,269,000	\$ 1,269,000	\$ 81,000					\$ 2,700,000
Project Sub-Total	\$ -	\$ 8,208,000	\$ 114,600,000	\$ 81,000	\$ 1,269,000	\$ 1,269,000	\$ 81,000	\$ -	\$ -	\$ -	\$ -	\$ 125,508,000
STP-C-0002 (South WWTP - Phase 2-PDP)												
Estimated Design Engineering			\$ 13,706,000									\$ 13,706,000
Estimated Construction					\$ 87,643,000							\$ 87,643,000
Estimated Land				\$ 65,000								\$ 65,000
Estimated SDC						\$ 1,200,000	\$ 900,000	\$ 900,000				\$ 3,000,000
Project Sub-Total	\$ -	\$ -	\$ 13,706,000	\$ 65,000	\$ 87,643,000	\$ 1,200,000	\$ 900,000	\$ 900,000	\$ -	\$ -	\$ -	\$ 104,414,000
SSO Odor Control NWWTP (07-TP-BD-0030)												
Estimated Design Engineering	\$ 101,000											\$ 101,000
Estimated Construction		\$ 1,486,000										\$ 1,486,000
Estimated SDC												\$ -
Project Sub-Total	\$ 101,000	\$ 1,486,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,587,000
SWWTP IAP (08-TP-BD-0031)												
Estimated Design Engineering	\$ 2,954,000											\$ 2,954,000
Estimated Construction		\$ 27,643,000										\$ 27,643,000
Estimated SDC		\$ 85,294										\$ 85,000
Project Sub-Total	\$ 2,954,000	\$ 27,728,294	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 30,682,000
<b>WW Treatment/Storage Estimated Total Project Cost</b>	<b>\$ 4,274,000</b>	<b>\$ 44,203,000</b>	<b>\$ 131,906,000</b>	<b>\$ 43,668,000</b>	<b>\$ 89,662,000</b>	<b>\$ 22,883,000</b>	<b>\$ 1,217,000</b>	<b>\$ 900,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 338,713,000</b>
Estimated Construction Management Total (Based on 33%/50% - rehab/capacity - of SDC cost)	\$ -	\$ 48,000	\$ 591,000	\$ 1,838,000	\$ 7,491,000	\$ 11,361,000	\$ 6,933,000	\$ 6,382,000	\$ 4,389,000	\$ 3,708,000	\$ 838,000	\$ 43,579,000
Estimated Program Management Total	\$ 6,123,000	\$ 10,027,000	\$ 11,095,000	\$ 15,516,000	\$ 11,717,000	\$ 11,139,000	\$ 10,267,000	\$ 7,818,000	\$ 3,811,000	\$ 1,892,000	\$ 1,162,000	\$ 90,567,000
Estimated Total of Construction Management and Program Management	<b>\$ 6,123,000</b>	<b>\$ 10,075,000</b>	<b>\$ 11,686,000</b>	<b>\$ 17,354,000</b>	<b>\$ 19,208,000</b>	<b>\$ 22,500,000</b>	<b>\$ 17,200,000</b>	<b>\$ 14,200,000</b>	<b>\$ 8,200,000</b>	<b>\$ 5,600,000</b>	<b>\$ 2,000,000</b>	<b>\$ 134,146,000</b>
<b>Total Estimated Wet Weather Program Cost (Sept. 2007 Dollars)</b>	<b>\$ 12,906,000</b>	<b>\$ 113,509,000</b>	<b>\$ 235,269,000</b>	<b>\$ 261,298,000</b>	<b>\$ 318,629,000</b>	<b>\$ 146,520,000</b>	<b>\$ 128,472,000</b>	<b>\$ 91,571,000</b>	<b>\$ 67,842,000</b>	<b>\$ 7,721,000</b>	<b>\$ 2,106,000</b>	<b>\$ 1,385,843,000</b>
<b>Total Estimated Wet Weather Program Cost (Considering 3% Per Year Inflation Rate)</b>	<b>\$ 12,906,000</b>	<b>\$ 113,509,000</b>	<b>\$ 235,269,000</b>	<b>\$ 261,298,000</b>	<b>\$ 318,629,000</b>	<b>\$ 146,520,000</b>	<b>\$ 131,810,000</b>	<b>\$ 96,283,000</b>	<b>\$ 73,372,000</b>	<b>\$ 7,987,000</b>	<b>\$ 2,123,000</b>	<b>\$ 1,399,706,000</b>
<b>"Preliminary Master Plan"</b>												
Project Description	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Estimated Cost
STP-C-0002 (South WWTP - Phase 2 - MP)												
Estimated Design Engineering			\$ -									\$ -
Estimated Construction					\$ 22,178,000							\$ 22,178,000
Estimated SDC				\$ -								\$ -
Project Sub-Total	\$ -	\$ -	\$ -	\$ -	\$ 22,178,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 22,178,000
Sewer System & WWTP Backup Power Program												
Estimated Design Engineering			\$ -									\$ -
Estimated Construction			\$ 10,100,000	\$ 10,000,000	\$ 7,500,000	\$ 2,500,000	\$ 400,000					\$ 30,500,000
Estimated SDC			\$ 305,000	\$ 300,000	\$ 225,000	\$ 75,000	\$ 10,000					\$ 915,000
Project Sub-Total	\$ -	\$ -	\$ 10,405,000	\$ 10,300,000	\$ 7,725,000	\$ 2,575,000	\$ 410,000	\$ -	\$ -	\$ -	\$ -	\$ 31,415,000
North WWTP Backup Power												
Estimated Design Engineering						\$ 518,000						\$ 518,000
Estimated Construction							\$ 5,337,000					\$ 5,337,000
Estimated SDC			\$ -	\$ -	\$ -	\$ -	\$ 24,750	\$ 57,750	\$ 41,250	\$ 41,250		\$ 165,000
Project Sub-Total	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 518,000	\$ 5,361,750	\$ 57,750	\$ 41,250	\$ 41,250	\$ -	\$ 6,020,000
Choctaw Sewer Collection Maintenance Facility												
Estimated Design Engineering							\$ 374,000					\$ 374,000
Estimated Construction							\$ 14,943,000					\$ 14,943,000
Estimated SDC							\$ 460,000					\$ 460,000
Project Sub-Total	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 15,777,000	\$ -	\$ -	\$ -	\$ -	\$ 15,777,000



TABLE 1-1  
Project Funding Schedule  
Program Delivery Plan

<b>Total Estimated Wet Weather Program Cost (Considering 3% Per Year Inflation Rate)</b>																								
	\$	-	\$	-	\$	-	\$	-	\$	-	\$	15,777,000	\$	-	\$	-	\$	-	\$	-	\$	15,777,000		
<b>"Preliminary Master Plan"</b>																								
Project Description	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Estimated Cost												
SGL-C-0002 (Multiple PS - Highland Road - Kenilworth Parkway - LSU Pump Station)												\$												
Estimated Design Engineering												\$												
Estimated Construction								\$ 2,154,000				\$												
Estimated SDC									\$ 32,500	\$ 32,500		\$												
Project Sub-Total	\$	-	\$	-	\$	-	\$	-	\$	2,154,000	\$	32,500												
Collection System SCADA						\$						\$												
Estimated Design Engineering												\$												
Estimated Construction						\$						\$												
Estimated SDC						\$						\$												
Project Sub-Total	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-												
SCADA Operations Data/Control Center												\$												
Estimated Design Engineering												\$												
Estimated Construction						\$						\$												
Estimated SDC						\$						\$												
Project Sub-Total	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-												
North WWTP Public Project												\$												
Estimated Design Engineering												\$												
Estimated Construction						\$						\$												
Estimated Land						\$						\$												
Estimated SDC						\$						\$												
Project Sub-Total	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-												
North WWTP Priority One (Urgent Needs) Project												\$												
Estimated Design Engineering						\$						\$												
Estimated Construction						\$		\$				\$												
Estimated SDC						\$		\$		\$		\$												
Project Sub-Total	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-												
North WWTP Priority Two (O&M Needs) Project												\$												
Estimated Design Engineering						\$						\$												
Estimated Construction						\$		\$		\$		\$												
Estimated SDC						\$		\$		\$		\$												
Project Sub-Total	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-												
North WWTP SCADA												\$												
Estimated Design Engineering						\$						\$												
Estimated Construction						\$		\$		\$		\$												
Estimated SDC						\$		\$		\$		\$												
Project Sub-Total	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-												
<b>"Preliminary Master Plan" Total Project Cost</b>	\$	-	\$	-	\$	10,405,000	\$	10,300,000	\$	29,903,000	\$	28,222,000	\$	82,244,000	\$	2,751,000	\$	471,000	\$	471,000	\$	42,000	\$	164,810,000
<b>Total Estimated Program Cost (Sept. 2007 Dollars)</b>	\$	12,906,000	\$	113,509,000	\$	245,674,000	\$	271,598,000	\$	348,532,000	\$	174,742,000	\$	210,716,000	\$	94,322,000	\$	68,313,000	\$	8,192,000	\$	2,148,000	\$	1,550,653,000
<b>Total Estimated Program Cost (Considering 3% Per Year Inflation Rate)</b>	\$	12,906,000	\$	113,509,000	\$	245,674,000	\$	271,598,000	\$	348,532,000	\$	174,742,000	\$	217,035,000	\$	100,066,000	\$	74,647,000	\$	9,220,000	\$	2,490,000	\$	1,570,419,000
<b>"Preliminary Master Plan Not in PDP"</b>																								
Project Description	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Estimated Cost												
Collection System Electrical												\$												
Estimated Design Engineering												\$												
Estimated Construction												\$												
Estimated SDC												\$												
Project Sub-Total	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-												
Collection System Pipelines - Master Plan												\$												
Estimated Design Engineering												\$												
Estimated Construction												\$												
Estimated SDC												\$												
Project Sub-Total	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-												
Collection System Pump Stations - Master Plan												\$												
Estimated Design Engineering												\$												
Estimated Construction												\$												
Estimated SDC												\$												
Project Sub-Total	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-												
<b>"Preliminary Master Plan Not in PDP" Total Project Cost</b>	\$	-	\$	-	\$	10,405,000	\$	10,300,000	\$	29,903,000	\$	28,222,000	\$	82,244,000	\$	2,751,000	\$	471,000	\$	471,000	\$	5,426,000	\$	5,384,000
<b>Total Estimated Program Cost (Sept. 2007 Dollars)</b>	\$	12,906,000	\$	113,509,000	\$	245,674,000	\$	271,598,000	\$	348,532,000	\$	174,742,000	\$	210,716,000	\$	94,322,000	\$	68,313,000	\$	8,192,000	\$	7,532,000	\$	1,556,037,000
<b>Total Estimated Program Cost (Considering 3% Per Year Inflation Rate)</b>	\$	12,906,000	\$	113,509,000	\$	245,674,000	\$	271,598,000	\$	348,532,000	\$	174,742,000	\$	216,521,000	\$	99,201,000	\$	73,887,000	\$	8,517,000	\$	8,413,000	\$	1,573,500,000



**FIGURE 1-1**  
 Program Funding Schedule  
*Program Delivery Plan*

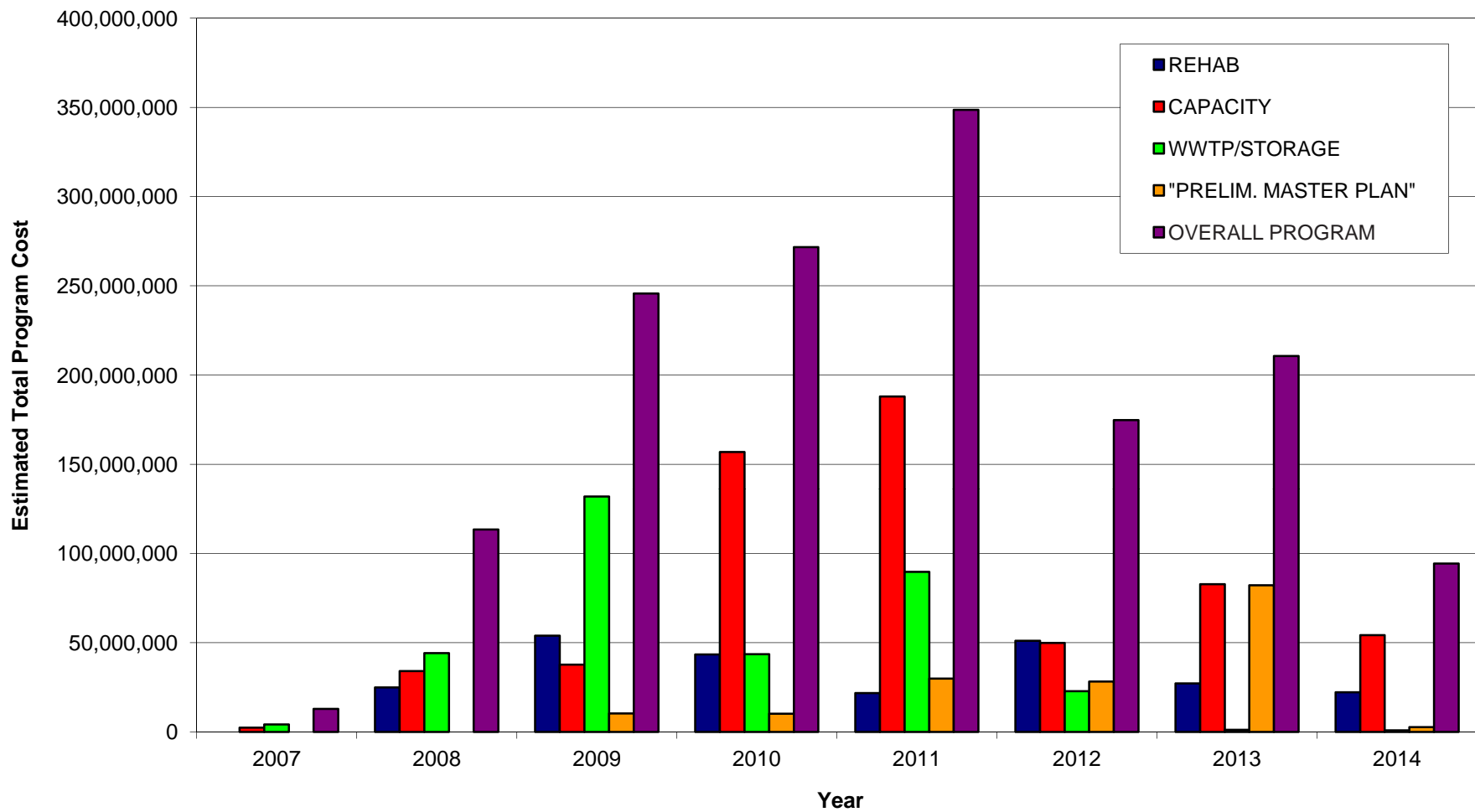










FIGURE 1-2  
Program Schedule - 2017 Option

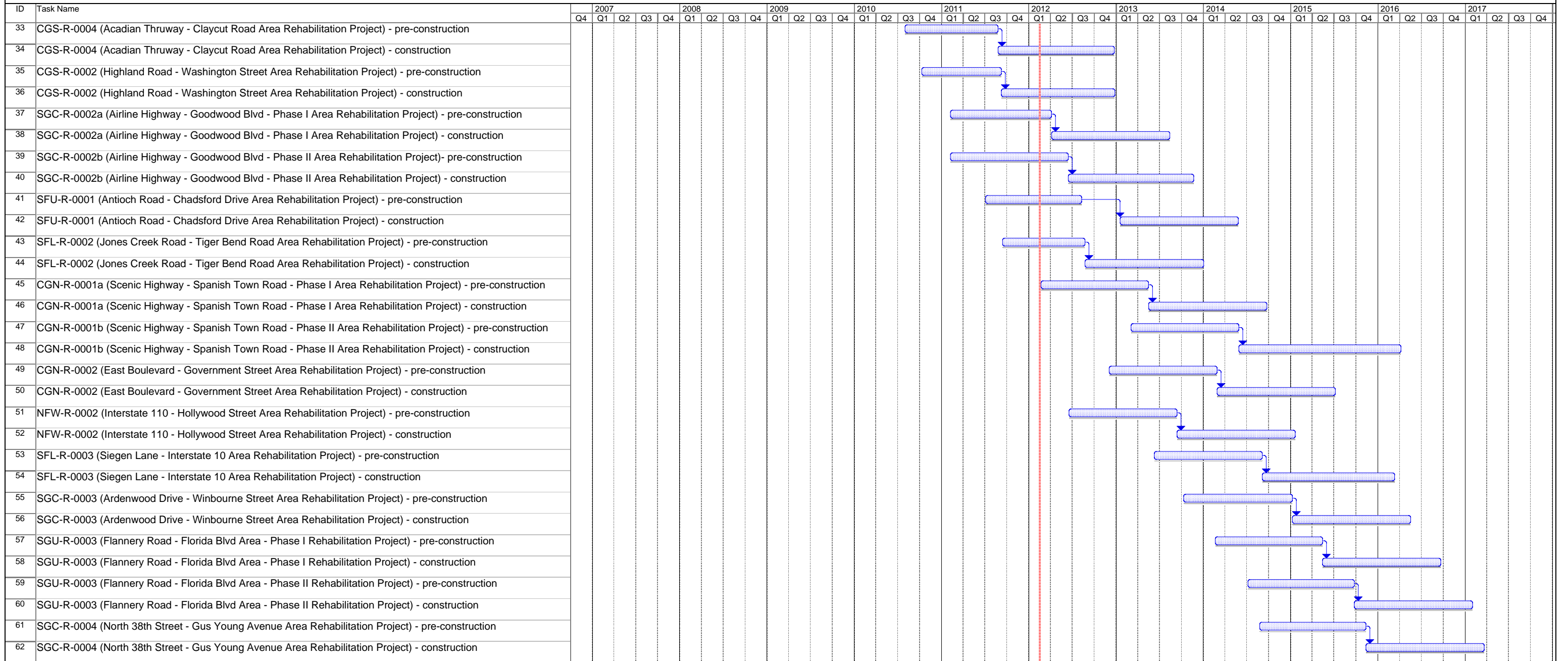
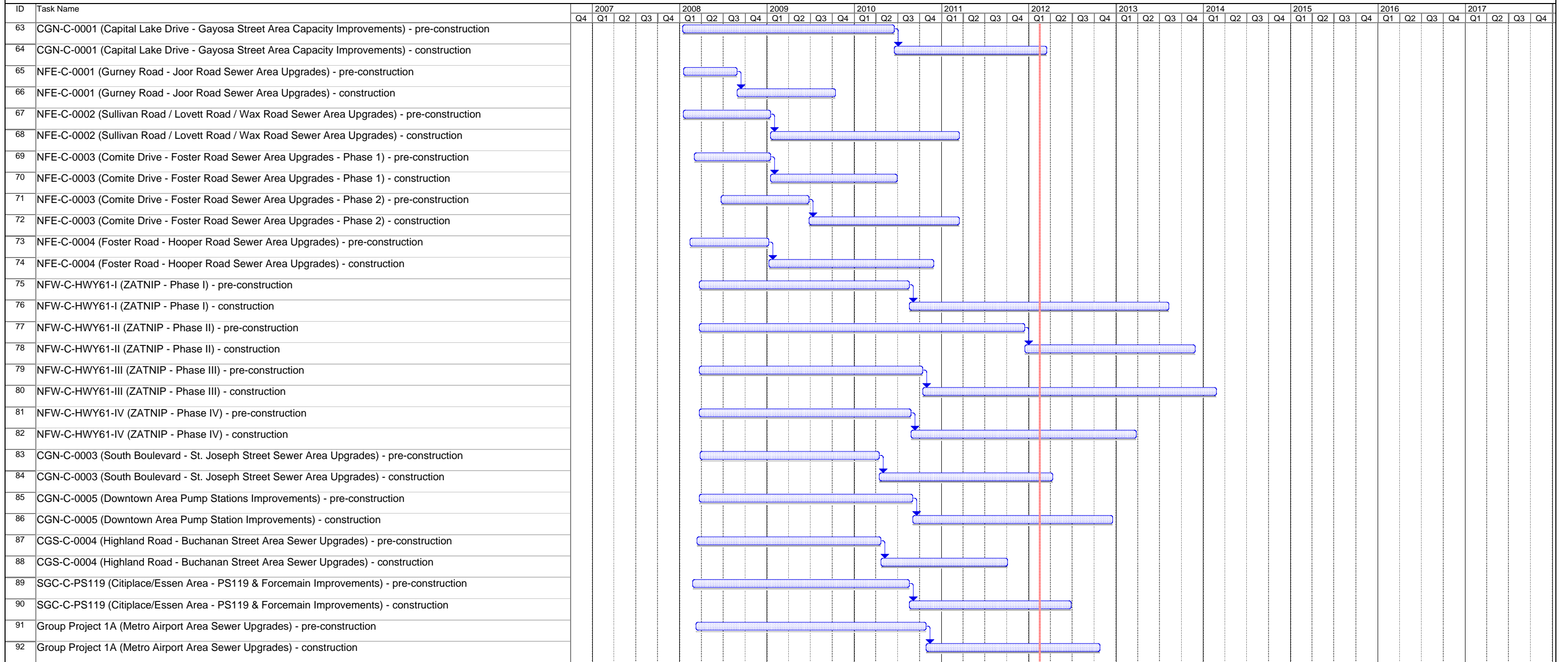




FIGURE 1-2  
Program Schedule - 2017 Option



Project: BTR\_Program\_Schedule\_brok  
Date: Wed 2/15/12

Task Split Progress Milestone Summary Project Summary External Tasks External Milestone Deadline

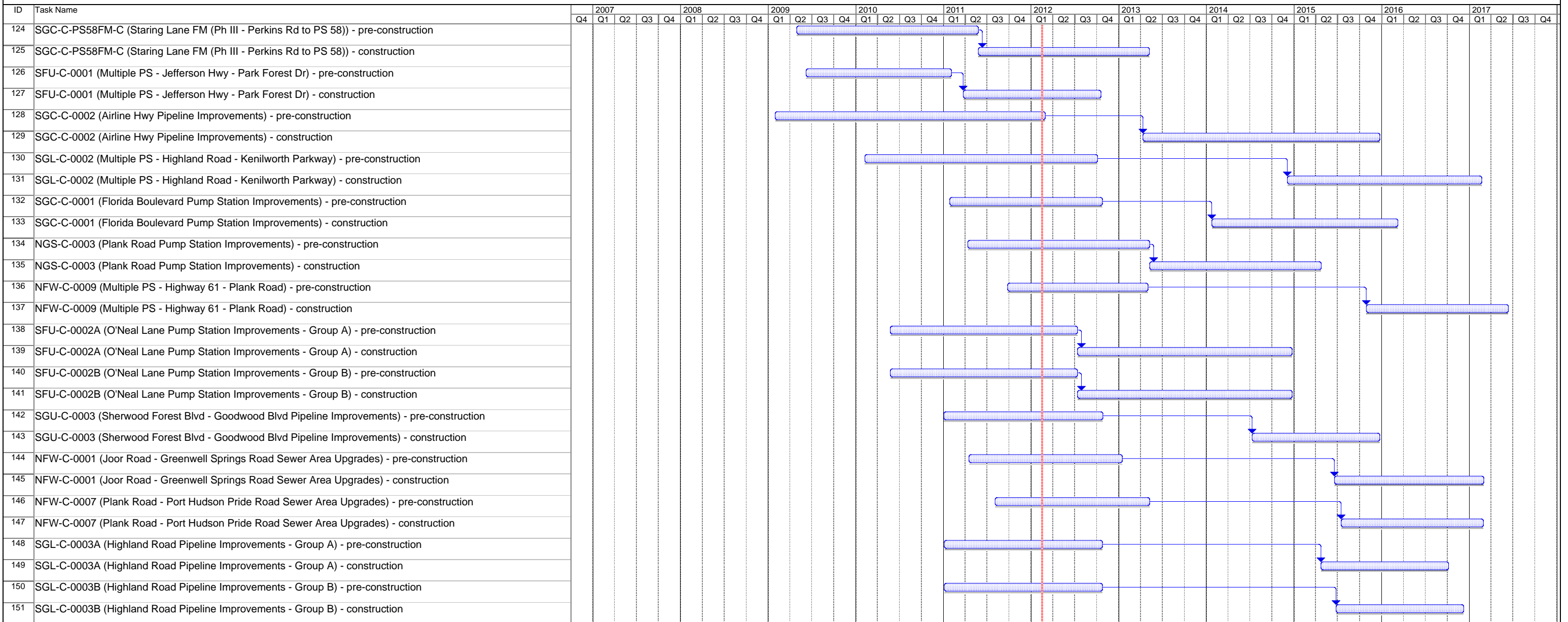








FIGURE 1-2  
Program Schedule - 2017 Option



Project: BTR\_Program\_Schedule\_brok  
Date: Wed 2/15/12

Task Split

Progress

Milestone

Summary

Project Summary

External Tasks

External Milestone

Deadline

↓











# Planning Description

---

## 2.1 Planning Overview

This section describes the process used to define the projects outlined in this report. This planning was necessary to meet the goals of the C-P for a sewer system rehabilitation and replacement program for SSO reduction.

## 2.2 Comprehensive Rehabilitation Planning

Rainfall dependent infiltration/inflow (RDII) is the major cause of wet weather related capacity deficiencies. Previously conducted concurrent monitoring of flow and rainfall throughout the wastewater collection system, during several rainfall events of different magnitudes, was used to characterize RDII and predict the system's wet weather response to rainfall.

The collected data were then used to setup and calibrate a computational Baton Rouge Sanitary Sewer Overflow (BTRSSO) hydraulic model of the Baton Rouge collection and transmission system. Each sub-catchment or drainage area was evaluated to establish the share of rainfall predicted to enter the sewer system. Sub-catchments, in which the RDII was excessive, are scheduled for rehabilitation.

The sub-catchments selected for comprehensive rehabilitation were then arranged into 30 projects. Sections 3, 4, and 5 of this report describe these comprehensive rehabilitation projects.

The sub-catchments selected for rehabilitation will undergo a review of the rehabilitation work already completed by the DPW. Portions of the sub-catchments that have been previously rehabilitated will be deleted from the individual rehabilitation projects.

## 2.3 Capacity Improvement Planning

Capacity improvement planning for the Program is based on evaluating and replacing those facilities in the collection system where the Program hydraulic modeling and field information indicate that the existing collection or transmission system is inadequate to handle the future peak wet weather flows appropriately.

For this analysis, the C-P was divided into ten hydraulically independent basins in order to separate the collection and transmission systems for analysis. The PM developed a process for evaluating the hydraulic model and analyzing its output, using planning and design criteria as a basis for the process overview.

The PM prepared and used a 12-step hydraulic basin analysis method throughout the planning process. The 12-step process included the following components:

1. Dynamic model runs for evaluation of the capacity of existing pipes with predicted post-rehabilitation flows



2. Steady-state calculations for evaluation of required pipe capacity
3. Dynamic model runs for evaluation of existing pipes, with future flows added to post-rehabilitation flows
4. Steady-state calculations for evaluation of required pipe capacity with future flows
5. Testing of the revised model for its ability to handle future wet weather flows
6. Evaluation of the model output for acceptable design criteria and physical evidence of overflows
7. Documentation of the project list
8. Endorsement of DPW
9. Prioritization of projects
10. Development of planning level cost estimates
11. Determination of projects for reduction of existing SSOs
12. Definition of projects

Based on these steps, the capacity projects described in Sections 3, 4, and 5 of this report were developed.

## 2.4 Wastewater Treatment/Storage Planning

The wastewater treatment planning process began in 2006 and concluded with the development of the *Master Plan* (CH2M HILL, 2008). The following documents describe the planning efforts:

- Technical Memorandum entitled *Addressing Existing Noncompliance Issues and Future Wet-weather Flow Management Requirements for the South Wastewater Treatment Plant: Summary of Findings and Recommendations* (CH2M HILL, 2006)
- *South Wastewater Treatment Plant Immediate Action Plan Basis of Design Report* (CH2M HILL, 2007)
- *Draft Wastewater Master Plan* (CH2MHILL, 2008)
- *Consolidation of South and Central Wastewater Treatment Plants in Baton Rouge™* (CH2M HILL, 2008)

This document describes the immediate action projects and wet weather capacity project for the South WWTP only. No wet weather capacity projects are required at the North WWTP. Other improvements at the treatment plants are not a part of this plan, since they are included in the *Draft Master Plan* (CH2MHILL, May 2008). Four of the preliminary master plan projects involving construction at the North WWTP are briefly described in this document, specifically those involving the priority one improvements, priority two improvements, standby generators, and SCADA.

This document also describes additional improvements that will be necessary at the South WWTP in order to consolidate the Central WWTP with the South WWTP. These

improvements include additional influent pumping and storage at the South WWTP to accommodate future wet weather peak flows from the Central WWTP.

Storage for shaving peak hydraulic flows in the system is employed to reduce the scope and cost of downstream capacity projects and treatment plant capacity. Storage facilities are reservoirs that retain wet weather flows for a short time until the wet weather period is past. At the end of the wet weather period, the flow is returned to the collection system for transport and treatment. Each storage facility is sized for the 2-year frequency, 12-hour duration storm event. The storage facilities will be used during any significant rain event in the future.

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## SECTION 3

# South Basin Projects

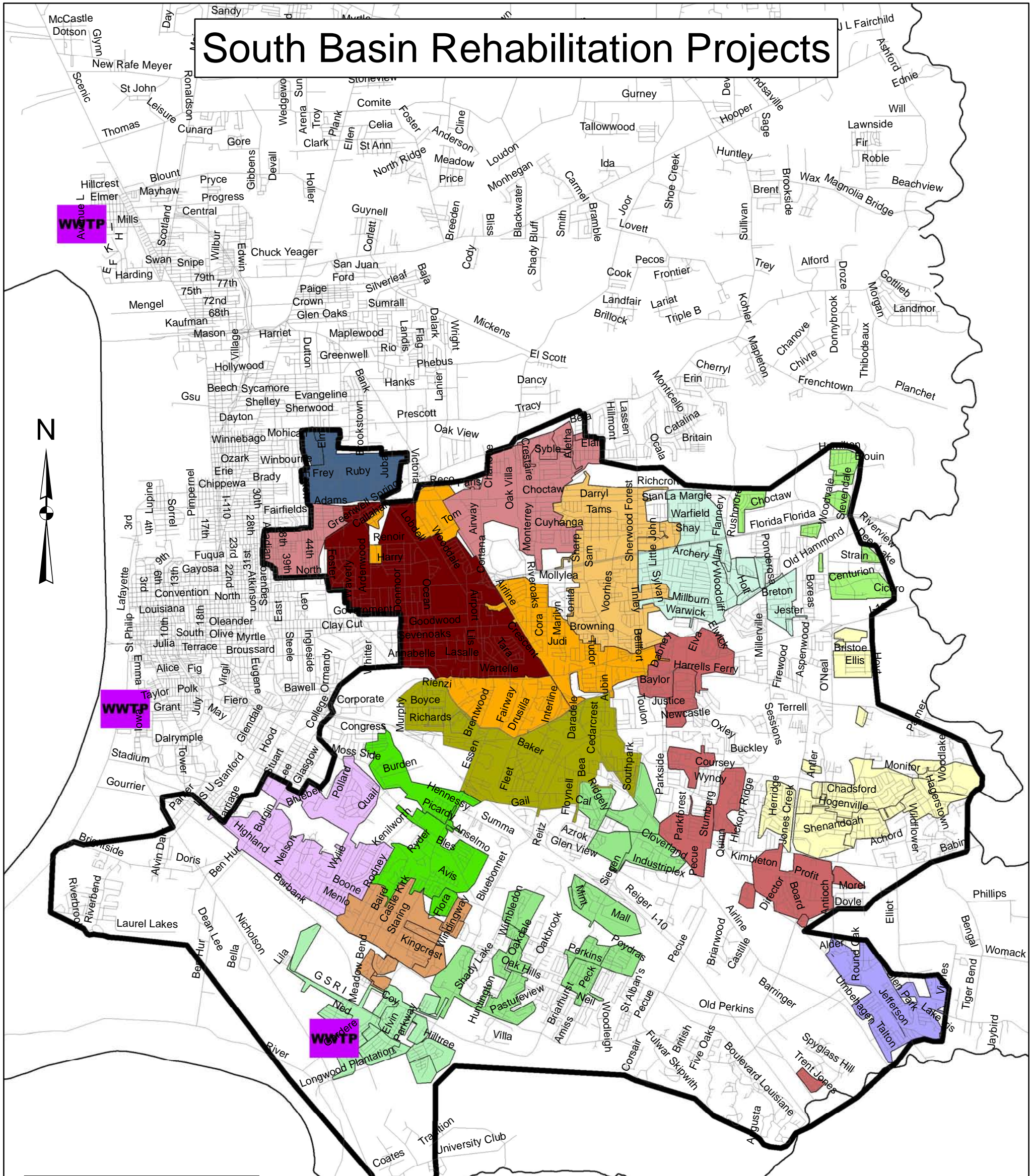
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Section 3 presents summaries of the South Gravity System Comprehensive Rehabilitation Projects, the South Gravity System Capacity Improvement Projects, the South Forced System Comprehensive Rehabilitation Projects, the South Forced System Capacity Improvement Projects, and the South WWTP Projects. These projects are all shown on Figures 3-1 and 3-2. As of December 2011, there are six projects functionally completed, 15 projects under construction, and 22 projects under design in the South Basin.

The project summaries presented herein represent the information available during this annual update period. The PDP is revisited annually and revised as necessary, based on the results of additional hydraulic wastewater modeling, immediate needs, DPW and public input, and other factors.

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# South Basin Rehabilitation Projects



**Rehabilitation Projects**

- WWTTP Waste Water Treatment Plant
- South Basin
- Jefferson Hwy - Hoo Shoo Too Rd.
- Gardere Ln. - Burbank Dr.
- Staring Ln - Boone Dr.
- Oak Villa Blvd. - Choctaw St.
- Sharp Rd. - Florida Blvd.
- Kenilworth Blvd. - Boone Dr.
- Bluebonnet Blvd. - Jefferson Hwy.- Phase 1
- Bluebonnet Blvd. - Jefferson Hwy.- Phase 2
- Airline Hwy. - Goodwood Blvd.- Phase 1
- Airline Hwy. - Goodwood Blvd.- Phase 2
- Antioch Rd. - Chadsford Dr.
- Jones Creek Rd. - Tiger Bend Rd.
- Siegen Ln. - Interstate 10
- Ardenwood Dr. - Winbourne St.
- Flannery Rd. - Florida St. - Phase 1
- Flannery Rd. - Florida St.- Phase 2
- N. 38th St. - Gus Young Ave.

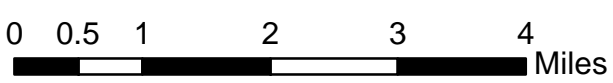
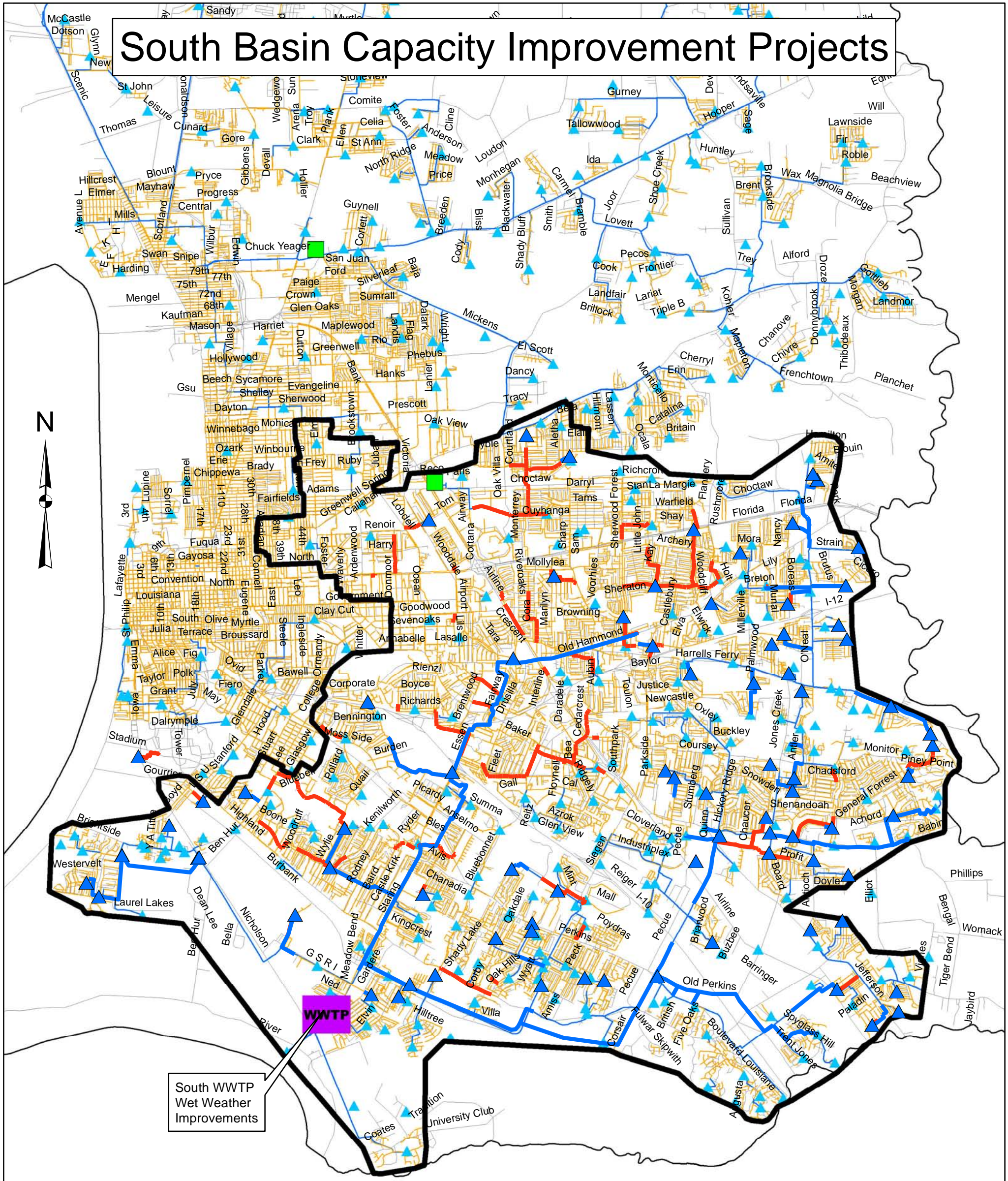


Figure 3-1



# South Basin Capacity Improvement Projects



South WWTP  
Wet Weather  
Improvements

**Rehabilitation Projects**

-  Waste Water Treatment Plant
-  New Storage Facilities
- PDP Projects - South Basin**
-  Force Main
-  Gravity Main
-  PDP PS Projects
-  South Basin
-  Existing Force Main
-  Existing Gravity Main
-  Existing Pump Stations

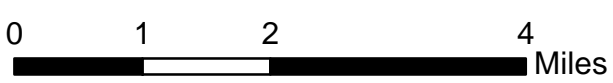


Figure 3-2





## 3.1 South Gravity System Comprehensive Rehabilitation Projects

### 3.1.1 SGC-R-0001a, SCG-R-001b, SGC-R-0002a, SGC-R-0002b, SGC-R-0003, SGC-R-0004, SGL-R-0001, SGL-R-0002, SGL-R-0003, SGU-R-0001, SGU-R-0002, SGU-R-0003

#### Project Description

The sanitary sewer system comprehensive rehabilitation projects consist of improvements to various components of the collection system to reduce the amount of I/I that enter into the system.

#### Purpose

The purpose of comprehensive sewer rehabilitation is to correct defects in the system such as offset pipe joints, collapsed pipe sections, leaking manholes, and direct inflow sources. The water that enters the system through defects is a major contributor to sanitary sewer overflows. Comprehensive rehabilitation of the collection system will contribute to alleviating sanitary SSO overflows by reducing infiltration and inflow.

#### Location

There are 13 projects located primarily within the South Gravity Basin. The project locations are shown on Figures 3-3 through 3-12, which follow this section.

#### Scope of Project

The first phase of comprehensive rehabilitation projects will be the physical inspection of pipes and manholes, including CCTV inspection of all pipes. Smoke testing also will be included in the physical inspection phase.

The data collected by the physical inspection contractor will be analyzed and, based on that analysis, a listing of recommended repairs with associated construction costs will be generated.

An engineering firm will then complete preparation of construction documents for project bidding.

The construction of comprehensive rehabilitation projects typically will include the following components.

- Replacement of pipes
- Point repair of pipes
- Rehabilitation of pipes by cured-in-place liners
- Rehabilitation or replacement of sewer manholes
- Repair of sewer laterals to the property line

#### Cost

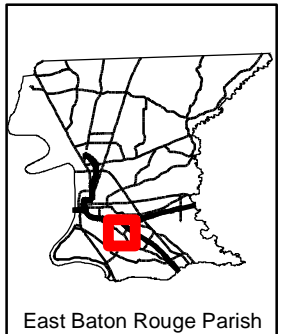
The estimated construction cost for each project is presented in Table 3-1. These costs are based on preliminary estimates of component system costs that will require repair or replacement. During the physical inspection phase, the actual condition of the components

will be assessed and appropriate methods recommended. At that time, the cost estimate for each project will be revised. For those projects under construction, bid amounts were included as construction costs in Table 3-1.

**TABLE 3-1**  
Estimated Construction Costs for South Gravity System Comprehensive Rehabilitation Projects

<b>Project Description</b>	<b>Estimated Construction Cost*</b>	<b>Status</b>
SGC-R-0001a Bluebonnet Blvd-Jefferson Highway Phase I	\$3,849,000	Construction On-Going
SGC-R-0001b Bluebonnet Blvd-Jefferson Highway Phase II	\$4,483,000	Construction On-Going
SGC-R-0002a Airline Highway-Goodwood Blvd, Phase I	\$11,937,500	Design On-Going
SGC-R-0002b Airline Highway-Goodwood Blvd, Phase II	\$11,937,500	Design On-Going
SGC-R-0003 Ardenwood Drive-Winbourne Street	\$4,700,000	Not Started
SGC-R-0004 North 38 <sup>th</sup> Street-Gus Young Avenue	\$3,600,000	Not Started
SGL-R-0001 Burbank Drive – Gardere Lane	\$6,127,000	Functionally Complete
SGL-R-0002 Staring Lane-Boone Drive	\$4,461,372	Project Closed Out
SGL-R-0003 Kenilworth Blvd-Boone Drive	\$5,168,000	Construction On-Going
SGU-R-0001 Oak Villa Blvd-Choctaw Street	\$8,997,000	Functionally Complete
SGU-R-0002 Sharp Road-Florida Blvd	\$17,493,000	Construction On-Going
SGU-R-0003a Flannery Road-Florida Blvd – Phase I	\$6,000,000	Not Started
SGU-R-0003b Flannery Road-Florida Blvd – Phase II	\$6,000,000	Not Started

\*Estimated construction costs given for projects with construction on-going are bid amounts. If a project is closed out, then the estimated construction cost is the actual construction cost.



**Legend**

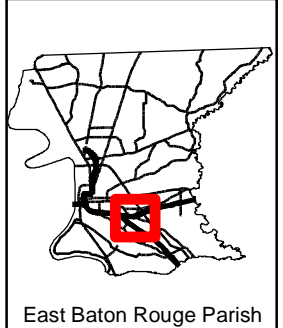
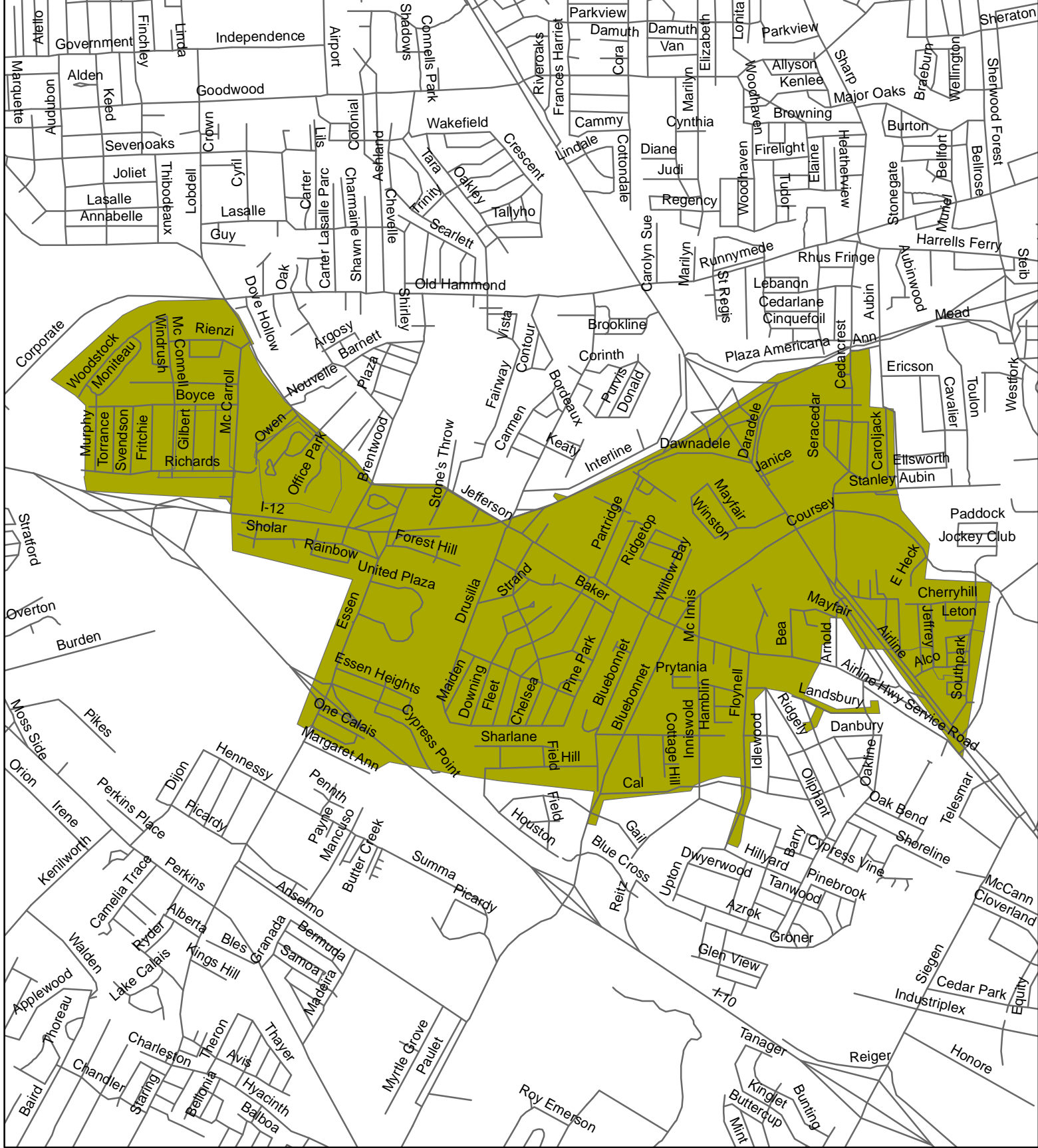
Area Designated for Physical Inspection

0 1,000 2,000 Feet

**Bluebonnet Blvd. - Jefferson Hwy.  
Phase 1  
SGC-R-0001a  
Project Vicinity Map**

**PUBLIC WORKS**

**Figure 3-3a**



**Legend**

Area Designated for Physical Inspection

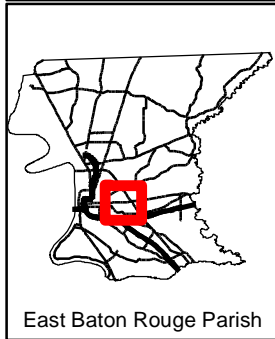
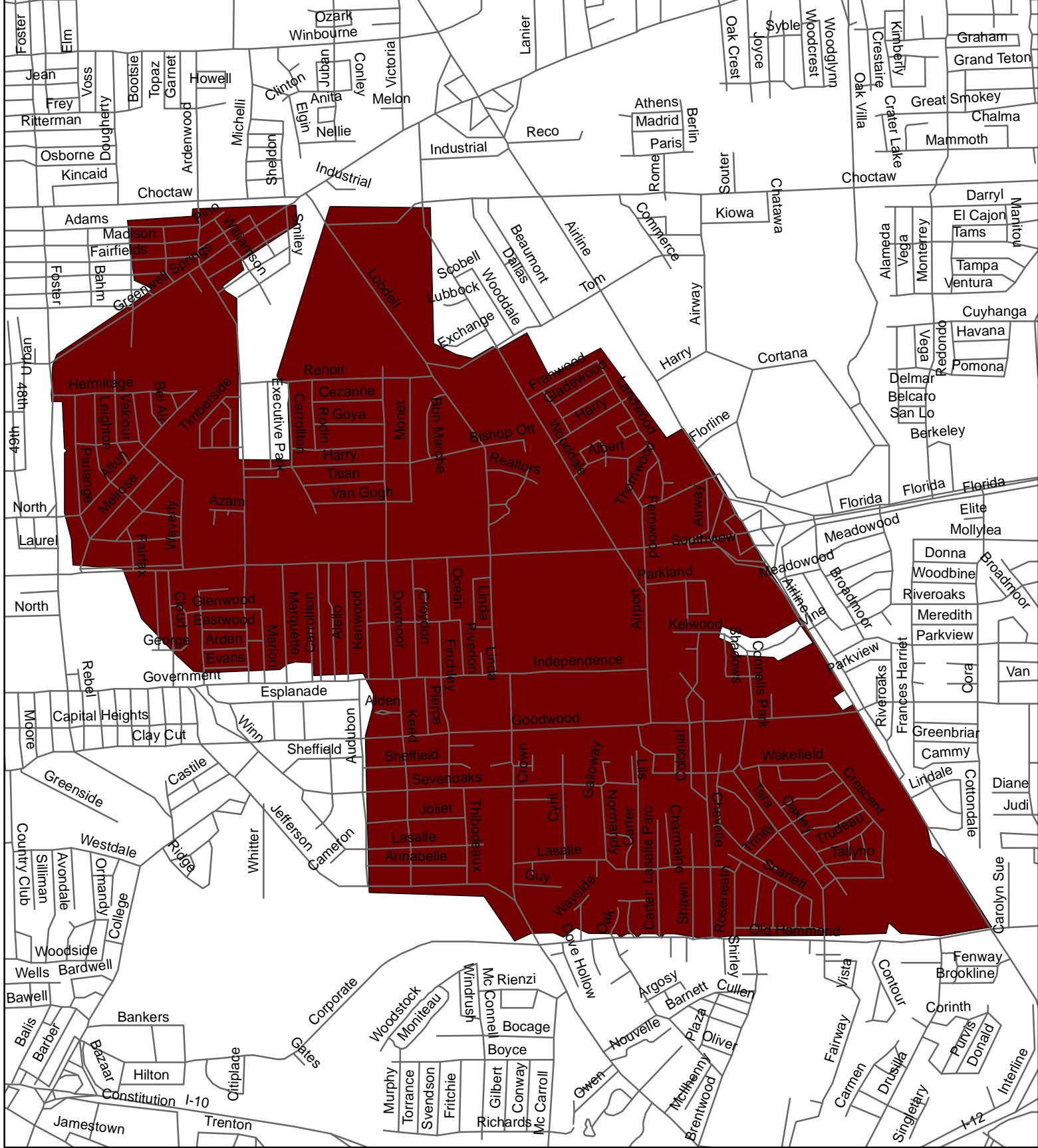
0 1,500 3,000 Feet

**Bluebonnet Blvd. - Jefferson Hwy.  
Phase II  
SGC-R-0001b  
Project Vicinity Map**

**PUBLIC WORKS**

Baton Rouge **SSO**  
Program

**Figure 3-3b**



**Legend**

Area Designated for Physical Inspection

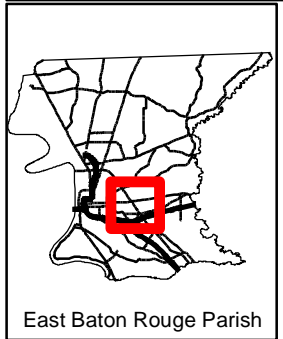
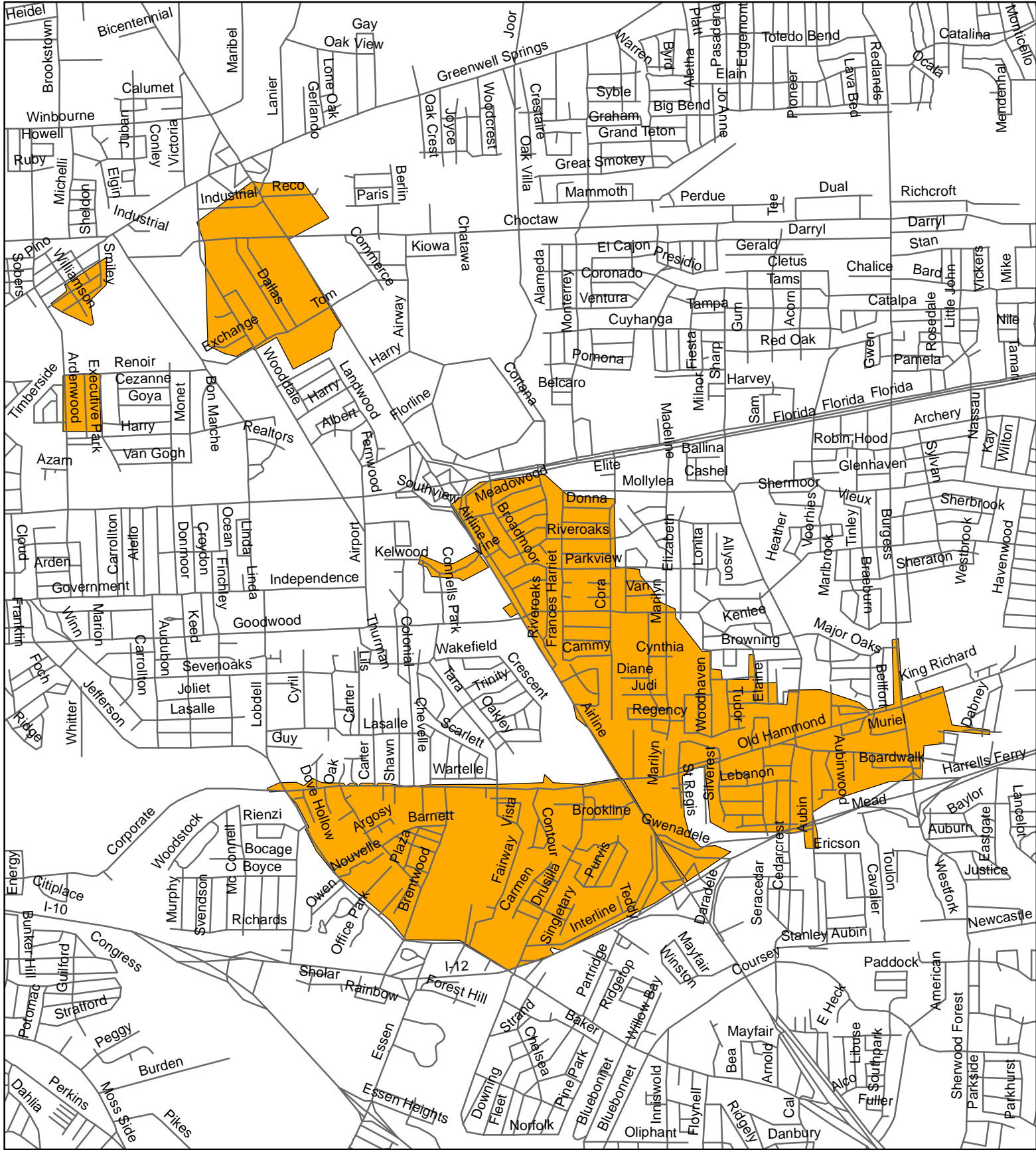
0 1,500 3,000 Feet

**Airline Hwy. - Goodwood Blvd.  
Phase I  
SGC-R-0002A  
Project Vicinity Map**

**PUBLIC WORKS**

Baton Rouge SSO Program

Figure 3-4a



**Legend**

Area Designated for Physical Inspection

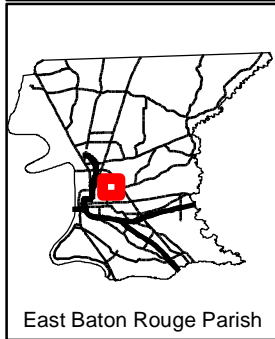
0 2,000 4,000 Feet

**Airline Hwy. - Goodwood Blvd.  
Phase II  
SGC-R-002B  
Project Vicinity Map**

**PUBLIC WORKS**

**Figure 3-4b**

BATON ROUGE **Program**



**Legend**

Area Designated for Physical Inspection

0      750      1,500 Feet

**PUBLIC WORKS**

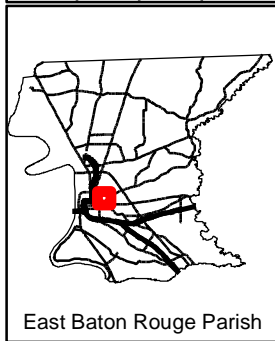
**Ardenwood Dr.- Winbourne St.**

**SGC-R-0003**


**Project Vicinity Map**

**Figure 3-5**






**Legend**

 Area Designated for Physical Inspection


0 600 1,200 Feet




**N. 38th St. - Gus Young Ave.**

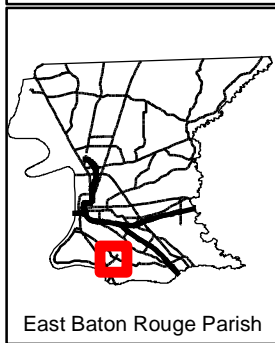
**SGC-R-0004**

**Project Vicinity Map**



**Figure 3-6**





**Legend**

Area Designated for Physical Inspection

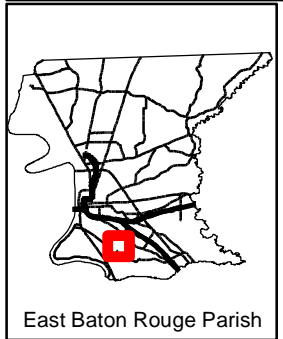
0 1,000 2,000 Feet

**Burbank Dr. - Gardere Ln.**

**SGL-R-0001**

**Project Vicinity Map**

**Figure 3-7**



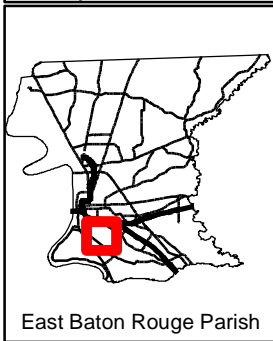
**Legend**

Area Designated for Physical Inspection

0 850 1,700 Feet

**Staring Ln - Boone Dr.**  
**SGL-R-0002**  
**Project Vicinity Map**

**Figure 3-8**



**Legend**

Area Designated for Physical Inspection

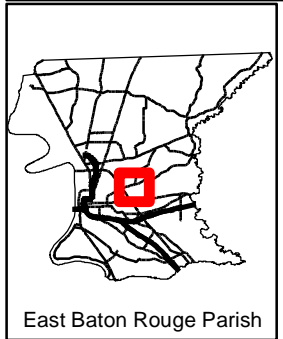
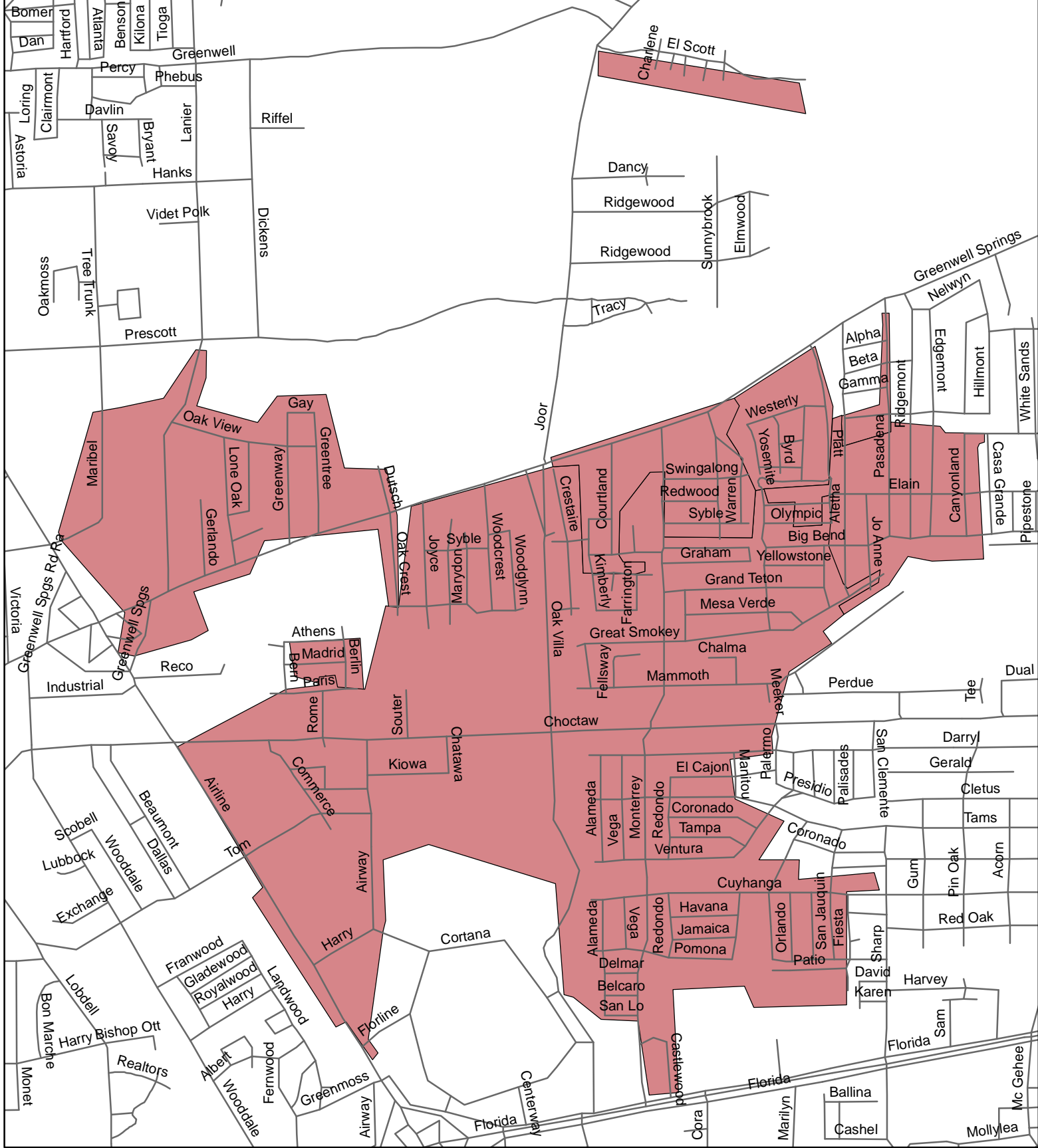
0 1,000 2,000 Feet

**Kenilworth Blvd. - Boone Dr.**

**SGL-R-0003**

**Project Vicinity Map**

**Figure 3-9**



**Legend**

Area Designated for Physical Inspection

0 1,000 2,000 Feet

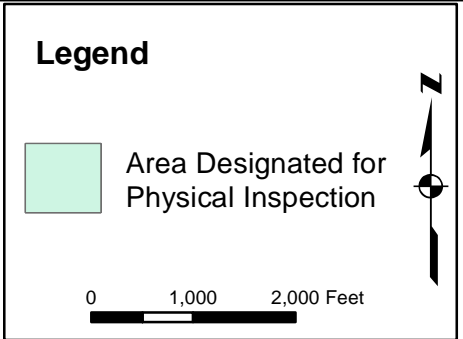
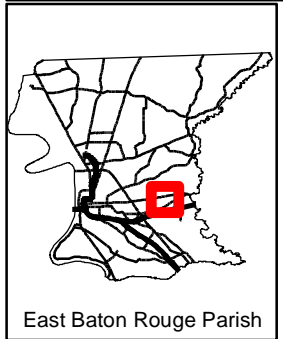
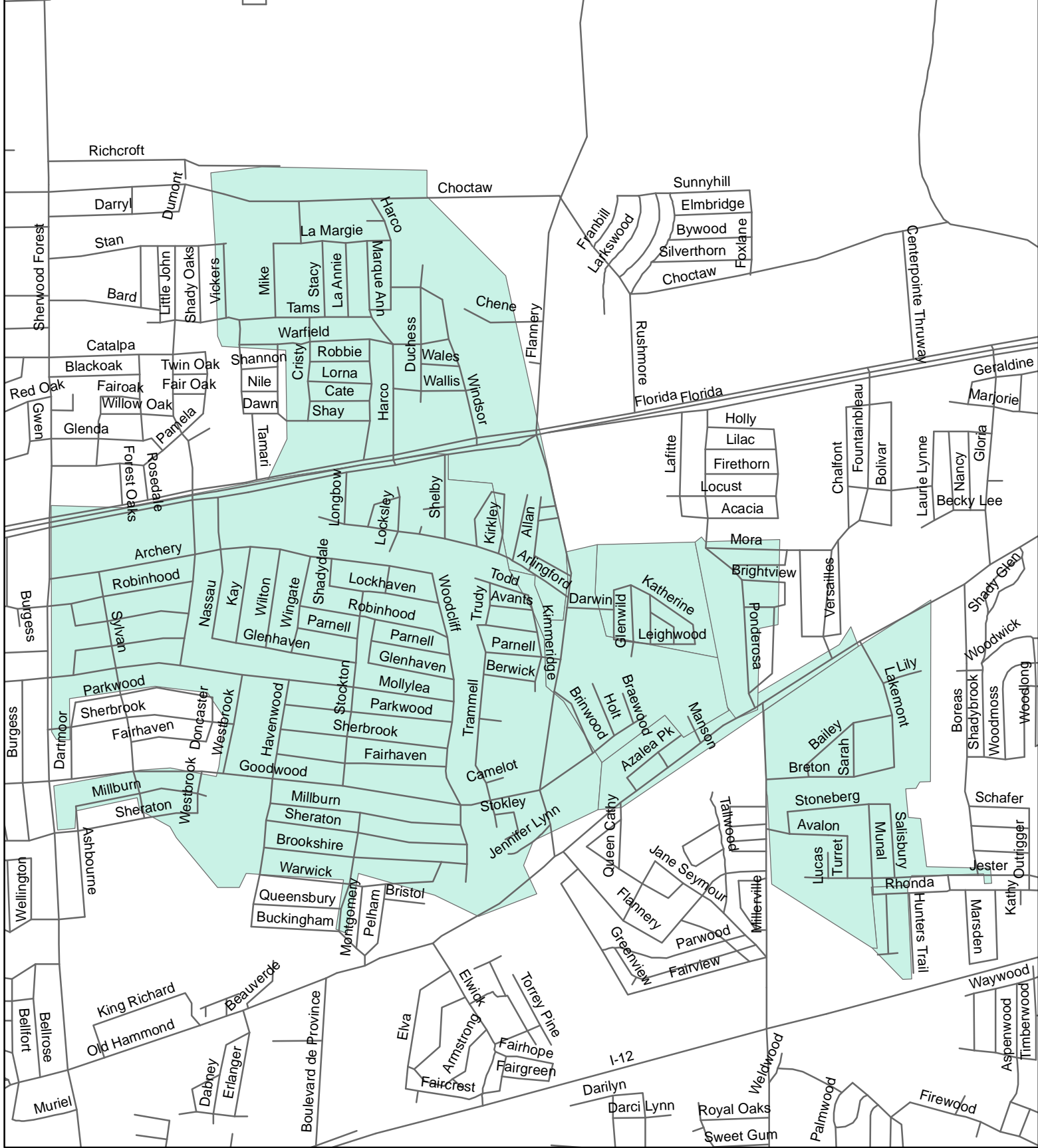
**Oak Villa Blvd. - Choctaw St.**

**SGU-R-0001**

**Project Vicinity Map**

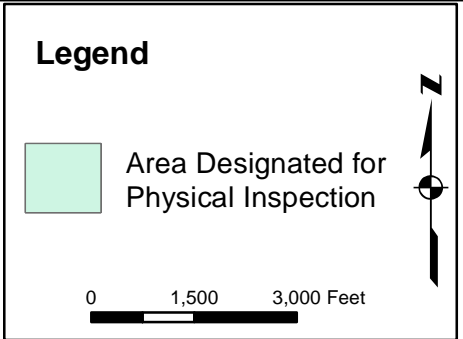
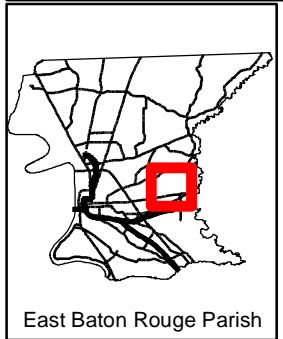
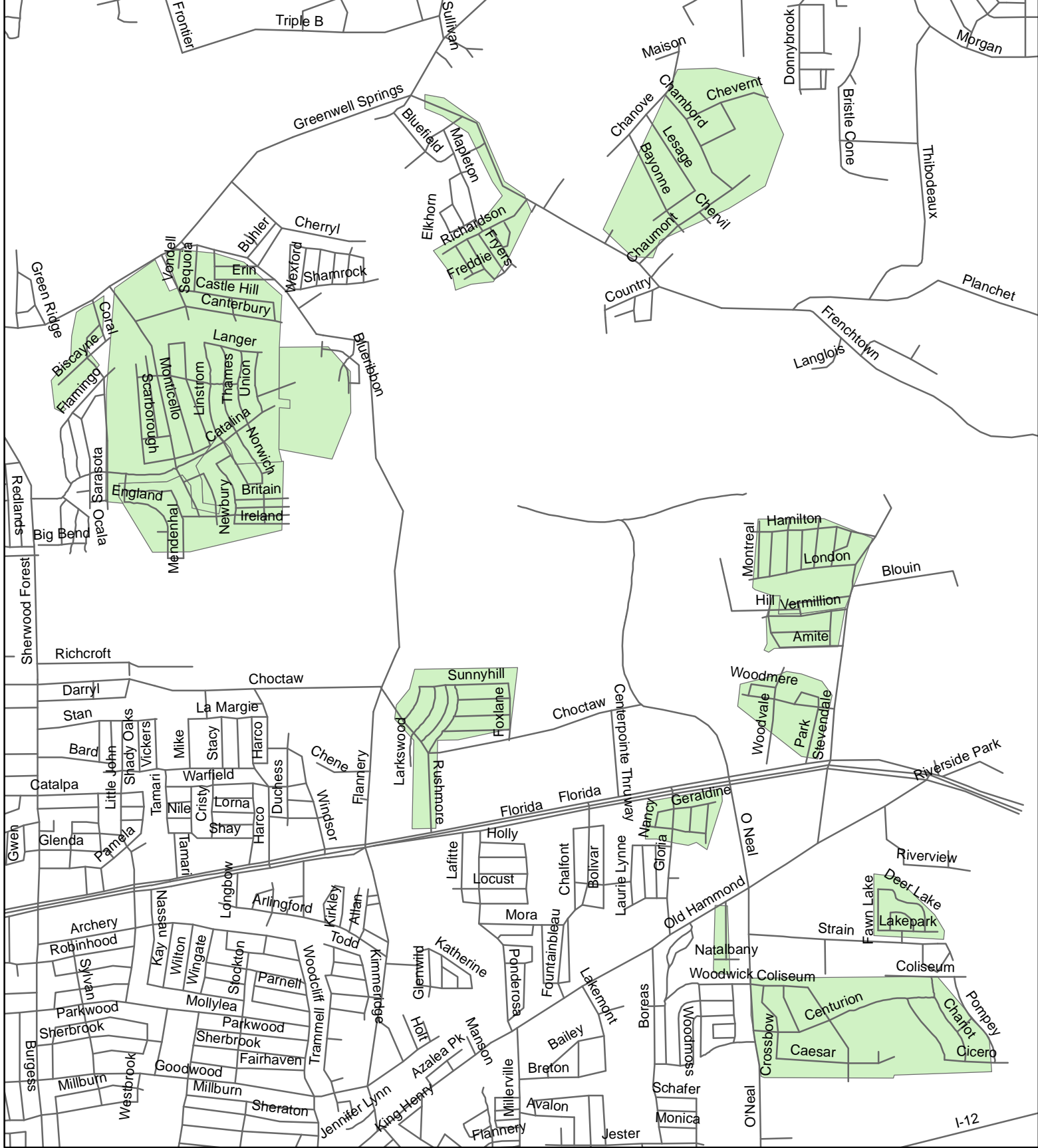
**Figure 3-10**





**Flannery Rd. - Florida St.**  
**Phase I**  
**SGU-R-0003**  
**Project Vicinity Map**

**Figure 3-12A**



**Flannery Rd. - Florida St.**  
**Phase II**  
**SGU-R-0003**  
**Project Vicinity Map**

**Figure 3-12B**





## 3.2 South Gravity System Capacity Improvements Projects

### 3.2.1 SGU-C-0001 (Multiple PSs - Florida Blvd - Sherwood Forest Blvd)

The SGU-C-0001 (Multiple PSs – Florida Blvd – Sherwood Forest Blvd) project has been combined with SGC-C-0001 (Airline Highway-Florida Blvd – PS 30 Improvements and New Pump Station). The combined project has been designated SGC-C-0001 (Florida Blvd PS Improvements) and is described in Section 3.2.6.

### 3.2.2 SGU-C-0002 (Airline Highway - Interstate 12)

The SGU-C-0002 (Airline Highway – Interstate 12) project has been combined with SGC-C-0002 (Airline Highway-Jefferson Highway) and SGC-C-0003 (Essen Lane-Interstate 12) projects. The combined project has been designated SGC-C-0002 (Airline Highway Pipeline Improvements) project and is described in Section 3.2.7.

### 3.2.3 SGU-C-0003 (Sherwood Forest Blvd- Goodwood Blvd Pipeline Improvements)

#### Project Description

#### ***Purpose of the Project / Project Background***

The SGU-C-0003 (Sherwood Forest Blvd-Goodwood Blvd Pipeline Improvements) project includes the upgrade of gravity sewers upstream of PS 13, PS 50, PS 21, PS 31, and PS 101 to alleviate SSOs.

#### ***Location***

The gravity sewer replacements that comprise this project are located near the intersections of Florida Blvd and Sherwood Forest Drive, and are shown in Figure 3-13.

Gravity segment 050-00619 to 050-00682 starts on Sharp Lane near the Tams Drive intersection. The gravity segment travels north and turns east at Tams Drive. The line continues east until reaching 050-00682, located on Tams Drive between the Gum Street and Pin Oak Street intersections.

Gravity segment 050-00480 to 050-00924 starts near the Elizabeth Drive and South Riveroaks Drive intersection. The gravity segment travels east along a drainage to 050-00150, south along a drainage to 050-00168, and east parallel to Riveroaks Drive to 050-00909 where it continues southeast along Sharp Road until reaching 050-00924.

Gravity segment 050-00400A to 050-00837 starts on Goodwood Blvd near Westbrook Drive. The gravity line travels west along Goodwood Blvd until reaching 050-00837, located near the Sherwood Forest Drive and Goodwood Blvd intersection.

Gravity segment 050-00392 to 050-00280 starts on Pamela Drive. The gravity line travels southwest until reaching 050-00390, northwest until reaching 050-00388, and west until reaching 050-00280, located northwest of the Glenda Drive and Sherwood Forest Blvd intersection.

Gravity segment 050-00280 to 050-00272 starts northwest of Glenda Drive and Sherwood Forest Blvd intersection. The gravity line travels south until reaching 050-00272, located northwest of the Florida Blvd and North Sherwood Forest Drive intersection.

Gravity segment 050-00520C to PS 50 begins at manhole 050-00520C, located near the intersection of Major Oaks Drive and Sherwood Forest Drive, and travels a short distance south along Sherwood Forest Drive to PS 50, located at the intersection of Major Oaks Drive and Sherwood Forest Drive.

Gravity segment 013-00002 to 013-00001 starts north of the intersection of Elizabeth Drive with River Oaks Drive. The gravity line travels west until reaching 013-00001, located near PS 13.

Gravity segment 013-00049 to PS 13 starts near the Marilyn Drive and Mollylea Drive intersection. The gravity segment travels south until reaching 013-00012 and then travels east until reaching PS 13. PS 13 will be upgraded as part of SGC-C-0001 (Florida Blvd PS Projects).

Gravity segment 021-00009 to PS 21 starts southwest of the Warfield Avenue and Windsor Drive intersection. The gravity segment travels southeast along Windsor Drive, crossing Florida Blvd until reaching 021-00001F. The gravity line continues west parallel to Florida Blvd until reaching PS 21, located near the Florida Blvd and Shelby Drive intersection.

Gravity segment 101-00024 to PS 101 starts south of the Darwin Avenue and South Flannery Road intersection. The gravity segments travels west until reaching 101-00018, southeast until reaching 101-00016, east until reaching 101-00014, and then southeast along Brinwood Avenue until reaching PS 101. PS 101 is located northeast of the Goodwood Blvd and Brinwood Avenue intersection.

Gravity segment 031-00035 to 031-00030 starts southwest of the Robinhood Drive and Little John Drive intersection. The gravity segment travels east until reaching 031-00033 and then southwest parallel to Little John Drive until reaching 031-00030. The segment ends northwest of the Little John Drive and Mollylea Drive intersection.

Gravity segment 031-00030 to PS 31 starts northeast of Little John Drive and Mollylea Drive intersection. The gravity segment travels southeast until reaching 031-00006 and then travels south along the canal parallel to Westbrook Drive until reaching PS 31. PS 31 is located southeast of the Goodwood Blvd and Westbrook Drive intersection.

Gravity segment 031-00378 to 031-00006 starts southwest of the East Glenhaven Drive and Wilton Drive intersection. The gravity line travels southwest until reaching 031-00006, located northeast of the Westbrook Drive and Mollylea Drive intersection.

Gravity segment 031-00442 to 031-00435 starts northwest of the Goodwood Blvd and Brinwood Avenue intersection. The gravity line travels southwest until reaching 031-00435, located northeast of the Goodwood Blvd and South Flannery Road intersection.

Gravity segment 031-00435 to 031-00237 starts northeast of South Flannery Road and Goodwood Blvd. The gravity line travels west until reaching 031-00434, south until reaching 031-00433, and then northwest until reaching 031-00237, following Goodwood Blvd. The segment ends northeast of the Goodwood Blvd and Trammell Drive intersection.

Gravity segment 031-00237 to 031-00132 starts northeast of the Trammell Drive and Goodwood Blvd intersection. The gravity line travels northwest along Goodwood Blvd until reaching 031-00132, located west of the Trammell Drive and Camelot Avenue intersection.

Gravity segment 031-00132 to 031-00112 is located west of the Trammell Drive and Camelot Avenue intersection. The gravity line travels northwest until reaching 031-00131, north until reaching 031-00129, and west until reaching 031-00112. The gravity segment ends southeast of the Fairhaven Drive and Woodcliff Drive intersection.

Gravity segment 031-00112 to PS 31 starts southeast of the Fairhaven Drive and Woodcliff Drive intersection. The gravity line travels west until reaching 031-00102, south until reaching 031-00102A, and then southwest until reaching PS 31. PS 31 is located southeast of the Westbrook Drive and Goodwood Blvd intersection.

Gravity segment 031-00270 to 031-00112 starts northeast of the East Robinhood Drive and Woodcliff Drive intersection. The gravity segment travels south until reaching 031-00112, located southeast of the Fairhaven Drive and Woodcliff Drive intersection.

Gravity segment 031-00299 to 031-00289 starts southeast of the Arlingford Avenue and Shelby Drive intersection. The gravity line travels south until reaching 031-00289, located northeast of the Archery Drive and Woodcliff Drive intersection.

Gravity segment 031-00330 to 031-00299 starts east of the Norma Court and Shelby Drive intersection. The gravity line travels south until reaching 031-00299, located southeast of the Arlingford Avenue and Shelby Drive intersection.

Gravity segment 031-00330A to 031-00330 starts southeast of the Shelby Drive and Florida Blvd intersection. The gravity line travels south until reaching 031-00330, located east of the Norma Court and Shelby Drive intersection.

Forcemain segment PS21FM to 031-00330A starts near Florida Blvd. The forcemain segment travels south until reaching 031-00330A, located southeast of the Shelby Drive and Florida Blvd intersection.

### Scope

The scope of this project is shown in Table 3-2. This project includes the construction of approximately 8,400 feet of 15-inch, 21-inch, 24-inch, and 36-inch gravity sewer upstream of PS 50, approximately 950 feet of 12-inch and 15-inch gravity sewer upstream of PS 13, approximately 2,100 feet of 18-inch gravity sewer upstream of PS 21, approximately 2,000 feet of 10-inch gravity sewer upstream of PS 101, and approximately 13,800 feet of 10-inch, 12-inch, 15-inch, 18-inch, 21-inch, 24-inch, and 36-inch gravity sewer and forcemain upstream of PS 31.

**TABLE 3-2**

SGU-C-0003 (Sherwood Forest Blvd-Goodwood Blvd Pipeline Improvements) – Pipeline Information

US Node	DS Node	Length (ft)	Existing Diameter (in)	Proposed Diameter (in)	Comments
050-00619	050-00682	1,000	15	24	
050-00480	050-00168	450	8	15	
050-00168	050-00924	1,550	10	21	
050-00400A	050-00837	2,800	18	36	
050-00392	050-00280	2,400	12	21	
050-00280	050-00272	1,200	15 or 18	24	

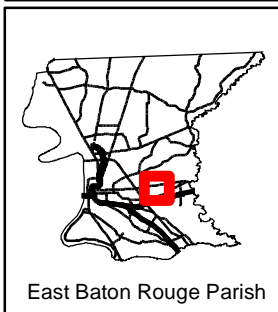
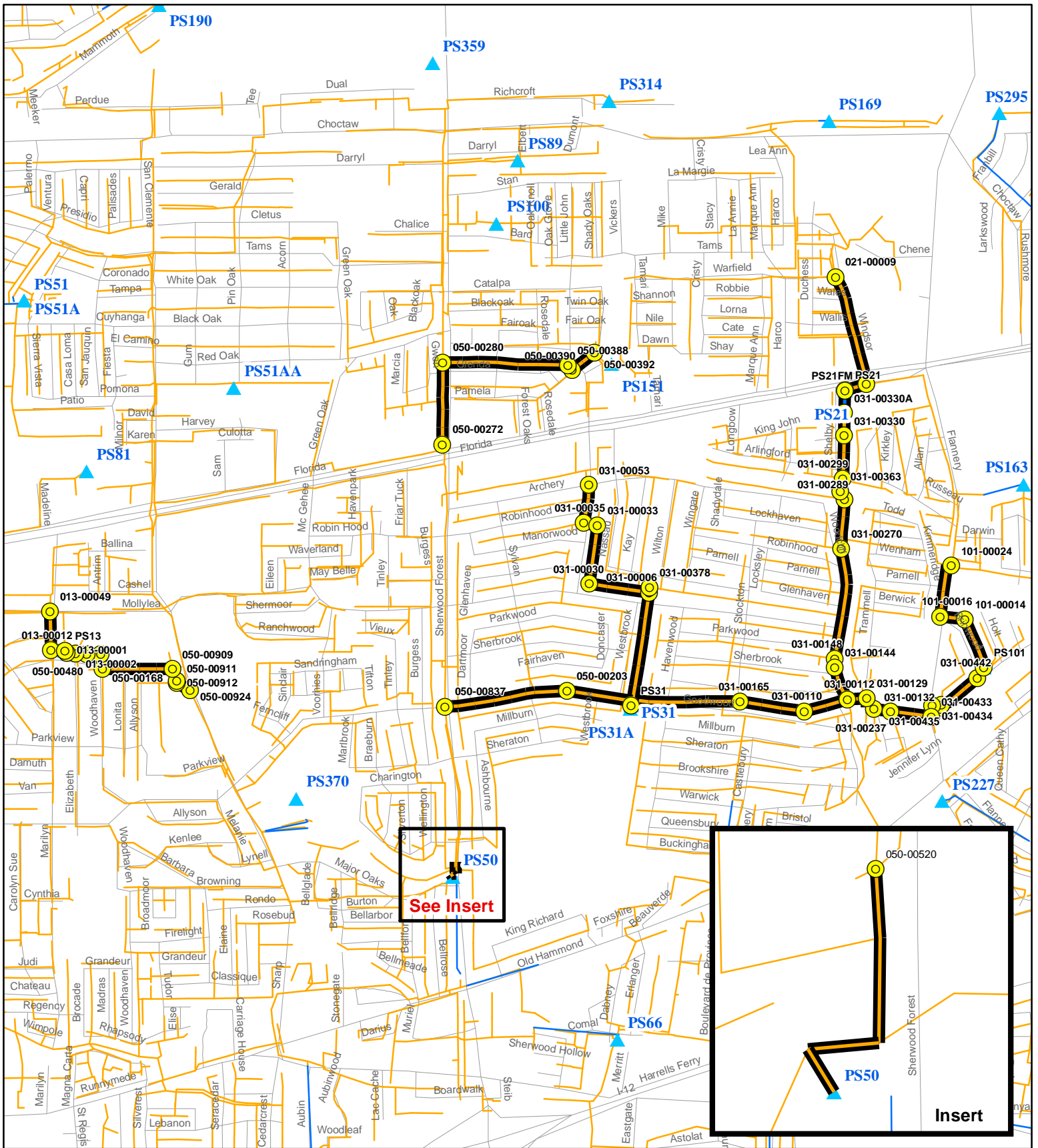
**TABLE 3-2**  
**SGU-C-0003 (Sherwood Forest Blvd-Goodwood Blvd Pipeline Improvements) – Pipeline Information**

<b>US Node</b>	<b>DS Node</b>	<b>Length (ft)</b>	<b>Existing Diameter (in)</b>	<b>Proposed Diameter (in)</b>	<b>Comments</b>
050-00520C	050-00300A	205	24	36	
050-00300A	PS 50	50	24	48	
013-00002	013-00001	150	8	12	
013-00049	PS13	800	8 and 10	15	PS Replacement under SGC-C-0001 (Florida Blvd PS Improvements)
021-00009	PS21	2,100	12 and 15	18	Crosses Florida Blvd; PS will be upgraded in SGC-C-0001 (Florida Blvd PS Improvements)
101-00024	PS101	2,000	8	10	
031-00035	031-00030	1,100	8	15	
031-00030	PS 31	2,600	8 to 12	21	PS upgraded in SGC-C-0001 (Florida Blvd PS Improvements)
031-00378	031-00006	80	8	12	Crosses drainage canal
031-00442	031-00435	670	8	10	
031-00435	031-00237	930	8 and 12	12	
031-00237	031-00132	260	10	15	
031-00132	031-00112	550	10 to 12	18	
031-00112	PS31	3,400	21	36	
031-00270	031-00112	2,600	18	24	
031-00289	031-00270	740	8	18	
031-00299	031-00289	320	15	18	
031-00330	031-00299	670	15	18	
031-00330A	031-00330	340	15	18	
PS21FM	031-00330A	310	8	10	Forcemain

**Note:** The existing pipe sizes and lengths were obtained from the BTRSSO hydraulic model.

**Total Construction Cost Estimate is \$11,937,500.**

**Design is On-Going.**



**Proposed**

- New Pump Stations
- New Gravity Main
- New Force Main
- New Storage Facility

**Legend**

N

**Existing**

- Exist. Gravity
- Exist. Force Main
- Exist. Pump Station
- Manholes/Nodes

0 1,500 3,000 Feet

**Sherwood Forest Blvd. - Goodwood Blvd. Pipeline Projects**

**SGU-C-0003**

**Project Vicinity Map**

Figure 3-13

SSO Program

### 3.2.4 SGU-C-0004 (Goodwood Blvd - South Flannery Road)

The SGU-C-004 (Goodwood Blvd - South Flannery Road) project has been combined with SGU-C-0003 (Florida Blvd-Sherwood Forest Blvd) from the October 2008 PDP. The combined project has been designated SGC-C-0003 (Sherwood Forest Blvd-Goodwood Blvd Pipeline Improvements) project and is described in Section 3.2.3.

### 3.2.5 SGU-C-0005 (Oak Villa Blvd - Monterey Blvd Sewer Area Upgrades)

#### Project Description

#### *Purpose of the Project / Project Background*

The SGU-C-0005 (Oak Villa Blvd - Monterey Blvd Sewer Area Upgrades) project includes the upsizing of the gravity sewer upstream of PS 16 and PS 51 and the forcemain from PS 16, which is being upgraded as part of the SGC-C-0001 (Florida Blvd PS Improvements) project.

#### *Location*

The gravity sewer replacements that comprise the SGU-C-0005 project are located northeast of Airline Highway and Florida Blvd, and along Sherwood Forest Blvd, south of Florida Blvd Road, and are shown in Figure 3-14.

Gravity segment 051-00222 to 051-00196 starts southeast of the Kimberly Drive and Kimberly Way intersection. The gravity segment travels east until reaching 051-00196, located northwest of the Monterey Drive and Great Smokey Avenue intersection.

Gravity segment 016-00002 to PS 16 starts southwest of the Jo Anne Drive and Big Bend Avenue intersection. The gravity line travels south until reaching PS 16, located northeast of the Jo Anne Drive and Great Smokey Avenue intersection.

Gravity segment 051-00467 to 051-00196 starts southeast of the Syble Drive and Monterey Drive intersection. The gravity line travels south until reaching 051-00196, located northwest of the Great Smokey Avenue and Monterey Drive intersection.

Gravity segment 051-00196 to 051-00169 starts northwest of the Great Smokey Avenue and Monterey Drive intersection. The gravity line travels south until reaching 051-00169, located northwest of the Great Smokey Avenue and Monterey Drive intersection.

Gravity segment 051-00169 to 051-00168 starts northwest of the Great Smokey Avenue and Monterey Drive intersection. The gravity line travels south until reaching 051-00168, located northwest of the Mammoth Avenue and Monterey Drive intersection.

Gravity segment 051-00168 to 051-00070 starts northwest of the Mammoth Avenue and Monterey Drive intersection. The gravity line travels south until reaching 051-00070, located near Mammoth Avenue between its intersections with Monterey Drive and Needham Drive.

Gravity segment 051-00070 to PS 51 starts near Mammoth Avenue between its intersections with Monterey Drive and Needham Drive. The gravity line travels east along the north side of the drainage channel until reaching PS 51, located north of Cuyhanga Parkway and Sierra Vista Drive intersection.

Gravity segment DS16 to 051-00169 starts at the intersection of Kings Canyon Drive and Great Smokey Avenue. The segment travels south behind the row of houses on the south side of Great Smokey Avenue, heading northeast behind four houses before it doubles back on its same path and goes southwest and then straight west behind the houses south of Great Smokey Avenue. It ends at manhole 051-00169 on Monterey Drive, just northwest of its intersection with Great Smokey Avenue.

Gravity segment 051-00364B to 051-00070 starts north of a drainage canal near Cortana Place. The gravity segment travels southeast until reaching 051-00077, and then east until reaching 051-00070. The gravity segment ends near Mammoth Avenue between its intersection with Monterrey Drive and Needham Drive.

Gravity segment 051-00369 to 051-00364B starts above the drainage canal near Airway Drive. The gravity segment travels east until reaching 051-00364B, located north of Cortana Place.

The SGU-C-0005 (Oak Villa Blvd – Monterey Blvd) project also includes the replacement of the PS 16 forcemain. This forcemain is located along Great Smokey Drive near JoAnne Drive. The forcemain travels southwest along Great Smokey Avenue until reaching DS16, located near the King Canyon Drive and Great Smokey Avenue intersection.

### Scope

This project includes construction of approximately 380 feet of 18-inch gravity sewer upstream of PS 16 and approximately 16,700 feet of 18-inch, 21-inch, 24-inch, 30-inch, and 42-inch gravity sewer upstream of PS 51. This project also includes approximately 950 feet of 8-inch forcemain from PS 16. The full scope of this project is shown in Table 3-3.

**TABLE 3-3**  
SGU-C-0005 (Oak Villa Blvd – Monterey Blvd Sewer Area Upgrades) – Pipeline Information

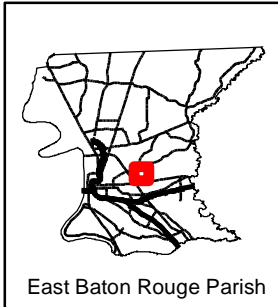
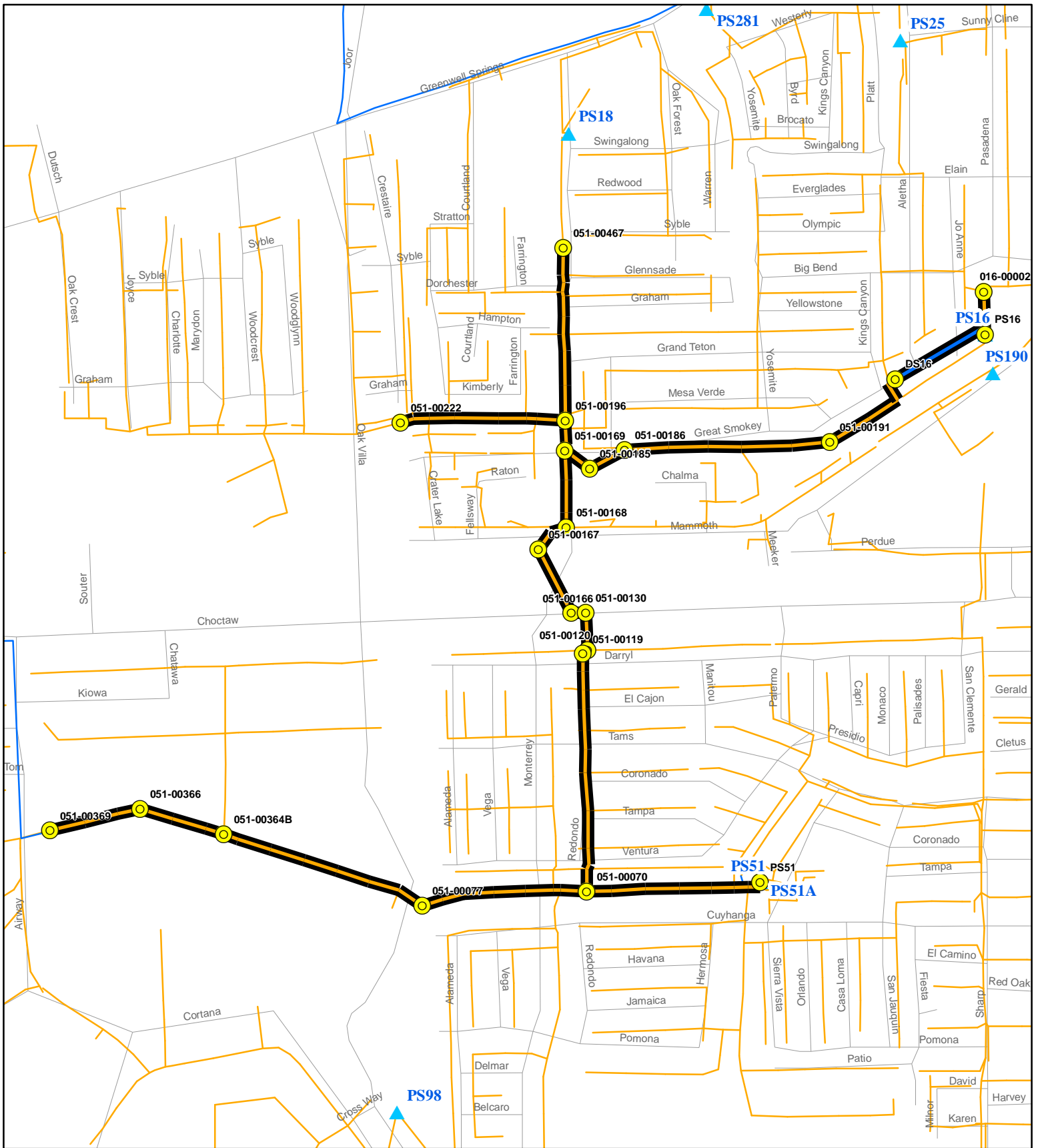
US Node	DS Node	Length (ft)	Existing Diameter (in)	Proposed Diameter (in)	Comments
051-00222	051-00196	1,400	12	18	
016-00002	PS16	380	10	18	Influenced by the SGC-C-0001 (Florida Blvd PS Improvements) project in which PS 16 will be upgraded
051-00467	051-00196	1,500	12	18	
051-00196	051-00169	260	15	21	
051-00169	051-00168	680	15	24	
051-00168	051-00070	3,300	15	30	
051-00070	PS51	1,500	18	42	Crosses Choctaw Drive and the railway just north of Choctaw Drive This segment will need to be coordinated with the PS51 upgrade as part of the NFW-C-0002 (Choctaw Storage and Pump Station Facility) Project
DS16	051-00169	3,200	10	18	
051-00364B	051-00070	3,300	15	24	
051-00369	051-00364B	1,600	15	21	
PS16	DS16	950	6	8	Forcemain

**Note:** The existing pipe sizes and lengths were obtained from the BTRSSO hydraulic model.

**Total Construction Cost Estimate is \$7,353,500.**

**Design is On-Going.**





**Legend**

<b>Proposed</b>	<b>Existing</b>
New Pump Stations	Exist. Gravity
New Gravity Main	Exist. Force Main
New Force Main	Exist. Pump Station
New Storage Facility	Manholes/Nodes

Scale: 0, 1,000, 2,000 Feet

**Oak Villa Blvd. - Monterrey Blvd.**

**SGU-C-0005**

**Project Vicinity Map**

Figure 3-14

### 3.2.6 SGC-C-0001 (Florida Blvd PS Improvements)

#### Project Description

##### **Purpose of the Project / Project Background**

The SGC-C-0001 (Florida Blvd PS Improvements) project includes those improvements that were previously included in SGU-C-0001 (Multiple Pump Stations-Florida Blvd - Sherwood Forest Blvd) and SGC-C-0001 (Airline Highway - Florida Blvd PS 30 Improvements and new pump station). This combined project includes upgrades of PS 13, PS 16, PS 18, PS 21, PS 30, PS 31, PS 50, and PS 66, and the construction of a new pump station (PS 5xx) to alleviate SSOs in their upstream basins.

PS 51 was originally part of the SGU-C-0001 (Multiple PSs - Florida Blvd - Sherwood Forest Blvd) project and was moved to the NFW-C-0002 (Choctaw Storage and Pump Station Facility) project.

##### **Location**

The locations for the pump stations are presented in Table 3-4 and are shown in Figure 3-15.

##### **Scope**

The scope of this project is described in Table 3-4. PS 13, PS 16, PS 18, PS 21, PS 30, PS 31, PS 50, and PS 66 will be replaced. The new pump station (PS 5xx) will be located at or near manhole 058-01101, conveying all flow from the gravity system upstream directly to PS 58 through a new 30-inch/48-inch forcemain that will be constructed as part of the Airline Highway Pipeline Improvements (SGC-C-0002) project. PS 50 also will convey flow through a new forcemain, to be manifolded with PS 5xx forcemain, directly to PS 58. Both of these pump stations and forcemains will alleviate peak wet weather flow exceedances in the downstream gravity system.

**TABLE 3-4**  
SGC-C-0001 (Florida Blvd Pump Station Improvements) – Pump Station Information

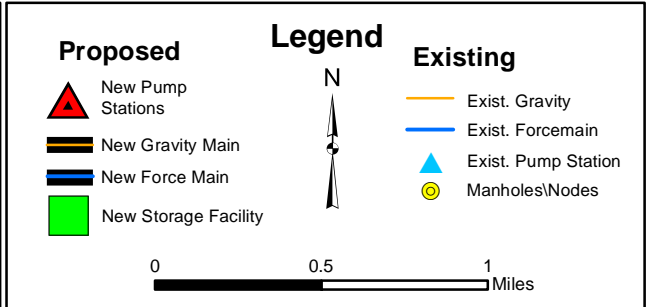
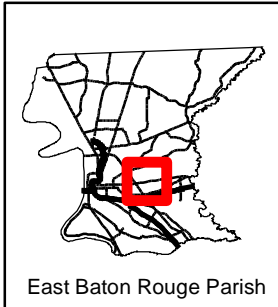
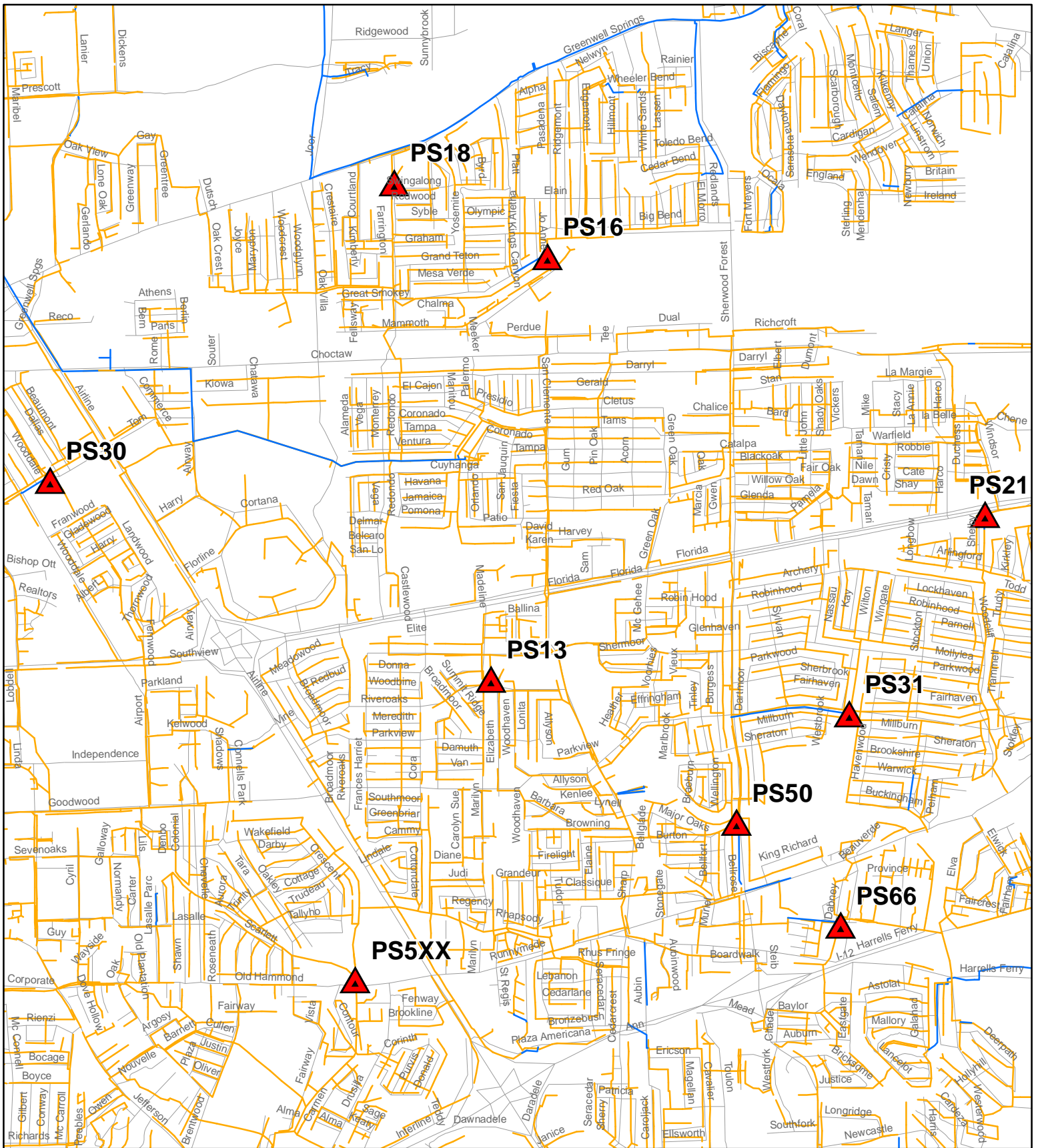
PS No.	Location	Existing Max. Capacity (gpm)	Future Peak Wet Weather Flow (gpm)	Dry Weather Flow	Comments
PS 13	452 Elizabeth Drive	550	1,389	139	
PS 16	10122 Great Smokey Avenue	500	1,249	257	
PS 18	3500 Monterrey Blvd	300	777	69	
PS 21	170 Shelby Drive	700	2,249	619	
PS 31	12100 Goodwood Blvd (at McAuliffe School)	700/2,083*	7,500	1,330	
PS 50	1480 Sherwood Forest Blvd (at intersection of Major Oaks Drive)	5,475	21,375	4,190	
PS 66	11739 N. Harrell's Ferry Road (Behind FedEx)	833	1,978	638	
PS 30	7684 Tom Drive	350	1,096	273	
New PS (PS 5xx)	8900 Old Hammond Highway (in Old Hammond Highway Park)	New	19,543	3,123	Located at or near MH 058-01101

\*Existing PS 31 / PS 31A will both be replaced with a new PS 31.

**Note:** The existing maximum capacity for the existing pump stations was obtained from the DPW *Field Pump Station Maintenance* reference guide. The future peak wet weather flow was obtained from the BTRSSO hydraulic model.

**Total Construction Cost Estimate is \$ 14,457,000.**

**Design is On-Going.**



## Florida Blvd. PS Projects

# SGC-C-001

## Project Vicinity Map

Figure 3-15

### 3.2.7 SGC-C-0002 (Airline Highway Pipeline Improvements)

#### Project Description

##### ***Purpose of the Project / Project Background***

The SGC-C-0002 (Airline Highway Pipeline Improvements) project includes those segments previously included in SGC-C-0003 (Essen Lane - Interstate-12) and SGU-C-0002 (Airline Highway - Interstate 12) from the October 2008 PDP. The project includes the following:

- Upsizing of the gravity sewer upstream of PS 58 to alleviate SSOs in the vicinity of the gravity sewer and pump station.
- Upsizing of the gravity sewers upstream of PS 50 and PS 66 and construction of new forcemains at PS 66 and PS 50 to address upstream SSOs.
- Construction of a new forcemain from the new pump station (PS 5xx), described in SGC-C-0001 (Florida Blvd Pump Station Improvements project), to the manifold point with the new forcemain from PS 50.
- Construction of a new forcemain from the manifold point to PS 58.

##### ***Location***

The locations of the segments in the Airline Highway Pipeline Improvements project are shown in Figure 3-16.

Gravity segment 058-00172 to 058-00941B starts south of the Florida Blvd and Marquette Avenue intersection. The gravity line travels north, across Florida Blvd, until reaching 058-00941B.

Gravity segment 058-01316 to 058-01310 starts west of North Donmoor Avenue between intersections with Goya Avenue and Cezanne Avenue. The gravity segment travels south along Donmoor Avenue until reaching 058-01310 located on Donmoor Avenue between the intersections with Rembrandt Avenue and Harry Avenue.

Gravity segment 058-01318 to 058-01316 starts west of North Donmoor Avenue between intersections with Renoir Avenue and Cezanne Avenue. The gravity segment travels south along Donmoor until reaching 058-01316, located on Donmoor Avenue between the intersections with Goya Avenue and Cezanne Avenue.

Gravity segment 058-01310 to 058-00935 starts at the Harry Drive and Donmoor Avenue intersection and travels south along Donmoor Avenue until reaching 058-00935. The gravity segment ends north of the Florida Blvd and Donmoor Avenue intersection.

Gravity segment 058-03110 to 058-03125A starts near the Wooddale Blvd and Tom Drive intersection. The gravity segment travels southwest until reaching 058-03114 located off Tom Drive. The gravity segment then turns south and crosses the drainage canal. The gravity segment then travels west along the vacant lot to tie-in to the existing sewer close to 058-03125A, located south of the Tom Drive and Lobdell Blvd intersection.

Gravity segment 058-01830 to 058-01826 starts on the west side of Fernwood Avenue. The gravity line travels south along Fernwood Avenue until 058-01826, located near the Florida Blvd and Fernwood Avenue intersection.

Gravity segment 058-00890 to 058-01132 starts south of Thurman Drive, just north of the drainage canal. The segment travels north on Thurman Drive until reaching 058-01132, located south of the Thurman Drive and Goodwood Blvd intersection.

Gravity segment 058-01335 to 058-00890 starts north of Lils Court and Sevenoaks Avenue intersection. The gravity line travels north past the end of Lils Court at 058-01337, then travels southeast until reaching 058-00890, located near the north end of Carter Avenue.

Gravity segment 058-01850 to 058-01850A starts northeast of the Delcourt Avenue and Airline Highway intersection. The gravity segment travels southeast, towards Delcourt Avenue, until reaching 058-01850A.

Gravity segment 058-01851A to 058-01850 starts near the Lindale Avenue and Airline Highway intersection. The gravity line travels southeast until reaching 058-01850, located near the Delcourt Avenue and Airline Highway intersection.

Gravity segment 058-01859 to 058-01851A starts on Airline Highway (North) between its intersections with South Parkview Drive and Goodwood Blvd. The gravity line travels southeast until reaching 058-1851A, located near the Lindale Avenue and Airline Highway intersection.

Gravity segment 058-01868 to 058-01862 starts northeast of the Airline Highway (North) and North Parkview Drive intersection. The gravity line travels southwest North Parkview Drive, then turns south until reaching 058-01865. The gravity line then travels southeast until reaching 058-01862, located near the Airline Highway (North) and South Parkview Drive intersection.

Gravity segment 058-02818 to 058-02389 starts on Greenbrier Drive, east of the intersection of Greenbrier Drive and Francis Harriet Road and travels east to Cora Drive. The gravity segment travels south on Cora Drive and then southwest until reaching 058-02389, located off Airline Highway.

Gravity segment 058-00035 to 058-00015D starts northeast of the intersection of McCarroll Drive and Claret Drive, north of Interstate 12. The gravity segment travels south crossing Interstate 12 until reaching 058-00029. The gravity segment then travels southeast before reaching the tie-in to the existing 60-inch line between 058-00015E and 058-00015, located off Essen Lane.

Gravity segment 058-01171 to 058-00360 starts on Brentwood Drive at the edge of a golf course. The gravity line travels northeast on Brentwood Drive to 058-00360.

Gravity segment 058-00369 to 058-00004B starts northeast of the Marcel Avenue and Plaza Drive intersection. The segment travels east down Marcel Avenue, and then southeast across a golf course, terminating just east of Fairway Drive at 058-00004B.

Gravity segment 058-02478 to 058-02475 starts on Airline Highway near the Gwenadele Avenue intersection. The gravity segment travels northwest along Airline Highway until reaching 058-02475, located near the Airline Highway and Commonwealth Blvd intersection.

Gravity segment 058-02571 to 058-01395 starts on Cedarcrest Avenue near Bronzebush Avenue. The gravity segment travels north up to 058-001498, located at the intersection of Cedarcrest Avenue and Lebanon Drive and then turns west traveling down Lebanon Drive.

The segment turns north to 058-01493 and then travels west paralleling a drainage canal to manhole 058-01393 located on Old Hammond Highway, east of Silverest Avenue.

Gravity segment 066-00087A to 066-00001A starts east of the Comal Drive and Erlanger Drive intersection. The gravity line then travels parallel to the existing gravity line to PS 66.

Gravity segment 058-00490 to 058-00017 starts south of the Inniswold Road and Jefferson Highway intersection. The gravity line travels northwest crossing Bluebonnet Blvd and travels along the drainage canal to 058-00499. The gravity segment then travels southwest along Bluebonnet Road until reaching 058-00219. At the intersection of Oliphant Road and Bluebonnet Road, the segment travels west to till 058-00216 located close to the north branch of Ward's Creek, west of Drusilla Drive. The segment then travels north along Norfolk Drive, crosses the drainage canal, and ends at 058-00017 located near the North Essen Heights Court and East Essen Heights Court intersection.

Gravity segment 058-00497 to 058-00499 starts along Bluebonnet Road between intersections with Jefferson Highway and French Village Avenue. The gravity line travels south along Bluebonnet Road until reaching 058-00499.

Gravity segment 058-00479 to 058-00490 starts east of the Idlewood Drive and Ridgely Road intersection. The gravity line travels northwest along a drainage canal until reaching 058-00490, located south of the Inniswold Road and Jefferson Highway intersection.

Gravity segment 058-00481 to 058-00483 starts near the Floynell Drive and Ridgely Road intersection. The gravity line travels north until reaching 058-00483 near the drainage canal.

Gravity segment 058-00501 to 058-00479 starts west of the Airline Highway and Cedarcrest Avenue intersection. The gravity segment travels southwest until reaching 058-00430, south along Bea Drive until reaching 058-00440 near Jefferson Highway, west until reaching 058-00446, and south until reaching 058-00479, located east of the Idlewood Drive and Ridgely Road intersection.

Gravity segment 058-00523 to 058-00501 starts northeast of the Cedarcrest Avenue and Airline Highway intersection. The gravity segment travels southwest until reaching 058-00501, located west of the Airline Highway and Cedarcrest Avenue intersection.

Gravity segment 058-00586 to 058-00523 starts near the intersection of South Seracedar Street and Cedarcrest Avenue and travels south on Cedarcrest Avenue until reaching 058-00523. The gravity segment ends northeast of the Cedarcrest Avenue and Airline Highway intersection.

Gravity segment PS250DS to 058-00479 starts east of the Landsbury Avenue and Hackberry Drive intersection. The gravity segment travels northwest until reaching 058-00479, located east of the Idlewood Drive and Ridgely Road intersection.

Gravity segment 250-00026 to PS250 starts on a drainage path southeast of the intersection of Jefferson Highway and Auto Plex Drive, near an apartment complex. The segment then parallels Jefferson Highway along the drainage path to PS 250, which is located just south of the intersection of Jefferson Highway and Cal Road.

The PS 66 forcemain runs from the upgraded PS 66, described in the SGC-C-0001 (Florida Blvd PS Improvements) project on Comal Drive travels westward and then north to Old Hammond Highway. The forcemain then crosses Old Hammond Highway and travels

parallel to Old Hammond Highway to tie in close to MH 058-02653, located west of the intersection of Sherwood Forest Blvd and Old Hammond Highway.

This project also includes the construction of a new forcemain from the PS 50, upgraded as described in the Florida Blvd Pump Station Improvements (SGC-C-0001) project. The segment of forcemain starts at the existing location of PS 50 on Major Oaks Drive off Sherwood Forest Blvd. The forcemain travels west on Major Oaks Drive to Burton Avenue and through the servitude to the intersection of Rondo Avenue and Sharp Road. The forcemain then travel west on Rondo Avenue through McMichael Drive, Firelight Avenue, South Woodhaven St, Grandeur Drive, Brocade Drive, Regency Drive, Marilyn Drive, and Carolyn Sue Drive to Airline Highway. The forcemain crosses Airline Highway, north of the intersection of Old Hammond Highway and Airline Highway, and travels to the manifold point with the forcemain from PS 5xx on Old Hammond Highway, east of Tara Blvd. The PS 5xx forcemain will be constructed to the manifold point as part of the Florida Blvd Pump Station Improvements Project (SGC-C-0001).

The forcemain from the manifold point to PS 58 travels along the boundary of Old Hammond Highway Park to Tara Blvd. The forcemain then travels down Wartelle Avenue and crosses Old Hammond Highway to Brentwood Drive. The forcemain then travels south down Brentwood Drive to Interstate 12. The forcemain crosses Interstate 12 and travels east on Sholar Drive. The forcemain then travels south down the right-of-way of Essen Lane to a junction box outside of PS58 on Essen Lane.

### Scope

This project involves replacing 51,360 linear feet of 10-inch, 12-inch, 15-inch, 18-inch, 21-inch, 24-inch, 27-inch, 36-inch, 42-inch gravity sewer upstream of PS 58; approximately 700 linear feet of 15-inch and 18-inch gravity sewer upstream of PS 66; approximately 880 linear feet of 12-inch gravity sewer upstream of PS 250; and establishment of 3,400 linear feet of new 12-inch forcemain from PS 66 to replace the existing forcemain and approximately 27,100 linear feet of new 36-inch and 48-inch forcemain from PS 50 and PS 5XX to PS 58 in the South Gravity Central Basin.

Additional project details are presented in Table 3-5.

**TABLE 3-5**  
SGC-C-0002 (Airline Highway Pipeline Improvements) – Pipeline Information

US Node	DS Node	Length (ft)	Existing Diameter (in)	Proposed Diameter (in)	Comments
058-00172	058-0941B	160	8	12	Includes a crossing under Florida Blvd. Segment 1
058-01310	058-00935	2,000	10	18	Segment 2
058-01316	058-01310	880	10	15	Segment 2
058-01318	058-01316	350	10	15	Segment 2
058-03122	058-03125A	1320	12	15	Segment 3
058-03110	058-03122	350	12	15	Segment 3
058-01830	058-1826	530	10 and 15	21	Segment 4
058-00890	058-01132	490	12	18	Segment 5
058-01335	058-00890	460	8 and 10	15	Includes a drainage cancel crossing

**TABLE 3-5**  
**SGC-C-0002 (Airline Highway Pipeline Improvements) – Pipeline Information**

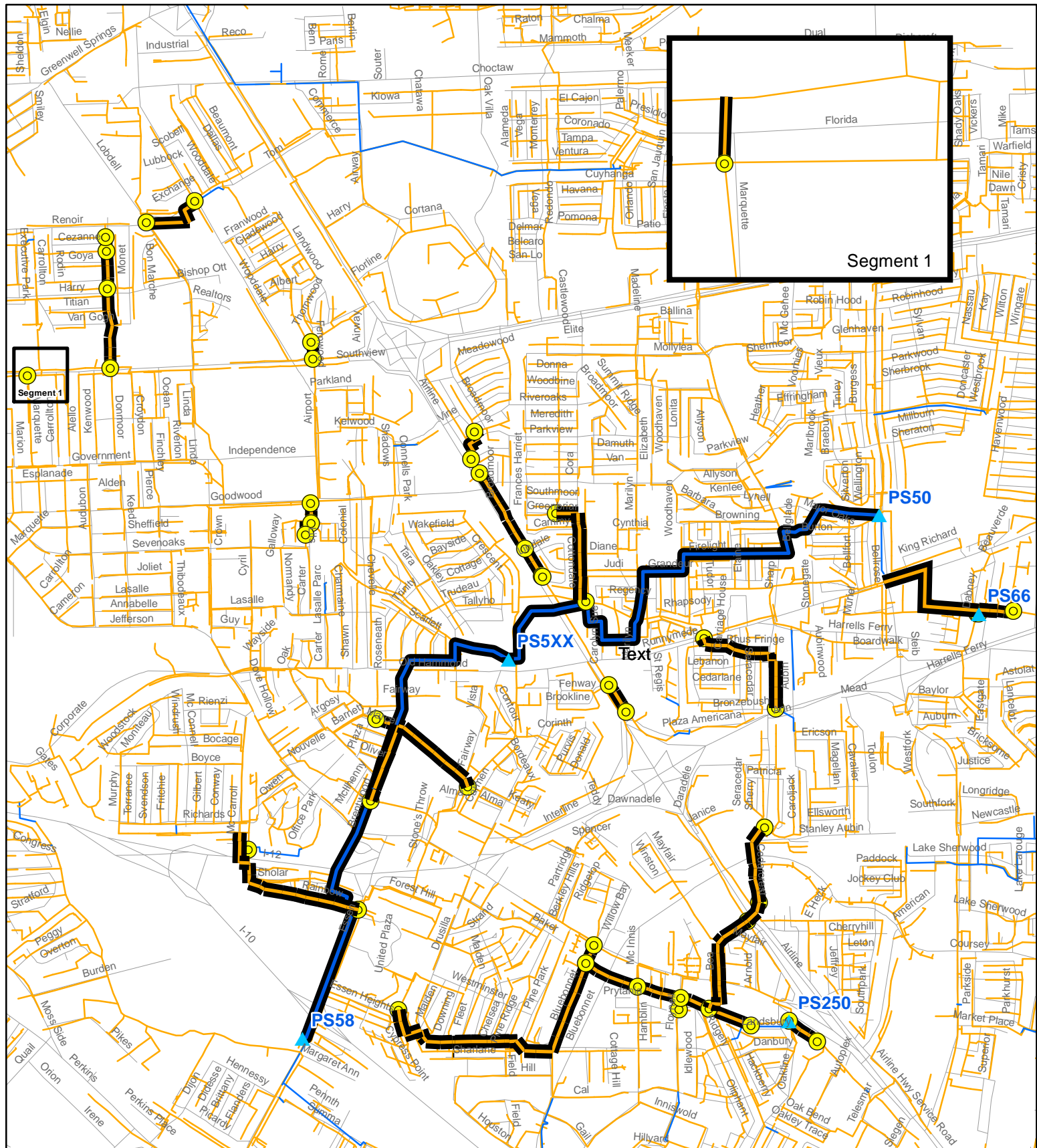
US Node	DS Node	Length (ft)	Existing Diameter (in)	Proposed Diameter (in)	Comments
058-01850	058-01850A	80	15	18	Segment 6A
058-01851A	058-01850	570	15	18	Segment 6A
058-01859	058-01851A	1740	15	18	Segment 6A
058-01868	058-01862	840	8	12	Segment 6 B
058-02818	058-02389	2700	15	21	Segment 8
058-00035	58-00015D	4300	18	24	Segment 10
058-01171	058-00360	2000	8	15	Segment 14 A
058-00369	058-00004B	2,900	18	24	Portion of these gravity segments go through a golf course. Includes a drainage cancel crossing
058-02478	058-02475	800	8	12	Segment 16
058-02571	058-01395	3500	8	15	Segment 17
PS 66	058-02653	3400	6	12	New FM-Segment 18
058-00087A	PS 66	700	12	18	Segment 19
058-00490	058-00017	12,400	18 and 24	42	Segment has a canal crossing near Drusilla Drive
058-00479	058-00490	2000	15 and 18	36	Segment 22
PS250DS	058-00479	1,100	8 and 15	21	Segment 22
058-00497	058-00499	550	8	12	Segment 21
058-00481	058-00483	290	8	12	Segment 22
058-00586	058-00523	2040	12	18	Segment 24
058-00523	058-00501	690	12 and 15	21	Segment 23
058-00501	058-00479	2760	15	27	Segment 23
250-00026	PS250	880	10	12	Segment 25
Manifold Pt w/ new FM from PS 50	PS58	13,600	New	48	Forcemain; Crosses both Interstate 12 and Interstate 10
NEW FM (PS 50)	Manifold Pt w/ new PS 5xx	13,570	New	36	New forcemain

**Note:** The existing pipe sizes and lengths were obtained from the BTRSSO hydraulic model.

**Total Construction Cost Estimate is \$37,700,000.**

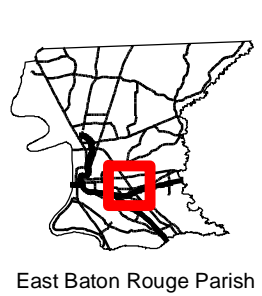
**Design is On-Going.**





Segment 1

Segment 1



East Baton Rouge Parish

**Legend**

<b>Proposed</b>	<b>Existing</b>
New Pump Stations	Exist. Gravity
New Gravity Main	Exist. Forcemain
New Force Main	Exist. Pump Station
New Storage Facility	Manholes/Nodes

**Airline Highway Pipeline Improvements Projects**

**SGC-C-0002**

**Project Vicinity Map**

Figure 3-16

### 3.2.8 SGC-C-0003 (Essen Lane - Interstate 12)

The SGC-C-0003 (Essen Lane - Interstate 12) project has been combined with SGC-C-0002 (Airline Highway - Jefferson Highway) project and SGU-C-0002 (Airline Highway - Interstate 12) project from the October 2008 PDP. The combined project has been designated SGC-C-0002 (Airline Highway Pipeline Improvements) project, and is described in Section 3.2.7.

### 3.2.9 SGC-C-PS58A (Pump Station 58 Replacement)

#### Project Description

##### **Purpose of the Project/Project Background**

The SGC-C-PS58A (Pump Station 58 Replacement) project includes the construction of a new overflow pump station pump station (PS 58) that will handle the existing flow conditions and the predicted future wet weather peak flow. The design of a single pump station was selected as the best design option to meet the long-term needs of the C-P and the sensitive environmental and aesthetic concerns of the surrounding area.

The purpose of this project is to relieve SSOs at PS 58 and in the respective upstream and downstream basins. This project is related to SGC-C-PS58FM-A (Staring Lane FM Phase I - Burbank to Highland), SGC-C-PS58FM-B (Staring Lane FM - Phase II - Highland to Perkins), and SGC-C-PS58FM-C (Staring Lane FM - Phase III - Perkins to PS58) which involve the construction of the forcemain from PS 58 to the South WWTP.

##### **Location**

The project site and existing PS 58 are located at the entrance of the Louisiana State University (LSU) Burden Center. The location of PS 58 is shown in Table 3-6 and in Figure 3-17.

##### **Scope**

The current PS 58 will not have enough pumping capacity to handle the predicted future wet weather peak flow. PS 58 shall be replaced with a pump station that will handle both the existing flow conditions and future wet weather peak flow conditions. The pump station will pump flow into the downstream gravity system when flows do not exceed 20,870 gpm. When flows exceed 20,870 gpm, the pump station will pump the excess flow directly to the South WWTP through PS 58A. The proposed scope is shown in Table 3-6.

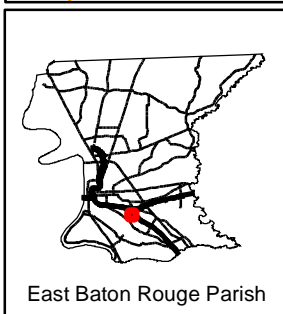
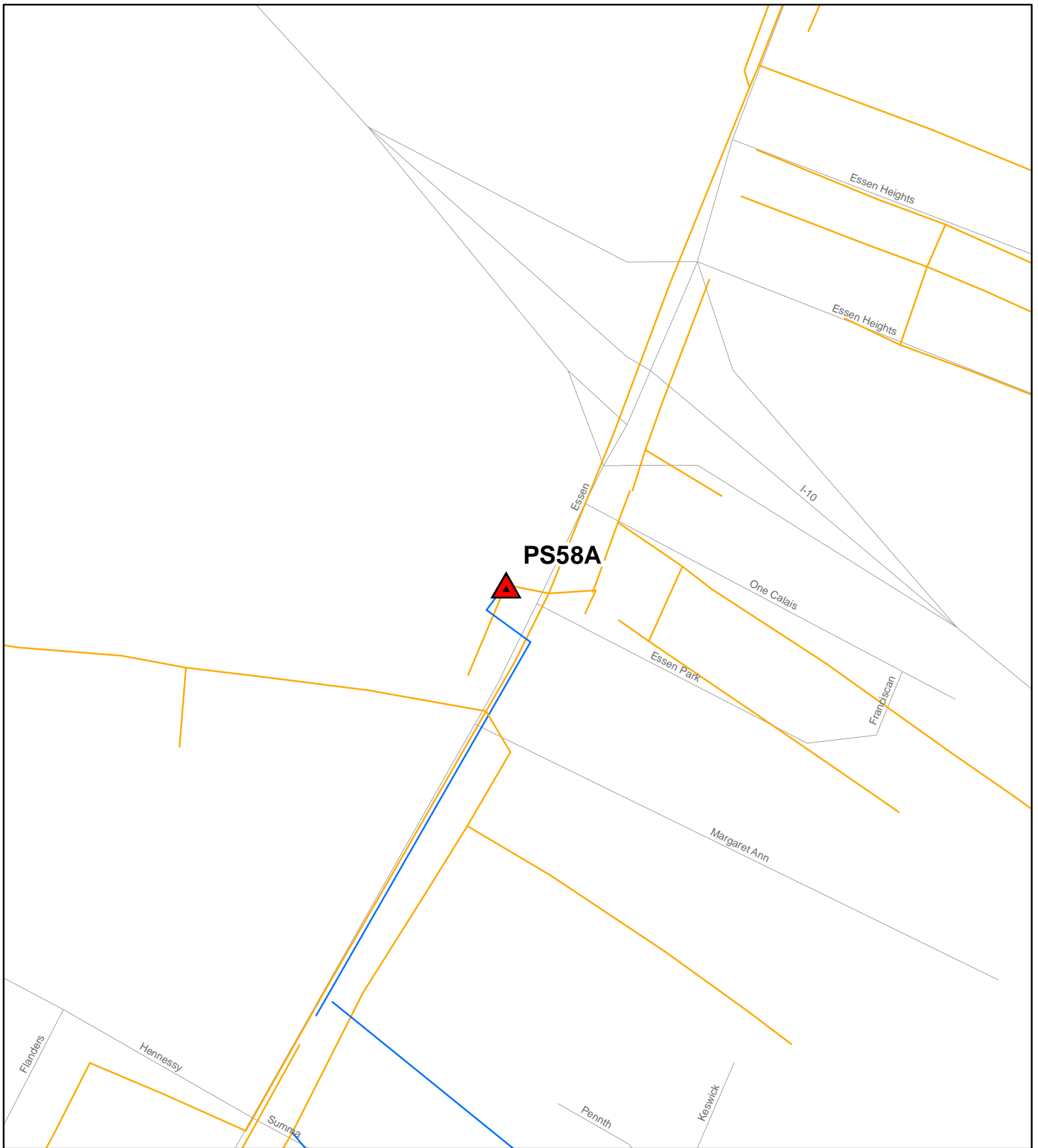
**TABLE 3-6**  
SGC-C-PS58A (Pump Station 58 Replacement) – Pump Station Information

PS No.	Location	Existing Max. Capacity (gpm)	Future Peak Wet Weather Flow (gpm)	Dry Weather Flow (gpm)
PS58A	Intersection of Essen Lane and Essen Park	New	61,107	N/A
PS 58	Intersection of Essen Lane and Essen Park	20,870	20,870	

**Note:** The future peak wet weather flow was obtained from the BTRSSO hydraulic model.

**Total Construction Cost Estimate is \$14,400,000.**

**Design is On-Going**



**Legend**

<b>Proposed</b>	<b>Existing</b>
New Pump Stations	Exist. Gravity
New Gravity Main	Exist. Forcemain
New Force Main	Exist. Pump Station
New Storage Facility	Manholes/Nodes

0 300 600 Feet

**Pump Station 58 Replacement**

**SGC-C-PS58A**

**Project Vicinity Map**

Figure 3-17

BATON ROUGE SSO Program

### 3.2.10 SGC-C-PS58FM-A (Staring Lane FM - Phase I – Burbank Drive to Highland Road)

#### Project Description

##### ***Purpose of the Project / Project Background***

The SGC-C-PS58FM-A (Staring Lane FM-Phase I – Burbank Drive to Highland Road) project includes the construction of a portion of the new forcemain from the PS 58 overflow pump station to the South WWTP. The purpose of this project is to relieve SSOs at PS 58 as well as in the respective upstream basins. The construction of the direct forcemain between PS 58 and the South WWTP alleviates the wet weather flows into existing downstream gravity pipe, and allows the capacity needed for future flows in the Staring Lane area.

This portion of the new forcemain is being constructed as part of the Green Light Program project for the Staring Lane Extension.

##### ***Location***

This portion of the new forcemain runs along Staring Lane Extension from Burbank Drive to Highland Road (to the South WWTP), connecting into Staring Lane forcemain.

##### ***Scope***

The scope of this project is shown in Table 3-7 and in Figure 3-18.

**TABLE 3-7**

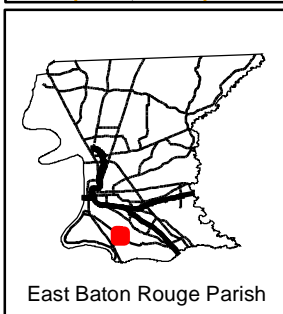
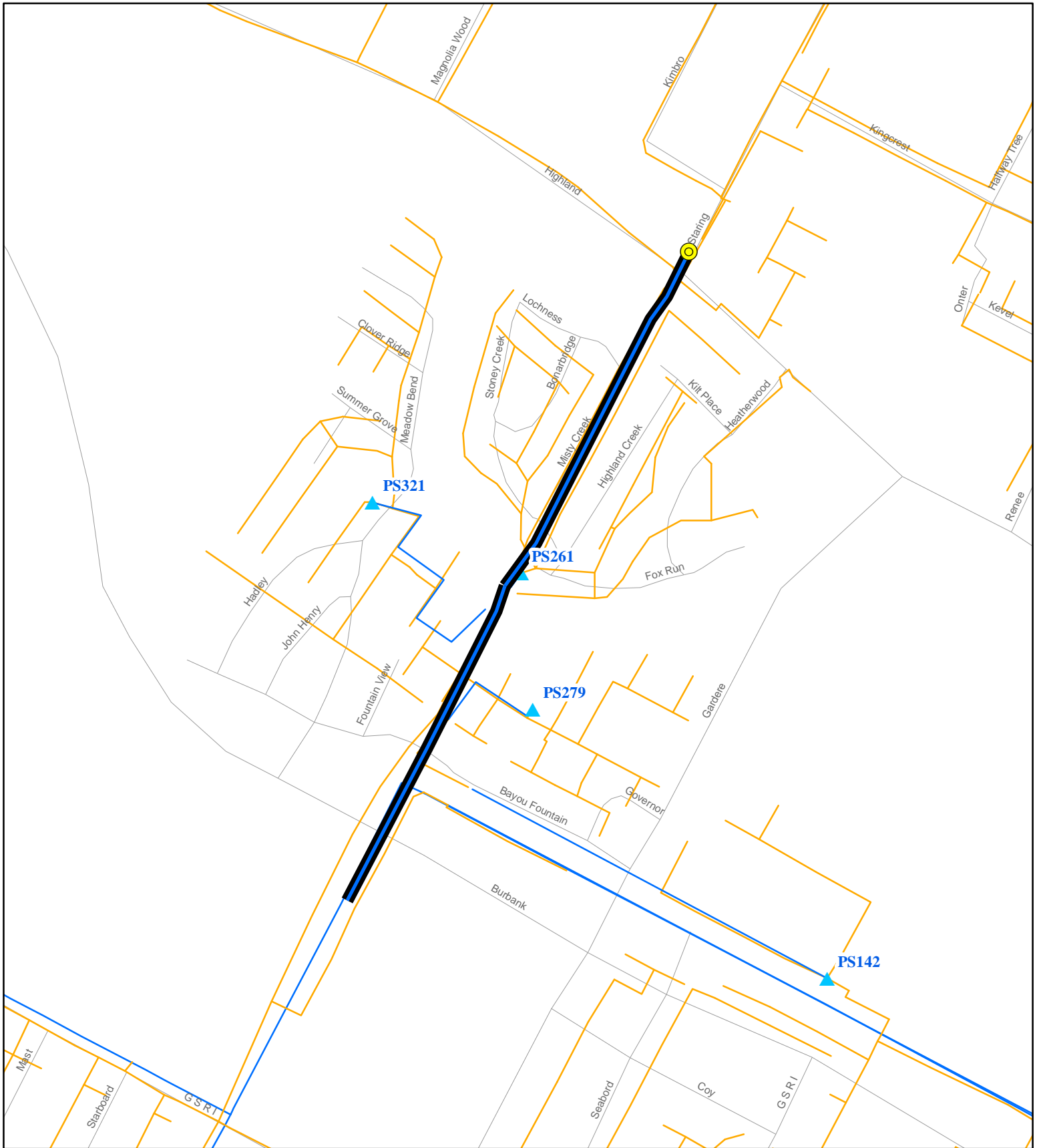
SGC-C-PS58FM-A (Staring Lane FM - Phase I - Burbank Drive to Highland Road) – Pipeline Information

US Node	DS Node	Length (ft)	Existing Diameter (in)	Proposed Diameter (in)	Comments
Highland Road	Burbank Road	2,960	New	64	To be constructed under Green Light Program

**Note:** The pipe lengths were obtained from the BTRSSO hydraulic model.

**Total Construction Bid Amount is \$4,616,000.**

**Construction Functionally Complete 2<sup>nd</sup> Quarter 2010.**



**Legend**

<b>Proposed</b>	<b>Existing</b>
New Pump Stations	Exist. Gravity
New Gravity Main	Exist. Forcemain
New Force Main	Exist. Pump Station
New Storage Facility	Manholes/Nodes

0 500 1,000 Feet

**Staring Ln. FM - Phase I - Highland Rd. to Burbank Dr.**

**SGC-C-PS58FM-Ph I**

**Project Vicinity Map**

Figure 3-18

### 3.2.11 SGC-C-PS58FM-B (Staring Lane FM-Phase II – Highland Road to Perkins Road)

#### Project Description

##### ***Purpose of the Project / Project Background***

The SGC-C-PS58FM-B (Staring Lane FM-Phase II – Highland Road – Perkins Road) project includes the construction of a portion of the new forcemain from PS 58 to the South WWTP. The purpose of this project is to relieve SSOs at PS 58 as well as in the respective upstream and downstream basins. The construction of the direct forcemain between PS 58 and the South WWTP alleviates the wet weather flows into existing downstream gravity pipe, and allows the capacity needed for future flows in the Staring Lane area.

This portion of the new forcemain will be constructed as part of the Green Light Program project for improvements to Staring Lane. The project also includes the construction of a new 36-inch forcemain exiting PS 57 at Dawson Creek.

##### ***Location***

This portion of the new forcemain from PS 58 to the South WWTP runs along Staring Lane from Dawson Creek to Highland Road. The new 36-inch forcemain runs along Staring Lane from Dawson Creek to Chandler Drive.

##### ***Scope***

The scope of the project is shown in Table 3-8 and in Figure 3-19. The forcemain from PS 58 increases in size at Boone Drive due to the addition of flow at this point from a new overflow pump station at PS 53, described in the SGL-C-0002 (Multiple Pump Stations – Highland Road – Kenilworth Parkway) project.

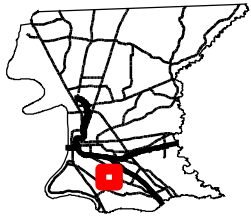
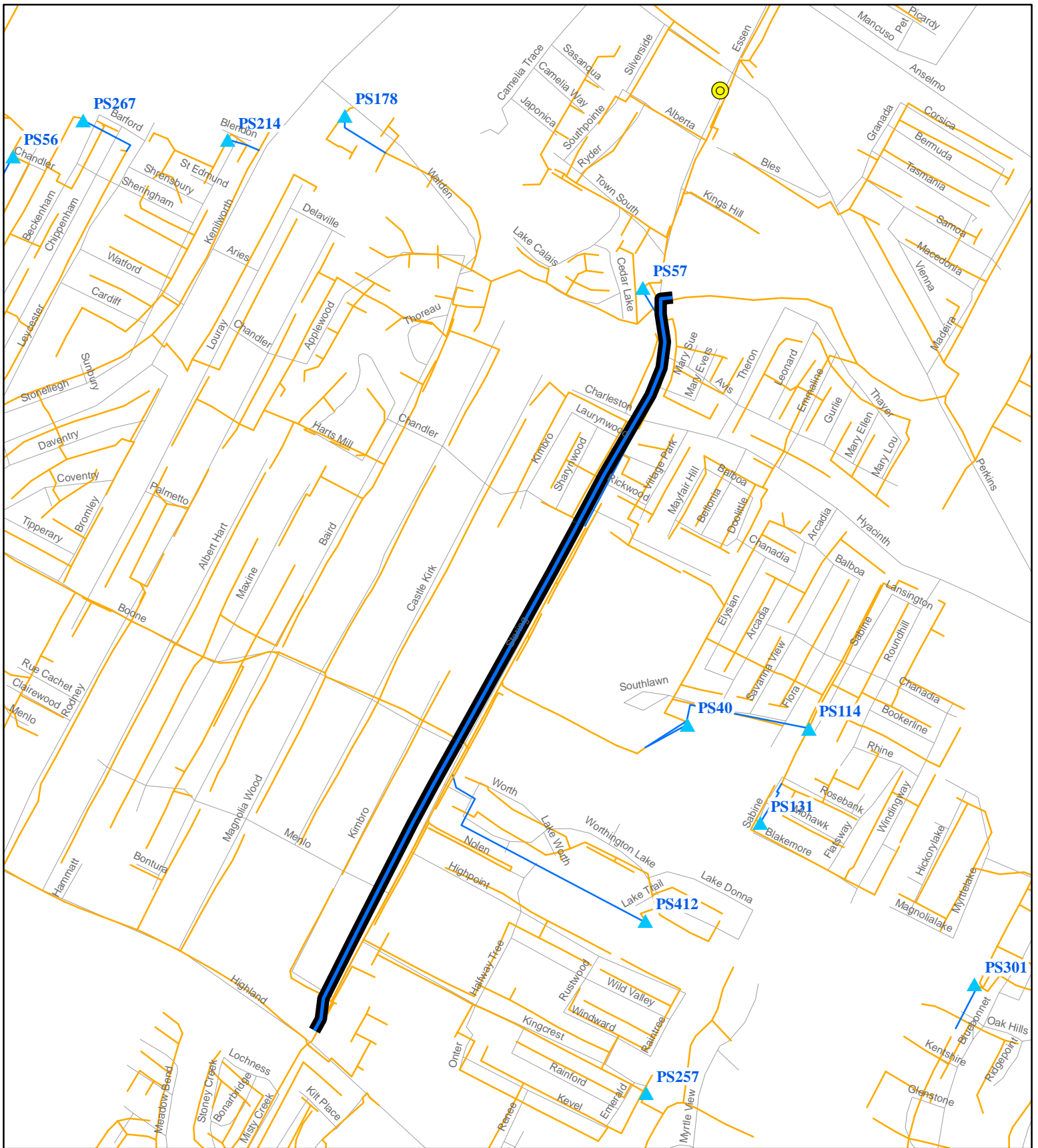
**TABLE 3-8**  
SGC-C-PS58FM-B (Staring Lane FM-Phase II - Highland Road to Perkins Road) – Pipeline Information

US Node	DS Node	Length (ft)	Existing Diameter (in)	Proposed Diameter (in)	Comments
Boone Drive	Highland Road	3,200	New	64	Constructed under Green Light Program
Dawson Creek	Boone Drive	4,900	New	60	Constructed under Green Light Program
Dawson Creek	Chandler Drive	2,200	36	36	Constructed under Green Light Program

**Note:** The pipe lengths were obtained from the BTRSSO hydraulic model.





**Total Construction Bid Amount (attributed to sewer portion of Green Light Program project) is \$10,715,000.**

**Construction is On-Going.**



East Baton Rouge Parish





**Proposed**

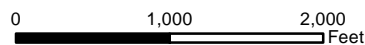
-  New Pump Stations
-  New Gravity Main
-  New Force Main
-  New Storage Facility

**Legend**



**Existing**

-  Exist. Gravity
-  Exist. Forcemain
-  Exist. Pump Station
-  Manholes/Nodes



**Staring Lane FM Phase II**

**SGC-C-PS58FM-PhII**

**Project Vicinity Map**



Figure 3-19



### 3.2.12 SGC-C-PS58FM-C (Staring Lane FM-Phase III – Perkins Road to PS 58)

#### Project Description

##### **Purpose of the Project/Project Background**

The SGC-C-PS58FM-C (Staring Lane FM-Phase III – Perkins Road to PS 58) project involves the construction of a portion of the new forcemain from the PS 58 to the South WWTP. The purpose of this project is to relieve SSOs at PS 58 as well as in the respective upstream and downstream basins. The construction of the direct forcemain between PS 58 and the South WWTP alleviates the wet weather flows into existing downstream gravity pipe, and allows the capacity needed for future flows in the Staring Lane area.

The project includes replacing an existing 36-inch aerial forcemain crossing of Ward’s Creek from PS 58. The purpose is to replace the aerial crossing with a subsurface crossing due to the condition of the forcemain.

##### **Location**

This portion of the new 60-inch forcemain starts approximately at the intersection of Essen Lane and Essen Park and proceeds in a southerly direction crossing Ward’s Creek. The forcemain then proceeds in an easterly direction along Ward’s Creek. The forcemain turns south and follows Mancuso Lane, crossing a Kansas City Southern Railroad crossing at the intersection of Anselmo Lane. The forcemain continues south along Granada Drive until reaching Dawson’s Creek. At Dawson Creek, the forcemain turns in a westerly direction and continues to the intersection of Dawson Creek and Staring Lane near PS57.

The 36-inch forcemain starts approximately at the intersection of Essen Lane and Essen Park and proceeds in a southerly direction crossing Ward’s Creek. The new forcemain will be connected to the existing forcemain on the south side of Ward’s Creek.

##### **Scope**

The scope of this project is shown in Table 3-9 and in Figure 3-20.

**TABLE 3-9**  
SGC-C-PS58FM-C (Staring Lane FM-Phase III – Perkins Road to PS 58) – Pipeline Information

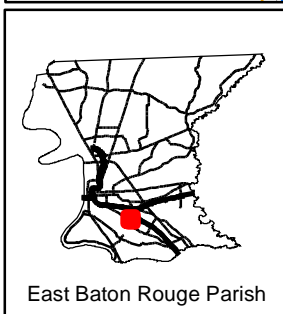
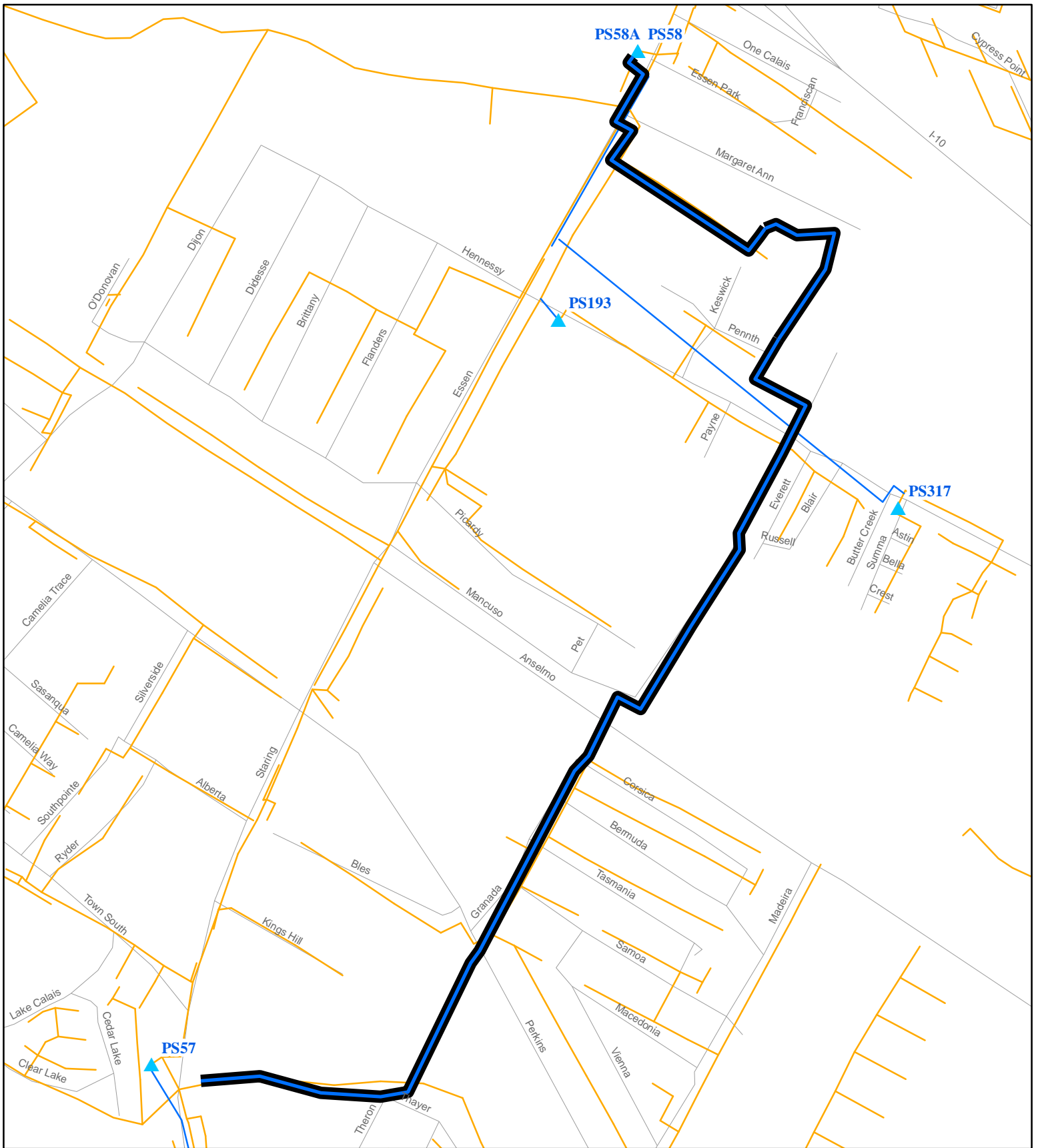
US Node	DS Node	Length (ft)	Existing Diameter (in)	Proposed Diameter (in)	Comments
PS58	Dawson Creek	9,490	New	60	
PS58	South Side of Ward’s Creek	300	36	36	

**Note:** The pipe lengths were obtained from the BTRSSO hydraulic model.

**Total Construction Bid Amount is \$7,176,000.**

**Construction is On-Going.**





**Legend**

<b>Proposed</b>	<b>Existing</b>
New Pump Stations	Exist. Gravity
New Gravity Main	Exist. Forcemain
New Force Main	Exist. Pump Station
New Storage Facility	Manholes/Nodes

0 500 1,000 Feet

**Staring Lane FM Phase III**

**SGC-C-PS58FM-PhIII**

**Project Vicinity Map**

Figure 3-20

### 3.2.13 SGC-C-PS119 (Citiplace/Essen Area PS 119 and Forcemain Improvements)

#### Project Description

##### **Purpose of the Project/Project Background**

The SGC-C-PS119 (Citiplace/Essen Area PS 119 and Forcemain Improvements) project includes the construction of both 8,100 feet of new 16-inch forcemain from PS 119 to PS 58 and the upgrade of PS 119 due to the longer forcemain and the predicted increase in future peak wet weather flow.

##### **Location**

Figure 3-21 shows the scope of this project. PS 119 is located on the north side of Highway I-10 on the western side of the creek near the movie theater and Citiplace Drive.

A new 16-inch forcemain will replace the existing 12-inch forcemain extending from PS 119 to MH 058-00194T. From MH 058-00194T, an existing 16-inch forcemain will be utilized. The existing forcemain follows Ward's Creek to MH 058-00129T. At MH 058-00129T, a new 16-inch forcemain will be connected to the existing forcemain and continue to follow Ward's Creek until nearing the intersection of Essen Lane and Ward's Creek. At this point, the forcemain will turn in a northerly direction and connect to PS 58.

##### **Scope**

The scope of the project is shown in Tables 3-10 (pump station scope) and 3-11 (forcemain scope).

**TABLE 3-10**

SGC-C-PS119 (Citiplace/Essen Area PS 119 and Forcemain Improvements) – Pump Station Information

PS No.	Location	Existing Max. Capacity (gpm)	Future Peak Wet Weather Flow (gpm)	Dry Weather (gpm)
PS 119	Citiplace Drive near the Movie Theater	2,430	2,700	594

**Note:** The existing maximum capacities for the PSs were obtained from the DPW *Field Pump Station Maintenance* reference guide. The future peak wet weather flow was obtained from the BTRSSO hydraulic model.

**TABLE 3-11**

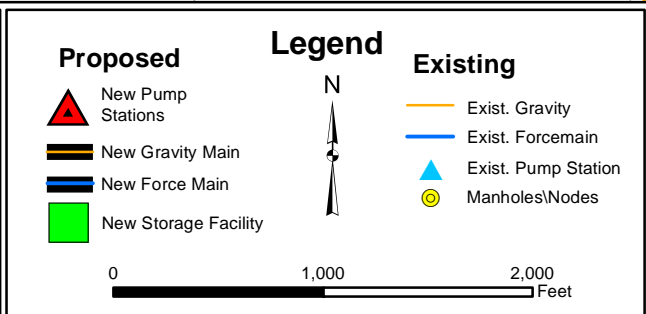
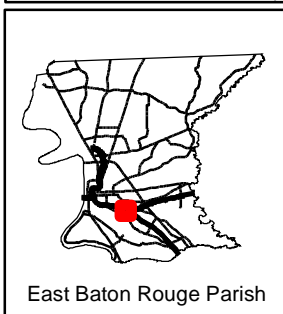
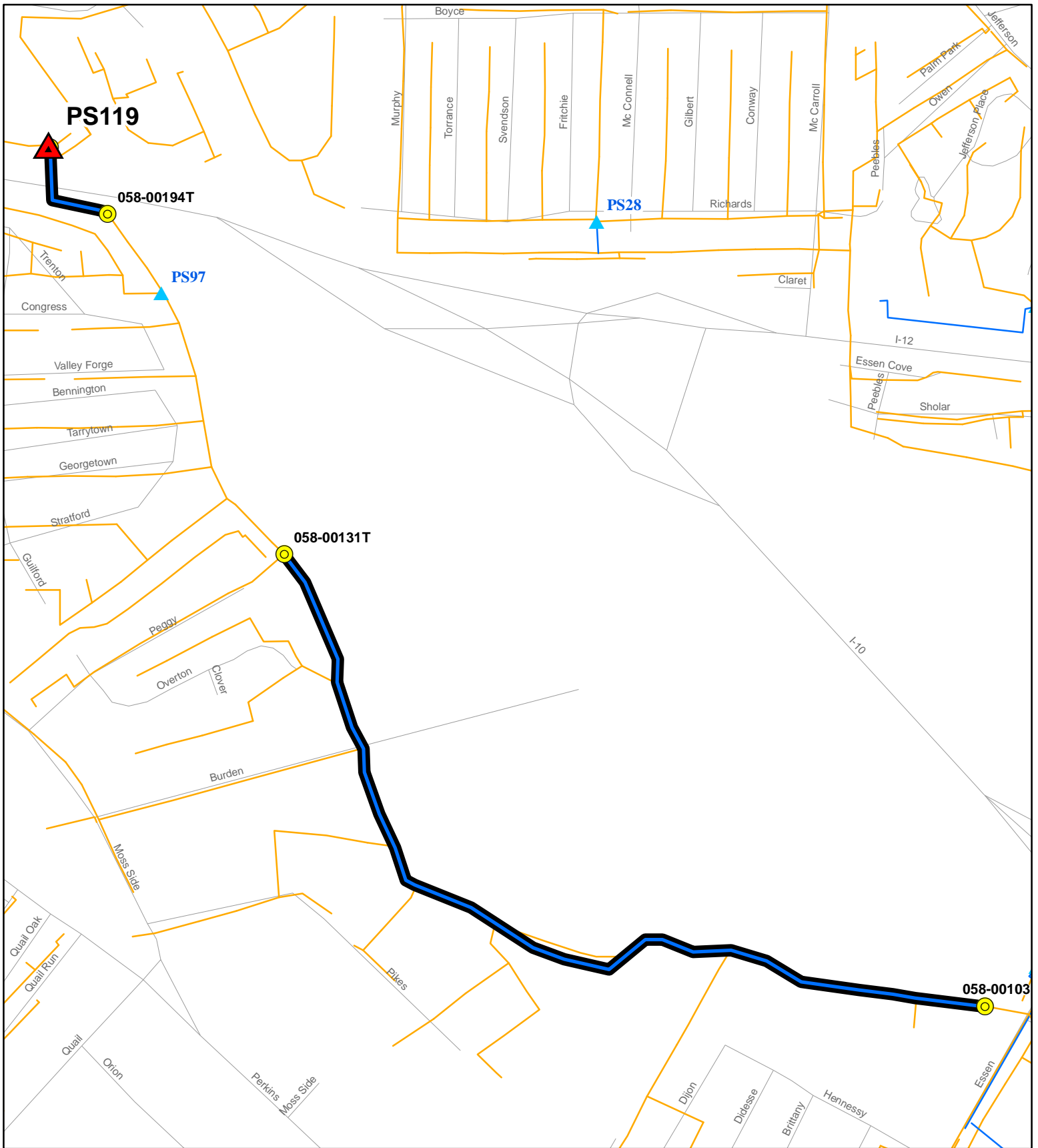
SGC-C-PS119 (Citiplace/Essen Area PS 119 and Forcemain Improvements) – Pipeline Information

US Node	DS Node	Length (ft)	Existing Diameter (in)	Proposed Diameter (in)	Comments
PS 119	PS58	8,100	New	16	New forcemain segments (PS 119 to 058-00194T and 058-00129T to PS 58)

**Note:** The pipe lengths were obtained from the BTRSSO hydraulic model.

**Total Construction Bid Amount is \$2,801,500.**

**Construction is On-Going.**



**Citi Place - Essen Area PS119 and FM**

**SGC-C-PS119**

**Project Vicinity Map**

Figure 3-21

### 3.2.14 SGL-C-0001 (Essen/Staring Area PS 57 Improvements)

#### Project Description

This project has been deleted from the PDP.

### 3.2.15 SGL-C-0002 (Multiple PSs – Highland Road – Kenilworth Parkway)

#### Project Description

##### **Purpose of the Project / Project Background**

The SGL-C-0002 (Multiple Pump Stations – Highland Road – Kenilworth Parkway) project includes the replacement of PS 120, PS 329, PS 40, PS 56, PS 68, PS 102, PS 27, PS 74, and PS 302, the construction of a new PS53/PS , and a new LSU PS. The new pump stations will work in conjunction with forcemain upgrades in other south lower basin projects to alleviate SSOs at and near the pump stations and in their respective upstream basins. The BTRSSO hydraulic model also predicts that these pump stations will exceed their existing capacities at the predicted future peak wet weather flows. PS 102 was originally slated as a master plan pump station but was added to this PDP project. PS 27, PS 74, and PS 302 have been added to this project since the October 2008 PDP.

##### **Location**

The locations of the pump stations are shown in Table 3-12 and in Figure 3-22.

##### **Scope**

The scope of the project is shown in Table 3-12. All pump stations are replacements of existing pump stations. PS 53/PS 53A is a new pump station that will replace the existing PS 53. The new PS 53/PS 53A will have a divided wet well and pump in two directions, with PS 53 piped to the existing forcemain and PS 53A piped to a new forcemain, described in the SGL-C-0003 (Highland Road Pipeline Improvements) project, through which it will pump to the manifold with the new forcemain from PS 58A, described in the SGC-C-PS58FM-B (Staring Lane FM-Phase II – Highland Road to Perkins Road) project.

**TABLE 3-12**  
SGL-C-0002 (Multiple Pump Stations - Highland Road - Kenilworth Parkway) – Pump Station Information

PS No.	Location	Existing Max. Capacity (gpm)	Future Peak Wet Weather Flow (gpm)	Dry Weather (gpm)
PS 120	Helvetia Drive, near the intersection of Bancroft Way	200	511	92
PS 329	Kenilworth Parkway, near the intersection of Burbank Drive	450	1,224	196
PS 40	Southlawn Drive, near the intersection of Arcadia Drive	400	802	117
PS 53	Boone Avenue, near the intersection of Chippenham Drive	6,041	6,270	2,707
PS 53A	Boone Avenue, near the intersection of Chippenham Drive	N/A	9,729	N/A
PS 56	Chandler Drive, near the intersection of Highland Park Drive	600	4,740	573
PS 68	Burbank Drive, near the intersection of Jennifer Jean Drive	350	1,136	385

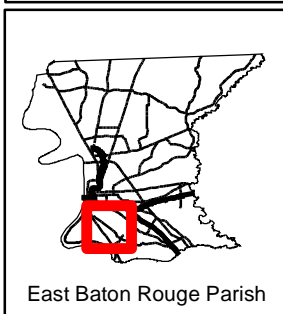
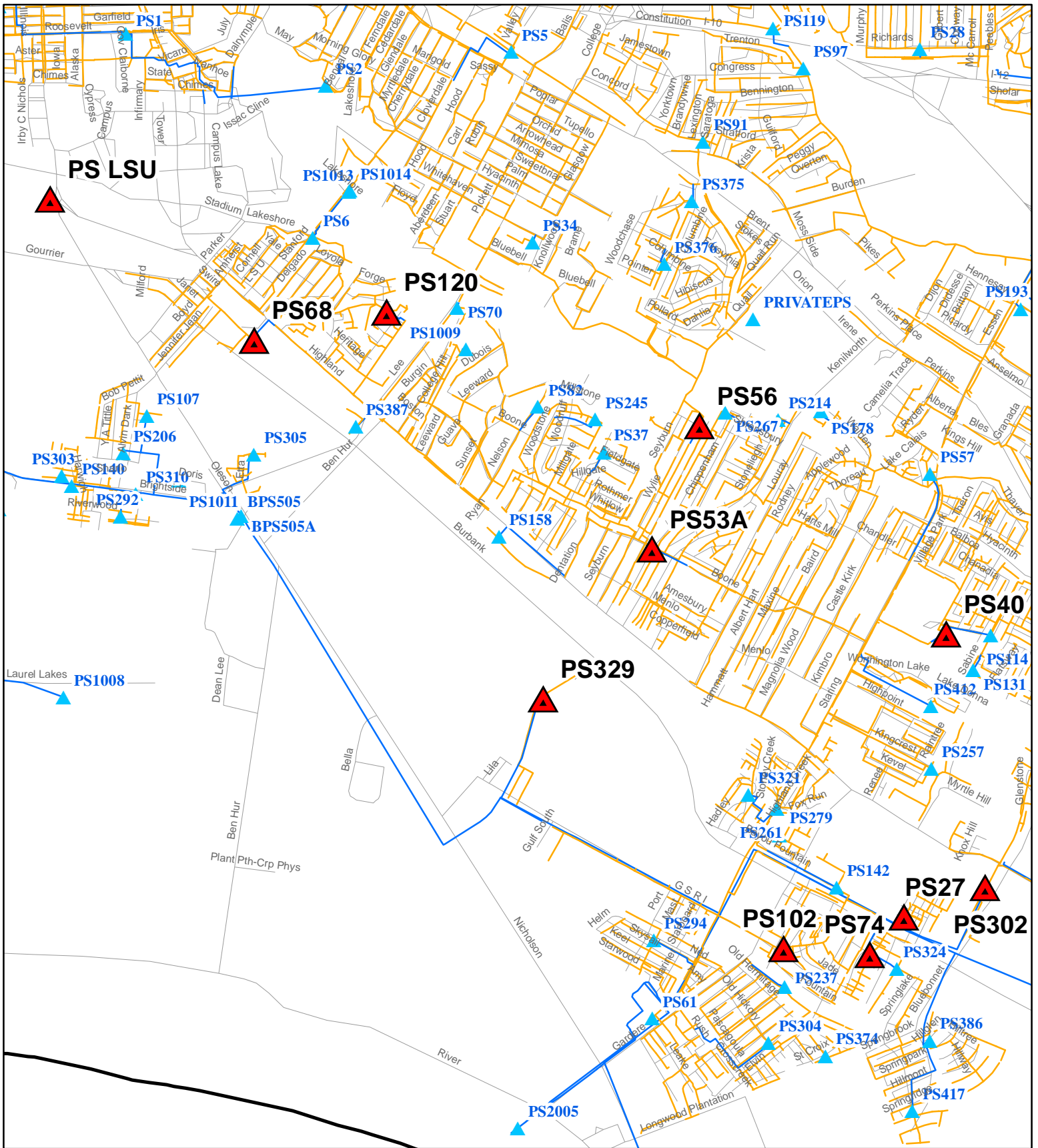
**TABLE 3-12**  
 SGL-C-0002 (Multiple Pump Stations - Highland Road - Kenilworth Parkway) – Pump Station Information

PS No.	Location	Existing Max. Capacity (gpm)	Future Peak Wet Weather Flow (gpm)	Dry Weather (gpm)
PS 102	GSRI Avenue, near the intersection of Jasper Avenue	430	897	356
PS 27	Intersection of Ridgehaven Avenue and Burbank Drive	382	382	80
PS 74	Northeast of Pecan Tree Drive and Jade Avenue intersection	568	568	167
PS 302	Southwest of Bluebonnet Blvd and Highland Road intersection	5,150	5,150	915
LSU PS	Near Intersection of Stadium Drive. and Nicholson Drive.	N/A	6,940	4,000

**Note:** Estimated total dynamic head (TDH) for PS 120, PS 329, PS 40, PS 53A, PS 56, PS 68, PS 102, and LSU PS based on the Pump Station Design Requirements Hazen-Williams “C” value, rather than InfoWorks model “C” value. The TDH for PS 302, PS 27, and PS 74 is based on these pump stations being manifolded together and their design flow. The existing maximum capacities for the PSs were obtained from the DPW *Field Pump Station Maintenance* reference guide. The future peak wet weather flow was obtained from the BTRSSO hydraulic model.

**Total Construction Cost Estimate is \$11,100,000.**

**Design is On-Going.**



**Legend**

<b>Proposed</b>	<b>Existing</b>
New Pump Stations	Exist. Gravity
New Gravity Main	Exist. Force Main
New Force Main	Exist. Pump Station
New Storage Facility	Manholes/Nodes

0 2,500 5,000 Feet

**Multiple PS - Highland Rd. - Kenilworth Dr.**

**SGL-C-0002**

**Project Vicinity Map**

Figure 3-22

### 3.2.16 SGL-C-0003 (Highland Road Pipeline Improvements)

#### Project Description

##### ***Purpose of the Project/Project Background***

The SGL-C-0003 (Highland Road Pipeline Improvements) project was originally called the SGL-C-0003 (Essen Lane-Highland Road) project in the October 2008 PDP and has been combined with segments previously included in the SGL-C-0004 (Highland Road-Lee Drive) project from the October 2008 PDP. The combined project is designated the SGL-C-0003 (Highland Road Pipeline Improvements) project, which is being designed as one project, but will be split into Group A and Group B projects for construction.

The following is a summary of the Group A project:

- Construction of a new forcemain from PS 53A, described in the SGL-C-0002 (Multiple Pump Stations – Highland Road – Kenilworth Parkway) project, to the manifold point with the new PS 58A forcemain, described in SGC-C-PS58FM-B (Staring Lane FM-Phase II – Highland Road to Perkins Road) projects
- Upsizing of gravity sewer upstream of PS 68
- Construction of a new forcemain from PS 68 to manifold with the PS42 forcemain, described in the CC-WWTP-FM (PS 42 FM) project, at Burbank Drive
- Construction of gravity from existing Powerhouse Lift Station at LSU to the new LSU Pump Station
- Construction of new forcemain from PS120 to manifold with the PS 5 forcemain, described in CC-EAST-FM (Central Consolidated FM) project at Lee Drive
- Upsizing of gravity sewers upstream of PS 53, which will assist with alleviating upstream SSOs
- Upsizing and extension of the forcemain from PS 56 to PS 53 to alleviate overflows. PS 56 is described in the SGL-C-0002 (Multiple Pump Stations – Highland Road – Kenilworth Parkway) project

The following is a summary of the Group B project:

- Upsizing of gravity sewers upstream of PS 57, PS 302, PS 329, PS 4, and PS 40
- Upsizing of the forcemain from PS 329
- Upsizing of the forcemain from PS 102

##### ***Location – Group A***

The SGL-C-0003 project is roughly bound by I-10 in the north, Nicholson Drive in the south, Winterhue Drive in the east, and Wylie Drive in the west. It also includes upgrades of gravity sewers near Highland Road between Bromley Road in the east and Delgado Drive in the west. Group A project specifics are presented in Table 3-17A and are shown in Figure 3-23A.

New forcemain from PS56 to new manhole 053-00001A will be constructed along Highland Park Drive. Starting from PS56 site at the north end of Highland Park Drive, the forcemain runs south along Highland Park Drive and discharges into a new manhole at the northeast corner of Boone Avenue and Highland Park Road intersection.

Gravity segments 053-00169 to new manhole 053-00164A and 053-00164A to 053-00144 start near the intersection of Leycster Drive and Kenilworth Parkway and run southwest along Kenilworth Parkway to Boone Avenue to manhole 053-00144 at Chippenham Drive.

Gravity Segment 053-00320A to 053-00316 starts at the College Hill Drive and Menlo Drive intersection, runs along Menlo Drive to Burgin Avenue. At Burgin Avenue, this segment goes in a northeasterly direction. At Boston Street, it turns southeasterly again. At McDonald Avenue, the line turns northeasterly and then turns again southeasterly onto Menlo Drive. The segment travels down Menlo Drive to manhole 053-00316, which is halfway between Leeward Drive and Sunset Blvd.

Gravity segment 053-00316 to 053-00014 starts on Menlo Drive halfway between Leeward Drive and Sunset Blvd and travels southeasterly along Menlo Drive past the intersection of Nelson Drive with Menlo Drive. The segment continues past the end of Menlo Drive behind a line of houses, and then the segment turns northerly to manhole 053-00014, which is northwest of Woodstone Drive.

Gravity segment 053-00012 to 053-00003 starts northwest of the Woodgate Blvd and travels in a southeasterly direction along a drainage canal between Woodgate Court and Millgate Place to manhole 053-00003, which is located on Boone Avenue halfway between Wylie Drive and Highland Park Drive.

New forcemain PS120DS to Central Consolidated FM (PS 5FM) at Lee Drive starts from the existing discharge point of PS 120 (PS120DS) and extends to the existing forcemain, which begins at the southeast intersection of Bancroft Way and Helvetia Drive. The forcemain then travels through St. James Place to the east side of Lee Drive and manifolds to the new PS 5 forcemain that is being constructed as part of the Central Consolidated Forcemain - Phase II project.

Gravity segment 068-00050 to PS 68 begins near the cul-de-sac on the northern end of Jennifer Jean Drive and follows a servitude east between Highland Road and Burbank Drive to PS 68, which is located just south of the intersection of Highland Road and Delgado Drive.

New forcemain PS68 to Pump Station 42 Forcemain at Burbank Drive, starts at PS68, located south of the intersection of Highland Road and Delgado Drive, and heads in an easterly direction, manifolding with the Pump Station 42 Forcemain - Phase I project at Burbank Drive.

The PS 53A forcemain is a new forcemain from PS 53 to the manifold with the new PS 58A forcemain, as described above. This forcemain begins at PS 53A, which will be located near the intersection of Boone Avenue and Chippenham Drive, and runs southeasterly along Boone Avenue to Staring Lane.

Gravity segment Powerhouse Lift Station (existing LSU PS) to New LSU PS starts from the South Campus Drive power plant, crosses the south side of Stadium Drive to the Car Parking lot, crosses Nicholson Drive to New LSU pump station, which will be located between the railroad and Nicholson Drive.

### **Location – Group B**

The SGL-C-0003 Group B project is roughly bound by I-10 in the north, Nicholson Drive in the south, Winterhue Drive in the east, and Wylie Drive in the west. It also includes upgrades of gravity sewers near Highland Road between Bromley Road in the east and Delgado Drive in the west. Group B project specifics are presented in Table 3-17B and are shown in Figure 3-23B.



Gravity segment 057-00117 to 057-00080 starts south of the Thoreau Drive and Baird Drive intersection, and goes north along Baird Drive and back over the water channel. This segment bends east along the water channel, then travels north, parallel to Walden Road. Gravity segment 057-00080 to 057-00003 starts southeast of the intersection of Walden Road and Applewood Road and travels in an easterly direction over a drainage canal toward Lake Calais Court. The gravity segment then runs parallel to Clear Lake Avenue south of the houses on that street and next travels in an easterly direction to the west side of Staring Lane. Segment 057-00003 to 057-00001 runs northerly along Staring Lane to PS 57.

Gravity segment 057-00330 to 057-05069 starts east of Madeira Drive between Perkins Road and Vienna Avenue. The gravity segment travels southeast to the back of nearby houses that are along Madeira Drive. The segment then turns southwest and ends just north of Perkins Road. Segment 057-05069 to 057-00367 starts north of Perkins Road and travels southwest to the southern side of Perkins Road. Gravity segment 057-00367 to 057-00368 runs northwest from Perkins Road on the north side of a drainage canal. Gravity segments 057-00368 to 057-00495, 057-00495 to 057-00371D, 057-00371D to 057-00371E, and 057-00371E to 057-00003 follow the northern side of the drainage canal west and north to Staring Lane.

Gravity segment 040-00012 to PS 40 is located west of Elysian Drive and goes in a southwesterly direction past Southlawn Drive until reaching 040-00002. The segment then travels southeast to PS 40, located southwest of Southlawn Drive and Arcadia Drive intersection.

Gravity segments 329-00016 to 329-00008 and 329-00008 to PS 329 are located in a wooded area off GSRI Avenue. Segment 329-00016 to 329-00008 runs northerly from Tracy Lee Drive. Segment 329-00008 to PS 329 runs northerly to PS 329.

Gravity segment 302-05074 to 302-05052 runs down Lakeview Drive and heads in a southeasterly direction to the corner of Lakeview Drive and Oak Hills Parkway. Segment 302-05052 to 302-05028 starts at Lakeview Drive and Oak Hills Parkway and heads in a southerly direction down Oak Hills Parkway and ends at Highland Road. Segment 302-05028 to 302-05010 travels westerly along Highland Road to manhole 302-05010, which is halfway between Huntington Drive and Grand Lakes Drive. Segment 302-05010 to 302-05007A runs along Highland Road to the intersection of Highland Road and Rue de Laplace. Segment 302-05007A to 302-05004 starts at Rue de Laplace and heads up Highland Road westerly to Shady Lake Place. Segment 302-05004 to 302-05003 runs along Highland Road crosses from northeast intersection of Highland Road and Bluebonnet Blvd to southwest intersection.

Gravity segment 004-03201 to 004-02980B near the intersection of Westdale Drive and College Drive. The new gravity line follows College Drive until reaching Ward's Creek. The gravity line turns northwest, paralleling Wards Creek along the edge of Webb Golf Course (BREC) and continues down Greenside Lane to Claycut Drive. The gravity line turns northeast and continues along Claycut Drive to PS 4.

New forcemain from PS102 to 061-00365 is located along GSRI Road, starts at PS102 at Seaboard Drive and runs northwesterly to Gardere Lane.

The PS 329 forcemain will be replaced under this project. This forcemain starts at PS 329, which is located in a wooded area in a northerly direction from GSRI Avenue, then runs south to GSRI Avenue, and turns easterly on GSRI Avenue to Gulf South Parkway.

### Scope – Group A

This Group A project includes construction of the following: approximately 8,380 feet of 18-inch, 21-inch, 24-inch, 27-inch, 30-inch, and 36-inch gravity sewer upstream of PS 53; approximately 1,200 feet of 18-inch gravity sewer upstream of PS 68; approximately 6,200 feet of new 24-inch forcemain from PS 53A; approximately 3,800 feet of 18-inch forcemain from PS 56 to replace the existing forcemain; approximately 980 feet of 8-inch forcemain from PS 120 to manifold with PS 5 FM; approximately 320 feet of 8-inch forcemain from PS 68 to manifold with PS 42 FM.

Table 3-13A shows the detailed scope of this Group A project.

**TABLE 3-13A**  
SGL-C-0003A (Highland Road Pipeline Improvements – Group A)– Pipeline Information

US Node	DS Node	Length (ft)	Existing Diameter (in)	Proposed Diameter (in)	Comments
PS56FM	053-00001A	3,800	New	18	New Forcemain from PS56 to PS53
053-00169	053-00164	1,680	New	18	New Gravity line Parallel to existing gravity line along Kenilworth Parkway
053-00164	053-00144	230	10	21	
053--00320A	053-00317	1,000	12 or 18	21	
053-00317	053-00016	2,000	18	24	
053-00016	053-00014	470	18	24	
053-00012	053-00003	3,000	24	36	This segment includes a canal crossing.
PS120DS	PS5FM	980	New	8	New Forcemain From PS120 to PS5 Forcemain at Lee Drive
068-00050	PS68	1,200	10	18	
PS68FM	PS42FM	620	New	8	New Forcemain from PS68 to PS42 FM at Burbank Drive.
PS 53A	Manifold point with Staring Lane FM (PS 58A FM)	6,220	New	24	New forcemain from new PS 53A, which is described in SGL-C-0002 (Multiple PS – Highland Road – Kenilworth Parkway)
Powerhouse Lift Station	LSU New PS	2,200	New	36	Gravity line from Existing LSU Powerhouse Lift Station to New LSU Pump Station

**Note:** The existing pipe sizes and lengths and new pipe lengths were obtained from the BTRSSO hydraulic model.

### Scope –Group B

This project includes construction of the following: approximately 6,850 feet of 15-inch, 18-inch, 21-inch, 27-inch, 30-inch, 36-inch, and 42-inch gravity sewer upstream of PS 57; approximately 1,200 feet of 15-inch gravity sewer upstream of PS 40; approximately 2,000 feet of 15-inch and 18-inch gravity sewer upstream of PS 329; approximately 10,900 feet of 12-inch, 15-inch, 18-inch, 24-inch, and 27-inch gravity sewer upstream of PS 302; approximately 3,700 feet of 24-inch gravity sewer upstream of PS 4; approximately 4,800 feet of 10-inch forcemain from PS 329 to replace the existing forcemain; approximately 800 feet of 8-inch forcemain from PS 102 to Manhole 061-00365.

Table 3-13B shows the detailed scope of this project.

**TABLE 3-13B**  
SGL-C-0003B (Highland Road Pipeline Improvements – Group B) – Pipeline Information

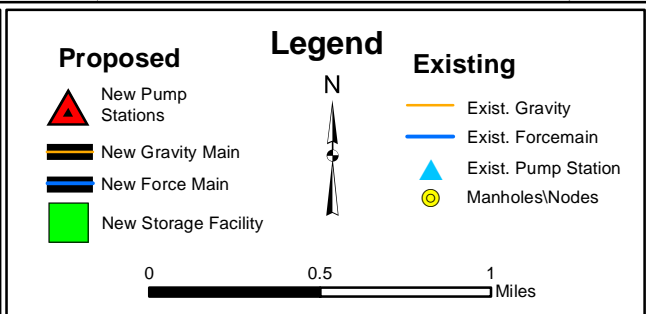
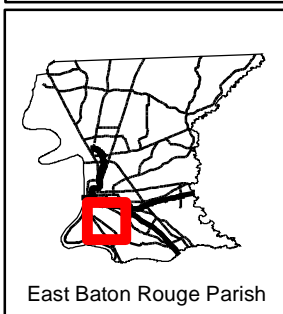
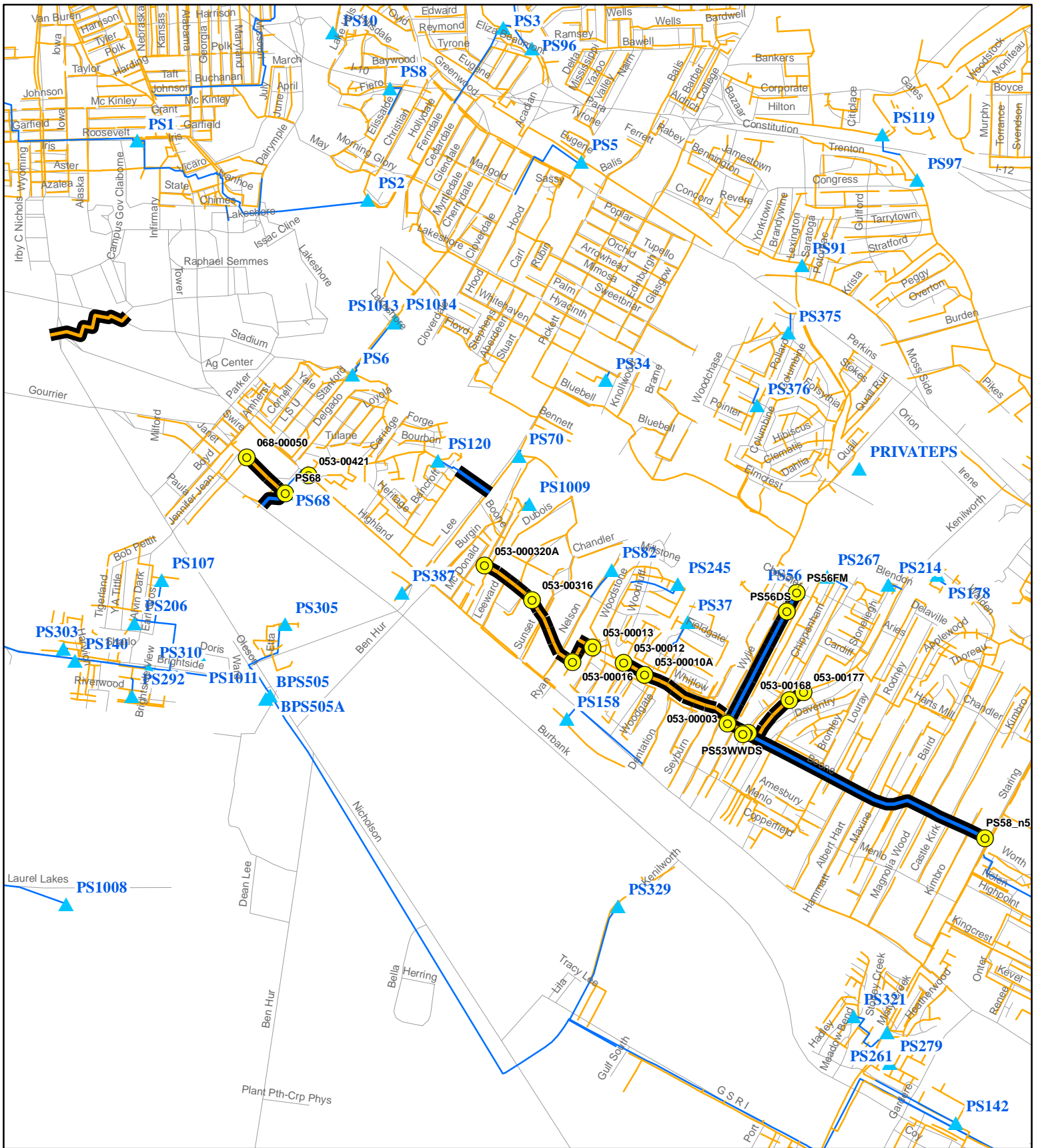
US Node	DS Node	Length (ft)	Existing Diameter (in)	Proposed Diameter (in)	Comments
057-00117	057-00080	710	10 and 12	18	This segment goes underneath a water channel
057-00080	057-00003	2,200	12	21	
057-00003	057-00001	180	24	42	Segment includes crossing of a drainage canal
057-00330	057-05069	460	8	15	
057-05069	057-00367	170	10	15	
057-00367	057-00368	190	10	18	
057-00368	057-00495	700	10	21	
057-00495	057-00371D	1,345	12	27	
057-00371D	057-00371E	230	12	30	
057-00371E	057-00003	665	12	36	
040-00012	PS 40	1,200	8	15	PS 40 will be upgraded under SGL-C-0002 (Multiple PS – Highland Road – Kenilworth Parkway)
329-00016	329-00008	1,700	10	15	
329-00008	PS 329	300	10	18	PS 329 will be upgraded under SGL-C-0002 (Multiple PS – Highland Road – Kenilworth Parkway) – forcemain replacement described below
302-05074	302-05052	810	8	12	
302-05052	302-05051	150	8	15	
302-05051	302-05028	1,000	New	18	New Parallel line to existing gravity line along Oak Hill Parkway
302-05028	302-05010	1,180	15 to 18	18	
302-05010	302-05007A	950	18	24	
302-05007A	302-05004	1,200	18	24	
302-05004	302-00003	1,600	18	27	
004-03201	004-02980B	3,730	12 & 18	24	
PS102FM	061-00365	800	New	8	New Forcemain for PS102
PS 329	PS329DS	4,300	8	10	Forcemain – PS 329 replacement is described in SGL-C-0002 (Multiple PS – Highland Road – Kenilworth Parkway)

**Note:** The existing pipe sizes and lengths and new pipe lengths were obtained from the BTRSSO hydraulic model.

**Total Construction Cost Estimate (Group A) is \$7,761,000.**

**Total Construction Cost Estimate (Group B) is \$8,737,000.**

**Design is On-Going.**



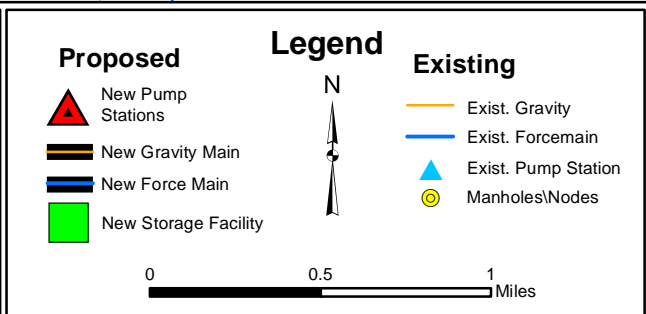
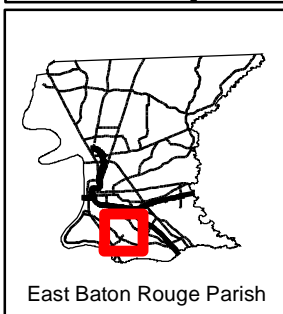
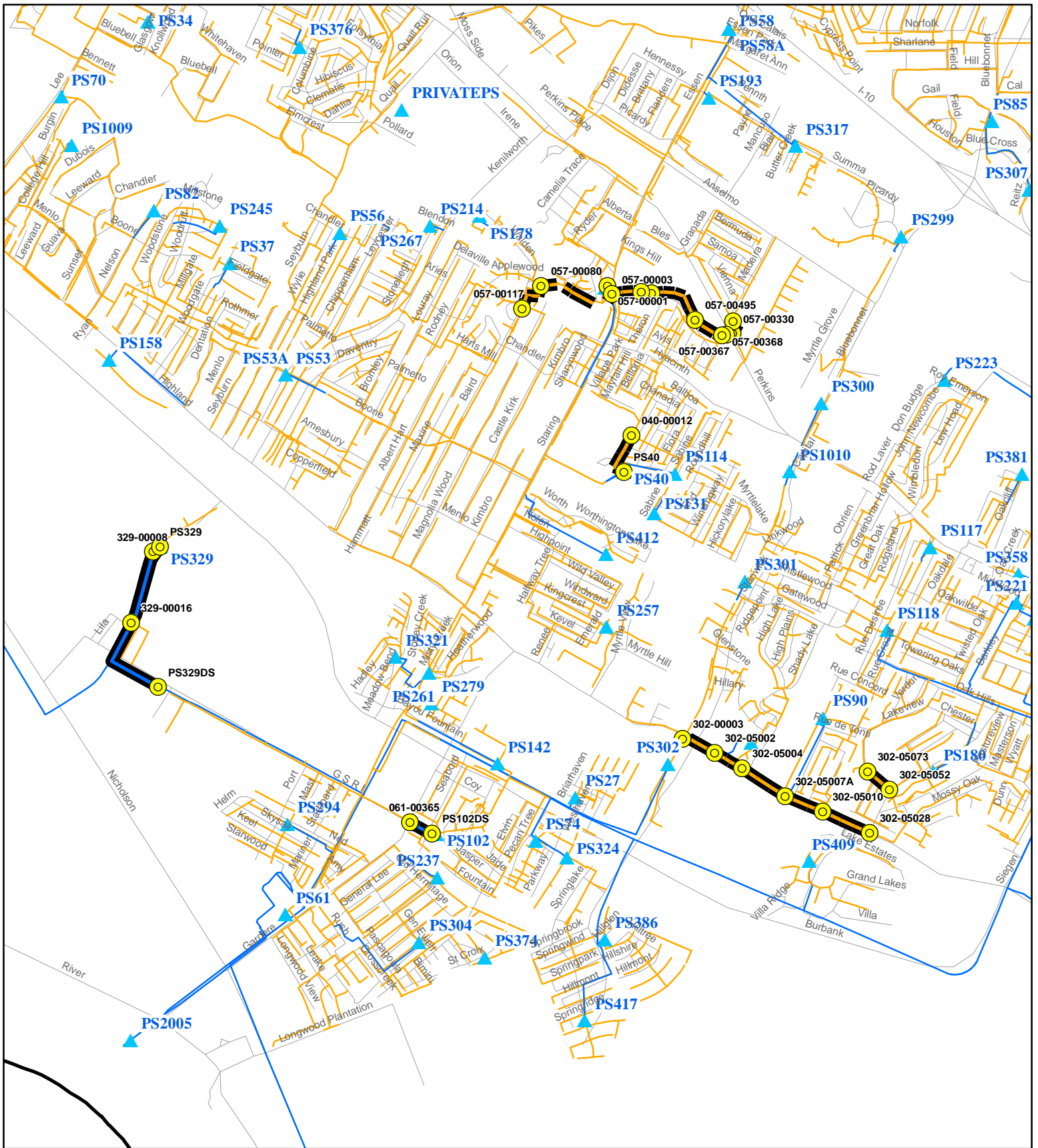
## Highland Rd. Pipeline Improvements Group A

# SGL-C-0003A

## Project Vicinity Map

Figure 3-23A

BATON ROUGE SSO Program



**Highland Rd. Pipeline Improvements Group B**

**SGL-C-0003B**

**Project Vicinity Map**

Figure 3-23B

### **3.2.17 SGL-C-0004 (Highland Road – Lee Drive)**

This project has been combined with the SGL-C-0003 (Essen Lane-Highland Road) from the October 2008 PDP. The combined project has been designated the SGL-C-0003 (Highland Pipeline Improvements) project and is found in Section 3.2.16.

### **3.2.18 SGL-C-0005 (Bayou Duplantier Area Sewer Upgrades)**

#### **Project Description**

#### ***Purpose of the Project / Project Background***

The SGL-C-0005 (Bayou Duplantier Area Sewer Upgrades) project was originally designated SGL-C-0005 (Perkins Road – Dahlia Street) project in the October 2008 PDP. This project includes the upsizing of gravity sewer and forcemain upstream of PS 56 and PS 91 to alleviate upstream SSOs.

#### ***Location***

The SGL-C-0005 project includes gravity sewer and forcemain replacements in the area of Perkins Road and Bayou Duplantier, and is shown in Figure 3-24.

Gravity segment 056-00133H to 056-00153 is located in a wooded area, starting south of Belvedere Drive and progressing in an easterly direction through the woods south of Elmcrest Drive and Pollard Parkway.

Gravity segment 056-00208 to 056-00133H starts at Lee Drive south of Bennett Drive. The segment travels in a northeasterly direction, then heads easterly on Bluebell Drive. This segment continues easterly beyond the end of Bluebell Drive through a wooded area to manhole 056-00133H, which is south of Belvedere Drive.

Gravity segment 056-00148 to PS 56 starts in the wooded area north of Chandler Drive and heads in a southeasterly direction to PS 56, which is located off Chandler Drive west of its intersection with Highland Park Drive. Gravity segment 056-00153 to 056-00148 starts south of the Christian Life Academy off Quail Drive and continues in a southwesterly direction to manhole 056-00148 in a wooded area.

Gravity segment PS70DS to 056-00208 is located along Lee Drive north of the drainage canal north of PS 70.

Gravity segment 091-00004 to 091-00001 is located along Concord Avenue between Yorktown Drive and Brandywine Drive. Segment 091-00074 to 091-00006 begins on Valley Creek Drive and continues southeasterly through a wooded area to the intersection of Concord Avenue and Congress Blvd.

Forcemain segment PS70 to 056-00208 starts south of Bayou Duplantier on Lee Drive. The segment travels in a northwesterly direction crossing Bayou Duplantier to 056-00208.

#### ***Scope***

This project includes the construction of approximately 10,500 feet of 18-inch, 21-inch, 24-inch, 30-inch, and 36-inch gravity sewer upstream of PS 56 and approximately 2,000 feet of 15-inch and 18-inch gravity sewer upstream of PS 91. Table 3-14 shows the detailed scope of this project.

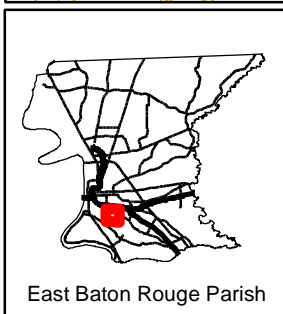
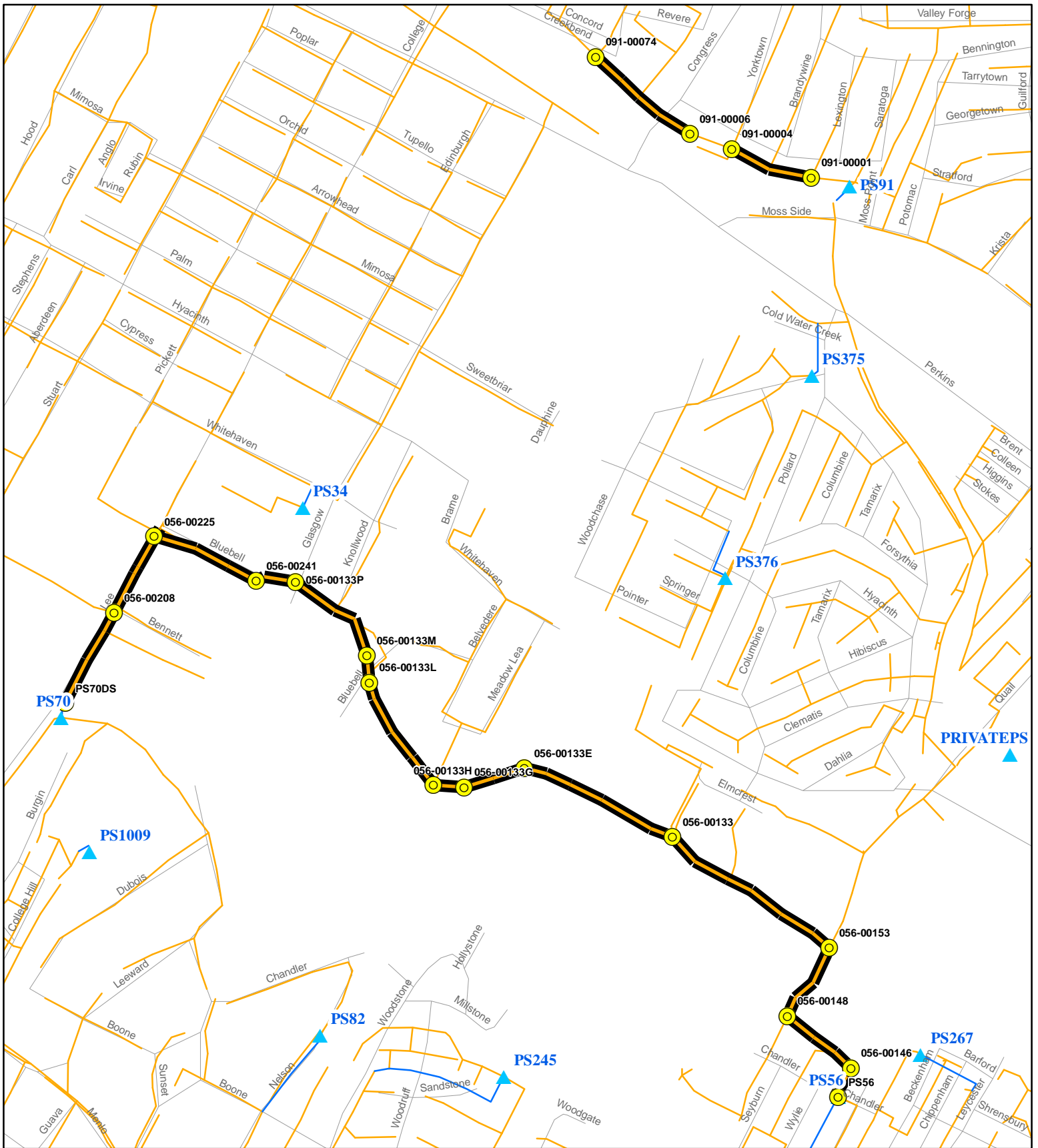
**TABLE 3-14**  
SGL-C-0005 (Bayou Duplantier Area Sewer Upgrades) – Pipeline Information

US Node	DS Node	Length (ft)	Existing Diameter (in)	Proposed Diameter (in)	Comments
056-00133H	056-00153	3,800	15	24	
056-00208	056-00133H	4,200	12 to 15	21	Includes a crossing of a drainage canal
056-00148	PS56	970	18	36	PS 56 will be upgraded in the SGL-C-0002 (Multiple PS – Highland –Kenilworth) project
056-00153	056-00148	700	15 or 18	30	
PS70DS	056-00208	790	12	18	
091-00004	091-00001	700	12	18	
091-00074	091-00006	1,300	10	15	
PS70	PS70DS	645	8	8	Forcemain segment was lengthened

**Note:** The existing pipe sizes and lengths were obtained from the BTRSSO hydraulic model.

**Total Construction Bid Amount is \$4,835,682.**

**Construction is On-Going.**



**Legend**

<b>Proposed</b>	<b>Existing</b>
New Pump Stations	Exist. Gravity
New Gravity Main	Exist. Force Main
New Force Main	Exist. Pump Station
New Storage Facility	Manholes/Nodes

0 1,000 2,000 Feet

**Bayou Duplantier Area Sewer Upgrades**

**SGL-C-0005**

**Project Vicinity Map**

Figure 3-24



## 3.3 South Forced System Comprehensive Rehabilitation Projects

### 3.3.1 SFL-R-0001, SFL-R-0002, SFL-R-0003, and SFU-R-0001

#### Project Description

The sanitary sewer system comprehensive rehabilitation projects consist of improvements to various components of the sewer collection system to reduce the amount of rainwater and groundwater that leak into the system.

#### Purpose

The purpose of the comprehensive sewer rehabilitation is to correct defects in the system such as offset pipe joints, collapsed pipe sections, leaking manholes, and direct inflow sources. The water that enters the system through defects can contribute to sanitary sewer overflows. Comprehensive rehabilitation of the collection system will contribute to alleviating sanitary sewer overflows by reducing I/I.

#### Location

There are four projects located primarily within the South Forced Basin. The locations of the projects are shown on the attached maps, Figures 3-25 to 3-28.

#### Scope of Project

The first phase of comprehensive rehabilitation projects will be the physical inspection of the pipes and manholes including CCTV inspection of all pipes. Smoke testing may also be included in the physical inspection phase.

The data collected by the physical inspection contractor will be analyzed and based on that analysis, a listing of recommended repairs with associated construction costs will be generated.

An engineering firm will then complete detailed design and preparation of construction documents for project bidding.

The construction of rehabilitation projects will include the following components:

- Replacement of pipes
- Point repair of pipes
- Rehabilitation of pipes by cured in place liners
- Rehabilitation or replacement of sewer manholes
- Repair of sewer laterals to the property line

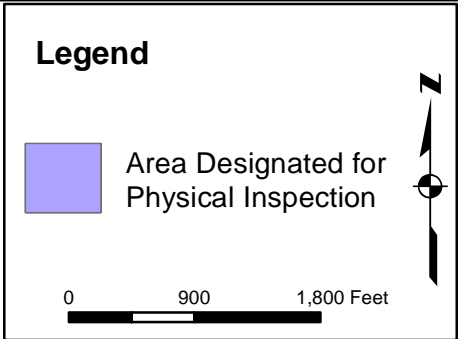
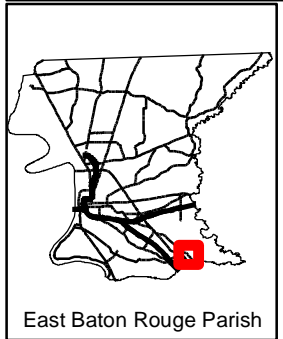
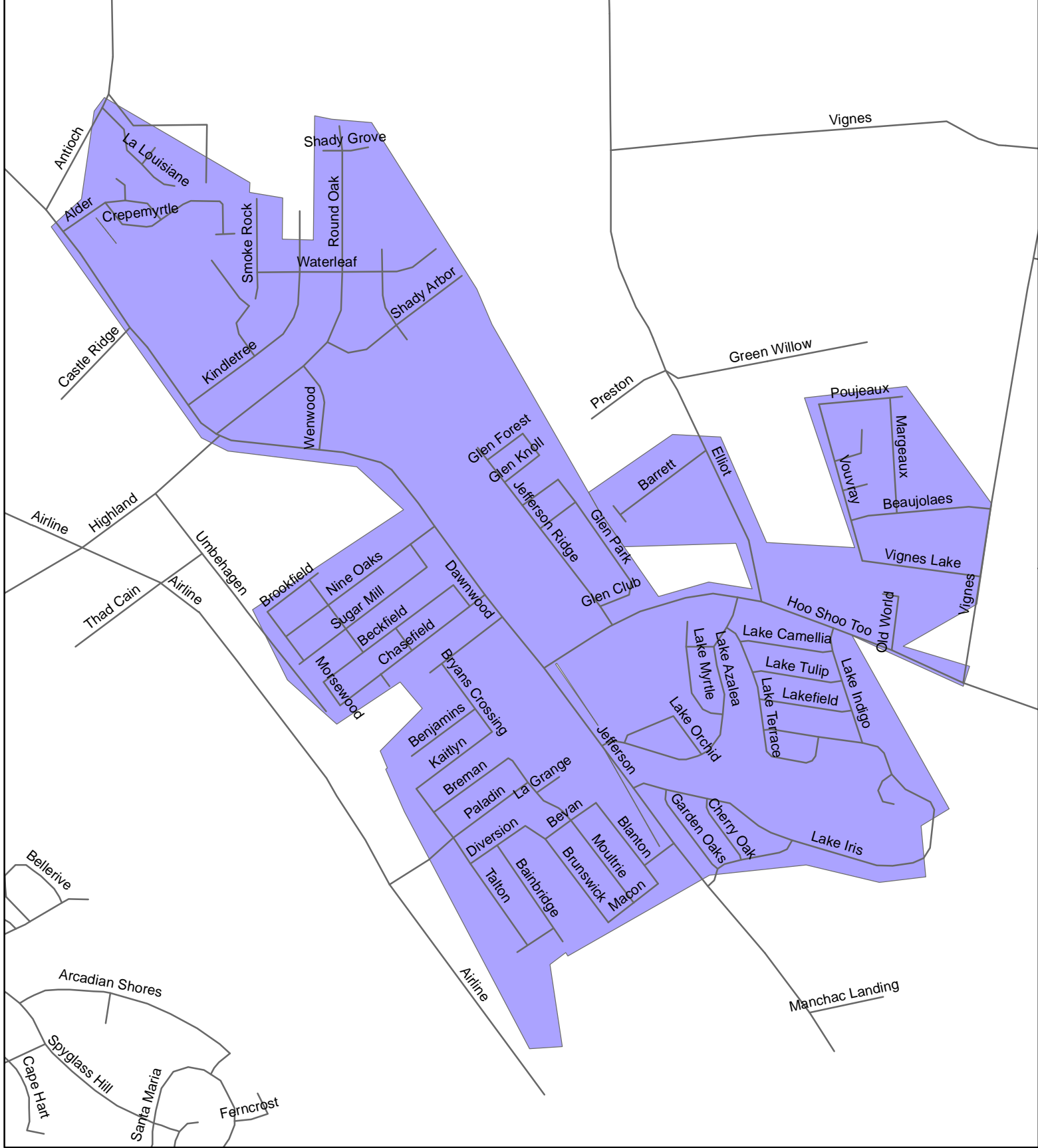
#### Cost

The estimated construction cost for each project is presented in Table 3-15. These costs are based on preliminary estimates of the amounts of each component of the system component that will require repair or replacement. During the physical inspection phase, the actual condition of the components will be assessed and appropriate methods recommended. At that time, the cost estimate for each project will be revised. For those projects under construction, bid amounts were included as construction costs in Table 3-15.

**TABLE 3-15**  
Estimated Construction Costs for South Forced System Comprehensive Rehabilitation Projects

<b>Project Description</b>	<b>Estimated Construction Cost*</b>	<b>Status</b>
SFU-R-0001-Antioch Road- Chadsford Drive	\$7,735,500	Design On-Going
SFL-R-0001-Jefferson Highway-Hoo Shoo Too Road	\$1,769,540	Project Closed Out
SFL-R-0002-Jones Creek Road-Tiger Road	\$5,157,000	Design On-Going
SFL-C-0002 Jones Creek Road – Tiger Bend Road	\$6,112,000	Design Beginning


\* Estimated construction costs given for projects with construction on-going are bid amounts. If a project is closed out, then the estimated construction cost is the actual construction cost.




**Jefferson Hwy - Hoo Shoo Too Rd**

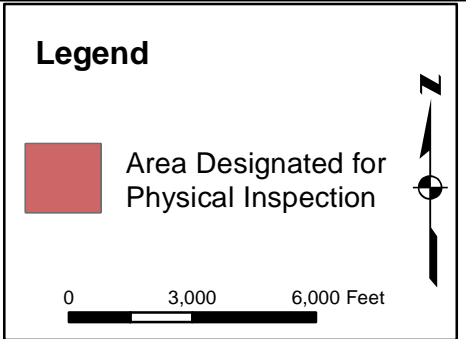
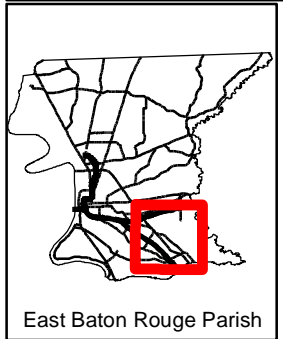
**SFL-R-0001**

**Project Vicinity Map**







**Figure 3-25**



**Jones Creek Rd. - Tiger Bend Rd.**

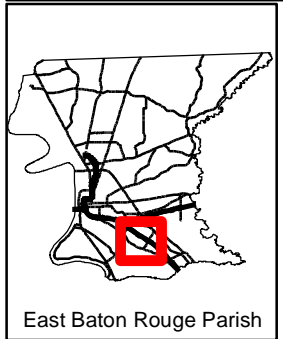
**SFL-R-0002**

**Project Vicinity Map**





**Figure 3-26**


BATON ROUGE SSO Program



**Legend**

 Area Designated for Physical Inspection


0 1,900 3,800 Feet



**Siegen Ln. - Interstate 10**


**SFL-R-0003**

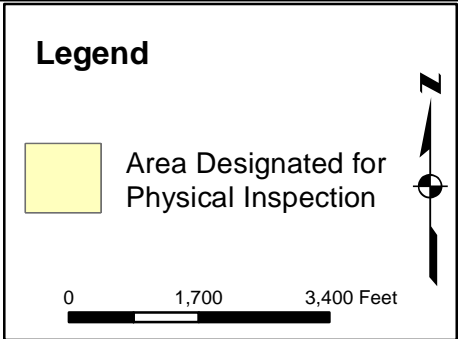
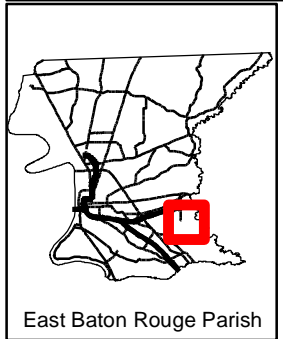
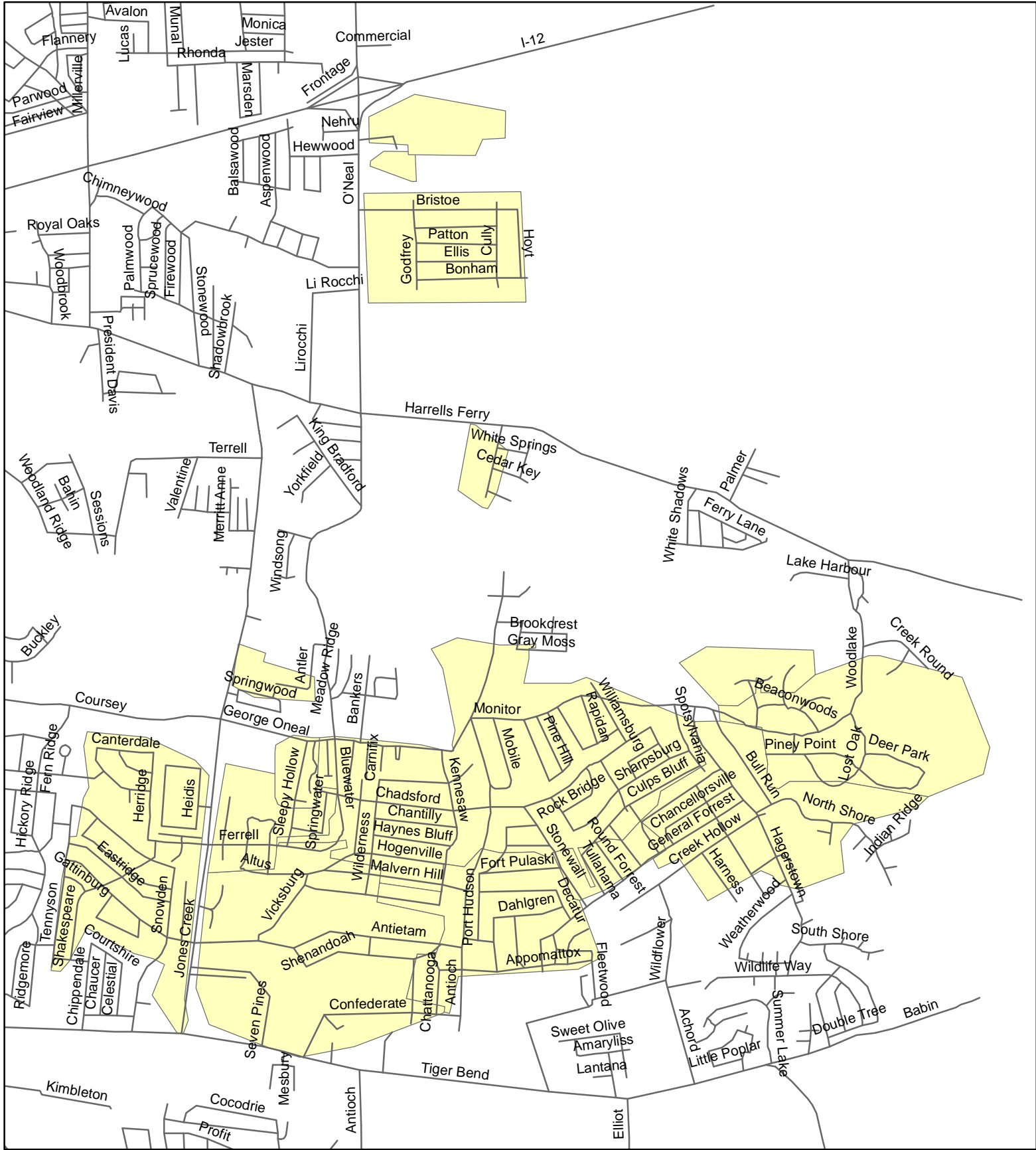

**Project Vicinity Map**



**PUBLIC WORKS**


**Figure 3-27**



**Antioch Rd. - Chadsford Dr.**  
**SFU-R-0001**  
**Project Vicinity Map**

**Figure 3-28**



## 3.4 South Forced System Capacity Improvement Projects

### 3.4.1 SFL-C-0001 (Multiple PSs – Nicholson Drive – Brightside Drive)

#### Project Description

##### ***Purpose of the Project / Project Background***

The project includes replacement of PS 236, PS 336, PS 311, PS 107, Booster Pump Station (BPS) 505, and construction of new PS 503A and PS 236A. The project also includes pipeline replacements related to these pump stations that were formerly included in the Nicholson Drive – Highland Road – Perkins Road Phase B Pipeline Improvements project. The new pump stations will work in conjunction with forcemain upgrades in the Central Consolidation projects to alleviate chronic SSOs at and near these pump stations.

The upgrades also will allow the pump stations to handle future peak wet weather flows that are predicted by the model to exceed the existing maximum capacities.

##### ***Location***

The locations of the pump stations are shown in Table 3-16A and in Figure 3-29.

Forcemain segment PS 336 to PS 311 begins at PS 336, which is at intersection of Bon Sejour Avenue and Destrehan Drive, travels east at Bon Sejour Avenue, turns south at Belle Grove Avenue, turns east at 12 Oaks Avenue and connects with PS 311.

Forcemain segment PS 311 to 236-00085A begins at PS 311, which is at south side of 12 Oaks Avenue between Durander Drive and Riverbend Blvd, travels east to Entergy Transmission ROW, then turns north and connects to new gravity manhole 236-00085A.

Gravity segment 236-00085A to 236-00073A starts at manhole 365-01007, which is on Jefferson Highway between Chasefield Avenue and Nine Oaks Avenue, and travels in a southerly direction between Beckfield Avenue and Sugar Mill Avenue to manhole 365-00001Z, which is next to PS365.

Gravity segment 236-00002 to PS 236 starts southwest of the PS236. The gravity line travels northeast until reaching PS 236, which is between Brightside Drive and Valcour Aime Avenue.

Gravity segment 236-00055 to 236-00002 starts east of Duncan Kenner Drive at inside GSU servitude and travels north until reaching 236-00002, located southeast of Dakin Avenue cul-de-sac.

Gravity segment 236-00073A to 236-00055 starts at manhole 236-00073A east of Duncan Kenner Drive at inside GSU servitude and travels north until reaching 236-00055.

Gravity segment 236-00085A to 236-00073A starts at manhole 236-00085A east of Duncan Kenner Drive at inside GSU servitude and travels north until reaching 236-00073A.

Forcemain segment PS 236 to PS 505A begins at PS 236, which is between Brightside Drive and Valcour Aime Avenue, travels southeast at GSU ROW to Dean Lee Drive until reaching PS505A and connects to junction box right before PS505A.

Forcemain segment PS 505 to PS 505A begins at PS 505, which is at intersection of Nicholson Drive and Dean Lee Drive, travels west at Dean Lee Drive and connects to PS 505A.

Forcemain segment PS 505A to PS 505 begins at PS 505A, which is at Deen Lee Drive, travels east at Dean Lee Drive and connects to PS 505 at the intersection of Nicholson Drive and Dean Lee Drive.

### Scope

This project includes construction of the pump stations shown in Table 3-16A. BPS 505 and PS 505A are related, in that PS 505A is an overflow pump station for BPS 505. BPS 505 is an existing in-line booster pump station that will be replaced with a wet well pump station, PS 505. Since BPS 505 will be replaced with a wet well pump station, PS 505 and PS 505A will share a divided wet well and pump in two directions, with one piped to the existing forcemain (BPS 505) and one piped to the new forcemain that will intersect with the PS 42 forcemain (PS 505A). The PS 42 forcemain is described in the Central Consolidation PS 42 Forcemain Project, as described in Section 4 of this plan.

PS 236 and PS 236A also will share a divided wet well and pump in two directions, with one piped to the existing forcemain from PS 236 (dry weather) and one piped to the new PS 236A (wet weather).

The project also includes construction of approximately 945 feet of 18-inch gravity sewer upstream of PS 236 and approximately 12,875 feet of 10-inch to 20-inch forcemain downstream of PS 311, PS 336, PS 236, PS 505, and PS 505A. Table 3-16B shows the detailed scope of the pipeline improvements in this project.

**TABLE 3-16A**

SFL-C-0001 (Multiple Pump Stations – Nicholson Drive – Brightside Drive) – Pump Station Information

PS No.	Location	Existing Max. Capacity (gpm)	Future Peak Wet Weather Flow (gpm)	Dry Weather (gpm)	Comments
PS 236	Brightside Road, near Riverbend Road	625	4,361	609	
PS 336	Nicholson Road, near Riverbend Road	417	978	153	
PS 311	Twelve Oaks Road, near Riverbend Road	556	2,115	152	
PS 107	Brightside Road, near Earl Gross	833	965	375	
BPS 505	Intersection of Oleson Road and Brightside Road	5,000	5,782	2,014	Will be converted from in-line to wet well.
PS 505A	Intersection of Oleson Road and Brightside Road	New	2,761	0	Overflow PS for BPS 505
PS 236A	Brightside Road near Riverbend Road	New	699	0	

**Note:** The existing maximum capacities for the PSs were obtained from the DPW *Field Pump Station Maintenance* reference guide. The future peak wet weather flow was obtained from the BTRSSO hydraulic model.

**TABLE 3-16B**

SFL-C-0001 (Multiple Pump Stations – Nicholson Drive – Brightside Drive) – Pipeline Information

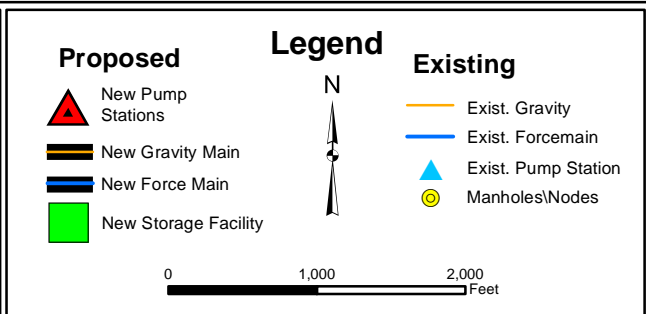
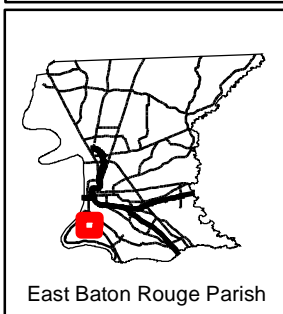
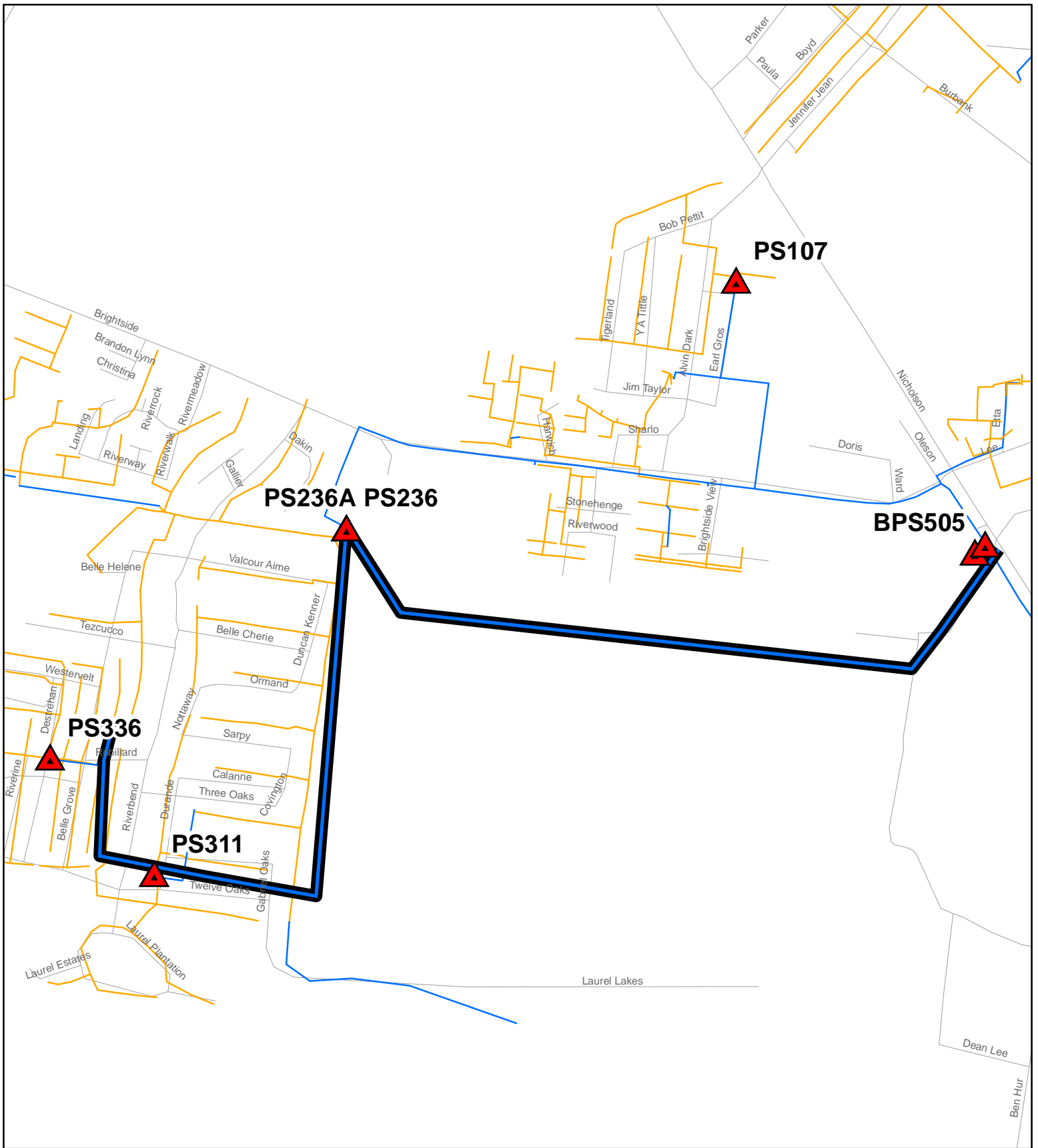
US Node	DS Node	Length (ft)	Existing Diameter (in)	Proposed Diameter (in)	Comments
PS336	PS311	2,177	New	10	
PS311	236-00085A	2,711	New	12	
236-00002	PS 236	260	12	21	Gravity sewer
236-00055	236-00002	510	12	21	Gravity sewer
236-00055	236-00073A	1,210	12	21	Gravity sewer
236-00073A	236-00085A	945	12	18	Gravity sewer
PS236	PS505A	7,127	New	16	
PS505	PS505A	469	New	20	
PS505A	50504	391	New	20	

**Note:** The existing pipe sizes and lengths were obtained from the BTRSSO hydraulic model.

**Total Construction Cost Estimate is \$9,800,000.**

**Design is On-Going.**





**Multiple PS - Nicholson Dr. - Brightside Dr.**

**SFL-C-0001**

**Project Vicinity Map**

Figure 3-29

### 3.4.2 SFL-C-0002 (Perkins/Old Perkins Area BPS 514 Improvements)

#### Project Description

##### **Purpose of the Project / Project Background**

The purpose of this project is to upgrade BPS514 to handle revised flow and head requirements. The existing BPS 514 has a capacity that is less than the predicted future peak wet weather flow.

##### **Location**

The location of BPS 514 is given in Table 3-17 and shown in Figure 3-30.

##### **Scope**

The scope of the project is noted in Table 3-17. BPS 514, an in-line booster pump station will be replaced with a wet well pump station as part of this project.

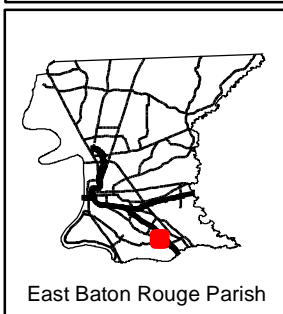
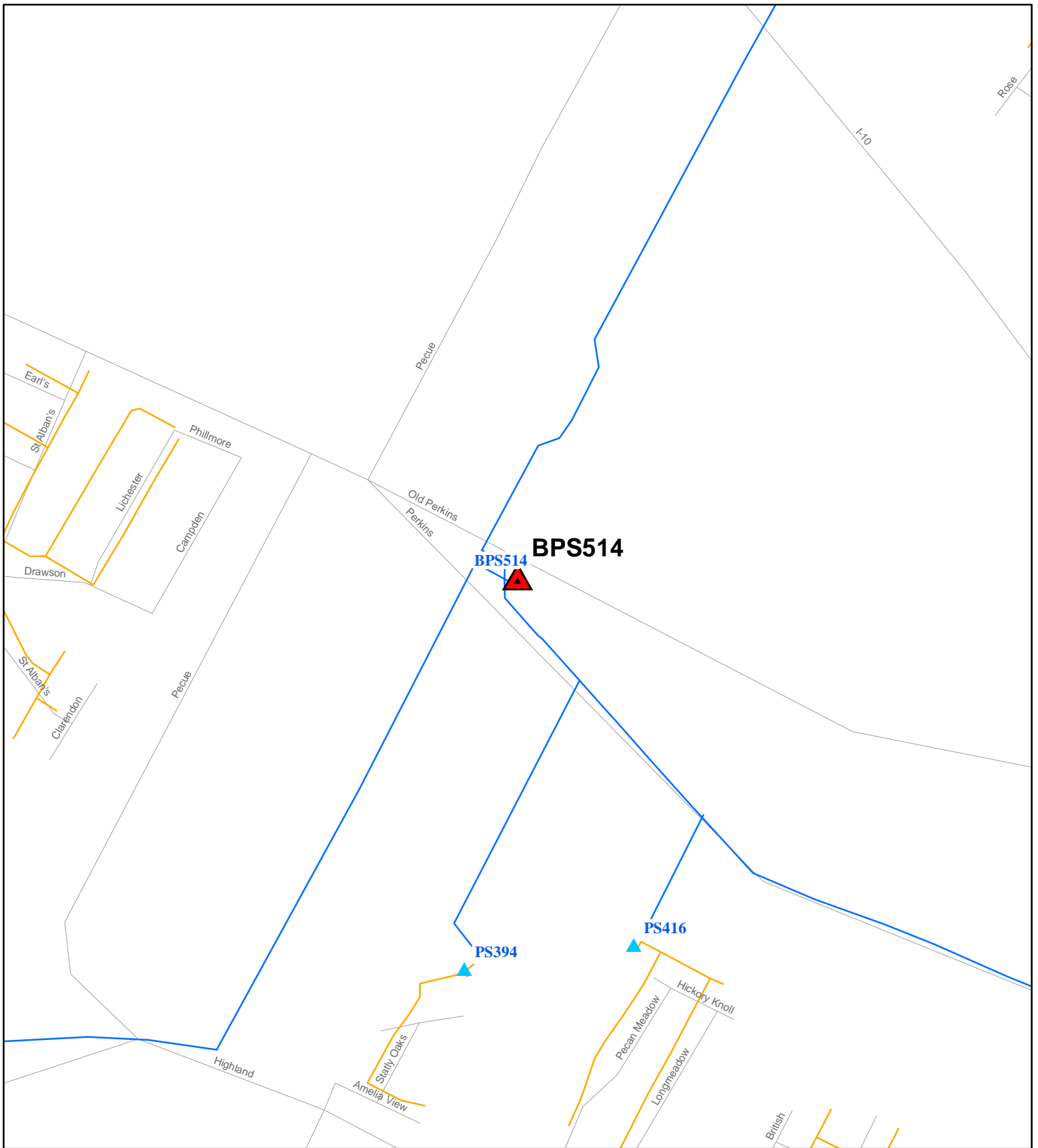
**TABLE 3-17**  
SFL-C-0002 (Perkins/Old Perkins Area BSP 514 Improvements) – Pump Station Information

PS No.	Location	Existing Max. Capacity (gpm)	Future Peak Wet Weather Flow (gpm)	Dry Weather (gpm)	Comments
BPS 514	Intersection of Pecue Lane and Old Perkins Road	24,000	50,830	9,476	Will be converted from in-line to wet well.

**Note:** The existing maximum capacities for the PSs were obtained from the DPW *Field Pump Station Maintenance* reference guide. The future peak wet weather flow was obtained from the BTRSSO hydraulic model.

**Total Construction Bid Amount is \$8,387,000.**

**Construction is On-Going.**



**Legend**

<b>Proposed</b>	<b>Existing</b>
New Pump Stations	Exist. Gravity
New Gravity Main	Exist. Forcemain
New Force Main	Exist. Pump Station
New Storage Facility	Manholes/Nodes

0 500 1,000 Feet

**Perkins - Old Perkins Area BPS514**  
**SFL-C-0002**  
**Project Vicinity Map**

Figure 3-30

### 3.4.3 SFL-C-0003 (Multiple PSs - Burbank Drive – Siegen Lane)

#### Project Description

##### **Purpose of the Project/Project Background**

The following pump stations will be replaced in this project: PS 118, PS 221, PS 358, BPS 999, PS 239, and PS 229. The new pump stations will work in conjunction with forcemain upgrades in other South Forced Lower Basin projects to alleviate chronic SSOs at and near these pump stations.

The upgrades also will allow the pump stations to handle future peak wet weather flows that are predicted by the model to exceed the existing maximum capacities.

##### **Location**

The locations of the pump stations are shown in Table 3-18 and in Figure 3-31.

##### **Scope**

The scope of the pump station replacements is shown in Table 3-18. BPS 999, an in-line booster pump station, will be replaced with a wet well pump station.

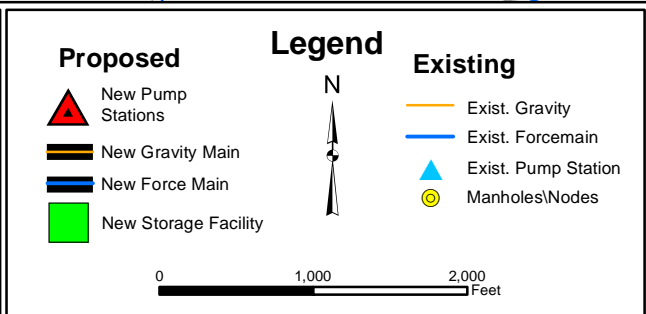
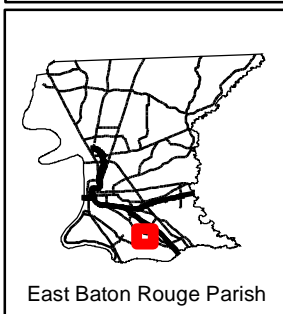
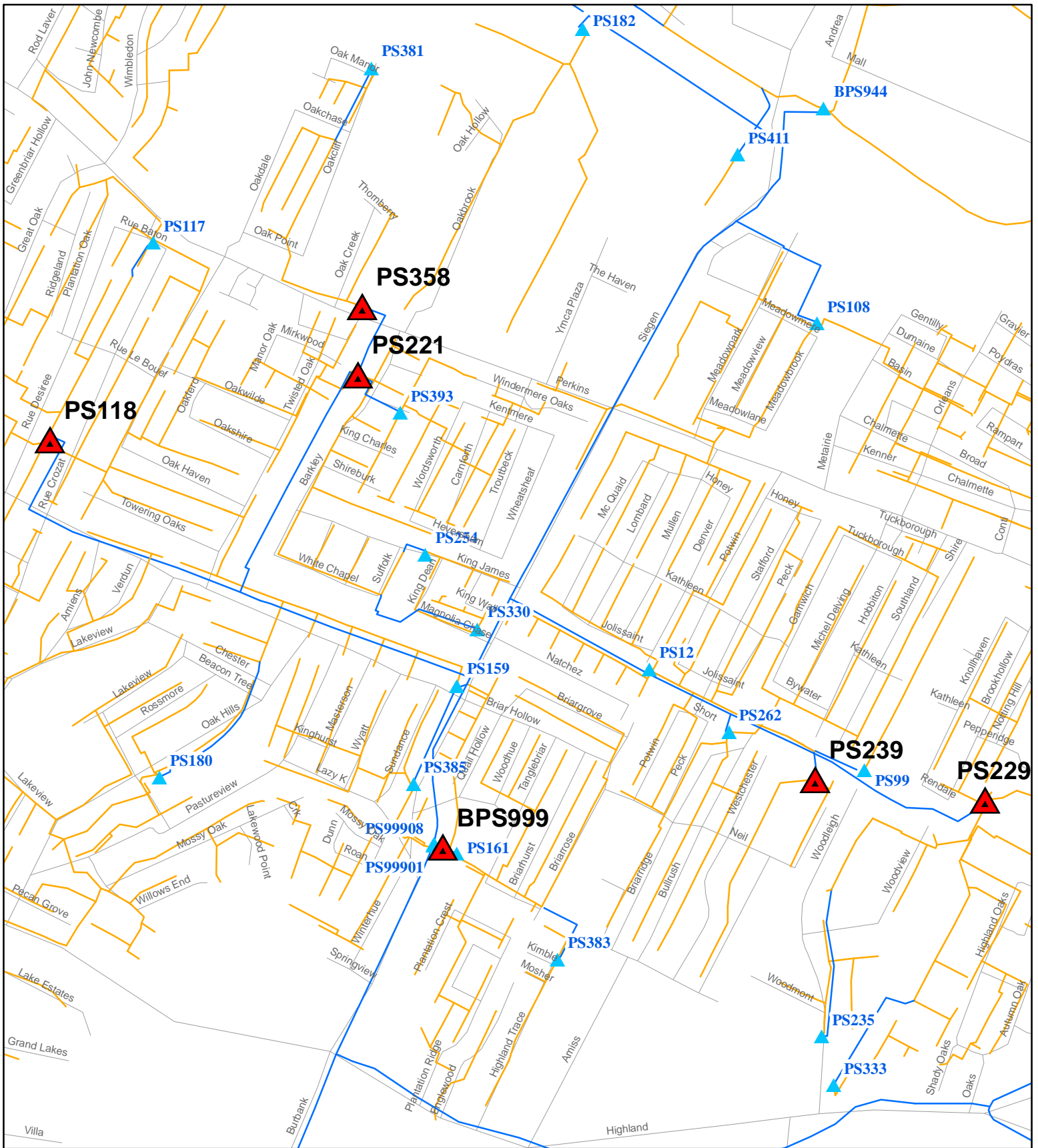
**TABLE 3-18**  
SFL-C-0003 (Multiple Pump Stations - Burbank Drive - Siegen Lane) – Pump Station Information

PS No.	Location	Existing Max. Capacity (gpm)	Future Peak Wet Weather Flow (gpm)	Dry Weather (gpm)	Comments
PS 118	Near Rue Crozat and Rue Desiree	417	914	171	
PS 221	Near Barkley and Mirkwood	694	1,062	232	
PS 358	Old Perkins Road, near Oakbrook Road	208	235	29	
BPS 999	Siegen Road, near Quail Ridge	6,250	8,855	1,962	Will be converted from in-line to wet well
PS 239	Near Neil Avenue and Highland Knoll Court	69	168	48	
PS 229	Near intersection of Rendale Avenue and Brookhollow Drive	278	694	202	

**Note:** The existing maximum capacities for the PSs were obtained from the DPW *Field Pump Station Maintenance* reference guide. The future peak wet weather flow was obtained from the BTRSSO hydraulic model.

**Total Construction Cost Estimate is \$3,978,000.**

**Design is On-Going.**



**Multiple PS - Burbank Dr. - Siegen Ln.**

**SFL-C-0003**

**Project Vicinity Map**





Figure 3-31



### 3.4.4 SFL-C-0004 (Group Project 2 – Old Perkins – Highland Road Area Sewer Upgrades)

#### Project Description

##### **Purpose of the Project/Project Background**

The following pump stations will be replaced in this project: PS 182, PS 223, PS 327, PS 353, PS 278, PS 372, and PS 365. The new pump stations will work in conjunction with forcemain upgrades in other South Forced Lower Basin projects to alleviate chronic SSOs at and near these pump stations.

The upgrades also will allow the pump stations to handle future peak wet weather flows that are predicted by the model to exceed the existing maximum capacities.

##### **Location**

Table 3-19 and Figure 3-32 show the locations of the pump stations in this project. These pump stations are generally located in the area of Jefferson Highway and Highland Road.

##### **Scope**

Table 3-19 shows the detailed scope of this project.

**TABLE 3-19**

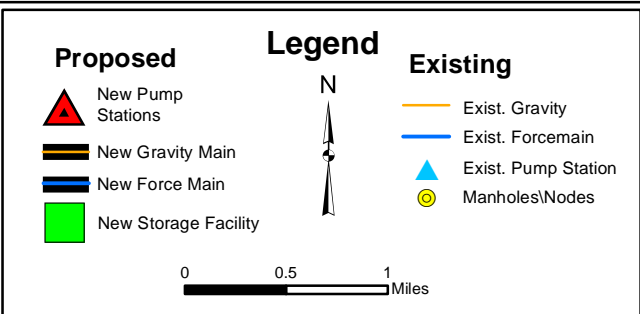
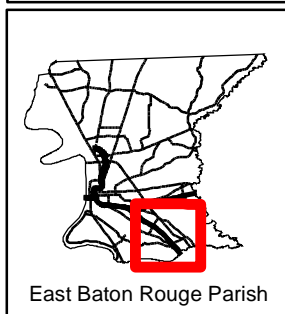
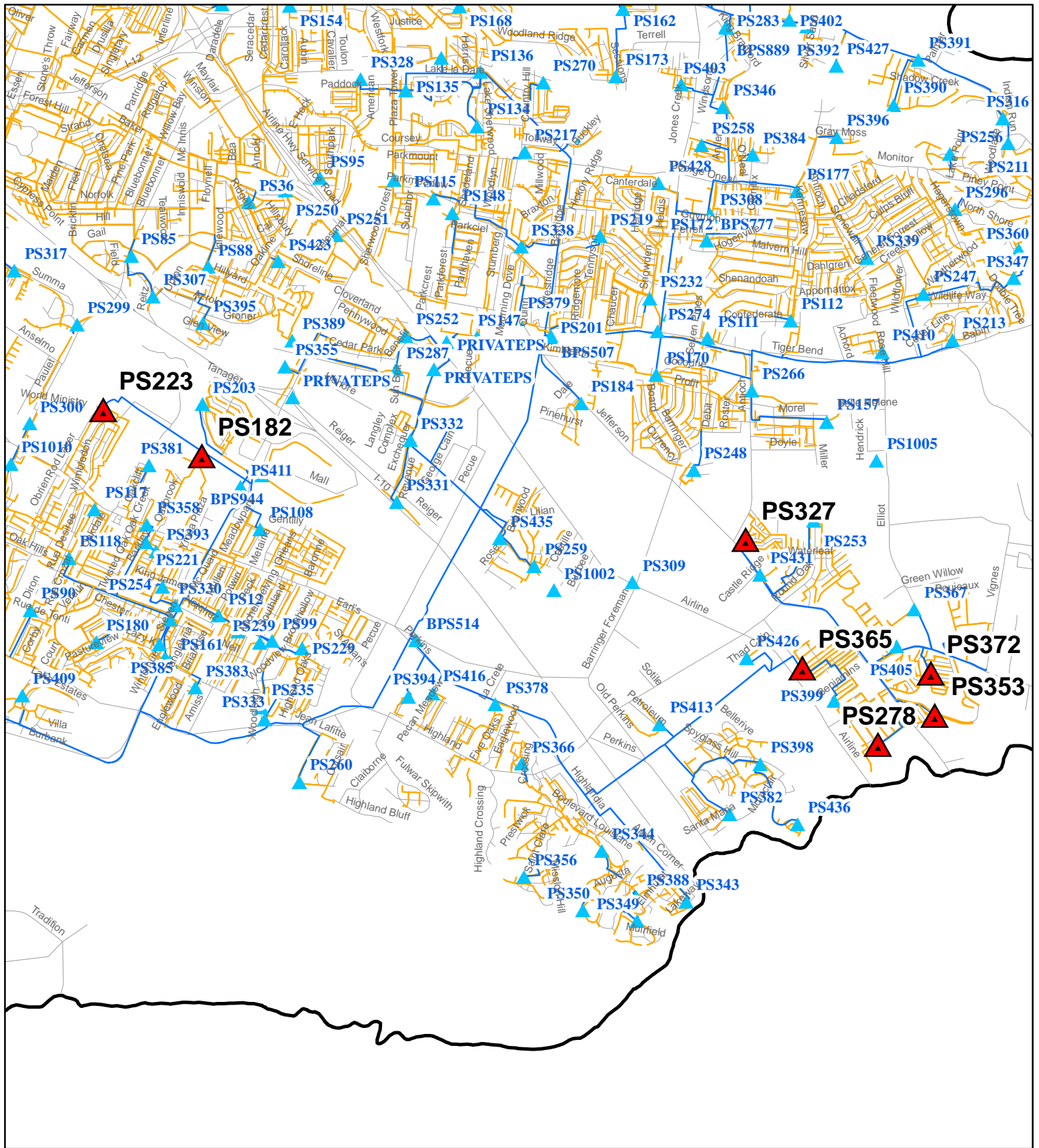
SFL-C-0004 (Group Project 2 – Old Perkins – Highland Road Area Sewer Upgrades) – Pump Station Information

PS No.	Location	Existing Max. Capacity (gpm)	Future Peak Wet Weather Flow (gpm)	Dry Weather (gpm)	Comments
PS 182	Near YMCA Plaza Drive	208	417	148	
PS 223	Intersection of Don Budge Avenue and Backcourt Drive	278	795	168	
PS 327	Intersection of Alder Drive and Crepe Myrtle Drive	278	369	44	
PS 353	Intersection of Azalea Lakes Avenue and Lake Iris Avenue	486	537	49	
PS 278	Near Bainbridge Avenue	347	764	174	
PS 372	Intersection of West Lake Terrace Drive and Lake Tulip Avenue	278	544	314	
PS 365	Intersection of Sugar Mill Avenue and Umbehagen Lane	1,528	4,155	762	

**Note:** The existing maximum capacities for the PSs were obtained from the DPW *Field Pump Station Maintenance* reference guide. The future peak wet weather flow was obtained from the BTRSSO hydraulic model.

**Total Construction Bid Amount is \$3,476,000.**

**Construction is On-Going.**



## Group Project 2

# SFL-C-0004

## Project Vicinity Map




Figure 3-32

### 3.4.5 SFL-C-0005 (Highland Road – Burbank Drive Capacity Improvements)

#### Project Description

##### **Purpose of the Project / Project Background**

The SFL-C-0005 (Highland Road – Burbank Drive Capacity Improvements) project consists of forcemain upgrades in the South Forced Lower Basin. This project includes the upsizing of forcemain in an area that extends north to the intersection of Jefferson Highway and Tiger Bend Road and continues south to the Staring Lane extension and Burbank Drive intersection. The upgrades are designed to alleviate chronic SSOs at the pump stations and increase the forcemain capacity. The upgrades range in size from 48-inch to 60-inch diameter.

##### **Location**

The first segment of forcemain from node BPS 507 to BPS 514 begins at BPS 507 near the intersection of Kimbleton Avenue and Jefferson Highway. Upon leaving the pump station the forcemain travels south through a servitude along the east edge of the Briarwood Golf Club for approximately 2,800 feet before turning slightly east. At this point, the forcemain crosses the golf club for approximately 1,300 feet before crossing Airline Highway. After crossing Airline Highway, the forcemain continues south parallel to Pecue Lane. Approximately 1,200 feet passed the Airline Highway, new 48-inch forcemain connects to an existing 42-inch PCCP forcemain and 3,000 linear feet of existing forcemain is used for this alignment. Before I-10, the existing 42-inch PCCP forcemain crossing connects to a new 48-inch forcemain that then crosses I-10, Ward Creek, and the railroad, and continues south to BPS 514. The forcemain resumes downstream of BPS 514 and continues south to Highland Road, crosses, and follows the Entergy right-of-way to Buccaneer Avenue, then to Burbank Drive. It then follows Burbank Drive to the intersection of Burbank Drive and Staring Lane extension.

##### **Scope**

SFL-C-0005 (Highland Road – Burbank Drive Capacity Improvements) includes construction of approximately 12,600 feet of 48-inch forcemain, approximately 23,800 feet of 54-inch forcemain, and approximately 6,200 feet of 60-inch forcemain downstream of BPS 507 and BPS 514. Table 3-20 and Figure 3-33 shows the detailed scope of this project.

**TABLE 3-20**

SFL-C-0005 (Highland Road - Burbank Drive Capacity Improvements) – Pipeline Information

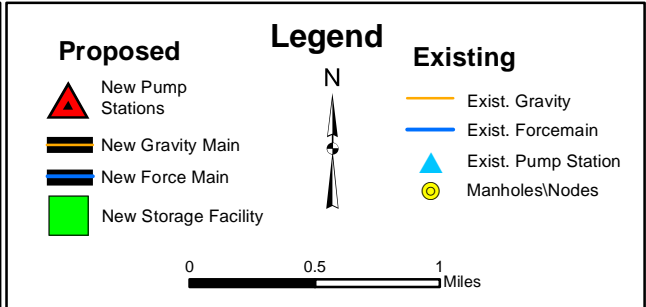
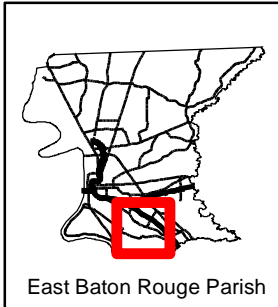
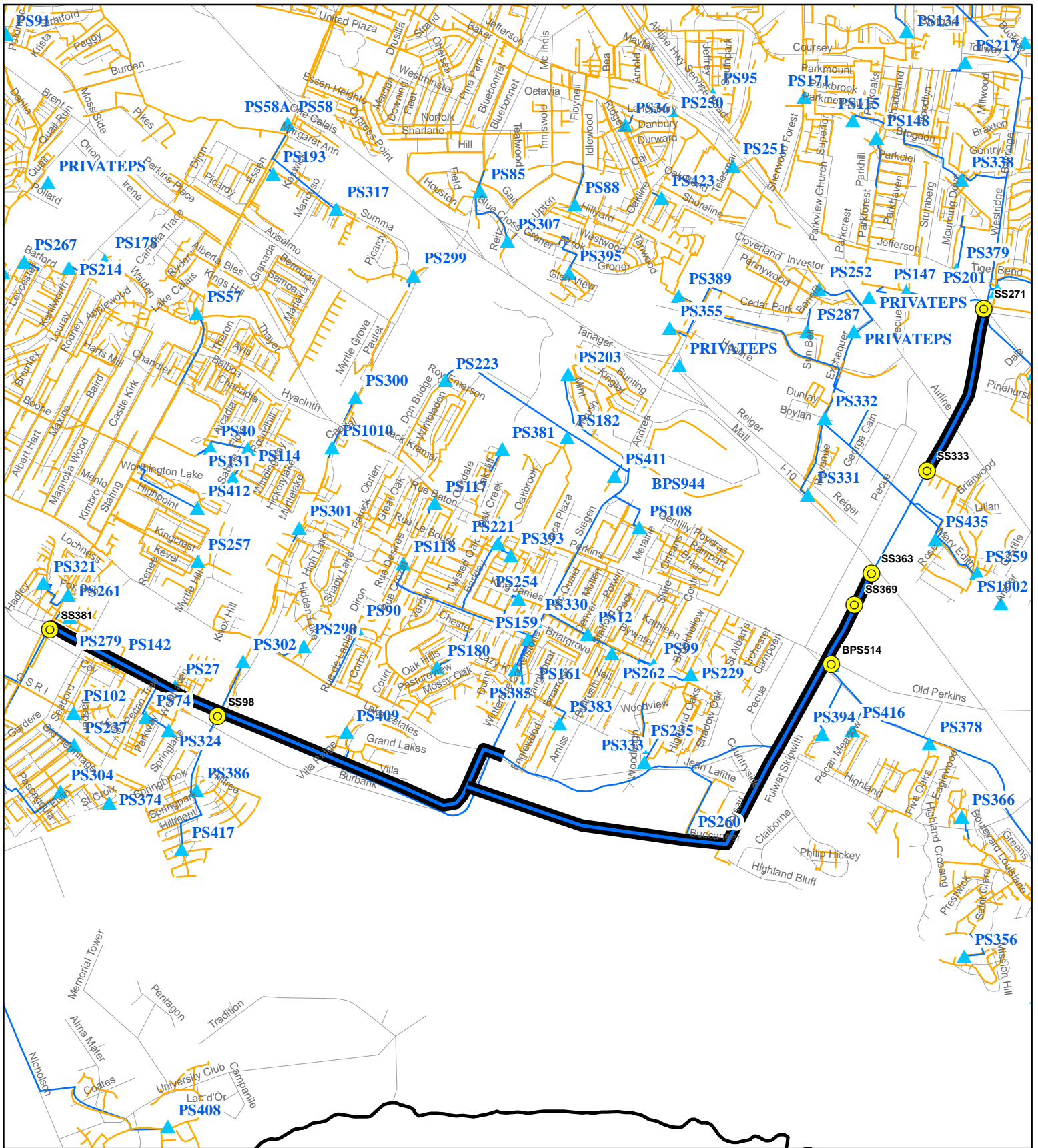
US Node	DS Node	Length (ft)	Existing Diameter (in)	Proposed Diameter (in)	Comments
BPS 507	SS340	6,610	42	48	
SS340	SS364	3,780	42	48	
SS369	BPS514	2,200	42	48	
BPS514	Burbank Drive Intersection	15,000	48	54	
Burbank Drive Intersection	Bluebonnet Blvd Intersection	8,800	48	54	
Bluebonnet Blvd Intersection	Staring Lane Extension	6,200	48	60	

**Note:** The existing pipe sizes and lengths were obtained from the BTRSSO hydraulic model.

**Total Construction Bid Amount is \$20,591,000.**

**Construction is On-Going.**





## Highland Rd. - Burbank Dr.

# SFL-C-0005

## Project Vicinity Map

Figure 3-33

### 3.4.6 SFL-C-0006 (Nicholson Drive – Highland Road – Perkins Road Capacity Improvements)

#### Project Description

##### ***Purpose of the Project / Project Background***

The SFL-C-0006 (Nicholson Drive – Highland Road – Perkins Road Capacity Improvements) project consists of forcemain and gravity upgrades in the South Forced Lower Basin. The project has been divided into two phases during construction for ease of execution: Phase A - Willow Grove Capacity Improvements and Phase B - Nicholson Drive - Highland Road - Perkins Road Capacity Improvements.

The Phase A (Willow Grove Capacity Improvements) project consists of forcemain and gravity upgrades in the South Forced Lower Basin. This project includes the upsizing of forcemain and gravity mains in an area that extends east to the intersection of Siegen Lane and South Mall Drive and also to south to Perkins Road. The upgrades are designed to alleviate chronic SSOs at the pump stations and increase the gravity main capacity. The upgrades range in size from 8 inches to 18 inches in diameter.

The Phase B (Nicholson Drive – Highland Road – Perkins Road Capacity Improvements) project consists of forcemain and gravity upgrades in the South Forced Lower Basin. This project includes the upsizing of forcemain and gravity mains in an area that extends north to the intersection of Jefferson Highway and Tiger Bend Road and continues south to the South WWTP on Gardere Lane. The upgrades are designed to alleviate chronic SSOs at the pump stations and increase the gravity main capacity. The upgrades range in size from 6 inches to 24 inches in diameter.

##### ***Location – Phase A***

The Phase A (Willow Grove Capacity Improvements) project involves the replacement of portions of the South Forced Lower forcemain and gravity systems as shown in Figures 3-34A. The majority of the contributing flows are from residential areas. The upgrades can be broken into the following segments.

Forcemain segment PS 223 to SS312 starts at PS 223, which is at the intersection of Roy Emerson Drive and Don Budge Avenue, and travels overland to node SS312, which is on the corner of Lew Hoard Avenue.

Forcemain segment Willow Grove added to the PDP at the request of the DPW. Forcemain starts from Willow Grove forcemain connection to existing 10-inch forcemain at the north side of KCS railroad. New 12-inch forcemain follows KCS railroad easterly direction approximately 1,600 linear feet and then crosses to the north side of Ward Creek. Approximately 600 linear feet runs parallels to Ward Creek and extends all the way to PS944. Crosses at south side of the Ward Creek near Siegen Lane overpass and connects to existing 18-inch forcemain. The existing 14-inch crossing will be abandoned.

Gravity segment 944-01006 to PS 944 begins near the intersection of Mint Drive and Buttercup Drive and runs east along a drainage path to PS 944, located near the intersection of Andrea Drive and South Mall Drive.

Gravity segment 108-00047 to 108-00008 starts at manhole 108-00047, which is at the corner of Meadowbrook Avenue and Meadowmere Drive, and travels in a southerly direction along Meadowbrook Avenue to the corner of Meadowbrook and Meadowlane Drive. The gravity line turns westerly along Meadowlane Drive to manhole 108-00008, which is between Meadowlane Drive and Perkins Road.

Forcemain segment SS371 to SS385 begins at node SS371, which is at corner of Twisted Oak Lane and Oak Hills Parkway, and travels along Oak Hills Parkway to node SS385, which is at Siegen Lane.

### **Location – Phase B**

The Phase B (Nicholson – Highland – Perkins Capacity Improvements) project involves the replacement of portions of the South Forced Lower forcemain and gravity systems as shown in Figures 3-34B and 3-34C. A majority of the contributing flows are from residential areas. The upgrades can be broken into the following segments.

Forcemain segment PS 259 to SS340 starts at PS 435, near the intersection of Thistle Ridge Drive and Martin Ridge Drive. From PS 259, the forcemain continues in a northwesterly direction through the subdivision and through empty lots, following a servitude/drainage path to Pecue Lane, where node SS340 is located.

Gravity segment 365-01007 to 365-00001Z starts at manhole 365-01007, which is on Jefferson Highway between Chasefield Avenue and Nine Oaks Avenue, and travels in a southerly direction between Beckfield Avenue and Sugar Mill Avenue to manhole 365-00001Z, which is next to PS365.

Forcemain segment PS 365FM to SS 471 starts at PS 365, which is on Umbehagen Lane near Sugar Mill Avenue, follows Umbehagen Lane for approximately 600 feet, crosses Airline Highway, and continues in a southwesterly direction to node SS449. From node SS449, the forcemain travels in a southwesterly direction parallel to Highland Road to node SS471, which is north of a drainage path that is south of Bellerive Court.

Forcemain segment PS 398 to SS502 starts at the cul-de-sac on Arcadian Shores Drive and continues in a southwesterly direction along Arcadian Shores Drive and Spyglass Hill Drive to node SS502, which is roughly located near the end of Spyglass Hill drive, near a drainage path.

Forcemain segment SS502 to SS489 starts at SS502, which is at the intersection of Santa Marie Avenue and Trent Jones Drive. The forcemain continues in a northwesterly direction following Trent Jones Drive and paralleling Perkins Road to a servitude near Petroleum Drive connects to SS489.

Forcemain segment PS378 to Old Perkins starts at PS378, which is between La Create Lane and 5 Oaks Drive at the south side of Perkins Road. The forcemain travels west to La Crete Lane and turns north to La Crete Lane and connects to Old Perkins road new alignment.

Forcemain segment SS451A to Old Perkins starts at SS451A, which is between La Create Lane and Pecue Lane at the north side of Perkins Road. The forcemain travels south from wooded area to old Perkins Road connects to new alignment.

Forcemain segment SS489 to BPS514 starts at SS489, which is near Petroleum Drive goes west parallel to KCS railroad, crosses Highland Road and follows Old Perkins Road, then

crosses Barringer Foreman Road, at KCS railroad crossing, and I-10, stays at the south side of Old Perkins and connects to BPS514.

Forcemain segment PS 253 to SS370 starts on Round Oak Drive, north of its intersection with Shady Grove Avenue. The forcemain travels southwest until reaching SS370, located northwest of Highland Road and Jefferson Highway.

Forcemain segment PS 229FM to SS400 begins at PS 229, which is at the end of Brookhollow Drive and travels in a northwesterly direction to node SS400, which is at the end of Scotland Court.

### **Scope – Phase A**

The Phase A (Willow Lane Capacity Improvements) project includes construction of approximately 1,800 feet of 8-inch forcemain upstream of PS223, 1,900 feet of 10-inch gravity sewer upstream of PS 944, approximately 1,600 feet of 12-inch, 256 feet of 14-inch, 2,358 feet of 16-inch and 280 feet of 18-inch forcemain upstream of PS944, approximately 1,600 feet of 12-inch gravity sewer upstream of PS 108 and approximately 1,953 feet of 12-inch forcemain upstream of SS385 in the South Forced Lower Basin. Table 3-21A shows the detailed scope of this project.

**TABLE 3-21A**  
Sfl-C-0006 (Phase A - Willow Lane Capacity Improvements)

<b>US Node</b>	<b>DS Node</b>	<b>Length (ft)</b>	<b>Existing Diameter (in)</b>	<b>Proposed Diameter (in)</b>	<b>Comments</b>
108-00047	108-00001	50	8	12	Gravity sewer
108-00001	108-00003	510	8	12	Gravity sewer
108-00003	108-00005	560	8	12	Gravity sewer
108-00005	108-00008	440	8	12	Gravity sewer
PS 223	SS312	1,800	6	8	
SS371	SS385	1,953	10	12	
944-01006	PS 944	1,920	8	10	Gravity sewer
Willow Grove	SS327	1,654		12	
SS327	SS323A	256		14	
SS323A	944FM	2,358		16	
944FM	SS335	280		18	

**Note:** The existing pipe sizes and lengths were obtained from the BTRSSO hydraulic model.

### **Scope – Phase B**

The Phase B (Nicholson – Highland – Perkins Capacity Improvements) project includes construction of approximately 2,200 feet of 24-inch gravity sewer upstream of PS 365. The project also includes the construction of approximately 2,600 feet of 6-inch, 3,850 feet of 8-inch, 3,100 feet of 10-inch, 1,900 feet of 12-inch, 50 feet of 14-inch, 4,700 feet of 16-inch, and 11,400 feet of 24-inch forcemain in the South Forced Lower Basin. Table 3-21B shows the detailed scope of this project.

**TABLE 3-21B**

SFL-C-0006 (Phase B - Nicholson Drive – Highland Road – Perkins Road Capacity Improvements) – Pipeline Information

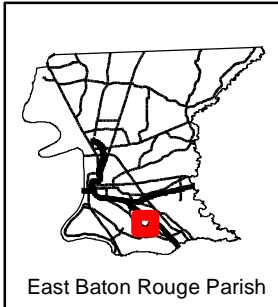
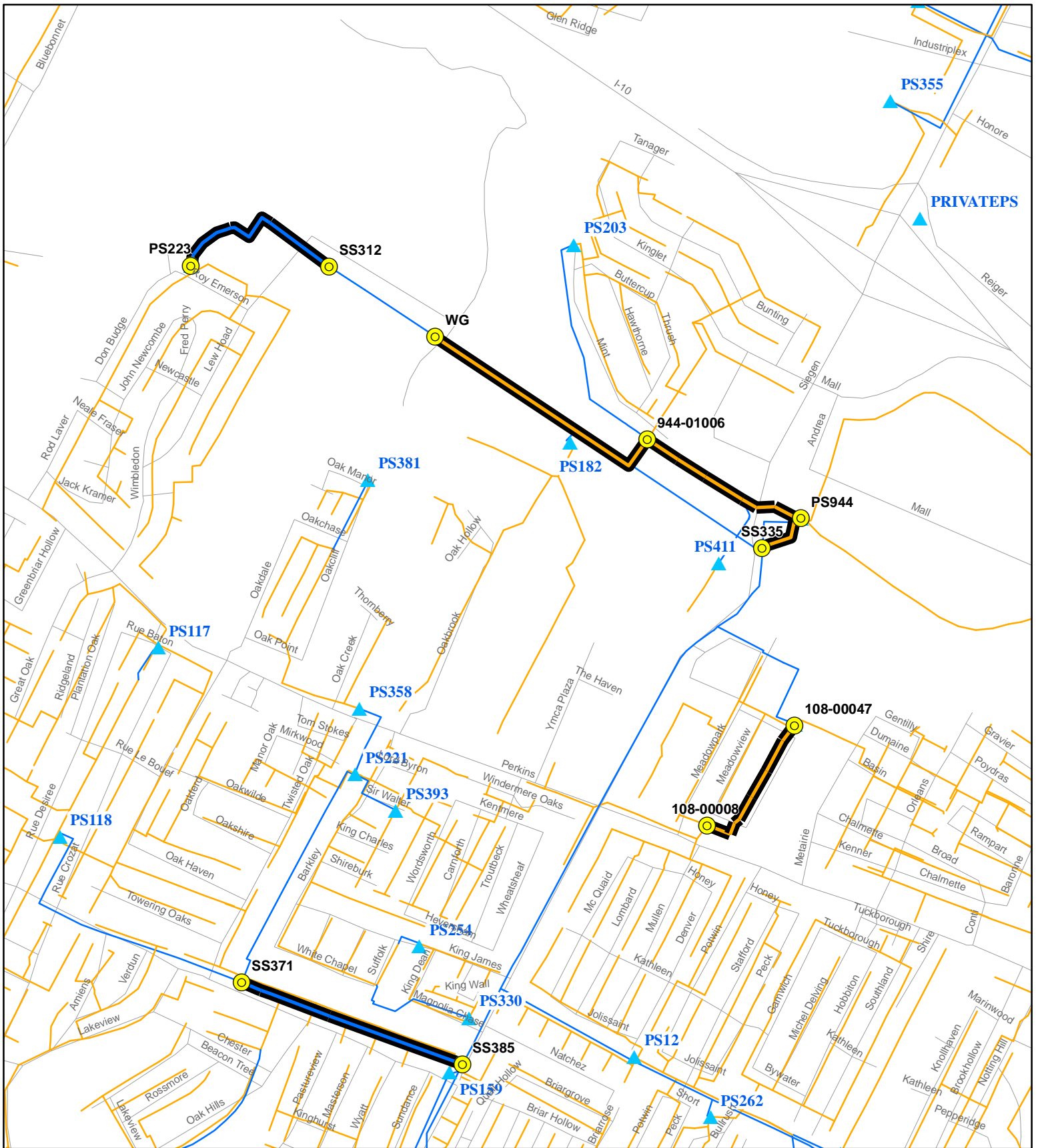
<b>US Node</b>	<b>DS Node</b>	<b>Length (ft)</b>	<b>Existing Diameter (in)</b>	<b>Proposed Diameter (in)</b>	<b>Comments</b>
PS 278FM	SS459	2,150	5	8	
365-01007	365-00001Z	2,200	18	24	Gravity sewer
PS 365FM	SS444	50	10	14	
SS444	SS471	4,700	14	16	
PS 398	SS502	3,100	8	10	
SS502	SS489	1,900	8	12	
PS378	Old Perkins	1,850		6	
SS451A	Old Perkins	750		6	
SS489	BPS514	11,400		24	
PS 229FM	SS400	1,700	6	8	

**Note:** The existing pipe sizes and lengths were obtained from the BTRSSO hydraulic model.

**Total Construction Bid Amount (Phase A) is \$2,592,000.**

**Total Construction Cost Estimate (Phase B) is \$7,890,000.**

**Construction of Phase A is On-Going; design of Phase B is On-Going.**



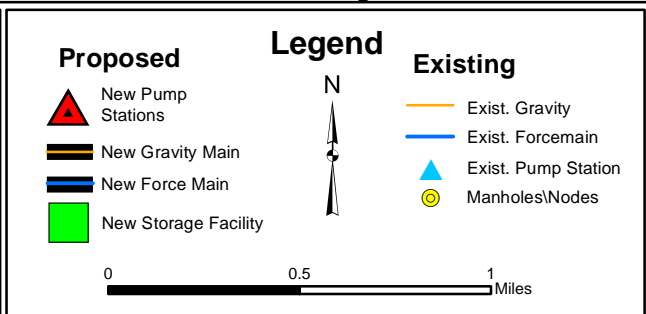
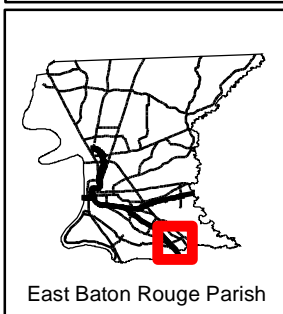
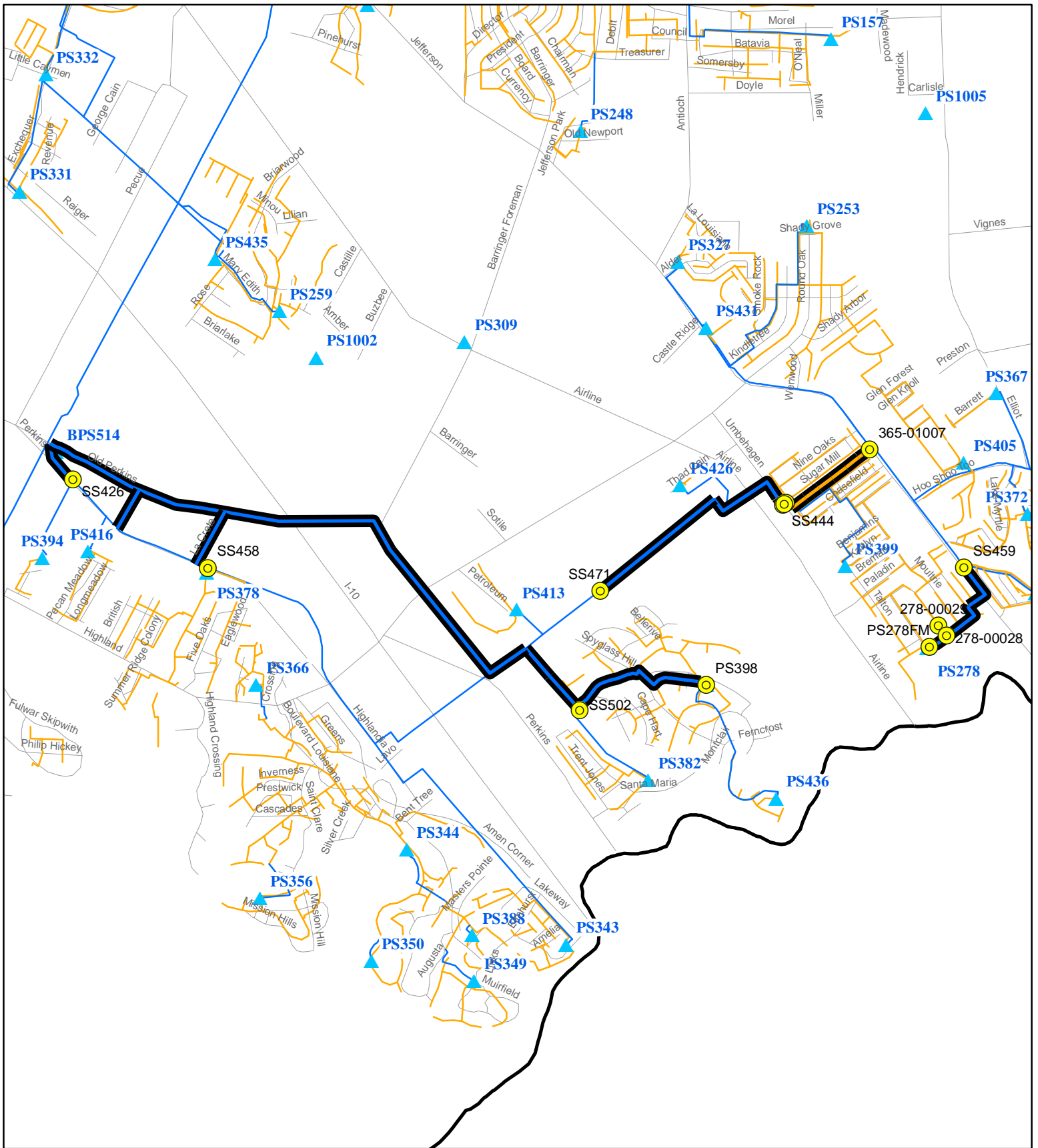
**Legend**

<b>Proposed</b>	<b>Existing</b>
New Pump Stations	Exist. Gravity
New Gravity Main	Exist. Force Main
New Force Main	Exist. Pump Station
New Storage Facility	Manholes/Nodes

0 1,000 2,000 Feet

**Phase A**  
**(Willow Grove Capacity Improvements)**  
**SFL-C-0006**  
**Project Vicinity Map**

**Figure 3-34A**



**Phase B**  
**(Nicholson Dr. - Highland Rd. - Perkins Rd.)**  
**Capacity Improvements**  
**SFL-C-0006**  
**Project Vicinity Map**

**Figure 3-34B**

### 3.4.7 SFU-C-0001 (Multiple PSs – Jefferson Highway – Park Forest Drive)

#### Project Description

##### **Purpose of the Project/Project Background**

The pump stations to be replaced in this project consist of the following: PS 111, PS 115, PS 338, PS 201, and the Woman's Hospital PS. The upgrades will work in conjunction with forcemain upgrades in other South Forced Upper Basin projects to alleviate chronic SSOs at and near these pump stations.

The upgrades also will allow the pump stations to handle future peak wet weather flows that are predicted by the model to exceed the existing maximum capacities.

##### **Location**

The location of each PS is shown in Table 3-22 and in Figure 3-35.

##### **Scope**

Table 3-22 shows the detailed scope of this project, which includes the replacement of six pump stations in the South Forced Upper basin.

**TABLE 3-22**  
SFU-C-0001 (Multiple PSs - Jefferson Highway - Park Forest Drive) – Pump Station Information

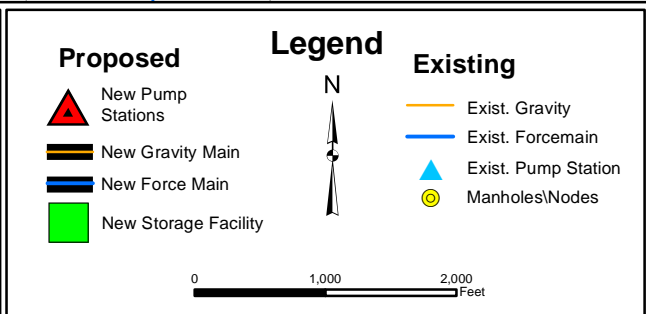
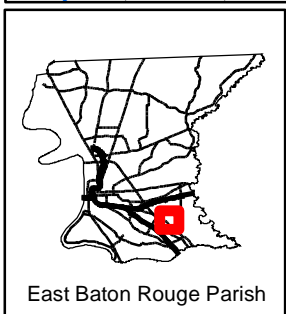
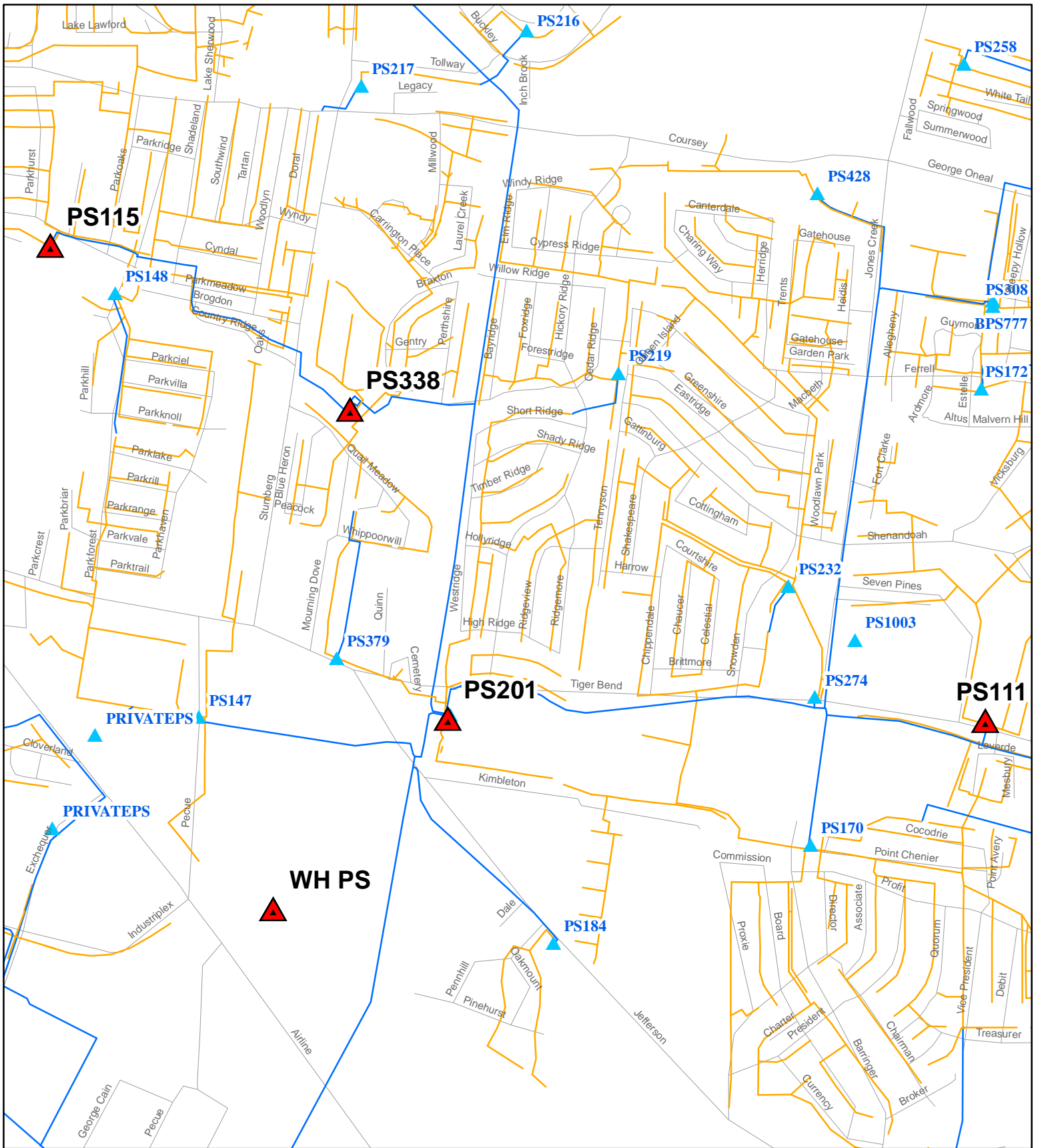
PS No.	Location	Existing Max. Capacity (gpm)	Future Peak Wet Weather Flow (gpm)	Dry Weather (gpm)	Comments
PS 115	Parkmeadow Avenue, near Parkhollow Drive	556	556	58	
PS 338	Near intersection of Quail Meadow Drive and Golden Pheasant Court	764	1,315	551	
PS 201	Near the intersection of Tiger Bend and Jefferson Highway	556	1,386	248	
PS 111	Near intersection of Tiger Bend Road and Green Trails Road	1,575	2,323	241	Will be converted from in-line booster to wet well pump station
Women's Hospital PS	Near intersection of Pecue Lane and Airline Highway	New	4,800		Pump Station for new Women's Hospital development

**Note:** The existing maximum capacities for the PSs were obtained from the DPW *Field Pump Station Maintenance* reference guide. The future peak wet weather flow was obtained from the BTRSSO hydraulic model.

**Total Construction Bid Amount is \$2,922,000.**



**Construction is On-Going.**





**Multiple PS - Jefferson Hwy  
Park Forest Dr.  
SFU-C-0001  
Project Vicinity Map**

Figure 3-35

### 3.4.8 SFU-C-0002a (O'Neal Lane Pump Stations Group A)

#### Project Description

##### **Purpose of the Project / Project Background**

The SFU-C-0002a (O'Neal Lane Pump Station Group A) project includes segments previously included in SFU-C-0002 (Multiple Pump Stations - Jones Creek Road - Tiger Bend Road), SFU-C-0003 (Multiple Pump Stations - O'Neal Lane) project, and SFU-C-0004 (Multiple Pump Stations - O'Neal - S. Harrell's Ferry) project. The combined project has then been split into two projects, Group A and Group B, since the November 2009 PDP.

The project involves the upgrade of PS 112, PS 148, PS 157, PS 170, PS 172, PS 211, PS 232, PS 247, PS 253, PS 274, PS 296, PS 316, PS 391, PS 428, PS 259, PS 266, and BPS 777. The upgrades will work in conjunction with forcemain upgrades in the SFU-C-0005 (O'Neal Lane Pipeline Improvements) project to alleviate chronic SSOs at and near these pump stations. The upgrades will also allow the pump stations to handle future peak wet weather flows that modeling predicts will exceed the existing maximum capacities.

#### Location

The locations of the pump stations included in this project are given in Table 3-23A and shown in Figure 3-36A.

#### Scope

Table 3-23A shows the detailed scope of this project, which includes replacing 17 pump stations; including replacing BPS 777, an in-line booster station, with a wet well pump station.

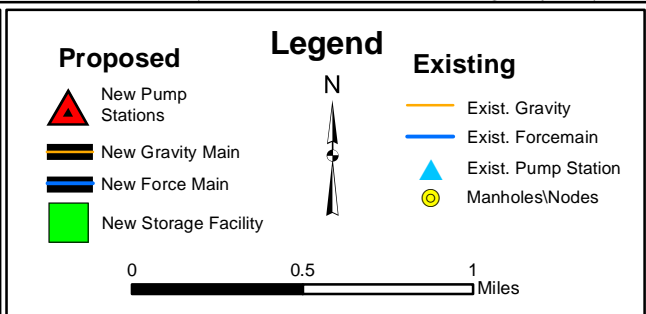
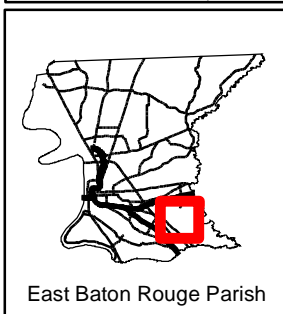
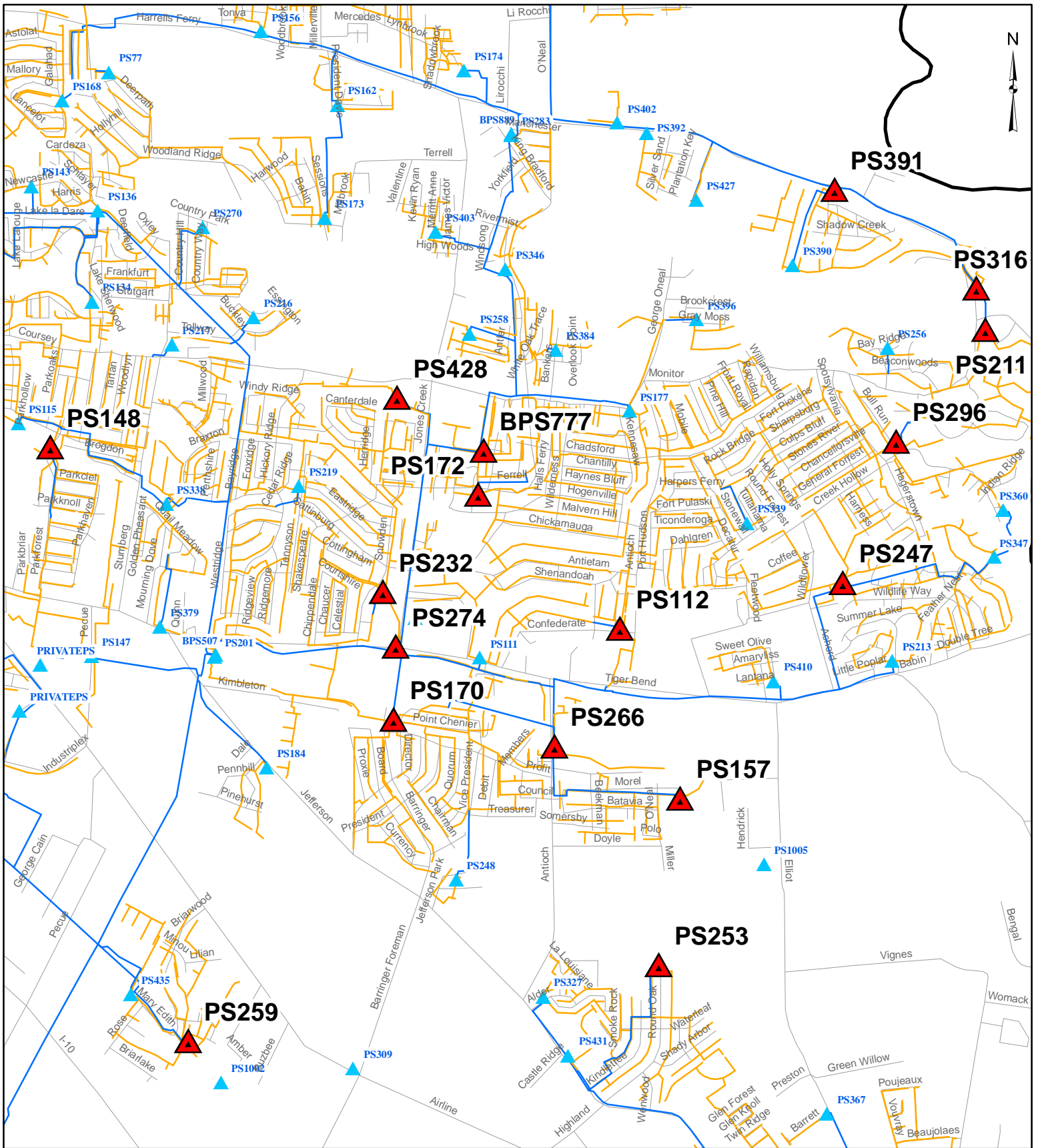
**TABLE 3-23A**  
O'Neal Lane Pump Stations Group A – Pump Station Information

PS ID	Existing Maximum Pump Station Capacity (gpm)	Future Average Dry Weather Flow (gpm)	Peak Future Wet Weather Design Flow (gpm)	Estimated TDH (ft)
PS 112	350	505	1,430	48
PS 148	198	305	527	58
PS 157	278	155	541	167
PS 170	146	833	4,789	90
PS 172	125	104	396	116
PS 211	350	416	2,249	12
PS 232	150	215	1,083	26
PS 247	407	208	1,506	143
PS 253	145	69	472	81
PS 274	403	62	861	102
PS 296	250	215	1,173	72
PS 316	390	382	2,478	97
PS 391	85	139	430	78
PS 428	100	111	160	138
PS 259	227	95	565	125
PS 266	122	unknown	122	120
PS 777	14,616	4,650	21,930	105

**Note:** The existing maximum capacities for the PSs were obtained from the DPW *Field Pump Station Maintenance* reference guide. The future peak wet weather flow was obtained from the BTRSSO hydraulic model.

**Total Construction Cost Estimate is \$12,614,000.**

**Design is On-Going.**



## O'Neal Ln. Group A PS Projects

# SFU-C-0002A

### Project Vicinity Map

Figure 3-36A

### 3.4.9 SFU-C-0002b (O'Neal Lane Pump Stations Group B)

#### Project Description

##### **Purpose of the Project / Project Background**

The SFU-C-0002b (O'Neal Lane Pump Station Group B) project includes segments previously included in SFU-C-0002 (Multiple Pump Stations - Jones Creek Road - Tiger Bend Road) project, SFU-C-0003 (Multiple Pump Stations - O'Neal Lane) project, and SFU-C-0004 (Multiple Pump Stations - O'Neal - S. Harrell's Ferry) project. The combined project then has been split into two projects, Group A and Group B, since the November 2009 PDP.

The project involves the upgrade of PS 41, PS 77, PS101A, PS 139, PS 149, PS 153, PS 162, PS 174, PS 175, PS 189, PS 191, PS 224, PS 227, PS 326, PS 345, and BPS 889. The upgrades will work in conjunction with forcemain upgrades in the SFU-C-0005 (O'Neal Lane Pipeline Improvements) project to alleviate chronic SSOs at and near these pump stations. The upgrades also will allow the pump stations to handle future peak wet weather flows that modeling predicts will exceed the existing maximum capacities.

##### **Location**

The locations of the pump stations included in this project are given in Table 3-23B and shown in Figure 3-36B.

##### **Scope**

Table 3-23B shows the detailed scope of this project, which includes replacing 27 pump stations; including converting BPS 889 from an in-line booster station to a wet well pump station. BPS 100A will be decommissioned after this project and the O'Neal Lane Pipeline project are completed.

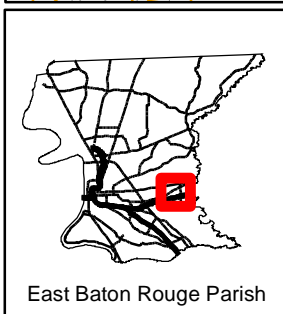
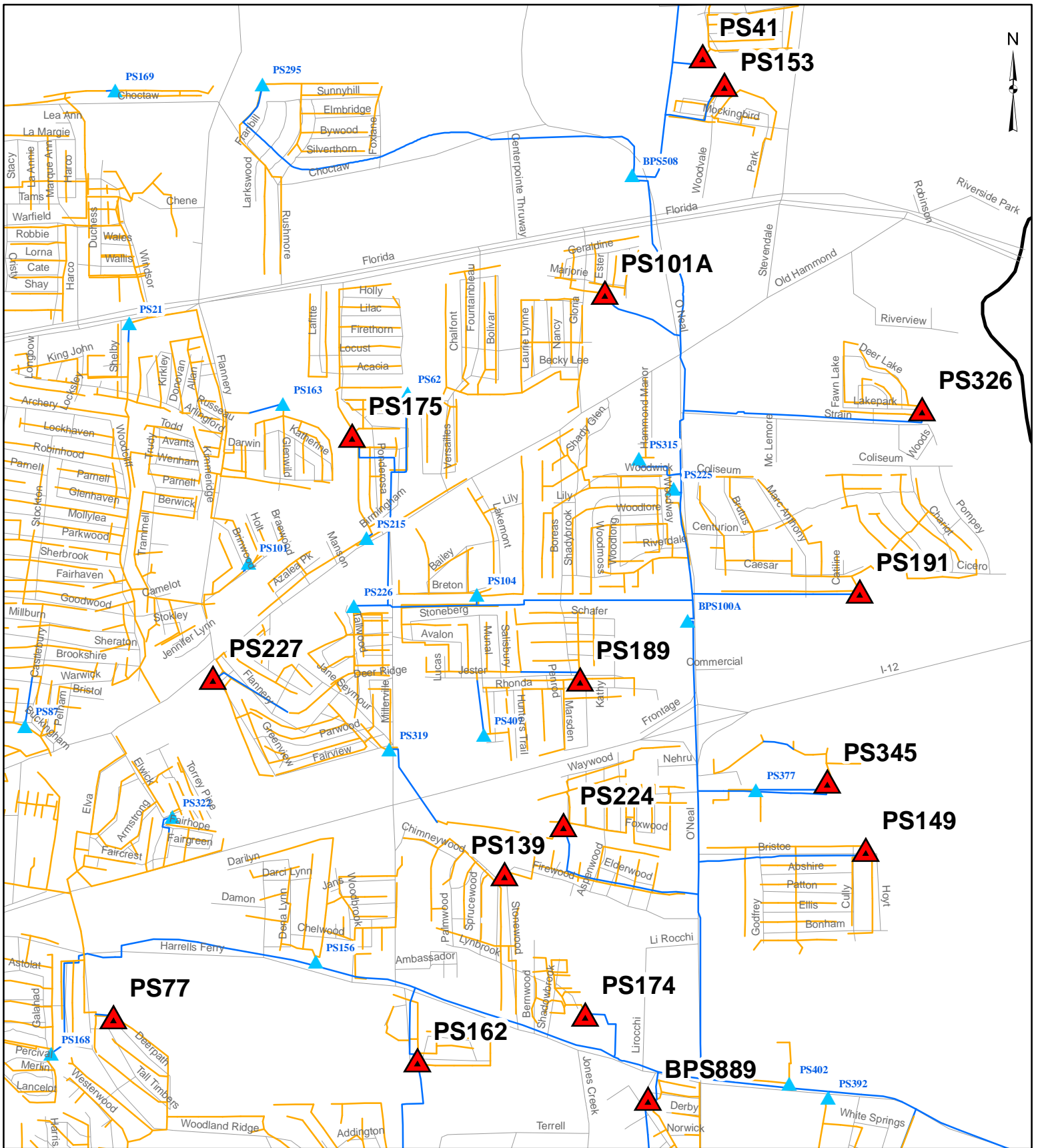
**TABLE 3-23B**  
O'Neal Lane Pump Stations Group B – Pump Station Information

PS ID	Existing Maximum Pump Station Capacity (gpm)	Future Average Dry Weather Flow (gpm)	Peak Future Wet Weather Design Flow (gpm)	Estimated TDH (ft)
PS 41	504	125	504	31
PS 77	350	167	590	90
PS 101A	174	125	465	145
PS 139	209	104	305	143
PS 149	485	153	722	85
PS 153	88	118	618	63
PS 162	310	333	888	81
PS 174	353	118	353	29
PS 175	236	250	965	92
PS 189	360	139	1,103	121
PS 191	367	111	1,298	96
PS 224	770	458	1,663	44
PS 227	165	132	361	46
PS 326	215	118	382	110
PS 345	390	257	403	45
PS 889	11,569	3,616	17,815	81

**Note:** The existing maximum capacities for the PSs were obtained from the DPW *Field Pump Station Maintenance* reference guide. The future peak wet weather flow was obtained from the BTRSSO hydraulic model.

**Total Construction Cost Estimate is \$9,800,000.**

**Design is On-Going.**



**Legend**

<b>Proposed</b>	<b>Existing</b>
New Pump Stations	Exist. Gravity
New Gravity Main	Exist. Forcemain
New Force Main	Exist. Pump Station
New Storage Facility	Manholes/Nodes

0 2,000 4,000 Feet

**O'Neal Ln. Group B PS Projects**

**SFU-C-0002B**

**Project Vicinity Map**

Figure 3-36B

### **3.4.10 SFU-C-0003 (Multiple PSs – O’Neal Lane – Interstate 12)**

The SFU-C-0003 (Multiple PSs – O’Neal Lane – Interstate 12) project has been combined with SFU-C-0002 (Multiple Pump Stations - Jones Creek Road - Tiger Bend Road) and SFU-C-0004 (Multiple Pump Station - O’Neal Lane- S. Harrell’s Ferry Road) from the October 2008 PDP. The combined project has been designated SFU-C-0002 (O’Neal Lane PS Projects) and is described in Section 3.4.8.

### **3.4.11 SFU-C-0004 (Multiple Pump Stations – O’Neal Lane – South Harrell’s Ferry Road)**

The SFU-C-0004 (Multiple Pump Stations –O’Neal Lane – South Harrell’s Ferry Road) project has been combined with SFU-C-0002 (Multiple Pump Station - Jones Creek Road - Tiger Bend Road) and SFU-C-0003 (Multiple Pump Station - O’Neal) from the October 2008 PDP. The combined project has been designated SFU-C-0002 (O’Neal Lane Pump Station Improvements) project and is described in Section 3.4.8.

### **3.4.12 SFU-C-0005 (O’Neal Lane Pipeline Improvements)**

#### **Project Description**

#### ***Purpose of the Project / Project Background***

The SFU-C-0005 (O’Neal Lane Pipeline Improvements) project includes segments previously included in SFU-C-0005 (O’Neal Lane - Tiger Bend Road) and SFU-C-0006 (O’Neal Lane - Jones Creek Road).

The project involves upsizing of gravity main in an area that extends north of Florida Blvd to the Monticello Subdivision and continues south to include the Shenandoah and Old Jefferson areas of East Baton Rouge Parish. The upgrades are developed to alleviate chronic SSOs at pump stations and increase the gravity main capacity. The forcemain upgrades are in an area that extends north of Florida Blvd to the Monticello Subdivision and continues south to include the Shenandoah and Old Jefferson areas of East Baton Rouge Parish. The upgrades are developed to alleviate chronic SSOs at the pump stations and increase the forcemain capacity.

This project is being designed as one project, but will be split into two projects for construction.

#### ***Location – Group A***

This Group A project involves the replacement of portions of the South Forced Upper gravity main and forcemain systems and is shown in Figure 3-37A. A majority of the contributing flows are from residential areas.

The gravity main upgrades are divided into the following segments.

Gravity segment 211-00048 to 211-00001 starts at manhole 211-00048, which is located near the intersection of Burnt Oak Drive and Woodlake Drive. From this location, the gravity main travels generally north before reaching manhole 211-00001. This gravity main acts as an overflow line to the existing gravity main.

Gravity segment 177-00180 to 177-00010 starts at manhole 177-00180. From this location, it continues northerly along Kennesaw Drive, replacing existing gravity pipe, to Missionary Ridge Court, then northeast along Missionary Ridge Court to manhole 177-00010.

Gravity segment 112-00013 to PS 112 starts southwest of the Antioch Blvd and Antietam Avenue intersection. The gravity line travels southwest until reaching PS 112, located northeast of the Confederate Avenue and Chattanooga Drive intersection.

Gravity segment 110-00088 to 110-000001 starts at the intersection of Confederate Avenue and Tiger Bend Road. The gravity line travels west along Tiger Bend Road until reaching PS 111, located at the intersection of Tiger Bend Road and Green Trails Blvd.

Gravity segment 170-00022 to 170-00015 begins at manhole 170-00022, which is located on the north side of Tiger Bend Road west of Jones Creek Road. From there, it continues west for approximately 1,100 feet to manhole 170-00015.

Gravity segment 170-00015 to 170-00001 begins at manhole 170-00015, which is located near the south end of Chaucer Street. From there, it continues south for approximately 1,300 feet and crosses Tiger Bend Road before turning east near Kimbleton Avenue. After turning east, the gravity main travels approximately 1,550 feet east and south to manhole 170-00001 near PS 170.

Gravity segment 170-00167 to 170-00001 begins at manhole 170-00167 near the north end of Board Road. From there, it continues approximately 750 feet north and east to node 170-00001 near PS 170.

Gravity segment 170-00110 to PS 170 begins at manhole 170-00110 near the intersection of Vice President and Profit Avenue and continues west to 170-00023A. This gravity main acts as an overflow line to the existing gravity main. The gravity main from 170-00023A to PS 170 will be replaced.

Gravity segment 148-00037 to 148-00034 begins at manhole 148-00037. The gravity segment travels west to Parkforest Drive, then south to manhole 148-00034, which feeds into PS 148 near the intersection of Parklawn Avenue and Parkforest Drive.

The forcemain upgrades consist of the following segments.

Forcemain segment PS 211 to 316-00001 starts outside the property boundary of PS 211. Upon leaving PS 211, the forcemain travels approximately 1,100 feet north along Woodlake Drive to manhole 316-00001 near PS 316.

Forcemain segment PS 316 to SS147 outside the northern property boundary of PS 316. Upon leaving PS 316, the forcemain travels north along Woodlake Drive for approximately 2,000 feet to node SS 173 and the intersection of South Harrell's Ferry Road. At South Harrell's Ferry Road, the forcemain turns west and continues for approximately 5,600 feet to node SS147 where it ties into a larger forcemain, which continues along South Harrell's Ferry Road.

Forcemain segment PS 296 to 211-00051 starts outside the property boundary of PS 296. Upon leaving PS 296, the forcemain travels approximately 400 feet north and east where it crosses West Piney Point Avenue. It then continues west along West Piney Point Avenue, then north along Burnt Oak Avenue, then east along Woodlake Drive to manhole 211-00048.

Forcemain segment PS 347 to 247-00001 starts outside the property boundary of PS 347. Upon leaving PS 347, the forcemain travels approximately 500 feet west between South Shore Drive and Double Tree Drive and into a servitude. At this point, the forcemain continues approximately 500 feet along the servitude and then heads southwest toward the

intersection of Double Tree Drive and Feather Nest Lane. The forcemain continues approximately 400 feet into another servitude located between Double Tree Drive and Wildlife Way Drive and then turns northwest. The forcemain follows the servitude for approximately 450 feet to a point located between Hagerstown Drive and Double Tree Drive. The forcemain then continues west in a servitude, crossing Hagerstown Drive, for approximately 2,400 feet to manhole 247-00001, which then ties into PS 247.

Forcemain segment PS 247 to SS274 continues outside the property boundary of PS 247. Upon leaving PS 247, the forcemain travels approximately 800 feet west in a servitude to East Achord Road. At East Achord Road, the forcemain turns south and travels approximately 2,100 feet to node SS274 where it ties into a larger manifolded forcemain, which continues along Tiger Bend Road.

Forcemain segment PS 213 to SS274 begins outside the property boundary of PS 213. Upon leaving PS 213, the forcemain travels approximately 250 feet south to Tiger Bend Road where it then turns west and continues approximately 1,200 feet to node SS274.

Forcemain segment SS274 to SS248 begins at node SS274 and continues west along Tiger Bend Road for approximately 1,500 feet to node SS282 where it receives flow from a 4-inch forcemain and increases in size. From node SS282, the forcemain continues west along Tiger Bend Road for approximately 6,200 feet to the intersection of Antioch Road where it turns south and then continues approximately 250 feet to node SS275. From SS275, the forcemain turns west again and continues approximately 1,800 feet in a servitude to node SS265 where it receives flow from a 10-inch forcemain and increases in size. From SS265 the forcemain continues approximately 1,900 feet west to node SS248 near PS 274.

Forcemain segment PS 112 to 110-00088 begins at PS 112 and continues north to Antioch Blvd before turning west and south along Confederate Avenue to Tiger Bend Road at manhole 10-00088.

Forcemain segment SS196 to SS243 begins at node SS196 located at George O'Neal Road and approximately 170 feet east of the intersection of Cumberland Cove Drive. The forcemain continues west for approximately 650 feet before turning south into a servitude. The forcemain then continues south for approximately 1,500 feet before entering the property boundary of BPS777. The forcemain continues along Sleepy Hollow Drive, then west along Ferrell Avenue to Jones Creek Road where it manifoldes into the existing forcemain.

Forcemain segment PS 258 to SS192 begins outside the property boundary of PS 258. Upon leaving the pump station, the forcemain travels along White Tail Court for approximately 1,200 feet to node SS192 where it intersects a manifold forcemain at the corner of White Tail Court and Antler Drive.

Forcemain segment PS 172 to PS 172DS begins outside the boundary of PS 172. Upon leaving the pump station, the forcemain travels west along Altus Avenue then north along Estelle Drive to PS 172DS where it joins a forcemain.

Forcemain segment PS 170 to SS268 begins outside the property boundary of PS 170. Upon leaving the pump station, the forcemain travels west along Kimbleton Avenue until reaching SS268, located near the intersection of Kimbleton Avenue and Jefferson Highway.

Forcemain segment PS 148FM to 147-00057A begins outside the boundary of PS 148 at node PS 148FM, east of the intersection of Parkview Church Road and Superior Drive. From that



location, the forcemain travels approximately 1,500 feet south and east to node 147-00057A where it joins a manifold forcemain.

Forcemain segment PS 147 to SS268 includes a forcemain that begins outside the property boundary of PS 147. Upon leaving the pump station, the forcemain travels approximately 3,000 feet south and west to node SS268 where it joins a manifold forcemain near Jefferson Highway.

PS 379 forcemain begins at PS 379, located near the intersection of Jefferson Highway and Tiger Bend Road, and parallels Tiger Bend Road east to 201-00009, located east of the intersection of Tiger Bend road and Quinn Road. PS 139 forcemain begins at PS 139, located near the intersection of Firewood Drive and Stonewood Drive, and parallels Firewood Drive east, then turning north to 224-00001, located near the intersection of Balsawood Drive and Banyanwood Avenue.

### **Location – Group B**

This Group B project involves the replacement of portions of the South Forced Upper gravity main and forcemain systems and is shown in Figure 3-37B. A majority of the contributing flows are from residential areas.

The gravity main upgrades are divided into the following segments.

Gravity segment 189-00022 to PS 189 starts north of Rhonda Avenue at manhole 189-00022 and travels west in a servitude that parallels Rhonda Avenue to PS 189, which is located north of Rhonda Avenue near Outrigger Avenue.

Gravity segment 224-00091 to PS 224 starts at manhole 224-00091 and continues approximately 500 feet east to PS 224. This main is located west of the cul-de-sacs for Banyanwood Avenue and Westwood Court.

The forcemain upgrades consist of the following segments.

Forcemain segment PS 153 to SS11 starts outside the property boundary of PS 153. Upon leaving the pump station, the forcemain travels southwest for approximately 800 feet along Woodvale Drive to the intersection of Woodvale Drive and Mockingbird Lane where it then travels 545 feet to the west, then it enters a manifold intersection with an existing 12-inch forcemain at node SS11.

Forcemain segment PS 101A to SS32 starts outside the property boundary of PS 101A. Upon leaving the pump station, the forcemain travels southeast until reaching SS32, located at Old Hammond Highway and O'Neal Lane.

Forcemain segment SS24 to SS36 starts west of South Choctaw Drive, above Florida Blvd. The forcemain travels southwest, crossing Florida Blvd near O'Neal Lane intersection and crossing O'Neal Lane. The forcemain segment ends at SS36 and is located near the O'Neal Lane and Strain Road intersection.

Forcemain segment PS 104 to SS64 starts outside the property boundary of PS 104. Upon leaving the pump station, the forcemain travels south for approximately 200 feet to node SS68 and enters a servitude where it turns east and follows the servitude for approximately 3,800 feet to node SS64, there it intersects a manifold forcemain at O'Neal Lane.

Forcemain segment PS 224 to SS96 begins outside the property boundary of PS 224. Upon leaving PS 224, the forcemain travels south for approximately 900 feet before reaching Firewood Drive. At Firewood Drive, the forcemain turns east and follows the ROW for approximately 2,300 feet to the intersection of O'Neal Lane where it manifolds with node SS96.

Forcemain segment PS 173 to PS 173DS starts outside the property boundary of PS 173, east of Sessions Drive. The forcemain travels west to PS 173FM, then north until reaching PS 173DS, located southwest of Colonel Allen Court and General Prentiss Avenue intersection.

Forcemain segment PS 162 to SS109 starts at PS 162, which is located at the intersection of General Prentiss Avenue and President Davis Drive. Upon leaving PS 162, the forcemain travels generally north for approximately 2,800 feet before reaching node SS130 where it continues approximately 300 feet north to PS 162. The forcemain upsizes and continues north of PS 162 and travels approximately 1500 feet north to the intersection of Harrell's Ferry Road where it manifolds with node SS109.

PS 77 forcemain begins at PS 77, located northeast of the intersection of Deerpath Way and Woodland Ridge Blvd, and continues west along an existing servitude to Woodland Ridge Blvd, where it then parallels Woodland Ridge Blvd north to SS102A, located near the intersection of South Harrells Ferry Road.

PS 189 forcemain begins at PS 189, located south of the intersection of Jester Avenue and Boreas Drive, and parallels Jester Avenue before turning north then east to intersection BPS 100A.

PS 191 forcemain begins at PS 191, located south of the intersection of Catline Drive and Caesar Avenue, and continues west within an Entergy transmission servitude to node SS60 where it joins a manifold forcemain along O'Neal Lane.

### **Scope – Group A**

This Group A project includes construction of approximately 2,400 feet of 12-inch gravity sewer upstream of PS 211; approximately 1,000 feet of 12-inch gravity sewer upstream of PS 177; approximately 1,030 feet of 18-inch gravity sewer upstream of PS 112; approximately 310 feet of 15-inch and 24-inch gravity sewer upstream of PS 110; approximately 6,710 feet of 12-inch, 15-inch, and 18-inch gravity sewer upstream of PS 170; approximately 600 feet of 8-inch sewer upstream of PS 148; and approximately 54,000 feet of 6-inch, 8-inch, 10-inch, 12-inch, 14-inch, 16-inch, 18-inch, 20-inch, 24-inch, 30-inch, and 36-inch forcemain in the South Forced Upper Basin.

Table 3-24A shows the detailed scope of this project.

**TABLE 3-24A**  
SFU-C-0005 (O'Neal Lane Pipeline Improvements) – Pipeline Information

US Node	DS Node	Length (ft)	Existing Diameter (in)	Proposed Diameter (in)	Comments
211-00048	211-00001	2,400	New	12	
177-00180	177-00010	1,000	New	12	
112-00013	112-00002	830	10	18	
112-00002	PS112	200	10	18	
110-00088	110-00001	240	10	15	

**TABLE 3-24A**  
SFU-C-0005 (O'Neal Lane Pipeline Improvements) – Pipeline Information

US Node	DS Node	Length (ft)	Existing Diameter (in)	Proposed Diameter (in)	Comments
110-00001	PS111	70	10	24	
170-00022	170-00015	1,100	10	12	
170-00015	170-00005	2,100	10	15	
170-00005	170-00001	750	10	15	
170-00167	170-00001	600	10	18	
170-00110	170-00023A	1,900	New	12	
170-00023A	170-00001	200	10	21	
170-00001	PS170	60	15	21	
148-00037	148-00034	600	New	8	
PS 211	316-00001	1,100	6	14	
PS 316	SS173	1,300	8	14	
SS173	SS147	6,300	10	14	
PS 296	211-00048	2,200	6	8	
PS 347	SS222	3,100	4	8	
SS222	247-00001	1,100	6	8	
PS 247	SS274	3,100	8	12	
PS 213	SS274	1,400	4	6	
SS274	SS282	1,600	10	12	
SS282	SS265	7,300	12	16	
SS265	SS248	1,900	16	24	
PS 112	110-00088	4,400	6	10	
SS196	BPS 777	2,100	30	36	
BPS 777	SS522	2,100	30	36	
PS 258	SS192	1,200	4	6	
PS 172	PS172DS	500	4	6	
PS 170	SS268	4,800	New	20	
PS148FM	147-00057A	1,500	4	6	
PS 147	SS268	3,000	8	10	
PS 379	201-00009	1,500	4	6	
PS 139	224-00001	1,900	New	4	

**Note:** The existing pipe sizes and lengths were obtained from the BTRSSO hydraulic model.

### **Scope – Group B**

This Group B project includes construction of approximately 210 feet of 18-inch gravity sewer upstream of PS 189; approximately 945 feet of 18-inch gravity sewer upstream of PS 224; and approximately 27,000 feet of 6-inch, 8-inch, 10-inch, 12-inch, 14-inch, 16-inch, 18-inch, 20-inch, 24-inch, 30-inch, and 36-inch forcemain in the South Forced Upper Basin.

Table 3-24B shows the detailed scope of this project.

**TABLE 3-24B**  
**SFU-C-0005 (O'Neal Lane Pipeline Improvements) – Pipeline Information**

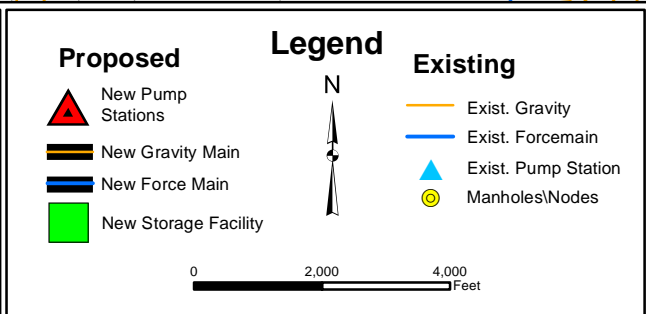
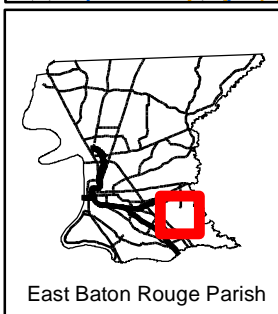
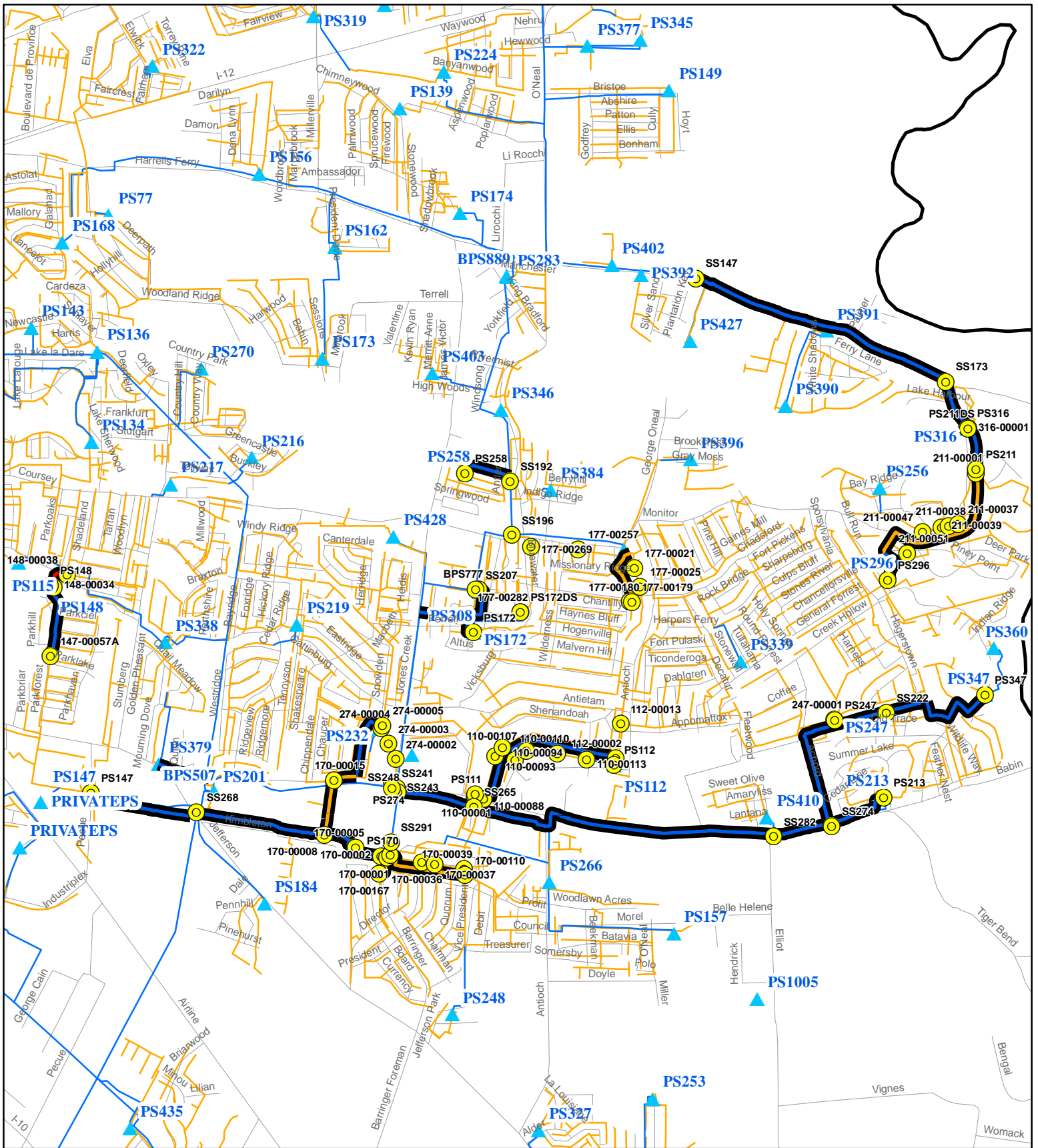
<b>US Node</b>	<b>DS Node</b>	<b>Length (ft)</b>	<b>Existing Diameter (in)</b>	<b>Proposed Diameter (in)</b>	<b>Comments</b>
189-00022	PS189	210	8	18	
224-00091	224-00057	500	8	12	
224-00057	224-00001	445	8	12	
PS 153	SS11	1,300	4	6	
PS 101A	SS32	1,700	6	8	
SS24	SS32	3,220	14	18	
SS32	SS36	1,300	16	20	
PS 104	SS69	220	10	16	
SS69	SS64	3,800	16	24	
PS 224	SS96	3,300	10	12	
PS173	PS173DS	3,100	4	6	
PS162	SS109	1,500	6	8	
PS 77	PS77DS	1,200	New	10	
PS 139	224-00001	1,900	New	4	
PS 189	BPS 100A	3,000	New	8	
PS 191	SS60	3,000	8	10	

**Note:** The existing pipe sizes and lengths were obtained from the BTRSSO hydraulic model.

**Total Construction Cost Estimate (Group A) is \$12,157,000.**

**Total Construction Cost Estimate (Group B) is \$5,300,000.**

**Design is On-Going.**



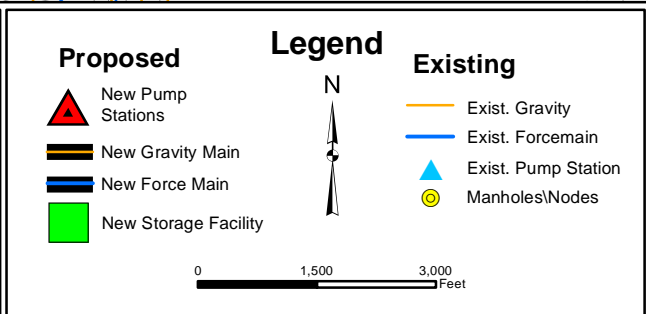
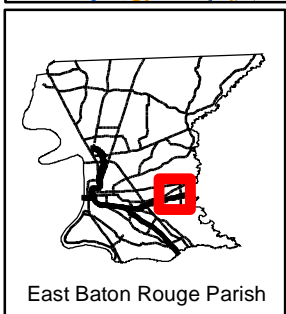
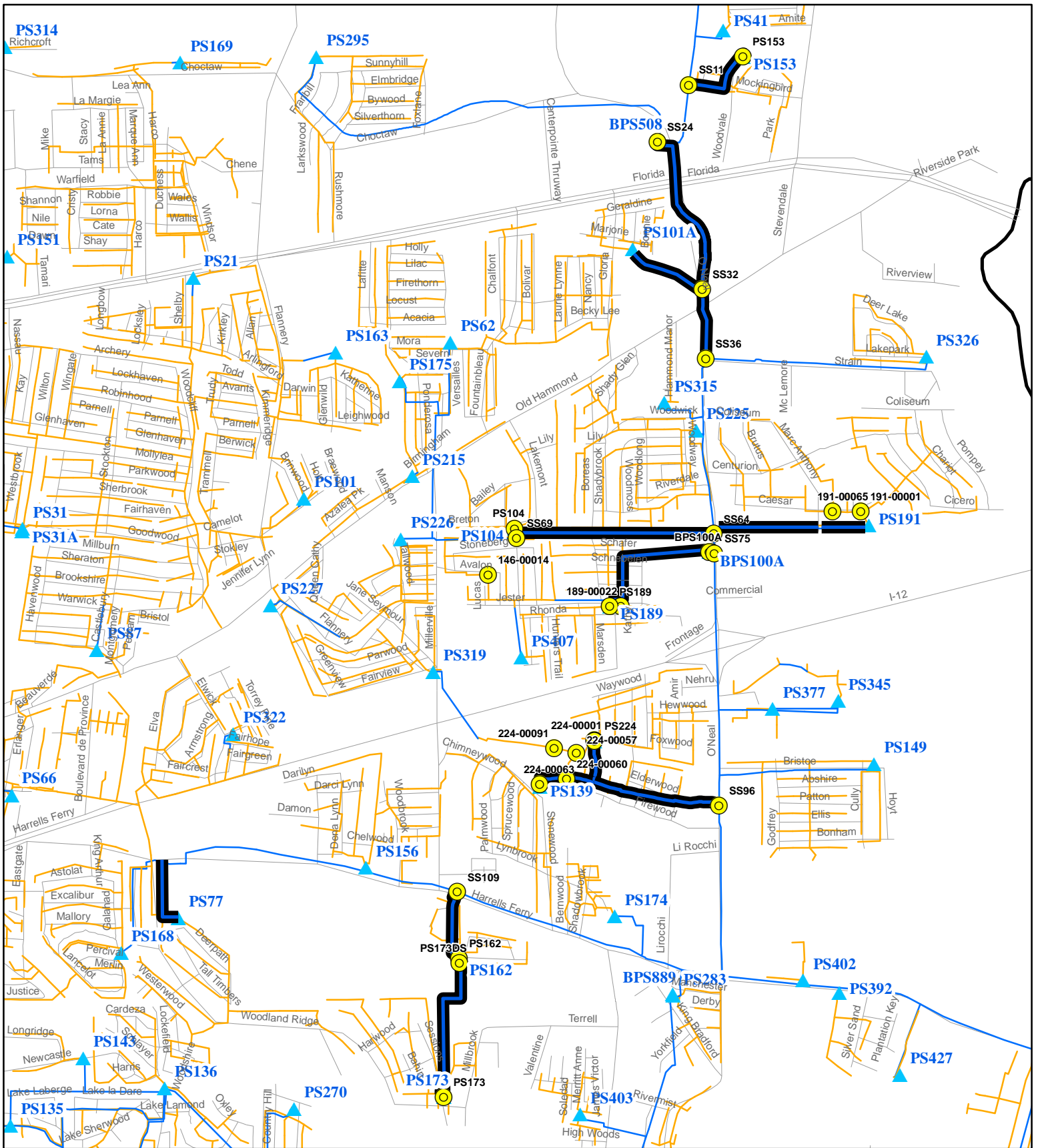
**O'Neal Ln. Pipeline Improvements Phase A**

**SFU-C-0005A**

**Project Vicinity Map**

**Figure 3-37 A**

BATON ROUGE **SSO** Program



**O'Neal Ln. Pipeline Improvements  
Phase B**

**SFU-C-0005B**

**Project Vicinity Map**






Figure 3-37 B

### **3.4.13 SFU-C-0006 (O'Neal Lane – Tiger Bend Road)**

The SFU-C-0006 (O'Neal Lane – Tiger Bend Road) project has been combined with SFU-C-0005 (O'Neal Lane - Jones Creek Road) from the October 2008 PDP. The combined project has been designated SFU-C-0005 (O'Neal Lane Pipeline Improvements) project and is described in Section 3.4.11.

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## 3.5 South WWTP Projects

### 3.5.1 STP-C-0001 South WWTP – Phase 1

#### Project Description

##### ***Purpose of the Project/Background Information***

The existing unit processes at the South WWTP have been designed and constructed to process a peak hydraulic capacity of 119 mgd. Based on the 2-yr 12-hr design storm, the predicted future peak hydraulic flow to this facility after improvements to collection and conveyance infrastructure is 273 mgd. The C-P is also going to consolidate the Central WWTP and the South WWTP, with all flow being diverted to the South WWTP for treatment. The predicted future peak wet weather flow from the Central WWTP is 93 mgd. Therefore, the total predicted wet weather peak flow to the South WWTP after the Central Consolidation is 366 mgd. To accept and treat this flow, several wet weather improvements must be constructed at the South WWTP. These improvements will be achieved in two projects, specifically the STP-C-0001 (South WWTP – Phase 1) project and the STP-C-0002 (South WWTP – Phase 2) project.

##### ***Location***

The South WWTP is located at 2850 South Gardere Lane, and its outfall is located at geographical coordinates of latitude 30° 20' 27" north and longitude 91° 08' 52" west.

##### ***Scope***

The South WWTP will be upgraded to process wet-weather flows up to 366 mgd. Influent flows will be equalized to allow not more than a 200 mgd maximum flow to the treatment facilities. Sixty-six MG of equalization storage will be provided for this purpose.

The existing gravity pump station at the South WWTP will be modified as part of this project to pump to a new preliminary treatment facility. An additional new raw wastewater/equalization pump station also will be constructed to convey flows from the forcemain system (existing South Suburban Transportation Network [STN]; new Pump Station 58A; and Central Consolidation). This pump station will have the capability to pump either to the preliminary treatment facility or to the storage facilities. This pump station also will accept flow from the storage facilities when flow is returned after a wet weather storage event. Raw sewage pumped from the modified gravity pump station and the new forcemain pump station to the process train will be directed into a new preliminary treatment facility sized to process 200 mgd. Both of the existing preliminary treatment facilities will be demolished and replaced by this single system. The proposed preliminary treatment facility will screen and degrid the influent wastewater.

This project also includes odor control facilities for the influent pump stations, storage facilities, and preliminary treatment facility. A new electrical substation also is included in this project. The remainder of the South WWTP improvements are described in STP-C-0002 (South WWTP – Phase 2). All of the proposed Phase 1 improvements are shown on the process flow diagram presented as Figure 3-38. Principal Phase 1 project elements are:

- Modify existing gravity pump station to pump 62 mgd to new headworks

- Construct a new raw wastewater (138 mgd)/equalization (166 mgd) pump station and force main system
  - Below-grade concrete dry well/wet well-type structure. No building.
  - Dry-pit submersible pumps with variable frequency drives (VFDs)
  - Electrical building to house electrical systems and controls
  - Facility includes discharge flow meters
  - Facility is covered and includes odor control provisions
- Construct covered storage for flows in excess of 200 mgd
  - Circular lined above-ground tanks (3 at 20 MG and 1 at 6 MG)
  - Return line with control valve and flowmeter to convey return flow to forcemain system raw wastewater pump station
  - Mixers are provided for 6 MG tank that will receive initial flows. Hydrants will be provided for cleaning.
  - Odor control facilities included
- Construct 200 mgd preliminary treatment facility
  - Elevated facility, constructed of cast in place concrete
  - Facility contains both screening and grit removal equipment
  - Six screening channels
  - Six gravity vortex grit units
  - Odor control facilities included.
  - A splitter box is constructed on the end of the facility to split plant flow between the dry-weather and wet-weather process trains during wet-weather events. Splitter box conveys 120 mgd to dry-weather train, and 80 mgd to wet-weather train.
- Construct new electrical substation and electrical building.
- Yard piping
- Site work
- Demolition

**Total Construction Bid Amount is \$108,200,000.**

**Scheduled Design Appropriation Year was 2008.**

**Scheduled Construction Appropriation Year was 2009.**

**Construction is On-Going.**



**FIGURE 3-38**  
 SSWTP IMPROVEMENT PROJECTS



## 3.5.2 STP-C-0002 South WWTP – Phase 2

### Project Description

#### ***Purpose of the Project/Background Information***

Existing unit processes at the South WWTP have been designed and constructed to process a peak hydraulic capacity of 119 mgd. Based on the 2-yr 12-hr design storm, the predicted future peak hydraulic flow to this facility after improvements to collection and conveyance infrastructure is 273 mgd. The C-P is also going to consolidate the Central WWTP and the South WWTP, with all flow being diverted to the South WWTP for treatment. The predicted future peak wet weather flow from the Central WWTP is 93 mgd. Therefore, the total predicted wet weather peak flow to the South WWTP after the Central consolidation is 366 mgd. To accept and treat and this flow, several wet weather improvements must be constructed at the South WWTP. These improvements will be achieved in two projects, specifically the STP-C-0001 (South WWTP – Phase 1) project and STP-C-0002 (South WWTP – Phase 2) project.

#### ***Location***

The South WWTP is located at 2850 South Gardere Lane, and its outfall is located at geographical coordinates of latitude 30° 20' 27" north and longitude 91° 08' 52" west.

#### ***Scope***

The South WWTP will be upgraded to process wet-weather flows up to 366 mgd. The STP-C-0001 South WWTP Phase 1 project includes influent pumping, equalization storage, a preliminary treatment facility. This project begins downstream of the preliminary treatment facility and includes additional wet weather treatment improvements at the South WWTP. Some of the project improvements are required due to wet weather and some are required from the *Draft Wastewater Master Plan* (CH2M HILL, May 2008).

#### ***Wet Weather Improvements***

From the preliminary treatment facility, wastewater up to 120 mgd will flow by gravity to the existing primary clarifiers. Flows in excess of 120 mgd (up to 80 mgd) will flow from the preliminary treatment facility to new solids contact basins (SCBs). Under this scenario, up to 120 mgd of preliminary treated wastewater will flow from the preliminary treatment facility through the existing primary clarifiers and the existing trickling filters (TFs). The upgraded secondary treatment process will contain both TFs and SCBs. Normally, flows up to 120 mgd will be pumped into the TFs and then be pumped into the SCBs. TF recirculation is part of the ongoing IAP projects at the plant

Additional final settling tanks also must be provided to manage the 200 mgd wet-weather flow condition. The existing disinfection system will be converted from gaseous chlorination to hypochlorite disinfection for excess flows above 120 mgd. A new effluent pump station and outfall piping will be added. These improvements are shown also on Figure 3-38.

Principal project elements include the following:

- Construction of Solids Contact Basins Return secondary and waste secondary sludge pump stations for sludge return from the final settling tanks to the solids contact basins, and for sludge wasting to the gravity belt thickeners

- A splitter box is constructed on the end of the solids contact basins to distribute the flow between the existing and proposed final settling tanks
- Construction of four additional final clarifiers at 134-foot diameter each
- Conversion of chlorine gas disinfection to hypochlorite disinfection and construction of an additional chlorine contact basin
- Construction of a new effluent PS (200 mgd)
  - Existing PS will be abandoned
  - New PS will consist of vertical turbine pumps mounted on a concrete slab. Discharge piping and flow metering will be above grade.
- Construction of parallel effluent pipeline and river outfall structure
- Construction of odor control for the primary clarifiers effluent weirs and the existing solids processing building.
- Yard piping
- Site work
- Demolition
  - Methane storage/power conversion facilities
  - Miscellaneous yard piping and electrical

#### Preliminary Master Plan Improvements

Several Master Plan improvements were outlined in the *Draft Wastewater Master Plan* (CH2M HILL, May 2008). The following are the principal project elements as modified during the project design.

- Secondary electrical source consisting of on-site engine/generators
- Improvements to the existing solids thickening and dewatering facilities including new thickened sludge mixing tanks
- Repair and improvements to existing anaerobic digesters including a new sludge heating system utilizing digester gas and hot water boilers
- Rehabilitation of existing buildings
- Construction of a plant SCADA system
- Construction of new laboratory and administration buildings

**Total Construction Bid Amount for the Wet Weather Improvements is \$87,643,000.**

**Total Construction Bid Amount for the Preliminary Master Plan Improvements is \$23,608,000.**

**Total Construction Bid Amount for the Entire Project is \$111,251,000.**

**Construction is Beginning.**

### 3.5.3 South WWTP Immediate Action Projects

#### Project Description

##### ***Purpose of the Project/Project Background***

The South WWTP is under consent decree due to NPDES permit violations related to total suspended solids (TSS) and biochemical oxygen demand (BOD). The WWTP is presently required to meet a 30-MG TSS/L and 30-MG BOD/L monthly average and 45-MG TSS/L and 45-MG BOD/L weekly average discharge standard.

A number of improvement projects will be implemented to assist the plant in complying with its effluent permit limits. These improvements will be implemented early in the program to bring the plant into compliance as soon as possible under dry weather conditions.

The screenings improvements project that was formerly in this project has been moved to STP-C-0001 (South WWTP Phase 1). The effluent pumping station stabilization project has been completed.

##### ***Location***

The South WWTP is located at 2850 South Gardere Lane.

##### ***Scope***

The improvement projects have been grouped together for their implementation. A description of each group of projects follows.

##### ***Primary Treatment Improvements***

Primary treatment improvements will be implemented to improve the reliability of the primary settling tanks and consistently meet BOD and TSS effluent limits.

The first project element includes the addition of ferric chloride and polymer injection systems for enhanced BOD/TSS removal. This element includes installation of chemical storage and feed systems on both the gravity and forcemain trains of the plant.

The second project element includes various improvements to the primary settling tanks to improve their mechanical reliability. There are six existing tanks. Several of these tanks currently experience significant downtime due to issues with mechanical reliability. DPW operations staff also experience difficulty in removing sludge from the clarifiers, which could be associated with issues such as improper collector mechanism speed, pump capacities, pump cycle times, or a combination thereof. The following improvements have been identified for enhanced operational reliability:

- **Repair/Replace Clarifier Mechanisms and Components.** Improvements include replacement of boards, wear strips, sprockets, drives, and expansion joints. Some clarifiers will require new chain.
- **Replace Existing Sludge Pumps.** The current piston pumps have significant maintenance problems. New pumps will be installed to ensure sludge removal design criteria are met.

The third project element includes the addition of flow control/flow measurement devices at several splitter boxes. The plant has several structures designed to split the flow between

process trains, and between discrete basins. These flow splits occur by gravity flow over weir gates. Currently, there is no means to monitor or control the flow splits, or determine proper distribution to downstream facilities. To improve this, weir gate electric actuators and level (flow) elements will be installed at splitter boxes No. 1 and 2.

### *Trickling Filter Improvements*

The secondary treatment process consists of two separate TFs, final settling tank, and effluent PS trains. An upstream splitter box receives flow from the primary clarifiers, and splits it to the two secondary trains. The following improvements will assist in achieving permit compliance.

- **Construction of a New Trickling Filter Pump Station.** This includes two independent sides, the TF Recirculation Pump Station and the TF Effluent Pump Station. The Recirculation Pump Station is needed to maintain proper wetting rates on the TFs.
- **Construction of New Electrical Building.**
- Construction of new flow splitting structure to divide the pump station effluent flow among existing clarifiers.
- Construction of new piping, valves, flow meters, pipe supports, concrete structures, piping tie-ins, and other work to deliver primary effluent flow to the new station, to pump primary effluent to the existing trickling filter splitter boxes at a controlled rate, to deliver return flow from the trickling filters to the new pump station, and to deliver trickling filter effluent at a controlled rate to the flow splitting structure and from there to the existing clarifiers.

### *Sludge Handling Improvements*

Improvements to the sludge handling systems are as follows:

- **Gravity Thickeners and Thickened Sludge Pump Station Rehabilitation.** The gravity thickener complex has not been in service for many years. The complex will be rehabilitated so that primary and secondary sludge can be evacuated in a timely manner from process facilities, and allow for thickening prior to anaerobic digestion. The thickened sludge will enhance the digestion unit process. Improvements include replacing gravity thickeners, and rehabilitating/replacing sludge pump station components.
- **Final Settling Tank Sludge Withdrawal Improvements.** Sludge pumps from each settling tank complex discharge through a common header and do not provide adequate withdrawal. A new larger diameter pump discharge manifold will be installed to increase pumping capacity.

**Total Construction Cost is \$27,642,864.**

**Construction is Complete (Project is Closed Out).**



## SECTION 4

# Central Basin Projects

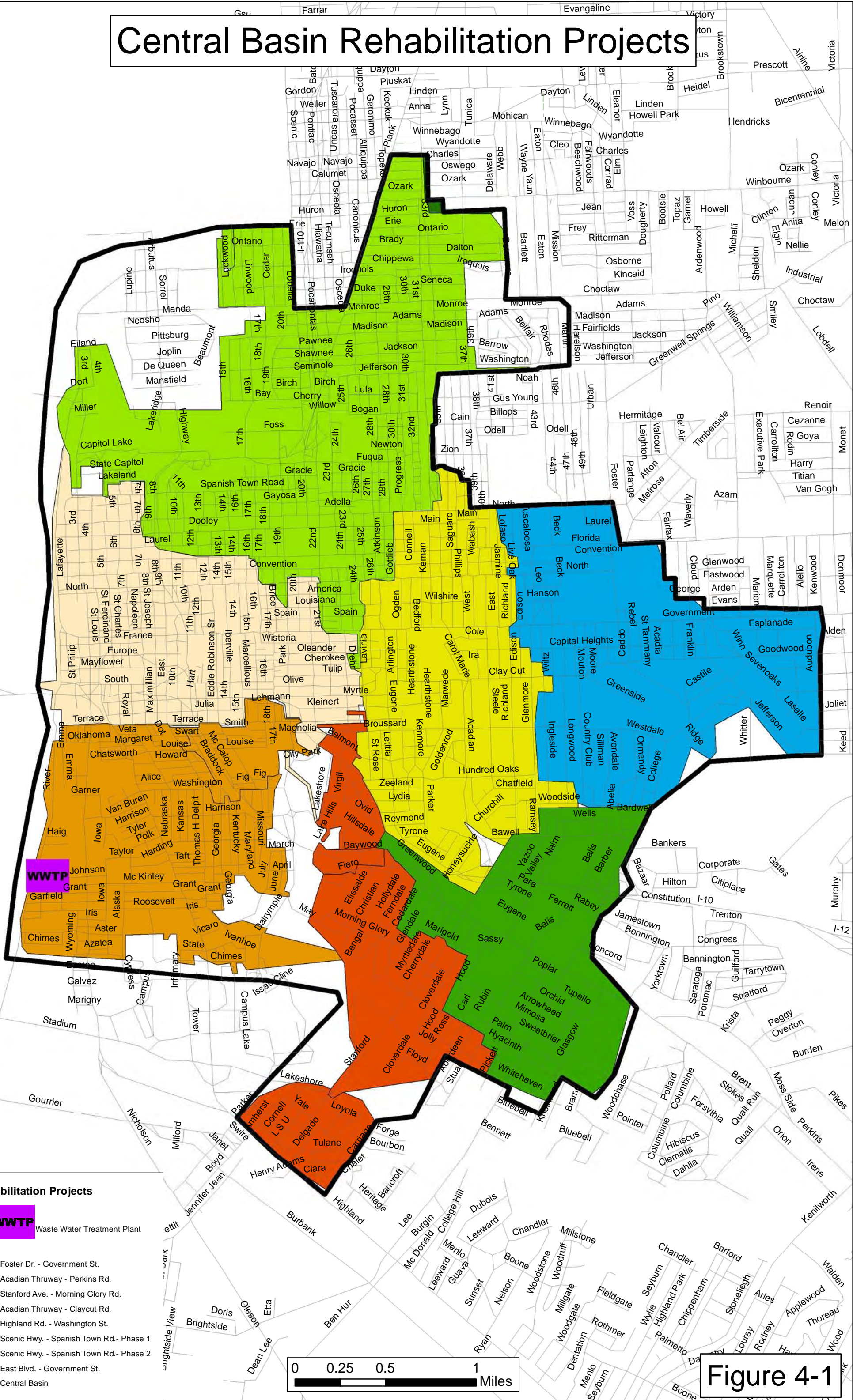
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Section 4 presents summaries of the Central Gravity System Comprehensive Rehabilitation Projects, the Central Gravity System Capacity Improvement Projects, and the Central Consolidation Projects. These projects are shown on Figures 4-1 and 4-2. As of December 2011, there is one project functionally complete, 13 projects under construction, and three projects under design in the Central Basin.

The project summaries presented herein represent the information available during this annual update period. The PDP will be revisited annually and revised, as necessary, based on results of additional hydraulic wastewater modeling, immediate needs, DPW and public input, and other factors.

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# Central Basin Rehabilitation Projects



**Rehabilitation Projects**

- WWTP Waste Water Treatment Plant
- Foster Dr. - Government St.
- Acadian Thruway - Perkins Rd.
- Stanford Ave. - Morning Glory Rd.
- Acadian Thruway - Claycut Rd.
- Highland Rd. - Washington St.
- Scenic Hwy. - Spanish Town Rd. - Phase 1
- Scenic Hwy. - Spanish Town Rd. - Phase 2
- East Blvd. - Government St.
- Central Basin

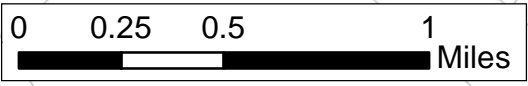
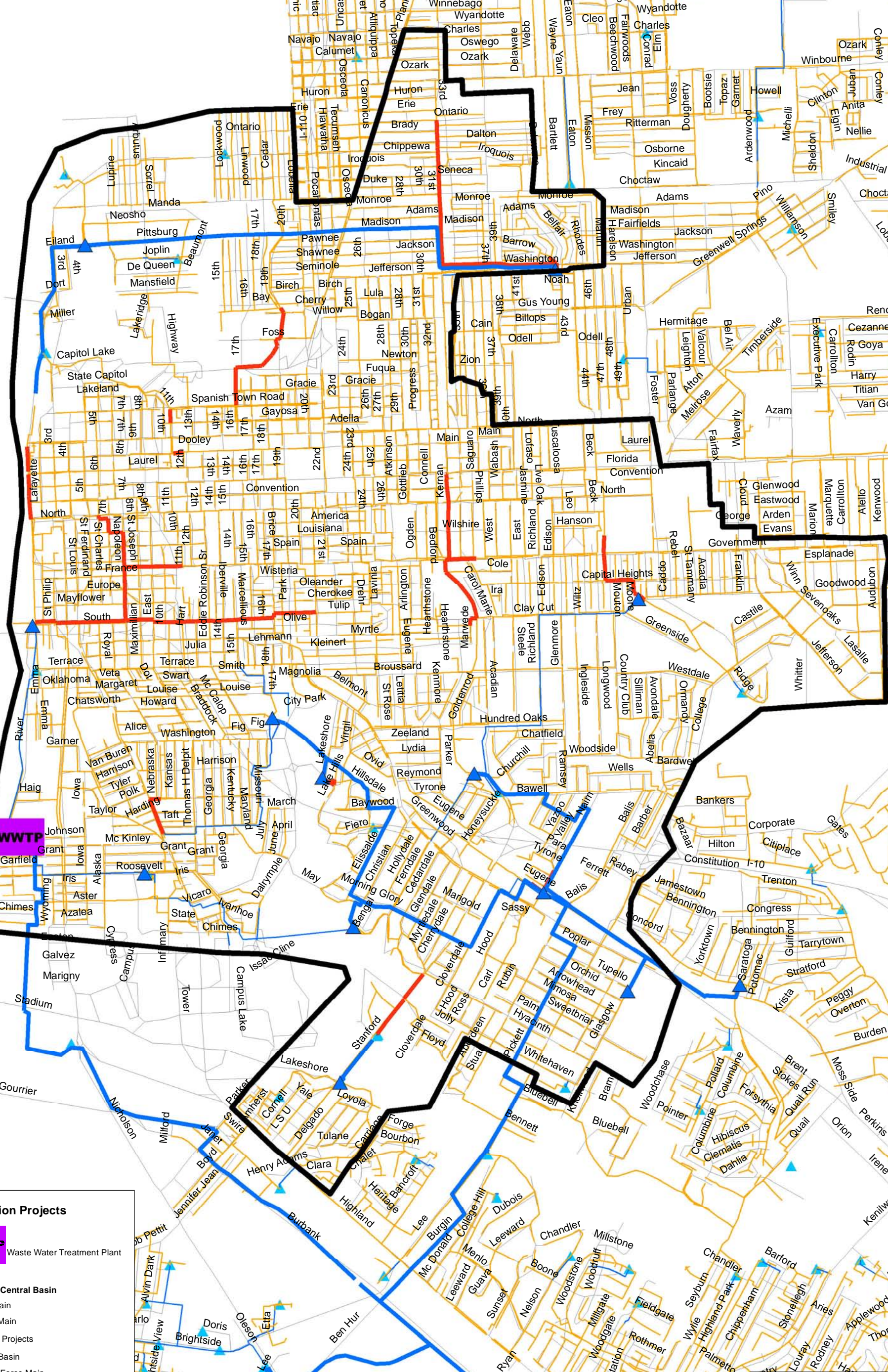


Figure 4-1



# Central Basin Rehabilitation Projects



**Rehabilitation Projects**

**WWTP** Waste Water Treatment Plant

**PDP Projects - Central Basin**

- Force Main
- Gravity Main
- ▲ PDP PS Projects
- Central Basin
- Existing Force Main
- Existing Gravity Main
- ▲ Existing Pump Stations

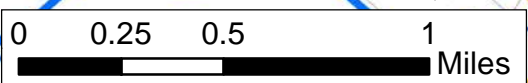


Figure 4-2



## 4.1 Central Gravity System Comprehensive Rehabilitation Projects

### 4.1.1 CGS-R-0001, CGS-R-0002, CGS-R-0003, CGS-R-0004, CGS-R-0005, CGN-R-0001a, CGN-R-0001b, and CGN-R-0002

#### Project Description

The sanitary sewer system comprehensive rehabilitation projects consist of improvements to various components of the collection system to reduce the amount of infiltration and inflow that enter the system.

#### Purpose

The purpose of comprehensive rehabilitation is to correct defects in the system, such as offset pipe joints, collapsed pipe sections, leaking manholes, and direct inflow sources. The water that enters the system through defects is a major contributor to SSOs. Comprehensive rehabilitation of the collection system will contribute to alleviating SSOs.

#### Location

There are eight rehabilitation projects located within the Central Gravity Basin. The project locations are shown in Figures 4-3 to 4-9.

#### Scope of Project

The first phase of comprehensive rehabilitation projects will consist of the physical inspection of the pipes and manholes including CCTV inspection. Smoke testing may also be included in the physical inspection phase.

Data collected by the physical inspection contractor will be analyzed and, based on that analysis, a listing of recommended repairs with associated construction costs will be generated.

An engineering firm will then complete detailed design and preparation of construction documents for project bidding.

The construction of comprehensive rehabilitation projects will typically include the following components:

- Replacement of pipes
- Point repair of pipes
- Rehabilitation of pipes by cured-in-place pipe liners
- Rehabilitation or replacement of manholes
- Repair of sewer laterals to the property line

#### Cost

The estimated construction cost for each project is presented in Table 4-1. These costs are based on preliminary estimates of the amounts for each component of the system that will require repair or replacement. During the physical inspection phase, the actual condition of the components will be assessed and appropriate methods recommended. At that time, the cost estimate for each project will be revised. For those projects under construction, bid amounts were included as construction costs in Table 4-1.

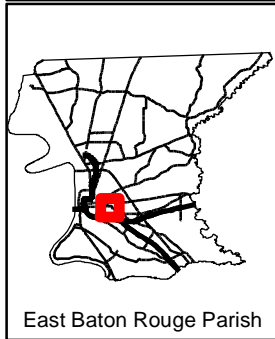
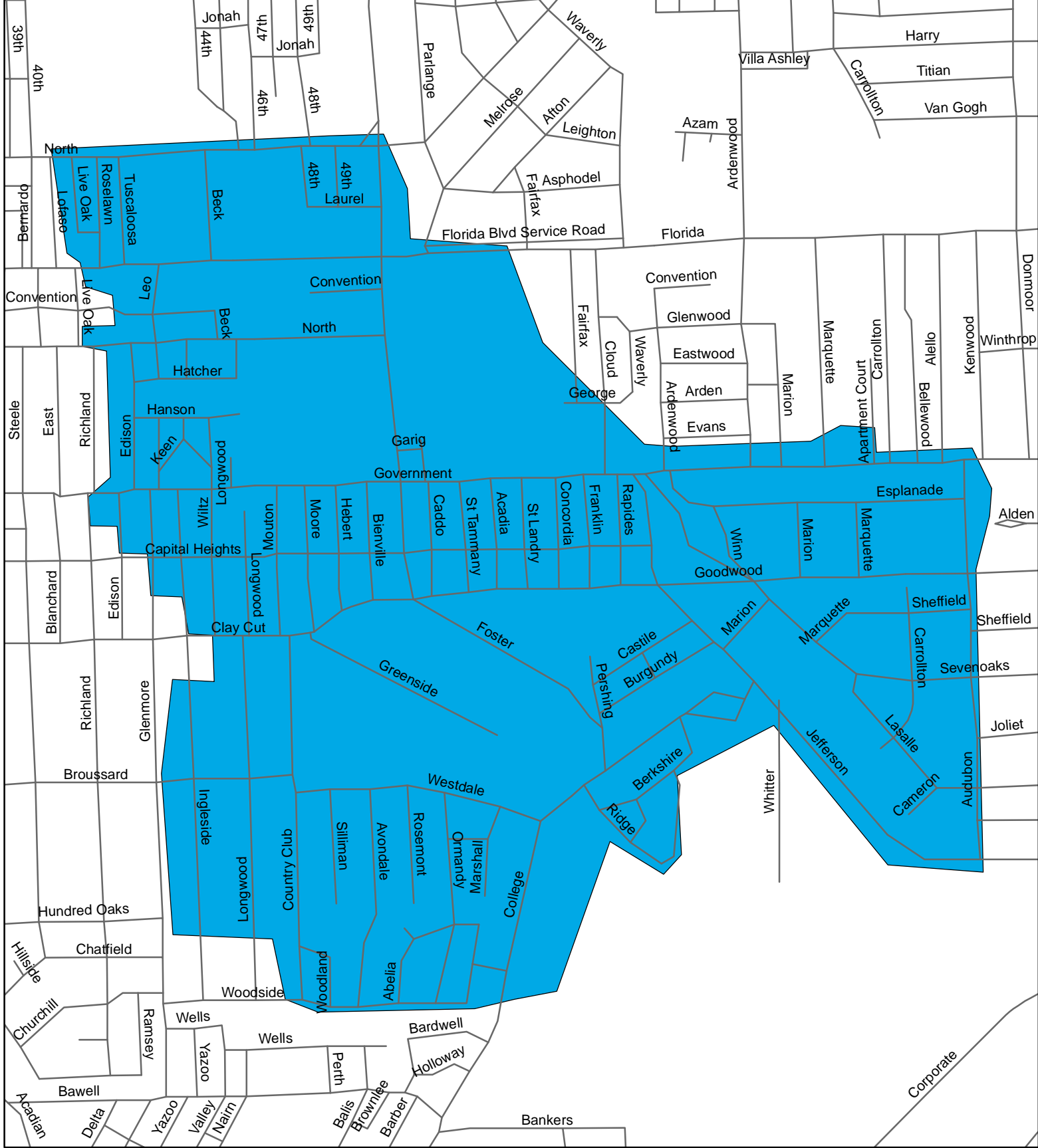
**TABLE 4-1**

Estimated Construction Costs for Central Gravity System Comprehensive Rehabilitation Projects

<b>Project Description</b>	<b>Estimated Construction Cost*</b>	<b>Status</b>
CGS-R-0001-Foster Drive-Government Street Phase A and B	\$7,683,000	Construction On-Going
CGS-R-0002-Highland Road-Washington Street	\$11,483,000	Construction On-Going
CGS-R-0003-Stanford Avenue-Morning Glory Road	\$4,991,000	Construction On-Going
CGS-R-0004-Acadian Thruway-Claycut Road	\$6,297,000	Construction On-Going
CGS-R-0005-Acadian Thruway-Perkins Road	\$3,455,000	Construction On-Going
CGN-R-0001a-Scenic Highway-Spanish Town Road Phase I	\$8,595,000	Not Started
CGN-R-0001b-Scenic Highway-Spanish Town Road Phase II	\$8,595,000	Not Started
CGN-R-0002- East Blvd-Government Street	\$8,000,000	Not Started

\*Estimated construction costs given for projects with construction on-going are bid amounts.





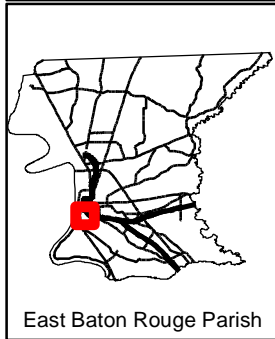
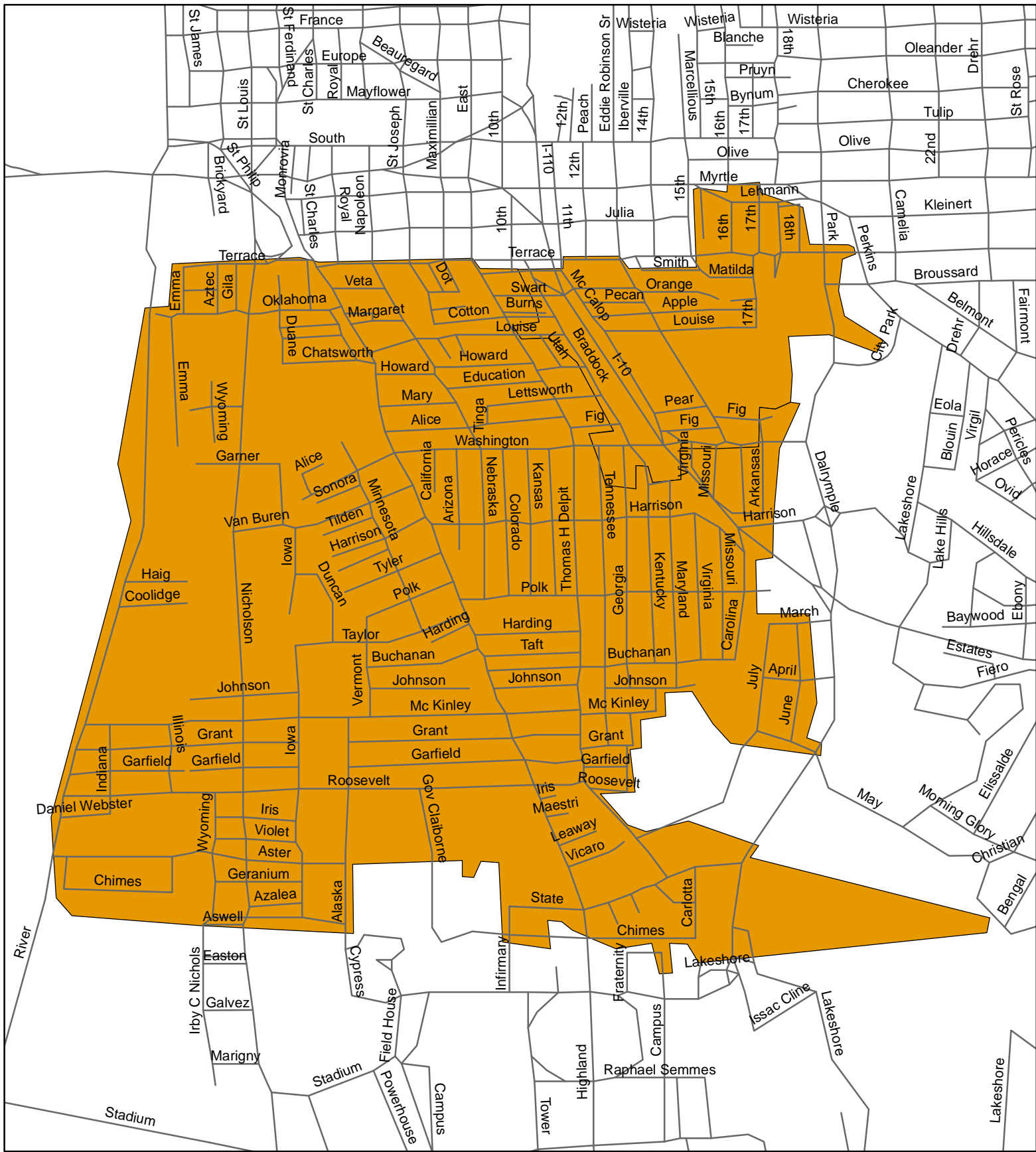
**Legend**

Area Designated for Physical Inspection

0 750 1,500 Feet

**Foster Dr. - Government St.  
Phase A and B  
CGS-R-0001  
Project Vicinity Map**

**Figure 4-3**



**Legend**

- Area Designated for Physical Inspection

0 750 1,500 Feet

**PUBLIC WORKS**

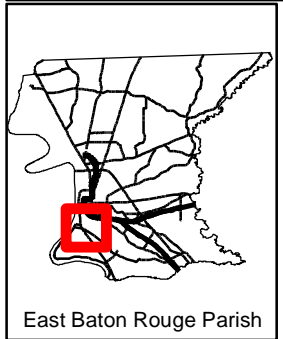
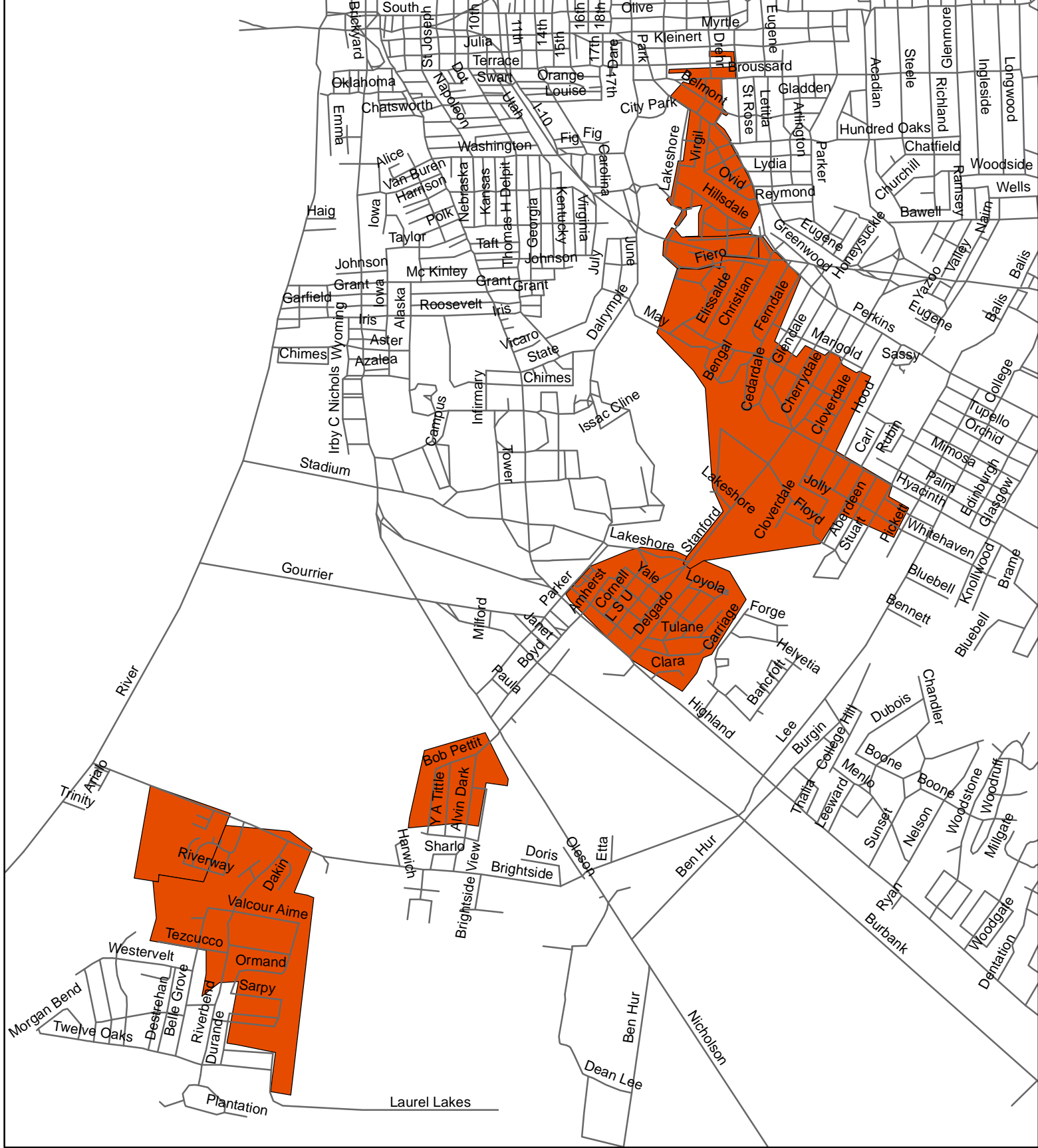
## Highland Rd. - Washington St.

### CGS-R-0002

#### Project Vicinity Map

BATON ROUGE SSO Program

**Figure 4-4**



**Legend**

Area Designated for Physical Inspection

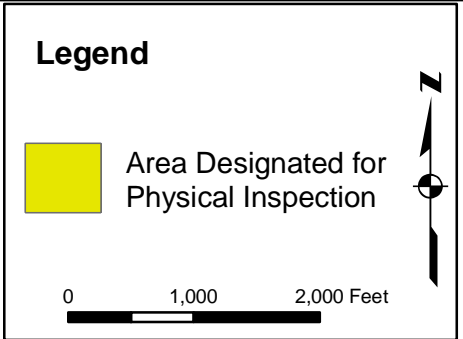
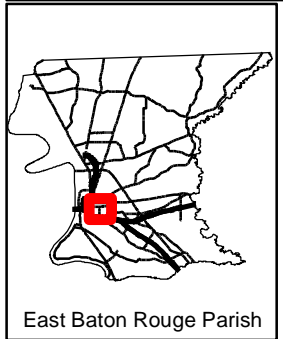
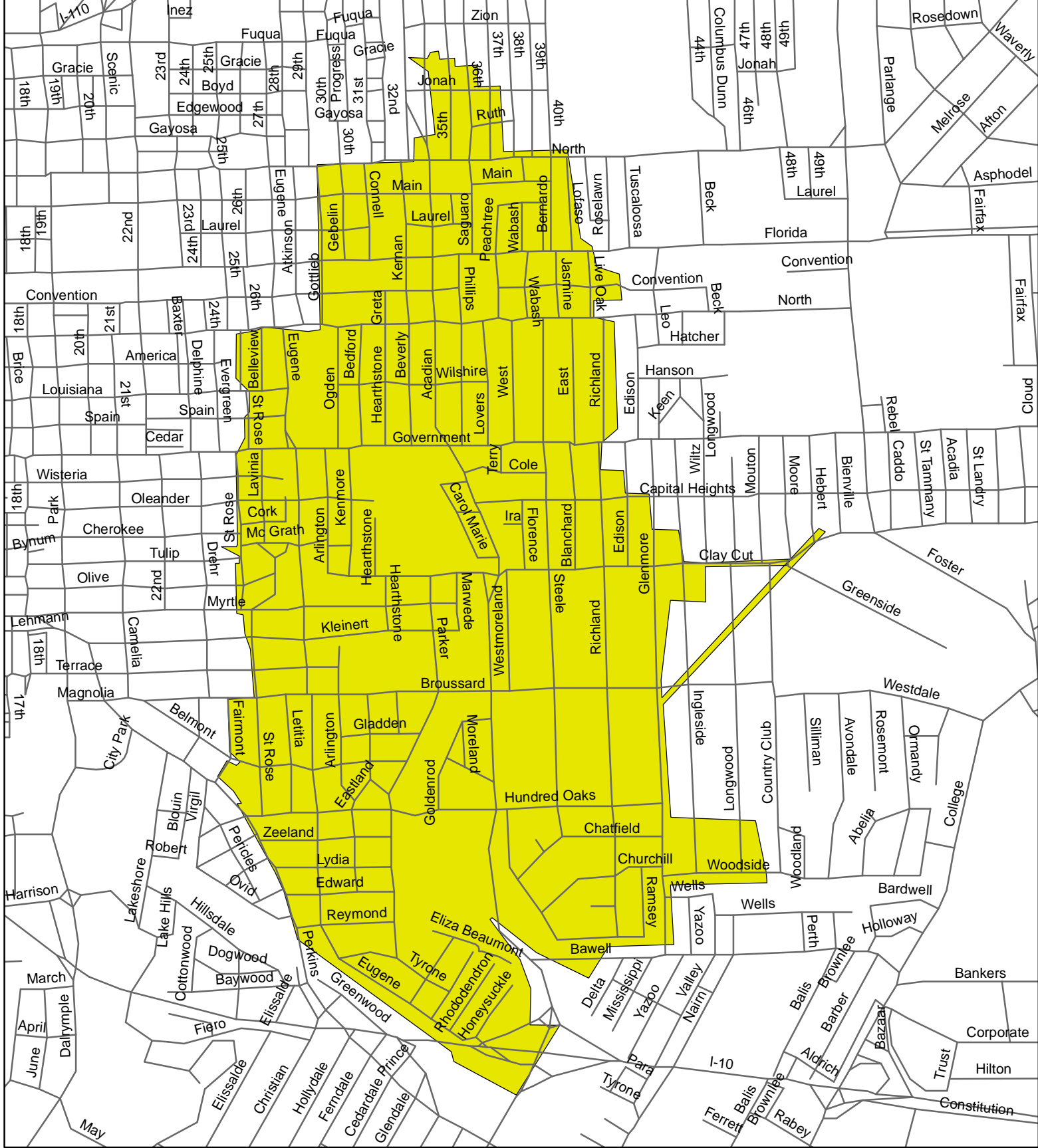
0 1,500 3,000 Feet

**Stanford Ave. - Morning Glory Rd.**

**CGS-R-0003**

**Project Vicinity Map**



**Figure 4-5**



**Acadian Thruway - Claycut Rd.**

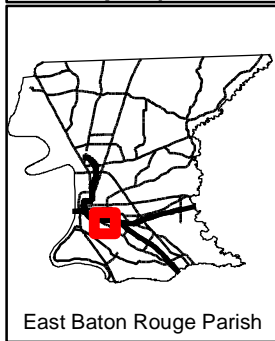
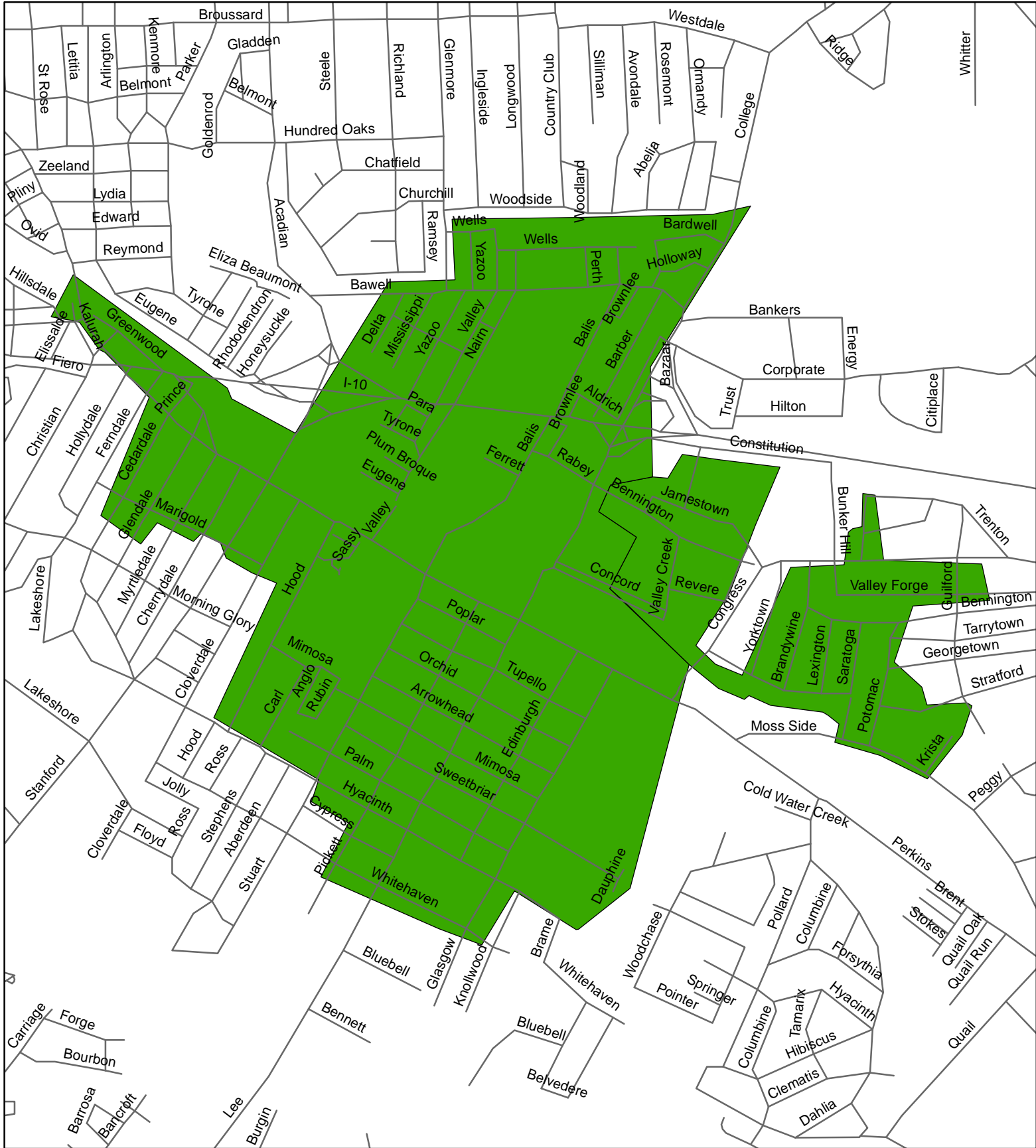
**CGS-R-0004**

**Project Vicinity Map**

**Figure 4-6**

PUBLIC WORKS



**Legend**

Area Designated for Physical Inspection

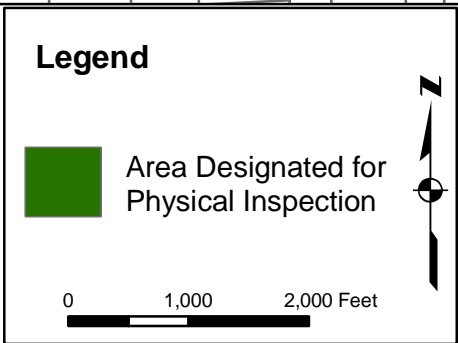
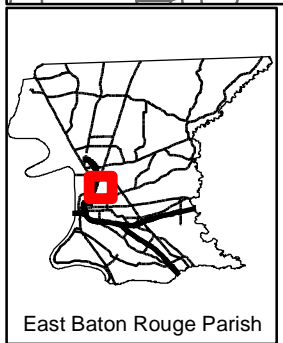
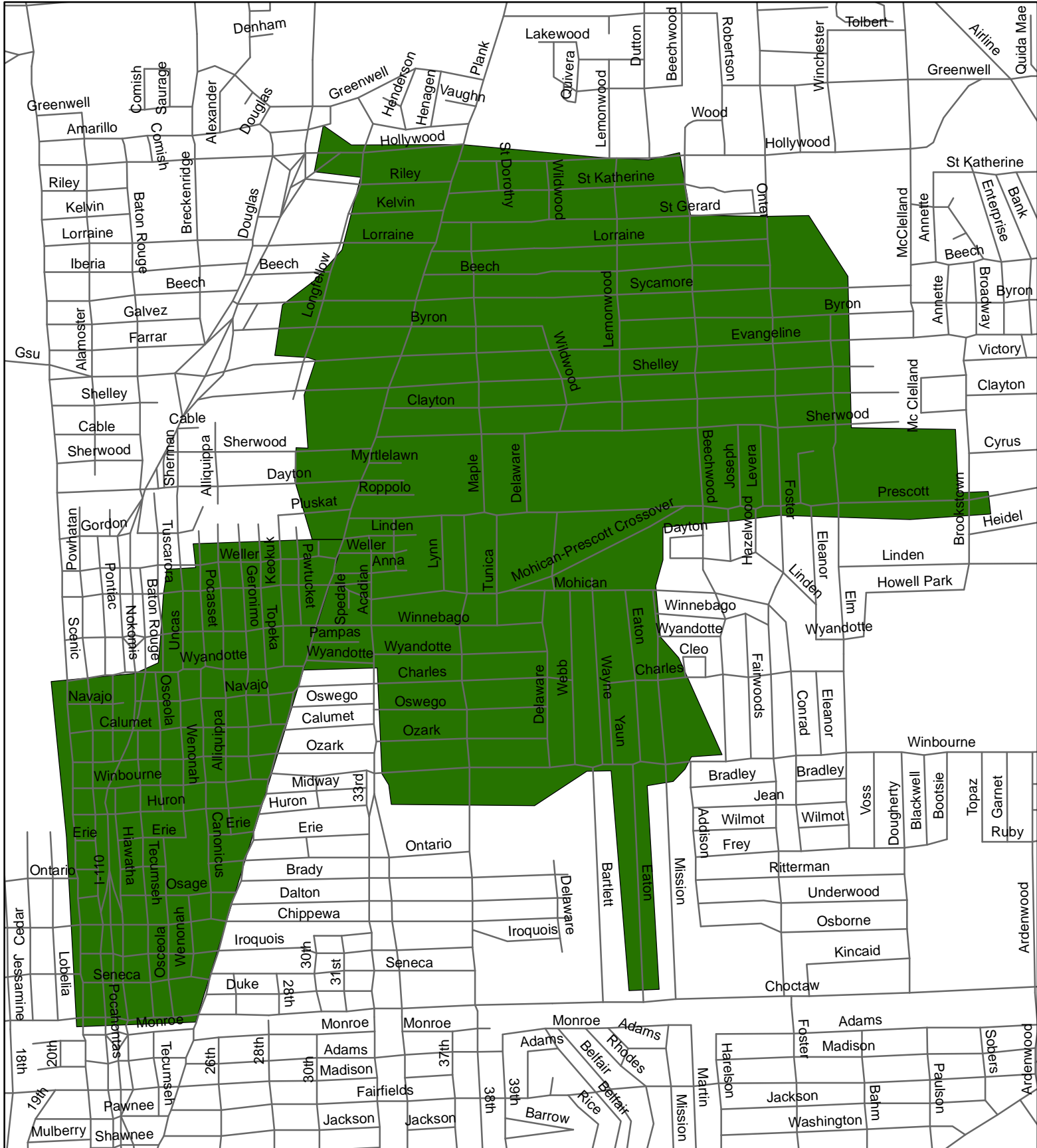
0 1,000 2,000 Feet

**Acadian Thruway - Perkins Rd.**



**CGS-R-0005**

**Project Vicinity Map**


**Figure 4-7**



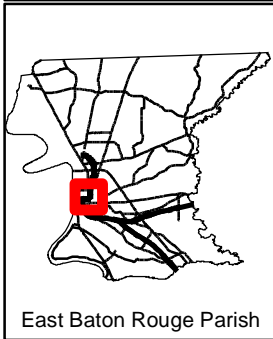
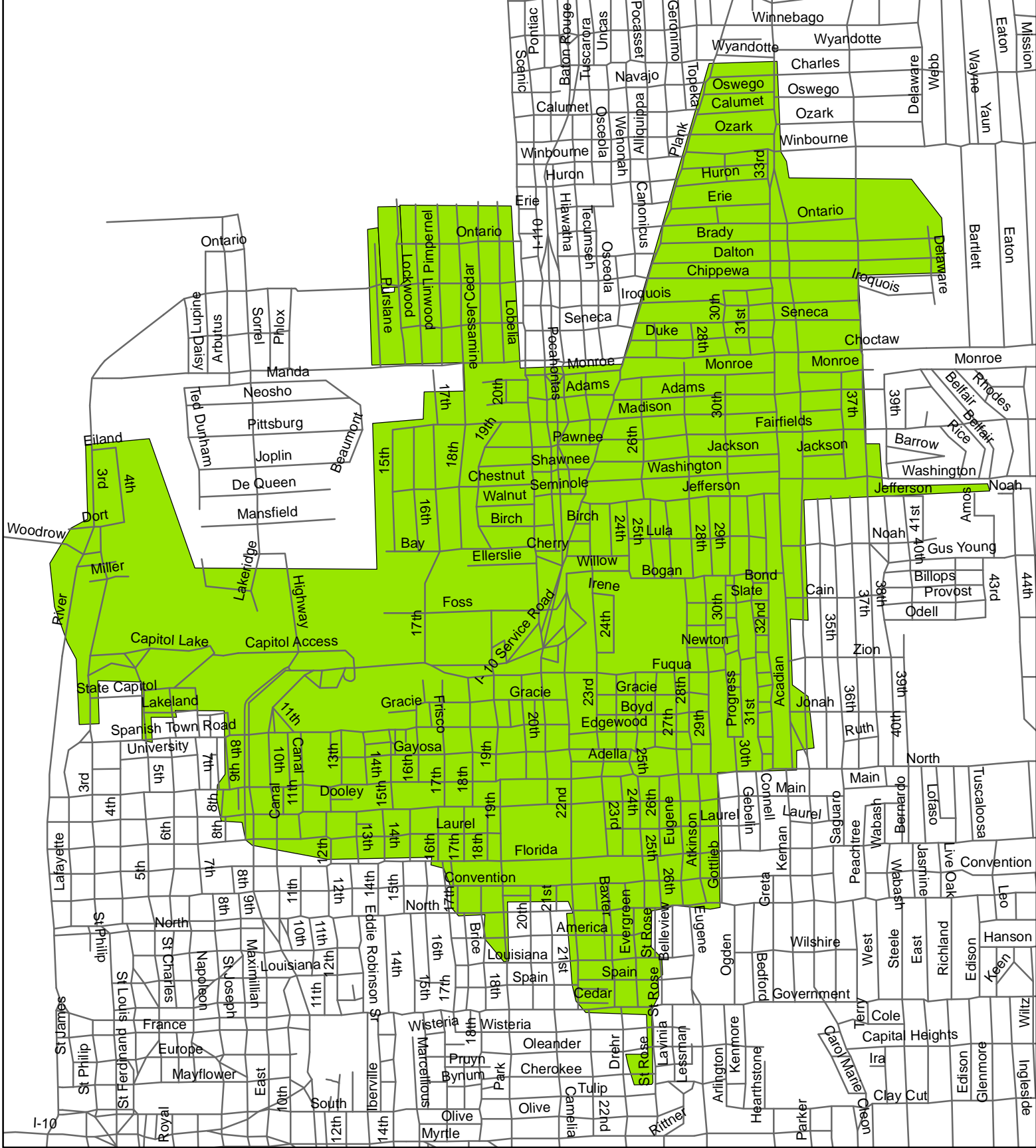
**Scenic Hwy. - Spanish Town Rd.  
Phase I  
CGN-R-001A  
Project Vicinity Map**

**Figure 4-8a**



BATON ROUGE SSO Program



**Legend**

Area Designated for Physical Inspection

0 1,200 2,400 Feet

**Scenic Hwy. - Spanish Town Rd.  
Phase II**

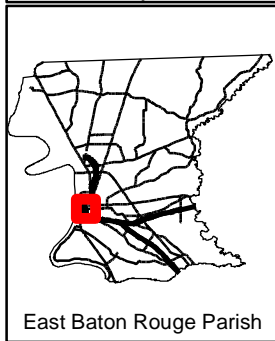
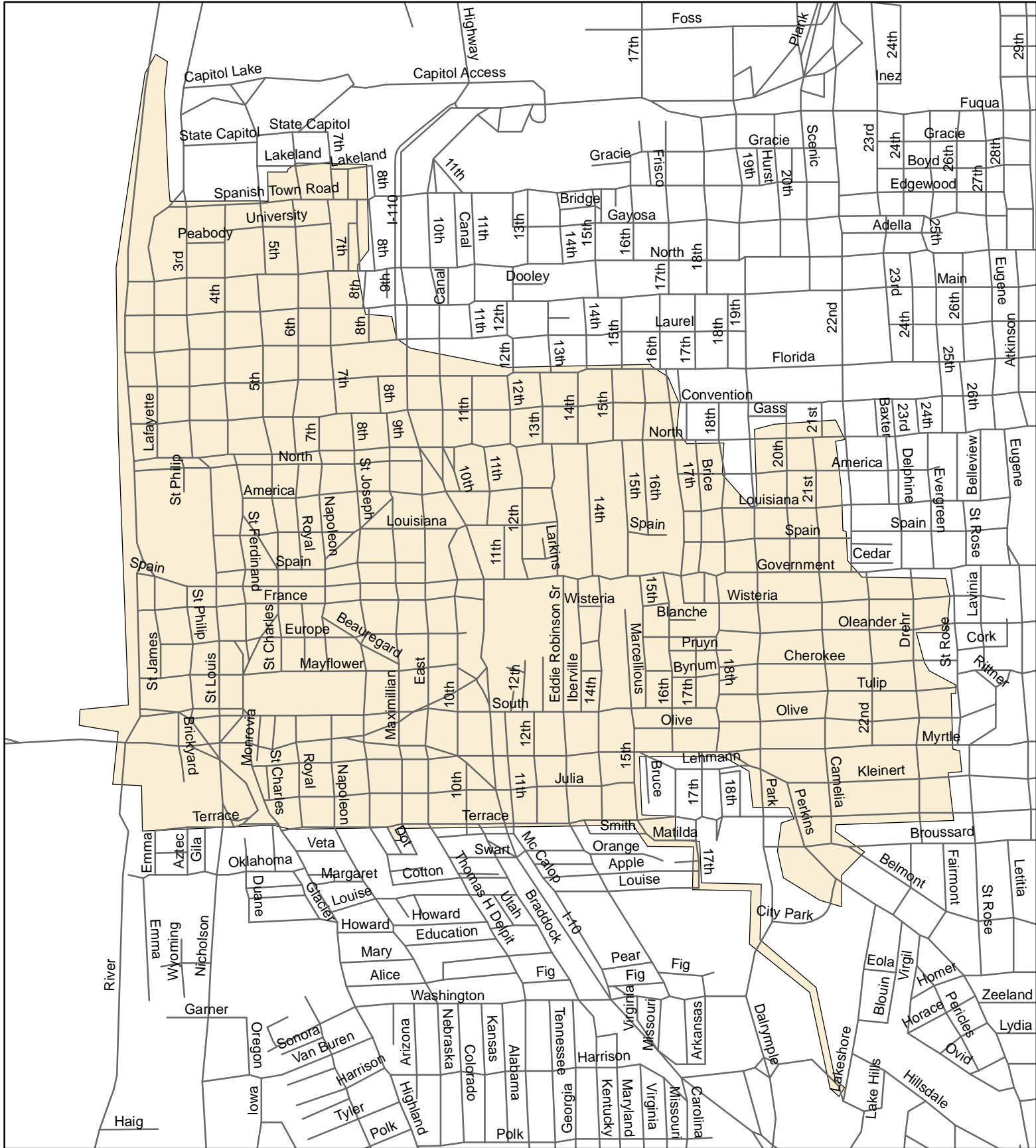
**CGN-R-0001B**

**Project Vicinity Map**

Figure 4-8b

**PUBLIC WORKS**

BATON ROUGE **SSO**  
Program



**Legend**

Area Designated for Physical Inspection

0 1,000 2,000 Feet

**East Blvd. - Government St.**

**CGN-R-0002**

**Project Vicinity Map**

**Figure 4-9**

**PUBLIC WORKS**



## 4.2 Central Gravity System Capacity Improvements Projects

### 4.2.1 CGN-C-0001 (Capital Lake Drive – Gayosa Street Area Capacity Improvements)

#### Project Description

##### *Purpose of the Project/Background Information*

The purpose of this project is to re-route flow from PS 15 and PS 19 so that they directly pump through a common forcemain and manifold with the forcemain from PS 60 to increase the capacity of the system. The forcemain then discharges wastewater into the gravity system at the existing manhole (MH# 059-05885) located at the intersection of River Road and Capital Drive. The October 2009 version of the PDP added the construction of those gravity segments originating at the intersection of North Acadian Thruway and Ontario Street, and the intersection of Washington Avenue and West Belfair Drive, both terminating at PS 15, that were originally part of CGN-C-0002 (25<sup>th</sup> Street-North Acadian) project to improve constructability and scheduling issues. Information about those segments has been included in this section.

##### *Location*

The locations of forcemains and gravity sewers in this project are shown in Figure 4-10.

Forcemain segment PS 15FM to PS 15DS (manifold point of PS19 and PS15 forcemain) starts south of the Washington Avenue and West Belfair Drive intersection. The forcemain travels west until reaching North Acadian Thruway. The forcemain then turns in a northerly direction until reaching the intersection of North Acadian Thruway West and Madison Avenue where the forcemain turns in a westerly direction, and continues until reaching Eiland Street. On Eiland Street, the PS 15 forcemain will be manifolded at PS 15DS with the forcemain exiting PS 19.

Forcemain segment PS 15DS to PS 60 travels west along Eiland Street until reaching 3<sup>rd</sup> Street and then travels south to PS 60 along River Road where it is manifolded with the PS60 forcemain at PS60DS

Forcemain segment PS 60DS to 059-05885 travels south from PS 60 on River Road to manhole 059-05885, which is located on River Road at the intersection of State Capitol Drive and River Road.

Gravity segment 060-07642 to 060-07619 starts at the North Acadian Thruway West and Ontario Street intersection. The gravity segment travels south until reaching 060-07619, near the North Acadian Thruway West and Baron Street intersection.

Gravity segment 060-07619 to 060-07544 travels south until reaching 060-07544 located near the North Acadian Thruway West and Fairfields Avenue intersection.

Gravity segment 060-07544 to 060-07529 travels south until reaching 060-07529 located near the North Acadian Thruway and Washington Avenue intersection. Gravity segment 060-07529 to PS15 travels east until reaching PS15.

Gravity segment 060-07529 to PS 15 travels east along Washington Avenue until reaching PS 15, located south of the Washington Avenue and Belfair Drive intersection.

Gravity segment 015-05119 to PS 15 starts northwest of the Washington Avenue and Belfair Drive intersection. The gravity segment travels southwest until reaching 015-05117. At 015-05117, the gravity segment travels south east until reaching the intersection of Rice Drive and Washington Avenue. The gravity segment then turns in an easterly direction until reaching PS 15.

### Scope

The entire CGN-C-0001 (Capital Lake Drive – Gayosa Street Area Capacity Improvements) project consists of approximately 7,150 feet of 10-inch, 18-inch, 21-inch, and 24-inch gravity sewer and approximately 19,340 feet of 18-inch, 20-inch, and 30-inch forcemain, as outlined below in Table 4-2

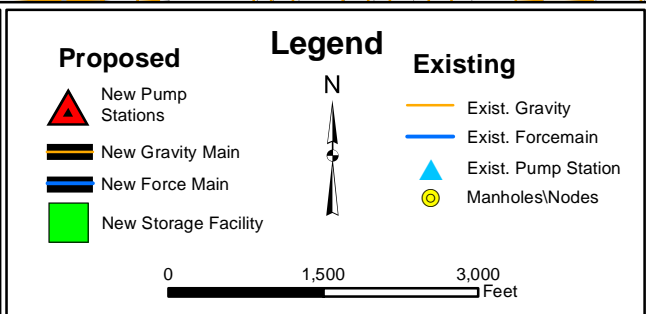
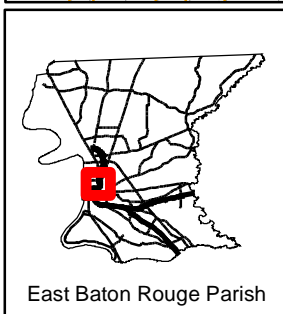
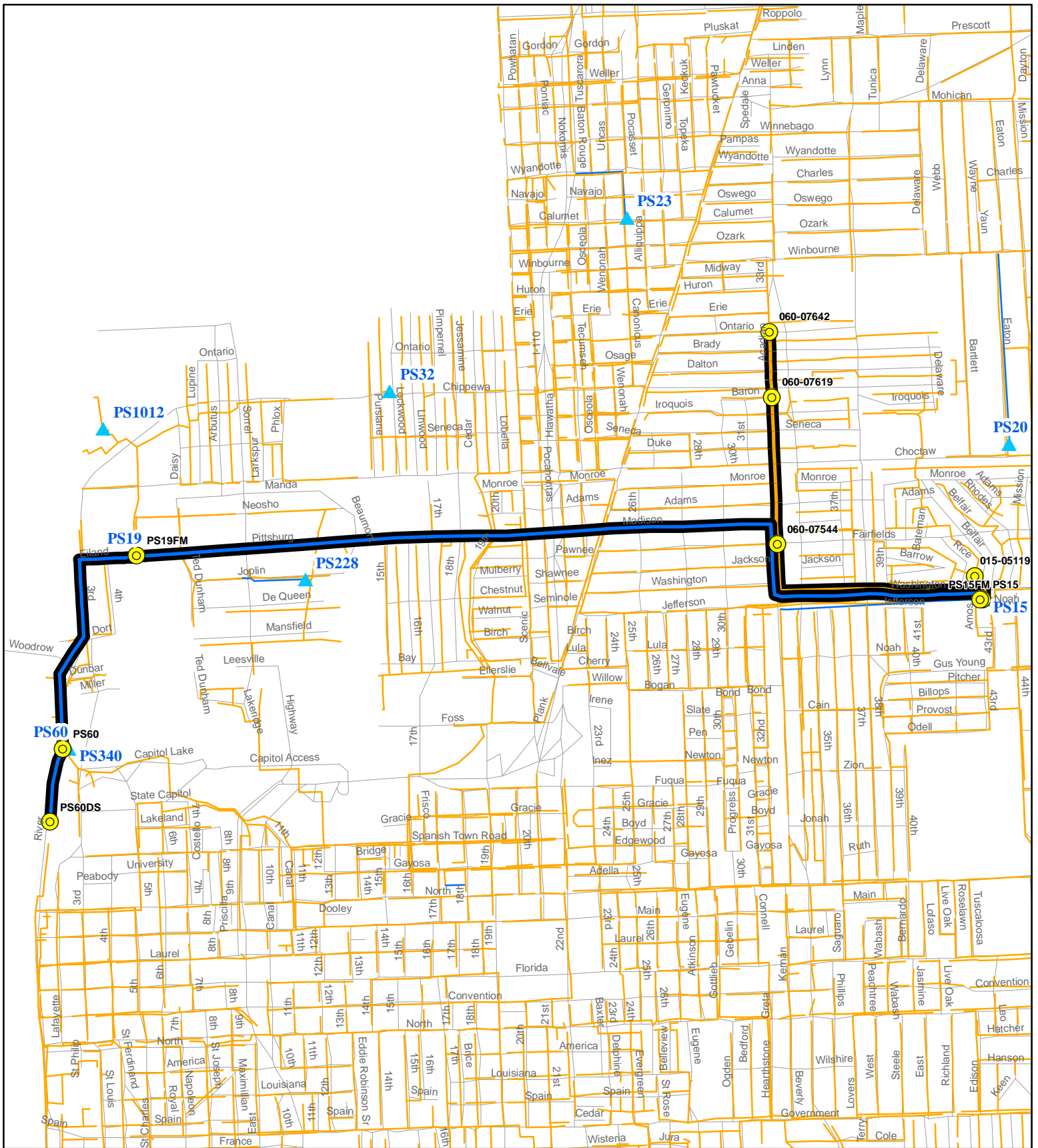
**TABLE 4-2**  
CGN-C-0001 (Capital Lake Drive – Gayosa Street Area Capacity Improvements) – Pipeline Information

US Node	DS Node	Length (ft)	Existing Diameter (in)	Proposed Diameter (in)
PS15FM	PS15DS	14,600	New	18
PS15DS	PS60	3,600	New	20
PS 60FM	059-05885	1,140	24	30
060-07642	060-07619	950	10 to 12	18
060-07619	060-07544	2,100	12, 15, 18	21
060-07544	PS 15	3,600	18, New	24
015-05119	PS 15	500	18	10

**Note:** The existing pipe sizes and lengths were obtained from the BTRSSO hydraulic model.

**Total Construction Bid Amount is \$10,498,000.**

**Construction is On-Going.**



**Capital Lake Dr. - Gayosa St.**

**CGN-C-0001**

**Project Vicinity Map**

**Figure 4-10**

BATON ROUGE **SSO** Program

## **4.2.2 CGN-C-0002 (25<sup>th</sup> Street – North Acadian Thruway)**

### **Project Description**

#### ***Purpose of the Project/Background Information***

The original purpose of the CGN-C-0002 (25<sup>th</sup> Street – North Acadian Thruway) project was to increase the capacity of the gravity trunk sewer upstream of PS 60, PS 15, and PS 59 to alleviate SSOs. This project now consists of designing approximately 9,500 linear feet of gravity sanitary sewer pipeline replacement with pipelines ranging in diameter from 15 to 24 inches, and installing approximately 3,000 linear feet of new gravity sanitary sewer pipeline with diameters of 21 to 24 inches.

For constructability and schedule alignment, those segments originating near North Acadian Thruway to PS 15 will be constructed as project CGN-C-0001 (Capital Lake Drive - Gayosa Street), while those segments originating north of I-110 near Memorial Stadium and east of I-110 between Spanish Town Road and Main Street will be constructed in the vicinity of project CGN-C-0003 (South Blvd - St. Joseph Street). The location descriptions and maps of those projects include the scope that is being designed under this project.

**Total Estimated Design Cost is \$521,000.**

**Design has been Completed.**

### 4.2.3 CGN-C-0003 (South Blvd – St. Joseph Street Sewer Area Upgrades)

#### Project Description

##### ***Purpose of the Project/Background Information***

The purpose of this project is to increase the capacity of the gravity sewers upstream PS 59 and PS 60. Nearly 3,000 feet of gravity sewer and the forcemain from PS 10 were deleted from this project due to hydraulic modeling updates. This October 2009 version of the PDP also adds construction of gravity segments that were part of CGN-C-0002 (25<sup>th</sup> Street - North Acadian Thruway) to improve constructability and scheduling issues. This section includes information about those segments.

##### ***Location***

The locations of the gravity sewers in this project are shown in Figure 4-11.

Gravity segment 059-06088 to 059-05855 starts at the intersection of St. Philip Street and South Blvd. The gravity segment travels west until reaching 059-05857 at the intersection of South Blvd and River Road, then travels in a southerly direction until reaching 059-05855.

Gravity segment 059-06445 to 059-06532 starts at the Camellia Avenue and Tulip Street intersection. The gravity segment travels west, turning south at 059-06575A. The gravity segment turns west at 059-06574, continuing until reaching 059-06532.

Gravity segment 059-06532 to 059-06045 starts at the South 15<sup>th</sup> Street and South Street intersection. The gravity segment travels west along South Street, crossing the KCS railroad tracks and under I-110 ramps and overpass. The line travels north at the intersection of South Street and Maximillian Street to 059-06613. The line turns west at 059-06613. The line continues west until reaching 059-06045 located northwest of the St. Joseph Street and South Blvd intersection.

Gravity segment 059-06139 to 059-06231 starts near the North Blvd and Royal Street intersection. The gravity segment travels east until reaching 059-06229. The gravity segment travels south until reaching 059-06230. The gravity segment travels east until reaching 059-06231, located near the intersection of America Street and St. Joseph Street.

Gravity segment 059-06236 to 059-06128 starts at the America Street and St. Joseph Street intersection. The gravity segment travels south until reaching 059-06128, located at the Government Street and St. Joseph Street intersection.

Gravity segment 059-06128 to 059-06045 starts at the Government Street and St. Joseph Street intersection. The gravity segment travels south until reaching 059-06045, located near the South Blvd and St. Joseph Street intersection.

Gravity segment 059-05878 to 059-05868 starts south of North Street and River Road intersection. The gravity segment travels south until reaching 059-05868, located near the River Road and North Blvd intersection.

Gravity segment 059-06287 to 059-06128 starts northwest of the Government Street and 11<sup>th</sup> Street intersection. The gravity segment travels west, running parallel to Government Street, until reaching 059-06128 near Government and St. Joseph Street.

Gravity segment 060-06987 to 060-06933 starts west of Main Street and N 12<sup>th</sup> Street intersection. The gravity segment travels west until reaching 060-06935, located east of the

Main Street and North 11<sup>th</sup> Street intersection, then travels north until reaching 060-06933, located just north of the intersection of Main Street and North 11<sup>th</sup> Street.

Gravity segment 060-07038 to 060-06953A starts north of North Street between Canal Street and N 11<sup>th</sup> Street. The gravity segment travels north until reaching 060-06953A near Spanish Town Road.

Gravity segment 060-7741 to 060-07736 starts west of Scenic Highway between Bay Street and Ellerslie Drive. The gravity segment travels southeast until reaching 060-07737 near Ellerslie Drive, where it then travels southwest along a drainage canal towards Foss Street to 060-07736. Gravity segment 060-07736 to 060-07735 travels southwest ending at 060-07735 near Foss Street.

Gravity segment 060-07735 to 060-07735I starts northeast of Foss Street and North 19<sup>th</sup> Street intersection. The gravity segment travels southwest along Foss Street until reaching 060-07735I.

Gravity segment 060-07735I to 060-07735J travels west, parallel to Foss Street, until reaching 060-07735J, located at the intersection of Foss Street and North 19<sup>th</sup> Street.

Gravity segment 060-07735J to 060-07734 travels southeast parallel to North 19<sup>th</sup> Street until reaching 060-07734, located northwest of the intersection of North 19<sup>th</sup> Street and North 17<sup>th</sup> Street.

Gravity segment 060-7734 to 060-07729 starts northwest of the intersection of North 19<sup>th</sup> Street and North 17<sup>th</sup> Street and travels over land in a southwesterly direction near Memorial Stadium to 060-07729, which is north of I-110 and southwest of Memorial Stadium.

Gravity segment 060-7728 to 060-07931 travels south from 060-07728 and parallels Frisco Street to 060-07931, which is located near the intersection of North 16<sup>th</sup> Street and Spanish Town Road.

### Scope

The entire CGN-C-0003 (South Blvd – St. Joseph Street Sewer Area Upgrades) project consists of approximately 16,600 feet of gravity sewer upstream of PS 59 and PS 60. Table 4-3 shows the scope of this project.

**TABLE 4-3**  
CGN-C-0003 (South Blvd – St. Joseph Street Sewer Area Upgrades) – Pipeline Information

US Node	DS Node	Length (ft)	Existing Diameter (in)	Proposed Diameter (in)	Comments
059-06088	059-05857	570	24	36	
059-05857	059-05855	30	39	48	
059-06445	059-06532	2,195	10 & 12	21	
059-06532	059-06045	2,920	10 & 12	24	
059-06139	059-06231	1,100	10	15	
059-06236	059-06128	940	18	24	

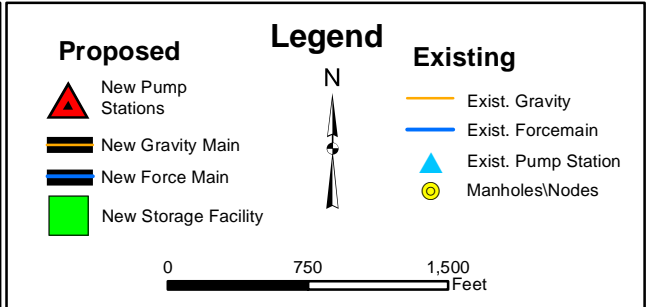
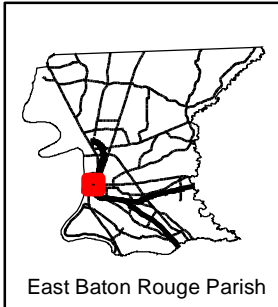
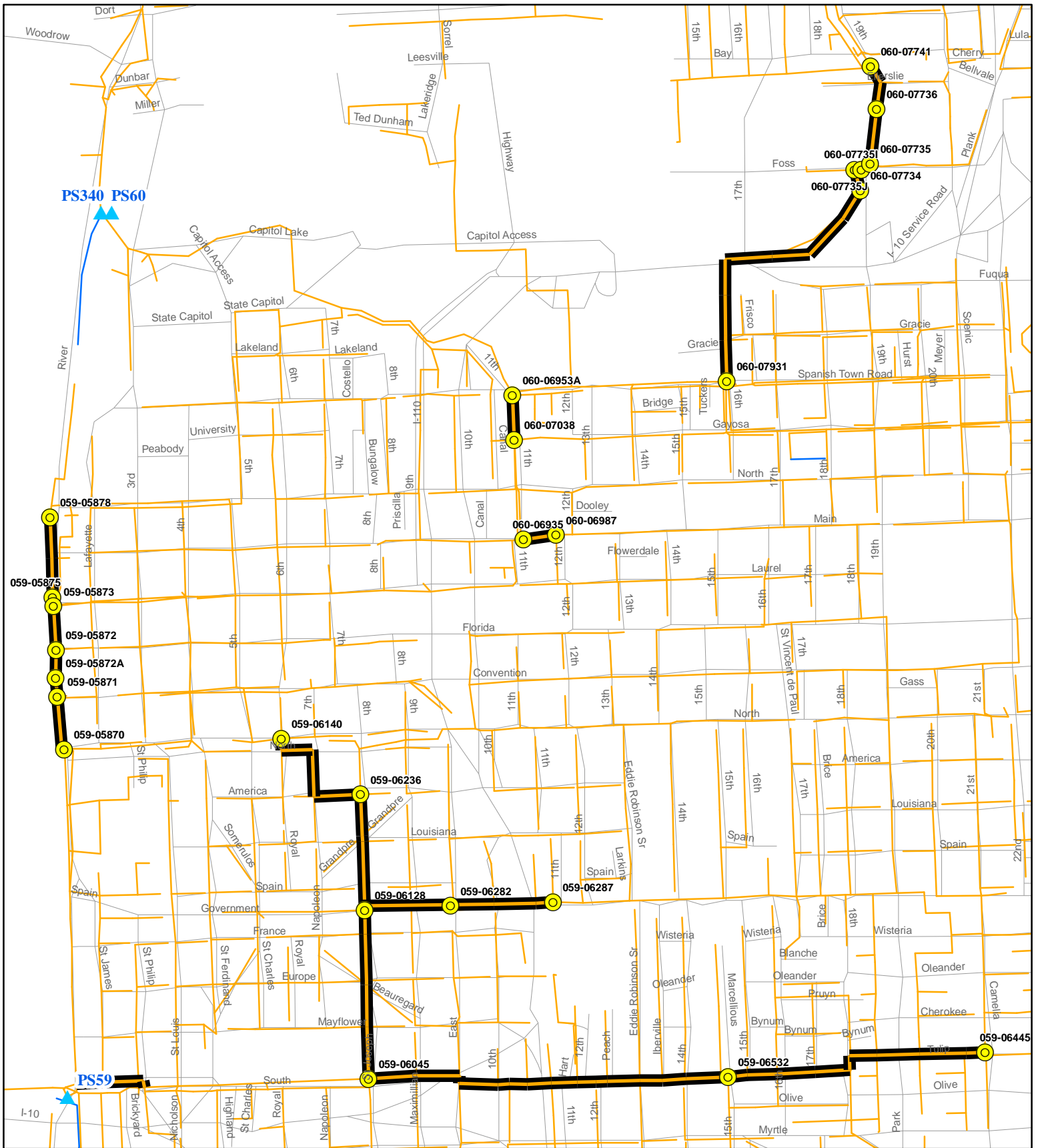
**TABLE 4-3**  
 CGN-C-0003 (South Blvd – St. Joseph Street Sewer Area Upgrades) – Pipeline Information

US Node	DS Node	Length (ft)	Existing Diameter (in)	Proposed Diameter (in)	Comments
059-06128	059-06045	1,330	15 & 21	27	
059-05878	059-05868	1,961	8, 27, 30, & 36	42	
059-06287	059-06128	1,530	10	15	
060-06987	060-06935	280	10	15	
060-07038	060-06953A	360	18	24	
060-07741	060-07736	400	18	24	
060-07736	060-07735	345	18	24	
060-07735	060-07735I	80	18	24	
060-07735I	060-07735J	70	18	24	
060-07735J	060-07734	170	18	24	
060-07734	060-07729	1,300	18	24	
060-07728	060-07931	700	18	30	

**Note:** The existing pipe sizes and lengths were obtained from the BTRSSO hydraulic model.

**Total Construction Bid Amount is \$17,970,000.**

**Construction is On-Going.**



## South Blvd. - St. Joseph St. Sewer Area Upgrades CGN-C-0003

### Project Vicinity Map

Figure 4-11



#### 4.2.4 CGN-C-0004 (Downtown Area –PS 59 Improvements)

The CGN-C-0004 project has been combined with CGN-C-0005 (Downtown Area - PS 15, PS 19, PS 59, and PS 60 Improvements) from the October 2008 PDP. The combined project has been designated CGN-C-0005 (Downtown Area Pump Station Improvements) and is described in Section 4.2.5.

#### 4.2.5 CGN-C-0005 (Downtown Area Pump Station Improvements)

##### Project Description

##### *Purpose of the Project/Project Background*

The CGN-C-0005 (Downtown Area Improvements) project includes the upgrade of PS 15, PS 19, and PS 59 to alleviate SSOs at and near the PSs as well as in their respective upstream basins. This project is the combination of CGN-C-0005 (Downtown Area – PS515, PS519, and PS 59 Improvements) and CGN-C-0004 (Downtown Area – PS 59 Improvements) from the October 2008 PDP. The combined project has been designated CGN-C-005 (Downtown Area Pump Stations) and is described in the rest of this section.

The BTRSSO hydraulic model also predicts a PS capacity exceedance for the future peak wet weather flow. PS 15, PS 19, and the existing PS 60 will utilize the new forcemains outlined in the project CGN-C-0001 (Capital Lake Drive – Gayosa Street). PS 59 was added to this project in 2009 because of the similarity of the project and proximity to the other pump stations included in this project. During design, it was discovered that PS 59 could be rehabilitated by installing new pumps rather than completely replacing the entire pump station.

##### *Location*

The locations of PS 15, PS 19, and PS 59 are given in Table 4-4 and in Figure 4-12.

##### *Scope*

The scope of this project is shown in Table 4-4.

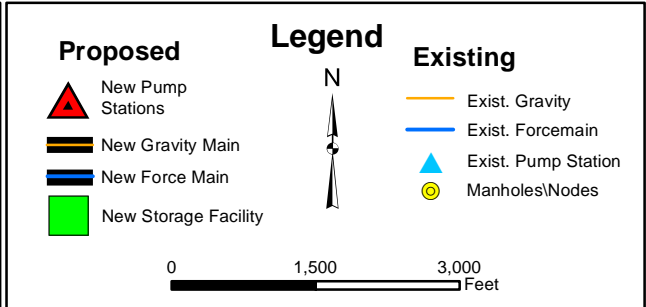
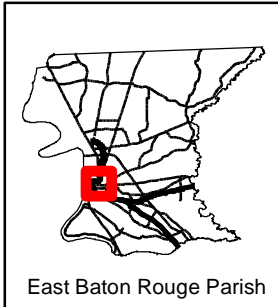
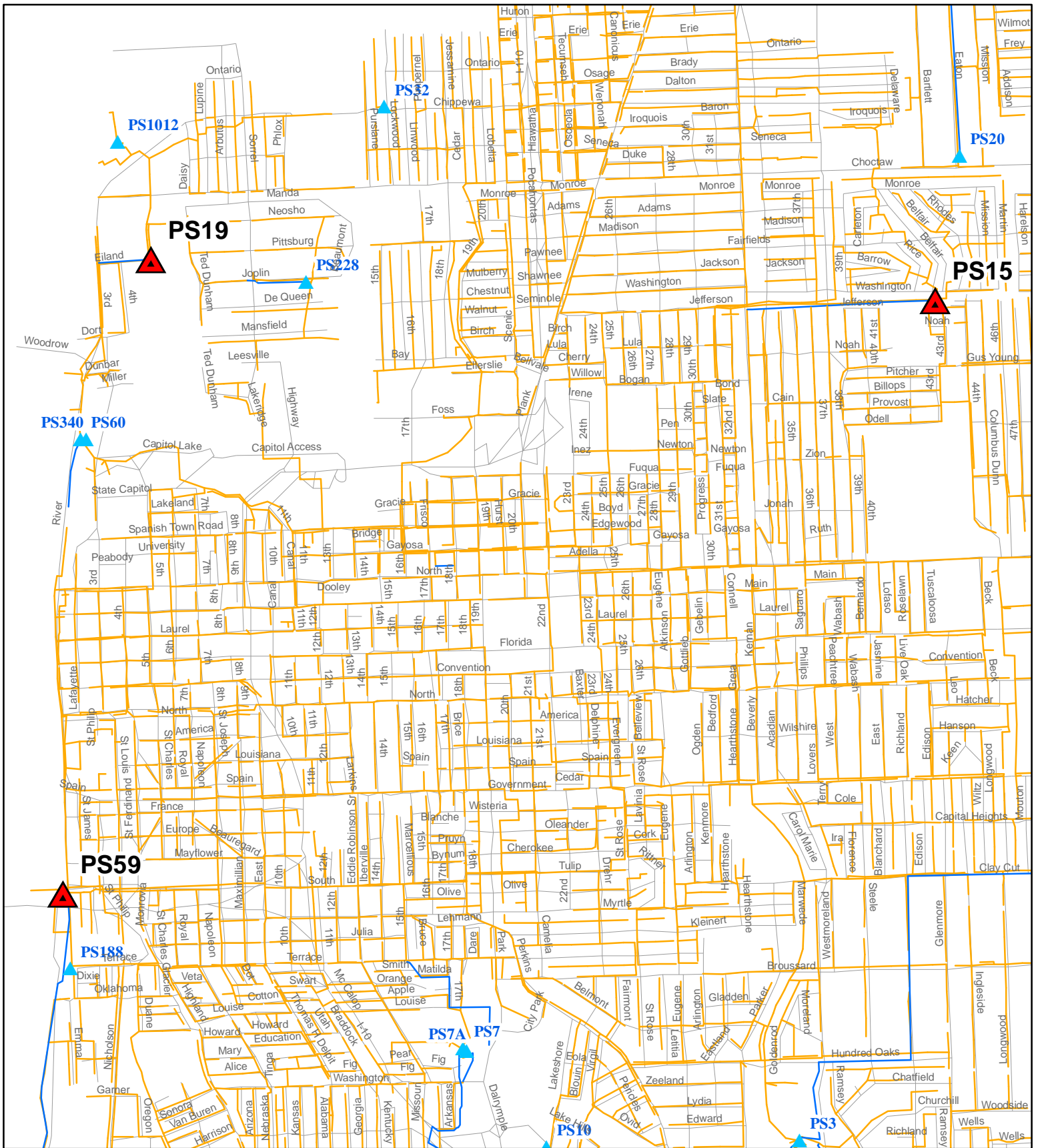
**TABLE 4-4**  
CGN-C-0005 (Downtown Area Pump Station Improvements) – Pump Station Information

PS No.	Location	Existing Max Capacity (gpm)	Future Peak Wet Weather Flow (gpm)	Dry Weather (gpm)
PS 15	Washington Street, near intersection of West Belfair Drive	694	4,014	799
PS 19	Eiland Drive, near intersection of 4th Street	417	1,493	193
PS 59 (rehab)	Near the intersection of River Road and South Blvd.	7,777	26,665	4,570

**Note:** The existing maximum capacities for the PSs were obtained from the DPW Field Pump Station Maintenance reference guide. The future peak wet weather flow was obtained from the BTRSSO hydraulic model.

**Total Construction Bid Amount is \$4,841,000.**

**Construction is On-Going.**





## Downtown Area PS Improvements

# CGN-C-0005

## Project Vicinity Map

Figure 4-12

**PUBLIC WORKS**

#### **4.2.6 CGS-C-0001 (Roosevelt Street Area – PS 1 Improvements)**

##### **Project Description**

This project was deleted due to the Central Consolidation, as PS 1 no longer required improvements due to consolidation.

#### **4.2.7 CGS-C-0002 (University Lake Area – PS2, PS5, and PS6 Improvements)**

##### **Project Description**

This project was deleted due to the Central Consolidation. PS 2, PS 5, and PS 6 will all be part of the CC-EAST-PS (Central Consolidated Pump Station) project.

#### **4.2.8 CGS-C-0003 (Acadian/Claycut Area – PS3 and PS4 Improvements)**

##### **Project Description**

This project was deleted due to the Central Consolidation. PS 3 and PS 4 will be part of the CC-EAST-PS (Central Consolidated Pump Station) project.

#### **4.2.9 CGS-C-0004 (Highland Road – Buchanan Street Area Sewer Upgrades)**

##### **Project Description**

##### ***Purpose of the Project/Project Background***

The purpose of this project is to upgrade gravity sewers upstream of PS 1, PS 2, and PS 5 to alleviate SSOs in the Central Gravity South basin. The project also includes new forcemain from PS 6, PS 91, and the new Glasgow PS, which all will be constructed as part of the Central Consolidated Pump Stations project. Due to Central Consolidation, the original project from the January 2008 PDP had several hundred feet of gravity sewer deleted from it with several hundred feet of forcemain added to it, and then was combined with the CGS-C-0005 (Stanford Avenue – Ferndale Avenue) project. The combined project has been designated the CGS-C-0004 (Highland Road – Buchanan Street Area Sewer Upgrades) and is described in this section.

##### ***Location***

The forcemains and gravity segments in this project are shown in Figure 4-13.

Gravity segment 001-00425A to 001-00425 starts on East Polk Street between Colorado Street and Nebraska Street. The gravity segment travels west until reaching 001-00425 located on East Polk Street between Nebraska Street and Highland Road.

Gravity segment 001-00425 to 001-00293 starts on East Polk Street between Nebraska Street and Highland Road. The gravity segment travels west on Polk Street, then southeasterly along Highland Road, ending at Johnson Street.

Gravity segment 002-01393 to 002-01390 starts northeast of the Stanford Avenue and West Lakeshore Drive intersection. The gravity segment travels northeast until reaching 002-01391. The line travels north until reaching 002-01390 near the Stanford Avenue and South Lakeshore Drive intersection.

Gravity segment 002-01390 to 002-01361 starts near the Stanford Avenue and South Lakeshore Drive intersection. The gravity segment travels northeast along Stanford Avenue until reaching 002-01361, located southwest of the Stanford Avenue and East Lakeshore Drive intersection.

Gravity segment 005-03915 to 005-03914 starts southwest of the Eugene Street and Valley Street intersection. The gravity segment travels southeast until reaching 005-03914, located near the railroad crossing at Valley Street.

Gravity segment 005-03808 to JM001 starts at the Nairn Drive and Valley Street intersection. The gravity segment travels southwest until reaching 005-03802. The line travels southeast until reaching 005-03801. The gravity line travels southwest until reaching JM001, located near Valley Street and Pump Station 5.

Gravity segment JM001 to 005-03800 will travel in a southwesterly direction until reaching 005-03800 near Valley Street and PS 5.

Gravity segment 006-04250 to PS 6 starts southeast of the West Lakeshore Drive and Stanford Drive intersection. The gravity segment travels northwest until reaching PS 6.

The new forcemain segment PS 91 FM to DUM 001 will start from PS 91 located near the intersection of Concord Avenue and Lexington Drive, and travels south then southwest along Moss Side Lane until reaching the railroad right-of-way on the north side of the railroad. The forcemain will then travel in a northwesterly direction within the railroad right-of-way until it intersects (DUM 001) with a new forcemain near the intersection of Glasgow Avenue and Perkins Road.

The new forcemain segment Glasgow PS to DUM 0001 will start near the intersection of Tupelo Street and Glasgow Avenue, and follow Glasgow Avenue crossing Perkins Road and the railroad to intersection (DUM 001) with the forcemain segment from PS 91.

The new forcemain segment DUM 001 to JM001 will begin at the intersection point of segments PS 91 forcemain to DUM 001 and DUM DS to DUM 001. The forcemain will then travel in a northwesterly direction mostly within the railroad right-of-way until reaching JM 001.

Forcemain segment PS6 to PS6DS starts southeast of West Lakeshore Drive and Stanford Drive intersection. The forcemain travels northeast, parallel to Stanford Drive until reaching PS6DS near the South Lakeshore Drive and Stanford Drive intersection.

### **Scope**

Project CGS-C-0004 (Highland Road – Buchanan Street Area Sewer Upgrades) includes approximately 1,100 feet of 10-inch and 15-inch gravity sewer upstream of PS 1, approximately 2,000 feet of 21-inch and 24-inch gravity sewer upstream of PS 2, approximately 1,100 feet of 12-inch, 18-inch, and 42-inch gravity sewer upstream of PS 5, approximately 40 feet of 21-inch gravity sewer upstream of PS 6, approximately 1,400 feet of 12-inch forcemain downstream of PS 6, and approximately 7,000 feet of 10-inch, 12-inch, and 15-inch forcemain downstream of PS 91 and Glasgow PS, as shown in Table 4-5.

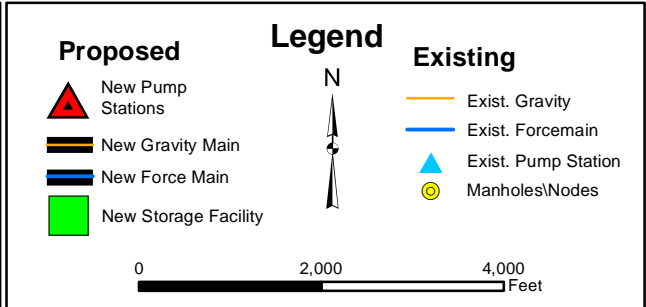
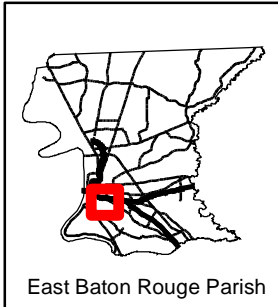
**TABLE 4-5**  
 CGS-C-0004 (Highland Road – Buchanan Street Area Sewer Upgrades) – Pipeline Information

US Node	DS Node	Length (ft)	Existing Diameter (in)	Proposed Diameter (in)	Comments
001-00425A	001-00425	15	8	10	
001-00425	001-00293	1,100	8 & 10	15	
002-01393	002-01390	1,200	15 & 18	21	
002-01390	002-01361	800	18	24	
005-03915	005-03914	400	8	12	
005-03808	JM 0001	560	10	18	
JM 001	005-03800	110	New	42	
PS 91 FM	DUM 001	2,750	New	12	Forcemain
Glasgow PS	DUM 001	960	New	10	Forcemain
DUM 001	JM 001	3,280	New	15	Forcemain
006-04250	PS6	40	10	21	
PS6	PS6DS	1,400	8	12	Forcemain

**Note:** The existing pipe sizes and lengths were obtained from the BTRSSO hydraulic model.

**Total Construction Bid Amount is \$4,326,000.**

**Construction is Functionally Complete.**



**Highland Rd. - Buchanan St. Sewer Area Updates**  
**CGS-C-0004**  
**Project Vicinity Map**

Figure 4-13

BATON ROUGE **SSO Program**

#### 4.2.10 CGS-C-0005 (Stanford Avenue – Ferndale Avenue)

##### Project Description

This project was combined with project CGS-C-0004 (Highland Road – Buchanan Street) due to deletion of large gravity sewer because of the Central Consolidation projects and has been designated CGS-C-0004 (Highland Road – Buchanan Street Area Sewer Upgrades) and is described in Section 4.2.9

#### 4.2.11 CGS-C-0006 (Government Street – South Acadian Thruway Sewer Area Upgrades)

##### Project Description

##### *Purpose of the Project/Project Background*

Project CGS-C-0006 (Government Street – South Acadian Thruway Sewer Area Upgrades) includes the upgrade of gravity sewers upstream of PS 3 and PS 4 to alleviate SSOs in the vicinity. Sections of gravity sewer that were to be upgraded as part of this project in the January 2008 PDP have been deleted due to hydraulic modeling improvements.

##### *Location*

The gravity segments in this project are shown in Figure 4-14.

Segment 1 begins north of Government Street and parallels the eastside of Ward’s Creek for approximately 300 feet. The gravity line crosses Government Street, and follows along Mouton Street to Capital Heights Avenue. The line then turns east along Capital Heights until the intersection with Hebert Street. The line turns south following Hebert Street and then paralleling Ward’s Creek. The gravity line crosses Ward’s Creek and terminates at PS 4.

Segment 2 starts near Florida Blvd and Kernan Avenue intersection. The gravity line travels south along Beverly Drive, crosses Government Street and routes through the Westmoreland Shopping Center. The line then crosses Dawson’s Creek and parallels Dawson’s Creek along the east side of Catholic High School. The line crosses Dawson’s Creek on the north side of Claycut Drive and terminates on the east side of the creek.

Segment 3 starts near the Government Street and Beverly Drive intersection. The gravity line travels west east along Government Street terminating at the intersection of Westmoreland Drive and Government Street.

Segment 4 starts north of the Myrtle Avenue and Marwede Avenue intersection. The gravity line travels north until reaching Claycut Drive. The gravity line travels east tying into Segment 2.

##### *Scope*

Project CGS-C-0006 (Government Street – South Acadian Thruway Sewer Area Upgrades) includes approximately 2,600 feet of 15-inch, 21-inch, 24-inch, and 27-inch gravity sewer construction upstream of PS 4 and approximately 5,100 feet of 12-inch, 15-inch, 18-inch, 21-inch, and 24-inch gravity sewer construction upstream of PS 3, as shown in Table 4-6.

**TABLE 4-6**

CGS-C-0006 (Government Street – South Acadian Thruway Sewer Area Upgrades) – Pipeline Information

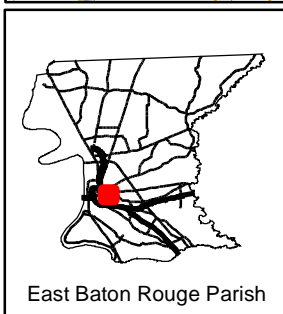
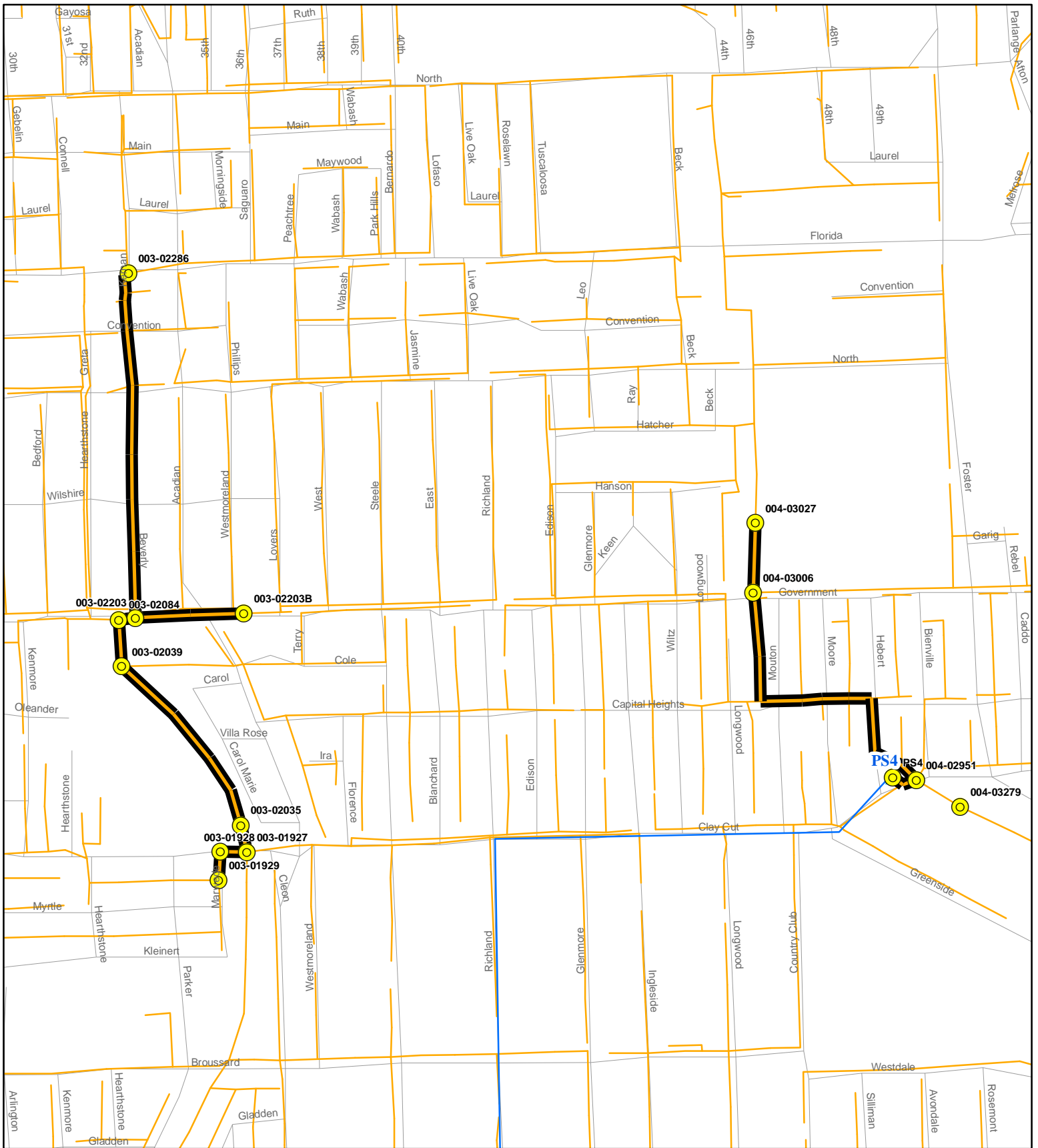
US Node	DS Node	Length (ft)	Existing Diameter (in)	Proposed Diameter (in)	Comments
004-03027	004-02967A	1,210	12	21	
004-02967D	004-03004	20	8	15	
004-02967A	004-02951	1,230	15 & 18	24	
004-02951	004-02950	110	24	27	
003-02286	003-02203	2,240	8 & 10	15	
003-02203	003-02039	340	10	18	
003-02039	003-01927B	1,410	18	21	
003-01927B	003-01927A	90	18	24	
003-01929	003-01927B	300	10	12	
003-02203B	003-02235	700	8	15	

**Note:** The pipe lengths were obtained from the BTRSSO hydraulic model.

**Total Construction Cost Estimate is \$4,700,000.**

**Design is On-Going.**





**Proposed**

- New Pump Stations
- New Gravity Main
- New Force Main
- New Storage Facility

**Legend**

N

0      500      1,000  
Feet



**Existing**

- Exist. Gravity
- Exist. Force Main
- Exist. Pump Station
- Manholes/Nodes

**Government St. - S. Acadian Thrwy.  
Sewer Upgrades  
CGS-C-0006**

**Project Vicinity Map**

Figure 4-14

## 4.2.12 CGS-C-0007 (Central Storage/Equalization)

### Project Description

This project has been deleted from the PDP due to the Central Consolidation. The storage at the Central WWTP is no longer needed, although the storage volume required at the South WWTP has been increased due to the consolidation of the Central WWTP with the South WWTP operations.

## 4.2.13 CC-WWTP-PS (PS 42)

### Project Description

#### **Purpose of the Project/Project Background**

The CC-WWTP-PS (PS 42) project includes the design and construction of one 48 mgd (33,300 gal/min) pump station facility (PS 42), vapor phase biotower-type odor control, and associated yard piping and valves to pump the flow from PS 1, PS 59, and the LSU pump station to the South WWTP. The Central WWTP pump station will be located near the current site of the Central WWTP, and will pump through the new forcemain described in the project entitled CC-WWTP-PS (PS 42 FM). Once this project is completed, the Central WWTP will be decommissioned and demolished.

#### **Location**

The Central Pump Station Project is located adjacent to the existing Central WWTP property at 2443 River Road, south of the downtown Baton Rouge area. The proposed location of the pump station is on existing property owned by the C-P and is shown in Figure 4-15.

#### **Scope**

The scope of this project is shown in Table 4-7.

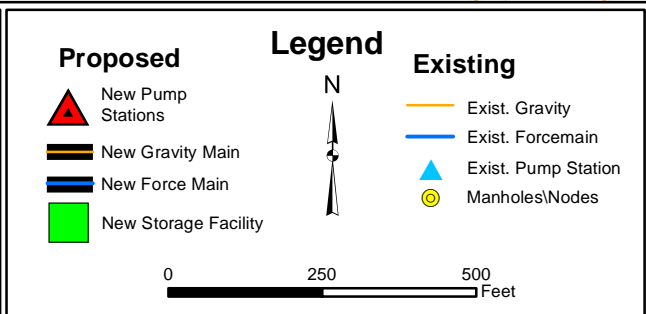
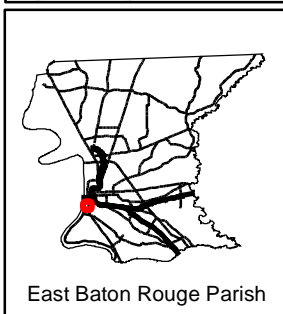
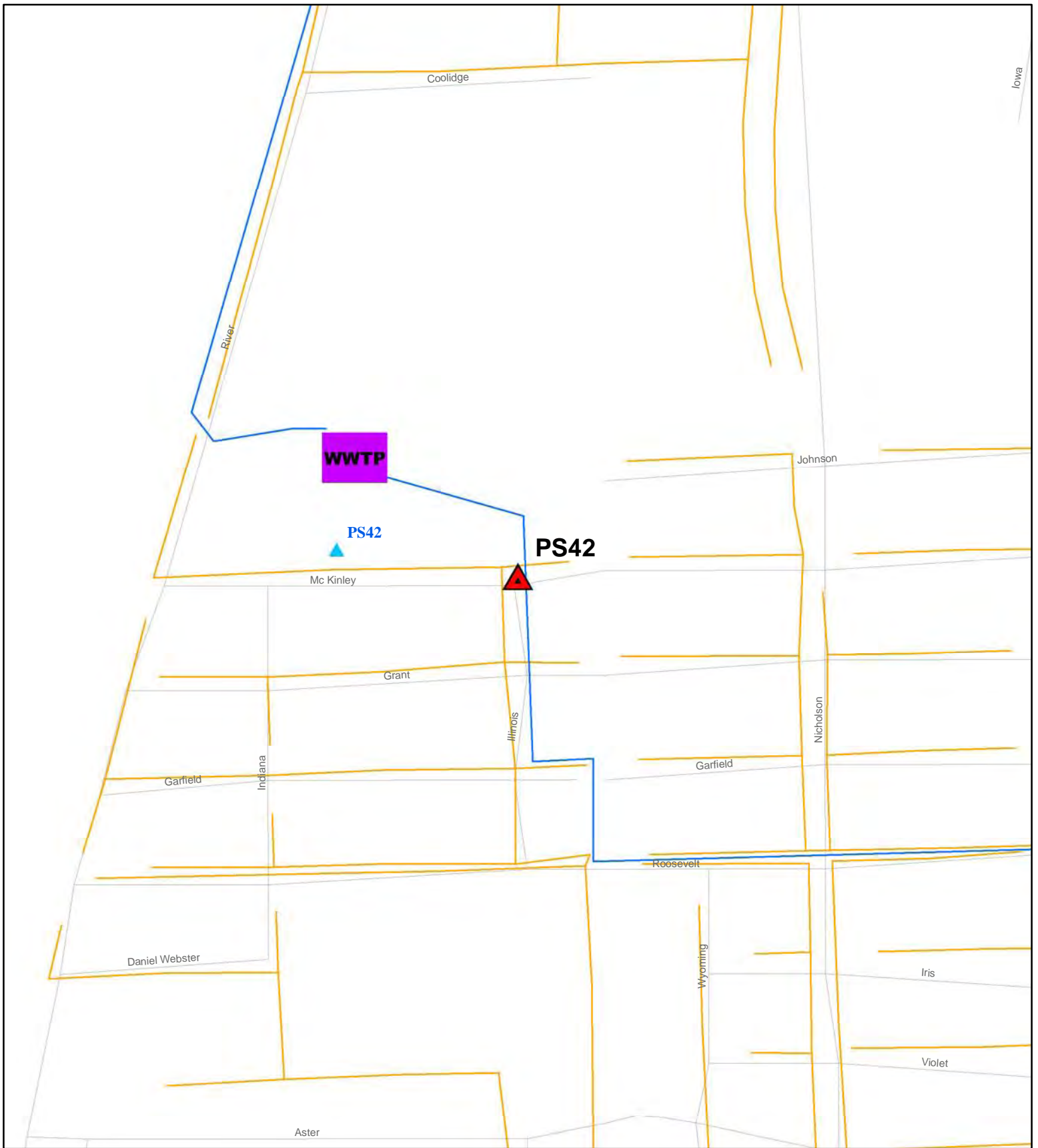
**TABLE 4-7**  
CC-WWTP-PS (PS 42) – Pump Station Information


PS NO.	LOCATION	Existing Max Capacity (gpm)	Future Peak Wet Weather Flow (gpm)	Dry Weather (gpm)
PS 42	2443 River Bend	New	40,000	6,144

**Note:** The future peak wet weather flow was obtained from the BTRSSO hydraulic model.

**Total Construction Bid Amount is \$10,527,000.**

**Construction is On-Going.**






## Pump Station 42 CC-WWTP-PS

### Project Vicinity Map

Figure 4-15



## 4.2.14 CC-EAST-PS (Central Consolidated PSs)

### Project Description

#### *Purpose of the Project/Project Background*

The CC-EAST-PS (Central Consolidated Pump Stations) project involves the design and construction of nine pump stations (PS 2, PS 3, PS 4, PS 5, PS 6, PS 7, PS 10, PS 91, and the Glasgow Pump Station). Three pump stations (PS 2, PS 7, and PS 10) are to be interconnected in a network that will discharge into PS 5. PS 5 will pump directly to the South WWTP via a new large forcemain following completion of construction of the South WWTP - Phase I project, which is currently in the design phase. PS 3, PS 91, and the Glasgow Pump Station will each pump independently to PS 5 through two separate new forcemains. PS 4 pumps to PS 3 through an existing forcemain. PS 6 will pump through a new 12-inch forcemain that will replace the existing forcemain from PS 6 along Stanford Avenue northeast to node PS 6DS (MH 002-01393), located near the intersection of South Lakeshore Drive and Stanford Avenue.

The forcemains from PS 2, PS 3, PS 5, PS 7, and PS 10 will be constructed as part of the CC-EAST-FM (Central Consolidated Forcemains) Phase I and Phase II projects. The forcemains from PS 6, PS 91, and the Glasgow Pump Station will be constructed as part of the CGS-C-0004 (Highland Road - Buchanan Street Sewer Area Upgrades) project.

#### *Location*

The CC-EAST-PS (Consolidated Pump Stations) project is primarily located in the Central Baton Rouge area. Detailed location descriptions of the required capacity improvements are presented in Table 4-10 and are shown in Figure 4-16.

#### *Scope*

The scope of this project is shown in Table 4-8.

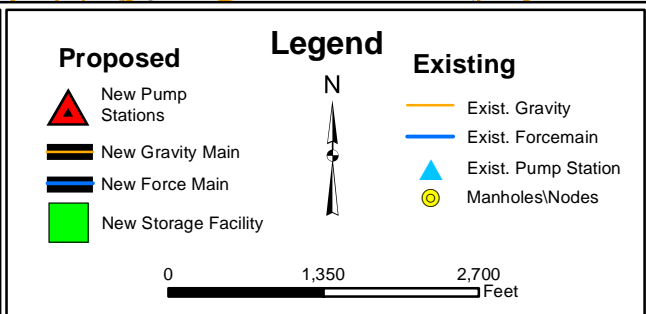
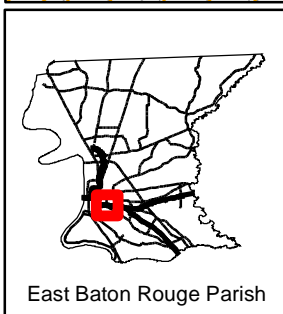
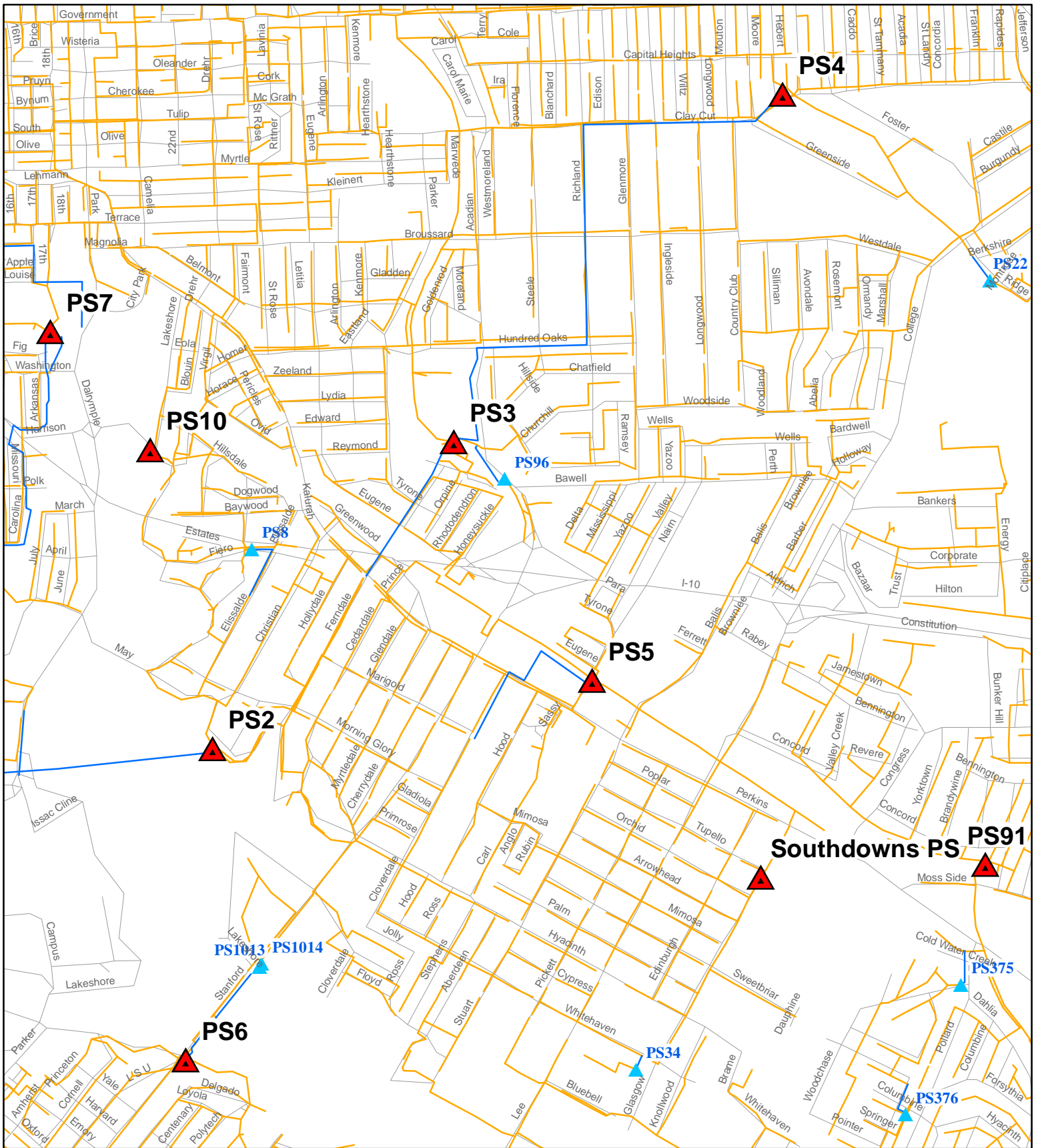
**TABLE 4-8**  
CC-EAST-PS (Central Consolidated PSs) – Pump Station Information

PS No.	Location	Existing Max Capacity (gpm)	Future Peak Wet Weather Flow (gpm)	Dry Weather (gpm)
PS 2	Claycut Bayou	3,819	6,458	1,481
PS 3	Acadian Thruway, near Bawell Street	3,958	16,436	2,094
PS 4	Claycut Road near the intersection at Bienville Street	3,819	8,055	1,042
PS 5	Valley Street and Perkins Road	903	29,720	5,589
PS 6	Stanford Avenue and Lakeshore Drive	347	1,805	351
PS 7	Dalrymple Drive, near the intersection at E Washington Street	720	1,180	140
PS10	East Lakeshore Drive, near southeastern corner of City Park	500	1,479	92
PS 91	Concord Drive near the intersection with Lexington Drive	500	1,517	294
Southdowns Pump Station	Glasgow Avenue near the intersection with Tupelo Drive	New	1,800	N/A

**Note:** The existing maximum capacities for the PSs were obtained from the DPW Field Pump Station Maintenance reference guide. The future peak wet weather flow was obtained from the BTRSSO hydraulic model.

**Total Construction Bid Amount is \$20,498,000.**

**Construction is On-Going.**



**Central Consolidation Pump Stations**  
**CC-EAST-PS**  
**Project Vicinity Map**

Figure 4-16

BATON ROUGE **SSO**  
**Program**

## 4.2.15 CC–WWTP-FM (PS 42 FM)

### Project Description

#### ***Purpose of the Project/Project Background***

The CC–WWTP-FM (PS 42 FM) project includes the design and construction of the forcemain to convey flow from PS 42 FM to the South WWTP. In addition, forcemains will be constructed from the proposed LSU pump station to PS 42 and from PS 505 to the PS42 FM. This project also includes segments of two other separate forcemains that are part of the SFL-C-0006 (Highland Road – Burbank Drive Capacity Improvements) project and the SGC-C-PS58A (Pump Station 58 Replacement) project.

The project purpose is to redirect flows within the Central Basin to the South WWTP and accommodate upgrades within the South Basin following completion of construction of the South WWTP – Phase II project.

This project was designed as one project, and will be constructed as two projects.

#### ***Location – Phase I***

The location of this project is shown in Figure 4-17A. The Phase I project begins at the rear of Jennifer Jean Drive, where the forcemain follows Jennifer Jean Drive to Burbank Drive. The forcemain continues along the east side of Burbank Drive to the intersection of Lee Drive. At Burbank Drive and Lee Drive, the forcemain will increase in size to 54-inch due to the forcemain from the CC-East-FM (Central Consolidated Forcemains) project joining this forcemain at that point. The 54-inch forcemain will run from Burbank Drive east to Gardere Lane, where it will follow the right-of-way that parallels Gardere Lane roughly south to the South WWTP. At Burbank Drive, the 64-inch forcemain from the SGC-C-PS58A (PS 58 Replacement) project and the 60-inch forcemain from the SFL-C-0005 (Highland Road – Burbank Drive Capacity Improvements) project also will be constructed all of the way to the South WWTP in the right-of-way parallel to the Staring Lane extension.

This project also includes a new 16-inch forcemain will be constructed from PS505A along the new Ben Hur Road to Burbank Drive, where it will tie in to the 54-inch forcemain.

#### ***Location – Phase II***

The location of this project is shown in Figure 4-17B. The forcemain will start out as a 42-inch pipe from the new PS 42 and will parallel the west side of the railroad tracks, west of Nicholson Drive. The forcemain turns west and follows Aster Street to West Chimes Street. The forcemain then follows West Chimes Street onto the LSU campus. The forcemain parallels the west side of Upper Bayou Fountain, crossing Skip Bertman Drive, and turns east just south of the LSU Football practice facilities. The forcemain crosses the railroad tracks at Nicholson Drive and parallels the east side of Nicholson Drive to Gourrier Avenue. The forcemain follows Gourrier Avenue, crosses Parker Blvd then turns south on Dodson Avenue, and then crosses East Boyd and continues to Jennifer Jean Drive. The forcemain will connect with the Phase I project at the rear of Jennifer Jean Drive.

This project also includes the construction of a 20-inch forcemain from the new LSU pump station being constructed as a part of the Master Plan SGL-C-0002 (Multiple PS – Highland Road – Kenilworth Parkway – LSU Pump Station) project to PS 42. This forcemain will parallel the 48 inch forcemain alignment.

#### ***Scope – Phase I***

The scope of this project is shown in Table 4-9A.

The project includes approximately 31,400 feet of new forcemain sewer pipe ranging in diameter from 16 inches to 64 inches.

**TABLE 4-9A**  
CC-WWTP-FM-PhI (PS42 FM – Phase I) – Pipeline Information

US Node	DS Node	Length (ft)	Existing Diameter (in)	Proposed Diameter (in)	Comments
PS505A	Ben Hur/ Burbank	3,400	New	16	
Lee/Burbank	SWWTP	18,000	New	54	
Staring Lane/ Burbank	SWWTP	6,300	New	60	
Staring Lane /Burbank	SWWTP	3,700	New	64	

**Note:** The pipe lengths were obtained from the BTRSSO hydraulic model.

### Scope

The scope of this project is shown in Table 4-9B.

The project includes approximately 24,900 feet of new forcemain sewer pipe ranging in diameter from 20 inches to 48 inches.

**TABLE 4-9B**  
CC-WWTP-FM-PhII (PS42 FM – Phase II) – Pipeline Information

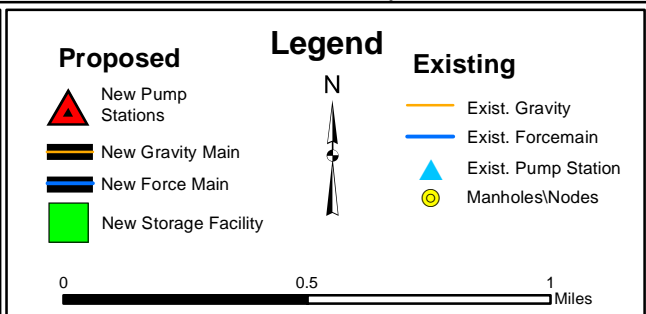
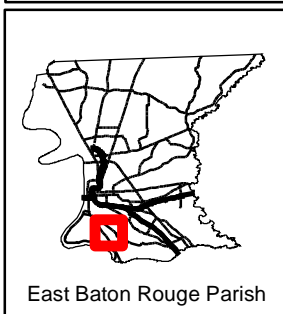
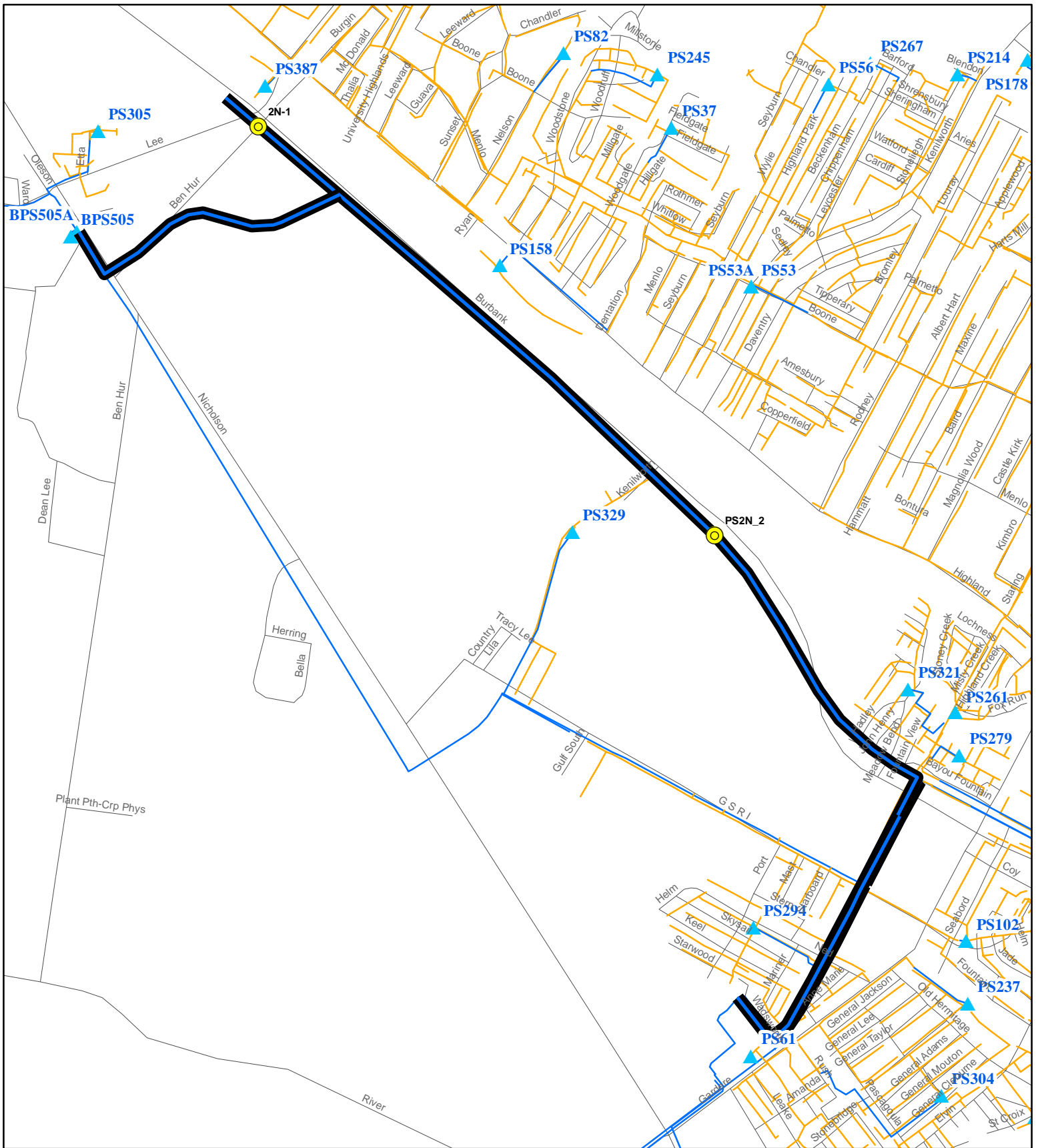
US Node	DS Node	Length (ft)	Existing Diameter (in)	Proposed Diameter (in)	Comments
LSU PS	PS 42	6,900	New	20	
PS 42	Lee/Burbank	18,000	New	48	


**Note:** The pipe lengths were obtained from the BTRSSO hydraulic model.

**Total Construction Bid Amount (Phase I) is \$15,176,000.**

**Total Estimated Construction Cost (Phase II) is \$11,600,000.**

**Construction of Phase I is On-Going; Design of Phase II is On-Going.**






**PUBLIC WORKS**

## PS 42 Force Main Phase I

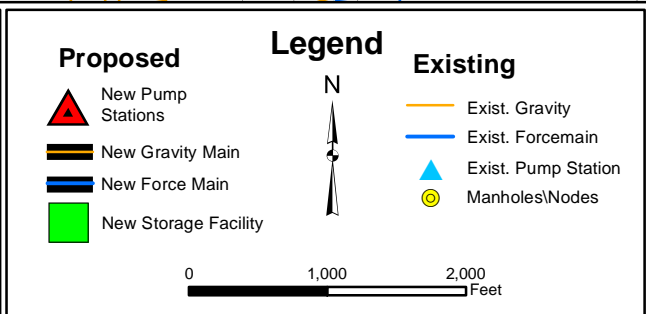
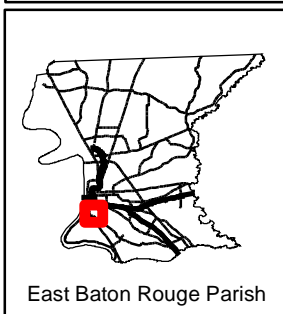
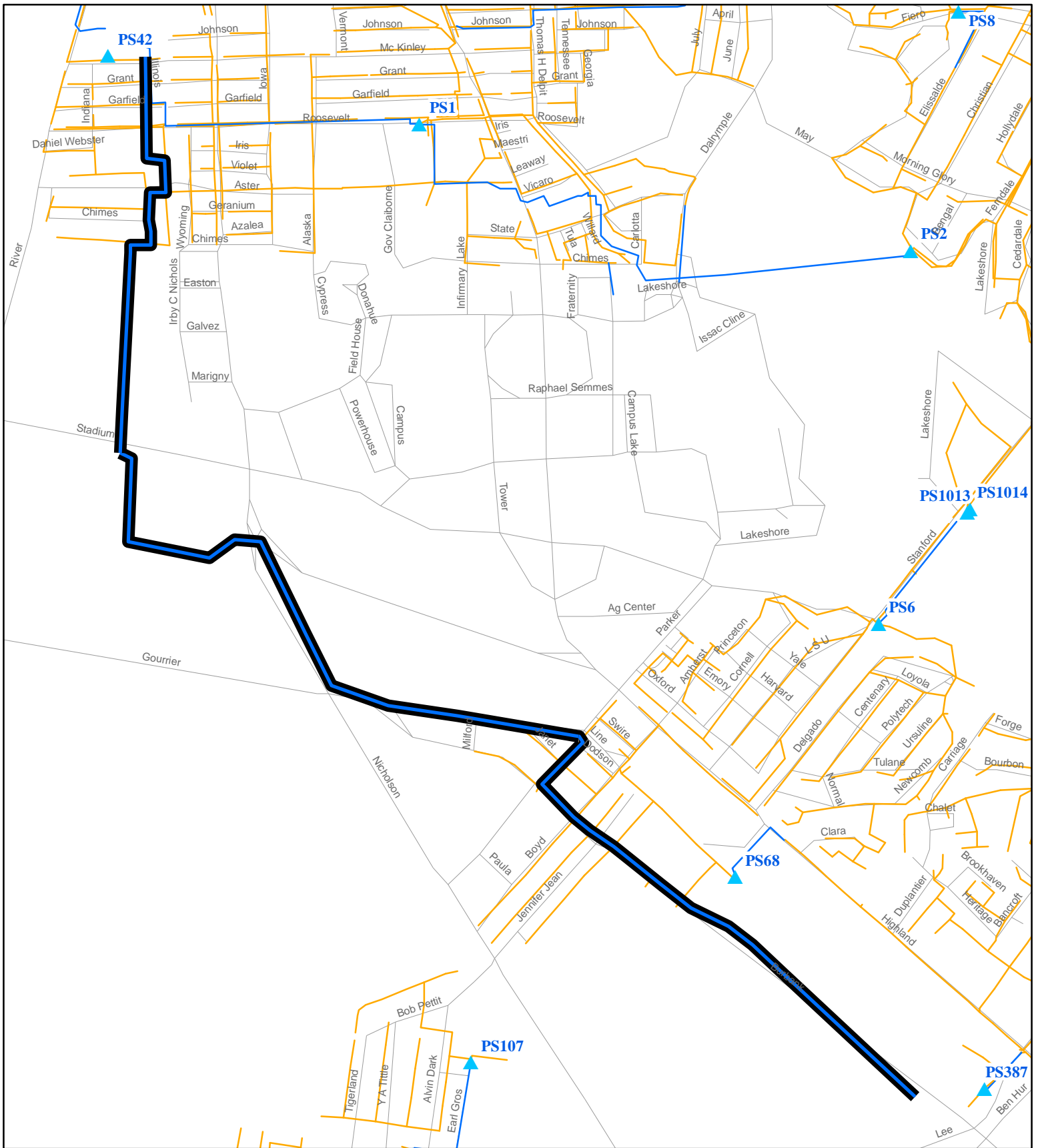
### CC-WWTP-FM-I


### Project Vicinity Map

Figure 4-17A










**PUBLIC WORKS**

## PS 42 Force Main Phase II CC-WWTP-FM-II

### Project Vicinity Map

Figure 4-17B



## 4.2.16 CC-EAST-FM (Central Consolidated FM)

### Project Description

#### ***Purpose of the Project/Project Background***

The CC-EAST-FM (Central Consolidated Forcemain) project will work in conjunction with the CC-EAST-PS (Central Consolidated Pump Stations) project which includes design and construction of nine new pump stations (PS 2, PS 3, PS 4, PS 5, PS 6, PS 7, PS 10, PS 91, and Glasgow). This project includes the design and construction of a manifolded forcemain to convey flow to PS 5 from PS 2, PS 7, and PS 10. The project also includes a new individual forcemain separate from the aforementioned manifolded forcemain to convey flow from PS 3 directly to PS 5. In addition, a forcemain will be constructed to convey flow from PS 5 to a new manifolded forcemain that will be constructed as part of the CC-WWTP-FM (PS 42 FM) project.

The project purpose is to redirect flows within the Central Basin to the South WWTP following completion of construction of the South WWTP Wet Weather Improvements - Phase II Project.

This project was designed as one project, but will be constructed as two projects.

#### ***Location – Phase I***

Figure 4-18A shows the location of the gravity sewer and forcemain in Phase I of this project.

Gravity segment 010-04925 to PS 10 begins near the intersection of Hillsdale Drive and Cottonwood Avenue, and terminates at PS 10, which is located on East Lakeshore Drive, near Dalrymple Drive.

Forcemain segment PS 2, PS 7, and PS 10 begins at PS 7, where the 8-inch forcemain runs east, crossing Dalrymple Drive and the City Park Golf Course (BREC). At Lakeshore Drive, the 12-inch forcemain from PS 10 ties into the 8-inch forcemain and the forcemain becomes a 14-inch pipe. The line continues east along Hillsdale Drive, turns south on Ebony Avenue, and east on Baywood Avenue. The line continues along Baywood Avenue and turns south on Elissalde Street, where it crosses Interstate 10. The forcemain continues down Elissalde Street and turns east on Morning Glory Avenue. The line continues down Morning Glory Avenue, where it picks up the 16-inch forcemain from PS 2 at the intersection with Christian Street. At this junction, the line increases to 24 inches and continues down Morning Glory Avenue. The line crosses Stanford Avenue, turns north on Cloverdale Avenue, crosses Perkins Road and continues until it terminates at PS 5.

Forcemain segment PS 3 begins at PS 3 where the 36-inch forcemain follows South Acadian Thruway to Bawell Street, turns east on Bawell Street, then south on Delta Street. The forcemain turns east on Malmaison Drive and continues until it turns north on Valley Street. The line turns east on Aldrich Drive and south on Nairn Drive, where it crosses Interstate 10 and terminates at a manhole just north of PS 5.

#### ***Location – Phase II***

Figure 4-18B shows the location of the gravity sewer and forcemain in Phase II of this project.

Forcemain Segment PS 5 begins as a 42-inch forcemain leaving PS 5 and following the railroad tracks to Balis Drive. The line follows Balis Drive and crosses Perkins Road, turns east on Poplar Street and south on Pickett to Lee High School. At Lee High School, the pipeline turns east to Lee Drive, turns south on Lee Drive and runs to the tie-in with PS 42 FM near Burbank Drive.

### **Scope – Phase I**

The scope of this project is shown in Table 4-10A.

**TABLE 4-10A**  
CC-EAST-FM-PhI (Central Consolidated FM – Phase I) – Pipeline Information

US Node	DS Node	Length (ft)	Existing Diameter (in)	Proposed Diameter (in)	Comments
010-04925	PS 10	520	10	18	Gravity sewer
PS 7	PS10DS	1,900	New	8	
PS 10DS	PS2DS	3,500	New	12	Includes 500 feet of tunneling under I-10
PS 2	PS2DS	3,400	New	16	
PS 2DS	PS3DS	1,800	New	24	
PS 3	PS3DS	3,500	New	36	Includes 500 feet of tunneling under I-10

**Note:** The pipe lengths were obtained from the BTRSSO hydraulic model.

### **Scope – Phase II**

The scope of this project is shown in Table 4-10B.

**TABLE 4-10B**  
CC-EAST-FM-PhII (Central Consolidated FM – Phase II) – Pipeline Information

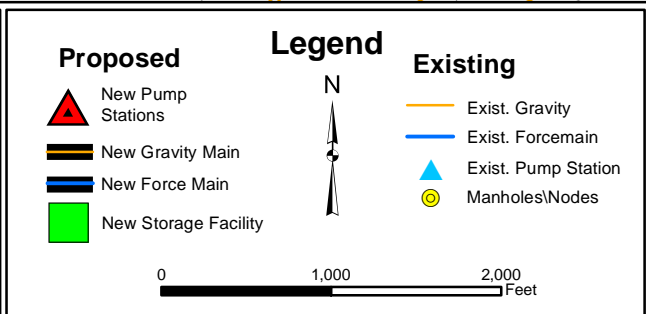
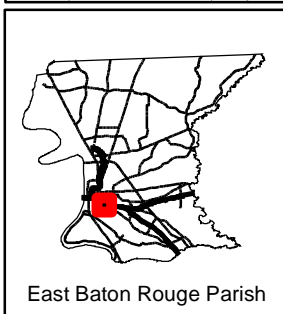
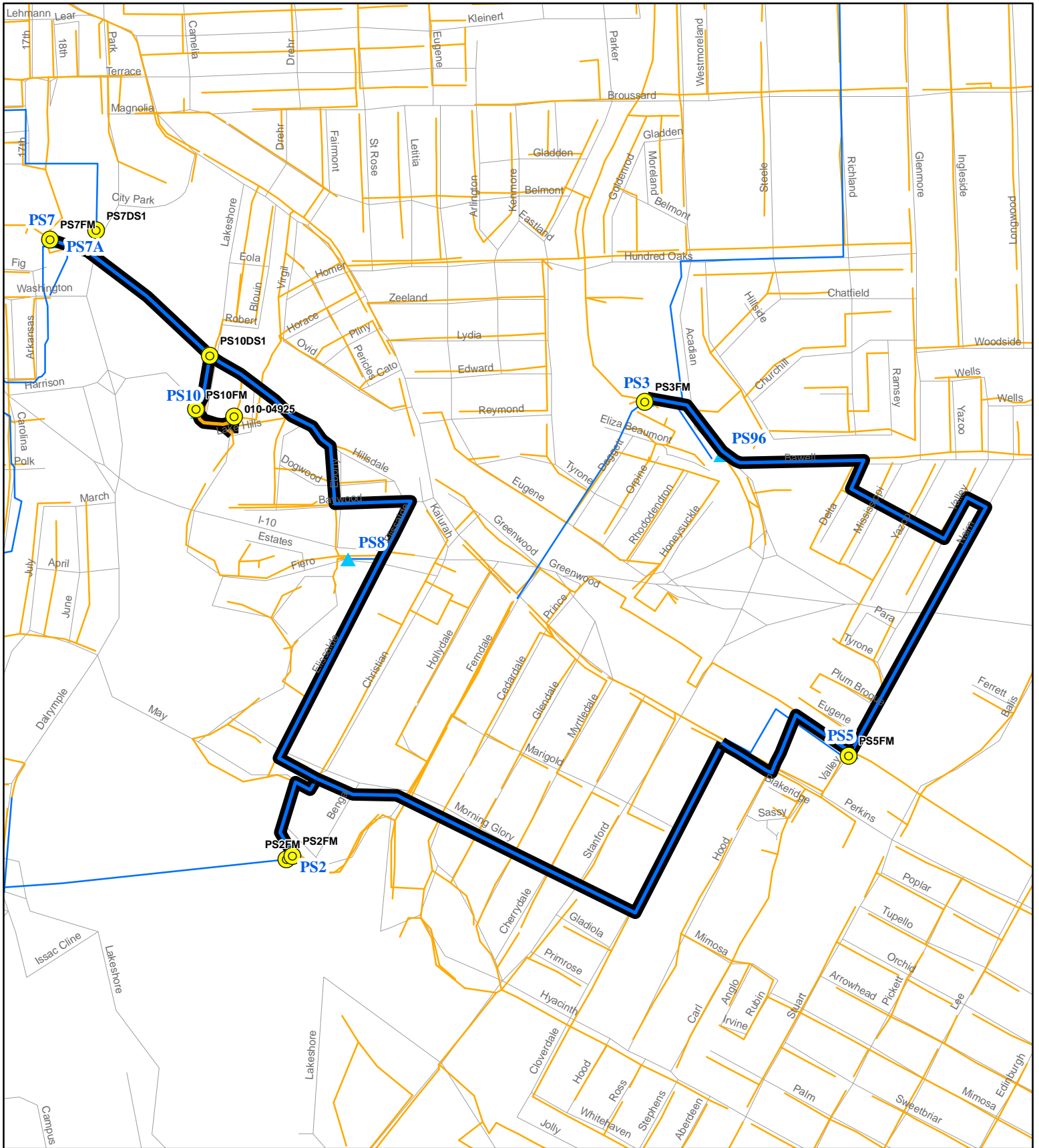
US Node	DS Node	Length (ft)	Existing Diameter (in)	Proposed Diameter (in)	Comments
PS 5US	2N-1	13,000	New	42	

**Note:** The pipe lengths were obtained from the BTRSSO hydraulic model.

**Total Construction Bid Amount (Phase I) is \$11,154,000.**



**Total Estimated Construction Cost (Phase II) is \$8,300,000.**

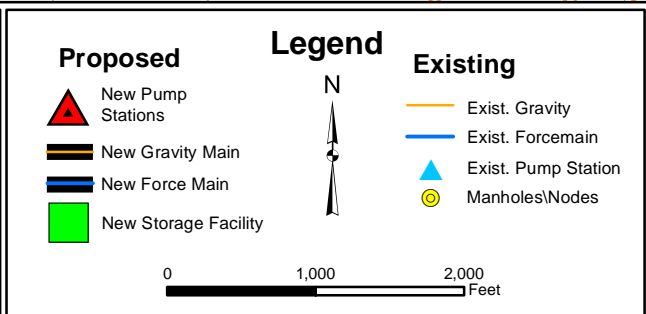
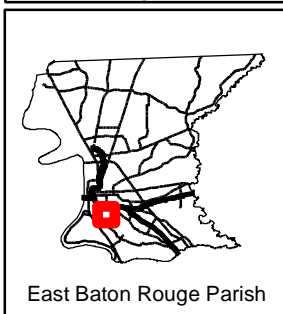
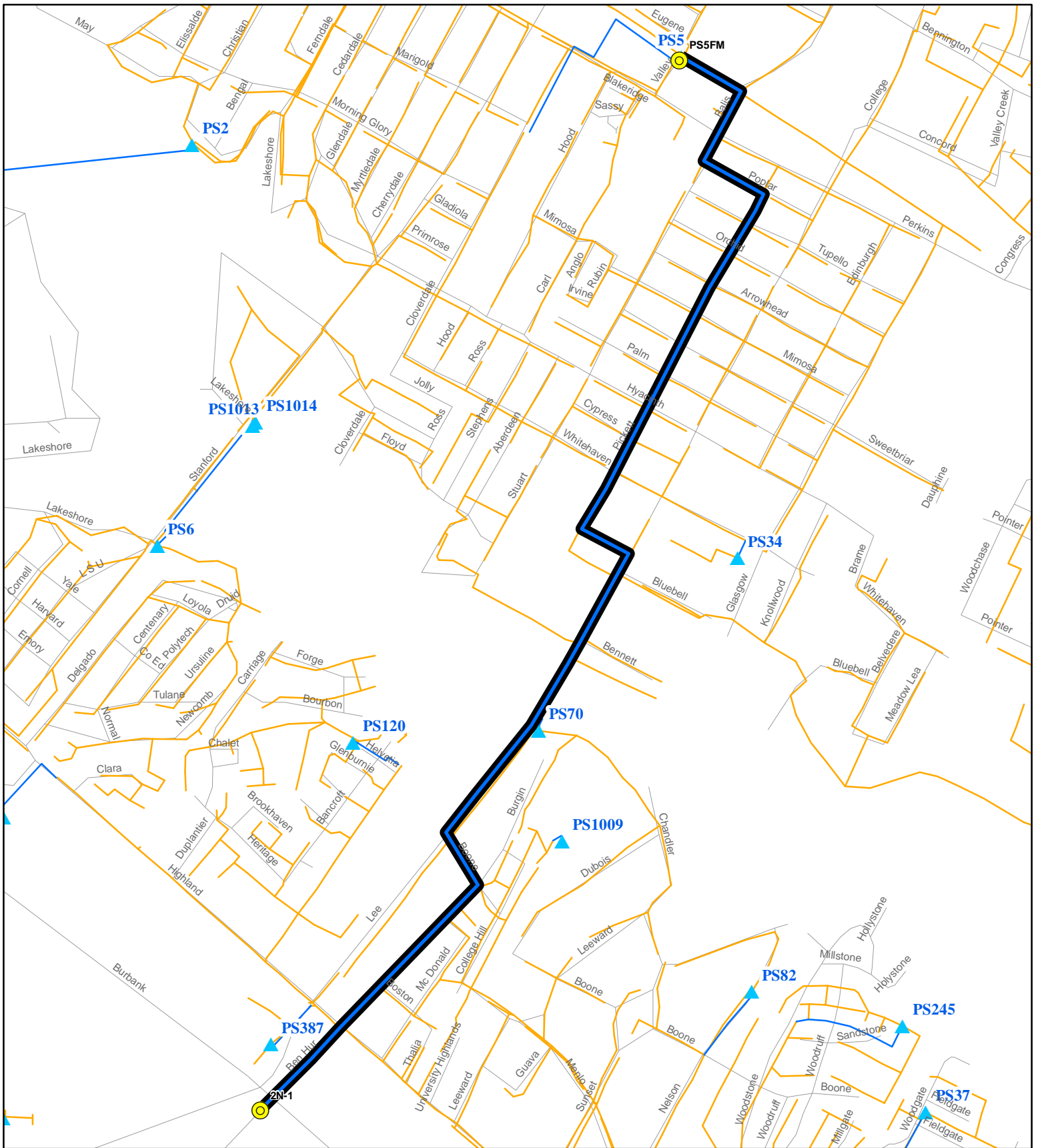
**Construction of Phase I is On-Going; Design of Phase II is On-Going.**



**Central Consolidated Force Main  
Phase I  
CC-EAST-FM  
Project Vicinity Map**



Figure 4-18A



**Central Consolidated Force Main  
Phase II  
CC-EAST-FM  
Project Vicinity Map**

Figure 4-18B

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## SECTION 5

# North Basin Projects

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Section 5 presents summaries of the North Gravity System Comprehensive Rehabilitation Projects, the North Gravity System Capacity Improvements, the North Forced System Rehabilitations Projects, and the North Forced Capacity Improvement Projects. These projects are shown on Figures 5-1 and 5-2. As of December 2011, there are eight projects functionally completed, eight projects under construction, and 12 projects under design in the North Basin.

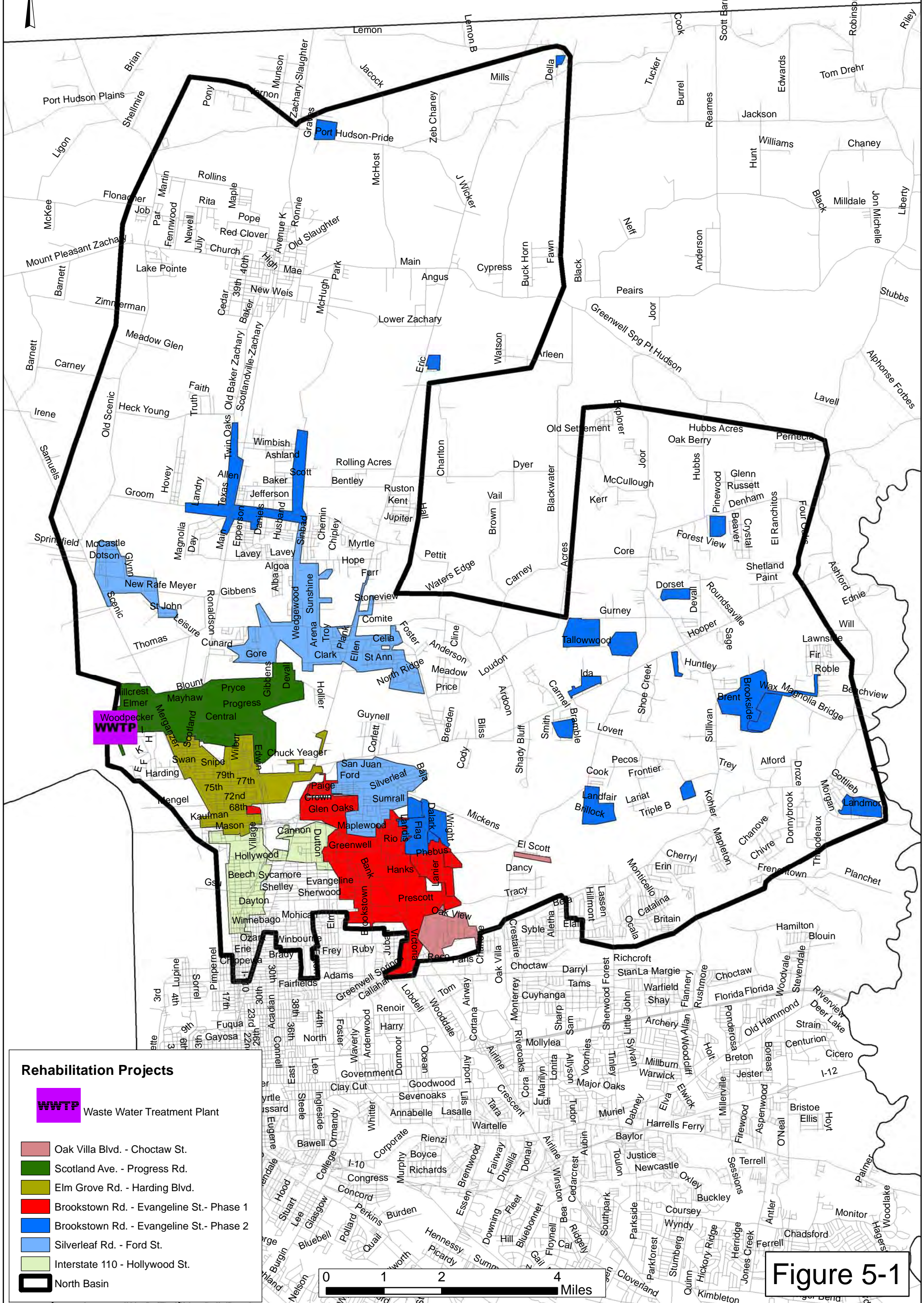
The project summaries presented herein represent the information available during this annual update period. The PDP will be revisited annually and revised as necessary, based on results of additional hydraulic wastewater modeling, immediate needs, DPW and public input, and other factors.

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# North Basin Rehabilitation Projects

N



## Rehabilitation Projects

-  **WWTP** Waste Water Treatment Plant
-  Oak Villa Blvd. - Choctaw St.
-  Scotland Ave. - Progress Rd.
-  Elm Grove Rd. - Harding Blvd.
-  Brookstown Rd. - Evangeline St. - Phase 1
-  Brookstown Rd. - Evangeline St. - Phase 2
-  Silverleaf Rd. - Ford St.
-  Interstate 110 - Hollywood St.
-  North Basin

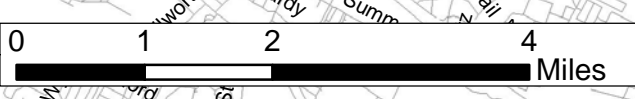


Figure 5-1



# North Basin Capacity Improvement Projects

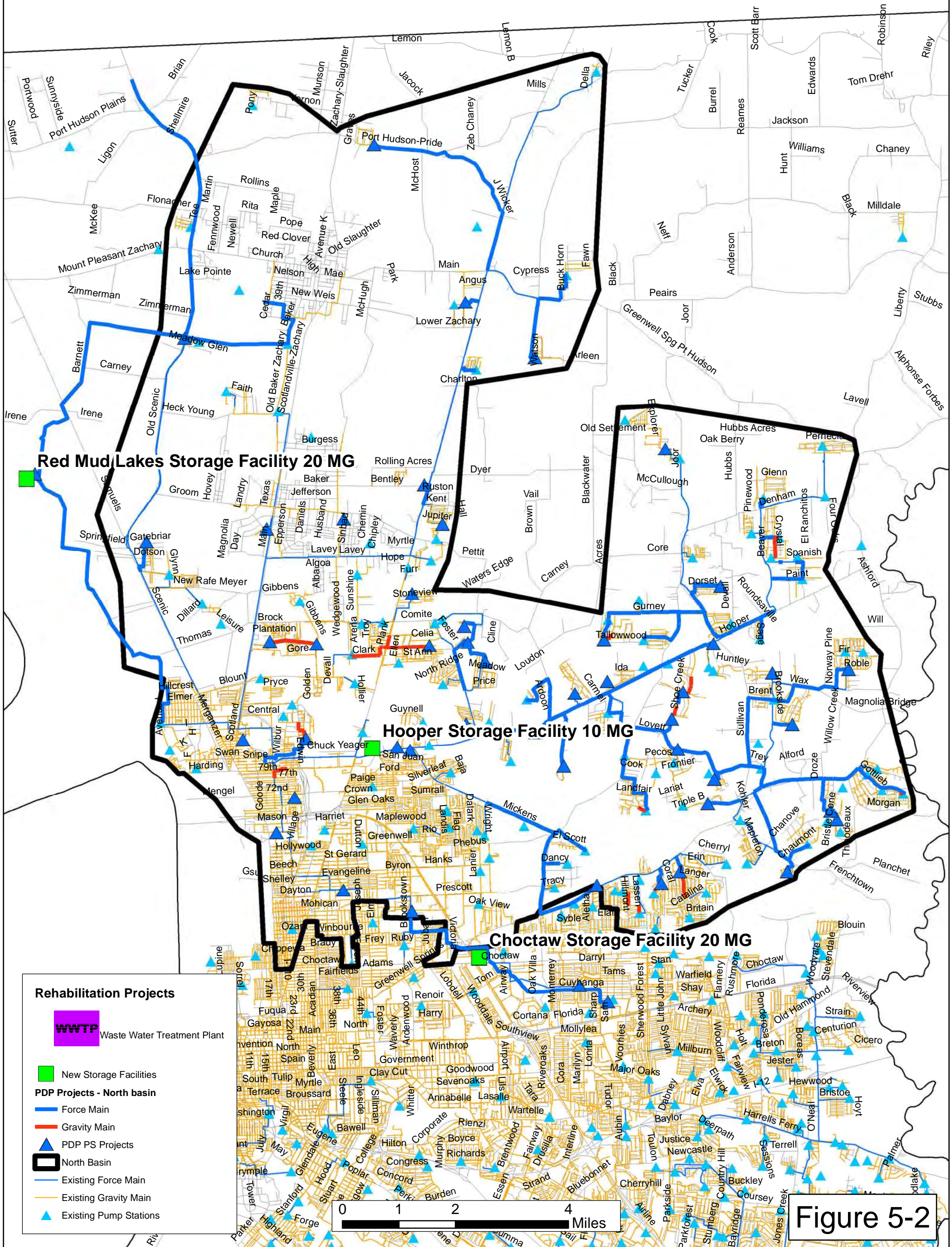


Figure 5-2



## 5.1 North Gravity System Comprehensive Rehabilitation Projects

### 5.1.1 NGS-R-0001 and NGS-R-0002

#### Project Description

The comprehensive sewer rehabilitation projects consist of improvements to various components of the sewer collection system to reduce the amount of rainwater and groundwater that leak into the system.

#### Purpose

The purpose of the comprehensive sewer rehabilitation projects is to correct defects in the system such as offset pipe joints, collapsed pipe sections, leaking manholes, and direct inflow sources. The water that enters the system through the defects is a major contributor to SSOs. Comprehensive rehabilitation of the collection system will alleviate SSOs.

#### Location

There are two projects located within the North Gravity Basin. The attached maps show the project locations in Figures 5-3 to 5-4.

#### Scope of Project

The first phase of comprehensive rehabilitation projects will be the physical inspection of the pipes and manholes including CCTV inspection. Smoke testing also may be included in the physical inspection phase. The data collected by the physical inspection contractor will be analyzed. Based on that analysis, a listing of recommended repairs with associated construction costs will be generated. An engineering firm will then complete detailed design and preparation of construction documents for project bidding. The construction of rehabilitation projects will typically include the following components:

- Replacement of pipes
- Point repair of pipes
- Rehabilitation of pipes by cured-in-place pipe liners
- Rehabilitation or replacement of manholes
- Repair of sewer laterals to the property line

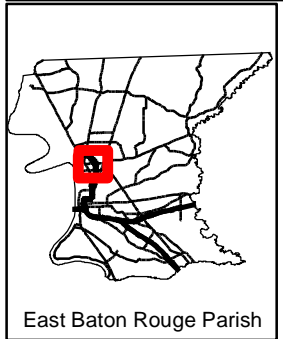
#### Cost

The estimated construction costs for each project are presented in Table 5-1. The cost for NGS-R-0001 is based on a preliminary estimate of the amounts of each component of the system that will require repair or replacement. During the physical inspection phase, the actual condition of the components will be assessed and appropriate methods recommended. At that time, the cost estimate for each project will be revised. Since both of these projects have already bid for construction, the construction costs in Table 5-1 are the bid amounts.

**TABLE 5-1**  
Estimated Construction Costs for the North Gravity System Comprehensive Rehabilitation Projects

Project Description	Estimated Construction Cost*	Status
NGS-R-0001 –Elm Grove Garden Road-Harding Blvd	\$12,989,000	Functionally Complete
NGS-R-0002 –Scotland Avenue-Progress Road	\$9,208,000	Functionally Complete

\* Estimated construction costs given for functionally complete projects are bid amounts



**Legend**

Area Designated for Physical Inspection

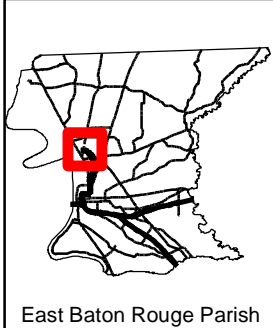
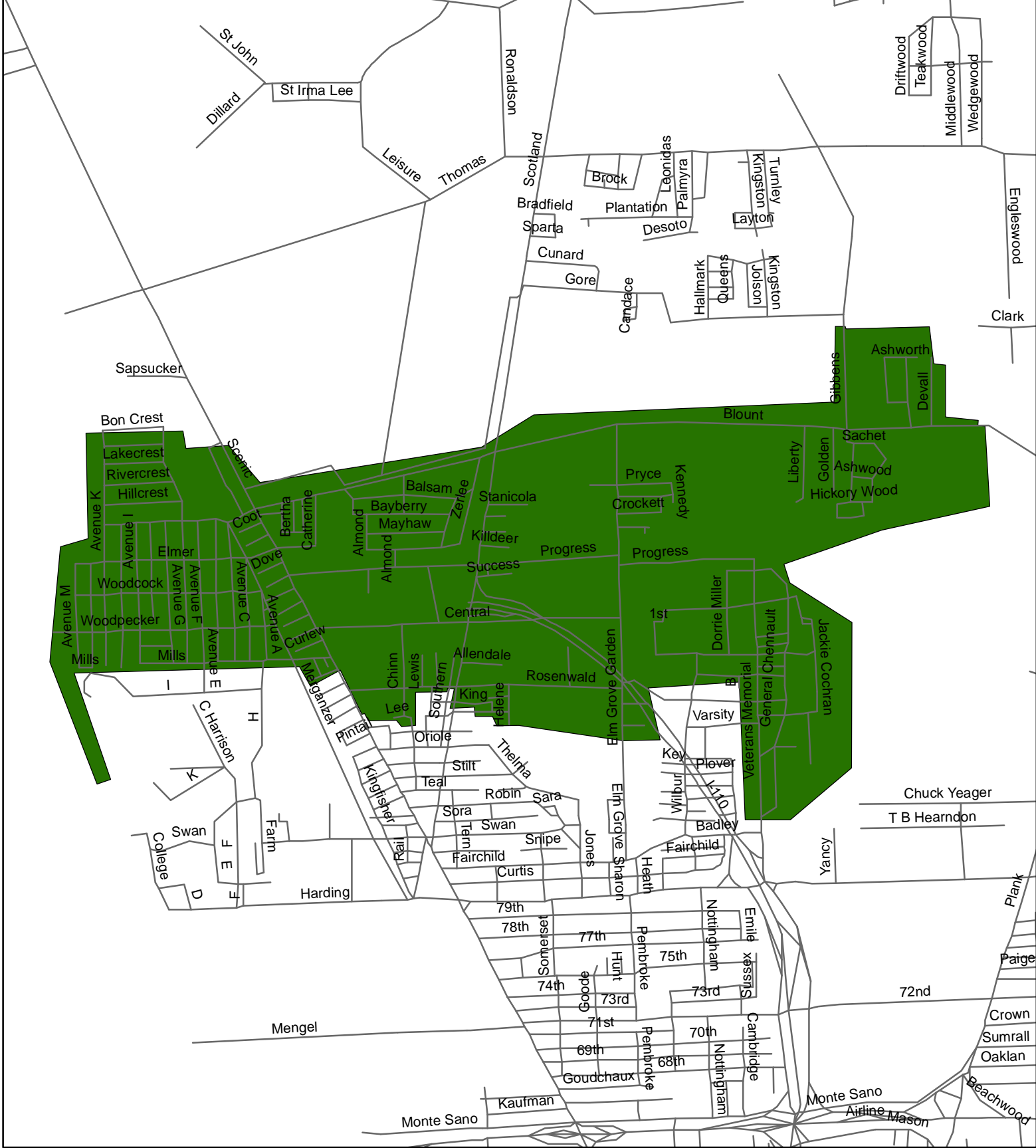
0 1,250 2,500 Feet

**Elm Grove Rd. - Harding Blvd.**


**NGS-R-0001**

**Project Vicinity Map**


**Figure 5-3**



**Legend**

 Area Designated for Physical Inspection


0 1,500 3,000 Feet




**Scotland Ave. - Progress Rd.**

**NGS-R-0002**

**Project Vicinity Map**



**Figure 5-4**



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## 5.2 North Gravity System Capacity Improvements Projects

### 5.2.1 NGS-C-0001 (Progress Road – Baton Rouge Metro Airport)

#### Project Description

##### *Purpose of the Project / Background Information*

This project has been deleted and consolidated with Group Project 1A and Group Project 1B, which are described in the North Forced System section.

### 5.2.2 NGS-C-0002 (Plank Road – Kleinpeter Road Sewer Area Upgrades)

#### Project Description

##### *Purpose of the Project/Background Information*

The purpose of the NGS-C-0002 (Plank Road – Kleinpeter Road Sewer Area Upgrades) is to upsize gravity sewers upstream of PS 45, PS 127, PS 44, and PS 244 as well as forcemains exiting PS 38, PS 244, and PS 63, which will alleviate chronic SSOs in the gravity system.

##### *Location*

The locations of the gravity sewers and forcemains in this project are shown in Figure 5-5.

Gravity segment 045-00039 to 045-00026 begins on Kleinpeter Road between its intersections with St. Peter Avenue and St. Claude Avenue and travels west along Kleinpeter Road to 045-00026, located near the intersection of Newsom Drive and Kleinpeter Road.

Gravity segment 045-00026 to PS 45 begins near the intersection of Newsom Drive and Kleinpeter Road and travels west along Kleinpeter Road to its intersection with Nimitz Street. The segment then turns south and follows Nimitz Street to its intersection with Clark Street. The segment then turns west and follows Clark Street to PS 45, which is near the intersection of Clark Street and Granberry Drive.

Gravity segment 045-00043 to 045-00020 begins at manhole 045-00043, located near the intersection of Plank Road and Brownfields Drive, and follows Plank Road southwest to manhole 045-00020, located near the intersection of Plank Road and Kleinpeter Road.

Gravity segment (044-00338 to 044-00156 and 044-00325 to 044-00156) starts at 044-00338, located north of the intersection of 78<sup>th</sup> Avenue and Pembroke Street, and connects west to the existing 36-inch sewer line on Pembroke street (between manholes 044-00277 and 044-00276). The next connection is located north of the intersection of 79<sup>th</sup> Avenue and Pembroke Street. The connection starts at manhole 044-00274 and connects west to the existing 36-inch sewer line on Pembroke (between manholes 044-00276 and 044-00156). The third connection is at the intersection of Pembroke Street and Harding Blvd at manhole 044-00328 and connects between manholes 044-00273 and 044-00156. On Harding Blvd, the segment begins at manhole 044-00325, located at the intersection of Nottingham Street and Harding Blvd, where it then follows Harding Blvd west to manhole 044-00156, located near the intersection of Harding Blvd and Pembroke Street.

Gravity segment 244-00029 to 244-00004 begins at manhole 244-00029, located near the intersection of Brig. Gen. Isaac Smith and Veterans Memorial Blvd and follows Brig. Gen. Isaac Smith (turns into Louis Wiles Avenue) east to General Chennault Drive. The segment then runs south, along General Chennault Drive to manhole 244-00002. The segment then turns east and terminates in PS 244 located on General Chennault drive.

Gravity segment 080-00011 to PS 80 begins at Manhole 080-00011, which is located in a drainage path north of Kleinpeter Road between its intersections with St. Peter Avenue and St. Claude Avenue. The segment travels south to PS 80, which is on Kleinpeter Avenue.

Forcemain segment PS 38 to PS 38DS runs from PS 38, located at the south end of Constance Street, in an easterly direction through a servitude that parallels Desoto Drive to manhole PS 38DS, located near the intersection of Rebecca Lynn Avenue and Hallmark Drive.

Forcemain segment PS 244FM to PS 244DS begins at PS 244, located on General Chennault Drive, near the Baton Rouge Metropolitan Airport, and follows General Chennault Drive south for approximately 1,195 feet. At this location, the forcemain turns west and runs through an open field, crosses Veterans Memorial Blvd, and continues west through an open field to Edwin Street. The force main runs south on Edwin Street until it is just south of North Lark Street where it runs west underneath I-110 and continues west midway between North Lark Street and Lark Street crossing Wilbur street. At the end of Lark Street the force main turns south and crosses Scotlandville Lateral and continues along the south side of Scotlandville Lateral in a northwest direction until the west side of the Chevron gas pipeline ROW. At the west side of the gas pipeline ROW, the forcemain runs south for approximately 434 feet. The forcemain then turns west and terminates at manhole 044-00118, located near the intersection of Jones Street and Robin Drive.

Forcemain segment PS 63FM to PS 63DS starts at PS 63, located on Georgia Street, in between Groom Road and Harding Street, and runs south along Georgia Street for approximately 115 feet to its termination point at manhole PS 63DS.

### Scope

This project includes approximately 9,400 feet of 12-inch, 24-inch, 27-inch, 30-inch, and 42-inch gravity sewer upstream of PS 45, approximately 2,600 feet of 12-inch, 15-inch, and 21-inch gravity sewer upstream of PS 127, approximately 2,300 feet of 12-inch, 18-inch, and 24-inch gravity sewer upstream of PS 44, approximately 1,500 feet of 12-inch, and 15-inch gravity sewer upstream of PS 244, and approximately 330 feet of 15-inch gravity sewer upstream of PS 80. This project also includes replacement of forcemains from PS 38, PS 244, and PS 63. Table 5-2 shows the detailed scope of this project.

**TABLE 5-2**  
NGS-C-0002 (Plank Road – Kleinpeter Road Sewer Area Upgrades) – Pipeline Information

US Node	DS Node	Length (ft)	Existing Diameter (in)	Proposed Diameter (in)	Comments
045-00039	045-0026	3,160	12	24	
045-00026	045-00020	840	12 & 18	24	
045-00020	045-00007	2,600	18	27	
045-00007	045-00001	1,500	18	30	
045-00001	PS 45	65	18	42	
045-00043	045-00020	1,200	8	12	
PS38DS	127-00020	100	8	12	
127-00020	127-00015A	970	8 & 12	15	

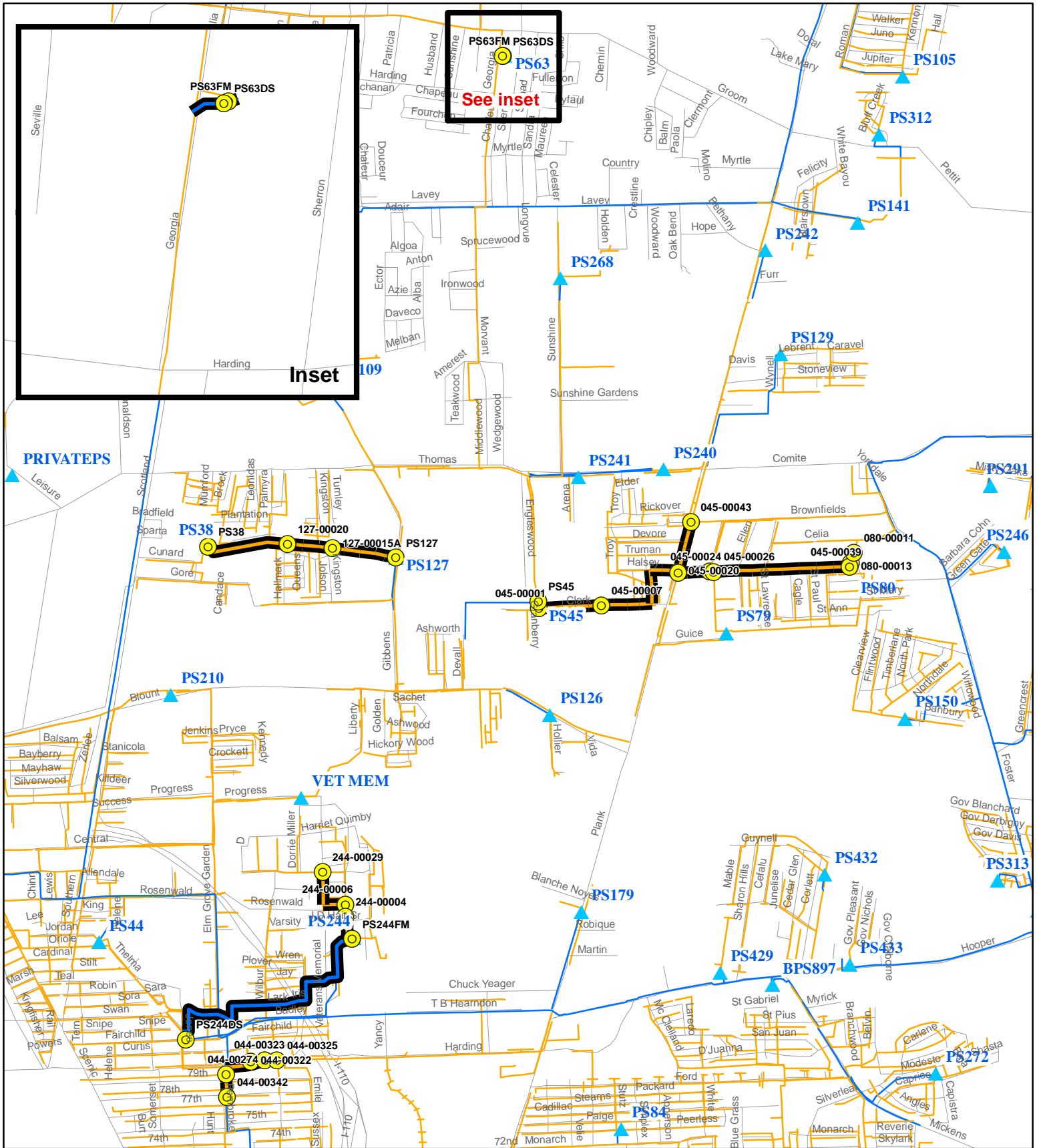
**TABLE 5-2**  
 NGS-C-0002 (Plank Road – Kleinpeter Road Sewer Area Upgrades) – Pipeline Information

US Node	DS Node	Length (ft)	Existing Diameter (in)	Proposed Diameter (in)	Comments
127-00015A	PS 127	1,500	12	21	
044-00342	044-00274	560	8	12	
044-00274	044-00325	1,070	10	18	
044-00325	044-00323	340	18	24	
044-00323	044-00322	320	18	24	
244-00029	244-00006	1,260	10	12	
244-00006	244-00004	265	10	15	
080-00011	PS 80	330	8	15	
PS 38	PS38DS	1,700	6	8	Forcemain
PS244FM	PS244DS	5,570	8	12	Forcemain
PS63FM	PS63DS	115	18	24	Forcemain

**Note:** The existing pipe sizes and lengths were obtained from the BTRSSO hydraulic model.

**Total Construction Cost Estimate is \$8,000,000.**

**Design is On-Going.**



**Legend**

<b>Proposed</b>	<b>Existing</b>
New Pump Stations	Exist. Gravity
New Gravity Main	Exist. Force Main
New Force Main	Exist. Pump Station
New Storage Facility	Manholes/Nodes

0 2,500 5,000 Feet

**Plank Rd. - Kleinpeter Rd. Sewer Area Upgrades**  
**NGS-C-0002**  
**Project Vicinity Map**

**Figure 5-5**

BATON ROUGE **SSO** Program

## 5.2.3 NGS-C-0003 (Plank Road Pump Station Improvements)

### Project Description

#### **Purpose of the Project / Project Background**

The NGS-C-0003 (Plank Road Pump Station Improvements) Project includes the replacement of PS 127, PS 129, PS 38, PS 63, PS 64, PS 244, PS 44, PS 75, and PS 80. This project is the combination of NGS-C-0003 (Multiple PS - Plank Road - Thomas Road) and NGS-C-0004 (Multiple PS-Plank Road-Harding Blvd) from the October 2008 PDP. The combined project has been designated NGS-C-0003 (Plank Road Pump Station Improvements) project and is described in this section.

The pump station replacements will work in conjunction with the forcemain and gravity sewer upgrades in the North Gravity Basin projects to alleviate chronic SSOs at the pump stations and in the gravity basins upstream of the pump stations.

The upgrades also will allow the pump stations to handle future peak wet weather flows that modeling predicts will equal or exceed the existing maximum capacities.

#### **Location**

The locations of the pump stations are given in Table 5-3 and in Figure 5-6.

#### **Scope**

This project includes the replacement of the nine pump stations shown in Table 5-3.

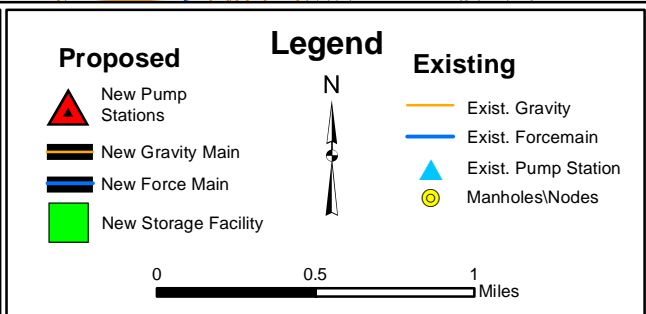
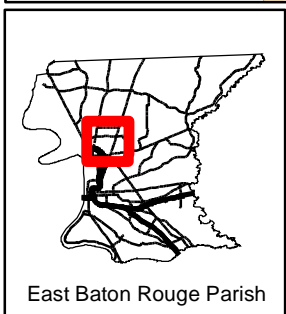
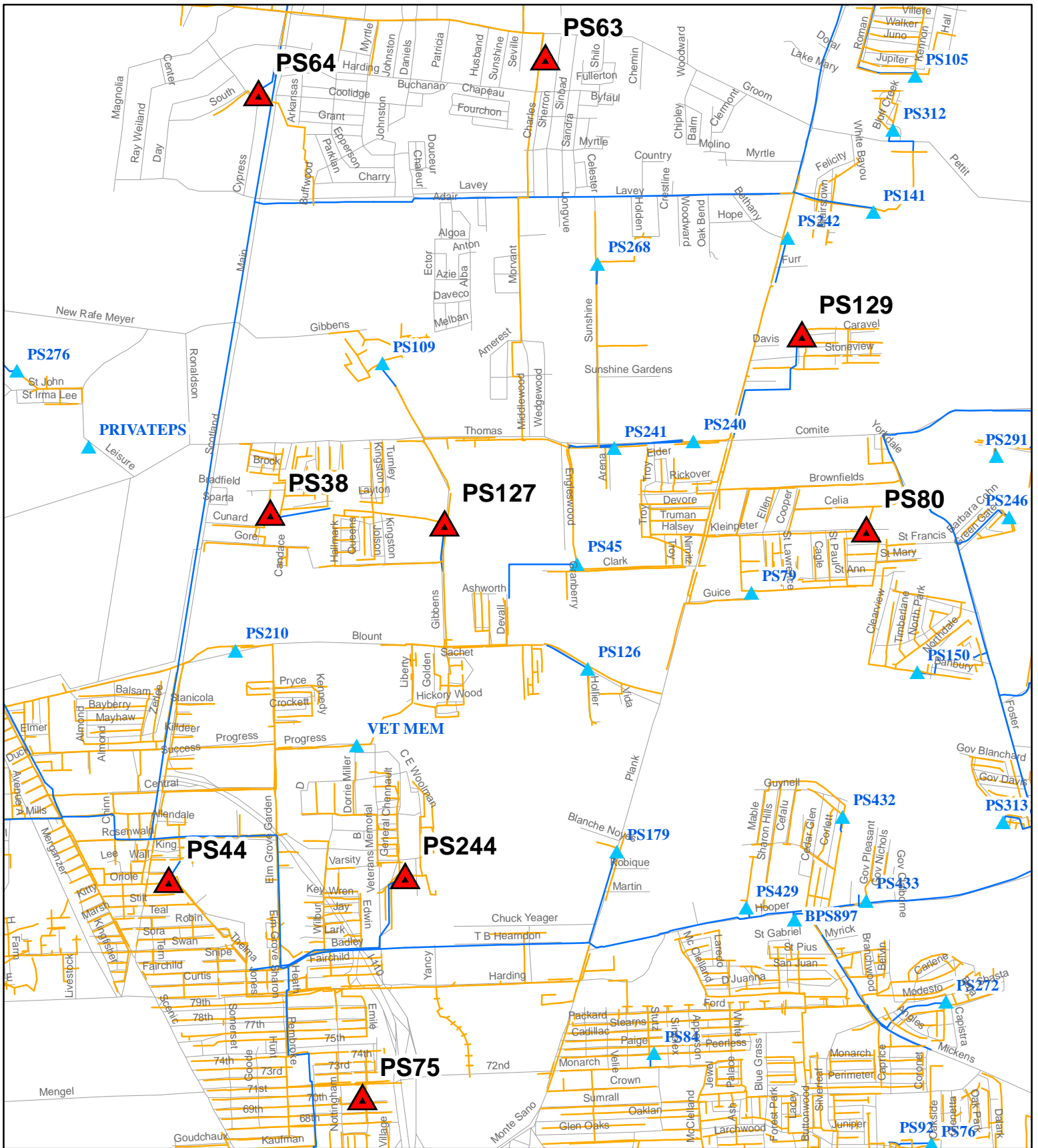
**TABLE 5-3**  
NGS-C-0003 (Plank Road Pump Station Improvements) – Pump Station Information

PS No.	Location	Existing Max Capacity (gpm)	Future Peak Wet Weather Flow (gpm)	Dry Weather (gpm)
PS 127	Gibbens Road, near intersection of Gore Road	900	1,805	308
PS 129	Near the intersection of Wynell Drive and Lebrent Avenue	200	417	68
PS 38	Desoto Drive, near Clifford Seymour Senior Park	700	1,389	186
PS 63	Near the intersection of Groom Road and Georgia Street	7,152	10,480	2,586
PS 64	Near the intersection of Cypress Street and South Street	900	1,640	567
PS 244	Near the intersection of Captain Ryan Drive and General Chennault Drive	500	1,735	181
PS 44	Near the intersection of Oriole Street and Thelma Street	8,400	11,180	1,558
PS 75	Near the intersection of 72nd Avenue and Yorkshire Street	150	278	49
PS 80	Near the intersection of St. Peter Avenue and Kleinpeter Road	200	805	Unknown

**Note:** The existing maximum capacities for the PSs were obtained from the DPW Field Pump Station Maintenance reference guide. The future peak wet weather flows were obtained from the BTRSSO hydraulic model.

**Total Construction Cost Estimate is \$9, 315,000.**

**Design is On-Going.**



## Plank Rd. PS Improvements

# NGS-C-0003

## Project Vicinity Map

Figure 5-6

#### **5.2.4 NGS-C-0004 (Multiple Pump Stations – Plank Road – Harding Blvd)**

The NGS-C-0004 (Multiple Pump Stations – Plank Road – Harding Blvd) project was combined with NGS-C-0003, (Multiple PS-Plank Road-Thomas Road) from the October 2008 PDP. The combined project has been designated NGS-C-0003 (Plank Road Pump Station Improvements), and is described in Section 5.2.3.

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## 5.3 North Forced System Comprehensive Rehabilitation Projects

### 5.3.1 NFW-R-0001, NFW-R-0002, and NFE-R-0001

#### Project Description

The sanitary sewer system comprehensive rehabilitation projects consist of improvements to various components of the sewer collection system to reduce the amount of rainwater and groundwater that leak into the system.

#### Purpose

The purpose of the comprehensive sewer rehabilitation is to correct defects in the system such as offset pipe joints, collapsed pipe sections, leaking manholes, and direct inflow sources. The water that enters the system through the defects is a major contributor to SSOs. Comprehensive rehabilitation of the collection system will contribute to alleviating SSOs.

#### Location

There are four projects located within the North Forced Basin. The attached maps show the project locations in Figure 5-7 to 5-9.

#### Scope of Project

The first phase of comprehensive rehabilitation projects will be the physical inspection of the pipes and manholes including CCTV inspection of pipes. Smoke testing also may be included in the physical inspection phase.

Data collected by the physical inspection contractor will be analyzed and based on that analysis a listing of recommended repairs with associated construction costs will be generated. An engineering firm will then complete detailed design and preparation of construction documents for project bidding.

The construction of rehabilitation projects will typically include the following components.

- Replacement of pipes
- Point repair of pipes
- Rehabilitation of pipes by cured-in-place pipe liners
- Rehabilitation or replacement of manholes
- Repair of sewer laterals to the property line

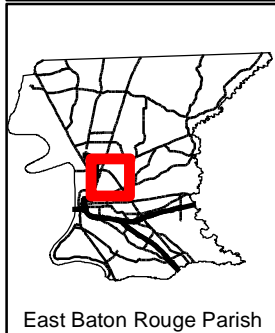
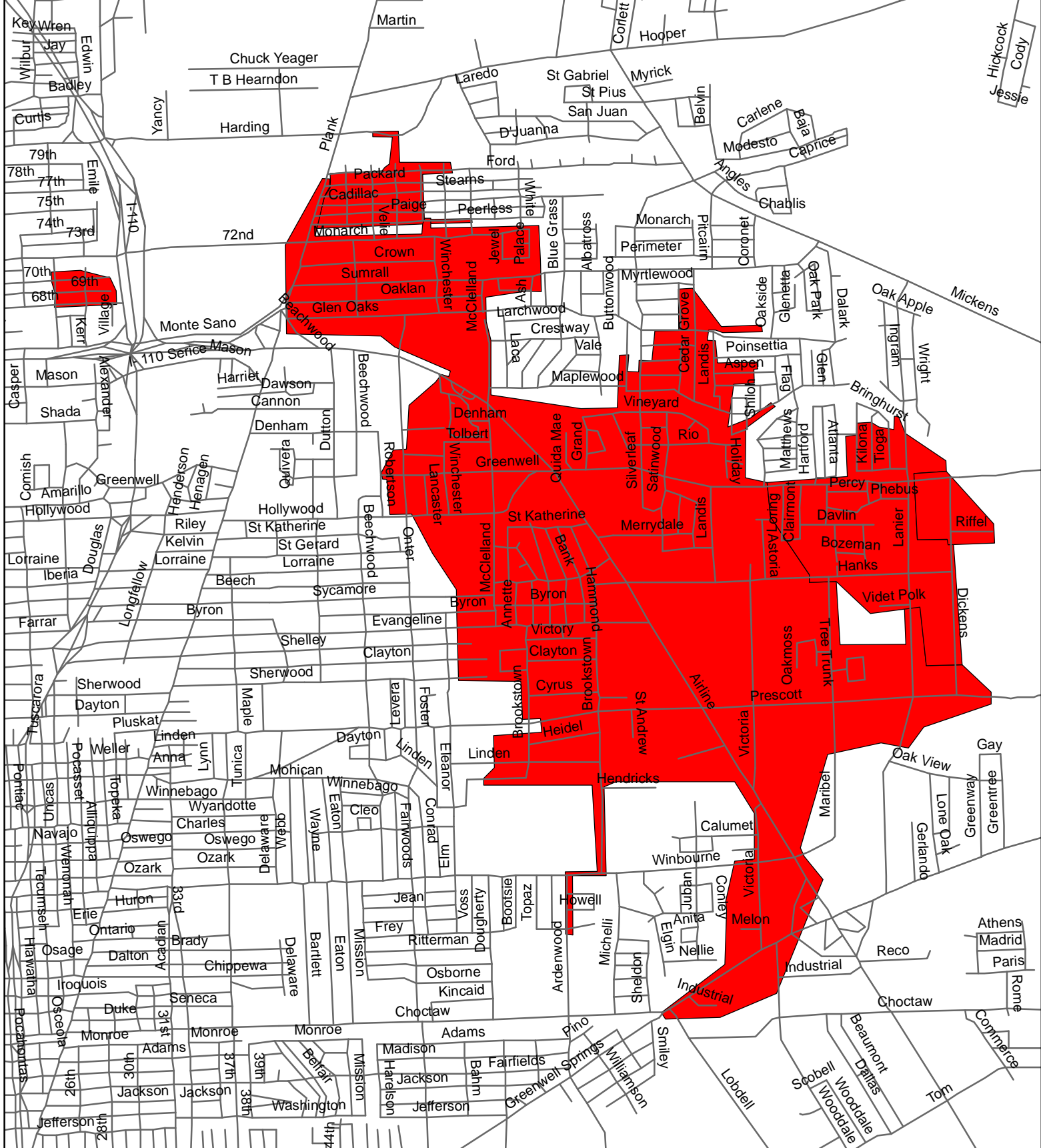
#### Cost

The estimated costs for each project are presented in Table 5-4. These costs are based on preliminary estimates of the amounts of each component of the system that will require repair or replacement. During the physical inspection phase, the actual condition of the components will be assessed and appropriate methods recommended. At that time, the cost estimate for each project will be revised. For those projects under construction, the actual bid amounts are included as construction costs in Table 5-4.


**TABLE 5-4**  
Estimated Construction Costs for North Forced System Comprehensive Rehabilitation Projects

<b>Project Descriptions</b>	<b>Estimated Construction Cost*</b>	<b>Status</b>
NFW-R-0001a-Brookstown Road-Evangeline Street, Phase I	\$10,309,000	Construction On-Going
NFW-R-0001b-Brookstown Road – Evangeline Street, Phase II	\$5,468,000	Construction On-Going
NFW-R-0002-Interstate 110-Hollywood Street	\$6,016,000	Not Started
NFE-R-0001-Silverleaf Road-Ford Street	\$8,025,000	Construction On-Going


\* Estimated construction costs given for projects with construction on-going are bid amounts




**Legend**

 Area Designated for Physical Inspection Phase I


0 0.25 0.5 Miles

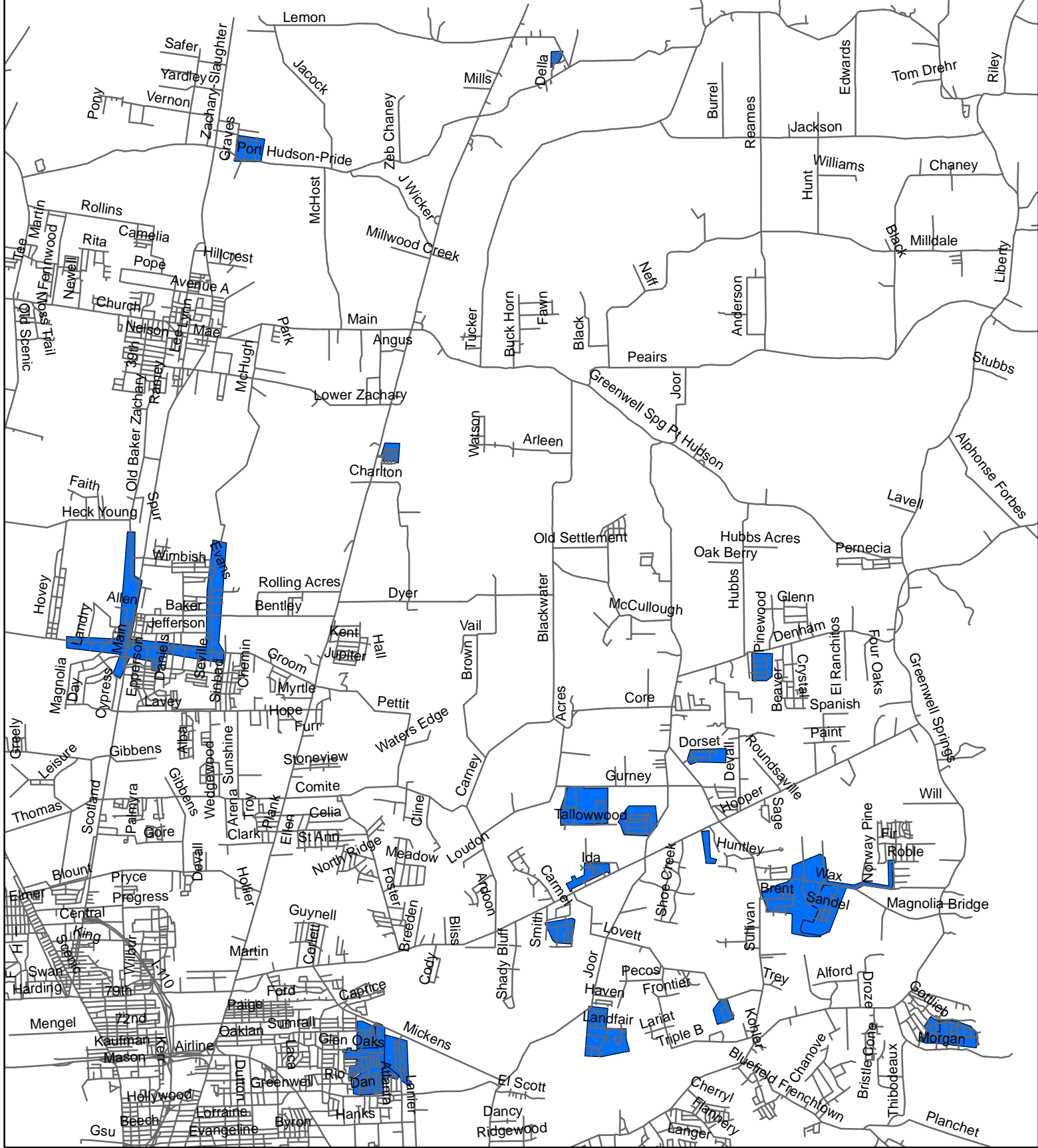


**Brookstown Rd. - Evangeline St.  
Phase I  
NFW-R-0001  
Project Vicinity Map**



**Figure 5-7a**





**Legend**

Area Designated for Physical Inspection Phase II

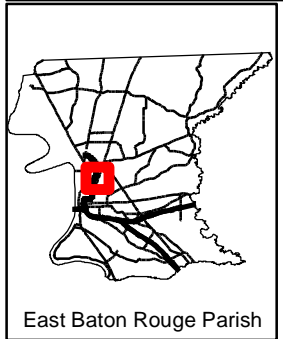
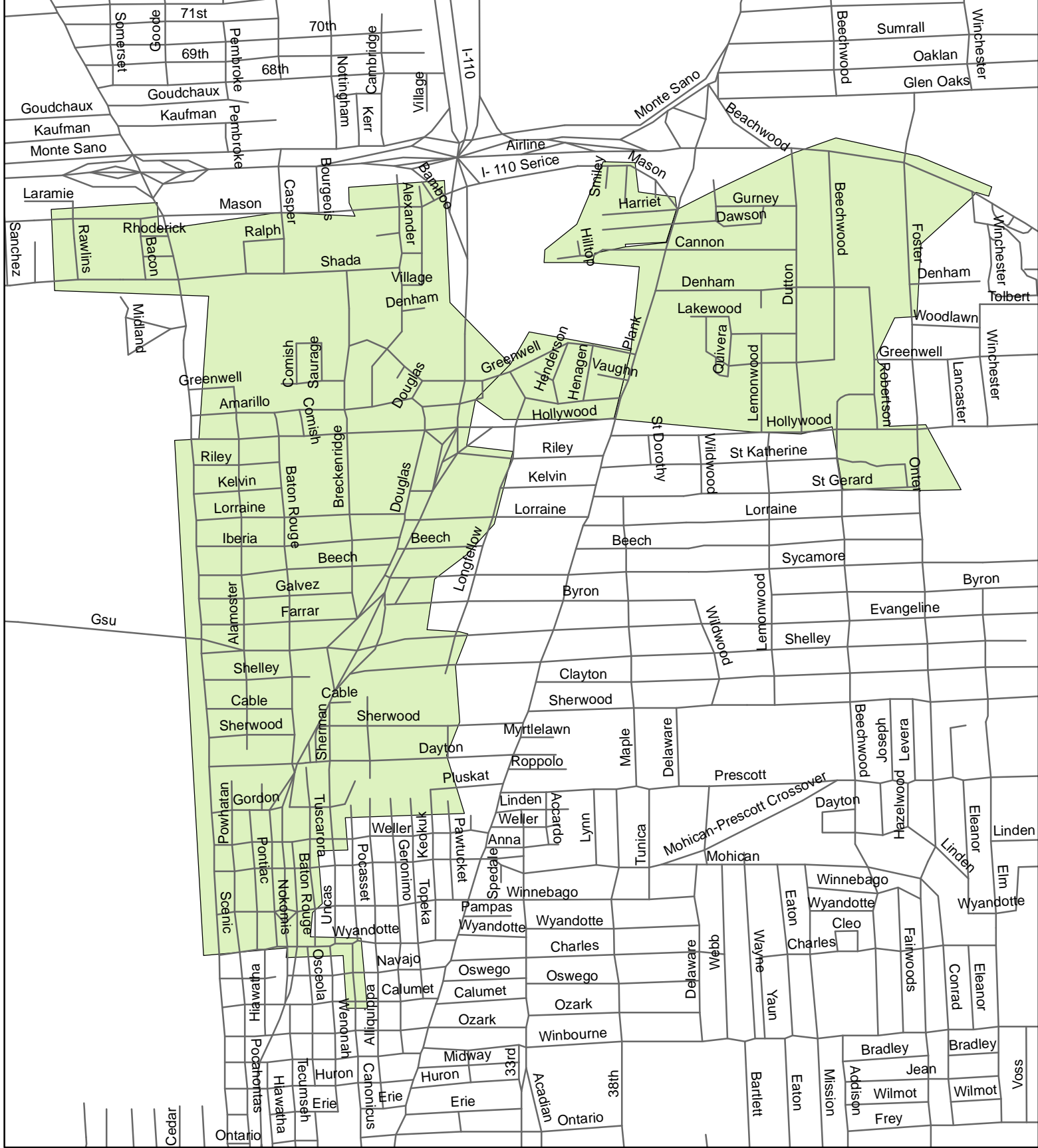
0 1 2 Miles

**Brookstown Rd. - Evangeline St.  
Phase II  
NFW-R-0001  
Project Vicinity Map**

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**Figure 5-7b**



**Legend**

Area Designated for Physical Inspection Phase I



0 1,000 2,000 Feet

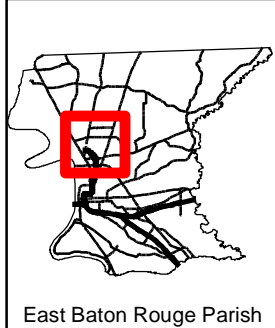
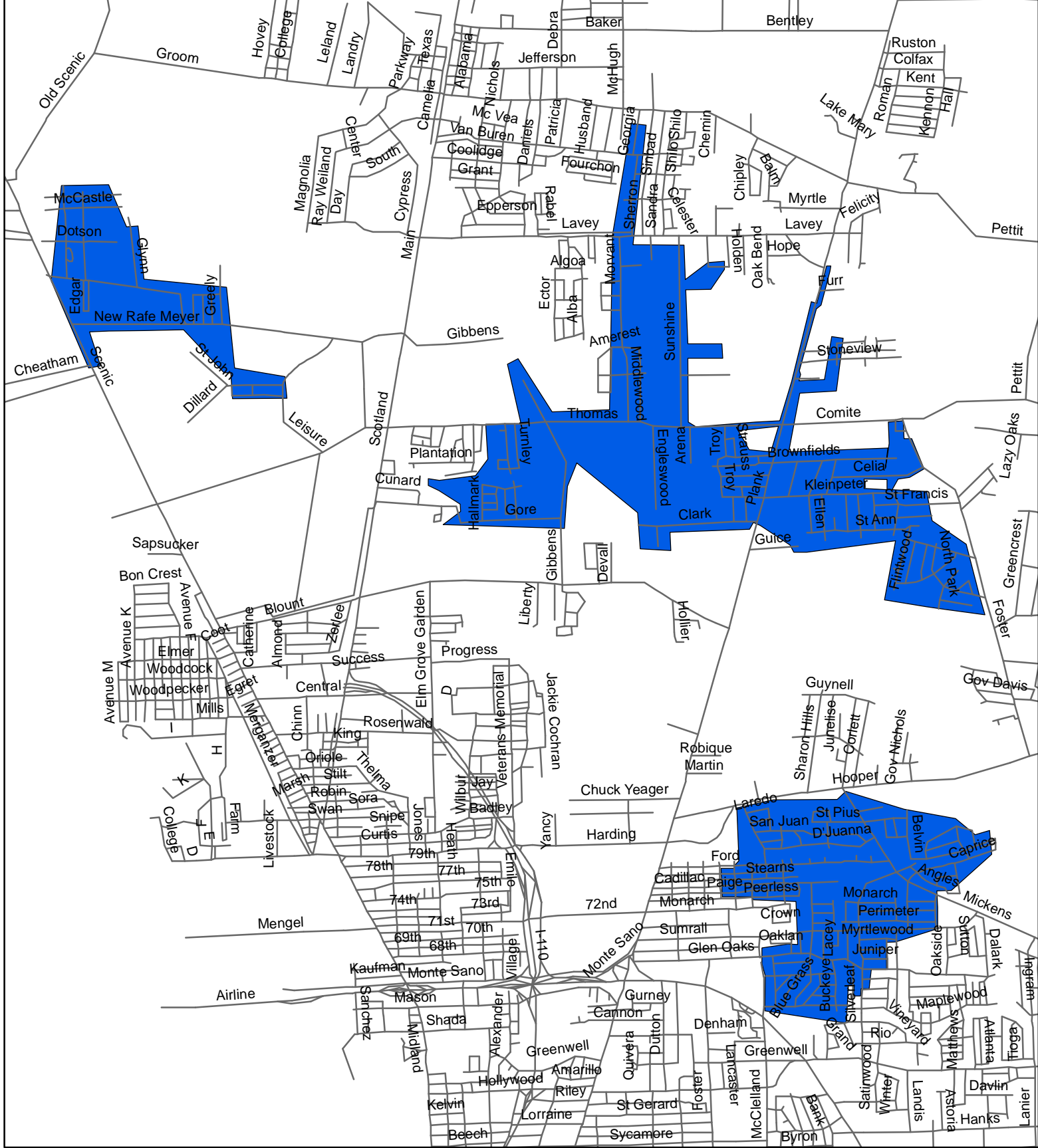
**Interstate 110 - Hollywood St.**

**NFW-R-0002**

**Project Vicinity Map**

**Figure 5-8**



**Legend**

Area Designated for Physical Inspection Phase I

0 0.5 1 Miles

**Silverleaf Rd. - Ford St.**

**NFE-R-0001**

**Project Vicinity Map**

Baton Rouge SSO Program

**Figure 5-9**

## 5.4 North Forced System Capacity Improvements Projects

### 5.4.1 NFE-C-0001 (Gurney Road – Joor Road Sewer Area Upgrades)

#### Project Description

##### **Purpose of the Project/ Project Background**

The purpose of the NFE-C-0001 (Gurney Road – Joor Road Sewer Area Upgrades) project is to replace PS176 to alleviate SSOs at and near the pump station. The forcemains exiting PS 176 and PS 284 also will be upsized. In addition, the future wet weather peak flow at PS 176 is predicted by the BTRSSO model to be greater than the existing maximum capacity of the pump station.

##### **Location**

The location of PS 176 is described in Table 5-5 and shown along with the forcemain locations in Figure 5-10.

Forcemain segment PS 176 to NS 6157 begins at PS 176, located on Tallowood Avenue, between Pheasantwood Drive and Partridgewood Drive, travels north on Partridgewood Drive to Gurney Road, follows Gurney Road east, and terminates at node NS6157, near the intersection of Gurney Road with Sullivan Road.

Gravity segment 176-00001 to PS 176 begins at manhole 176-00001, which is located near the pump station, which is on Tallowood Avenue between Pheasantwood Drive and Partridgewood Drive, and travels to PS 176.

Forcemain segment PS 284 to NS6156 begins at PS 284, located at the cul-de-sac on Fairmead Drive, travels down a servitude that parallels to the north of Arrowood Avenue, proceeds up Joor Road and terminates at node NS 6156, which is located at the intersection of Joor Road and Gurney Road.

##### **Scope**

This project includes replacement of one pump station as well as approximately 14,500 feet of 8-inch, 10-inch, 12-inch, and 14-inch forcemain and approximately 100 feet of 15-inch gravity sewer. Tables 5-5 and 5-6 show the detailed scope of the project.

**TABLE 5-5**  
NFE-C-0001 (Gurney Road – Joor Road Sewer Area Upgrades) – Pump Station Information

PS No.	Location	Existing Max Capacity (gpm)	Future Peak Wet Weather Flow (gpm)	Dry Weather (gpm)	Comments
PS 176	Tallowood Avenue, between the intersection of Pheasantwood Drive and Partridgewood Drive	417	1,187	79	

**Note:** The existing maximum capacity for the pump station was obtained from the DPW Field Pump Station Maintenance reference guide. The future peak wet weather flow was obtained from the BTRSSO hydraulic model.

**TABLE 5-6**  
 NFE-C-0001 (Gurney Road – Joor Road Sewer Area Upgrades) – Pipeline Information

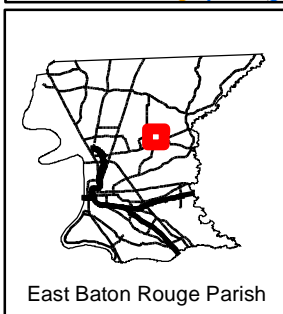
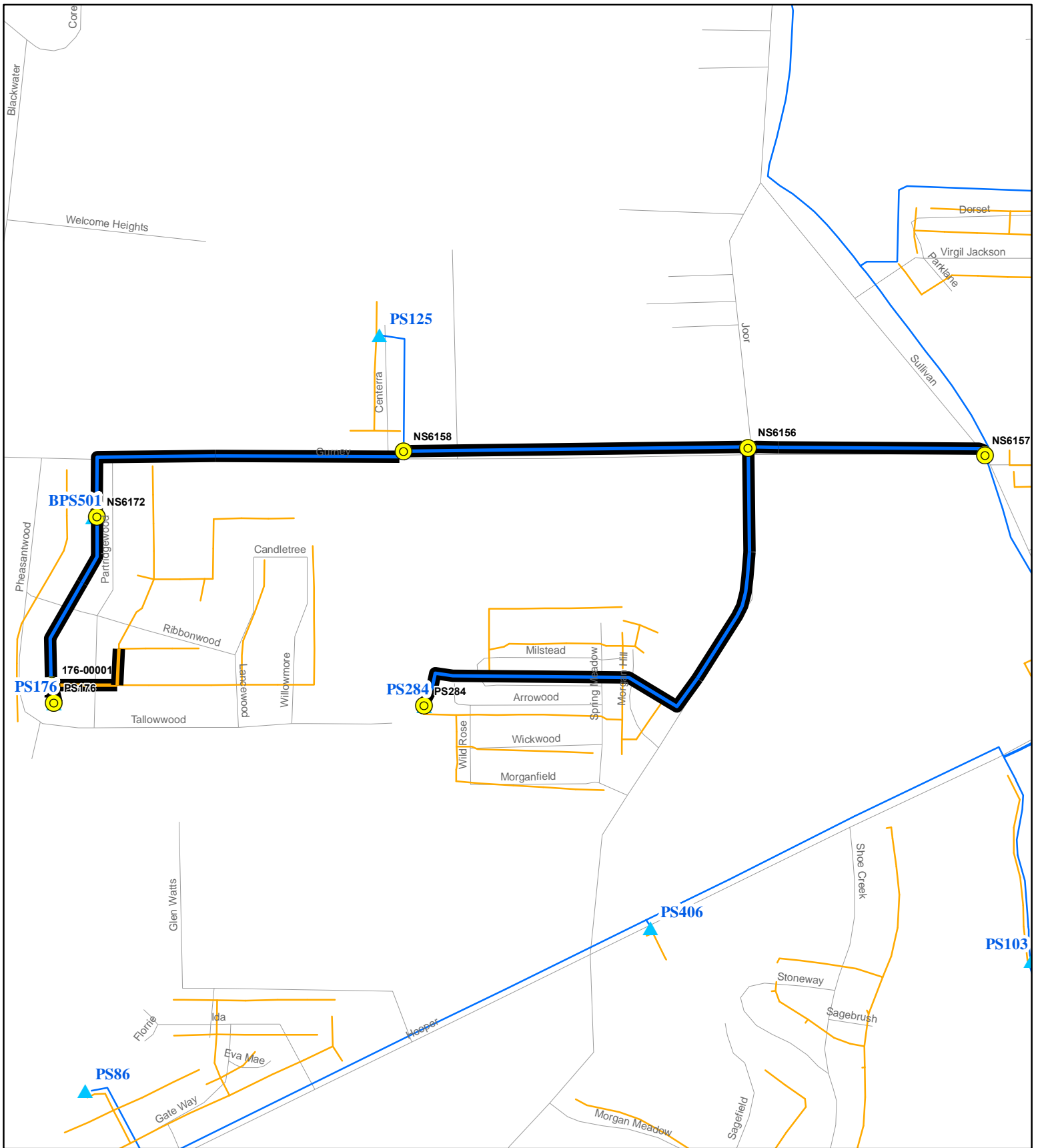
<b>US Node</b>	<b>DS Node</b>	<b>Length (ft)</b>	<b>Existing Diameter (in)</b>	<b>Proposed Diameter (in)</b>	<b>Comments</b>
PS 176	NS6172	1,800	6	10	
NS6172	NS6158	75	8	10	
NS6158	NS6156	3,400	10	12	
NS6156	NS6157	2,500	10	14	
176-00001	PS176	100	8	15	Gravity segment
PS 284	NS6156	6,700	6	8	

**Note:** The existing pipe sizes and lengths were obtained from the BTRSSO hydraulic model.

**Total Construction Cost is \$1,550,318.**

**Construction is Complete.**





**Legend**

Proposed	Existing
New Pump Stations	Exist. Gravity
New Gravity Main	Exist. Forcemain
New Force Main	Exist. Pump Station
New Storage Facility	Manholes/Nodes

0 1,000 2,000 Feet

**Gurney Rd. – Joor Rd. Sewer Area Upgrades**

**NFE-C-001**

**Project Vicinity Map**

Figure 5-10

BATON ROUGE SSO Program

## 5.4.2 NFE-C-0002 (Sullivan Road/Lovett Road/Wax Road Sewer Area Upgrades)

### Project Description

#### **Purpose of the Project/Project Background**

The purpose of NFE-C-0002 (Sullivan Road/Lovett Road/Wax Road Sewer Area Upgrades) project is to replace PS 230, PS 282, and PS 187 to alleviate SSOs at and near the pump stations. This project also includes the upsizing of the forcemains from the three pump stations as well as the gravity sewer that feeds PS 230. This project was originally designated as the NFE-C-0002 (Multiple Pump Stations – Lovett Road Area) project in the October 2008 PDP.

#### **Location**

The locations of the pump stations is described in Table 5-7 and shown along with the forcemain locations in Figure 5-11.

Gravity segment 230-00009 to PS 230 begins at manhole 230-00009, which is located near the intersection of Stoneway Place and Shoe Creek Drive, and travels south along Shoe Creek Drive to Morgan Meadow Avenue, where it then parallels Morgan Meadow Avenue in a westerly direction to PS 230, which is located on Morgan Meadow Avenue in between its intersection with Shoe Creek Drive and Sagefield Drive.

Forcemain segment PS 230 to 230-00015 begins at PS 230, described above, and follows Morgan Meadow Avenue in a westerly direction to its intersection with Sagefield Drive. There it then parallels Sagefield Drive in a southerly direction to its termination point at manhole 230-00015, which is located on Sagefield Drive, approximately halfway between Morgan Meadow Avenue and Conwood Avenue.

Forcemain segment PS 187 to NS6402 begins at PS 187, located near the intersection of Clear Oak Avenue and Oak Meadow Drive, goes east down Clear Oak Avenue, then turns north on Woods Edge Drive and terminates at node NS6402, located near the intersection of Woods Edge Drive and Sullivan Road.

Forcemain segment PS 282 to NS6305 begins at PS 282, located at the end of Regent Avenue near the intersection of Regent Avenue and Trendale Drive, goes west through a wooded area crossing Beaver Bayou, and connects to the existing forcemain.

#### **Scope**

The scope of this project includes three pump station replacements, approximately 4,200 feet of 6-inch and 8-inch forcemain, and approximately 2,100 feet of 12-inch gravity sewer. The detailed scope is shown in Tables 5-7 and 5-8.

**TABLE 5-7**  
NFE-C-0002 (Sullivan Road/Lovett Road/Wax Road Sewer Area Upgrades) - Pump Station Information

PS No.	Location	Existing Max Capacity (gpm)	Future Peak Wet Weather Flow (gpm)	Dry Weather (gpm)	Comments
PS 230	Morgan Meadow Avenue, near the intersection of Shoe Creek Drive	417	1,229	146	
PS 282	Regent Avenue, near the intersection of Trendale Drive	127	924	42	
PS 187	Clear Oak Avenue, near the intersection of Oak Meadow Drive	139	382	87	

**Note:** The existing maximum capacities for the PSs were obtained from the DPW Field Pump Station Maintenance reference guide. The future peak wet weather flow was obtained from the BTRSSO hydraulic model.

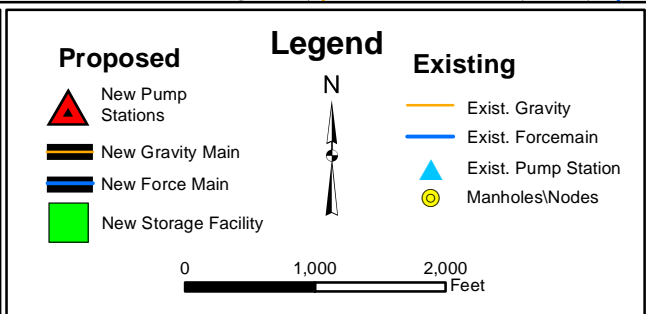
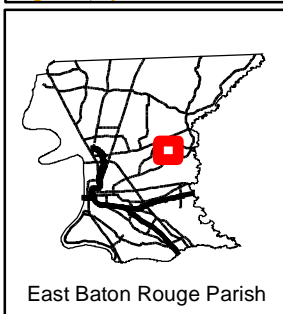
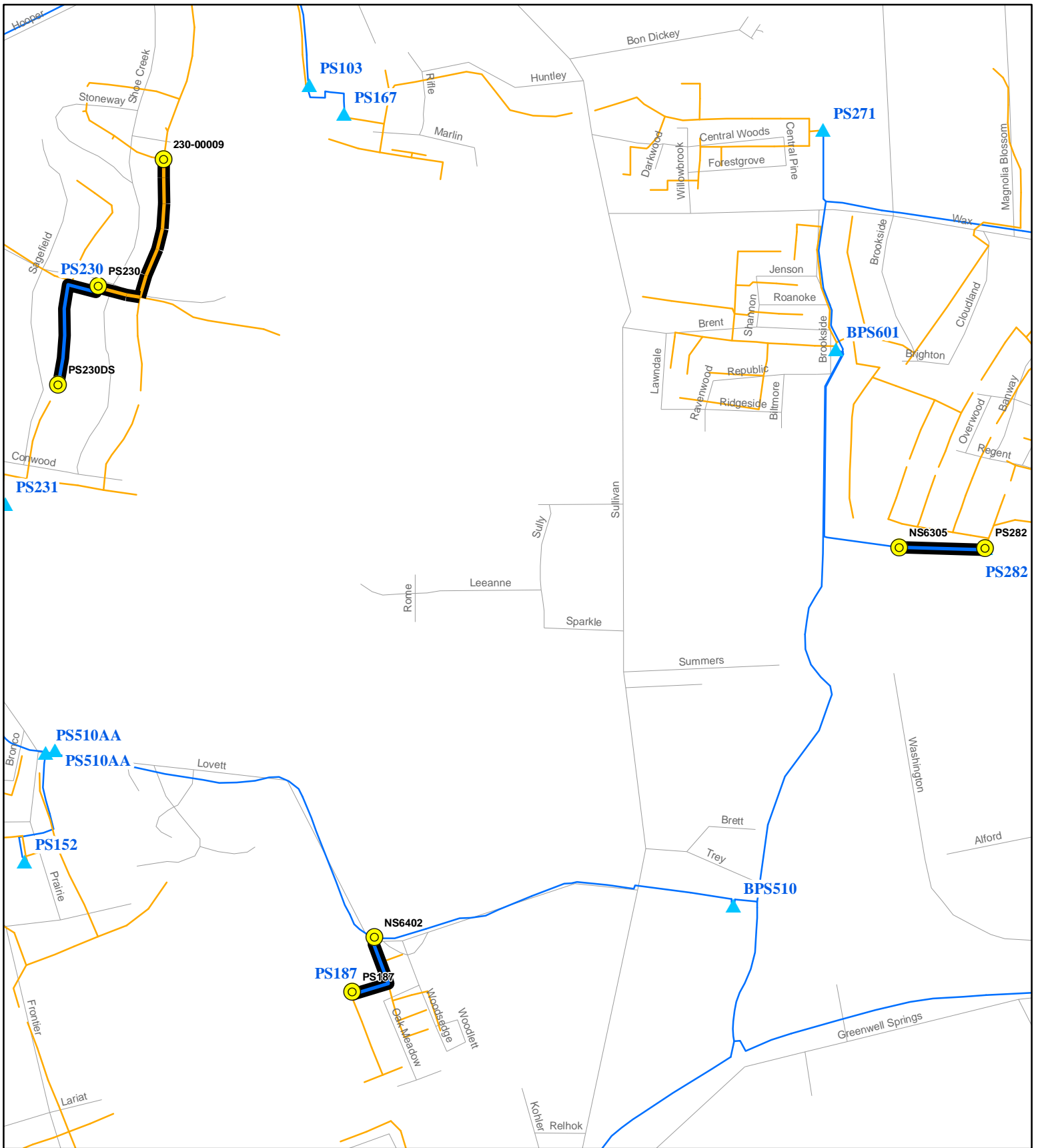
**TABLE 5-8**  
 NFE-C-0002 (Sullivan Road/Lovett Road/Wax Road) – Pipeline Information

<b>US Node</b>	<b>DS Node</b>	<b>Length (ft)</b>	<b>Existing Diameter (in)</b>	<b>Proposed Diameter (in)</b>	<b>Comments</b>
230-00009	PS230	2,100	8	12	Gravity segment
PS230	230-00015	1,200	6	8	
PS187	NS6402	1,100	4	6	
PS282	NS6305	1,900	4	8	

**Note:** The existing pipe sizes and lengths were obtained from the BTRSSO hydraulic model.

**Total Bid Amount is \$2,200,000.**

**Construction is Functionally Complete.**





**Sullivan Rd. / Lovett Rd. / Wax Rd.**

**NFE-C-0002**

**Project Vicinity Map**

Figure 5-11

### 5.4.3 NFE-C-0003 (Comite Road – Foster Road Sewer Area Upgrades - Phase I)

#### Project Description

##### **Purpose of the Project/Project Background**

The purpose of the NFE-C-0003 (Comite Road – Foster Road Sewer Area Upgrades - Phase I) project is to replace PS 291, PS 246, and PS 94 to alleviate SSOs at and near the PS. The forcemains exiting these pump stations also will be upsized. In addition, the future peak wet weather flow at the pump stations is predicted by the BTRSSO model to exceed the existing maximum capacity.

##### **Location**

The locations of the pump stations is given in Table 5-9 and shown along with the forcemain locations in Figure 5-12.

Forcemain segment PS 291 to NS6393 begins at PS 291R, located on Comite Road 953 feet north of Misty Oaks, and goes South 953 feet to Misty Oaks; then east on Misty Oaks Avenue to Lazy Oak Drive, where it then follows Laky Oak Drive south to its cul-de-sac, and then continues south over land to node NS6393, which is just downstream of PS 246, near the intersection of Green Gate Drive and Holly Fern Avenue.

Forcemain segment NS6193 to NS6251 begins at node NS6193, located near the intersection of Green Gate Drive and Holly Fern Avenue, runs southeast along Green Gate Drive to Foster Road, where it then follows Foster Road south to its termination at node NS6251, located at the intersection of North Park Avenue and Foster Road.

Forcemain segment PS 94 to NS6193 begins at PS 94, located at the westerly cul-de-sac on Anderson Drive and proceeds aligning Anderson Drive to the easterly cul-de-sac, then runs northerly overland to node NS6193.

##### **Scope**

This project includes the replacement of three pump stations and the upsizing of approximately 12,000 feet of 6-inch and 8-inch forcemain. The detailed scope of the project is presented in Tables 5-9 and 5-10.

**TABLE 5-9**  
NFE-C-0003 (Comite Road – Foster Road Sewer Area Upgrades – Phase I) – Pump Station Information

PS No.	Location	Existing Max Capacity (gpm)	Future Peak Wet Weather Flow (gpm)	Dry Weather (gpm)	Comments
PS 291	Misty Oaks Avenue, near the intersection of Lazy Oak Drive	69	208	92	
PS 246	Holly Fern Avenue, near the intersection of Green Gate Drive	69	278	21	
PS 94	Fieldcrest Dr. near the intersection of Meadow Avenue	278	764	62	

**Note:** The existing maximum capacities for the PSs were obtained from the DPW Field Pump Station Maintenance reference guide. The future peak wet weather flow was obtained from the BTRSSO hydraulic model.

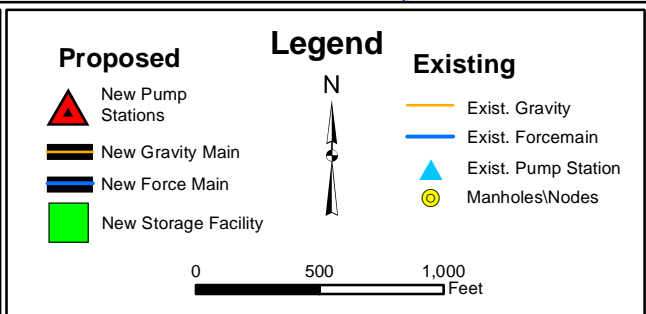
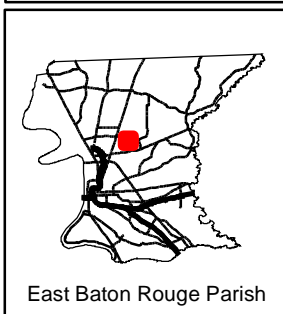
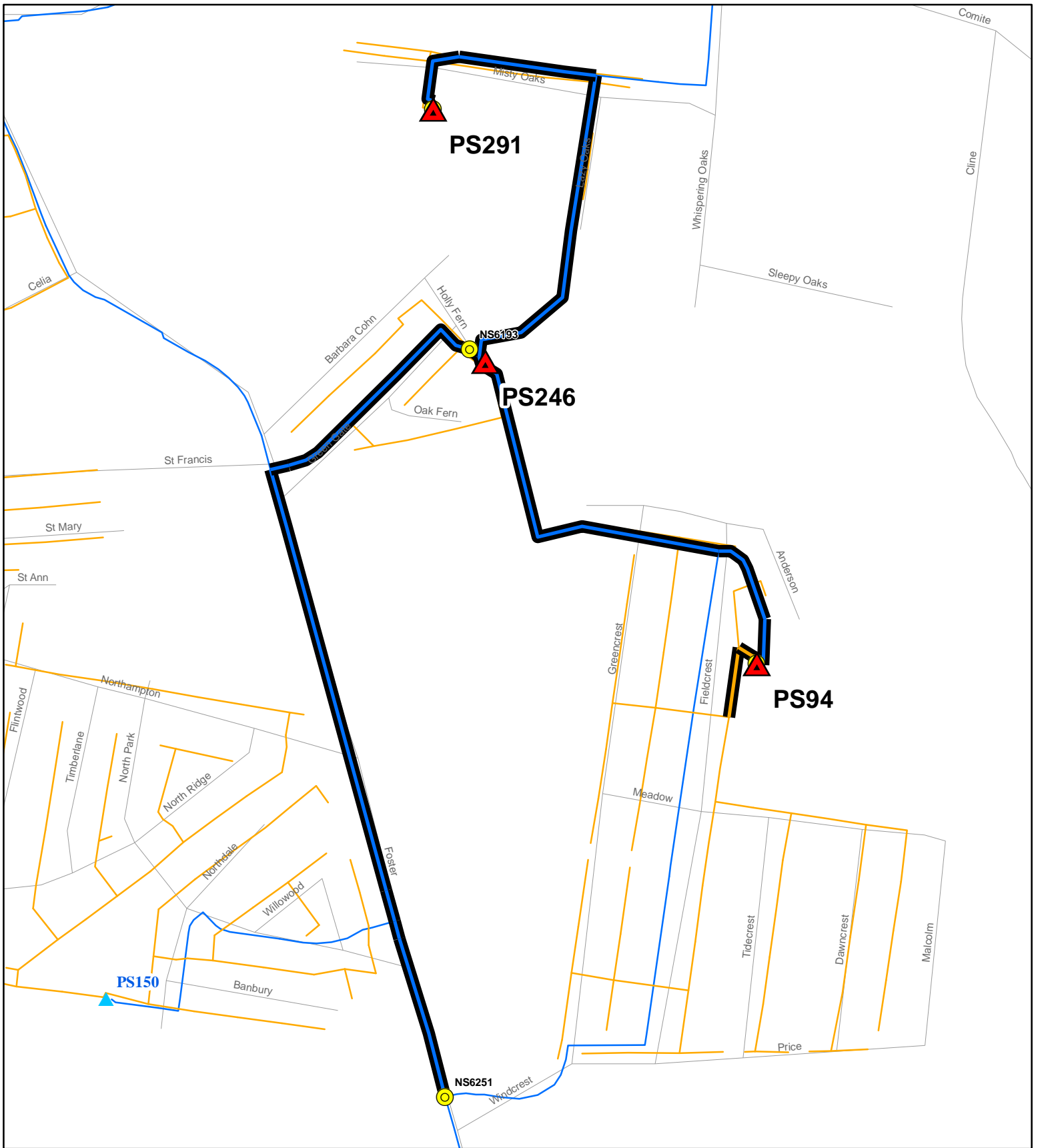
**TABLE 5-10**  
NFE-C-0003 (Comite Road – Foster Road Sewer Area Upgrades – Phase I) – Pipeline Information

<b>US Node</b>	<b>DS Node</b>	<b>Length (ft)</b>	<b>Existing Diameter (in)</b>	<b>Proposed Diameter (in)</b>	<b>Comments</b>
PS291	NS6193	3,340	4	8	New routing of existing FM to PS 246
NS6193	NS6251	5,600	4	10	
PS94	NS6193	3,140	6	8	

**Note:** The existing pipe sizes and lengths were obtained from the BTRSSO hydraulic model.

**Total Construction Cost is \$1,940,393.**

**Construction is Complete.**





## Comite Dr. - Foster Rd. Sewer Area Upgrades Phase I

# NFE-C-0003

## Project Vicinity Map

Figure 5-12

## 5.4.4 NFE-C-0004 (Foster Road – Hooper Road Sewer Area Upgrades)

### Project Description

#### **Purpose of the Project/Background Information**

The purpose of Project NFE-C-0004 (Foster Road – Hooper Road Sewer Area Upgrades) is to increase the capacity of the STN forcemain system and the manifold forcemains along Foster Road and Hooper Road to assist in transferring high flows to the main STN forcemain along Hooper Road.

#### **Location**

The location of the forcemains in this project are shown in Figure 5-13.

Forcemain segment PS 255 to NS6289 begins at PS 255, which is located at the end of the cul-de-sac at Loch Fyne Avenue, and goes east on Loch Fyne Avenue to Ardoon Drive, turns north/northwest on Ardoon Drive to Monhegan Avenue, turns northeast on Monhegan Avenue to Blackwater Road, turns south onto Blackwater Road and terminates at node NS6289, located at the intersection of Blackwater Road and Hooper Road.

Forcemain segment PS 196 to NS 6281 begins at PS 196, which is located near the intersection of Shady Bluff Drive and Shady Knoll Place, and goes north along Shady Bluff Drive to node NS 6281, which is located at the intersection of Shady Bluff Dive and Hooper Road.

Forcemain segment BPS 509 to NS 6247 begins at BPS 509, located near the intersection of Hooper Road and Lazy Lake Drive, and follows Hooper Road southwest until it reaches node NS 6247, located approximately 600 feet east of the intersection of Hooper Road and Lovett Road.

Forcemain segment BPS 511 to NS6334 starts at BPS 511, located in between Hooper Road and Blackwater Road, and travels west along Hooper Road to node NS 6334, located near the intersection of Hooper Road and Foster Road.

Forcemain segment NS6306 to NS6334 starts at node NS 6306, located on Foster Road south of its intersection with Summer Place Avenue and goes south along Foster Road to node NS6334, located near the intersection of Hooper Road and Foster Road.

#### **Scope**

This project includes the construction of approximately 26,000 feet of 6-inch, 8-inch, 14-inch, 24-inch, and 36-inch forcemain in the North Forced Basin. The detailed scope of this project is presented in Table 5-11.

**TABLE 5-11**  
NFE-C-0004 (Foster Road – Hooper Road Sewer Area Upgrades) – Pipeline Information

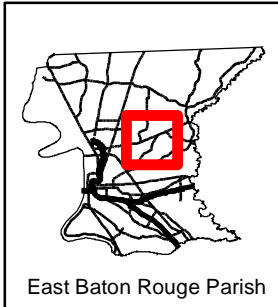
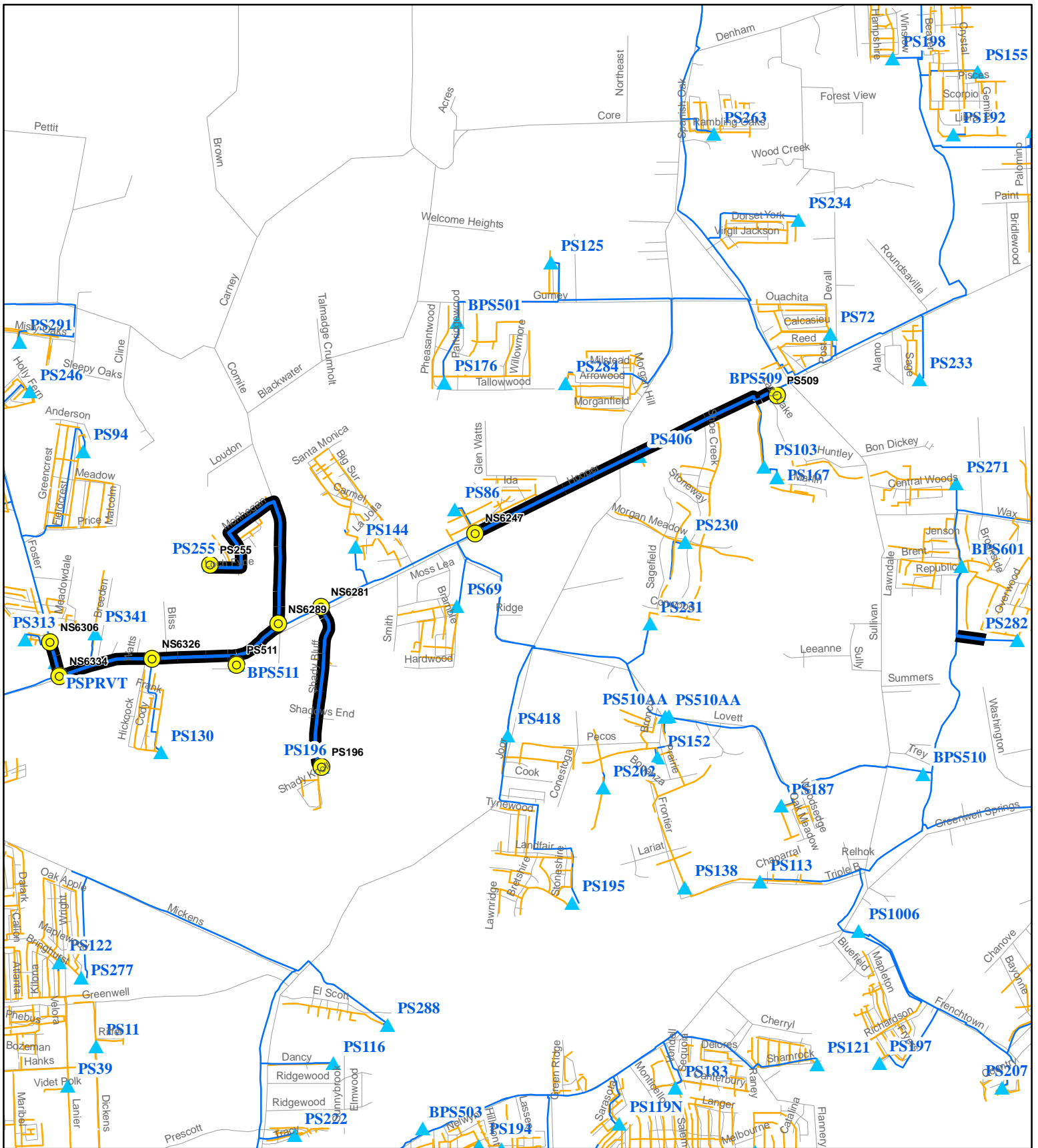
US Node	DS Node	Length (ft)	Existing Diameter (in)	Proposed Diameter (in)	Comments
PS 255	NS6289	7,600	6	8	
PS 196	NS6281	5,200	4	6	
BPS 509	NS6247	6,500	20	24	
BPS 511	NS6326	2,700	24	36	
NS6326	NS6334	3,000	30	36	
NS6306	NS6334	1,200	12	14	

**Note:** The existing pipe sizes and lengths were obtained from the BTRSSO hydraulic model.

**Total Bid Amount is \$8,762,000.**

**Construction is Functionally Complete.**





**Legend**

<b>Proposed</b>	<b>Existing</b>
New Pump Stations	Exist. Gravity
New Gravity Main	Exist. Force Main
New Force Main	Exist. Pump Station
New Storage Facility	Manholes/Nodes

0 0.5 1 Miles

**Foster Rd. - Hooper Rd. Sewer Area Upgrades**

**NFE-C-004**

**Project Vicinity Map**

Figure 5-13

BATON ROUGE SSO Program

## 5.4.5 NFE-C-0005 (Hooper Road Pump Station Improvements)

### Project Description

#### **Purpose of the Project/Background Information**

This project NFE-C-0005 (Hooper Road Pump Station Improvements) project is a combination of NFE-C-0005 (Multiple PS - Hooper Road- Greenwell Springs Road) and NFE-C-0007 (Multiple BPS - Hooper Road - Lovett Road) from the October 2008 PDP. The combined project has been designated NFE-C-0005 (Hooper Road Pump Station Improvements) project and is described in this section. The purpose of the NFE-C-0005 (Hooper Road Pump Station Improvements) project is the following:

PS 113, PS 313, PS 144, PS 86, PS 234, PS 218, PS 271, PS 249, PS 164, PS 285, PS 196, PS 231, PS 207, BPS 509, BPS 510, and BPS 511 are all being replaced to alleviate SSOs. BPS 510 will be replaced with a new PS 510AA, located downstream of the existing BPS 510. The three in-line booster pump stations being replaced in this project will be replaced with wet well pump stations.

#### **Location**

The locations of the pump stations are described in Table 5-12 and shown in Figure 5-14. PS 510AA will replace the existing BPS 510, which is currently located at the end of Lovett Road east of Sullivan Road. The exact location of PS 510AA has not yet been determined.

#### **Scope**

The detailed scope of this project is given in Table 5-12.

**TABLE 5-12**  
NFE-C-0005 (Hooper Road Pump Station Improvements) – Pump Station Information

PS No.	Location	Existing Max Capacity (gpm)	Future Peak Wet Weather Flow (gpm)	Dry Weather (gpm)
PS 313	Summer Place Avenue off Foster Road	58	114	4
PS 144	La Jolla Court off Carmel Drive	440	605	104
PS 86	Hooper Road between Lovett Road and Allena Drive	337	555	112
PS 234	Dorset Avenue off Farnham Avenue	101	487	65
PS 218	Weyanoke Drive off Solitude Lane	221	506	53
PS 271	Central Place Drive off Central Woods Avenue	244	489	129
PS 249	Durmast Drive off Way Road	612	1,165	247
PS 164	Stoneridge Drive off Donnybrook Avenue	261	688	88
PS 285	Bristle Cone Court off Evergreen Hills Avenue	84	405	52
PS 196	Shady Bluff Drive off Hooper Road	115	416	56
PS 231	Shoe Creek Drive off Morgan Creek Avenue	240	1,601	222
PS 207	Red Maple Drive off West Post Oak Court	101	400	136
PS 509	Hooper Road between Sullivan Road and Lazy Lake Drive	2,424	8,092	951
PS 511	Hooper Road between Hickcock Drive and Blackwater Road	1,781	20,911	2,970
PS 510AA	To be determined	5,326	8,106	1,194
PS 113	13308 Triple B. Road. Hgts.	190	600	42

**Note:** The existing maximum capacities for the PSs were obtained from the DPW Field Pump Station Maintenance reference guide. The future peak wet weather flow was obtained from the BTRSSO hydraulic model.

**Total Construction Cost Estimate is \$11,935,000.**

**Design is On-Going.**



## 5.4.6 NFE-C-0006 (Lovett Road – Greenwell Springs Road Sewer Area Upgrades)

### Project Description

#### ***Purpose of the Project / Background Information***

The purpose of the NFE-C-0006 (Lovett Road – Greenwell Springs Road Sewer Area Upgrades) project is to increase the capacity of the forcemain system in the North East Forcemain Basin to assist in transferring peak flows to the main STN sewer along Hooper Road and to increase the capacity of the gravity sewer systems upstream of PS 155, PS 195, PS 200, and PS 231. The gravity sewer and forcemain upgrades will work to alleviate chronic SSOs at the upstream or downstream locations of PS 69, 106, 113, 152, 155, 160, 164, 181, 195, 200, 207, 231, 233 234, 249, 285, and 510.

The project is being designed as one project, but and will be constructed as two projects, Group A and Group B.

#### ***Location – Group A***

The gravity sewers and forcemains in this Group A project are shown in Figure 5-15A.

Gravity segment 155-00037 to PS 155 begins at manhole 155-00037, located near the intersection of Crystal Drive and Libra Avenue and heads north along Crystal Drive to its termination point at PS 155, located near the intersection of Crystal Drive and Taurus Avenue.

Gravity segment 195-00004 to PS 195 begins at manhole 195-00004, located east of the intersection of Suncrest Avenue and Bretshire Drive, and heads generally east through a servitude in a forested area to PS 195, which is located just south of the south end of Stoneshire Drive.

Gravity segment 231-00015 to PS 231 begins at manhole 231-00015, located on Sagefield Drive, in between Cornwood Avenue and Morgan Meadow Avenue, and heads south along Sagefield Drive to PS 231, located near the intersection of Sagefield Avenue and Cornwood Avenue.

Forcemain segment PS 181 to NS6088 starts at PS 181, located off of Pinewood Drive, in between Arceneaux Avenue and Denham Avenue, and follows the access road from the pump station to Pinewood Drive, and then follows Pinewood Drive south to node NS6088, located near the intersection of Pinewood Drive and Denham Avenue.

Forcemain segment PS 155 to NS6103 begins at PS 155, located near the intersection of Crystal Drive and Taurus Avenue, and follows Taurus Avenue west to node NS6103, located near the intersection of Taurus Avenue and West Beaver Drive.

Forcemain segment PS 106 to NS 6149A begins at PS 106, located near the intersection of Palomino Drive and Paint Avenue, heads west along Paint Avenue, and terminates at node NS 6149A on the 16-inch STN forcemain, which is located in an open area due west of Paint Avenue

Forcemain segment PS 233 to NS6189 begins at PS 233, located at the south end of Sage Drive, heads north along Sage Drive and Cimmaron Drive, turns southwest at Hooper Road, and terminates at node NS6189, located at the intersection of Hooper Road and Sullivan Road.

Forcemain segment PS 234 to NS 6203A starts at PS 234, located at the intersection of Dorset Avenue and York Road, heads west on Dorset Avenue, turns southeast on Sullivan Road, and terminates at node NS 6203A, located just west of the intersection of Hooper Road and Sullivan Road.

Forcemain segment NS6308 to NS 6252 starts at NS 6308, located near the intersection of Lovett Road and Joor Road, heads west and then north along Lovett Road, turns northwest through an open area near Ridge Road to PS 69, connects with the forcemain from PS 69, follows the area behind houses east of Tanglewood Drive north to NS 6257, located near the intersection of Tanglewood Drive and Lovett Road. The forcemain segment then parallels Lovett Road north, where it terminates at node NS 6252, located near the intersection of Lovett Road and Hooper Road.

Forcemain segment PS 231 to NS 6328 begins at PS 231, located near the intersection of Sagefield Avenue and Cornwood Avenue, heads south through a wooded area, and terminates at node NS 6328, located on Lovett Road, approximately 3,500 feet east of its intersection with Joor Road. Forcemain segment PS 195 to NS 6308 begins at PS 195, located just south of the south end of Stoneshire Drive, goes north along Stoneshire Road, turns west on Landfair Road, turns north on Burtcliff Drive, turns west on Tynewood Avenue, turns north on Joor Road, and terminates at node NS 6308, located at the intersection of Joor Road and Lovett Road.

Forcemain segment BPS 510 to NS 6308 begins at BPS 510, which will be abandoned as part of project NFE-C-0005 (Hooper Road Pump Station Projects), located near the intersection of Sullivan Road and Lovett Road. From BPS 510, the forcemain follows Lovett Road west and north to node NS 6308, located near the intersection of Lovett Road and Joor Road.

Forcemain segment PS 195 to NS 6308 begins at PS 195, located behind the cul-de-sac at Flintridge Place. The forcemain then follows Stoneshire Drive north to Landfair Avenue, follows Landfair Avenue west to Burtcliff Drive, follows Burtcliff Drive north to Tynewood Avenue, and follows Tynewood Avenue west to Joor Road. The forcemain then follows Joor Road north to NS 6308, located near the intersection of Lovett Road and Joor Road.

Forcemain segment NS 6393 to NS 6391 is a short segment that begins at NS 6393, located east of the intersection of Sullivan Road and Lovett Road, and heads west for approximately 380 feet to NS 6391, located near BPS 510, near the intersection of Sullivan Road and Lovett Road.

Forcemain segment NS 6252 to PS 511 starts at node NS 6252, located at the intersection of Lovett Road and Hooper Road, and follows Hooper Road southwest to PS 511, located west of the intersection of Hooper Road and Blackwater Road.

### **Location – Group B**

The gravity sewers and forcemains in this Group B project are shown in Figure 5-15B.

Gravity segment 200-00011 to PS 200 starts at manhole 200-00011, located east of the intersection of Keystone Avenue and Bridgeport Drive, and heads east along Keystone Avenue to PS 200, located on Keystone Avenue, in between Teah Drive and Tarrora Drive.

Forcemain segment NS 6268A to NS 6393 begins at new node NS 6268A, located just southwest of the intersection of Regent Avenue and Overwood Drive, and follows a

drainage path roughly south to node NS 6393, located east of the intersection of Lovett Road and Sullivan Road.

Forcemain segment NS 6419 to NS 6393 begins at node NS 6419, located east of the intersection of Greenwell Springs Road and Sullivan Road, and heads north to NS 6393, located east of the intersection of Lovett Road and Sullivan Road.

Forcemain segment PS 249 to NS 6266 starts at PS 249, located near the intersection of Durmast Drive and Roble Avenue, heads south along Durmast Drive, turns west on Wax Road, turns south along Brookside Drive and terminates at node NS6266, located along Brookside Drive in between its intersection with Brent Avenue and Republic Avenue.

Forcemain segment PS 113 to NS 6431 starts at PS 113, located near the intersection of Triple B Road and Chapparral Place, heads east along Triple B Road, and terminates at node NS6431, located near the intersection of Triple B Road and Sullivan Road.

Forcemain segment PS 160 to NS 6472A begins at PS 160, located near the intersection of Chambord Drive and Chaumont Avenue, heads west to new node NS 6472A, located near the intersection of Frenchtown Road and Richardson Drive.

Forcemain segment NS 6489 to NS 6419 begins at node NS 6489, located near the intersection of Chaumont Avenue and Frenchtown Road, and follows Frenchtown Road northwest to new node NS 6472A, then continues to follow Frenchtown Road northwest to its intersection with Greenwell Springs Road. The forcemain segment then follows Greenwell Springs Road east to node NS 6419, located east of the intersection of Greenwell Springs Road and Sullivan Road.

Forcemain segment PS 207 to NS 6489 begins at PS 207, located near the intersection of Red Maple Place and Post Oak Court, heads north along Post Oak Court, turns east on Country Road, turns northwest on Frenchtown Road, and terminates at node NS 6489, located near the intersection of Frenchtown Road and Chaumont Road.

Forcemain segment NS 6404 to NS 6419 begins at node NS 6404, located near the intersection of Lake Vista Drive and Lakeside Drive, heads north along Lakeside Drive, turns northwest at Bellingrath Lakes Avenue, and turns west at Greenwell Springs Road. The forcemain segment then follows Greenwell Springs Road west to node NS 6419, located east of the intersection of Greenwell Springs Road and Sullivan Road.

Forcemain segment PS 285 to NS 6406 begins at PS 285, located on Bristlecone Court, just north of its intersection with Evergreen Hills Avenue, and follows a servitude to the northwest to PS 164, located at the eastern end of Stoneridge Drive. From PS 164, the forcemain follows Stoneridge Drive west, turns north at Donnybrook Avenue, and terminates at node NS6406, located near the intersection of Donnybrook Avenue and Greenwell Springs Road.

Forcemain segment PS 200 to NS 6404 starts at PS 200, located on Keystone Avenue, in between Teah Drive and Tarrora Drive, follows Gottlieb Road and a drainage path and Lake Vista Drive generally northwest to NS 6404, located near the intersection of Lake Vista Drive and Lakeside Drive.

**Scope – Group A**

This Group A project includes construction of approximately 4,840 feet of 10-inch, 12-inch, and 15-inch gravity sewer upstream of PS 155, PS 195, and PS 231. This project also includes construction of approximately 63,000 feet of 6-inch, 8-inch, 10-inch, 12-inch, 14-inch, 16-inch, 24-inch, 30-inch, and 36-inch forcemain in the North Forced East Basin. The detailed scope of the project is shown in Table 5-13A.

**TABLE 5-13A**

NFE-C-0006A(Lovett Road – Greenwell Springs Road Sewer Area Upgrades – Group A) – Pipeline Information

US Node	DS Node	Length (ft)	Existing Diameter (in)	Proposed Diameter (in)	Comments
155-00037	155-00031	710	8	10	Gravity segment A1
155-00031	155-00013	1,230	8	12	Gravity segment A1
155-00013	PS155	420	10	15	Gravity segment A1
195-00004	PS 195	940	8	12	Gravity segment A5
231-00015	231-00013	500	8	12	Gravity segment A4
231-00013	PS 231	1,040	8	15	Gravity segment A4
PS181	NS6088	1,840	6	10	Segment A1
PS155	NS6103	1,900	8	10	Segment A1
PS106	NS6149A	3,490	6	10	Segment A1
PS233	NS6165	2,060	4	6	Segment A2
NS6165	NS6183	3,000	18	24	Segment A2
NS6183	NS6189	1,450	18	24	Segment A2
PS234	NS6150	3,400	4	8	Segment A2
NS6150	NS6157	2,320	10	16	Segment A2
NS6157	NS6203A	3,750	14	24	Segment A2
NS6308	PS 69	3,200	N/A	30	Segment A3
PS69	NS6257	1,500	N/A	30	Segment A3
NS6257	NS6252	600	24	30	Segment A3
PS231	NS6328	1,720	6	12	Segment A4
PS510	NS6402	4,280	10	30	Segment A4
NS6402	NS6351	4,890	20	30	Segment A4
NS6351	NS6328	2,200	20	30	Segment A4
NS6328	NS6308	2,930	20	30	Segment A4
PS195	NS6575	7,400	8	14	Segment A5
NS6575	NS6308	2,920	8	14	Segment A5
NS6393	NS6391	380	18	30	Segment A6
NS6252	PS 511	7,786	30	36	Segment A6

**Note:** The existing pipe sizes and lengths were obtained from the BTRSSO hydraulic model.

**Scope – Group B**

This project includes construction of approximately 370 feet of 12-inch gravity sewer upstream of PS 200. This project also includes construction of approximately 53,000 feet of 6-inch, 8-inch, 10-inch, 12-inch, 14-inch, 16-inch, and 18-inch forcemain in the North Forced East Basin. The detailed scope of the project is shown in Table 5-13B.

**TABLE 5-13B**  
NFE-C-0006B(Lovett Road – Greenwell Springs Road Sewer Area Upgrades – Group B) – Pipeline Information

US Node	DS Node	Length (ft)	Existing Diameter (in)	Proposed Diameter (in)	Comments
200-00011	PS 200	370	8	12	Gravity segment B5
NS6268A	NS6393	4,410	12	16	Segment B1
NS6419	NS6393	1,750	14	18	Segment B1
PS249	NS6266	9,810	8	10	Segment B2
PS113	NS6431	3,170	6	8	Segment B3/B4
PS160	NS6472A	2,510	6	10	Segment B3/B4
NS6489	NS6472A	2,540	8	12	Segment B3/B4
NS6472A	NS6419	6,980	10	14	Segment B3/B4
PS207	NS6489	1,600	4	6	Segment B3/B5
NS6404	NS6395	970	8	10	Segment B3/B5
NS6395	NS6406	3,600	10	12	Segment B3/B5
NS6406	NS6419	5,950	12	16	Segment B3/B5
PS285	PS164	1,300	6	8	Segment B3/B5
PS164	NS6406	3,960	6	8	Segment B3/B5
PS200	NS6404	4,260	8	10	Segment B5

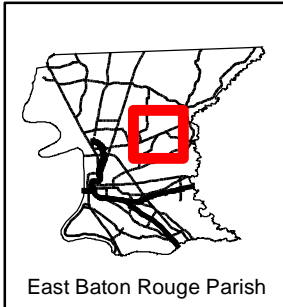
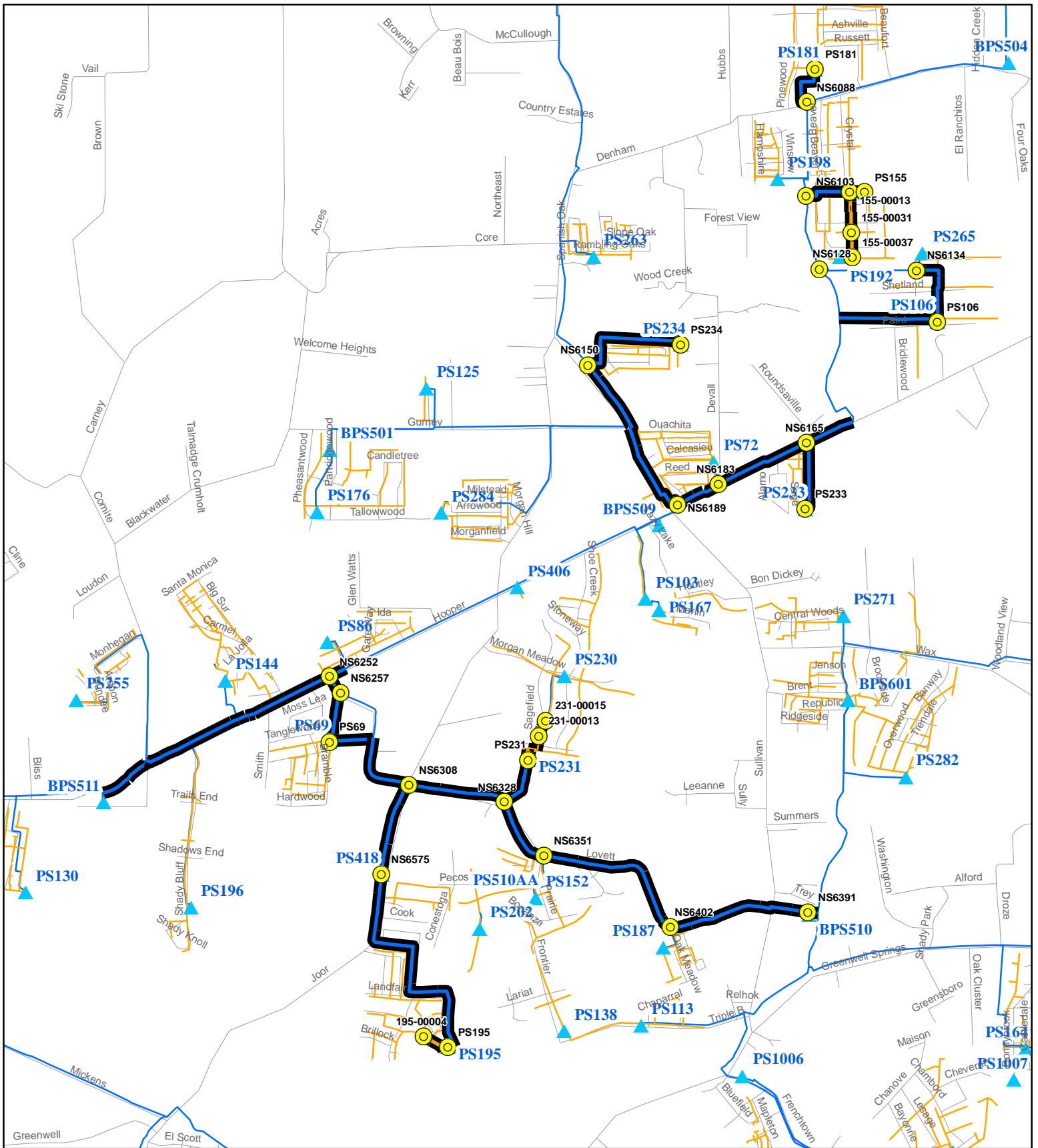
**Note:** The existing pipe sizes and lengths were obtained from the BTRSSO hydraulic model.

**Total Construction Cost Estimate (Group A) is \$14,229,000.**

**Total Construction Cost Estimate (Group B) is \$8,117,000.**

**Design is On-Going.**





**Proposed**

- New Pump Stations
- New Gravity Main
- New Force Main
- New Storage Facility

**Legend**

N

**Existing**

- Exist. Gravity
- Exist. Forcemain
- Exist. Pump Station
- Manholes/Nodes

0      0.5      1  
Miles

**Lovett Rd. - Greenwell Springs Rd.  
Group A  
NFE-C-0006  
Project Vicinity Map**

Figure 5-15a

BATON ROUGE **SSO**  
Program



### 5.4.7 NFE-C-0007 (Multiple BPS – Hooper Road – Lovett Road)

The NFE-C-007 (Multiple BPS – Hooper Road – Lovett Road) project has been combined with NFE-C-0005 (Multiple PS-Hooper Road-Greenwell Springs Road) from the October 2008 PDP. The combined project has been designated NFE-C-0005 (Hooper Road Pump Station Improvements) project and is described in Section 5.4.5.

### 5.4.8 NFW-C-0001 (Joor Road – Greenwell Springs Road Sewer Area Upgrades)

#### Project Description

#### *Purpose of the Project/Background Information*

The NFW-C-0001 (Joor Road –Greenwell Springs Road Sewer Area Upgrades) project involves the design and construction of forcemain upgrades in the North Forced West Basin. The upgrades are designed to alleviate chronic SSOs at the pump stations and increase the forcemain capacity. The upgrades range in size from 6 to 24 inch diameter.

#### *Location*

This project involves the replacement of portions of the North Forced West manifold forcemain system as well as replacement of some gravity segments in the same area as the forcemain segments. The locations of the gravity sewer and forcemains in this project are shown in Figure 5-16.

Forcemain segment PS 183 to NS 6485 begins outside the property boundary of PS 183. Upon leaving the pump station, the forcemain travels north for approximately 50 feet before reaching Canterbury Drive. At Canterbury Drive, the forcemain turns east and follows the road for approximately 225 feet to the intersection of Canterbury Drive and Greenforrest Drive. At Greenforrest Drive, the forcemain turns northward and follows the road for approximately 1,500 feet to the intersection of Greenforrest Drive and Greenwell Springs Road. At this point, the forcemain travels under Greenwell Springs Road and manifolds into a larger forcemain at node NS 6485.

Forcemain segment PS 119N to NS 6509 begins outside the property boundary of PS 119. Upon leaving the pump station, the forcemain travels west for approximately 50 feet before reaching Sarasota Drive. At Sarasota Drive, the forcemain turns north and follows the road for approximately 1,000 feet to the intersection of Sarasota Drive and Coral Drive. At Coral Drive, the forcemain turns northward and follows the road for approximately 500 feet to the intersection of Coral Drive and Greenwell Springs Road. At this point, the forcemain travels under Greenwell Springs Road and manifolds into a larger forcemain at node NS 6509.

Forcemain segment BPS 503 to NS 6438 begins outside the property boundary of BPS 503 and travels south for approximately 150 feet before reaching Greenwell Springs Road. At Greenwell Springs Road, the forcemain turns west and follows the north ROW for approximately 6,000 feet to the intersection of Greenwell Springs Road and Joor Road. At Joor Road, the forcemain turns north and follows the east ROW for approximately 7,600 feet to the intersection of Joor Road and Mickens Road. At the intersection of Joor Road and Mickens Road (node NS6438), the forcemain travels northwest along Mickens Road for approximately 7,000 feet to node NS6438, located at the intersection of Mickens Road and Lanier Drive.

Forcemain segment PS 288 to NS 6461 begins outside the property boundary of PS 288. Upon leaving PS 288, the forcemain travels northwest along an electrical servitude for approximately 2,650 feet to its intersection with Joor Road. At Joor road, the forcemain turns

south for approximately 250 feet to node NS 6461, located near the intersection of Mickens Road and Joor Road.

Forcemain segment NS 6499 to NS 6500 begins at node NS 6499, located near the end of the cul-de-sac on Dancy Avenue, and follows Dancy Avenue west to node NS6500, located near the intersection of Dancy Avenue and Joor Road.

Gravity segment 119N-00039 to PS 119N starts at manhole 119-00039, located near the intersection of Daytona Avenue and Flamingo Drive, runs northeast along Flamingo Drive, and turns north on Sarasota Drive to PS 119N, located on Sarasota Drive in between Flamingo Drive and Biscayne Drive.

Gravity segment 183-00009 to 183-00001Z begins at manhole 183-00009, located near the intersection of Cardigan Avenue and Kilkenny Drive, and follows Kilkenny Drive north to manhole 183-00001Z, which is located near the intersection of Kilkenny Drive and North Salem Drive.

Gravity segment 128-00041A to PS 128 starts at manhole 128-00041A, located near the intersection of Toledo Bend Avenue and Redlands Drive, and heads south to PS 128, located on Redlands Drive, in between Cedar Bend Avenue and Elaine Drive.

Gravity segment 128-00053A to 128-00045A starts at manhole 128-00053A, located south of the intersection of Wheeler Bend Avenue and White Sands Road and continues south parallel to White Sands Road behind houses to MH 128-00045A, located north of the intersection of White Sands Road and Toledo Bend Avenue.

### Scope

The scope of this project includes construction of approximately 3,045 feet of 10-inch and 12-inch gravity sewer upstream of PS 119N and PS 128 and approximately 2,600 feet of 21-inch gravity sewer upstream of PS 183. This project also includes construction of 29,800 feet of 4-inch, 6-inch, 10-inch, 16-inch, and 24-inch forcemain in the North Forced West basin. The detailed scope of this project is given in Table 5-14.

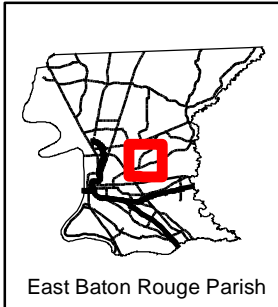
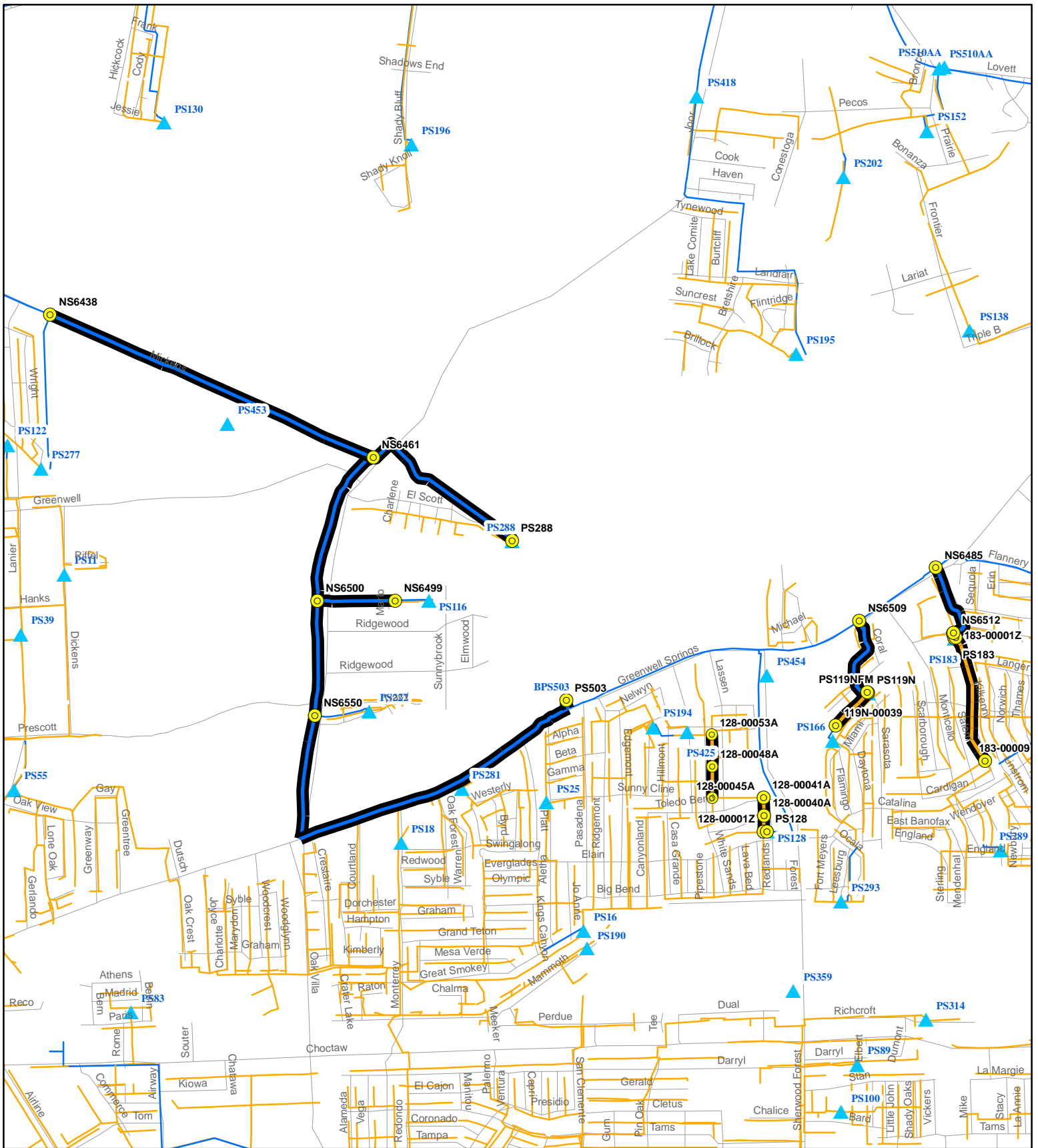
**TABLE 5-14**  
NFW-C-0001 (Joor Road – Greenwell Springs Road Sewer Area Upgrades) – Pipeline Information

US Node	DS Node	Length (ft)	Existing Diameter (in)	Proposed Diameter (in)	Comments
PS 183	NS6512	160	14	16	
NS6512	NS6485	1,600	14	16	
PS 119N	NS6509	1,860	8	10	
BPS503	NS6550	8,500	14	24	
NS6550	NS6500	2,300	18	24	
NS6500	NS6438	10,200	14	24	
PS288	NS6461	3,675	4	6	
NS6499	NS6500	1,500	3	4	
119N-00039	PS119N	990	8	10	Gravity segment
183-00009	183-00001Z	2,600	12, 15, & 16	21	Gravity segment
128-00041A	128-00040A	360	10	12	Gravity segment
128-00040A	128-00001Z	320	10	12	Gravity segment
128-00001Z	PS128	85	10	12	Gravity segment
128-00053A	128-00045A	1,290	8	10	Gravity segment

**Note:** The existing pipe sizes and lengths were obtained from the BTRSSO hydraulic model.

**Total Construction Cost Estimate is \$7,258,000.**

**Design is On-Going.**



**Legend**

<b>Proposed</b>	<b>Existing</b>
New Pump Stations	Exist. Gravity
New Gravity Main	Exist. Forcemain
New Force Main	Exist. Pump Station
New Storage Facility	Manholes/Nodes

0 750 1,500 3,000 Feet

**Joor Rd. - Greenwell Springs Rd. Sewer Upgrades NFW-C-001 Project Vicinity Map**

**Figure 5-16**

## 5.4.9 NFW-C-0002 (Choctaw Storage and Pump Station Facility)

### Project Description

#### ***Purpose of the Project/Background Information***

The NFW-C-0002 (Choctaw Storage and Pump Station Facility) project is a project that was a combination of the NFW-C-0002 (Choctaw Storage, PS52A, PS 51A, PS 51AA, and Forcemains) project and the NFW-C-0003 (Choctaw Storage Pump Station) project from the October 2008 PDP. The combined project has been designated the NFW-C-0002 (Choctaw Storage and Pump Station Facility) project and is described in this section.

This project involves the design and construction of a 26-million gallon (MG) storage facility (Choctaw Storage Facility) in west-central Baton Rouge Parish. This project also includes the construction of an overflow pump station for Pump Station 52 (PS 52A), an overflow pump station for PS 51 (PS 51A), a gravity trunk line overflow pump station (PS 51AA), and the forcemains to convey the flow from the pump stations to the storage facility. One of the forcemains also will serve as the return line for flow from the Choctaw Storage Facility to PS 52. The purpose of this facility is to detain peak wet weather flows during a storm event, and release them back into the collection system when demand is lower.

Construction of the storage facility will eliminate approximately 6.5 miles of pipe replacement, reduce the overall pipe diameter for the remaining sewer projects, and eliminate the need to increase the capacity of the North WWTP.

#### ***Location***

The location of the 26 MG storage facility is near the northeast corner of the intersection of Airline Highway and South Choctaw Drive. The C-P already owns the parcel of land. The locations of the pump stations are given in Table 5-15.

The force main from PS 52A to the storage facility will lead south along East Brookstown Drive to Winbourne Avenue. It will then head east along Winbourne Avenue to the intersection with Victoria Drive. From Victoria Drive, the main will cross Greenwell Springs Road and follow the frontage road at the intersection of Airline Highway and Greenwell Springs Road. The main will then cross Airline Highway and run parallel to Reco Avenue to the storage facility. The forcemain from PS 51A to the storage facility will run south along Sierra Vista Drive to Cuyhanga Parkway. It then travels west along Cuyhanga Parkway to the end of Cuyhanga Parkway and cross open field to Tom Drive. The main will run west along Tom Drive to Airway Drive where it will head north to West El Cajon Drive. It will run west along West El Cajon Drive north on Commerce Avenue and across Choctaw Drive to the storage facility. The forcemain from PS 51AA to the manifold point with the forcemain from PS 51A will begin near the intersection of Red Oak Drive and Sharp Lane and head north along Sharp Lane to the intersection with Cuyhanga Parkway. From this point, the force main will head west along Cuyhanga Parkway to the intersection with Sierra Vista Drive, where it will intersect with the force main from PS 51A.

#### ***Scope***

This project includes the construction of one, 20 MG storage tank and one 6 MG storage tank at the Choctaw Storage Facility and their associated piping, valving, controls, and appurtenances. The pump stations and forcemains are detailed in Table 5-15 and Table 5-16 and are shown in Figure 5-17.

**TABLE 5-15**  
NFW-C-0002 (Choctaw Storage and Pump Station Facility) – Pump Station Information

PS No.	Location	Existing Max Capacity (gpm)	Future Peak Wet Weather Flow (gpm)	Dry Weather (gpm)
PS51A	Sierra Vista Drive north of the intersection with Cuyhanga Parkway	New	8,333	0
PS51AA	Near the intersection of Red Oak Drive and Sharp Lane	New	3,125	0
PS 52A	NE of Brookstown Drive intersection with Winbourne	New	31,924	0

**Note:** The future peak wet weather flow was obtained from the BTRSSO hydraulic model.

**TABLE 5-16**  
NFW-C-0002 (Choctaw Storage and Pump Station Facility) – Forcemain Information

US No.	DS Node	Length (ft)	Existing Diameter (in)	Proposed Diameter (in)
PS52A	Choctaw Storage	10,100	New	42
PS51A	PS51WW1	130	New	30
PS51WW1	Choctaw Storage	10,780	New	30
PS51AA	PS51WW1	3,100	New	14

**Note:** The new pipe lengths were obtained from the BTRSSO hydraulic model.

**Total Construction Bid Amount is \$43,237,000.**

**Total Storage Facility Land Acquisition Cost is \$1,504,000.**

**Construction is On-Going.**





### **5.4.10 NFW-C-0003 (Choctaw Storage Pump Station)**

#### **Project Description**

This project has been deleted and combined with NFW-C-0002 (Choctaw Storage, PS 52A, PS 51A, PS 51AA, and Force mains) from the October 2008 PDP and the combined project has been designated as the NFW-C-0002 (Choctaw Storage and Pump Station Facility) and is described in Section 5.4.9.

### **5.4.11 NFW-C-0004 (Hooper Storage Facility)**

#### **Project Description**

##### ***Purpose of the Project/Background Information***

The NFW-C-0004 (Hooper Storage Facility) project involves the design and construction of a 10-MG storage facility (Hooper Storage Facility) in northwest Baton Rouge Parish as well as the replacement of BPS 897, an in-line booster station, with a wet well pump station. The purpose of this facility is to detain peak wet weather flows during a storm event and release them back into the collection system when demand is lower.

Construction of the storage facility will eliminate the need for approximately 13,200 feet of pipe replacement, reduce the overall pipe diameter for the remaining sewer projects, and eliminate the need to increase the capacity of the North WWTP.

##### ***Location***

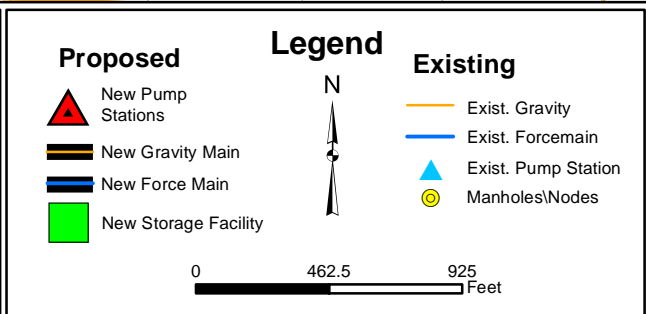
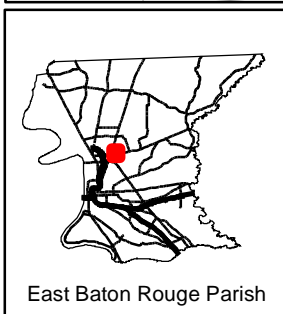
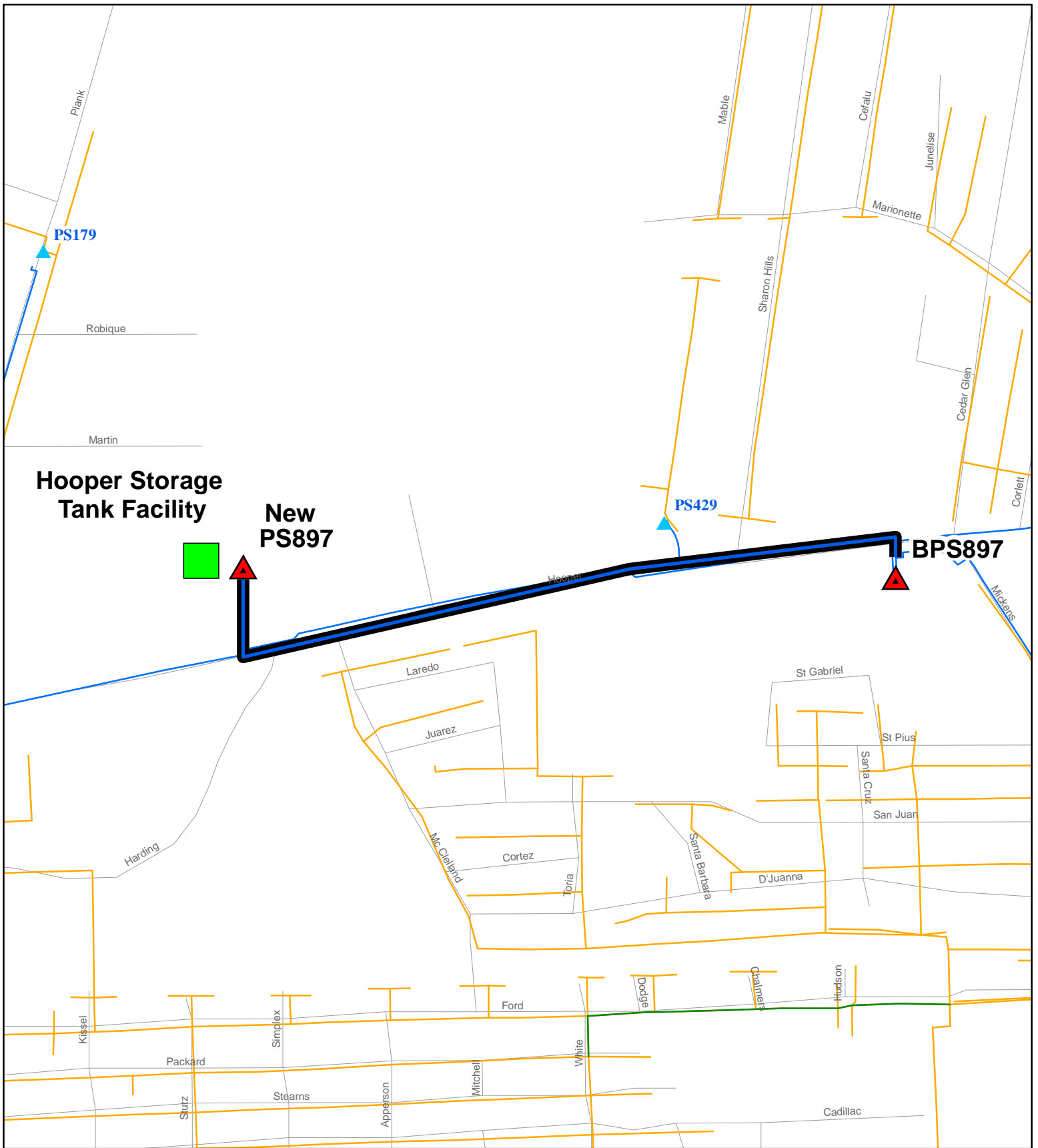
The proposed location of the storage facility is near the northwest corner of the intersection of Hooper Drive (Highway 408) and Mickens Road and is shown in Figure 5-18.

##### ***Scope***

The project scope includes the design and construction of the storage facility and associated pumping systems to transfer flows in and out of the facility. A new PS 897 will be built on the same site as the storage facility to transfer flows in and out of the facility. Once the storage facility and pump station are operational, BPS 897 will be abandoned.

**Total Construction Cost Estimate is \$19,115,000.**

**Design is On-Going.**



## Hooper Storage Facility

### NFW-C-0004

### Project Vicinity Map

Figure 5-18

BATON ROUGE SSO Program

## 5.4.12 Group Project 1A (Metro Airport Sewer Upgrades)

### Project Description

#### ***Purpose of the Project / Project Background***

The Group Project 1A (Metro Airport Sewer Upgrades) project involves the design and construction of upgrades to the collection system in the North Forced West Basin and the North Gravity Basin. This project includes upgrading portions of the gravity collection system located in the areas served by PS 46, PS 55, PS 39, PS 52, PS47, PS 54, PS 24, and PS 43. The upgrades are designed to alleviate chronic SSOs in the collection system and at the pump stations, as well as increase the system capacity. This project includes gravity sewers from the following projects in the January 2008 PDP: NGS-C-0001 (Progress Road – Baton Rouge Metro Airport), NFW-C-0005 (Airline Highway – Victoria Drive), and NFW-C-0006 (McClelland Drive). Some line segments, or portions of these projects, from the January 2008 PDP are being executed as part of the C-P Green Light Program Ford Street Project.

#### ***Location***

This project involves the replacement of portions of the gravity collection system, which are shown in Figure 5-19.

Gravity segment 054-00027 to 054-00001A begins at manhole 054-00027, located on Dutton Street, south of the intersection of Dutton Street and Cannon street. From this point, the gravity line travels south for approximately 1,200-feet to manhole 054-00009, located near intersection of Dutton Street and Greenwell Street. At manhole 054-00009, the gravity line turns east and follows Greenwell Street to manhole 054-00001A, which is adjacent to PS 54. The inverts along this segment are approximately 10 feet to 15 feet deep.

Gravity segment 052-00700 to 052-00521 begins at manhole 052-00700, located on Greenwell Street, and travels east along Greenwell Street to manhole 052-000710, located near the intersection of Greenwell Street and Winchester Avenue. At manhole 054-00710, the gravity line turns south and follows Winchester Avenue to the intersection of Winchester Avenue and Hollywood Street. At this point, the gravity line turns east and travels along Hollywood Street for approximately 950 feet before joining a larger trunk line at manhole 052-00521. The inverts along this segment are approximately 15 feet to 20 feet deep.

Gravity segment 024-00186 to 024-00011 begins at manhole 024-00186, which is located east of the intersection of Plank Road and Lorraine Street. At this point, the gravity line travels east along Lorraine Street for approximately 1,380 feet to manhole 024-000182, located near Lorraine Street. At manhole 24-000182, the gravity line turns south and travels to manhole 024-00088 and then follows Wildwood Parkway for approximately 1,400 feet to manhole 024-00011. The inverts along this segment are approximately 15 feet to 20 feet deep.

Gravity segment 024-00192 to 024-00182 begins at manhole 024-00192 which is located west of the intersection of Lorraine Street and Lemonwood Drive. At this point, the gravity line travels west along Lorraine Street for approximately 850 feet to manhole 24-000182, located near Lorraine Street. The inverts along this segment are approximately 15 feet to 20 feet deep.

Gravity segment 039-00035 to PS 39 begins at manhole 039-00035 located near Phebus Drive. From this point, the gravity line travels east for approximately 850 feet to manhole 039-00008. At manhole 039-00008, the gravity line connects with a larger trunk line. The trunk

line runs south for approximately 2,600 feet to PS 39. The inverts along this segment are approximately 10 feet to 15 feet deep.

Gravity segment 052-00214 to 052-00204 begins near the intersection of Videt Polk Drive and Lanier Drive and travels south along Lanier Drive to the intersection of Lanier Drive and Prescott Road.

Gravity segment 043-00095 to 043-00073 begins north of Interstate 110, near Baton Rouge Avenue. The gravity line travels north along Baton Rouge Avenue to the intersection of Baton Rouge Avenue and Hollywood Street.

Gravity segment 052-00882 to 052-00768 begins at manhole 052-00882 which is located at the intersection of Plank Road and Crown Avenue. From this point, the gravity line travels east along Crown Avenue approximately 1,100 feet to manhole 052-00451, located at the intersection of Crown Avenue and Beachwood Drive. Gravity segment 052-00451 to PS 47 begins at manhole 052-00451, located at the intersection of Crown Avenue and Beachwood Drive. From this point, the gravity line travels east until reaching 052-00583B located near the intersection of Crown Avenue and Winchester Avenue. The gravity segment travels south until reaching 052-00556JA, located near the intersection of Winchester Avenue and Glenn Oaks Drive, continuing east until reaching 052-00556D. After leaving 052-00556D, the gravity line travels south along McClelland Drive until reaching 052-00556DA, located at the intersection of Crestway Avenue and McClelland Drive. The gravity line continues east along Crestway Avenue until reaching 047-00008, located east of the Crestway Avenue and Buckeye Drive intersection. The gravity segment travels south until reaching PS 47, located near the intersection of Vineyard Drive and West Rio Drive.

Gravity segment 052-00583A to 052-00583B begins at manhole 052-00583A, located near Monarch Avenue and Winchester Avenue intersection. The gravity line travels south until reaching 052-00583B, located near the intersection of Crown Avenue and Winchester Avenue.

Gravity segment 047-00014 to 047-00008 begins at manhole 047-00014, located near Glen Oaks Drive and Buttonwood Drive intersection. The gravity line travels south until reaching 047-00008, located east of the Crestway Avenue and Buckeye Drive intersection.

Gravity segment PS92DS to 047-00003 begins at PS92DS, located north of Glen Oaks Drive and Landis Drive intersection. The gravity line travels southwest until reaching 047-00556, then travels south, crossing Glen Oaks Drive until reaching 047-00557. The gravity line travels south until reaching Maplewood Drive and then travels northwest along Maplewood Drive until reaching 047-00474, located near Maplewood Drive and Cedar Grove Drive intersection. After leaving 047-00474, the gravity line travels southwest until reaching 047-00472. The gravity segment travels west along the north side of the drainage canal until reaching 047-00003.

Gravity segment 052-00144 to 052-00001 begins at 052-00144, located south of the Evangeline Street and East Brookstown Drive intersection. The gravity line travels south down East Brookstown Drive until reaching 052-00400. The gravity line continues east until reaching 052-00001.

Gravity segment PS 35 DS to PS 52 begins at PS35DS, located near Maplewood Drive and Shiloh Street intersection. The gravity line travels southwest along the drainage canal until reaching 052-00295 (PS47DS). The gravity line travels south, from 052-00295 until reaching

052-00269A located on Greenwell Street between its intersections with Landis Drive and Loring Drive. The gravity line continues east on Greenwell Street for 268 ft until reaching 052-00280A and then continues south. The gravity segment continues to travel south along Victoria Drive until reaching 052-00100, located south of Victoria Drive and Prescott Road intersection. The gravity line travels southwest, crossing Airline Highway and traveling parallel to Bicentennial Place for 1,390 feet. The gravity line continues south until reaching 052-00006A and then travels west for 1600 feet until reaching 052-00001. The gravity segment travels southwest until reaching PS52, located near the intersection of East Brookstown Drive and Hendricks Avenue.

Gravity segment 052-00168 to 052-00161 begins at 052-00168, located at Prescott Road and Maribel Drive intersection. The gravity line travels west until reaching 052-00161, located at the intersection of Prescott Road and Victoria Drive.

### Scope

The detailed scope of this project is shown in Table 5-17.

**TABLE 5-17**  
Group Project 1A (Metro Airport Sewer Upgrades) – Pipeline Information

US Node	DS Node	Length (ft)	Existing Diameter (in)	Proposed Diameter (in)
047-00428	047-00418	221	10	18
047-00418	047-00417	313	12	21
047-00417	047-00029	1602	12	18
047-00264	047-00043	507	8	15
054-00027	054-00026	246	8	18
054-00026	054-00009	966	15	21
054-00009	054-00008	233	15	24
054-00008	054-00006	530	15	24
054-00006	054-00001A	177	15	24
054-00001A	PS54	77	15	24
052-00755	052-00521	499	18	27
052-00745	052-00755	235	18	27
052-00716	052-00745	816	18	27
052-00710	052-00716	289	18	27
052-00700	052-00710	1277	18	27
024-00192	024-00182	673	8	21
024-00186	024-00182	1373	10	21
024-00182	024-00110	323	15	21
024-00110	024-00101	301	15	21
024-00101	024-00088	332	18	21
024-00088	024-00067	349	18	24
024-00067	024-00064	365	18	27
024-00064	024-00030	338	21	27
024-00030	024-00011	347	21	27
052-00214	052-00209	1173	12	15

**TABLE 5-17**  
Group Project 1A (Metro Airport Sewer Upgrades) – Pipeline Information

US Node	DS Node	Length (ft)	Existing Diameter (in)	Proposed Diameter (in)
052-00209	052-00205	586	12	18
052-00205	052-00204	301	15	18
039-00035	039-00008	847	10	15
039-00008	039-00007	299	10	18
039-00007	039-00006	268	10	18
039-00006	039-00003	1436	10	21
039-00003	PS39	599	12	21
043-00095	043-00093	357	15	24
043-00093	043-00085	1198	15	24
043-00085	043-00076	1311	15	24
043-00076	043-00075	339	15	24
043-00075	043-00073	315	15	24
PS 23DS	043-00135	451	12	15
052-00014	052-00012	754	15	18
052-00882	052-00880	416	8	12
052-00880	052-00792	298	8	12
052-00792	052-00451	438	8	12
052-00451	052-00768	455	8	12
052-00583B	052-00556JA	1329	New	18
052-00556JA	052-00556D	990	15	21
052-00556DA	047-00192	1680	New	30
052-00556D	052-00556DA	342	18	30
052-00451	052-00583B	1627	New	12
047-00192	047-00191	320	8	30
047-00191	047-00009	375	8	30
047-00009	047-00008	257	10	30
047-00008	047-00005	896	24	36
047-00005	047-00004	352	24	36
047-00004	047-00003	154	24	42
047-00003	PS47	209	24	42
052-00583A	052-00583B	496	New	18
047-00014	047-00012	146	24	36
047-00012	047-00011	243	24	36
047-00011	047-00008	273	24	36
PS92DS	047-00556	129	8	12
047-00557	047-00474	1957	8	18
047-00556	047-00557	135	8	15
047-00474	047-00472	150	8	18
047-00472	047-00466	785	New	18

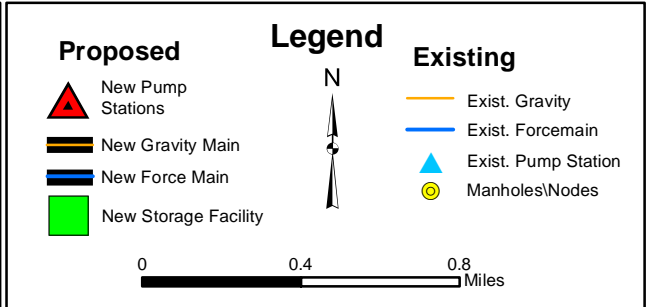
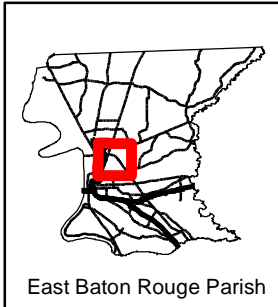
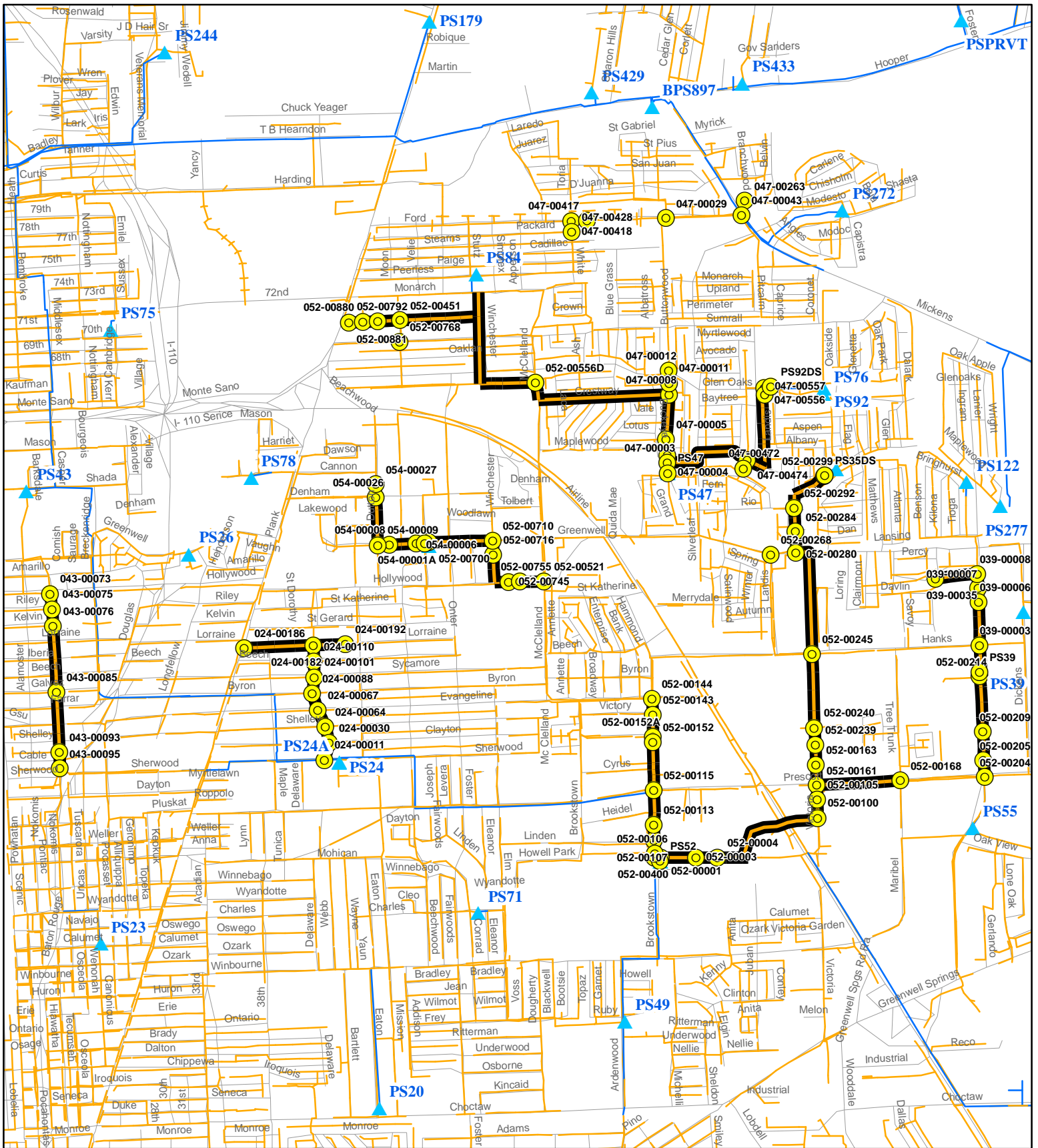
**TABLE 5-17**  
Group Project 1A (Metro Airport Sewer Upgrades) – Pipeline Information

US Node	DS Node	Length (ft)	Existing Diameter (in)	Proposed Diameter (in)
047-00466	047-00003	764	New	18
052-00400	052-00001	105	36	42
052-00152A	052-00152	118	30	42
052-00152	052-00115	959	30	42
052-00144	052-00143	306	30	42
052-00143	052-00152A	441	30	42
052-00115	052-00113	700	30	42
052-00113	052-00107	311	30	42
052-00107	052-00106	261	30	42
052-00106	052-00400	98	36	42
PS35DS	052-00299	27	8	15
052-00299	052-00295 (PS47DS)	634	8	21
052-00295 (PS47DS)	052-00292	262.4	8	42
052-00292	052-00284	469	8	42
052-00284	052-00280	414	8	42
052-00280A	052-00245	2007	New	42
052-00280	052-00280A	268	New	42
052-00245	052-00240	1452	30	48
052-00240	052-00239	361	30	48
052-00239	052-00163	399	30	48
052-00163	052-00161	404	30	48
052-00161	052-00105	290	30	48
052-00105	052-00100	367	30	48
052-00100	052-00067B	675	New	48
052-00067B	052-00006A	1253	New	48
052-00006A	052-00004	483	36	54
052-00004	052-00003	435	36	54
052-00003	052-00001	712	36	54
052-00001	PS52	69	48	66
052-00168	052-00161	1673	24	36

**Note** The existing pipe sizes and all pipe lengths were obtained from the BTRSSO hydraulic model.

**Total Construction Bid Amount is \$19,581,000.**

**Construction is On-Going.**



## Metro Airport Area Sewer Upgrades Group Project 1A

### Project Vicinity Map

Figure 5-19



### 5.4.13 Group Project 1B (Metro Airport Sewer Area Pump Station and Forcemain Upgrades)

#### Project Description

##### ***Purpose of the Project/Background Information***

Group Project 1B (Metro Airport Sewer Area Pump Station and Forcemain Upgrades) is a combination of two individual projects identified in the January 2008 PDP, specifically the NFW-C-0008 (Multiple Pump Stations – Airline Highway – Greenwell Street) and portions of NFW-C-0005 (Airline Highway – Victoria Drive). The combined project has been designated Group Project 1B (Metro Airport Sewer Area Pump Station and Forcemain Upgrades) project and is described in this section.

This project includes the upgrades of forcemain segments and pump stations in the North Gravity and North Forced West Basins. The Group Project 1B consists of the replacement of nine pump stations, replacement of 8,000 linear feet of 8-inch to 15-inch sanitary sewer forcemain pipeline, and 26,060 linear feet of new 30 sanitary sewer forcemain.

The pump station and forcemain upgrades will work in conjunction with the Group Project 1A gravity sewer upgrades in the North Gravity and North Forced West Basin projects to alleviate chronic SSOs at the pump stations and in the gravity basins upstream of the pump stations.

##### ***Location***

The locations of the pump stations are given in Table 5-18 and shown in Figure 5-20.

Group Project 1B is primarily located in the north Baton Rouge area. Detailed location descriptions of the required capacity improvements follow.

Forcemain segment PS45FM to North WWTP begins at PS 45 located near Clark Street and Granberry Drive. Upon leaving the pump station, the forcemain travel west and then south, traveling south down Devall Lane. After reaching Devall Lane and Blount Road, the forcemain travels west until reaching Liberty Drive. The forcemain travels south until the end of Liberty Drive and travels southwest near the airport runway until reaching Progress Road. The forcemain travels west down Progress Road until reaching the intersection with Elm Grove Garden Drive. The forcemain travels south down Elm Grove Garden Drive. The forcemain turns west near I-110 and travels west down Central Road. The forcemain travels southwest down Scotland Avenue and then travels west until reaching Mills Avenue. The forcemain continues west along Mills Avenue until reaching the North WWTP.

Forcemain segment PS277FM to NS6438 begins near PS 277, located at the end of Wright Drive. The forcemain travels north, parallel to Wright Drive until reaching NS6438, located on Mickens Road.

Forcemain segment PS275FM to NS6140AA (new node) begins at PS275, located at Glynn Road and Old Rafe Meyer Road. Upon leaving the pump station, the forcemain travels west along Old Rafe Meyer Road to a new node, NS6140AA, located at the intersection of Old Rafe Meyer Road and Highway 61.

Forcemain segment PS54FM to PS54DS begins at PS 54, located at Greenwell Street and Robertson Avenue. The forcemain travels north until reaching PS54DS.

Forcemain segment PS 47FM to PS 47DS begins at PS 47, located on Vineyard Drive between Grand Drive and West Rio Drive, and travels northeast towards Maplewood Drive. The forcemain segment then travels east and then southeast until reaching PS47DS located near West Fairlane Court.

Forcemain segment PS35FM to PS35DS begins at PS 35, located on Maplewood Drive between East Fairlane Court and Flag Street. The forcemain segment travels southwest until reaching PS 35DS, located near the intersection of Maplewood Drive and Shiloh Street.

Forcemain segment PS39FM to PS39DS starts at the new PS 39, located on Lanier Drive between Hanks Drive and Prescott Drive, and follows Lanier Drive south to manhole PS39DS.

### Scope

This project includes the replacement of PS 45, PS47, PS 35, PS 39, PS 54, PS 23, PS 275, and PS 277. This project also includes the replacement of the forcemains PS277, PS 275, PS 54, PS 47, PS 35, PS 39, and an extension of PS45 forcemain. Tables 5-18 and 5-19 show the detailed scope of this project.

**TABLE 5-18**

Group Project 1B (Metro Airport Sewer Area Pump Station and Forcemain Upgrades) – Pump Station Information

PS No.	Location	Existing Max Capacity (gpm)	Future Peak Wet Weather Flow (gpm)	Dry Weather (gpm)	Comments
PS45	Near intersection of 72nd Avenue and Yorkshire Street	9,652	16,558	1,917	Moved from NGS-C-0004
PS47	Vineyard Drive between Grand Drive and West Rio Drive	7,152	13,698	1,202	
PS35	Maplewood Drive between East Fairlane Court and Flag Street	694	1,687	323	
PS39	Lanier Drive between Hanks Drive and Prescott Drive	625	2,083	256	
PS54	Greenwell Street between North Foster Drive and Beechwood Drive	1,042	3,715	201	
PS23	Canonicus Street between Calumet Street and Navajo Street	1,528	1,590	418	
PS275	Intersection of Old Rafe Meyer Road and Glynn Road	694	1,574	0	
PS277	End of Wright Drive	208	661	134	

**Note:** The existing maximum capacities for the PSs were obtained from the DPW Field Pump Station Maintenance reference guide. The future peak wet weather flow was obtained from the BTRSSO hydraulic model.

**TABLE 5-19**  
 Group Project 1B (Metro Airport Area Forcemain Upgrades) – Forcemain Information

<b>US</b>	<b>DS</b>	<b>Length (ft)</b>	<b>Existing (in)</b>	<b>Proposed (in)</b>
PS45FM	North WWTP	23,256	New	30
PS277FM	NS6438	3,124	6	8
PS55FM	PS55DS	1,100	8	10
PS275FM	NS6140AA (new node)	3,400	8 & 10	12
PS54FM	PS54DS	60	8	15
PS47FM	PS47DS	2,803	16	30
PS35FM	PS35DS	240	6	8
PS39FM	PS39DS	630	8	10

**Note:** The existing pipe sizes and all pipe lengths were obtained from the BTRSSO hydraulic model.

**Total Construction Cost Estimate is \$20,700,000.**

**Design is On-Going.**



## 5.4.14 NFW-C-0007 (Plank Road – Port Hudson Pride Road Sewer Area Upgrades)

### Project Description

#### ***Purpose of the Project / Background Information***

The NFW-C-0007 (Plank Road – Port Hudson Pride Road Sewer Area Upgrades) project involves the design and construction of forcemain upgrades in the North Forced West Basin. The upgrades are designed to alleviate chronic SSOs at the pump stations and increase the forcemain capacity.

#### ***Location***

This project involves the replacement of portions of the North Forced West manifold forcemain system and locations are shown in Figure 5-21.

Forcemain segment BPS 513 to NS 6087 starts outside the property boundary of BPS 513. Upon leaving the pump station, the forcemain travels east for approximately 400 feet along Bentley Drive to the intersection of Bentley Drive and Plank Road. At Plank Road, the forcemain turns southwest and follows the road for approximately 1,800 feet to node NS 6087, located near the intersection of Plank Road and Kent Drive.

Forcemain segment PS 371 to NS 6049 starts outside the property boundary of PS371. Upon leaving the pump station, the forcemain travels north for approximately 50 feet, then west before reaching Danielle Avenue. At Danielle Avenue, the forcemain turns west and follows the road for approximately 1,000 feet to the intersection of Danielle Avenue and Eric Drive. At Eric Drive, the forcemain turns northward and follows the road for approximate 50 feet to the intersection of Eric Drive and an existing servitude. At this point the forcemain travels west for approximately 500 feet to manhole NS6049, located on the west side of Plank Road, and manifolds into the larger forcemain, which runs along Plank Road.

Forcemain segment PS OXLF to NS 6037 starts at PS OXLF, located near the intersection of Hereford Avenue and Little Farms Drive, and travels east along a servitude to node NS6307, which is located on Plank Road.

Forcemain segment PS 123 to NS 6033 starts outside the property boundary of PS 123. Upon leaving the PS, the forcemain travels west for approximately 50 feet before reaching Tucker Road. At Tucker Road, the forcemain turns north and follows the road for approximately 5,600 feet to node NS6033, located near the intersection of Tucker Road and Zachary Deerford Road.

Forcemain segment PS 124 to NS 6025 starts outside the property boundary of PS 124. Upon leaving PS 124, the forcemain travels south for approximately 50 feet before reaching Port Hudson Pride Road. At Port Hudson Pride Road, the forcemain turns east and follows the roadway for approximately 6,600 feet to node NS 6015, which is located south of the intersection of Port Hudson Pride Road and WJ Wicker Road. At WJ Wicker Road the forcemain turns southeast and follows the roadway for approximately 8,500 feet to node NS6022, located near the intersection of WJ Wicker Road and Plank Road. At node NS 6022, the forcemain turns south and follows Plank Road to node NS 6025, located near the intersection of Plank Road and Main Street/Zachary Deerford Road.

Forcemain segment PS 320 to NS 6033 begins outside the property boundary of PS 320. Upon leaving PS 320, the forcemain travels west for approximately 50 feet before reaching Buckhorn Drive. At Buckhorn Drive, the forcemain turns south and follows the roadway for approximately 1,600 feet as Buckhorn Drive turns to the west and intersects with Deercreek

Drive. At Deercreek Drive, the forcemain turns south and follows the roadway for approximately 1,000 feet to the intersection of Deercreek Drive and Greenwell Spring Point Road. At Greenwell Spring Point Road, the forcemain turns west and follows the road for approximately 2,000 feet to manhole NS6035, located near the intersection of Tucker Road and Greenwell Spring Point Road. The forcemain continues west 2,250 feet to NS6033.

Forcemain segment PS 243FM to NS6140 starts at PS 243, located at the northern end of Northgate Drive, and travels south along Northgate Drive to node NS6140, located at the intersection of Northgate Drive and Old Rafe Meyer Road. This forcemain will tie into the forcemain from PS 275, which is part of Group Project 1B (Metro Airport Area Sewer Pump Station and Forcemain Upgrades).

### Scope

The detailed scope of this project, which includes construction of forcemains in the North Forced West Basin, is shown in Table 5-20.

**TABLE 5-20**

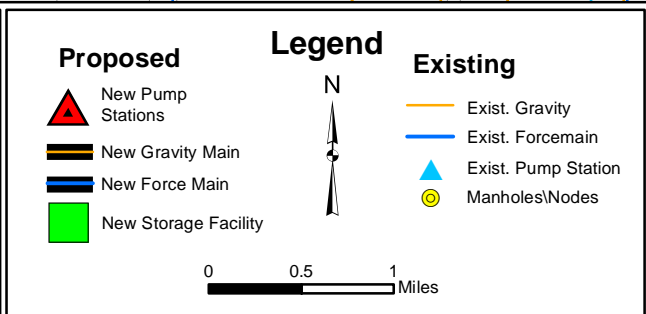
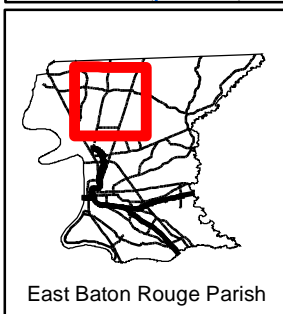
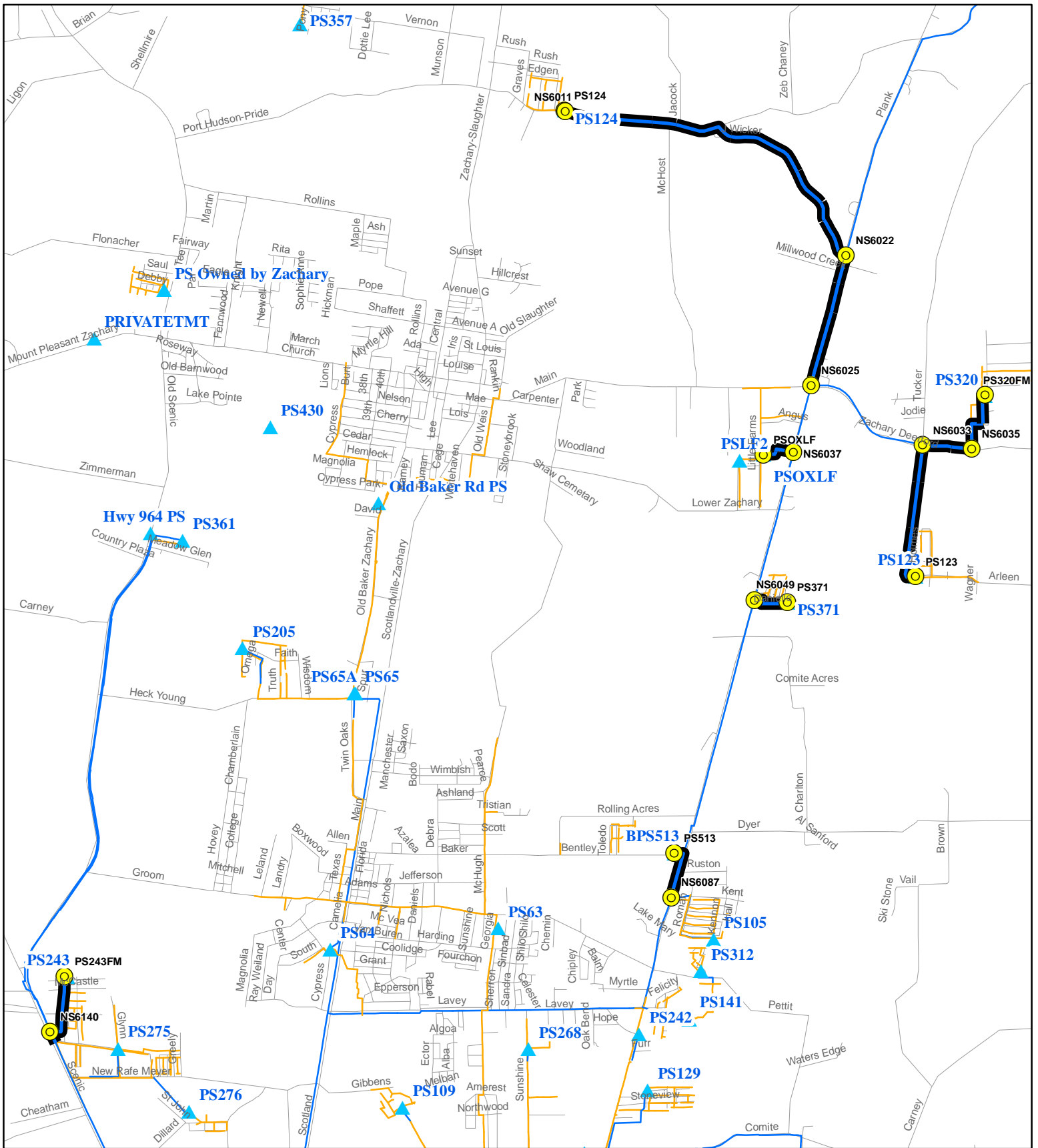
NFW-C-0007 (Plank Road – Port Hudson Pride Road Sewer Area Upgrades) – Pipeline Information

US Node	DS Node	Length (ft)	Existing Diameter (in)	Proposed Diameter (in)
BPS 513	NS6087	2,500	18	20
PS 371	NS6049	1,600	4	6
PS OXLF	NS6037	1,500	6	10
PS123	NS6033	3,000	6	8
PS124	NS6011	30	6	8
NS6011	NS6022	15,000	10	12
NS6022	NS6025	5,800	10	14
PS320FM	NS6033	5,250	6	8
PS243FM	NS6140	3,340	8	12

**Note:** The existing pipe sizes and lengths were obtained from the BTRSSO hydraulic model.

**Total Construction Cost Estimate is \$4,584,000.**

**Design is On-Going.**



**Plank Rd. - Port Hudson Pride Rd.**

**NFW-C-0007**

**Project Vicinity Map**

Figure 5-21

### 5.4.15 NFW-C-0009 (Multiple Pump Stations – Highway 61 – Plank Road)

#### Project Description

##### **Purpose of the Project / Project Background**

Project NFW-C-0009 (Multiple Pump Stations – Highway 61 – Plank Road) includes the upgrade of PS 243, PS 105, BPS 513, PS OXLF, PS 123, PS 124, PS 429, and PS 43. These upgrades are required to alleviate SSOs at and near the pump stations as well as in their respective upstream basins.

##### **Location**

The locations of the pump stations are given in Table 5-21 and is shown in Figure 5-22.

##### **Scope**

This project includes the replacement of the pump stations shown in Table 5-21. BPS 513, an in-line booster station, is being replaced with a wet well pump station.

**TABLE 5-21**  
NFW-C-0009 (Multiple Pump Stations – Highway 61 – Plank Road) – Pump Station Information

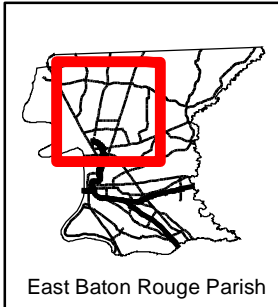
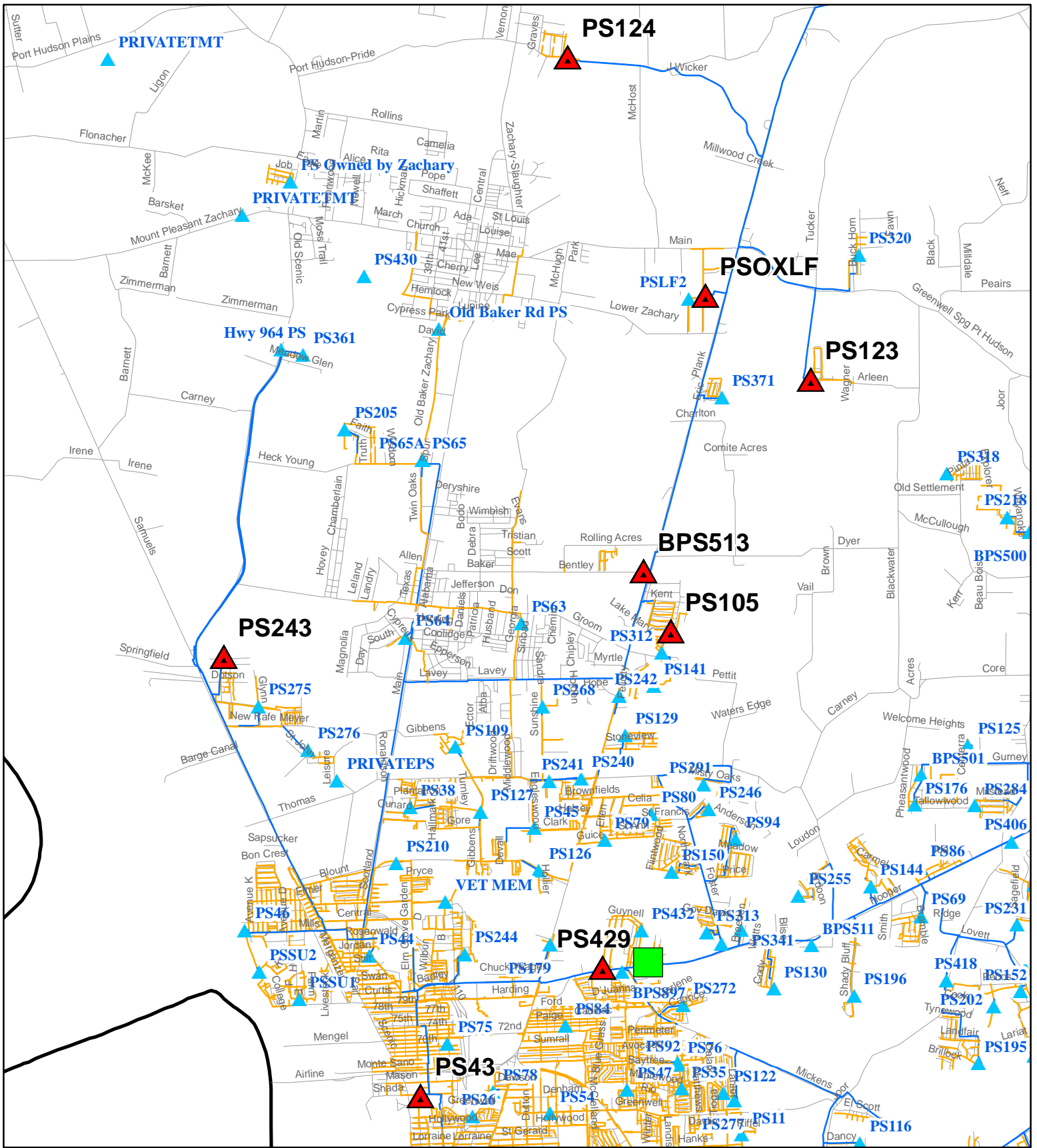
PS No.	Location	Existing Max Capacity (gpm)	Future Peak Wet Weather Flow (gpm)	Dry Weather (gpm)
PS 243	14551 Northgate Drive	606	1,139	234
PS 105	7428 Jupiter Drive	315	378	121
BPS 513	6405 Bentley Drive	1,439	3,255	246
PS OXLF	Int of Little Farms Drive and Jersey Drive	163	1,342	108
PS 123	9011 Arleen Avenue	149	403	93
PS 124	5153 Pride-Port Hudson Road	199	1,048	114
PS 429	8319 Hooper Ridge Blvd	392	115	10
PS 43	2364 Shada Avenue	1,773	9,710	2,256

**Note:** The existing maximum capacities for the PSs were obtained from the DPW Field Pump Station Maintenance reference guide. The future peak wet weather flow was obtained from the BTRSSO hydraulic model.

**Total Construction Cost Estimate is \$5,919,000.**

**Design is On-Going.**





**Legend**

<b>Proposed</b>	<b>Existing</b>
New Pump Stations	Exist. Gravity
New Gravity Main	Exist. Force Main
New Force Main	Exist. Pump Station
New Storage Facility	Manholes/Nodes

0 1 2 Miles

**Multiple PS - HWY 61 - Plank Rd.**

**NFW-C-0009**

**Project Vicinity Map**

Figure 5-22

BATON ROUGE **SSO** Program

## 5.4.16 NFW-C-0010 (Multiple Pump Stations – Prescott Road – Greenwell Springs Road)

### Project Description

#### ***Purpose of the Project / Project Background***

The NFW-C-0010 (Multiple Pump Stations – Prescott Road – Greenwell Springs Road) project includes the upgrade of PS 24, PS 24A, PS 503, PS 119N, and PS 183. These upgrades are required to alleviate SSOs at and near the pump stations as well as in their respective upstream basins.

#### ***Location***

The locations of the pump stations are shown in Table 5-22 and in Figure 5-23.

#### ***Scope***

This project includes the replacement of pump stations as outlined in Table 5-22.

**TABLE 5-22**  
NFW-C-0010 (Multiple Pump Stations – Prescott Road – Greenwell Springs Road) – Pump Station Information

PS No.	Location	Existing Max Capacity (gpm)	Future Peak Wet Weather Flow (gpm)	Dry Weather (gpm)
PS 24	Sherwood Street between Wildwood Parkway and Lemonwood Drive	4,028	3,867	2,345
PS 24A	Sherwood Street between Wildwood Parkway and Lemonwood Drive	5,902	3,692	N/A
PS 503	Greenwell Springs Road between the intersection of Aletha Drive and Pasadena Drive	2,847	4,095	763
PS 119N	Sarasota Drive between Biscayne Drive and Flamingo Drive	417	968	354
PS 183	Canterbury Drive between the intersection of Greenforest Drive and Monticello Blvd	1,528	2,204	972

**Note:** The existing maximum capacities for the PSs were obtained from the DPW Field Pump Station Maintenance reference guide. The future peak wet weather flow was obtained from the BTRSSO hydraulic model.

**Total Construction Cost Estimate is \$4,754,000.**

**Design is On-Going.**



## 5.4.17 NFW-HWY61 (Zachary Area Transmission Network Improvement Project – Phases I, II, III, and IV)

### Project Description

#### **Purpose of the Project / Project Background**

The purpose of the NFW-C-HWY61 (Zachary Area Transmission Network Improvements) project is to address inadequate capacity in the Baker/Zachary contributing area and to divert flow from the Zachary contributing area around the Comite Diversion Canal to the North WWTP. This project also includes conversion of the Red Mud Lakes facility into a permanent storage facility, which will reduce the peak flows to the North WWTP from the Zachary area.

#### **Scope**

The NFW-C-HWY61 project includes construction of pump stations, forcemains, and an equalization basin/storage facility to serve the Zachary area north of the Comite Diversion Canal. The project will re-route Zachary flows directly to the North WWTP, freeing up currently utilized capacity in the Baker system. The forcemains, shown in Figure 5-24, begin at the northern border of East Baton Rouge Parish and follow Highway 964 southward to its intersection with the Entergy transmission main right-of-way. This forcemain will increase in size as it runs southward, from a 16-inch to a 30-inch pipe, since it will receive flow from this area as it develops. The existing Copper Mill pump station (PS 430) will pump through its existing 16-inch forcemain to the Hwy 964 PS located at the intersection of the Entergy right-of-way and Highway 964. A new pump station (Old Baker Road PS), located north of the intersection of Old Baker Road with the Entergy right-of-way, will capture all sewage from the Old Baker Road gravity main and pump through a 24-inch forcemain westward to Highway 964. The Hwy 964 PS will collect the flow from the 30-inch forcemain from the north, the existing 16-inch Copper Mill forcemain, and the new 24-inch Old Baker Road forcemain. This pump station will pump through a 48-inch forcemain westward along the Entergy right-of-way. The 48-inch forcemain will then follow Barnett Road, and cross Highway 61, to the Red Mud Lakes Equalization Facility.

The 20 MG equalization facility will be built inside the existing Red Mud Lakes facility that the C-P purchased from Kaiser Aluminum in 2004. The equalization basin will be utilized for storage during wet weather when flows in the forcemain exceed 20 mgd. A pump station with a capacity of 20 mgd, constructed on the Red Mud Lakes site, will pump the flow from the equalization facility to the North WWTP through a 30-inch forcemain that travels southeasterly along an existing servitude that is located to the west of Highway 61.

Table 5-23 below shows the capacities of each of the pump stations. Table 5-24 shows the sizes and lengths of the forcemains.

**TABLE 5-23**

NFW-C-HWY61-PhI (Zachary Area Transmission Network Improvement Project [ZATNIP] – Phase I) – Pump Station Information

PS No.	Location	Existing Max Capacity (gpm)	Future Peak Wet Weather Flow (gpm)
Old Baker Road PS	West of the intersection of Plank Road with Entergy Right-of-Way	New	10,188
Hwy 964 PS	Intersection of Highway 964 and Entergy Right-of-Way	New	27,257
Red Mud Lakes PS	Red Mud Lakes Equalization Facility, near East Baton Rouge Parish Landfill	New	13,899

**Note:** The existing maximum capacities for the PSs were obtained from the DPW Field Pump Station Maintenance reference guide. The future peak wet weather flow was obtained from the BTRSSO hydraulic model.

**TABLE 5-24**  
NFW-C-HWY61 (ZATNIP) - Forcemains

US Node	DS Node	Length (ft)	Existing Diameter (in)	Proposed Diameter (in)	Comments
Old Baker PS	Hwy 964 PS	10,500	New	24	Phase IV
Northern Parish Boundary	Hwy 964 PS	3,100	New	16	Phase IV
Northern Parish Boundary	Hwy 964 PS	8,850	New	20	Phase IV
Northern Parish Boundary	Hwy 964 PS	2,000	New	24	Phase IV
Northern Parish Boundary	Hwy 964 PS	11,630	New	30	Phase IV
Hwy 964 PS	Red Mud Lakes EQ Facility	33,900	New	48	Phase III
Red Mud Lakes EQ Facility	North WWTP	32,750	New	30	Phase II

Note: The pipe sizes and pipe lengths were obtained from the BTRSSO hydraulic model.

The project was separated into four construction contracts for ease of management and execution, as follows:

- ZATNIP Phase I - 3 Pump Station Sites and Equalization Basin - 3 pump stations, 14 to 40 mgd and a 20 MG Equalization Basin
- ZATNIP Phase II - Red Mud Lakes Force Main to NWWTP - 32,750 linear feet, 30-inch
- ZATNIP Phase III - Force Main from Highway 964 to the Red Mud Lakes - 33,900 linear feet, 48-inch
- ZATNIP Phase IV - Zachary Interceptor, Old Baker Road and Highway 964 Forcemains - 36,100 linear feet, 16-inch to 20-inch

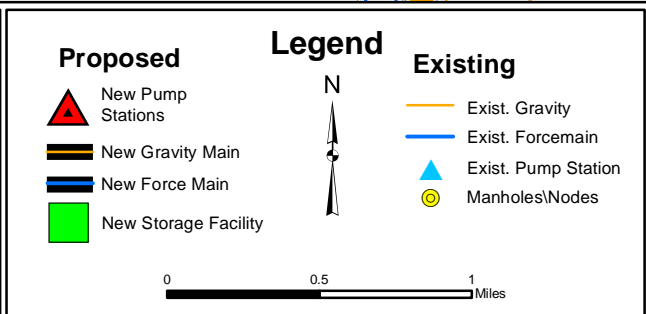
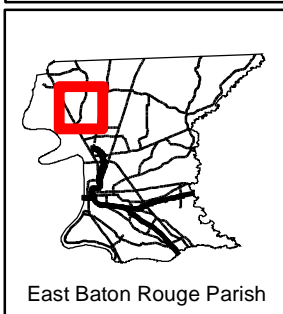
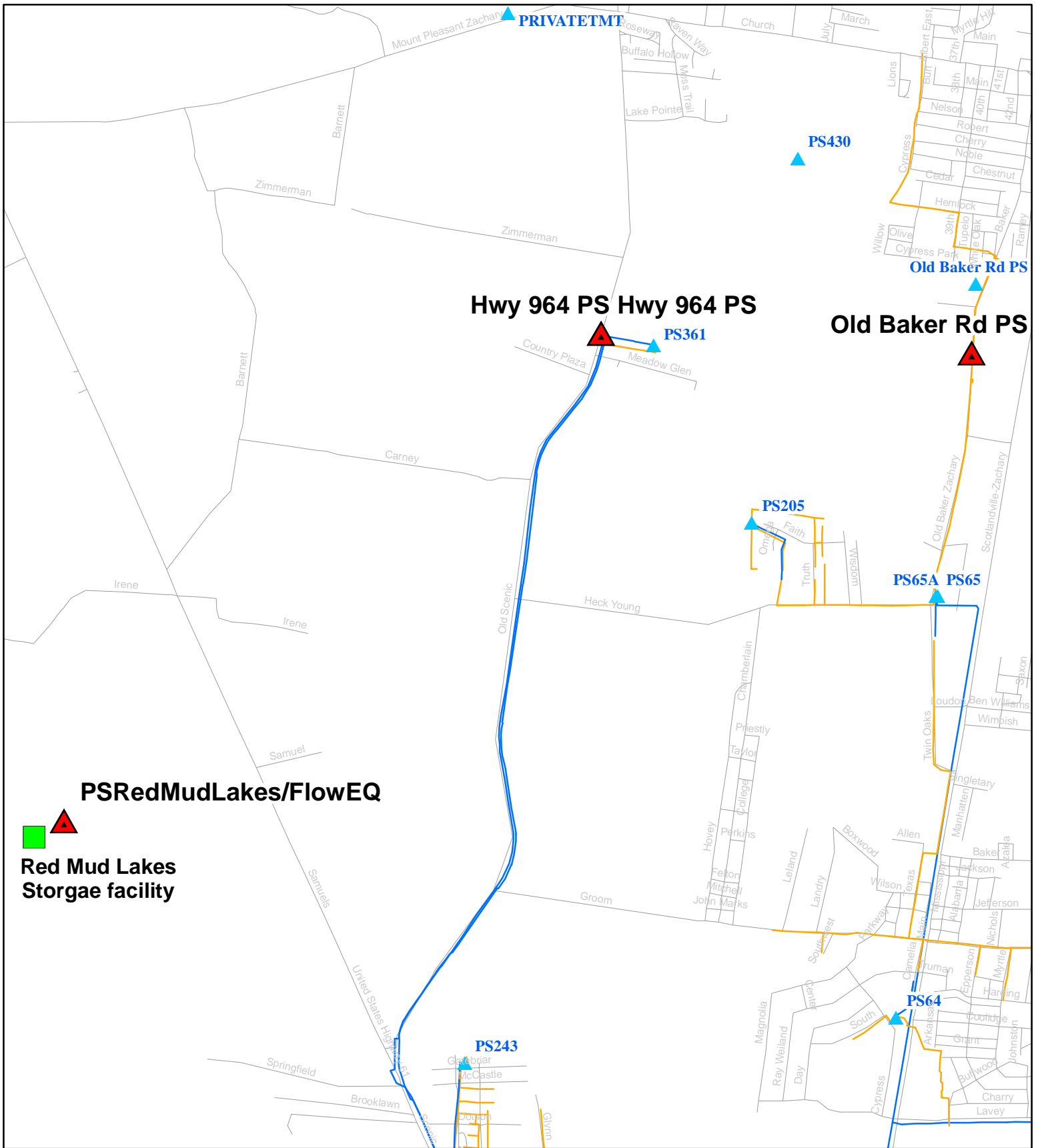
**Total Construction Bid Amount (Phase I) is \$18,487,000.**

**Total Construction Cost Estimate (Phase II) is \$14,584,000.**

**Total Construction Bid Amount (Phase III) is \$8,948,000.**

**Total Construction Bid Amount (Phase IV) is \$7,091,000.**



**Construction is On-Going for Phases I, III, and IV; Design is On-going for Phase II.**

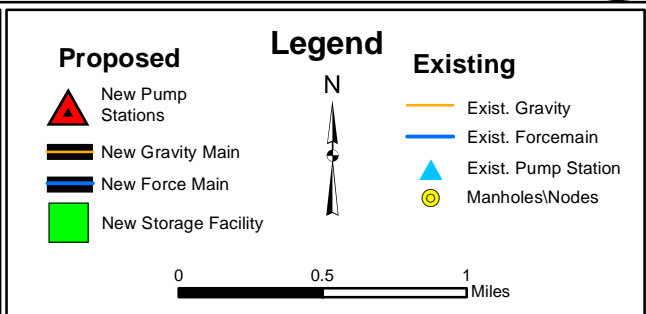
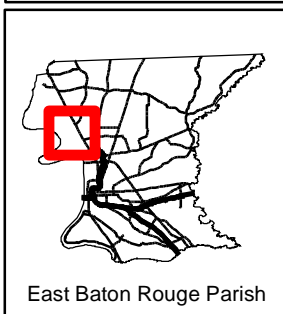
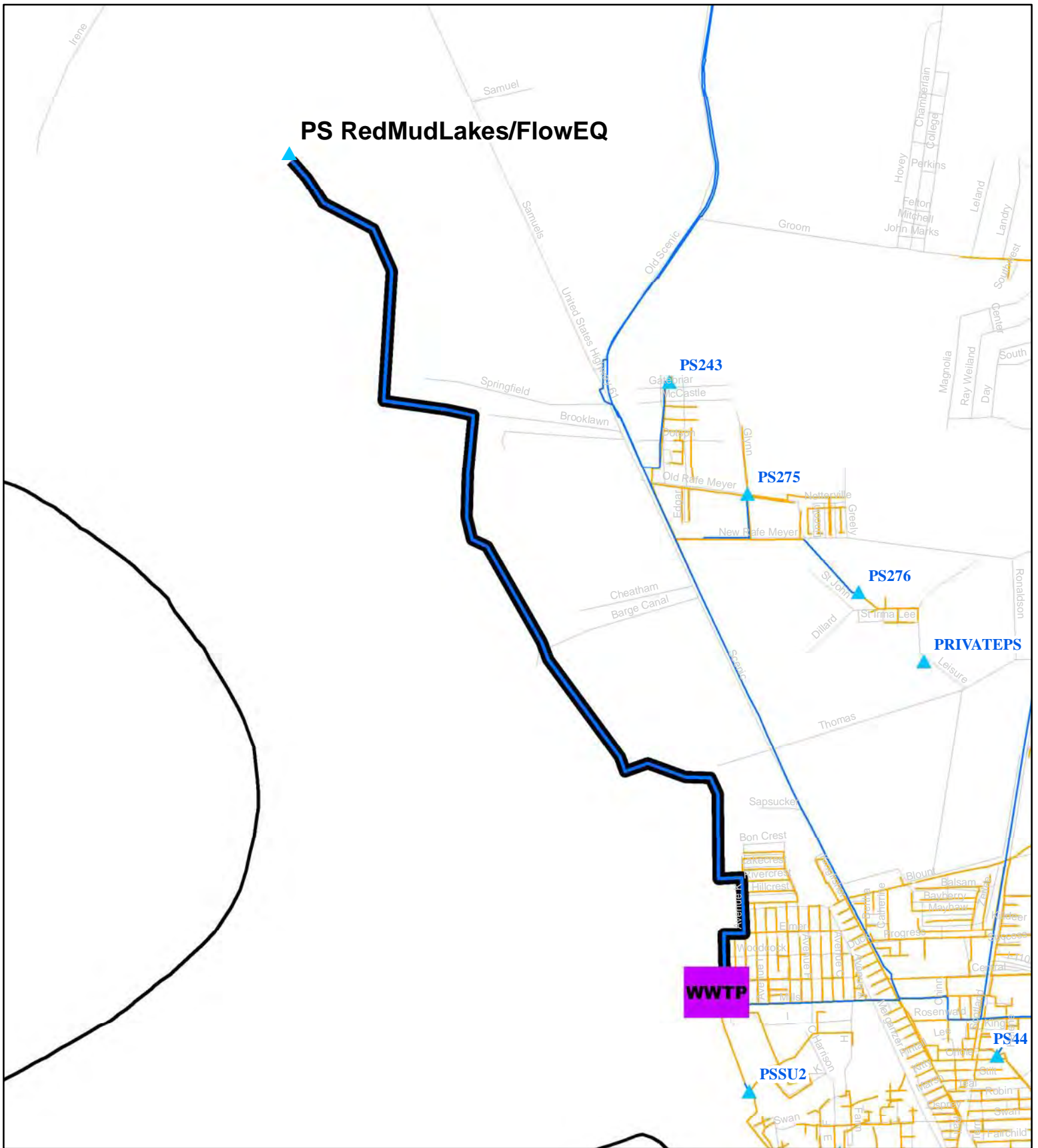


**Zachary Area Transmission Network Improvement Project - Phase I**

**NFW-C-HWY 61 Project Vicinity Map**

**Figure 5-24A**

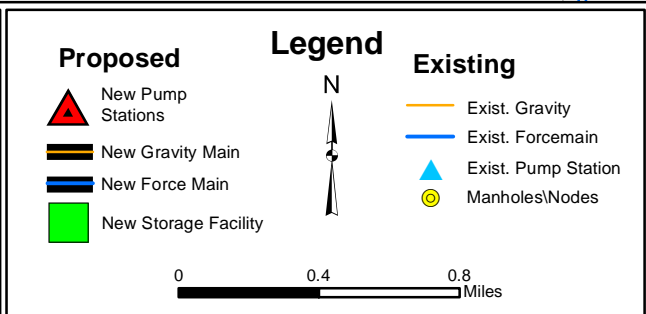
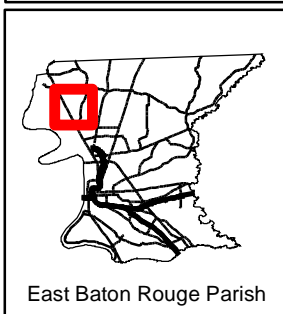
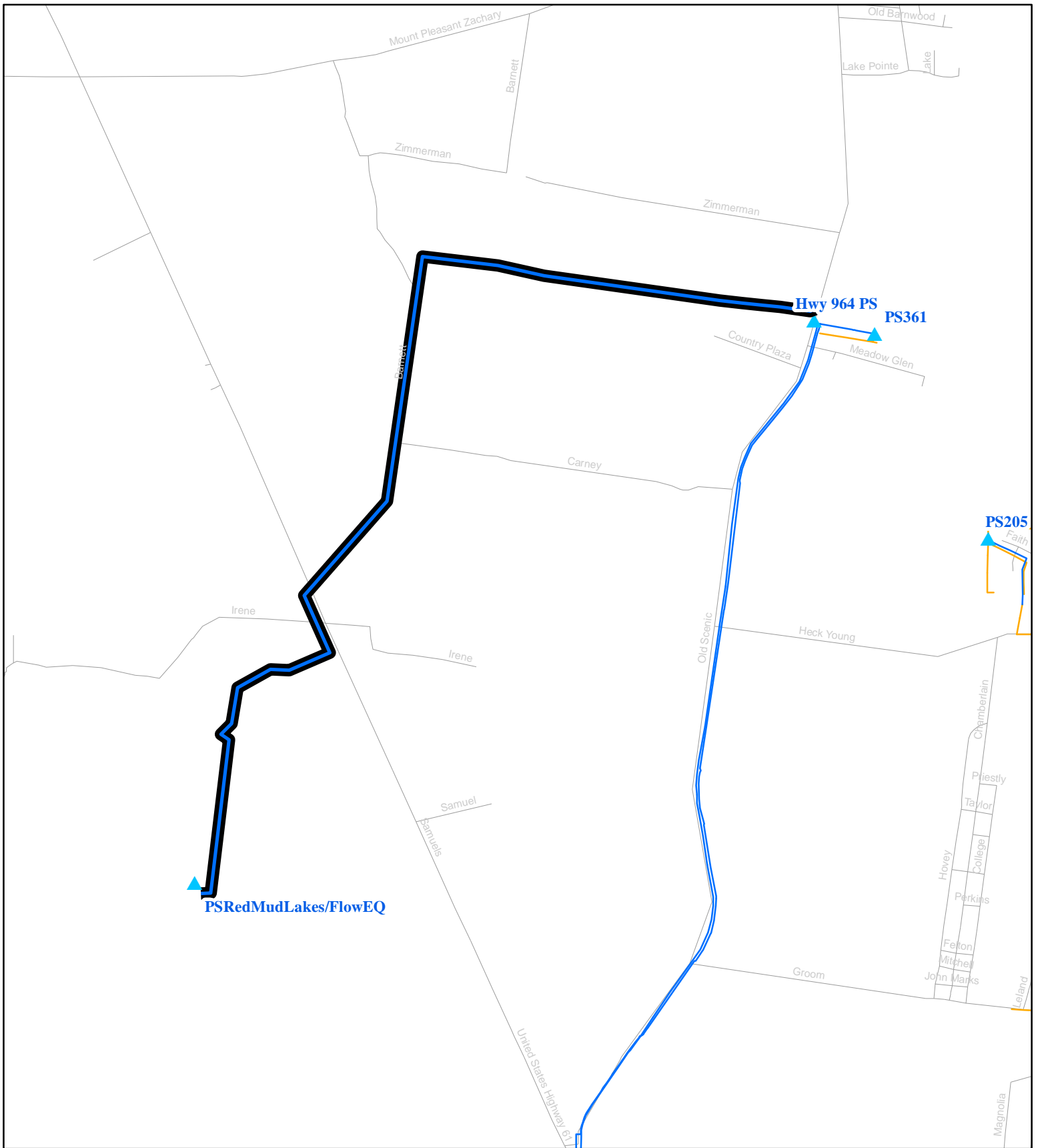





**Zachary Area Transmission Network Improvement Project - Phase II**

**NFW-C-HWY 61 Project Vicinity Map**

**Figure 5-24B**



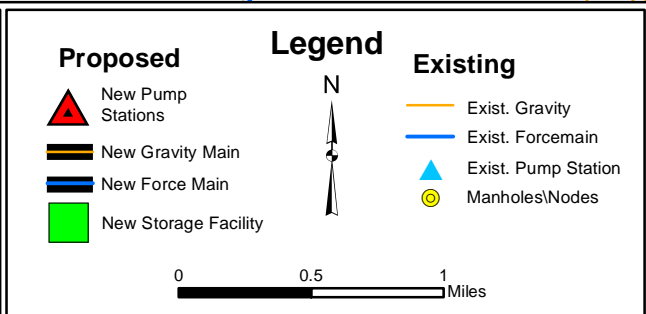
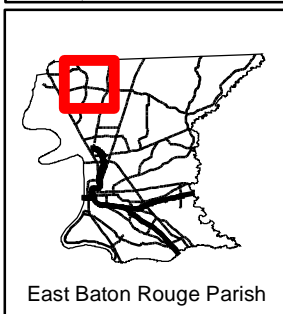
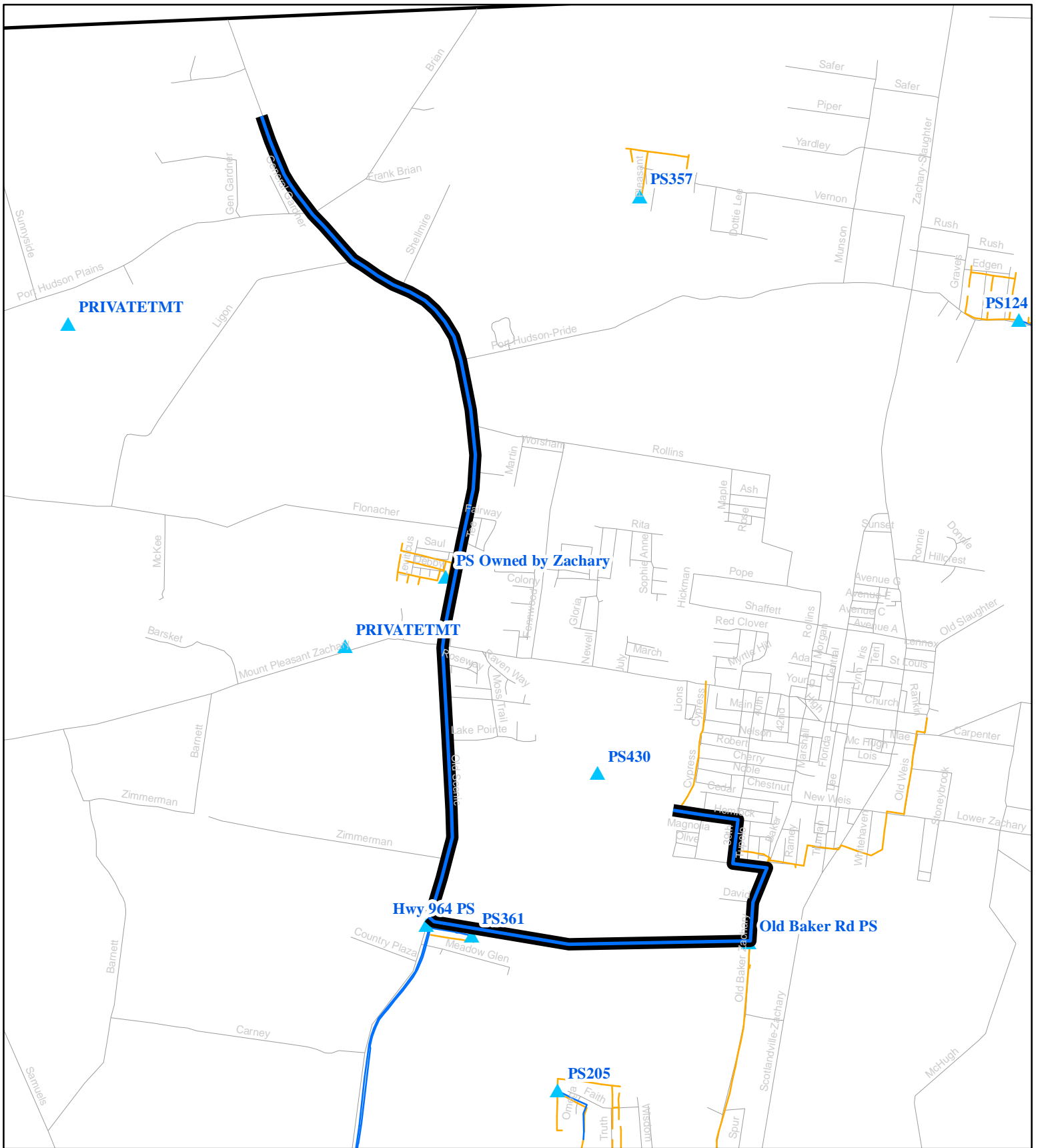
**Zachary Area Transmission Network Improvement Project - Phase III**

**NFW-C-HWY 61 Project Vicinity Map**

Figure 5-24C





**Zachary Area Transmission Network Improvement Project - Phase IV**

**NFW-C-HWY 61**

**Project Vicinity Map**

**Figure 5-24D**

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## 5.5 North WWTP Master Plan Improvements

### 5.5.1 Background

Capacity improvements are not required at the North WWTP, so there are no wet weather projects at the North WWTP. However, the treatment plant is more than 30 years old, so several improvements are needed to keep the plant up and running. The *Draft Master Plan* (CH2M HILL, 2008) outlined the needed improvements in two priorities: Priority One and Priority Two. In addition to the Priority One and Priority Two improvements, the C-P also is planning to implement the North WWTP Public Project in order to provide a buffer zone to residents in the area of the North WWTP. Once completed, the project will minimize odor and visual impacts from the North WWTP and enhance the beautification of the area surrounding the plant.

### 5.5.2 North WWTP Public Project

In order to resolve odor control complaints from nearby residents of the North WWTP, the C-P has developed a public project for implementation which would create a buffer zone between the North WWTP and the adjacent residential neighborhood. This project is not currently a requirement of the Consent Decree (2001) or Consent Decree Amendment (2009) and is not funded as such. The proposed public project presents a logical and reasonable method for determining where to draw a “boundary” or “buffer” line surrounding the North WWTP facilities. The project includes a minimum 300 foot buffer adjacent to the existing North WWTP facility boundary. The justification behind the buffer border of 300 feet, or more, is primarily based on results from the *Draft Wastewater Master Plan - Odor Study* (CH2M HILL, 2008). The plan takes into account the future odor impacts to homeowners in the area, and as such includes properties in the buffer zone which could potentially receive the greatest amount of odors from the WWTP. Only those properties that the study determined to fall within an area with greater potential for increased odor were included. This North WWTP Public Project will include the acquisition of several properties in the vicinity of the North WWTP, demolition of buildings, and green space area/neighborhood beautification (tree and shrub plantings).

### 5.5.3 Priority One Improvements

Priority One improvements are urgent needs, which include health and safety, code compliance, and regulatory compliance. Health and safety needs include improvements required to mitigate endangerment to human health and safety, such as chlorine gas storage, missing/damaged handrails, and equipment in deteriorated conditions. Code compliance needs include improvements that are required to meet building codes, such as those outlined in the *Master Plan – Wastewater Treatment Plant Building Condition Assessment TM* (refer to *Draft Master Plan*; CH2M HILL, 2008). Regulatory compliance issues include improvements that are required to meet regulations, such as discharge limits. No additional facilities are needed at the North WWTP for regulatory compliance. In addition to the *Draft Master Plan* (CH2M HILL, 2008), several process basin structural issues have been identified, which also will be included in the Priority One improvements.

The Priority One improvements included building improvements, process basin improvements, equipment improvements, alternate disinfection, and standby power.

### **Building Improvements**

The *Master Plan – Wastewater Treatment Plant Building Condition Assessment*<sup>TM</sup> (CH2M HILL, 2008) recommends improvements to buildings located at the North WWTP. The *Draft Master Plan* recommends that the following building components be repaired or replaced:

- Metal windows
- Roofing
- Damaged walls and floors
- Ventilation systems

### **Process Basin Improvements**

Since the Draft Master Plan was published in 2008, CH2M HILL has identified additional necessary improvements to the process basins. This plan recommends that the following components be repaired:

- Primary settling tanks
- Final settling tanks
- Trickling filters
- Solids handling

### **Improvements Due to Equipment Condition**

The *Master Plan – Existing Wastewater Treatment Plant Descriptions and Infrastructure Condition Assessment* (CH2M HILL, 2008) recommends the following modifications at the North WWTP due to the condition assessment of Priority One.

- Process Equipment – 71 mechanical/electrical items to be replaced
- Handrail replacement/reconditioning

### **Alternate Disinfection**

The C-P currently utilizes gaseous chlorine for wastewater disinfection, which poses a significant health and safety hazard for plant staff and the surrounding community. Therefore, the *Draft Master Plan* (CH2M HILL, 2008) recommends that gas chlorine disinfection be abandoned at the North WWTP for a less hazardous alternative. A disinfection technology alternative analysis was performed and is outlined in *Master Plan – Disinfection Assessment for the Baton Rouge North, Central, and South Wastewater Treatment Plants* (CH2M HILL, 2008). The technologies that were evaluated included purchased sodium hypochlorite, on-site generation of sodium hypochlorite, ultraviolet (UV) disinfection, and a combination of UV disinfection and purchased sodium hypochlorite.

At the North WWTP, use of purchased 12.5% sodium hypochlorite is the least-costly alternative, given a 20-year present worth basis. UV was found to be considerably more expensive on a present worth basis than sodium hypochlorite, primarily because it would also require upgrading the North WWTP to a trickling filter/solids contact process. Trickling filter effluents are considered unsuitable for UV disinfection.

### **Standby Power**

Standby power for the North WWTP is discussed in the Emergency Generators section of this PDP.

## 5.5.4 Priority Two Improvements

Priority Two improvements include the operations and maintenance needs: asset preservation, cost efficiency needs, and environmental needs. Asset preservation needs include improvements that are required to preserve existing assets, such as screening and grit removal. Cost efficiency needs include improvements that are required to increase the efficiency of operations and maintenance, such as SCADA. Environmental needs include improvements that are required to improve the overall environment of the North WWTP, such as odor control.

The improvements included in Priority Two are new preliminary treatment, a new influent pump station, comprehensive odor control, digester gas utilization, and SCADA.

### New Preliminary Treatment and Influent Pump Station

The *Master Plan – Existing Wastewater Treatment Plant Descriptions and Infrastructure Condition Assessment* (CH2M HILL, 2008) recommends the following modifications at the North WWTP due to the condition assessment for Priority Two.

- New preliminary treatment (screenings and grit removal)
- New influent pump station

These facilities will allow the North WWTP to continue to operate into the future.

### Comprehensive Odor Control

Odor issues were evaluated at each of the three large WWTPs. This evaluation included conducting air sampling to determine where odors are experienced at each WWTP. Once the odor issues were identified, several odor control technologies were evaluated. Biotowers are recommended as the primary odor control technology, with some other technologies being used for specific odor issues, such as those at dewatering facilities. Refer to *Master Plan – Odor Control Analysis and Facility Plan Recommendations* (CH2M HILL, 2008) for more information.

The North WWTP has the highest odor emissions, which are creating a nuisance for nearby residents. Given resident complaints at the North WWTP, the North WWTP Odor Control Project, which included chemical feed at five pump stations feeding into the treatment plant and biotowers at the headworks, was given a high priority and this solution is expected to remediate the problem. Construction of this project is complete.

Comprehensive odor control improvements recommended in the Priority Two project at the North WWTP as a minimum include:

- Install flat covers on the primary effluent weir and launder portions of the primary clarifiers with biotower odor treatment.
- Rehabilitate the existing carbon scrubbers on the dewatering building and add a first-stage wet scrubber.
- Provide scrubbers and covers at the new influent pump station and headworks.

### Digester Gas Utilization

An evaluation of the potential to utilize biogas that is a by-product of the anaerobic digestion process was discussed in the *Master Plan – Biogas Storage and Utilization TM*

(CH2M HILL, 2008). The feasibility to capture the biogas and utilize it as an alternative fuel for heating the anaerobic digesters, rather than flaring the biogas and utilizing natural gas for heating (the current practice at all three large WWTPs) was evaluated. During the evaluation, it was found that most of the gas storage equipment, gas compressors, and engine generators that are necessary to utilize biogas were present but not in use at any of the three large WWTPs. Based on the evaluation, biogas storage installation is recommended for the North WWTP. The stored biogas would be used for heating the anaerobic digesters.

## SCADA

The North WWTP SCADA system is discussed in the SCADA section of this PDP.

### 5.5.5 Estimated Costs

The *Draft Master Plan* outlines the estimated construction cost of the Priority One and Priority Two improvements. The costs for standby power and SCADA are included in the Emergency Generators and SCADA sections of this document, although they also are shown in Table 5-25 below. The table outlines the estimated construction costs of the North WWTP Master Plan improvements. Even though costs are presented separately for Priority One, Priority Two, Standby Power, and SCADA, one project will be designed and constructed to implement all improvements at once. The Total Construction Cost Estimate, assuming that sales tax will be waived on materials, for the North WWTP Master Plan Improvements is \$50,000,000.

**TABLE 5-25**  
Summary of Estimated Construction Costs for the North WWTP

Item	Estimated Cost
<b>Priority One</b>	
Building Condition Assessment	\$3,000,000
Process Basin Condition Assessment	\$9,000,000
Equipment Condition Assessment	\$4,200,000
Handrail Rehabilitation/Replacement	\$800,000
Alternate Disinfection (Sodium Hypochlorite)	\$2,500,000
Priority One Sub-Total Construction Bid Amount	\$19,500,000
Estimated Sales Tax Waiver	-\$579,000
<b>Priority One Total Construction Cost Estimate</b>	<b>\$18,921,000</b>
<b>Standby Power (including estimated sales tax waiver)</b>	<b>\$5,337,000</b>
<b>Priority Two</b>	
New Screenings/Grit Removal	\$6,500,000
New Influent Pump Station	\$7,000,000
Odor Control	\$9,030,000
Digester Gas Utilization	\$1,700,000
Priority Two Sub-Total Construction Bid Amount	\$24,230,000
Estimated Sales Tax Waiver	-\$720,000
<b>Priority Two Total Construction Cost Estimate</b>	<b>\$23,510,000</b>
<b>SCADA (including estimated sales tax waiver)</b>	<b>\$2,232,000</b>
<b>Total Construction Cost Estimate for North WWTP Master Plan</b>	<b>\$50,000,000</b>

# Emergency Generators

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## 6.1 Background

The C-P does not currently have emergency/standby power generators at the majority of its pump stations in the collection system or at the WWTPs. Hurricane Gustav caused power outages throughout much of the C-P for the majority of a week. During this time, the collection system was not able to convey flows to the WWTPs due to lack of power at the pump stations in the system, and the WWTPs were not able to operate. There were a total of 34 pump stations in the C-P that overflowed during and/or following Hurricane Gustav.

To address this issue, the C-P will install emergency generators at the combined South/Central WWTP, the North WWTP, and all the pump stations in the collection system. The wastewater projected flows and loads for the combined South/Central and North WWTP were used to determine the projected electrical demands for each plant. The treatment facilities at the North WWTP identified for upgrade during development of the C-P *Draft Master Plan* (CH2M HILL, 2008) are not included in this updated PDP. However, the costs for the generators needed at the North WWTP (and identified in the *Draft Master Plan*) are included in this updated PDP.

## 6.2 Collection System Pump Stations

To determine how many and what size generators will be needed at each of the collection system pump stations, the stations were first divided into existing (non-PDP impacted) and PDP pump stations. For the PDP stations, each station's pumped flow and head were then determined or assumed with the resulting hydraulic horsepower calculated. The horsepower of the motors were then determined and generator units were selected and installed costs determined. Each of the existing pump stations were visited by a field crew, and the horsepower requirement for the pumps were recorded. A generator sizing software program was used to select the appropriate generator sizes.

A list of 296 generator units for existing (non-PDP impacted) operational pump stations were developed based on C-P information (see Table 6-1 and Appendix A). These stations will not be modified as part of the Program.

**TABLE 6-1**  
Summary of Generator Units  
Existing Pump Stations (not impacted by the PDP)

Generator Unit Size (kW)	Number of Units
10	72
20	66
40	56
60	42
80	29
100	16
125	6
150	5

**TABLE 6-1**

Summary of Generator Units  
Existing Pump Stations (not impacted by the PDP)

<b>Generator Unit Size (kW)</b>	<b>Number of Units</b>
250	3
600	1
<b>TOTAL</b>	<b>296</b>
<b>Total Estimate: \$7,180,000 Existing Stations (non-PDP impacted)</b>	

Note 1: For each category, a diesel generator, automatic transfer switch, enclosure equipment pad, and other accessories were sized to estimate an installed construction cost.

Note 2: See Appendix A for detailed information on each of the existing stations and their respective generator requirements.

The generator units for the C-P pump stations that are to be added or modified as part of the Program are identified in Table 6-2 and listed in Appendix B.

**TABLE 6-2**

Summary of Generator Units  
PDP Pump Stations

<b>Generator Unit Size</b>	<b>Number of Units</b>
10	4
20	8
40	31
60	22
80	13
100	7
125	12
150	6
200	2
250	5
300	4
400	7
500	7
600	4
800	8
1000	11
2500	3
<b>TOTAL</b>	<b>154</b>
<b>Total Estimate: \$13,400,000 Existing Stations (not expanded)</b>	

Note 1: Some of the large pump stations require more than one installed generator unit.

Note 2: See Appendix B for detailed information on each of the PDP stations and their respective generator requirements.

Note 3: For each category, a diesel generator and other accessories were sized with a resulting estimated installed construction cost.



## 6.3 Wastewater Treatment Plants

For the North and South/Central WWTPs, the generation capacity needed was estimated based on the future estimated total flows and current loads seen at each of the plants. Natural gas generators were selected due to operator preference for natural gas. Cost estimates were developed for both the stand-alone generators and for the installed generator systems, including automatic transfer switches, equipment pads, enclosures, and other site specific equipment necessary to integrate the generators into the facility's electrical system.

The North WWTP estimated generator installed cost is \$5.3 M (including estimated sales tax waiver) for 7.5 MW of generation capacity. This cost for standby power at the North WWTP also is listed in Section 5.5 North Master Plan Improvements Table 5-25 – Summary of Estimated Construction Costs for the North WWTP.

The South/Central WWTP estimated installed cost is \$7.0 M, for 12.5 MW of generation capacity. This cost is already included in the estimated construction cost for the Phase 2 expansion project (STP-C-0002, South WWTP Phase 2 – Master Plan Portion).

## 6.4 Generator Project Delivery Plan

In order to install generators in a timely manner at all pump stations and the North and South/Central WWTPs, a project delivery plan was developed. The first step in developing the project delivery plan was to prioritize the pump stations with planned generator installations, using the following criteria:

- 1) Pump stations to be replaced as a part of PDP
- 2) Existing pump stations (not impacted by this PDP) that overflowed during Hurricane Gustav
- 3) Existing pump stations (not impacted by this PDP) that were on DPW staff's list of critical pump stations
- 4) Existing pump stations (not impacted by this PDP) that were not on any of the previous lists (with larger pump stations receiving higher priority than smaller pump stations)

The WWTPs were prioritized based on the PDP and Draft Master Plan projects. As mentioned above, the South/Central WWTP generators will be installed as part of the South WWTP – Phase 2 project, with the generators funded as part of the overall project. The North WWTP generators will be installed as part of the North WWTP Master Plan project. The existing Central WWTP will not receive emergency generators, since current plans call for it to be decommissioned.

The schedule of the project delivery is based on this prioritization as well as available budget. The available budget for generators is estimated to be \$10 million in 2009, \$10 million in 2010, and \$13 million in 2011. Therefore, for each of these three years, the first priority was the budget for generators at the PDP pump stations. After that, the second, third, and fourth priorities were considered in the order noted above. Table 6-3 shows the cost summary for generator installation.

**TABLE 6-3**  
Emergency Generators Cost Summary

Item	
Generator Purchase (including maintenance)	\$19.1M
Generator Installation (non-PDP pump stations)	\$7.1M
North WWTP	\$5.3M
Land Acquisition	\$0.5M
<b>Total</b>	<b>\$32.2M</b>

In order to deliver these projects in a timely manner, the following criteria were used to develop the project delivery plan.

- All pump stations will have installed generators (no temporary generators, unless site constraints dictate).
- A 5-year renewable maintenance contract is required for the service of all generators.
- Pump stations will be designed as generator-ready.
- Generators will be provided by a generator vendor and installed by a general contractor. For PDP pump stations and WWTPs, the general contractor will be the general contractor for the entire project.
- The generator vendor was selected by a bidding process. A 5-year maintenance contract is part of this contract. The contract is based on the number of generators needed per year, with a unit price given for each type of unit for each year.
- The generators will be delivered to a local warehouse and kept by the vendor, to be picked up and installed by the general contractors.
- The South WWTP generators will be delivered on the Program schedule by 2014, when the South WWTP – Phase 2 project is scheduled for completion.

The delivery plan included two contracts, one for purchase and maintenance of the generators and one for installation of the non-PDP units. The purchase and maintenance contract was awarded to Arcco Power Systems in October 2009. A Notice to Proceed was issued to Grady Crawford Construction in May 2011. The installation project will consist of work orders issued over a 3-year period.

Under this project delivery plan, each pump station and WWTP will have emergency power by the end of the Program (December 31, 2017).

**Appendix A**  
**Existing Pump Stations and Generator Requirements**



**APPENDIX A**  
Existing Pump Stations and Generator Requirements

Pump Station	# of Pumps	Field Data Nameplate Horsepower	Horsepower Based On Inrush Amps	F/L Amps	Inrush Amps	Phase/Volts	Gen Size (kW)
8	2	3		10	60	3/240	10
11	2	3	5	18	121	1/240	40
12	2	20		44	258	3/240	60
14	2	5		22		3/240	20
17	2		1.5	6.1	22.7	3/240	10
20	2		5	9	50	3/240	20
22	2	5	5	11	58	3/240	20
25	2	5	5	9	58	3/240	20
26	2	2		9	48	3/240	10
28	2	2				3/240	10
29	2		3	15		3/240	10
34	1	1		14		1/240	40
36	2	7.5		16	117	3/240	40
37	2	5	5	9	59	3/240	20
48	3		15	18	121	3/480	60
49	4	25		32		3/480	125
55	3					3/240	40
57	5	150		183		3/480	600
60	5		185			3/480	250
62	2	50/60	50	50	347	3/480	100
69	2		15	46	273	3/240	60
70	2		5	14	87	3/240	20
71	2	5	3	14	56	3/240	20
72	2	20	15	36	205	3/240	60
73	2	5		12	58	3/240	20
78	2	5	5	12	64	3/240	20
79	2		3	7.7	56.1	3/240	10
81	2	5	5	11	64	3/240	20
82	2		3	7	61	3/240	10
83	2	3	2	6	50	3/240	10
84	2	7.5		16	92	3/240	40
85	2		25	24	177	3/480	80
87	2	5		14	82	3/240	20
88	2		5	11	93	3/240	20
89	2	3				3/240	10
90	2	10		29	159	3/240	40
92	1		7.5	18	80	3/240	40
93	2		7.5	18.1	130	3/240	40
95	2		3, 5	8		3/240	20
96	2	7.5		6	66	3/480	20
97	2		3	7	34	3/240	10
98	2	7.5		18	125	3/240	40

**APPENDIX A**  
Existing Pump Stations and Generator Requirements

Pump Station	# of Pumps	Field Data Nameplate Horsepower	Horsepower Based On Inrush Amps	F/L Amps	Inrush Amps	Phase/Volts	Gen Size (kW)
99	2	5				3/240	20
100	2		2	6	34	3/240	10
101	2	3		7	38	3/240	10
103	2	20		35	363	3/240	60
104	2	29		31	224	3/480	80
106	2	25	40	28	283	3/480	80
108	2	50		52	399	3/480	100
109	2		10	20.1		3/208	40
114	2		3	9	56	3/240	10
116	3		5	5		3/480	20
117	2	2.2	5	14	74	3/240	20
121	2	25, 30		30		3/480	80
122	2	3		5	19	3/240	10
125			5				20
126	2		7.5	25		3/240	40
128	2	50		44	277	3/480	100
130	2		10	18	141	3/240	40
131	2		3	10	57	3/240	10
132	2		20	39	382	3/240	60
133	2	2		7	21	3/240	10
134	1		10			3/480	20
138	2		3	7.8	19	3/240	10
140	2	20		25	188	3/480	60
141	2		25	65	355	3/240	100
142	2		7.5	12	140	3/480	20
145	2	15		35	208	3/240	60
147	2	50		39	372	3/480	100
150	2		20	45	309	3/240	60
151	2	3		7	30	3/240	10
154	2		15	38	169	3/240	60
155	2		60	65	356	3/480	150
156	1		10			3/240	40
158	2		5			3/240	20
159	2		5, 15			3/240	60
160	2	60	60	45	413	3/480	125
161	2	15		14	110	3/480	60
163	2	3		7	33	3/240	10
165	2	3				3/240	10
166	2	5		15	83	3/240	20
168	2		30				80
169	2		2	10	46	3/240	10
171	2		3	11	46	3/240	10

**APPENDIX A**  
Existing Pump Stations and Generator Requirements

Pump Station	# of Pumps	Field Data Nameplate Horsepower	Horsepower Based On Inrush Amps	F/L Amps	Inrush Amps	Phase/ Volts	Gen Size (kW)
173	2		15	20	162	3/240	60
176	1		30			3/480	80
177	4		75			3/480	250
178	2		5	8		3/240	20
179	3		40			3/240	100
180	2		2	5	28	3/240	10
181	2		40	36.5	338	3/480	80
184	2		20	34	237	3/240	60
185	2	15		29	214	3/240	60
187	1		5			3/240	20
190	2	3	2	5	39	3/240	10
192	2		3	6		3/240	10
193	2		5	18	82	3/240	20
194	2	5	3	11	53	3/240	20
195	2	40		52	267	3/480	80
197	2	40	50	49	381	3/480	100
198	2		10	24	160	3/240	40
200	2	60		46	423	3/480	150
202	2		5	8	47.6	3/240	20
203	2	5		12	96	3/240	20
204	2		3, 5			3/240	20
205	2		7.5	15		3/240	40
206	2	20		24	188	3/480	60
210	2		2	3.5	19.8	3/240	10
213	2		20	20	173	3/480	60
214	2		1.5	5	31	3/240	10
215	2	5	2	12	49	3/240	20
216	1		5			3/480	20
217	1		5			3/480	20
219	2		3			1/240	10
220	2		5	16		3/240	20
222	2		25	36	280	3/480	80
225	2	29	30	40		3/480	80
226	2		20	26	142	3/480	60
228	1		7.5				40
230	1		40			3/480	80
233	2	10		15	5	1/240	40
235	2		3	7	55	3/240	10
237	2		3	7	45	3/240	10
242	2		5	12		3/240	20
245	2		3		102	1/240	10
246	2	15				3/240	40
248	2	5	3	14	16	3/240	20

**APPENDIX A**  
Existing Pump Stations and Generator Requirements

Pump Station	# of Pumps	Field Data Nameplate Horsepower	Horsepower Based On Inrush Amps	F/L Amps	Inrush Amps	Phase/Volts	Gen Size (kW)
250	2		7.5	21	107	3/240	40
251	2		5, 10			3/240	40
254	2		5			1/240	30
255	2		7.5	20.6	136	3/240	40
256	2		3	7		1/240	10
257	2	2	3	16	51	1/240	10
258	2		20	28	168	3/480	60
260	2	25	25	89	451	3/240	100
261	2		5	13	67	3/240	20
262	2	15	20	31	243	3/240	60
263	2		25	20	201	3/480	80
264	2		5	14	95	1/240	30
265	2	10	25	23	215	3/480	80
267	2		2	7	50	3/240	10
268	2		7.5	15		3/240	40
272	2		5	12	84	3/240	20
276	2		7.5	10.5	54	3/480	20
279	2	7.5				3/240	40
280	2		30	28	239	3/480	80
281	2		3	9	29	3/240	10
282	1		30			3/480	80
284	2	25		53	305	3/240	60
286	2	2	2	11		1/240	10
288	2		20	14	131	3/480	60
289	2		3	14.6	54	3/240	10
290			3	8		3/240	10
292	2		3	10	50	3/240	10
293	2		5	13	90	3/240	20
294	2		3	12		3/240	10
295	2		10	11	67	3/480	40
298	2		3	8		3/240	10
299	2		5	13	63	3/240	20
300	3	25	30	34	152	3/480	80
301	3	25		28	165	3/480	100
303	2	2		5	29	3/240	10
304	1		10	17	188	3/240	40
305	2	20		31	255	3/240	60
307	2		5	14	81	3/240	20
310	2	15		13	136	3/480	60
312	2		3	10	?	3/240	10
314	2		5	16	67	3/240	20
315	2		10	25	211	3/240	40
317	2		7.5	18	116	3/240	40



**APPENDIX A**  
Existing Pump Stations and Generator Requirements

Pump Station	# of Pumps	Field Data Nameplate Horsepower	Horsepower Based On Inrush Amps	F/L Amps	Inrush Amps	Phase/Volts	Gen Size (kW)
319	2		3	8	51	3/240	10
320			20			3/480	60
321	2		3	8	37	3/240	10
322	2		3	8	45	3/240	10
323	2		3	12	56	3/240	10
324	2		5	12	89	3/240	20
325	2		5	12	87	1/240	60
328	2		40	55	299	3/480	100
330	2		3	5.86	39	3/240	10
334	2		5	12	86	3/240	20
335	2		7.5	29	148	3/240	40
337	2		3	9.3	62.8	3/240	10
339	2		3	7	42	3/240	10
341	2		10				40
343	2		150			3/480	80
344	2		7.5	21	145	3/480	40
346	2		20	24	185	3/480	60
347	2		20	18	176	3/480	60
349	2		3	9	61	3/240	10
350	2		3	8	51	3/240	10
356	2		5	8.3	68	3/240	20
357	2		3	9	48	3/240	20
359	2	5		12	91	3/240	20
360	2		3	10	59	3/240	10
361	2		25	27.5	182.5	3/480	80
362	2		2	7.4	24.3	3/208	10
366	2		5	13.8	96	3/240	20
367	2		7.5	14	124	3/240	40
371	2		20	16.5		3/480	60
373	2		3	12	56	3/240	10
374	2		3	9	54	3/240	10
375	2		3	10	53	3/240	10
376	2		2	5	29	3/240	10
377	2		7.5	15	113	3/240	40
378	2		10	31	223	3/240	40
379	2					3/240	20
380	2		5	9	64	3/240	20
381	2	2		7.1	50	3/240	10
382	2					3/480	80
383	2		5	10	85	3/240	20
384	2		7.5	17	111	3/240	40
385	2		2	16	46	1/240	10
386	2		20	42	294	3/240	60

**APPENDIX A**  
Existing Pump Stations and Generator Requirements

Pump Station	# of Pumps	Field Data Nameplate Horsepower	Horsepower Based On Inrush Amps	F/L Amps	Inrush Amps	Phase/Volts	Gen Size (kW)
387	2		5	10	93	3/240	20
388	2		3			1/240	10
389	2	40		34	232	3/480	100
390	2		10	30	158	3/240	40
392	2		5	14	70	3/240	20
393	2	3		8	43	3/240	10
394	2	3		8	59	3/240	10
395	2		10	19	189	3/240	40
396	2		5	20	96	3/240	20
398	2		40	78	502	3/240	100
399	2		5	14	102	3/240	20
400	2		15	31	235	3/240	60
401	2		5	10	76	3/240	20
402	2					3/240	10
403	2		10			3/208	40
404	2	3		6	49	3/240	10
405	2		10	11	75	3/480	40
406	2		20	21.5	140.5	3/480	60
407	2		3	7.5	50	3/240	10
408	2		20	21	167	3/480	60
410	2		10	18	147	3/240	40
412	2	7.5		15	118	3/240	40
413	2	15		23	94	3/480	60
415	2		5	10		3/240	20
416	2	5	10	15	146	3/240	40
417	2	20		21	179	3/480	60
418	2		20	24.5	190	3/480	60
422	2		40	37	289	3/480	80
423	2		5	11	90	3/240	20
425	2		3	10	53	3/240	10
426	2		30	56	298	3/208	80
427	2		7.5	17	146	3/240	40
430	3		100	95		3/480	250
431	2		5	13.6	70	3/240	20
432	2		5	10	70	3/240	20
433	2		5	22	134	3/240	20
434	2		1	4.3	20	3/208	10
435	2	15	7.5	14.7	111	3/480	60
436	2	40	20	33	259	3/480	80
437	2	40	20	30	287	3/480	80
438	2		5	9.5	86	3/480	20
439	2		7.5	22	107	3/240	40
441	2		2	5	47	3/240	10

**APPENDIX A**

Existing Pump Stations and Generator Requirements

Pump Station	# of Pumps	Field Data Nameplate Horsepower	Horsepower Based On Inrush Amps	F/L Amps	Inrush Amps	Phase/ Volts	Gen Size (kW)
442	2	15	10	15.2	148	3/480	60
443	2		20	34.5	61	3/480	80
444	2		50	62	386	3/480	100
445	2		10	31	260	3/240	60
446	2	30	20	31	199	3/480	80
447	3		15	26	120	3/480	100
448	2		5	16	113	3/240	20
449	2		15	28	206	3/480	60
450	2		10	16	199	3/480	40
451	2		5	17	79	3/240	20
452	2	30	20	31	214	3/480	80
453	2		20	36.7	202	3/480	80
454	2		7.5	14	120	3/480	40
455	2	50?	20	37	258	3/480	60
456	2		20	12	70	3/240	60
457	2	10	8	22	138	3/240	40
458	2		3	8	50	3/240	20
460	2		20	38	254	3/480	60
500	2		50	60	351	3/480	100
504	2		60	70	433	3/480	125
508	3	50		56	376	3/480	125
601	3	75?	60	53	393	3/480	125
676	3		60	55	418	3/480	125
944	3	75		52		3/480	150
332A	2		70			3/480	150
65A	3		77	84.0		3/480	150
Parish Prison	2		2	6.6	34.9	3/240	10

**Total No. Generators 296**

**Notes:**

If motors were accessible, motor nameplate data was obtained.

If motors were not accessible, motor running and starting current was measured.

For non-PDP pump stations the number of pumps listed is the number of installed pumps.

It is not clear whether or not 1 pump less than listed is sufficient for the peak wet weather flow.

Generators were sized based on running 1 pump less than the number listed, except that for pumps 20 horsepower and smaller, the generator was sized to run a minimum of 2 pumps.

If the data indicated two different motor sizes, the generator was selected based on the larger motor size.

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**Appendix B**  
**PDP Lift Stations**

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**APPENDIX B**

PDP Lift Stations; Baton Rouge Program

PS number	Number of Pumps	Phase/Voltage	Gen Size (kW)	PDP Project Number
1	5	3/480	600	CGN-C-0005
2	3	3/480	500	CC-EAST-PS
3	3	3/480	400	CC-EAST-PS
4	3	3/480	1000	CC-EAST-PS
5	5	3/480	(2) 2MW	CC-EAST-PS
6	1	3/480	60	CC-EAST-PS
10	1	3/480	125	CC-EAST-PS
13	1	3/480	80	SGC-C-0001
15	2	3/480	400	CGN-C-0005
16	1	3/480	60	SGC-C-0001
18	1	3/240	35	SGC-C-0001
19	1	3/480	125	CGN-C-0005
21	1	3/480	80	SGC-C-0001
23	1	3/480	150	Group Project 1B
27	2	3/240	40	
30	1	3/480	80	SGC-C-0001
31	2	3/480	150	SGC-C-0001
35	2	3/480	60	Group Project 1B
38	1	3/240	35	NGS-C-0003
39	2	3/480	60	Group Project 1B
40	1	3/480	40	SGL-C-0002
41	1	3/240	35	SFU-C-0002B
42	6	3/480	3000	CC-WWTP-PS
43	3	3/480	500	NFW-C-0009
44	2	3/480	125	NGS-C-0003
45	4	3/480	2500	Group Project 1B
47	3	3/480	300	Group Project 1B
50	3	3/480	400	SGC-C-0001
54	2	3/480	60	Group Project 1B
56	2	3/480	125	SGL-C-0002
59	5	3/480	600	CGN-C-0005
63	2	3/480	100	NGS-C-0003
64	1	3/480	80	NGS-C-0003
66	2	3/480	80	SGC-C-0001
68	1	3/480	80	SGL-C-0002

**APPENDIX B**

## PDP Lift Stations; Baton Rouge Program

PS number	Number of Pumps	Phase/Voltage	Gen Size (kW)	PDP Project Number
74	2	3/240	40	
75	1	3/240	10	NGS-C-0003
77	1	3/240	20	SFU-C-002B
80	1	3/480	40	NGS-C-0003
86	1	3/480	40	NFE-C-0005
91	1	3/240	125	CC-EAST-PS
94	1	3/480	80	NFE-C-0003
102	1	3/240	40	SGL-C-0002
105	1	3/480	40	NFW-C-0009
107	1	3/480	60	SFL-C-0001
111	2	3/480	125	SFU-C-0001
112	2	3/240	35	SFU-C-0002A
113	1	3/240	100	
115	1	3/240	60	SFU-C-0001
118	1	3/240	35	SFL-C-0003
119	2	3/480	125	SGC-C-PS119
120	1	3/240	35	SGL-C-0002
123	1	3/240	35	NFW-C-0009
124	1	3/480	80	NFW-C-0009
127	1	3/240	35	NGS-C-0003
129	1	3/240	35	NGS-C-0003
136	2	3/480	400	CGN-C-0005
139	1	3/240	10	SFU-C-0002B
144	1	3/240	35	NFE-C-0005
148	1	3/240	35	SFU-C-0002A
149	2	3/480	60	SFU-C-0002B
153	1	3/480	40	SFU-C-0002B
157	1	3/240	60	SFU-C-0002A
162	1	3/480	60	SFU-C-0002B
164	1	3/480	60	NFE-C-0005
170	2	3/480	150	SFU-C-0002A
172	1	3/240	20	SFU-C-0002A
174	1	3/240	20	SFU-C-0002B



**APPENDIX B**

## PDP Lift Stations; Baton Rouge Program

PS number	Number of Pumps	Phase/Voltage	Gen Size (kW)	PDP Project Number
175	2	3/480	80	SFU-C-0002B
182	1	3/480	40	SFL-C-0004
183	2	3/480	150	NFW-C-0010
189	2	3/240	40	SFU-C-0002B
191	2	3/480	40	SFU-C-0002B
196	1	3/480	40	NFE-C-0005
201	1	3/240	60	SFU-C-0001
207	1	3/480	40	NFE-C-0005
211	2	3/240	35	SFU-C-0002A
218	1	3/240	35	NFE-C-0005
221	2	3/480	100	SFL-C-0003
223	1	3/480	60	SFL-C-0004
224	2	3/480	80	SFU-C-0002B
227	1	3/240	35	SFU-C-0002B
229	1	3/480	60	SFL-C-0003
231	2	3/480	80	NFE-C-0005
232	2	1/240	10	SFU-C-0002A
234	1	3/480	40	NFE-C-0005
239	1	3/240	10	SFL-C-0003
240	1	3/480	100	
243	2	3/480	100	NFW-C-0009
244	1	3/480	80	NGS-C-0003
247	2	3/480	125	SFU-C-0002A
249	2	3/480	100	NFE-C-0005
253	1	3/480	20	SFU-C-0002A
259	2	3/240	60	SFU-C-0003A
266	2	3/240	40	SFU-C-0002A
271	1	3/240	20	NFE-C-0005
274	2	3/480	60	SFU-C-0002A
275	2	3/480	250	Group Project 1B
277	2	3/480	60	Group Project 1B
278	1	3/240	80	SFL-C-0004
285	1	3/240	20	NFE-C-0005

**APPENDIX B**

PDP Lift Stations; Baton Rouge Program

PS number	Number of Pumps	Phase/Voltage	Gen Size (kW)	PDP Project Number
296	2	3/480	40	SFU-C-0002A
302	3	3/480	100	
311	1	3/480	60	SFL-C-0001
313	1	3/240	20	NFE-C-0005
316	2	3/480	150	SFU-C-0002A
326	1	3/240	35	SFU-C-0002B
327	1	3/480	40	SFL-C-0004
329	1	3/480	80	SGL-C-0002
336	1	3/480	60	SFL-C-0001
338	1	3/240	60	SFU-C-0001
345	1	3/240	35	SFU-C-0002B
353	1	3/480	40	SFL-C-0004
358	1	3/240	35	SFL-C-0003
365	2	3/480	200	SFL-C-0004
372	1	3/480	80	SFL-C-0004
382	2	3/480	80	03-RMP-S14
391	1	3/240	20	SFU-C-0002A
402	2	3/240	20	SFU-C-0002A
429	1	3/240	10	NFW-C-0009
503	2	3/480	125	NFW-C-0010
505	3	3/480	800	SFL-C-0001
509	3	3/480	200	NFE-C-0005
511	5	3/480	800	NFE-C-0005
513	2	3/480	250	NFW-C-0009
514	5	3/480	(1) - 1000 ; (1) - 2500	SFL-C-0002
777	2	3/480	300	SFU-C-0002
889	2	3/480	800	SFU-C-0002
897	3	3/480	(2) - 600 kW	NFW-C-0004
999	2	3/480	250	SFL-C-0003
100A	2	3/480	250	SFU-C-0002
101A	2	3/240	40	SFU-C-0002B
119N	1	3/480	100	NFW-C-0010
24/24A	4	3/480	400	NFW-C-0010

**APPENDIX B**

## PDP Lift Stations; Baton Rouge Program

PS number	Number of Pumps	Phase/Voltage	Gen Size (kW)	PDP Project Number
510AA	3	3/480	225	NFE-C-0005
51A	3	3/480	1000	NFW-C-0002
51AA	2	3/480	600	NFW-C-0002
52A	5	3/480	3000	NFW-C-0002
53A	6	3/480	500	SGL-C-0002
58A	9	3/480	(3) - 1000	SGC-C-PS58A
5XX	2	3/480	800	SGC-C-0001
7/7A	1	3/480	125	CC-EAST-PS
Choctaw Storage	3	3/480	150	NFW-C-0002
Comite Dr 1	1	3/480	40	NFE-C-0003
Comite Dr 2	1	3/480	20	NFE-C-0003
OXLf (Little Farms)	1	3/480	80	NFW-C-0009
Southdowns	1	3/480	80	CC-EAST-PS
Womens Hospital	2	3/480		SFU-C-0001

**Total Number of PS = 149**

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# Supervisory Control and Data Acquisition (SCADA)

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## 7.1 Background

The C-P currently has very limited SCADA capability at a few of its pump stations in the collection system and at the WWTPs. Without a comprehensive fully integrated SCADA system, collection system and WWTP operators have to physically change settings and check each pump station or piece of equipment on a daily or weekly basis, depending on the criticality of the piece of equipment. If a comprehensive and integrated SCADA system is put in-place, operation of the collection system pump stations and the WWTPs will become more automated and streamlined, saving operator time and allowing preventive, rather than reactive, maintenance to be performed. A SCADA system also will allow optimization of collection system pump station operations during wet weather. This will maximize storage and decrease peak flows to the WWTPs. In addition, the SCADA system allows a quick overview of the WWTPs and the collection systems from a central location to provide system-wide efficient operation.

To address this issue, the C-P will install a SCADA system at the South WWTP, the North WWTP, and all the pump stations in the collection system. The SCADA system for the South WWTP is being designed as part of the South WWTP - Phase 2 project and is not summarized in this chapter. The SCADA system for the collection system and the North WWTP are described in this chapter.

## 7.2 SCADA Operations Data/Control Center

The SCADA Operations Data/Control Center, as outlined in the *SCADA Master Plan* (CH2M HILL, June 2008), is required to provide central collection, storage, and processing of data from WWTPs and the collection system. The Operations Data/Control Center will collect, reduce, and archive measurements, alarms, and status information for use by operators, managers, and engineers. The data center will include centralized information servers that allow managers and engineers to view process graphics and to generate reports using visualization application software installed on their business network workstations.

The centralized information servers provide easy access to data for managers and engineers to support a number of activities, including regulatory reporting, management oversight, collection system and treatment capacity, quality analysis, and improvements planning. In the future, centralized control of the collection system and WWTPs will be accomplished via the centralized information servers.

The SCADA Operations Data/Control Center location is not yet determined, though a downtown location is preferred. The Baton Rouge Emergency Operations Center also will house servers and workstations that can monitor and control the WWTPs and collection systems during an emergency. A data monitoring center will be provided at the Choctaw

Collection System Maintenance Facility that is currently being planned. This data center will allow monitoring (but not control) of the South and North Collection System pump stations.

The SCADA Operations Data/Control Center is expected to include centralized information servers integrating the data from the South WWTP SCADA server node (located at the South WWTP), the future North WWTP SCADA server node (located at the North WWTP), and the South and North Collection System pump station programmable logic controllers (PLCs). Note that the South Collection System includes both the Central Basin pump stations and South Basin pump stations, since the Central Basin stations will pump to the South WWTP. The type of data link between the WWTP servers and the centralized information servers at the SCADA Operations Data/Control Center will be fiber optic lines.

### **7.3 Collection System SCADA System**

The collection system SCADA system will be used by collection system operators to monitor and exercise control of collection pump stations in accordance with pump station design criteria. The overall collection system pump stations will be split in to two groups, North and South stations. The North collection system pump stations will report to the North Collection System SCADA servers located at the SCADA Operations Data/Control Center; whereas, the South Collection System Pump Stations will report to the South Collection System SCADA servers located at the SCADA Operations Data/Control Center. The North and the South Collection System SCADA servers will then report to the centralized information servers, located at the SCADA Operations Data/Control Center. Each collection system monitoring and control system includes the following major components:

- PLCs at each pump station to provide local automatic control and to communicate with their respective collection system servers.
- The PLCs will communicate with servers located at the SCADA Operations Data/Control Center in an air conditioned environment with security measures that limit access to servers and network components. Redundant servers will be provided for reliability. The process control network collects collection system data and allows mobile collection system operators to monitor and exercise control of collection system pump stations without having to visit each pump station. Additionally, diagnostic information presented to operators can be used to prioritize maintenance activities and to plan preventive maintenance. An example of where control can be used is to pump down certain collection system pump stations in advance of a significant wet weather event to reduce the peak flows that will be experienced at the WWTPs during the event.
- A wireless communications network to provide reliable communications between the local pump station PLCs and the servers located at the SCADA Operations Data/Control Center. It is recommended that wireless communications be accomplished by a digital cellular network. The collection system pump stations presently under design will accommodate a future Cellular Radio Modem to be installed in the local control panel.

## 7.4 North Wastewater Treatment Plant

The North WWTP Process Control Network will be used by WWTP operators to monitor and control North WWTP process equipment in accordance with operations procedures. The North WWTP network will be a design similar to the South WWTP SCADA System and include the following major components:

- A WWTP Process Control Network housed in an air conditioned environment in the North WWTP Control room with security measures that limit access to network components, servers, and workstation computers. The process control network connects control system components, collects WWTP data, and allows WWTP operators to monitor and control WWTP process equipment. Additionally, diagnostic information presented to operators can be used to prioritize maintenance activities and to plan preventive maintenance.
- A fiber optic Fast Ethernet local area network (LAN) to provide reliable communications between the North WWTP PLCs, located in several strategic areas in the plant, and the North WWTP redundant servers in the control room. A reliable data communication link (either T1 line or fiber optic) between the North WWTP servers and the centralized information servers located at the SCADA Operations Data/Control Center, to allow monitoring of the North WWTP from the control center.

## 7.5 SCADA Project Delivery Plan

In order to install a SCADA system in a timely manner at all pump stations as well as the North WWTP, a project delivery plan was developed. The first step in developing the project delivery plan was to prioritize the pump stations that were to get a SCADA system using the following criteria:

- 1) Pump stations to be replaced as a part of PDP.
- 2) Existing pump stations (not impacted by this PDP) that were on DPW staff's list of critical pump stations.
- 3) Existing pump stations (not impacted by this PDP) that were not on any of the previous lists (with larger pump stations getting higher priority than smaller pump stations).

The WWTPs were prioritized based on the PDP and Draft Master Plan projects. As mentioned above, the South WWTP SCADA system will be installed as part of the South WWTP - Phase 2 project, with the system funded as part of the overall project. The North WWTP SCADA system will be designed and installed as part of the North WWTP Master Plan project, and associated costs are presented below and also in Section 5.5 North WWTP Master Plan Improvements Table 5-25. The existing Central WWTP will not receive a SCADA system, since current plans call for it to be decommissioned.

The schedule of the project delivery is based on this prioritization. The project delivery plan involves design of the system components as one project in 2011. The North WWTP SCADA project will be constructed as part of the North WWTP Master Plan project, which will begin design in 2012. Construction will then commence in 2012 and continue throughout the program duration. Table 7-1 shows the cost summary for the projects.

**TABLE 7-1**  
SCADA Cost Summary

Item	
North WWTP SCADA – construction	\$2,302,000
Collection System SCADA and SCADA Operations Data/Control Center – construction	\$15,700,000
<b>Total</b>	<b>\$18,002,000</b>

In order to deliver these projects in a timely manner, the following criteria were used to develop the project delivery plan.

- A 5-year renewable maintenance contract is required for the service of the entire SCADA system.
- PDP pump stations will be designed SCADA-ready.
- SCADA components (antenna modem, and PLC, where needed) will be provided by a SCADA vendor (systems integrator) and installed by a general contractor. For PDP pump stations and the North WWTP, the general contractor will be the general contractor for the entire project.
- The SCADA vendor will be selected by a Request for Proposal (RFP) process. The contract will be based on the number of pump stations to receive SCADA per year, with a unit price given for each type of unit for each year. The North WWTP SCADA system will be designed and bid separately from the collection system SCADA.
- The South WWTP SCADA system will be delivered on the Program schedule by 2014, when the South WWTP – Phase 2 project is scheduled for completion.
- The North WWTP SCADA system will be delivered when the Master Plan is completed, which is scheduled for the end of 2017.

With these criteria in mind, the following project delivery plan was developed.

- 1) C-P will finalize a location for SCADA Operations Data/Control Center, preferably in a downtown location.
- 2) PM will develop a plan to remodel roughly 300 existing pump stations that are not being upgraded in the Program. Each pump station will need new SCADA equipment, with some pump stations also requiring new controllers to be able to communicate with the SCADA equipment.
- 3) PM will develop a plan to connect pump stations being replaced/added in the Program to the SCADA system. Instructions will be provided to the design engineers for PDP projects to allow for connection of these stations to the SCADA system in the future.
- 4) PM will develop a project definition to implement a SCADA system at the North WWTP. This project definition will be completed in 2012 in conjunction with the overall North WWTP Master Plan project.



- 5) PM will prepare plans and specifications for the SCADA Operations Data/Control Center and collection system SCADA components (both PDP and non-PDP stations) in 2011. This project will be ready to bid for construction in early 2012.
- 6) Selected design engineer will prepare plans and specifications for the North WWTP SCADA system in 2012 and 2013 as part of the overall Master Plan project.

With this project delivery plan, the collection system and the South and North WWTPs will have a SCADA system by the end of the Program (December 31, 2017). The North WWTP SCADA system will not be implemented prior to the end of the Program, since it is a Master Plan issue, not a wet weather issue. The timeline for construction of the North WWTP SCADA system will be dependent on available funding.

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