

**St. John the Baptist Parish
Reserve to I-10 Connector**

**Draft Environmental
Impact Statement**

St. John the Baptist Parish, LA
State Project No. H.004891
Federal Aid Project No. H004891
RPC No. PSLC-STJ

Prepared for:

The Regional Planning Commission

and

*U.S. Department of Transportation - Federal Highway Administration
(Lead Federal Agency)*

The Louisiana Department of Transportation and Development

MARCH 2015

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Prepared by:



in association with

**Urban Systems Inc.
Coastal Environments, Inc.
Bowlby and Associates, Inc.
Essential Environmental Engineering, Inc.**

MARCH 2015

**U.S. 61 TO I-10
St. John the Baptist Parish, Louisiana
Reserve to I-10 Connector**

Draft Environmental Impact Statement

Submitted Pursuant to 42 U.S.C. 4332 (2)(c)

by the
U.S. Department of Transportation, Federal Highway Administration
and the
Louisiana Department of Transportation and Development
and
The Regional Planning Commission

Cooperating Agency:
US Army Corps of Engineers

3-16-15
Date of Approval

3-16-15
Date of Approval


Louisiana Department of Transportation and Development


Federal Highway Administration

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This project is a proposal to construct a new two lane limited access highway between (and linking) US Highway 61 (US 61) in the area of Reserve in St. John the Baptist, LA and Interstate Highway 10 (I-10). Most of the new roadway would be on bridge structure and built over wetland areas. A new interchange at I-10 would be required as part of this project. The proposed new highway would be approximately 2.6 miles in length. The logical termini, or project limits, for the EIS study area and National Environmental Policy Act (NEPA) documentation extended from ¼ mile to the east of US 51 on the east to the St. John the Baptist/St. James Parish Line on the west, and from ¼ mile north of I-10 on the north to ¼ mile south of US 61 on the south. Several alternatives were considered including the No-Build Alternative. Effects to the human and natural environment, as well as the relative benefits of the project alternatives, have been evaluated and are presented within this DEIS document .

Comments on this draft EIS are due by
July 1, 2015 and should be sent to

Bruce J. Richards,
Project Consultant
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Summary of Mitigation, Commitments and Permits

Mitigation, Commitments and Permits for the impacts associated with the implementation of the preferred alternative for the St. John the Baptist Parish Reserve to I-10 Connector project include the following:

MITIGATION MEASURES

MITIGATION OF CONSTRUCTION PERIOD IMPACTS

To minimize noise impacts, all construction equipment used in the construction phase of the project should be properly muffled and all motor panels should be shut during operation. In order to minimize the potential for impacts of construction noise on the local residents, the contractor should operate, whenever possible, between the hours of 7:00 a.m. and 5:00 p.m. At the intersection for the preferred alternative and I-10, there may be a need for some night time work (installing girders over traffic lanes, etc.) when traffic volumes are lower. This location is far from any developed or residential areas, however, so nighttime construction noise in this area should not be an impact.

To minimize potential air quality impacts, particularly related to control of particulate matter, the contractor shall comply with all relevant State, Federal and local laws and regulations. To minimize vibration impacts, pile driving operations should be monitored at critical structures, pavements and utilities during all pile driving operations.

To minimize impacts to drainage channels and excavated ponds, the following procedures should be followed:

- Channel work should be minimized and the rerouting of stream segments should be avoided. If channel work is necessary, precautions should be taken to avoid channel degrading from head-cutting. For example, grades at the culverts and bridges should remain at their existing grade.
- Minimize impacts to the riparian corridor, especially forested areas. For new crossings, prior cleared areas in the floodplain should be used when possible.
- To reduce the width of impact through the floodplain/riparian area, the entire right-of-way through the riparian area of floodplain should not be cleared. Only clear what is needed for access and construction.
- Minimize impacts to the creek banks (soil and vegetation). Stabilize and replant disturbed banks as soon as construction at that specific site is finished.

- Best Management Practices (BMPs) should be used to avoid and minimize water quality impacts and to minimize erosion of banks and bare soil and the siltation of streams. Bare soil should be stabilized and re-vegetated as soon as possible.
- Wetlands or forested floodplains should not be used for staging or storage area. A suggested area specifically for the I-10 interchange component is the triangular area created between the new westbound I-10 off-and on-ramps for that alternative, which will be bounded by at-grade roadways.
- The applicant should thoroughly brief contractors on all permit conditions. Copies of the issued permit should be posted at the project site during construction for easy reference to avoid misunderstanding and inadvertent violations.

MITIGATION OF WETLAND IMPACTS

Sections of the Preferred Alternative were located to the greatest extent possible, while still achieving project purpose and need, in already cleared and/or agricultural areas and existing roadways to avoid wetlands. The roadways through wetlands would be elevated to maintain surface water flow and to minimize the potential for a decrease in viability of or indirect loss of wetland forest due to surface water impoundment. While the use of end-on construction is assumed in this study for purposes of impact analysis as they limit impacts to the smallest possible area, other options (conventional construction, temporary bridge) could be used. If used, these options would impact additional areas other than the final project footprint, but these additional areas would be restored as much as possible to pre-existing conditions: geotextile fabric is used as a base, all haul soils are removed, and wetland trees seedlings (cypress) are planted at a rate of 50 per acre. Unavoidable direct impacts to forested wetlands would be mitigated according to the compensatory mitigation requirements of the state and federal regulatory authorities. The state will work with the regulatory agencies to develop appropriate mitigation for any unavoidable, permanent impacts to recognized jurisdictional wetlands associated with the project.

MITIGATION OF IMPACTS TO WILDLIFE

As currently proposed, the Preferred Alternative has been located to avoid impacts to bald eagle nests and colonial nesting bird colonies. To ensure mitigation of impacts to bald eagles and colonial nesting birds at the time of construction, a survey would be conducted to verify the presence or absence of Bald eagle nests and rookeries. If present, construction would proceed in conformance with USFWS and LDWF guidelines and regulatory permit conditions designed to prevent disturbance to these species during nesting season.

Impacts to aquatic species in flooded forested wetlands, marshes and ditches are expected to be minimized through the implementation of a Stormwater Pollution Prevention Plan (SWPPP),

which would include Best Management Practices for construction, and through implementation of standard emergency response procedures.

MITIGATION OF SURFACE WATER QUALITY IMPACTS

Impacts to surface water quality are expected to be minimized through the implementation of a Stormwater Pollution Prevention Plan (SWPPP), which would include Best Management Practices for construction, and through implementation of standard emergency response procedures. As an example, should a large release of a hazardous material occur on the new roadway, it would be temporarily closed at its two intersection points and a hazardous response action would be initiated.

MITIGATION OF GROUND WATER QUALITY IMPACTS

Prior to project construction, the LDEQ and possibly EPA would be contacted for consultation in order to identify measures and safeguards that would be required to minimize the potential of impacts to ground water resources.

COMMITMENTS

No commitments are present at this time.

PERMITS

- Because the project affects wetlands, a Section 404 Permit will be required from the U.S. Army Corps of Engineers, New Orleans District.
- As the Louisiana Department of Natural Resources Coastal Management Division (CMD) has indicated that the proposed project is located inside the Louisiana Coastal Zone, a Coastal Use Permit (CUP) is required from the CMD.
- A Section 401 Permit (Water Quality Certification) will be required from the Office of Environmental Services, Louisiana Department of Environmental Quality.

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List of Acronyms

ACHP	Advisory Council on Historic Preservation
ADA	Americans with Disabilities Act
ADT	Average Daily Traffic
ANSI	American National Standards Institute
APE	Area of Potential Effect
BA	Bowlby & Associates, Inc.
BMP	Best Management Practices
BNSF	Burlington Northern - Santa Fe Railway
CAL3QHC	California Intersection/ Line Source Dispersion Model version 2.0
CE	Categorical Exclusion
CEI	Coastal Environments, Incorporated
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Information System.
CFR	Code of Federal Regulations
CNIC	Canadian National Illinois Central Railroad
CO	Carbon Monoxide
COB	Conveyance Office Book
CUP	Coastal Use Permit
CWA	Clean Water Act
dB	Decibel
dBA	A-weighted decibel
DC	Direct Current
LDEQ	Louisiana Department of Environmental Quality
Draft EIS/ DEIS	Draft Environmental Impact Statement
DOTD	(Louisiana) Department of Transportation and Development
EA	Environmental Assessment
EDRG	Economic Development Research Group, Inc.
EEE / E3	Essential Environmental Engineering, Inc.
EIS	Environmental Impact Statement
EO	Executive Order
EPA/ USEPA	United States Environmental Protection Agency

FAA	Federal Aviation Administration
FEMA	Federal Emergency Management Agency
FFGA	Full Funding Grant Agreement
FHWA	Federal Highway Administration
FIRM	Flood Insurance Rate Maps
FONSI	Finding of No Significant Impact
Final EIS/ FEIS	Final Environmental Impact Statement
GDP	Gross Domestic Product
HCM	Highway Capacity Manual
ITE	Institute of Transportation Engineers
KCS	Kansas City Southern Railroad
LANOIA	Louis Armstrong New Orleans International Airport
LDEQ	Louisiana Department of Environmental Quality
Ldn	Day-Night Equivalent Sound
Leq	Leq is the constant, average sound that over a period of time contains the same amount of sound energy as fluctuating noise
Leq(h)	One-hour Equivalent Sound Level
Lmax	Maximum Sound Level
LOS	Level of Service
LPDES	Louisiana Pollutant Discharge Elimination System
LRTP	Long Range Transportation Plan
LUST	Leaking Underground Storage Tank
LWCF	Land and Water Conservation Fund
mbpd	Millions of barrels per day
MOBILE5b	Mobile Source Emissions Model version 5b
MPO	Metropolitan Planning Organization
MSA	Metropolitan Statistical Area
MSL	Mean Sea Level
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act (1969)
NHP	National Historic Park
NOA	Notice of Availability of Environmental Impact Statement
NOAA	National Oceanic Atmospheric Administration
NOI	Notice of Intent to Prepare an Environmental Impact Statement

NOPB	New Orleans Public Belt Railroad
NO _x	Nitrogen Oxides
NPDES	National Pollution Discharge Elimination System
NPL	National Priority List, also known as the “Superfund” list of uncontrolled or abandoned hazardous waste sites that have become contaminated.
NPS	National Park Service
NRHP	National Register of Historic Places
NWI	National Wetlands Inventory
N-Y	N - Y Associates, Inc.
OEA	Office of Environmental Assessment
OSHA	Occupational Safety and Health Administration
O ₃	Ozone
Pb	Lead
PE	Preliminary Engineering
PM ₁₀	Particulate matter 10 microns or less in nominal diameter
ppm	Parts per million
PPV	Peak Particle Velocity
PWI	Protected Waters Inventory
RMS	Root Mean Square
ROD	Record of Decision
ROW	Right-of-way
RPC	Regional Planning Commission for Jefferson, Orleans, Plaquemines, St. Bernard and St. Tammany Parishes

RTE	Rare, threatened and endangered
SAFETEA-LU	Safe Accountable Flexible Efficient Transportation Equity Act – A Legacy for Users
SCS	Soil Conservation Service
SHPO	State Historic Preservation Officer
SLM	Sound Level Meter
SO ₂	Sulfur Dioxide
SO _x	Sulfur Oxides
STIP	State Transportation Improvement Program
TAZ	Traffic Analysis Zone
TIP	Transportation Improvement Program
TSM	Transportation Systems Management
UPRR	Union Pacific Railroad
U.S. HUD	U.S. Department of Housing and Urban Development
USACE	U.S. Army Corps of Engineers
USDA	United States Department of Agriculture
USDOT	United States Department of Transportation
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
v/c	Volume/ Capacity
VdB	velocity decibel
VHT	Vehicle Hours of Travel
VMT	Vehicle Miles of Travel
YOE	Year of Expenditure

List of Preparers

Name	Education		Responsibility	Years Experience
	Degree	Major		
N-Y Associates, Inc. (N-Y)				
Bruce Richards	B.A. M.C.P.	Political Science City Planning	Senior Project Manager; Editing, Technical Writing; Public Involvement, Quality Control Review	27
Jim Simmons, P.E.	B.S.	Civil Engineering	Deputy Project Manager; Conceptual Engineering, Public Involvement, Quality Control Review	37
Chris Mills	BS, MURP	Urban & Regional Planning	GIS Mapping, Public Involvement	15
Annabeth McCall	BS, MURP	Urban & Regional Planning	GIS Mapping	1
Leon Cuccia			Plan and Profile Sheets	31
Urban Systems Associates (US)				
Alison Catarella- Michel, P.E., PTOE	B.S.	Civil Engineering	Traffic Impacts	15
Nicole Stewart, PE, PTOE	B.S.	Civil Engineering; Physics	Traffic Impacts	9
Brandon Perrilloux, EI,	B.S.	Civil Engineering	Traffic Impacts	4
Anna Lai, PE, PTOE	B.S. M.S.	Civil Engineering, Transportation Engineering	Traffic Impacts	3
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Kim Henry, P.E.	B.S. MS	Chemical Engineering Urban Studies	GIS Mapping, Utility Research, Public Involvement	28
Coastal Environments, Inc.				
Karen Wicker	B.S. M.S. PhD.	American Studies Physical Geography Physical Geography	Biology, Wetlands, Endangered Species	39
Ed Fike	B.S	Agriculture (Watershed Management)	Hazardous and Solid Waste Analysis	33
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David Kelley	B.A. PhD.	Anthropology Anthropology	Cultural Resources	35
Sara Hahn	B.A. M.A.	Anthropology Anthropology	Cultural Resources	17
Thurston Hahn	B.A.	Anthropology	Cultural Resources	23

Name	Education		Responsibility	Years Experience
	Degree	Major		
Bowlby and Associates				
Wm. Bowlby	B.S. M.S. PhD	Civil Engineering Civil Engineering Civil Engineering	Noise and Air Analysis	40
Clay Patton	B.E..	Civil Engineering	Noise and Air Analysis	21
EDRG				
Glen Weisbrod	B.A. M.S. M.C.P.	Economics Engineering City Planning	Economic Impacts	32
Naomi Stein	B.S. M.S. M.C.P.	Civil Engineering Transportation City Planning	Economic Impacts	10
Regional Planning Commission (RPC)				
Jeff Roesel, AICP	B.A., M.U.R.P.	Urban and Regional Planning	Lead Agency Project Manager	25
Department of Transportation and Development (DOTD)				
Mike LaFleur, P.E.	B.S.	Mechanical Engineering	Environmental Review	32
Federal Highway Administration				
Robert Mahoney, P.E.	M.S.	Civil Engineering	Environmental Specialist	50
Scott Nelson, P.E.	B.S. M.S.	Civil Engineering Transportation Engineering	Area Engineer	17

**List of Agencies, Organizations, and Persons
to Whom Copies of the Statement were Sent
Reserve to I-10 Connector EIS (St. John the Baptist Parish):**

Lead Agencies:	Section/Division:	Primary Contact:	Number of Copies:
Federal Highway Administration	Louisiana Division	Robert Mahoney	3
Louisiana Department of Transportation and Development	Environmental	Mike Lafleur	15
Louisiana Department of Transportation and Development	District 62	Jesse McClendon	5
Regional Planning Commission (MPO)	N/A	Jeff Roesel	3
Cooperating Agencies			
US Army Corps of Engineers-Regulatory Division	New Orleans District	Rob Heffner	1
Participating Agencies			
US Environmental Protection Agency - Regional Office in Dallas, TX	Office of Planning and Coordination	John MacFarlane, Rhonda Smith	5
Department of Transportation	Federal Aviation Administration	Teresa Bruner (Dallas Regional Administrator)	1
United States Fish and Wildlife Service		Joshua C. Marceaux	1
Louisiana Department of Natural Resources	Coastal Management Division	Ontario James	1
Louisiana Department of Wildlife and Fisheries	Ecological Investigations	Chris Davis	1
Louisiana Department of Environmental Quality	Southeast Regional Office – Bayou Lafourche Office	Patrick Breaux	1
St. John the Baptist Parish	Administration	Natalie Robottom - Parish President	1
St. John the Baptist Parish	Administration	Paige Falgoust - Communications Director	1
St. John the Baptist Parish	Administration	Jobe Boucvalt - Director of Public Safety	1
St. John the Baptist Parish	Administration	Angelic Sutherland - Director of Planning and Zoning	1
St. John the Baptist Parish	Office of Emergency Preparedness	Kathryn Gilmore - Deputy Director	1
Pontchartrain Levee District		Monica Salins - Executive Director	1
Port of South Louisiana		Paul Aucoin	2
South Central Planning and Development Commission		Leonard P. Marretta - MPO Administrator	1
Other Agencies			
Department of the Interior	Headquarters, Washington DC		12
Environmental Protection Agency	Headquarters, Washington DC		1 (electronically filed)
Louisiana State Historic Preservation Office			1
Elected Officials (Federal)			
United States Senate		Bill Cassidy	1
United States Senate		David Vitter	1
US House of Representatives	6th District	Garrett Graves	1
US House of Representatives	2nd District	Cedric Richmond	1

**List of Agencies, Organizations, and Persons
to Whom Copies of the Statement were Sent
Reserve to I-10 Connector EIS (St. John the Baptist Parish)
(continued):**

Elected Officials (State)			
Louisiana House of Representatives	District 57	Randal L. Gaines	1
Louisiana House of Representatives	District 81	Clay Schexnayder	1
Louisiana House of Representatives	District 56	Greg Miller	1
Louisiana State Senate	District 2	Senator Troy Brown	1
Louisiana State Senate	District 19	Senator Gary Smith	1
Elected Officials (Local)			
St. John the Baptist Parish Council	Division A	Lucien J. Gauff, III	1
St. John the Baptist Parish Council	Division B	Jaclyn Hotard	1
St. John the Baptist Parish Council	District 1	Art Smith	1
St. John the Baptist Parish Council	District 2	Ranney Wilson	1
St. John the Baptist Parish Council	District 3	Lennix Madere, Jr.	1
St. John the Baptist Parish Council	District 4	Marvin Perriloux	1
St. John the Baptist Parish Council	District 5	Michael Wright	1
St. John the Baptist Parish Council	District 6	Larry Snyder	1
St. John the Baptist Parish Council	District 7	Cheryl Millet	1
Libraries			
State Library			20 + digital (pdf) copy
St. John the Baptist Parish Library	Main Branch		2
St. John the Baptist Parish Library	Reserve Branch		2

ENVIRONMENTAL DETERMINATION CHECKLIST

Project No. H.004891[Federal Aid Project No. H004891]

Name: Reserve to I-10 Connector

Route: New (US 61 to I-10)

Parish: St. John the Baptist

1. General Information

Status: Survey Preliminary Plans
 Plan-in-Hand Final Design

2. Class of Action

- Environmental Impact Statement (E.I.S.)
- Environmental Assessment (E.A.)
- Categorical Exclusion (C.E.)
- Programmatic C.E. (as defined in letter of agreement dated 03/15/95, does not require FHWA approval)

3. Project Description (use attachment if necessary)

The proposed project includes the construction of a new route between US 61 in Reserve, LA north to I-10) in St. John the Baptist Parish. Proposed construction items intersection improvements at the intersection of US 61 and Regala Park Drive/ W. 10th Street (LA 637) both improvement of a portion of Regala Park Drive, construction of new at-grade two lane roadway, construction of an elevated two lane highway across undeveloped wetland areas, and construction of a new interchange with I-10 between the existing I-10 interchanges with LA 641 and LA 3188.

4. Public Involvement

- Views were solicited during Scoping Process between July 2009 and January 2010. Responses are attached.
- No adverse comments were received.
- Adverse comments are addressed in attachment.
- A public hearing (P/H)/Opportunity is not required.
- An opportunity for requesting a P/H will be afforded upon your concurrence.
- Opportunity was afforded, with no requests for P/H.
- A Public Hearing will be held after distribution of the DEIS _____.
- Public Meetings were held in August 2009; November 2009; April 2010; and April 2013.

5. Real Estate (If yes, use attachment)

	NO	YES
a. Will additional right-of-way be required?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Will any relocations be required? (Attach conceptual stage relocation plan if yes)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Are construction or drainage servitudes required?	<input checked="" type="checkbox"/>	<input type="checkbox"/>

6. Cultural and 106 Impacts (If yes, use attachment)

	NO	YES
a. Section 4(f) or 6(f) lands	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Historic sites/structures (106) (existing or pre-existing)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Archaeological sites	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Cemeteries	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. Historic Bridges	<input checked="" type="checkbox"/>	<input type="checkbox"/>

7. Wetlands (Attach wetlands finding, if applicable)

	NO	YES
a. Are wetlands being affected?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Can C.O.E. Nationwide Permit be used?		<input checked="" type="checkbox"/>
()		

8. Natural Environment (use attachment if necessary)

	NO	YES
a. Endangered/Threatened Species/Habitat	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Within 100 Year Floodplain?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is project an encroachment in Floodplain?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is encroachment "significant" as defined by 23 CFR 650?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. In Coastal Zone Management Area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is project in compliance?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Coastal Barrier Island (Grand Isle only)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. Farmlands (use form AD 1006 if necessary)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. Is project on Sole Source Aquifer?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Is there any impact on aquifer?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Is coordination with EPA necessary?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g. Natural & Scenic Stream (_____)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Applied for a Class B Permit?		<input checked="" type="checkbox"/>
()		

9. Physical Impacts (use attachment if necessary)

	NO	YES
a. Is a noise analysis warranted (Type I project)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Are there noise impacts based on violation of the (NAC)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Are there noise impacts based on the 10 dBA increase?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Are noise abatement measures reasonable and feasible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Is an air quality study warranted?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Do project level air quality levels exceed the NAAQS for CO?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Is project in a non-attainment area for Carbon monoxide (CO), Ozone (O ₃), Nitrogen dioxide (NO ₂), or Particulates (PM-10)?		<input checked="" type="checkbox"/>
()		
d. Is project in an approved Transportation Plan, Transportation Improvement Program (TIP) and State Transportation Improvement Program (STIP)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Are construction air, noise, & water impacts major?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f. Are there any known waste sites or U.S.T.s?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Will these sites be tested prior to purchase of right-of-way?	<input checked="" type="checkbox"/>	<input type="checkbox"/>

10. Social Impacts (use attachment if necessary)

	NO	YES
a. Land use changes	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Churches and Schools	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Title VI Considerations	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Will any specific groups be adversely affected (i.e., minorities, low-income, elderly, disabled, etc.)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. Hospitals, medical facilities, fire police	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f. Transportation pattern changes	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g. Community cohesion	<input checked="" type="checkbox"/>	<input type="checkbox"/>
h. Are short-term social/economic impacts due to construction considered major?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
i. Do conditions warrant special construction times (i.e., school in session, congestion)?		<input type="checkbox"/>
(X)		
j. Will the roadway be closed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
k. Will a detour bridge be provided?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
l. Will a detour route be signed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

11. Other

Preparer: Bruce J. Richards
Date: March, 2015

Attachments (Disposition)

- Scoping Process and Responses (RPC)
 - Wetlands Finding (RPC)
 - Noise Analysis (RPC)
 - Air and Noise Analysis (RPC)
 - 106 Documentation (To Be completed as part of FEIS)
-

EXECUTIVE SUMMARY

INTRODUCTION

The Reserve to I-10 Connector is a proposed project in St. John the Baptist, Louisiana. The lead agencies for the project are the Regional Planning Commission (RPC), the Louisiana Department of Transportation and Development (DOTD), and the Federal Highway Administration (FHWA) is the lead federal agency. The sole cooperating agency for the study is the United States Army Corps of Engineers (USACE), New Orleans District, and there are multiple participating agencies for the project.

PROJECT LOCATION

The proposed project is located in the greater New Orleans metropolitan region in southeast Louisiana, in St. John the Baptist Parish. The project location is entirely within the east bank of the Mississippi River. The logical termini, or project limits, for the EIS study area and National Environmental Policy Act (NEPA) documentation extended from ¼ mile to the east of US 51 on the east to the St. John the Baptist/St. James Parish Line on the west, and from ¼ mile north of I-10 on the north to ¼ mile south of US 61 on the south

PROJECT BACKGROUND

The Port of South Louisiana has experienced significant growth over the last few years, and looks to continue this growth into the future. Concurrently, the east bank of St. John the Baptist has also experienced growth and hopes to have continued economic growth in the future. Continued growth of the Port and the commercial/industrial component of the Parish are vital to the economic recovery of the region. However, one of the impediments to further development has been access to the interstate for Port and other commercial traffic. While port facilities exist along a 54-mile stretch of the Mississippi River, the main focus of port activities and need for port access has been focused in the Reserve area. Unfortunately, Reserve has no direct connection to the interstate system. Interchanges with I-10, the nearest interstate highway lie either eight miles to the east at LA 3188 or twelve miles to the west at LA 641. Access to I-10 from the port facilities at Reserve via either of these routes is circuitous, using one of three state highways to access US 61, then traveling either west or east along this congested commercial thoroughfare to the state highways linking to I-10. The routes also pass through residential areas.

PROJECT PURPOSE AND NEED

PURPOSE OF THE PROJECT

The purpose of this project is to provide improved access between the US 61 (Airline Highway) corridor in the Reserve area north to I-10, for (1) general commercial and non-commercial traffic in the Parish, and for (2) the Port of South Louisiana.

NEED FOR THE PROJECT

General Commercial and Non-Commercial Access

Interstate 10 is a major east-west roadway for traffic crossing St. John the Baptist Parish. One of only two interstate facilities within the parish, (the other being I-55, which intersects with I-10), I-10 not only services vehicular traffic passing through St. John the Baptist Parish, but also serves to some degree traffic which originates and terminates from within the Parish. The interstate offers Parish residents and businesses a limited-access route to the rest of the continental U.S. via the interstate system.

Parish officials and parish residents have expressed their desire for quicker and more direct routes to I-10 from the US 61 corridor. The intent is to provide reliable access for residents and area citizens. This includes trips from the Parish to surrounding areas for employment-related commuting, shopping, and educational and medical services, and from surrounding areas to the Parish for similar trips, particularly employment-related trips to industrial areas along the river corridor. Additionally, better access routes are desired in order to reduce vehicle hours traveled (VHT) and to provide travel time savings and benefits which will accrue to those living, working, and/or traveling to and from the developed areas of the Parish. As it stands currently, with approximately fifteen miles of roadway within St. John the Baptist Parish, I-10 has two exits or access points: the Belle Terre exit (Hwy 3188) and the US 51 exit. Compounding the access issue is that west of Belle Terre the next access point is eleven (11) miles away in St. James Parish (the interchange with LA Hwy 641).

The improved access is also needed to enable emergency vehicles to reach destinations more promptly. This entails not only response to major disasters or incidents, but also day to day response operations by police, fire, and EMT vehicles. There have been concerns from parish officials that emergency vehicles are often dispatched to highway incidents along I-10, but once they are on I-10, they have no quick way to respond to other emergencies occurring in the developed areas of the Parish. This is due to the isolated nature of I-10 between the Belle Terre and Gramercy exits, as well as a long divided, elevated stretch between those two exits.

Port Access

The Port of South Louisiana and local officials have expressed a need for better access for Port truck traffic to facilitate the recent trend of economic growth of the Port and the region as a whole. In the wake of Hurricane Katrina and its impact on the New Orleans metro area, continued growth of the Port and the associated commercial/industrial component of the Parish are seen as vital to the economic recovery of the region. However, one of the impediments to further development has been access to the interstate for Port. While port facilities exist along a 54-mile stretch of the Mississippi River, the main focus of port activities and need for port access has been focused in the Reserve area. Unfortunately, Reserve has no direct connection to the interstate system. Interchanges with I-10, the nearest interstate highway, lie either eight miles to the east at Highway 3188 or twelve miles to the west at Highway 641. Access to I-10 from the port facilities at Reserve via either of these routes is rather cumbersome, using one of three state highways to access US 61, then traveling either west or east along this congested commercial thoroughfare to the state highways linking to I-10. A more direct access route to I-10 will facilitate Port-related traffic.

Secondarily, Parish officials and citizens have expressed the strong desire to lessen the impact of Port truck traffic on local roads. In particular, they would like to lessen the amount of truck traffic currently passing through residential areas, such as the Belle Terre area. They would also like to lessen the impact of truck traffic as it affects current congestion levels on US 61. A more direct access route to I-10 will help to accomplish both of these goals.

DEVELOPMENT, EVALUATION AND SCREENING OF ALTERNATIVES

The development of project alternatives under this specific Environmental Impact Statement (EIS) process was accomplished with a combination of public involvement and input and technical expertise on behalf of the project team. The process began with the Early Involvement/Scoping process, which led to an establishment of fifteen (15) **Preliminary Alternatives**, including a TSM Alternative and a No Build Alternative. At the conclusion of the Early Involvement/Scoping process there were eleven alternative left: nine (9) Build Alternatives, the TSM Alternative and the No Build Alternative. These were termed the **Initial Alternatives**.

The initial build alternatives were to first be evaluated based on criteria agreed to by the lead agencies. Possible criteria listed under the original scope included order of magnitude cost estimates, environmental constraints (wetlands, hazardous waste sites, endangered species, etc.) and anticipated human environment impacts (relocations, visual impacts, noise impacts, etc.). This evaluation was intended to be done with readily available or easily developed data, and following the evaluation of the initial build alternatives, they were to be screened such that a maximum of two (2) build alternatives would be carried forward in the process. These one or two build alternatives along with the No-Build Alternative and the Transportation Systems Management (TSM) Alternative would then be more fully developed as *candidate alternatives* and analyzed in

terms of likely impacts.

During the evaluation process, the US Army Corps of Engineers stated that for its concurrence with the process as the sole Cooperating Agency on the project, a different focus was needed. Rather than a broad-based initial evaluation process concluded with a consensus among the Lead, Cooperating and Participating Agencies, the initial screening would have to more closely follow the Corps procedure of determining the “least damaging practicable alternative” (LDPA), with a distinct screening process focused on “least damaging” – **as the project relates to wetlands** - and “practicability”. According to the Corps, practicable alternatives are those alternatives that are "available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes."

"PRACTICABILITY" EVALUATION AND SCREENING

The Conceptual Engineering of the Alternatives showed that the alternatives were all practicable in terms of cost and existing technology; the only remaining variable in terms of practicability is then *logistics in light of overall project purposes*. As a result, the first set of screening criteria evaluated whether or not an alternative is practicable *by whether or not it adequately meets the project's purpose and need*.

For purposes of this first level of screening, two analyses and evaluation were completed:

- The first measure of travel time savings is for regular vehicular traffic, which includes discussion as to directional split, traffic volumes, and *gross* travel times savings.
- The second measure of travel time savings refers to savings for emergency vehicles responding to calls along I-10 between the Belle Terre and Lucher exits, which includes *average* travel time savings for emergency vehicles.

As a result of their relative lack of time travel savings compared to the other build alternatives, **AP-2** and **AP-7** (along with **P-4** which has no travel time savings) were suggested for elimination from further consideration as not being practicable alternatives. As a result of this evaluation and screening for emergency response times, **Alternatives P-4, EIS-4 and EIS-5** were suggested for elimination from further consideration. This eliminated five Alternatives from further consideration.

"LEAST DAMAGING" EVALUATION AND SCREENING

The second set of criteria was designed to best evaluate which of the remaining build alternatives were the least damaging to the environment. They were further divided into two separate sub categories that are addressed in a specific order: (1) impacts specifically related to wetlands, and (2) other (human environment) impacts.

Based on the evaluation of the four remaining build alternatives, **Alternatives AP-6B and P-1** were determined to be the least damaging in terms of potential impacts relating to wetlands. Those alternatives were also the least damaging in terms of other (human environment) impacts. Thus, these two alternatives (along with the No-Build Alternative and the TSM Alternative) were selected to move forward in the EIS process and were fully developed as *candidate alternatives* and analyzed in terms of likely impacts. These candidate alternatives are described in depth below:

1. **NO BUILD ALTERNATIVE** - The No-Build Alternative provides a baseline to compare the other alternatives and includes improvements within the immediate project area that were already planned or programmed. For purposes of traffic and air quality analysis, all other planned and programmed transportation improvements within the *region* are also included in the No-Build Alternative, as these will have some effect on traffic demand and traffic volumes within the corridor.

2. **TRANSPORTATION SYSTEM MANAGEMENT (TSM) ALTERNATIVE** - The TSM Alternative was designed to be a low-cost option for implementation that would address the EIS purpose and need. The purpose of the project in general -- to aid traffic in the Reserve area in accessing I-10 -- as well as the consideration of a project being “low-cost,” leads to the TSM components focusing on improving traffic along US 61 or other routes which lead directly to I-10. As noted above, in the No Build Alternative there are several such projects recently completed, underway, or planned which would improve traffic. However, there remains four instances where the installation of acceleration lanes (primarily for heavy trucks leaving Port or other industrial facilities) would aid in traffic flow by allowing slower-accelerating trucks to get up to sufficient travel speed before entering US 61. These include the following locations:

1. **West 10th Street (signalized)** - northbound to eastbound right-turn acceleration lane
2. **Terre Haute Avenue (signalized)** - northbound to eastbound right-turn acceleration lane, and northbound to westbound left-turn acceleration lane
3. **Marathon Avenue (signalized)** - northbound to eastbound right-turn acceleration lane
4. **Marathon West Entry (unsignalized)** - northbound to eastbound right-turn acceleration lane

3. **BUILD ALTERNATIVE AP-6B** - This alternative extends north from US 61 to I-10. At US 61, its alignment would connect to Regala Park Drive, which is a northern extension of LA 637 (W. 10th Street). LA 637 extends south to the Port of South Louisiana and is planned for future roadway upgrades.

Beginning at the US 61 intersection with Regala Park Drive, the roadway would first include some improvements at the intersection, including installation of directional turning lanes. Regala Park Drive would be improved to meet LADOTD RC-3 Roadway Design Criteria, with the addition of 10 ft. shoulders, striping, clear zone and drainage.

Where Regala Park Drive currently turns to the west, the new roadway would continue north and the east-west running portion of Regala Park Drive would intersect as a “T” intersection.

The new two-lane roadway would proceed north for approximately 1500 feet through agricultural fields. At that point, the two-lane roadway would enter the wetlands area and transition to an elevated highway on structure. The elevated highway would consist of two travel lanes of 12 feet each, divided by a concrete barrier rail in the center. Each travel lane would have a 10 foot outside shoulder and a two foot inside shoulder. The entire structure would be 52.5 feet wide, and the right-of way corridor would be approximately 100 feet wide (82.5 feet minimum).

As it proceeds toward I-10, the elevated highway structure heads slightly west of due north, so that the highway can connect to the at-grade portion of I-10 rather than the elevated portion of I-10. Approximately 1.22 miles north of the beginning of the elevated highway (or .8 miles south of I-10) the structure will pass over a gas pipeline.

At I-10, the roadway will intersect with the interstate via a fully directional interchange, very similar in form and function to the I-10 interchange at Belle Terre Boulevard, the nearest interchange to the east. Traffic from the new roadway heading west on I-10 and westbound traffic from I-10 heading south on the new roadway will utilize a new overpass over I-10, with the traffic from the new roadway heading west on I-10 utilizing a ¼ cloverleaf. Traffic from eastbound I-10 accessing the new roadway, and new roadway traffic heading east on I-10 will each use at-grade off-ramps and on-ramps on the south side of I-10.

4. BUILD ALTERNATIVE P-1 - This alternative extends north from US 61 to LA 3188 (Belle Terre Boulevard) just south of that roadway’s interchange with I-10. The alternative begins as an extension of LA 3179 (E. 22nd Street) at US 61. At the intersection of those two roadways, the alternative would first include some improvements at the intersection, including re-orientation and re-striping of the center lane on LA 3179 south of US 61 (from turn lane to a through lane) as well as installation of a traffic signal and directional turning lanes on US 61.

North of US 61, the new roadway would be an at-grade roadway for a short distance (less than ¼ of a mile), and then would transition to an elevated highway on structure over wetlands. The elevated highway dimensions and specifications would be the same as those for AP-6B. And similar to AP-6B, it is assumed that in order to minimize impacts, end-on bridges construction would be utilized in wetland areas.

The elevated roadway proceeds north-northwest for approximately ¾ mile north of US 61 before curving to the northeast. Originally, the route was to pass over the extreme northern edge of non-wetland agricultural areas as it proceeded northeast, but during field research it was determined that the original route was located on a combination of a back levee and a drainage canal. As such, the alignment was refined in June 2013 so that it curved to the east earlier, and passed through the agricultural fields several hundred yards south of the canal and levee. Before returning to the wetland areas, the alternative shifts

back to its original alignment near the northern edge of the fields. It should be noted that while this section of the roadway is not passing through undeveloped wetland areas, it remains on an elevated structure.

Just prior to its intersection with Belle Terre Boulevard, the elevated roadway turns more to the east and transitions back to an at-grade roadway to intersect with Belle Terre. The location of the Belle Terre intersection is the existing stub-out for the planned Woodland Drive extension, about ½ mile from the I-10 interchange.

The new intersection with Belle Terre would require some modification to the existing stub-out under two possible options. One option would be to convert the intersection to a signalized intersection, with corresponding turn lanes for each approach. The second option is installation of a free-flow roundabout intersection.

IMPACT ANALYSIS

The final phase of alternative evaluation began with an assessment of the environmental impacts of the four candidate alternatives considered (the No Build Alternative, the TSM Alternative and the two Build Alternatives) relative to the evaluation categories of transportation and traffic, human environment, and the natural environment.

In summary each Alternative was found to likely have some direct impacts within the project study area. Some of these impact categories were considered non-adverse/beneficial, and require no mitigation measures. They are listed below for each alternative:

NO BUILD ALTERNATIVE

- Traffic Impacts

TSM ALTERNATIVE

- Traffic Impacts

ALTERNATIVE AP-6B

- Traffic Impacts
- Economic Impacts
- Access to Community Facilities and Services

ALTERNATIVE P-1

- Traffic Impacts
- Economic Impacts
- Access to Community Facilities and Services

Other impact area categories were considered unavoidable, adverse social, economic, or natural environmental impacts that require some form of mitigation. They are also listed below for each alternative:

NO BUILD ALTERNATIVE

- Construction Period Impacts

TSM ALTERNATIVE

- Construction Period Impacts

ALTERNATIVE AP-6B

- Construction Period Impacts
- Wetland Impacts (36.63 acres)
- Impacts to Wildlife
- Surface Water Quality Impacts
- Ground Water Quality Impacts

ALTERNATIVE P-1

- Construction Period Impacts
- Wetland Impacts (35.40 acres)
- Impacts to Wildlife
- Surface Water Quality Impacts
- Ground Water Quality Impacts

EVALUATION OF CANDIDATE ALTERNATIVES AND IDENTIFICATION OF PREFERRED ALTERNATIVE

An evaluation was then conducted for each of the candidate alternatives under consideration for the proposed Reserve to I-10 Connector Project. The purpose of the evaluation process was to bring together the salient facts for each alternative so that their benefits, costs, and environmental consequences can be evaluated against the stated goals for the proposed project as set forth in the project's Purpose and Need.

EVALUATION MEASURES

The project's *Purpose and Need* section provides a detailed identification of the transportation system's existing problems and needs as well as the purpose for the project, which is as follows:

Provide improved access between the US 61 (Airline Highway) corridor in the Reserve area north to I-10, for

- (1) general commercial and non-commercial traffic in the Parish; and for*
- (2) the Port of South Louisiana.*

The two aspects of the project purpose were used to compare the No-Build Alternative, TSM Alternative and the two proposed Build Alternatives.

Also compared were the impacts of the build alternatives on the environment, described in detail in the preceding chapter.

Addressing Project Purpose

No Build Alternative – The No Build Alternative does not address the project’s purpose. In no manner does it provide for improved access between the US 61 (Airline Highway) corridor in Reserve north to I-10, neither for general commercial and non-commercial traffic nor for traffic related to the Port of South Louisiana.

TSM Alternative – The TSM addresses the project’s purpose, albeit to a small degree. As noted in *Chapter IV*, TSM improvements are expected to overall reduce delays at the improvement intersections. This in vehicular access to existing routes leading from Reserve to I-10, but only for those vehicle trips which pass through those intersections. Trips that do not pass through those intersections to access I-10 will not be affected positively.

Build Alternatives – The Build Alternatives both address the project’s purpose and need, much moreso than the TSM Alternative. As noted in *Chapter IV*, US 61 is expected to have more capacity with both Alternative P-1 and AP-6B than with the No Build or TSM conditions, and while US 61 is expected to operate poorly in the 2038 design year in all scenarios, Alternatives P-1 and AP-6B are expected to result in *decreases* in delay on US 61 from the No Build condition. Alternatives P-1 and AP-6B would also provide more of a safety benefit compared to the TSM improvements and No Build condition due to controlled access on the elevated sections of the alternatives. All of these changes will result in improved access within the US 61 corridor portion of the project.

However, there is a difference in degree to which the two projects address the project purpose and need:

- While both Alternatives P-1 and AP-6B would allow emergency responders to by-pass sections of US 61 which could decrease emergency response time, Alternative AP-6B would provide a more direct access route for emergency response to I-10.
- Both Alternatives P-1 and AP-6B are expected to provide more efficient port (truck) access to I-10 compared to the No Build Alternative or TSM Alternative. Alternative AP-6B is expected to provide the more efficient route for truck traffic than Alternative P-1 due to a direct connection to I-10, and due to its direct connection to newly improved W. 10th Street, the designated port access route.

Comparing Project Impacts

All four alternatives have some degree of environmental impacts, some beneficial, and some negative (requiring mitigation).

While the No Build Alternative would require no mitigation, and while the TSM Alternative requires little in mitigation, conversely, the No Build Alternative provides no beneficial impacts, and the TSM Alternative provides little in terms of impacts.

The larger comparison of project impacts is between the two Build Alternatives which address the project's purpose and need:

- As discussed above, each results in positive traffic impacts relating to enhanced access between I-10 and US 61 in Reserve.
- Each will also have an decided beneficial economic impact: as described in Chapter IV, the total economic impact of Alternative P-1 is estimated at \$99 million dollars in 2038, while Alternative AP-6B would have a slightly higher impact of \$103 million.
- Both build alternatives are expected to have positive indirect and cumulative impacts.
- Each build alternative would have an impact on wetland acreages, which are estimated to be very similar in size: 36.63 acres directly impacted under Alternative AP-6B and 35.40 acres under Alternative P-1.
- Both build alternatives would have similar impacts on wildlife, surface water quality and ground water quality.

IDENTIFICATION OF PREFERRED ALTERNATIVE

The findings were presented to the lead agencies (RPC, LADOTD and FHWA) during a meeting on February 6th, 2014. The group then discussed the matrix and impacts (positive and negative) of each alternative:

All present agreed one of the more important items was how the project met the Purpose and Need, and that Alternative AP-6B provided better port and truck access as it would intersect directly with the soon-to-be-improved port access road (LA 637/W. 10th St) that linked River Road to US 61.

Another beneficial impact was discussed -- that of reduced emergency response time. It was noted that at the public meetings and at previous agency meetings, fire, police and EMS officials stated that AP-6B would be a tremendous benefit, but that P-1 would not benefit their operations in reaching incidents on I-10 between the Belle Terre and the LA 641 interchanges.

It was noted that the economic impact analysis indicated a net benefit of \$103 million for AP-6B and \$99 million for P-1, both higher than the estimated cost of each alternative (\$77 million and \$75 million respectively).

It was noted that the wetland impacts of the two build alternatives --proably the largest impact requiring mitigation-- were very similar --36.63 acres for Alternative AP-6B and 35.40 acres for P-1.

It was the consensus among the lead agencies that Alternative AP-6B was the preferred alternative for best meeting the purpose and need of the project, and as it was most beneficial in terms of impacts.

It should be noted that as of the date of this document, there is no current funding source identified for designing or constructing this project.

CHAPTER I

INTRODUCTION, BACKGROUND, PURPOSE & NEED, AND REPORT ORGANIZATION

INTRODUCTION AND NEPA REQUIREMENTS

This report is an Environmental Impact Statement (EIS) being prepared as a requirement of the National Environmental Policy Act (NEPA). NEPA was enacted in 1969 in the United States to encourage sustainable development and informed decision-making in a manner acceptable to the United States' citizens and government agencies. NEPA requires that every federal action or federally funded project be evaluated on its merits by the federal sponsor agency. Public involvement was identified as a key component of the NEPA planning process. Effects to the human and natural environment, as well as the relative benefits of the project alternatives must be evaluated and presented to the public, tribal interests, resource agencies having jurisdictional interests in the project, and to decision-makers.

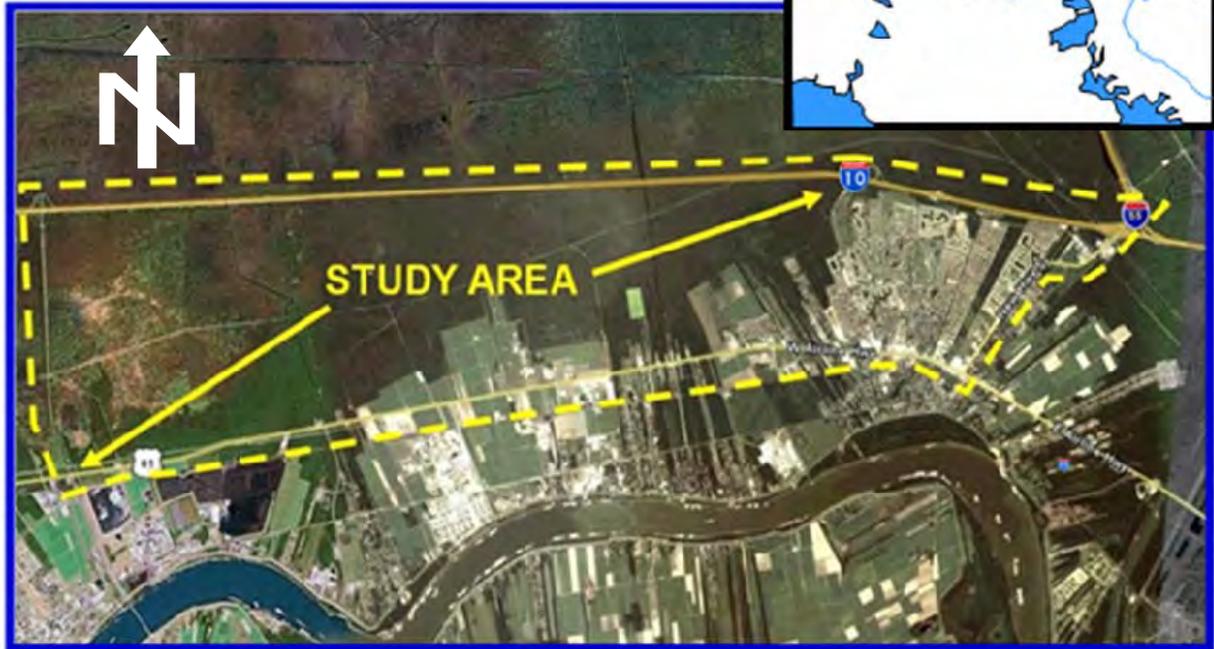
This chapter provides background on and identifies the purpose and need for the proposed St. John the Baptist I-10 Connector Project. It also provides a summary of the report's organization.

BACKGROUND

PROJECT LOCATION

The proposed project is located in the greater New Orleans metropolitan region in southeast Louisiana, in St. John the Baptist Parish. The project location is entirely within the east bank of the Mississippi River. The initial logical termini, or project limits, for the EIS study area and National Environmental Policy Act (NEPA) documentation extended from ¼ mile to the east of US 51 on the east to ¼ mile to the west of LA 641 on the west, and from ¼ mile north of I-10 on the north to ¼ mile south of US 61 on the south, as shown in **Figure I-1** on the following page. Logical termini must encompass a project segment of sufficient length to evaluate project effects, provide a boundary of a project segment that has independent utility, and not restrict any future connector improvements to the project.

Figure I-1 Project Study Area



PROJECT HISTORY

The Port of South Louisiana has experienced significant growth over the last few years, and looks to continue this growth into the future. Concurrently, the east bank of St. John the Baptist has also experienced growth and hopes to have continued economic growth in the future. Continued growth of the Port and the commercial/industrial component of the Parish are vital to the economic recovery of the region. However, one of the impediments to further development has been access to the interstate for Port and other commercial traffic. While port facilities exist along a 54-mile stretch of the Mississippi River, the main focus of port activities and need for port access has been focused in the Reserve area. Unfortunately, Reserve has no direct connection to the interstate system. Interchanges with I-10, the nearest interstate highway lie either eight miles to the east at Highway 3188 or twelve miles to the west at Highway 641. Access to I-10 from the port facilities at Reserve via either of these routes is circuitous, using one of three state highways to access US 61, then traveling either west or east along this congested

commercial thoroughfare to the state highways linking to I-10. The routes also pass through residential areas.

In order to address the Port access issues, an Environmental Assessment was undertaken beginning in 2002. The *Port of South Louisiana Draft Environmental Assessment* was completed in August 2004, followed by a public review period. As there were several major issues raised by agencies such as the US Army Corps of Engineers and US Fish and Wildlife Service, as well as concerns expressed by some residents and environmental groups, it was the agreement of the LADOTD, FHWA, Port of South Louisiana, and St. John the Baptist Parish that a more far-reaching study-- an Environmental Impact Statement-- would be needed.

As a result, the Regional Planning Commission authorized an Environmental Impact Statement (EIS) for Port of South Louisiana and St. John Parish enhanced interstate access. Under the new federal guidelines and regulations for an EIS, there was to be substantial opportunity for input by the participating agencies and the public. The project was also divided into two phases. Phase I more or less tracked the traditional scoping process, and included the initial work on the project, including *Project Initiation, Agency Identification and Initiation*, development of the *Coordination Plan and Schedule*, the *Development of Purpose and Need*, and *Alternative Development and Consideration*. If, after the *Alternative Development and Consideration* process was complete and TSM, and/or Build Alternatives were included as Initial Alternatives, then the project would move forward into Phase II, which includes evaluation and screening of the list of initial alternatives into candidate alternatives, conceptual design and cost estimates of the candidate alternatives, an Impact Analysis of those candidate alternatives, and preparation of a *Draft Environmental Impact Statement (DEIS)* followed by completion of a *Final Environmental Impact Statement (FEIS)* and *Record of Decision (ROD)*.

PURPOSE AND NEED

PURPOSE OF THE PROJECT

The purpose of this project is to provide improved access between the US 61 (Airline Highway) corridor in the Reserve area north to I-10, for (1) general commercial and non-commercial traffic in the Parish, and for (2) the Port of South Louisiana.

NEED FOR THE PROJECT

General Commercial and Non-Commercial Access

Interstate 10 is a major east-west roadway for traffic crossing St. John the Baptist Parish. One of only two interstate facilities within the parish, (the other being I-55, which intersects with I-10), I-10 not only services vehicular traffic passing through St. John the Baptist Parish, but also serves to some degree traffic which originates and terminates from within the Parish. The

interstate offers Parish residents and businesses a limited-access route to the rest of the continental U.S. via the interstate system.

Parish officials and parish residents have expressed their desire for quicker and more direct routes to I-10 from the US 61 corridor. The intent is to provide reliable access for residents and area citizens. This includes trips from the Parish to surrounding areas for employment-related commuting, shopping, and educational and medical services, and from surrounding areas to the Parish for similar trips, particularly employment-related trips to industrial areas along the river corridor. Additionally, better access routes are desired in order to reduce vehicle hours traveled (VHT) and to provide travel time savings and benefits which will accrue to those living, working, and/or traveling to and from the developed areas of the Parish. As it stands currently, with approximately fifteen miles of roadway within St. John the Baptist Parish, I-10 has two exits or access points: the Belle Terre exit (Hwy 3188) and the US 51 exit. Compounding the access issue is that west of Belle Terre the next access point is eleven (11) miles away in St. James Parish (the interchange with LA Hwy 641).

The improved access is also needed to enable emergency vehicles to reach destinations more promptly. This entails not only response to major disasters or incidents, but also day to day response operations by police, fire, and EMT vehicles. There have been concerns from parish officials that emergency vehicles are often dispatched to highway incidents along I-10, but once they are on I-10, they have no quick way to respond to other emergencies occurring in the developed areas of the Parish. This is due to the isolated nature of I-10 between the Belle Terre and Gramercy exits, as well as a long divided, elevated stretch between those two exits.

Port Access

The Port of South Louisiana and local officials have expressed a need for better access for Port truck traffic to facilitate the recent trend of economic growth of the Port and the region as a whole. In the wake of Hurricane Katrina and its impact on the New Orleans metro area, continued growth of the Port and the associated commercial/industrial component of the Parish are seen as vital to the economic recovery of the region. However, one of the impediments to further development has been access to the interstate for Port. While port facilities exist along a 54-mile stretch of the Mississippi River, the main focus of port activities and need for port access has been focused in the Reserve area. Unfortunately, Reserve has no direct connection to the interstate system. Interchanges with I-10, the nearest interstate highway, lie either eight miles to the east at Highway 3188 or twelve miles to the west at Highway 641. Access to I-10 from the port facilities at Reserve via either of these routes is circuitous, using one of three state highways to access US 61, then traveling either west or east along this congested commercial thoroughfare to the state highways linking to I-10. A more direct access route to I-10 will facilitate Port-related traffic.

Secondarily, Parish officials and citizens have expressed the strong desire to lessen the impact of Port truck traffic on local roads. In particular, they would like to lessen the amount of truck

traffic currently passing through residential areas, such as the Belle Terre area. They would also like to lessen the impact of truck traffic as it affects current congestion levels on US 61. A more direct access route to I-10 will help to accomplish both of these goals.

REPORT ORGANIZATION

CHAPTER I – INTRODUCTION, BACKGROUND, PURPOSE & NEED, AND REPORT ORGANIZATION

CHAPTER II - ALTERNATIVE DEVELOPMENT AND CONSIDERATION

Chapter II provides an in-depth look at the development of project alternatives under this specific Environmental Impact Statement (EIS) process, which was accomplished with a combination of public involvement and input and technical expertise on behalf of the project team. The genesis of the process goes back to the original Environmental Assessment, and under this EIS process re-started during the Early Involvement/Scoping process, which led to an establishment of eleven (11) Initial Alternatives, including a TSM Alternative and a No Build Alternative. The evaluation and screening of the nine (9) Initial Build Alternatives based on project-relevant criteria is then chronicled in the chapter. The Chapter continues with a discussion of the refinement of the remaining four *Candidate Alternatives* that were analyzed during the Impacts Analysis portion of the project. The Chapter concludes with a full discussion of these final four *Candidate Alternatives* includes design criteria, cross sections, plan view drawings, construction cost estimates, and maintenance cost estimates.

CHAPTER II – THE AFFECTED ENVIRONMENT

In this chapter, the areas of primary impact and the overall project study are first delineated and described. The existing transportation system, including existing highways and roadways, rail, transit and pedestrian facilities are presented. The Chapter concludes with an examination of the affected human and natural environment for the project.

CHAPTER IV – ENVIRONMENTAL IMPACT ANALYSIS

In this chapter, the impacts of the four alternatives considered (the No Build Alternative, the TSM Alternative and the two Build Alternatives) are assessed relative to the evaluation categories of transportation and traffic, human environment, and the natural environment.

CHAPTER V – IMPACT SUMMARY, MITIGATION MEASURES, COMMITMENTS AND PERMITS

In this Chapter, the Direct Impacts to the transportation system and the human and natural environments as a result of the implementation of each alternative are summarized. For unavoidable adverse impacts, this chapter provides a discussion of mitigation measures recommended to reduce those adverse effects. The indirect and cumulative impacts of the Alternatives are also examined in this chapter. Any commitments made to further the project are then described. Permits required to complete each alternative are then listed.

CHAPTER VI – PUBLIC PARTICIPATION, AGENCY COMMENTS AND COORDINATION

This chapter describes the public participation process for the project, including a summary of the Phase I early involvement process as well as documentation of public meetings and hearings and coordination efforts associated with the development of the project through the Phase II portion of the project. These efforts include meetings with lead agencies (RPC, LADOTD, and FHWA), other agencies, and elected officials, and correspondence received during the project.

CHAPTER VII – REFERENCES AND APPENDIX

The Environmental Impact Statement concludes with this chapter. The References section lists publications, websites and other sources of information used in the writing of this document. The included Appendix lists the stand-alone documents and other data which were completed as part of this EIS and are considered part of this EIS. The included Appendix also includes a utility disposition table listing the public and private utilities identified within the roadway alternative alignments, which were used in preparing the conceptual cost estimates of the alternatives.

Under separate file from this document, the stand-alone Appendix file also includes formal agency correspondence received during the both the Phase I and Phase II portions of the project, as well as information from the Public Meetings and Public Hearing, including Meeting Notices and advertisements, sign-in sheets, and written comment forms.

CHAPTER II

ALTERNATIVE DEVELOPMENT AND CONSIDERATION

Chapter II provides an in-depth look at the development of project alternatives under this specific Environmental Impact Statement (EIS) process, which was accomplished with a combination of public involvement and input and technical expertise on behalf of the project team. The genesis of the process goes back to the original Environmental Assessment, and under this EIS process re-started during the Early Involvement/Scoping process, which led to an establishment of fifteen (15) Preliminary Alternatives, including a TSM Alternative and a No Build Alternative. The evaluation and screening of the nine (9) Initial Build Alternatives based on project-relevant criteria is then chronicled in the chapter. The Chapter continues with a discussion of the refinement of the remaining four *Candidate Alternatives* that were analyzed during the Impacts Analysis portion of the project. The Chapter concludes with a full discussion of these final four *Candidate Alternatives* includes design criteria, cross sections, plan view drawings, construction cost estimates, and maintenance cost estimates.

ALTERNATIVE DEVELOPMENT PROCESS

ORIGINAL ENVIRONMENTAL ASSESSMENT

The original efforts to develop alternatives began in 2002, under the original *Port of South Louisiana (POSL) Connector Environmental Assessment*. In agency meetings held on April 24 and June 6th of that year, alternatives were openly discussed and suggested by all in attendance and drawn on a base map of the study area. Additionally, the consultant team on that project added several more alternatives for consideration. By June 6th meeting, seven alternatives remained. A little over a year later, an eighth alternative, AP-6B, was suggested for evaluation. All eight alternatives were evaluated within the draft EA document¹.

PRELIMINARY ALTERNATIVES

Under the Phase I early involvement portion of this Environmental Impact Statement process, it was decided by the agencies involved to start the alternative development process (particularly the development of build alternatives) “from scratch” and have a wide open, inclusive process for alternative development and consideration. The previously developed EA alternatives -- including those that were eliminated from consideration in the EA -- were presented and discussed at an Agency Scoping Meeting

¹ *Port of South Louisiana (POSL) Connector, Draft Environmental Assessment, August 2004, LADOTD,*

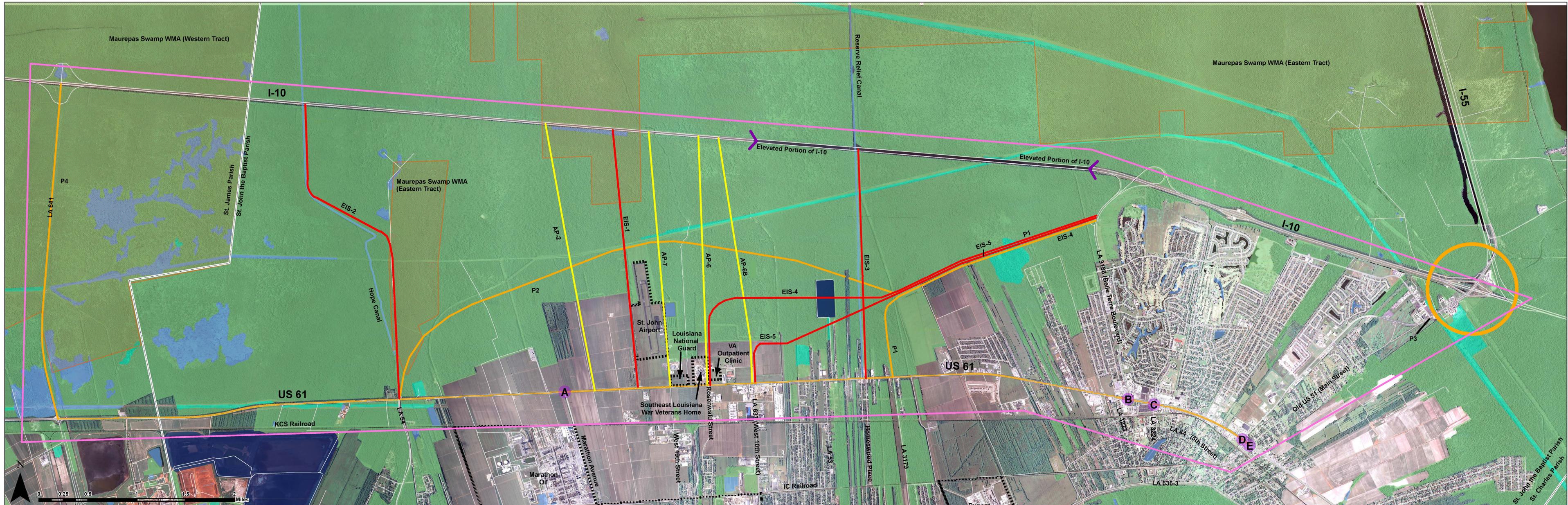
on August 4th, 2009 and the Public Scoping Meeting on August 5th, 2009. Some were recommended for further evaluation, while others were recommended for elimination. Several other alternatives were also suggested for consideration by the agencies and the public. As a result there were originally fourteen preliminary alternatives under consideration, which are described below and presented on **Figure II-1** on the following page:

Alternatives recommended for evaluation from the 2004 Draft Environmental Assessment (EA):

- **AP-2** - This alternative extends from US 61 almost due north to I-10. At US 61, its alignment would connect with Marathon Avenue.
- **AP-7** - This alternative extends almost due north from US 61 to I-10 and is located just east of the St. John Airport and just west of the Louisiana National Guard Facility. At US 61, its alignment would connect to West 19th Street.
- **AP-6** - This alternative extends north from US 61 to I-10 adjacent to Regala Park. Just north of US 61, its alignment would connect to Rosenwald Street. The alternative would incorporate existing Rosenwald Street with some physical improvements.
- **AP-6B** - This alternative extends north from US 61 to I-10. At US 61, its alignment would connect to LA 637 (W. 10th Street), which extends south to the Port of South Louisiana.

Alternatives eliminated from the 2004 Draft Environmental Assessment which were re-evaluated during the EIS:

- **EIS-1** - This alternative extends from US 61 just west of the St. John Airport north to I-10.
- **EIS-2**. This alternative extends from US 61 and LA 54 north to I-10.
- **EIS-3** - This alternative extends north from US 61 to I-10 along the east side of the Reserve Relief Canal. At US 61, its alignment would connect to Homewood Place.
- **EIS-4** - This alternative extends from US 61 north to LA 3188 (Belle Terre Boulevard) just south of that roadway's interchange with I-10. EIS-4 begins at US 61 as a widening and extension of Rosenwald Street. The route then gradually curves to the east over the wetland areas, eventually turning northeastward along the northern edge of developed areas until intersecting with Belle Terre Boulevard about ½ mile from I-10.



Wetlands	
■	Freshwater Emergent Wetland
■	Freshwater Forested/Shrub Wetland
■	Freshwater Pond and Canal
■	Lake

Alternatives	
— AP-2	Extends from US 61 east of Marathon Oil north to I-10
— AP-6	Extends north from US 61 and Roosevelt St. to I-10
— AP-6B	Extends north from US 61 and LA 637 to I-10
— AP-7	Extends north from US 61 and West 19th St. to I-10

Preliminary alternatives from 2004 EA being reevaluated	
— EIS-1	Extends from US 61 just west of St. John Airport north to I-10
— EIS-2	Extends north from US 61 to I-10 following the route of the Hope Canal
— EIS-3	Extends north from US 61 to I-10 along the east side of the Reserve Relief Canal
— EIS-4	Extends from US 61 north to LA 3188
— EIS-5	Extends from US 61 north to LA 3188

Suggested Alternatives from 2009 Scoping Meetings	
— P1	Extends north from LA 3179 and US 61 to LA 3188
— P2	Optional extension of P1 linking US 61 and LA 54 and Alternative P1
○ P3	Improvements to intersection area of US 51, I-55 and I-10
— P4	Improvements to US-61

Intersection Improvements in Process	
● A	US 61 at Marathon Avenue (LADOTD)
● B	US 61 at LA 3188 Belle Terre Boulevard (LADOTD)
● C	US 61 at LA 3224 Hemlock Street (LADOTD)
● D	US 61 at New US 51
● E	US 61 at Old US 51 Main Street (LADOTD)

■	Wildlife Management Area (Louisiana Department of Wildlife and Fisheries, 2001)
—	Project Boundary
—	Parish Boundary (Louisiana Department of Transportation and Development, 2007)

Figure II-1 Preliminary Alternatives September 2009

Airline Highway (US 61) to Interstate 10 Proposed Connector EIS

LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

Prepared by: **NY ASSOCIATES, INC.**
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- **EIS-5** - This alternative extends from US 61 north to LA 3188 (Belle Terre Boulevard) just south of that roadway's interchange with I-10. EIS-5 begins at the intersection of US 61 and LA 637 (W. 10th St.). After proceeding north for a short distance, the route turns to the east at the rear of the agricultural fields, and does not enter wetland areas until the vicinity of the Godchaux Canal. The alternative proceeds on a northeasterly heading along the northern edge of developed areas until intersecting with Belle Terre Boulevard about ½ mile from I-10.

Additional suggested alternatives from Phase I EIS scoping process:

- **P-1** - This citizen-suggested alternative extends north from US 61 to LA 3188 (Belle Terre Boulevard) just south of that roadway's interchange with I-10. The alternative begins as an extension of LA 3179 (E. 22nd Street) at US 61, and proceeds north over the wetland areas, gradually curving to the northwest. It shares the same alignment as EIS-4 and 5 near the northern edge of developed areas eventually intersecting with Belle Terre Boulevard about ½ mile from I-10.
- **P-2** - This citizen-suggested alternative is an adjunct to Alternative P-1 and begins at US 61 and LA 54. It proceeds north for a short distance then veers east, passing north of agricultural fields and through the wetland areas. It intersects with P-1 north of LA 3179, at the point where P-1 veers towards the east.
- **P-3** - This alternative was suggested as an improvement to the intersection area of US 51, I-55 and I-10. The proponent noted that in hurricane and storm surge situations, the access to I-10 and I-55 via US-51 is often flooded and unavailable. Similarly, as there is no direct connection between eastbound I-10 and northbound I-55 / southbound I-55/westbound I-10, those movements are also unavailable. Several improvements to this interchange will be explored under this alternative to improve interstate access. These may include elevated ramps or connections between the three highways (I-10, US 51 and I-55).
- **P-4** - Requested by regulatory division staff of the US Army Corps of Engineers in a Dec. 1st, 2009 meeting, this alternative includes the improvement of LA 641 between US 61 and I-10, primarily by increasing the lane capacity from 2 lanes to four lanes.
- **Improvements to US 61** – During the scoping process it was noted that one of the problems with traffic congestion along US 61 is the lack of acceleration lanes (or the lack of sufficiently long acceleration lanes) for trucks turning right (east) off of side roads or highways. These trucks must immediately enter the right lane of eastbound US 61, as they take longer to accelerate, slow down the traffic flow in that lane. It was noted that there are currently three merge lanes near the Marathon Oil facility that are being extended in order to allow large trucks more space to get up to speed without holding up traffic. Additionally, it was noted that there are also five intersections noted for improvements along US 61: Old 51 at

US 61; Main Street at US 61; Hemlock Street (LA 3224) at US 61; Belle Terre (LA 3188) at US 61; and the entrance to Marathon (which, in addition to merge lanes earlier mentioned, will be signalized). It was suggested that similar improvements along US 61 at other locations should also be considered as an initial alternative. This alternative would be further developed as the required Transportation System Management (TSM) Alternative.

INITIAL ALTERNATIVES

The fifteen (15) preliminary alternatives (thirteen build, one required TSM Alternative, and the No Build Alternative) were then reviewed by the agencies and the public during the second round of Phase I meetings in November 2009. Comments were received from both, and the preliminary recommendation was to remove four (4) of the build alternatives from further consideration in an Agency meeting on January 13, 2010. The four alternatives removed are listed below, each with their reason for elimination:

- EIS-1 - Passes through the WMA, proximity to airport runway and navigation beacon.
- EIS-2: Passes through the WMA and is close to a future freshwater diversion project.
- P-2: This alternative passes through the WMA and spans the most wetlands of any of the alternatives. It was noted that this suggested alternative was not a primary route, but an “adjunct” of the main alignment suggested (P-1). It was determined that this alternative was outside of the Purpose and Need of this project as it acted more as a bypass of US 61, and did not serve as an alternative on its own. .
- P-3: While this alternative addresses a known problem, flooding at the US 51/I-10/I-55 interchange, it is an incomplete interchange, and the issues associated with its status are different from those being addressed in the project. It is outside of the Purpose and Need.

Thus, at the end of the Phase I portion of the project, there were eleven (11) **initial alternatives** (nine build alternatives, one TSM alternative, and the No Build Alternative).

EVALUATION AND SCREENING OF INITIAL BUILD ALTERNATIVES

BACKGROUND

As noted above, following Phase I of the project, there were nine (9) conceptual build alternatives under consideration. These nine alternatives are presented on **Figure II-2** on the following page, and described below. For purposes of review, they are presented

below and through the remainder of this section in geographical order from the westernmost alternative to the easternmost alternative.

P-4 - Requested by regulatory division staff of the US Army Corps of Engineers in a Dec. 1st, 2009 meeting, this alternative includes the improvement of LA 641 between US 61 and I-10, primarily by increasing the lane capacity from two lanes to four lanes. Based on current traffic volumes and LADOTD standards, the widening would require construction of a four lane highway with median.

AP-2 - This alternative extends from US 61 almost due north to I-10. At US 61, its alignment would connect with Marathon Avenue.

AP-7 - This alternative extends almost due north from US 61 to I-10 and is located just east of the St. John Airport and just west of the Louisiana National Guard Facility. At US 61, its alignment would connect to West 19th Street. The alternative would involve the incorporation of existing Airport Road with some physical improvements.

AP-6 - This alternative extends north from US 61 to I-10 adjacent to Regala Park. Just north of US 61, its alignment would connect to Veterans Blvd., which is a northern extension of Rosenwald Street. The alternative would involve the incorporation of existing Veterans Blvd. with some physical improvements.

EIS-4 - This alternative extends from US 61 north to LA 3188 (Belle Terre Boulevard) just south of that roadway's interchange with I-10. EIS-4 begins at US 61 as a widening and extension of Veterans Blvd. The route then gradually curves to the east over the wetland areas, eventually turning northeastward past the northern edge of developed areas until intersecting with Belle Terre Boulevard at the stub-out for the planned Woodland Drive extension, about ½ mile from I-10.

EIS-5 - This alternative extends from US 61 north to LA 3188 (Belle Terre Boulevard) just south of that roadway's interchange with I-10. At US 61, its alignment would connect to Regala Park Drive, which is a northern extension of LA 637 (W. 10th Street), which extends south to the Port of South Louisiana and is planned for future roadway upgrades. The alternative would involve the incorporation of existing Regala Park Drive with some physical improvements. After proceeding north for a short distance, the route turns to the east at the rear of the agricultural fields, and does not enter wetland areas until the vicinity of the Godchaux Canal. The alternative proceeds on a northeasterly heading past the northern edge of developed areas until intersecting with Belle Terre Boulevard at the stub-out for the planned Woodland Drive extension, about ½ mile from I-10.

AP-6B - This alternative extends north from US 61 to I-10. At US 61, its alignment would connect to Regala Park Drive, which is a northern extension of LA 637 (W. 10th Street), which extends south to the Port of South Louisiana and is planned for future roadway upgrades. The alternative would involve the incorporation of existing Regala Park Drive with some physical improvements.

EIS-3 - This alternative extends north from US 61 to I-10 along the east side of the Reserve Relief Canal. At US 61, its alignment would connect to Homeswood Place.

P-1 - This alternative extends north from US 61 to LA 3188 (Belle Terre Boulevard) just south of that roadway's interchange with I-10. The alternative begins as an extension of LA 3179 (E. 22nd Street) at US 61, and proceeds north over the wetland areas, gradually curving to the northwest. It shares the same alignment as EIS-4 and EIS-5 past the northern edge of developed areas eventually intersecting with Belle Terre Boulevard at the stub-out for the planned Woodland Drive extension, about ½ mile from I-10.

EVALUATION PROCESS

The original Scope of Work under the contract called for the initial build alternatives to first be evaluated based on criteria agreed to by the lead agencies. Possible criteria listed under the original scope included order of magnitude cost estimates, environmental constraints (wetlands, hazardous waste sites, endangered species, etc.) and anticipated human environment impacts (relocations, visual impacts, noise impacts, etc.). This evaluation was intended to be done with readily available or easily developed data, and following the evaluation of the initial build alternatives, the initial build alternatives were to be screened such that a maximum of two (2) build alternatives would be carried forward in the process. These one or two build alternatives along with the No-Build Alternative and the Transportation Systems Management (TSM) Alternative would then be more fully developed as *candidate alternatives* and analyzed in terms of likely impacts. The evaluation criteria were to be developed with the input and approval of the Lead, Cooperating, and Participating Agencies, with an effort to be made towards a consensus among all agencies as to which two build alternatives would be carried forward based on those criteria.

During the evaluation process, the US Army Corps of Engineers stated that for its concurrence with the process as the sole Cooperating Agency on the project, a different focus was needed. Rather than a broad-based initial evaluation process concluded with a consensus among the Lead, Cooperating and Participating Agencies, the initial screening would have to more closely follow the Corps procedure of determining the "least damaging practicable alternative" (LDPA), with a distinct screening process focused on "least damaging" – **as the project relates to wetlands** - and "practicability". According to the Corps, practicable alternatives are those alternatives that are "available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes."

The project team then altered its process to more closely follow the Corps approach.

CONCEPTUAL ENGINEERING OF INITIAL BUILD ALTERNATIVES

The Phase I process had only used schematic alignments on maps indicating each alternative. As an initial step to better analyze the screening of the initial build alternatives, some initial conceptual engineering was done. Design criteria were established, and cross sections developed. These included:

- a roadway widening cross section for alternative P-4;
- elevated roadway for sections of alternatives that extend over wetlands;
- at-grade roadway sections for sections of alternatives that extend through non-wetland areas; and,
- Ramps and overpass cross sections were also developed to calculate costs for those alternatives that include a new interchange. The conceptual interchange was standardized for all alternatives, was based on the existing Belle Terre interchange and conceptually designed so as to limit the impact on wetlands in the vicinity of any interchange.

Although not used in the evaluation and screening process, conceptual-level cost estimates were also developed. Conceptual cost estimates for each alternative were determined based on a unit cost (construction cost per linear foot) of typical roadway, using then-current 2010 cost figures supplied by LADOTD. At this conceptual level, signalization and right-of-way costs were *not* included, but all estimates included a 25% contingency.

EVALUATION AND SCREENING OF INITIAL BUILD ALTERNATIVES

The methodology behind each criterion, as well as the relative scoring for each layout alternative under each criterion, is explained below. An *Evaluation and Screening Matrix* showing the findings for all nine alternatives under these eight criteria is presented at the end of this section as Table II-8.

Screening Criteria Related to Practicability

As mentioned earlier, practicable alternatives are defined as those alternatives that are "available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes." The Conceptual Engineering of the Alternatives showed that the alternatives were all practicable in terms of cost and existing technology; the only remaining variable in terms of practicability is then *logistics in light of overall project purposes*. As a result, this first set of screening criteria is designed to evaluate whether or not an alternative is practicable *by whether or not it adequately meets the project's purpose and need*. As stated earlier in the document, the purpose and need has several aspects, but the primary aspect is improved access. How well access is improved can be gauged by measuring the travel time savings of each alternative.

For purposes of this first level of screening, two analyses and evaluation were completed:

- The first measure of travel time savings is for regular vehicular traffic, which includes discussion as to directional split, traffic volumes, and *gross* travel time savings.
- The second measure of travel time savings refers to savings for emergency vehicles responding to calls along I-10 between the Belle Terre and Lucher exits, which includes *average* travel time savings for emergency vehicles.

Improved Access / Travel Time Savings for Regular Vehicular Traffic

Methodology

Basic Travel Time Trip Analysis

For analysis purposes, it was determined to use several different measurement points so as to provide a full range of typical and likely trips that relate to the project's objective of improving access between Reserve and I-10. First, there were destination points taken for the origin of typical trips within the project area. As the purpose of this project is to provide better access from US 61 in Reserve to I-10, the origin point was located along US 61 in the Reserve area. With data derived from US census information, a centroid point based on population in the Reserve area was used. This was determined to be at US 61's intersection with Central Avenue: as its name implies, the traditional center of the Reserve community.

Destination points were then located along I-10. One was set for eastbound traffic at the intersection of US Hwy 51 and I-10, as this represents a "decision point" where motorists and commercial trucks decide whether to continue east bound on I-10 towards New Orleans or whether they will turn northbound and access I-55. The point determined for west bound traffic was placed at the crossover intersection of I-10 and US 61, as this also represents a similar decision point for motorists and commercial truck traffic.

As a result, each alternative would feature two (2) different travel time savings "runs": travel from the automotive origin point to the east destination point, and to the west destination points.

The next step in the analysis was with to gather average travel times for roadway segments along US 61, LA 3188 (Bell Terre) US 51, US 641, and I-10. These were gathered for both morning and evening peak hours. It was decided that for analysis purposes, the PM peak times would be used, as these represented the most congested time periods for travel. It should be noted that the PM peak runs did include one of the larger traffic generators along US 61, the shift change activities at Marathon Oil. To the greatest extent possible, both directions of every run segment were performed; however, for segments of I-10, LA 641 and US 61 (between LA 641 and I-10) the same time values for both directions were used as free flow speeds were easily attainable and uninterrupted.

An existing conditions, “No-Build” scenario was then determined for the two runs on each alternative, using the quickest routes available. It was found that based on the travel time survey, trips to the east destination point favored using US 61 to US 51 to I-10, while on trips to west, it was found that it was quicker to use US 61 all the way to the I-10 / US 61 crossover intersection, rather than accessing I-10 via LA 641.

For travel times on each alternative that involved building a new roadway section, a projected design speed for a new, no access roadway was projected to be 55 mph, which is the current posted speed on LA Hwy 641.

Using the existing travel time information and the projected design speeds, a scenario was then calculated for each alternative, each containing the two “runs” between the destination and origin points. These were then compared to the No Build Scenario. Wherever the projected travel time for the alternative was less than that of the No Build scenario, there was a travel time savings. Whenever it was higher, it was determined that the existing route between an origin and destination point was quicker and there were no travel savings.

Origin-Destination Survey

While the travel time trip analysis provided a good measure of travel time savings for each alternative on an individual “typical” trip basis, it did not address the percentage or volume of vehicles taking those trips. As an example, one alternative may save 5 minutes on a trip west and 30 seconds on a trip east, while another alternative may save 5 minutes on a trip east and 30 seconds on a trip west. If most vehicular trips are to the east, the second alternative would clearly be preferred.

To address this question and better evaluate the alternatives, an origin-destination survey was undertaken. The full results are presented in a *Technical Memorandum* present in the Appendices of the EIS document, with the process and summary below:

Process- In advance of the actual survey, traffic volume data was collected via tube counts. **Table II-1** beginning below presents the count data collected during the AM and PM survey.

Table II-1. Count Data

Location	Direction	AM Count	PM Count
US 61 (Airline Highway)	Eastbound	2372	2789
LA 637 (West 10 th Street)	Northbound	1203	1308
LA 637 (West 10 th Street)	Southbound	139	88
LA 53	Northbound	1224	1718
LA 53	Southbound	1099	1860
LA 3179 (E. 22 nd Street)	Northbound	378	455

Table II-1. Count Data (cont.)

Location	Direction	AM Count	PM Count
LA 3179 (E. 22 nd Street)	Southbound	381	551
Marathon Avenue	Northbound	109	358
Marathon Avenue	Southbound	152	73
West 19th Street	Northbound	163	277
West 19th Street	Southbound	233	195

On April 13, 2011, the actual post card survey was conducted from 6:00 AM to 10:00 AM and 2:30 PM to 6:30 PM. The time slots were selected with the intent to capture the majority of daily commuters. Post Cards were handed out to motorists at ten (10) selected locations. “TRAFFIC SURVEY AHEAD” signs were also installed on each approach approximately 200’ ahead of the survey location to give advanced warning of the survey.

Survey Results - Out of the 3,975 postcards handed out, 645 (16.2%) were returned. Out of the total 645 postcards received, 263 (40.8%) were potential I-10 users. The potential I-10 users were broken down by their general origin and destination. Seven (7) pairs were identified based on the origin and destination of the trips. Of the 263 potential I-10 users, 11 (4.2%) of the trips had uncharacteristic usage of I-10 relative to their indicated origin and destination. These trips were characterized as *other*. **Table II-2**, below, lists the pairs included and the percentage of motorists using each route as well as the percentage of commercial vehicle usage. As can be seen on the Table, of all those surveyed, the largest majority were travelers to/from Reserve having trips to/from the east. The second largest number was travelers to/from Reserve having trips to/from the east, and a surprisingly considerable percent were trips to/from the north (I-55/US 51) which due to roadway geography first require a trip to the east.

Table II-2 - Origin Destination Pairs

Pair	% of Total Potential I-10 Users	% of Potential I-10 Users Using Commercial Vehicles
Reserve to/from the east	54.0	12.7
Reserve to/from the west	14.4	10.5
Reserve to/from the north (I-55/US 51)	9.9	7.7
Gramercy to/from the west	8.0	0.0
LaPlace to/from the west	5.7	6.7
LaPlace to/from the east	3.8	20.0
Other	4.2	N/A

Initial Traffic Modeling

After the completion of the Origin-Destination Survey, Regional Planning Commission staff incorporated information from the survey as well as other recently acquired data into their traffic demand model. RPC staff then performed a set of initial schematic model runs (under future conditions) with the proposed build alternatives in place. During the first set of runs and model adjustment, it was found that there was negligible difference in projected traffic numbers among those alternatives which linked directly to I-10 from the Reserve area (AP-2, AP-7, AP-6, AP-6B, and EIS-3). Similarly, there was negligible difference in projected traffic numbers among those alternatives which started in the Reserve area and linked to I-10 via the Belle Terre interchange (EIS-4, EIS-5, and P-1). As such, generic runs were completed for each of these two scenarios. Output was in Average Daily Traffic (ADT).

The projections from these models runs reinforced the findings of the Origin-Destination Survey, and indicated that the focus of traffic to/from the east would actually intensify over time. These initial runs indicated that a 75% east-north / 25% west split would occur in the implementation year (2020) if a new link from Reserve to I-10 were in place, and an 85% east-north/ 15% west split would occur in design year (2038) if a new link from Reserve to I-10 were in place.

The projections also showed that in the implementation year, a build alternative with a direct link to I-10 would carry more traffic than one which linked to I-10 via the Belle Terre interchange (7302 ADT vs. 5508 ADT), but by the design year, a Belle Terre alternative would carry slightly more vehicles (15,377 ADT, vs. 15,068 ADT for a direct link north from Reserve). Again, this clearly reflects the focus of Reserve traffic to and from I-10 being focused towards the east/north rather than towards the west.

Combining OD Survey Data and Modeling Data with Travel Times

By taking the travel time savings per trip west or east for each alternative, and then pairing that with the projected ADT volume data from the traffic model, total daily minutes of travel times savings were then calculated. This was done for both the implementation year (2020) and the design year (2038). These total travel time projections are presented in **Table II-3** on the following page.

Findings

In terms of an individual trip basis, all of the alternatives resulted in *some* travel times savings, except for P-4, which is a widening of an existing route that is not operating over capacity at present. In short, implementation of P-4 would result in no travel times savings.

**Table II-3
Travel Time Calculations**

	P-4	AP-2	AP-7	AP-6	EIS-4	EIS-5	AP-6B	EIS-3	P-1
Travel Times Savings <i>(per trip, presented in Mins.:sec)</i>	West: 0:00 East: 0:00	West: 1:21 East: 0:00	West: 1:49 East: 0:03	West: 1:55 East: 1:01	West: 0:00 East: 2:08	West: 0:00 East: 2:21	West: 2:18 East: 1:46	West: 1:42 East: 3:38	West: 0:00 East: 3:25
Year 2020 (Implementation Year) Total Daily Travel Time Savings <i>(minutes per day, gross)</i>	West: 0 East: 0 TOTAL: 0	West: 2,564 East: 0 TOTAL: 2,564	West: 3,450 East: 270 TOTAL: 3,720	West: 3,640 East: 5,493 TOTAL: 9,133	West: 0 East: 8,695 TOTAL: 8,695	West: 0 East: 9,579 TOTAL: 9,579	West: 4,368 East: 9,545 TOTAL: 13,913	West: 3,228 East: 19,631 TOTAL: 22,859	West: 0 East: 13,926 TOTAL: 13,926
Year 2038 (Design Year) Total Daily Travel Time Savings <i>(minutes per day, gross)</i>	West: 0 East: 0 TOTAL: 0	West: 3,051 East: 0 TOTAL: 3,051	West: 4,106 East: 640 TOTAL: 4,746	West: 4,332 East: 13,021 TOTAL: 17,353	West: 0 East: 27,883 TOTAL: 27,883	West: 0 East: 30,715 TOTAL: 30,715	West: 5,198 East: 22,627 TOTAL: 27,825	West: 3,842 East: 46,536 TOTAL: 50,378	West: 0 East: 44,656 TOTAL: 44,656

In regards to total daily travel time savings, certain trends were evident. Alternatives EIS-3 and P-1 had the most daily travel time savings under both the 2020 and the 2038 forecasts. AP-6B had the third most in 2020, while EIS-5 had third most savings in 2038.

Alternatives AP-2 and AP-7 had much less travel times savings than the others—in the 2020 forecasts they had less than half the travel times savings as the next highest alternative, and in the 2038 forecast, they had less than a third of the travel times savings as the next highest alternative.

As a result of their relative lack of time travel savings compared to the other alternatives, **AP-2** and **AP-7** (along with **P-4** which has no travel time savings) were suggested for elimination from further consideration as not being practicable alternatives. .

Improved Access / Travel Time Savings for Emergency Response

Methodology

In addition to the travel time savings study completed for vehicular traffic, a third destination point was included specifically to address travel time savings for emergency vehicles headed towards I-10. This destination point was the midpoint along I-10 between the LA 3188 and LA 641 interchanges (the same origin point was used in these travel time calculations). **Table II-4** below provides a comparison of the time to travel from the starting point to the midpoint under the current no build scenario, the time to travel to the midpoint under each alternative, and the travel time savings (if any) for each alternative.

Table II-4
Travel Times and Travel Time Savings, Emergency Vehicle Access
(All figures in minutes)

Alternative:	From Origin Point to Midpoint (current/No Build Scenario):	From Origin Point to Midpoint (via alternative):	Travel Time Savings:
P-4	15:51	18:11	0
AP-2	15:51	7:05	8:46
AP-7	15:51	5:28	10:23
AP-6	15:51	5:22	10:29
EIS-4	15:51	13:07	2:44
EIS-5	15:51	11:44	4:07
AP-6B	15:51	4:59	10:52
EIS-3	15:51	5:35	10:16
P-1	15:51	10:40	5:11

Preliminary research was also undertaken to determine what may be a preferred time period for response time, in order to gauge if response time improvement could be considered significant. In general, in speaking with local emergency response officials, the adage was that “every minute counts” in response time, and any lessening of response time coming about as a result of improved access would be an improvement. In discussions with the fire chief at the Reserve Central Fire Station, he stated that emergencies on the interstate in the section of I-10 between the Belle Terre and Lucher exits are referred to departments in either Garyville or Laplace, as it would take far too long for the stations in Reserve to respond. When told that the project was looking at several alternatives that would connect US 61 and Interstate 10, he replied that one of the central connectors could reduce his response times to five minutes.

Additional research found that that the Federal Government has set an eight minute response time as the target that fire departments and rescue squads should strive to meet. This is not mandated, it is merely a target. As well, the eight minute response time target was built around one particular life threatening emergency: sudden cardiac arrest. In the 1970s and 80s, studies suggested that if a cardiac patient could be administered treatment within eight minutes of cardiac arrest, they stood a better chance of survival.

However, it is important to note that that in many rural areas, the idea of an eight minute response time has been dismissed. While a larger metropolitan area can reduce response times by having multiple locations from which to respond from, a small community with limited responders and perhaps a single origin for responders would naturally have higher response times.

Based on this research, it was determined that for purposes of this analysis, a time savings of five minutes would be considered a practicable improvement. Any alternatives not meeting this threshold would be eliminated from further consideration.

As a result of this evaluation and screening, **Alternatives P-4, EIS-4 and EIS-5** were suggested for elimination from further consideration. It should be noted that Alternative **P-4** was also suggested for elimination based on the travel time savings criterion.

SCREENING CRITERIA RELATED TO “LEAST DAMAGING”

The second set of criteria is designed to best evaluate which of the remaining alternatives (AP-6, AP-6B, EIS-3, and P-1) are the least damaging to the environment. They are further divided into two separate sub categories that are addressed in a specific order: (1) impacts specifically related to wetlands, and (2) other (human environment) impacts.

Impacts Specifically Related to Wetlands

For purposes of this potential wetland impact evaluation, four (4) criteria were used for evaluation. They are listed below:

- Acreage of Wetlands Impacted (general)
- Specific Wetlands Categories:
 - Biological Resource Impacts
 - Water Quality Impacts
 - Physical Resource Impacts

The methodology behind each criterion, as well as the relative scoring for each layout alternative under each criterion, is explained below.

Amount of Wetlands Impacted

Methodology

Under this criterion, the likely amount of wetlands impacted was calculated for each alternative alignment. During Phase I of the project, readily available GIS data were provided by the US Fish and Wildlife Service which indicated the presence of both freshwater emergent wetlands and freshwater forested/shrub wetlands. The alternatives were then laid over these wetland maps to show where the alternatives crossed wetlands.

In order to best calculate acreages likely to be affected, certain assumptions were made:

- Any new roadway would be a two-lane roadway corridor, and where it was shown as crossing wetlands, the roadway would be an elevated structure. Based on conceptual cross-sections for such a structure, a width of 85 feet was estimated.
- For those alternatives that would include a new interchange, the amount of wetlands directly affected by roadway construction was calculated based on the existing LA 3188 interchange as a model for any future interchange. That acreage was determined to be 27.57 acres.

To calculate the amount of acreage impacted, the width was multiplied by the length over wetlands crossed. Where needed, the 27.57 acres for the interchange was also added.

Findings

Table II-5 below presents the wetland acreage calculations for each of the remaining four alternatives.

**Table II-5
Wetland Acreage Calculations**

Alternative	<u>Length Over Wetlands (feet)</u>	<u>Right of Way Required (feet)</u>	<u>ROW Acres</u>	<u>Interchange Acres</u>	<u>Total Acres</u>
AP-6	10,986	85	21.44	27.57	49.01
AP-6B	10,939	85	21.35	27.57	48.92
EIS-3	11,690	85	22.81	27.57	50.38
P-1	15,740	85	30.71		30.71

Alternative P-1 has the smallest amount of wetlands acreage affected, with 30.71 acres. The other three alternatives all have nearly the same acreage affected, approximately fifty acres.

Biological Resource and Water Quality Impacts

Methodology

Biological resources, rated relative to level of impact for each of the nine build alternatives evaluated, include: (1) special aquatic sites, (2) vegetation, (3) wildlife populations and habitat, (4) Threatened and Endangered (T & E) species, and (5) aquatic resources. Each biological resource was assigned a number from “0” to “3” with regard to level of impact for each alternative relative to all other alternatives. For example, “0” signifies no impact, “1” signifies low impact, “2” signifies medium impact and “3” signifies high impact. The numbers were totaled for the five biological resources for each alternative and the totals ranged from two to six. These totals were divided into three levels of impact: low being “2” or less, medium being “3” and “4” and high being “5” and “6”. The following table summarizes the numerical totals and ranking of impact for each biological resource for each alternative evaluated.

Table II-6 – Biological & Water Resource Impact Summary

Alternative	Special Aquatic Sites	Wetland Vegetation	Wildlife Population & Habitat Severance	Threatened & Endangered Species	Aquatic Resources	Total	Ranking of Impact
AP-6	0	3	3	0	0	6	High
AP-6B	0	3	3	0	0	6	High
EIS-3	0	3	1	0	0	4	Medium
P-1	0	1	2	0	0	3	Medium

- 0 No Impact
- 1 Low Impact
- 2 Medium Impact
- 3 High Impact

Water quality impacts for surface and groundwater resources were ranked according to the potential for: 1) release of contaminants from hazardous waste sites, 2) dispersal of contaminants from road runoff or spills via canals and channels to larger water bodies and larger areas of wetlands, and 3) introduction of contamination into ground water. Because the build alternatives did not cross identified hazardous waste sites and the potential for contamination of ground water is low, the primary ranking of water quality impacts related to the number of water body (e.g., ditch and canal) crossings and potential for dispersal of contaminants throughout a larger area. A low rating was assigned if no water body was crossed. A medium rating was assigned if one water body was crossed and a high rating was assigned if one or more water bodies were crossed or adjacent to the alternative right of way (ROW).

The synthesis of ratings for biological and water quality impacts are presented in the summary matrix of build alternative impacts. Detailed descriptions of the types of biological and water quality impacts are presented for each alternative in the following section based on a brief field reconnaissance, review of aerial photographs and maps and existing documentation.

Findings

Alternative AP-6: This alignment consists of a new roadway extending north from the current terminus of Veterans Blvd. to I-10. It would include an upgrade of Veterans Blvd. to LADOTD highway standards as part of the alternative. Jurisdictional wetlands (e.g., 49.01 ac mostly composed of cypress-tupelo gum swamp, which is difficult to regenerate) are located within approximately 80 percent of the proposed alternative ROW and would be permanently impacted. The remaining 20 percent would be used for both the existing Veterans Blvd. ROW and for agriculture purposes. The alternative would pass through a little over a tenth of a mile of land that is currently in agricultural use.

No known locations of T & E species or their habitats are located within or adjacent to the proposed alignment. The AP-6 Alternative would have a potential adverse effect on wildlife because the proposed roadway, located in a cleared ROW, would sever a large tract of contiguous woodland habitat. Even though elevated and much less disruptive to wildlife than built on an earthen embankment, a small, but discernable linear open waterway would likely form below the grade-separated roadway.

Construction activities, including land clearing, filling/cutting/grading, and construction of the roadway and appurtenances, could result in an increase in sedimentation and turbidity. Implementation of an erosion and sediment control plan, utilizing best management practices (BMP) during construction of the roadway, would typically include properly emplaced sediment barriers (e.g., silt fences, staked hay bale barriers, and earthen berms [the latter in non-swamp settings]) for containment of sediments and geotextile fabric, mulch, and/or vegetation, used singularly or in combination on exposed working areas susceptible to erosion (Barrett et al. 1995). Non-point source pollution from vehicles would be expected to flow into adjacent areas with runoff. This alternative also crosses on linear freshwater marsh (a pipeline ROW) that crosses the Reserve Relief Canal to the east. Large-scale releases are assumed to be rare based on the anticipated safety considerations to be incorporated in road design. Both small-scale and large-scale spills/releases have the potential to contaminate local surface waters, contribute to localized vegetation die-off and aquatic species mortality, but are not expected to contribute to an overall decline in water quality. Wetland vegetation in the swamp portion of the project area would contribute to the removal of some pollutants through wetland plant uptake, filtration, assimilation, settling, and microbial decomposition (Barrett et al. 1995, East-West Gateway Coordinating Council 2000). BMP for the post-construction, non-wetland portion of the alignment would likely include planting and maintenance of vegetation in the ROW. The alignment overlies the Mississippi River Alluvial Aquifer and the Chicot Equivalent Aquifer which are located 25 to 150 ft (Todd et al. 2009) and 50 to 1,100 ft (Stuart et al. 1994), respectively, below the surface. While

some small, isolated fresh groundwater resources that are linked to the Mississippi River may exist, the U. S. Geological Survey has not mapped any major freshwater aquifers in the project study area because of saltwater encroachment (Tomaszewski per. comm. 2010). Based on the lack of documented cases, the installation of pilings, associated with construction of the roadway, would not likely create possible avenues for groundwater contamination (Bonnecaze 2010, Walters 2010). According to field observations and database searches from the LDEQ and the EPA, no hazardous or solid waste sites are located within the proposed alternative ROW.

Biological Resources: Rated *High*

Water Quality: Rated *Low*

Alternative AP-6B: This alternate is comprised of a new roadway extending north from the current Regala Park Drive to I-10. A feature of this alignment includes upgrading the north-south portion of Regala Park Drive to LADOTD highway standards. Jurisdictional wetlands (48.92 acres; mostly composed of cypress-tupelo gum swamp, which is difficult to regenerate) are located within approximately 80 percent of the proposed alternative ROW and would be permanently impacted, with the remaining 20 percent being used for both the existing Regala Park Drive ROW and agriculture purposes. The portion of agricultural land in the ROW includes approximately one quarter of a mile of the alignment.

A sensitive avian site has been identified east of the AP-6B Alternative and south of the east-west trending pipeline ditch. This alignment would have a potential adverse effect on wildlife because the proposed roadway, located in a cleared ROW, would sever the large tract of contiguous forested habitat. Even though elevated and much less disruptive to wildlife than a roadway constructed on an earthen embankment, a small linear open waterway would likely form underneath the grade-separated roadway.

Highway construction activities, including land clearing, earth moving with heavy equipment, and construction of the roadway and appurtenances, could result in an increase in sedimentation and turbidity. An erosion and sediment control plan, utilizing best management practices (BMP) during construction of the roadway to minimize adverse impacts, would typically include proper emplacement of sediment barriers (e.g., silt fences, staked hay bale barriers, and earthen berms [the latter in non-swamp settings]) for containment of sediments and geotextile fabric, mulch, and/or vegetation, used singularly or in combination, in disturbed areas susceptible to erosion (Barrett et al. 1995). Non-point source pollution from vehicles would flow into adjacent areas with runoff. Large-scale releases are assumed to be rare based on the anticipated safety considerations to be incorporated in road design. Both small-scale and large-scale spills/releases have the potential to contaminate local surface waters, contribute to localized vegetation die-off and aquatic species mortality, but it is not expected to contribute to an overall decline in water quality. This alternative crosses a freshwater marsh in a pipeline ROW that connects to the Reserve Relief Canal which enters into Lake Maurepas to the north. Wetland vegetation in the swamp portion of the project area

would contribute to the removal of a portion of the pollutants through wetland plant uptake, filtration, assimilation, settling, and microbial decomposition (Barrett et al. 1995, East-West Gateway Coordinating Council 2000). The BMP for the non-wetland portion of the alignment would likely include the planting and maintenance of vegetation in the ROW.

The alignment overlies the Mississippi River Alluvial and Chicot Equivalent Aquifers which are located 25 to 150 ft (Todd et al. 2009) and 50 to 1,100 ft (Stuart et al. 1994), respectively, below the surface. While it is possible there are some small, isolated fresh groundwater resources that are linked to the Mississippi River, the U. S. Geological Survey has not mapped any major freshwater aquifers in the project study area because of saltwater encroachment (*Tomaszewski per. comm. 2010*). Based on the lack of documented cases, the installation of the pilings, associated with construction of the roadway, would not likely create possible avenues for groundwater contamination (*Bonnecaze 2010, Walters 2010*). According to field observations and database searches from the LDEQ and the EPA, no hazardous or solid waste sites are located within the proposed alternative ROW.

Biological Resources: Rated *High*

Water Quality: Rated *Low*

Alternative EIS-3: This proposed roadway alignment extends north from the current intersection of Homewood Place Drive and US 61 to I-10. Jurisdictional wetlands (50.38 ac containing a mixture of cypress-tupelo gum swamp, wet bottomland hardwood and scrub/shrub habitat) are located within most of the proposed alternative ROW and would be permanently impacted, with the exception of the small parking lot for the existing boat launch along the Reserve Relief Canal. No agricultural land is located within this alignment.

No known locations of T & E species or their habitats are located within or adjacent to the proposed alignment. This alternative would have less of a potential effect on wildlife than the other alternatives because the proposed roadway would be adjacent to, and parallel to the Reserve Relief Canal, thus avoiding additional severing of contiguous forested habitat. Even though elevated and much less disruptive to wildlife than roadways built on an earthen embankment, a small, but discernable linear open waterway would likely form underneath the grade-separated roadway, with potential for merging with the Reserve Relief Canal, depending upon distance between the roadway and canal.

Highway construction activities including land clearing, grading, and construction of the roadway and appurtenances could result in an increase in sedimentation and turbidity. An erosion and sediment control plan, utilizing best management practices (BMP) during construction of the roadway to reduce turbid runoff and sedimentation, would typically include proper emplacement of sediment barriers (e.g., silt fences, staked hay bale barriers, and earthen berms [the latter in non-swamp settings]) for containment of sediments and geotextiles, mulch, and/or vegetation, used singularly or in combination, in

disturbed areas susceptible to erosion (Barrett et al. 1995). Non-point source pollution from vehicle traffic and materials released from vehicles (e.g., small-scale fuel and lubricant leaks and particles of heavy metals and other substances) would flow into adjacent areas with runoff. Large-scale releases are assumed to be rare based on the anticipated safety considerations to be incorporated in road design. Both small-scale and large-scale spills/releases have the potential to contaminate local surface waters, contribute to localized vegetation die-off and aquatic species mortality, but it is not expected to contribute to an overall decline in water quality. In addition to paralleling the east side of the Reserve Relief Canal, alternative EIS-3 crosses an east-west trending pipeline ROW containing freshwater marsh that intersects the Reserve Relief Canal. Wetland vegetation in the swamp portion of the project area would contribute to the removal of some of the pollutants through wetland plant uptake, filtration, assimilation, settling, and microbial decomposition (Barrett et al. 1995, East-West Gateway Coordinating Council 2000). The BMP for the non-wetland portion of the alignment would likely include planting/maintenance of vegetation in the ROW. The alignment overlies the Mississippi River Alluvial Aquifer and the Chicot Equivalent Aquifer which are located 25 to 150 ft (Todd et al. 2009) and 50 to 1,100 ft (Stuart et al. 1994), respectively, below the surface. While it is possible there are some small, isolated fresh groundwater resources that are linked to the Mississippi River, the U. S. Geological Survey has not mapped any major freshwater aquifers in the project study area because of saltwater encroachment (*Tomaszewski per. comm. 2010*). Based on the lack of documented cases, the installation of the pilings, associated with construction of the roadway, would not likely create possible avenues for groundwater contamination (*Bonnecaze 2010, Walters 2010*). According to field observations and database searches from the LDEQ and the EPA, no hazardous or solid waste sites are located within the proposed alternative ROW. A convenience store (Moe's Discount) with underground storage tanks is located at 3357 West Airline Hwy and adjacent to this alignment, but should not pose a risk unless an UST-related release occurs.

Biological Resources: Rated *Medium*

Water Quality: Rated *Medium*

Alternative P-1: This includes a new roadway extending north and then east from the current terminus of LA Hwy 3179 at US HWY 61 to LA 3188 at its connection to I-10. Jurisdictional wetlands (30.71 ac of wet bottomland hardwoods and fresh marsh) are located within the proposed ROW and would be permanently impacted. The alternative would pass through a little over a quarter of a mile of land in existing agricultural use. The alignment's location close to existing development and agricultural lands and its east-west orientation reduces its potential adverse effects regarding severance of the large tract of contiguous cypress-tupelo gum swamp habitat. This alignment is close to the toe of the natural levee of the Mississippi River and includes some previously farmed lands that have been abandoned. These abandoned agricultural lands may be developed in the future even without construction of an elevated roadway. No known locations of T & E species or their habitats are located within or adjacent to the proposed alignment.

Highway construction activities that include land clearing, grading, and construction of the roadway and appurtenances could result in an increase in sedimentation and turbidity. Best management practices (BMP), incorporated into an erosion and sediment control plan, would be used during roadway construction for the purpose of reducing potential impacts. Construction BMP would typically include the proper installment of sediment barriers (e.g., silt fences, staked hay bale barriers, and earthen berms [the latter in non-swamp settings]) for containment of soils and geotextile products, mulch, and/or vegetation, used singularly or in combination, in disturbed areas susceptible to erosion (Barrett *et al.* 1995). Non-point source pollution from vehicle traffic and materials released from vehicles would flow into adjacent areas with runoff. Large-scale releases are assumed to be rare based on the anticipated safety considerations to be incorporated in road design. Both small-scale and large-scale spills/releases have the potential to contaminate local surface waters, contribute to localized vegetation die-off and aquatic species mortality, but it is not expected to contribute to an overall decline in water quality. This alignment does not cross any canals leading to Lake Maurepas. Wetland vegetation in the swamp portion of the project area would provide partial removal of pollutants through wetland plant uptake, filtration, assimilation, settling, and microbial decomposition (Barrett *et al.* 1995, East-West Gateway Coordinating Council 2000). The BMP for the non-wetland portion of the alignment would likely include the planting/maintenance of vegetation in the ROW. The alignment overlies the Mississippi River Alluvial Aquifer and the Chicot Equivalent Aquifer which are located 25 to 150 ft (Todd *et al.* 2009) and 50 to 1,100 ft (Stuart *et al.* 1994), respectively, below the surface. Small and isolated fresh groundwater resources that are linked to the Mississippi River may exist, but the U. S. Geological Survey has not mapped any major freshwater aquifers in the project study area because of saltwater encroachment (Tomaszewski *per. comm.* 2010). Based on the lack of documented cases, the installation of the pilings, associated with construction of the roadway, would not likely create possible avenues for groundwater contamination (Bonnecaze 2010, Walters 2010). According to field observations and database searches from the LDEQ and the EPA, no hazardous or solid waste sites are located within the proposed alternative ROW.

Biological Resources: Rated *Medium*

Water Quality: Rated *Low*

Physical Resource Impacts

Methodology

As suggested by the US Army Corps of Engineers, physical resource impacts would include impacts to: (1) land features, (2) subsurface geology, and (3) soils. There is very little differentiation between the alternatives in terms of land features and soil types that may be impacted by the proposed new roadways, and there is little if any difference in the amount of impacts to sub-surface geology among the alternatives. Nor are any of the soils types present in the study area considered prime or unique farmland. As such, the

key metric in this presented in this evaluation is the amount of acreage removed from active or potential agricultural use.

Findings

In the following text, the land features and soil types of each alternative are first described, followed by an anticipated impact summary. Each description concludes with a listing of the amount of acreage removed from active or potential agricultural use.

AP-6: AP-6 includes upgrade of an existing road, construction of new at-grade roadway on cleared land, and construction of elevated roadway on structure over undeveloped forested wetland areas. This entire route is very flat in nature, with little if any natural slope. The existing roadway and cleared areas used for construction are located in areas of mostly Cancienne Silt Loam and Schreiver Clay (0 to 1% slopes) with a small portion of Cancienne Silty Clay Loam. These soils are generally used for croplands and residential development, and would not be considered as prime or unique farmlands. The remainder of the route through the undeveloped areas would mostly cross Barbary soils (frequently flooded) as well as some areas of Schreiver Clay soils (frequently flooded) both of which are considered unsuitable for croplands.

Due to its using an upgrade to an existing roadway as a portion of its route, AP-6 features relatively little removal of active or potential farmland (2.14 acres). As such, its impact rating is *low*.

AP-6B: AP-6B also includes upgrade of an existing road, construction of new at-grade roadway on cleared land, and construction of elevated roadway on structure over undeveloped forested wetland areas. This entire route is very flat in nature, with little if any natural slope. The existing roadway area and cleared areas to be used for construction consist mostly of Cancienne Silty Clay Loam, with some areas of Schreiver Clay (0 to 1% slopes) and a small area of Cancienne Silt Loam. These soils are generally used for croplands and residential development, and would not be considered as prime or unique farmlands. The remainder of the route through the undeveloped areas would mostly cross Barbary soils (frequently flooded) as well as some areas of Schreiver Clay soils (frequently flooded) both of which are considered unsuitable for croplands.

Due to its using an upgrade to an existing roadway as a portion of its route, AP-6 also features relatively little removal of active or potential farmland (4.05 acres). As such, its impact rating is *low*.

EIS-3: This alternative would involve a new roadway along the east side of the Reserve Relief Canal. Nearly all of the roadway, except for the roadway in the immediate vicinity of the intersection with US 61, would be elevated on structure through undeveloped wetlands. This entire route is very flat in nature, with little if any natural slope, and with

a degree of manmade slope west wards toward the Reserve Relief Canal. The area envisioned for the new elevated roadway consists almost equally of Barbary soils (frequently flooded) and Schreiver Clay soils (frequently flooded) both of which are considered unsuitable for croplands. Near US 61, where the canal boat launch is located the route crosses a small area of Schreiver Clay (0 to 1% slopes) which is generally used for croplands and residential development.

EIS-3 also would essentially involve the removal of no active or potential farmland (0 acres). As such, its impact rating is *low*.

P-1: Nearly the entire roadway proposed for this alternative, except for the roadway in the immediate vicinity of the intersection with US 61, would be elevated on structure through undeveloped wetlands as well as over some existing cleared agricultural land. This entire route is very flat in nature, with little if any natural slope. Near US 61, where the route begins, the alignment crosses a small area of Schreiver Clay (0 to 1% slopes) which is generally used for croplands and residential development. After crossing an undeveloped wetland area consisting of mostly Schreiver Clay soils (frequently flooded), the alignment crosses a cleared agricultural area consisting mostly of Schreiver Clay (0 to 1% slopes) with a small portion of Cancienne Silt Loam. The route again then progresses through an undeveloped wetland area consisting of Schreiver Clay soils (frequently flooded).

P-1 would likely involve the removal of 9 acres of active or potential farmland. As such, its impact rating is *medium*.

Summary of Screening Related to “Least Damaging” specifically related to Wetlands Impacts

Other than the category of Amount of Wetlands Impacted, which provides an actual number of acres, the other three categories of evaluation and screening related to wetlands (biological resource impacts, water quality impacts, and physical resource impacts) all are based on a three-level impact rating: low, medium or high. These ratings can easily be converted into an ordinal system (with low =1, medium = 2, and high =3) and then totaled for a composite score. Doing so reveals the following:

**Table II-7
“Least Damaging” Screening Criteria - Composite Scoring**

Alternative:	Biological Resource Impacts:	Water Quality Impacts:	Physical Resource Impacts:	Composite Score
AP-6	High (3)	Low (1)	Low (1)	7
AP-6B	High (3)	Low(1)	Low (1)	6
EIS-3	Medium (2)	Medium (2)	Low (1)	8
P-1	Medium (2)	Low (1)	Medium (2)	6

Based upon the above composite scores, **Alternatives AP-6B and P-1** (each with a score of 6) **would be indicated as the least damaging, in terms of wetland impacts, among the remaining alternatives.** This is also reinforced by considering the amount of wetlands potentially impacted. Alternative P-1 has the lowest amount of wetlands potentially impacted (30.71 acres), and Alternative AP-6B has the second lowest amount of wetlands impacted (48.92)

Other (Human Environment) Impacts

Methodology

This criterion involves examining each build alternative in regards to general human environment impacts, focusing in particular on four impact areas:

- likely relocations & displacements,
- impacts associated with utility lines,
- visual impacts, and
- anticipated noise impacts.

Field reconnaissance and review of aerial maps were used to determine the likely impacts for each alternative. For rating, each alternative received a score based on how many of the human environment impact categories were affected:

- 0 to 1 categories – Low
- 2 to 3 categories – Medium
- 4 categories - High

Findings

The scores are presented in the overall matrix, and an explanation of each alternative's score follows:

Alternative AP-6: This alternative also included upgrading an existing roadway, (Veterans Blvd.) for its short length. The roadway is lined with active uses, including a Veterans Administration Outpatient Clinic, the Southwest Louisiana War Veterans Home and the Frank Lapeyrolerie/Leola Montz Council on Aging Activity Center. While there are no major utility lines in this stretch of Veterans Boulevard, the alignment would cross an east-west running pipeline in the wetland areas. Due to the nature of the facilities, there is a small possibility of noise impacts associated with increased traffic. As this alternative involves two human impact categories, it is rated *medium*.

Alternative AP-6B: AP-6B shares the Regala Park alignment portion of EIS-5, and would have the same limited impact in that area. However, where EIS-5 veers east, this alternative continues north directly to I-10, through undeveloped wetlands. AP-6B

crosses the east-west running gas pipeline. As this alternative only affects one impact category, it is rated *low*.

Alternative EIS-3: This alternative begins at the intersection of Homeswood Place and US 61. Although there is no existing roadway north of the intersection of Homeswood and US 61, the alignment generally follows the Reserve Relief Canal due north to I-10. In the immediate vicinity of US 61 is a boat launch on that canal that may be affected by construction. Fishermen and boaters who use the canal would have a definite visual impact, as the elevated roadway would be in view a short distance to the east. As the alignment runs north-south, it also crosses the east-west running pipeline. Interchange construction may require relocation of some fishing camps currently located at the intersection of the canal and I-10. Since this alternative affects three categories, it is rated *high*.

Alternative P-1: This easternmost of the alternatives begins at the intersection of LA 3179 and US 61. There is no existing roadway north of the intersection of LA 3179 and US 61 in this area, and the only development on the north side of US 61 is A3M Vacuum Services, a business located just northwest of the LA 3179 / US 61 intersection. No noise, utility, relocation or visual impacts are anticipated in the area immediately adjacent to US 61. As with EIS-4 and EIS-5, P-1 continues north and east to connect to Belle Terre Boulevard just south of I-10. Between the immediate US 61 area and Belle Terre Boulevard, it is located no closer than ¼ mile from any human habitation, and should have no effect in terms of noise or visual impacts. It does not cross any major utility lines. As P-1 affects no human environment impact categories, it is rated *low*.

CONCLUSIONS OF EVALUATION AND SCREENING OF INITIAL BUILD ALTERNATIVES

Table II-8 on the second page following presents a comprehensive matrix of the alternatives and how they can be compared in the evaluation and screening process.

To recap, the alternatives were first evaluated and screened on the basis of practicability, with the emphasis being on whether or not the alternative adequately meets the purpose and need of the project, particularly the purpose of improving access between US 61 in Reserve and I-10. As is shown on the chart, Alternatives EIS-5 and EIS-4 were determined to not be practicable as they did not adequately reduce emergency response time. Alternatives AP-2 and AP-7 were determined to be not practicable as they did not provide adequate time travel savings, especially when compared to the other alternatives. Alternative P-4 met neither measure of practicability. As a result, these five alternatives were removed from further consideration.

The remaining four alternatives were then evaluated on the basis of criteria to determine which would be the least damaging, first in terms of wetlands, then in terms of other (human) environment impacts. As shown in the matrix, the amount of potential wetlands impacted under each alternative was first determined, and then each alternative was then

evaluated on the basis of its impacts to three specific aspects of wetland impact categories; biological resource impacts, water quality impacts, and physical resource impacts. The final level of evaluation dealt with human environment impacts.

Based on the evaluation of the four remaining alternatives, **Alternatives AP-6B and P-1 were determined to be the least damaging in terms of potential impacts relating to wetlands. Those alternatives were also the least damaging in terms of other (human environment) impacts.** Thus, these two alternatives (along with the No-Build Alternative and the TSM Alternative) were selected to move forward in the EIS process and be more fully developed as *candidate alternatives* and analyzed in terms of likely impacts.

The Final Build Alternatives are presented in **Figure II-3** on the second page following.

CANDIDATE ALTERNATIVES

Following the evaluation and screening of the Initial Build Alternatives, four (4) Candidate Alternatives remained:

1. No-Build Alternative
2. Transportation Management System (TSM) Alternative
3. Build Alternative AP-6B
4. Build Alternative P-1

As these alternatives would be the ones to undergo full impact analysis in the EIS, each was then fully defined, with the TSM and Build Alternatives undergoing full conceptual engineering.

DEFINITION OF NO BUILD AND TSM ALTERNATIVES

The No-Build and TSM Alternatives are both required for the Draft EIS analysis, and were developed with both public and agency input.

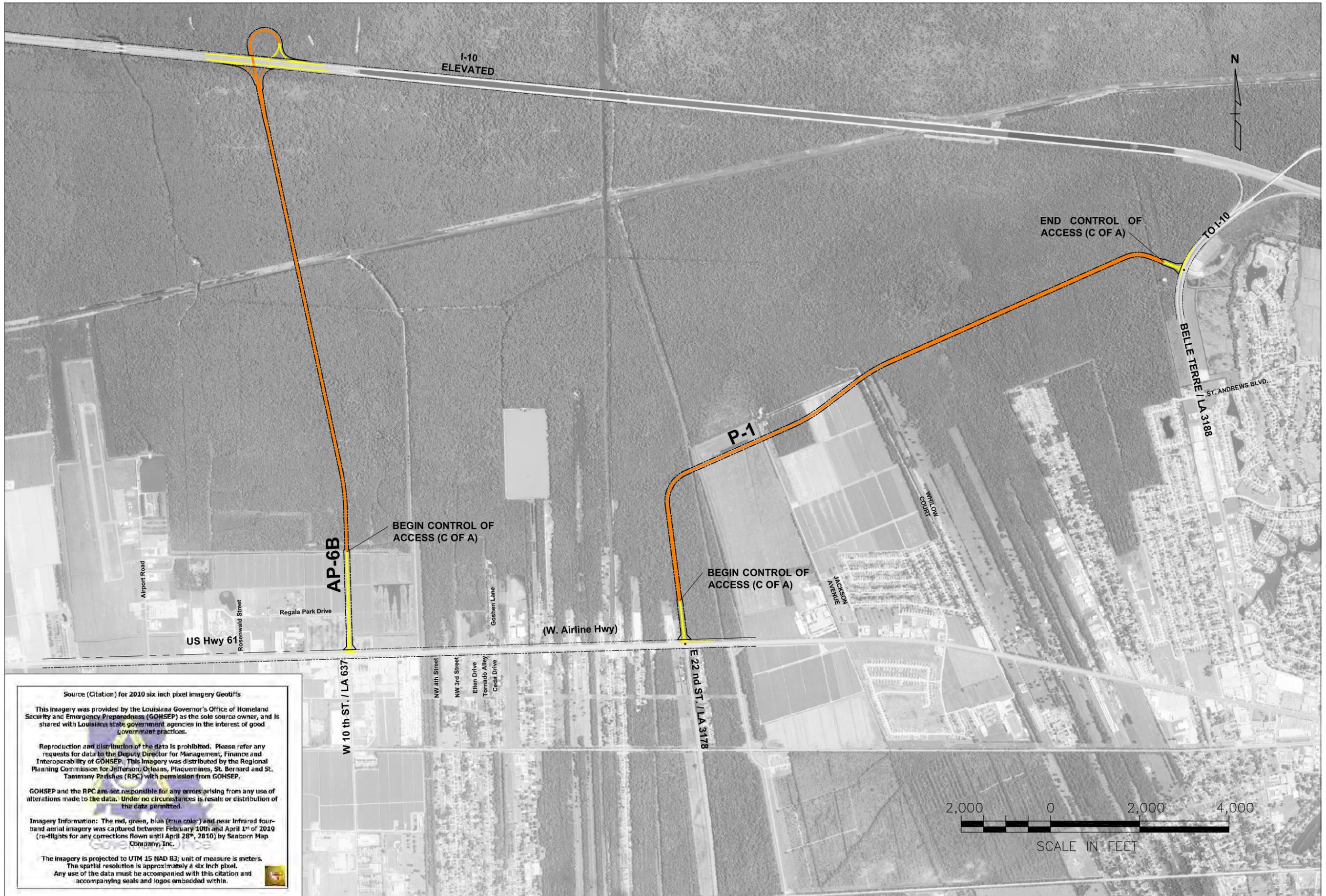
No Build Alternative

The No-Build Alternative provides a baseline to compare the other alternatives and includes improvements within the immediate project area that were already planned or programmed. For purposes of traffic and air quality analysis, all other planned and programmed transportation improvements within the *region* are also included in the No-Build Alternative, as these will have some effect on traffic demand and traffic volumes within the corridor.

**Table II-8
Evaluation and Screening Matrix – Enhanced Access between US 61 in Reserve and I-10**

ALTERNATIVES:

Screening Criteria related to Practicability:	P-4	AP-2	AP-7	AP-6	EIS-4	EIS-5	AP-6B	EIS-3	P-1
Improved Access / Travel Time Savings for regular traffic (<i>per trip; presented in mins./secs.</i>):	<u>Vehicular Traffic :</u> West: 0:00 East: 0:00	<u>Vehicular Traffic:</u> West: 1:21 East: 0:00	<u>Vehicular Traffic:</u> West: 1:49 East: 0:03	<u>Vehicular Traffic:</u> West: 1:55 East: 1:01	<u>Vehicular Traffic:</u> West: 0:0 East: 2:08	<u>Vehicular Traffic:</u> West: 0:00 East: 2:21	<u>Vehicular Traffic:</u> West: 2:18 East: 1:46	<u>Vehicular Traffic:</u> West: 1:42 East: 3:38	<u>Vehicular Traffic:</u> West: 0:00 East: 3:25
Year 2020 Total Daily Travel Time Savings (<i>minutes per day, gross</i>):	none	2,564	3,720	9,133	8,695	9,579	13,913	22,859	13,926
Year 2038 Total Daily Travel Time Savings (<i>minutes per day, gross</i>):	none	3,051	4,746	17,353	27,883	30,715	27,825	50,378	44,656
Improved Access / Travel Time Savings for emergency vehicle traffic (<i>per trip; presented in mins./secs.</i>):	<u>Emergency Access :</u> Center: 0:00	<u>Emergency Access :</u> Center: 8:46	<u>Emergency Access :</u> Center: 10:23	<u>Emergency Access :</u> Center: 10:29	<u>Emergency Access :</u> Center: 2:44	<u>Emergency Access :</u> Center: 4:07	<u>Emergency Access :</u> Center: 10:52	<u>Emergency Access :</u> Center: 10:16	<u>Emergency Access :</u> Center: 5:11
Screening Criteria related to Least Damaging:				AP-6			AP-6B	EIS-3	P-1
<i>Wetland Impacts:</i> Amount of Wetlands Impacted: (<i>in projected acres</i>)				49.01 acres			48.92 acres	50.38 acres	30.71 acres
Biological Resource Impacts: (<i>low, medium, high,</i>)				high			high	medium	medium
Water Quality Impacts: (<i>low medium, high</i>)				low			low	medium	low
Physical Resource Impacts (<i>low medium, high</i>)				low			low	low	medium
<i>Other Impacts:</i> Human Environment Impacts: (<i>low, medium, high</i>)				medium			low	high	low



Source (Citation) for 2010 six inch pixel imagery Geotiffs

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SHEET
II-3

ENHANCED ACCESS BETWEEN US 61 IN RESERVE AND I-10
STAGE 1 - ENVIRONMENTAL IMPACT STATEMENT
ST. JOHN THE BAPTIST PARISH
 STATE PROJECT NO. H-004891/FEDERAL AID PROJECT NO. H004891/RPC NO. PSLC-STJ
FINAL BUILD ALTERNATIVES



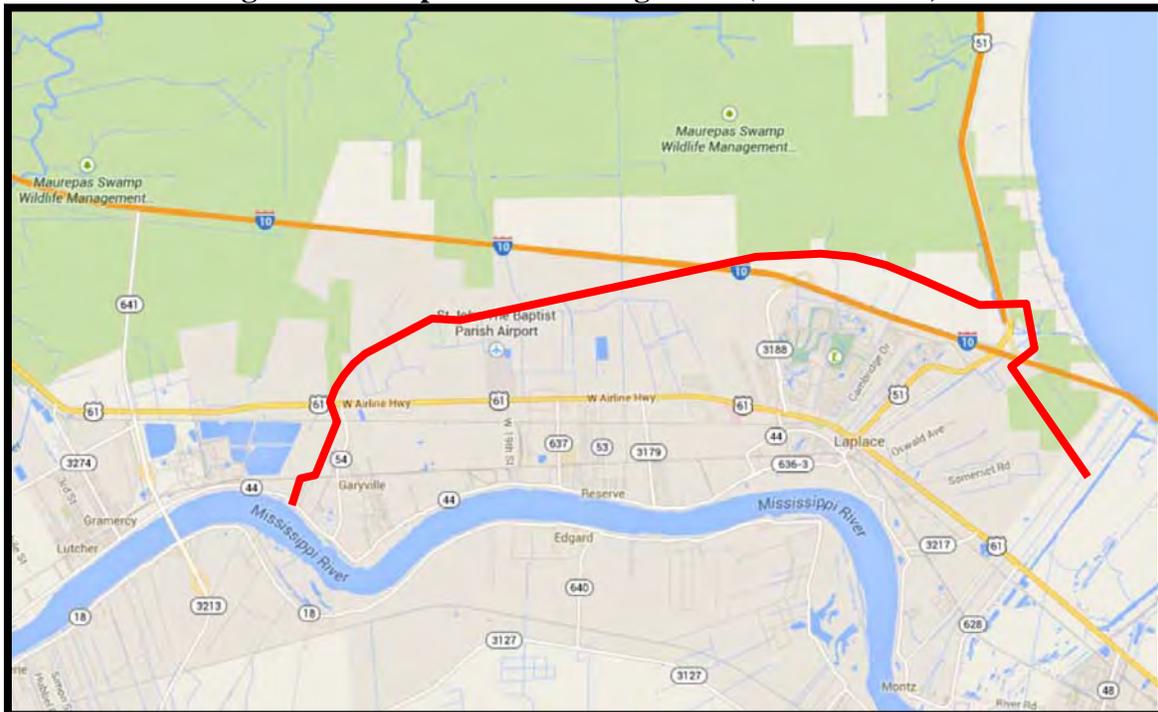


The No Build Alternative includes the following roadway projects that are already planned, underway, or recently completed:

- **Port Connector Road (W. 10th Street) Improvements**
- **Optimization of timing and phasing plans for 10 signals along Airline Drive between Belle Pointe and Main Street**
- **Raising elevation of I-10 near LaPlace**
- **Raising elevation of I-10 ramps at LA 1088 (Belle Terre Interchange)**
- **US 61 Intersection Improvements at:**
 - **Marathon Avenue**
 - **LA 3188 (Belle Terre Blvd.) LA 3224 (Hemlock Street)**
 - **New US 51**
 - **Old US 51 (Main Street)**

The No Build Alternative also includes non-roadway projects that are planned, underway or recently completed. Most notable among these is the West Shore Lake Pontchartrain Levee project. The project is currently in the feasibility study phase and the US Army Corps of Engineers is the lead federal agency on the project. The Pontchartrain Levee District and St. John the Baptist Parish are evaluating the economic and environmental feasibility of constructing a Hurricane Protection Levee in St. John the Baptist Parish. During the development of the EIS document, the Pipeline Avoidance and Storage Capacity Alignment Alternative was selected, which places the levee just north of the gas pipeline crossing the project area. The planned levee would terminate on the west at the Mississippi River levee in Garyville. The location of the proposed levee is shown in **Figure II-4** below:

Figure II-4 Proposed Levee Alignment (shown in red)



Also included in the No Build Alternative are recent and planned improvements at the St. John Airport (during the course of the EIS, the runway was extended from 4,000 feet to 5,150 feet), and an ongoing Louisiana Office of Coastal Protect Mon and Restoration Mississippi River diversion project in the Garyville area designed to help restore the Maurepas Swamp.

Transportation System Management (TSM) Alternative

The TSM Alternative was designed to be a low-cost option for implementation that would address the EIS purpose and need. The purpose of the project in general -- to aid traffic in the Reserve area in accessing I-10 -- as well as the consideration of a project being "low-cost," leads to the TSM components focusing on improving traffic along US 61 or other routes which lead directly to I-10. As noted above, in the No Build Alternative there are several such projects recently completed, underway, or planned which would improve traffic. However, there remains four instances where the installation of acceleration lanes (primarily for heavy trucks leaving Port or other industrial facilities) would aid in traffic flow by allowing slower-accelerating trucks to get up to sufficient travel speed before entering US 61. These include the following locations:

1. **West 10th Street (signalized)** - northbound to eastbound right-turn acceleration lane
2. **Terre Haute Avenue (signalized)** - northbound to eastbound right-turn acceleration lane, and northbound to westbound left-turn acceleration lane
3. **Marathon Avenue (signalized)** - northbound to eastbound right-turn acceleration lane
4. **Marathon West Entry (unsignalized)** - northbound to eastbound right-turn acceleration lane

Conceptual engineering drawings of these four TSM Improvements are provided at the end of this chapter.

DEFINITION OF BUILD ALTERNATIVES

As mentioned in the earlier section on the *Evaluation and Screening of Build Alternatives*, as an initial step to better analyze the screening of the initial build alternatives, some initial conceptual engineering had already been done, including the establishment of design criteria and development of cross sections. As candidate alternatives, AP-6B and P-1 underwent further conceptual engineering as well as minor refinement, which is described below.

Design Criteria

The concept design of the roadway, ramps and bridges of the build alternatives meet LADOTD RC-3 (rural collector) criteria for roadway design.

Table II-9, on the following two pages, lists the design criteria.

Design Concept

AP-6B - This alternative extends north from US 61 to I-10. At US 61, its alignment would connect to Regala Park Drive, which is a northern extension of LA 637 (W. 10th Street). LA 637 extends south to the Port of South Louisiana and is planned for future roadway upgrades.

Beginning at the US 61 intersection with Regala Park Drive, the roadway would first include some improvements at the intersection, including installation of directional turning lanes. Regala Park Drive would be improved to meet LADOTD RC-3 Roadway Design Criteria, with the addition of 10 ft. shoulders, striping, clear zone and drainage. Where Regala Park Drive currently turns to the west, the new roadway would continue north and the east-west running portion of Regala Park Drive would intersect as a “T” intersection.

The new two-lane roadway would proceed north for approximately 1500 feet through agricultural fields. At that point, the two-lane roadway would enter the wetlands area and transition to an elevated highway on structure. The elevated highway would consist of two travel lanes of 12 feet each, divided by a concrete barrier rail in the center. Each travel lane would have a 10 foot outside shoulder and a two foot inside shoulder. The entire structure would be 52.5 feet wide, and the right-of way corridor would be approximately 100 feet wide (82.5 feet minimum).

As it proceeds toward I-10, the elevated highway structure heads slightly west of due north, so that the highway can connect to the at-grade portion of I-10 rather than the elevated portion of I-10. Approximately 1.22 miles north of the beginning of the elevated highway (or .8 miles south of I-10) the structure will pass over a gas pipeline.

At I-10, the roadway will intersect with the interstate via a fully directional interchange, very similar in form and function to the I-10 interchange at Belle Terre Boulevard, the nearest interchange to the east. Traffic from the new roadway heading west on I-10 and westbound traffic from I-10 heading south on the new roadway will utilize a new overpass over I-10, with the traffic from the new roadway heading west on I-10 utilizing a ¼ cloverleaf. Traffic from eastbound I-10 accessing the new roadway, and new roadway traffic heading east on I-10 will each use at-grade off-ramps and on-ramps on the south side of I-10.

Table II-9

**LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
Minimum Design Guidelines for Rural Collector Roads**

State law requires that the state highway system conform to these guidelines.

Item No.	Item	Rural		
		RC-1	RC-2	RC-3
1	Average Daily Traffic ¹	Under 400	400 – 2000	Over 2000
2	Design Speed (mph)	40 – 60 ²	50 – 60 ²	60
3	Number of Lanes	2	2	2 – 4 ³
4	Width of Travel Lanes (ft)	11	11 – 12 ⁴	12
5	Width of Shoulders (ft)			
	(a) Inside on multilane facilities	N/A	N/A	4
	(b) Outside	2 ⁵	4 – 5 ⁶	8
6	Shoulder Type	Paved	Aggregate (2' min paved)	Aggregate (2' min paved) ⁷
7	Width of Parking Lanes (ft)	N/A	N/A	N/A
8	Width of Median on multilane facilities (ft)			
	(a) Depressed	N/A	N/A	42 – 60
	(b) Raised	N/A	N/A	N/A
	(c) Two way left turn lane	N/A	N/A	N/A
9	Width of Sidewalk (minimum) (ft)			
	(a) When offset from curb	N/A	N/A	N/A
	(b) When adjacent to curb	N/A	N/A	N/A
10	Fore Slope (vertical – horizontal)	1:4	1:4	1:6
11	Back Slope (vertical – horizontal)	1:4 ⁸	1:4	1:4
12	Pavement Cross Slope (%)	2.5	2.5	2.5
13	Min. Stopping Sight Distance (ft)	305 (40 mph)	425 (50 mph)	570
		425 (50 mph)	570 (60 mph)	
		570 (60 mph)		
14	Maximum Superelevation (%) ⁹	10	10	10
15	Minimum Radius (ft) ¹⁰ (with full superelevation)	450 ¹¹	700 ¹²	1,100
16	Maximum Grade (%)	7 (40 mph)	6 (50 mph) 5 (60 mph)	5
		6 (50 mph)		
		5 (60 mph)		
17	Minimum Vertical Clearance (ft) ¹³	15	15	15
18	Minimum Clear Zone (ft) (from edge of through travel lane)	10, 14, 24 ¹⁴	26 (50 mph) 32 (60 mph)	30
19	Bridge Design Live Load ¹⁵	AASHTO	AASHTO	AASHTO
20	Minimum Width of Bridges (face to face of bridge rail at gutter line) (ft)	30	Roadway width	Roadway width

Approved 
Chief Engineer

12-4-09
Date

Table II-9 (continued)

LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

Footnotes for Minimum Design Guidelines for Rural Collector Roads

- 1- Current traffic may be used to determine the appropriate classification.
- 2- The design speed may not be less than the current posted speed of the overall route.
- 3- For rolling terrain, limited passing sight distance and high percentage of trucks, further analysis should be made to determine if additional lanes are required when ADT is above 7,000.
- 4- For design speeds greater than 50 mph and ADT greater than 1,500 use 12-foot lanes.
- 5- Where bicycle activity is observed, a 4-foot shoulder should be provided.
- 6- For ADT greater than 1,500 use 6 foot shoulders.
- 7- For ADT of 5,000 or greater, a minimum of 4 foot must be paved.
- 8- 1:3 back slopes are allowed where right-of-way restrictions dictate.
- 9- In Districts 04 and 05, where ice is more frequent, superelevation should not exceed 8 percent from the $e_{max} = 10\%$ table.
- 10- It may be necessary to increase the radius of the curve and/or increase the shoulder width (maximum of 12 feet) to provide adequate stopping sight distance on structure.
- 11- Radius based on 40 mph. Radii for 50 mph and 60 mph are shown under the RC-2 and RC-3 classifications respectively.
- 12- Radius based on 50 mph. The radius for 60 mph is shown under the RC-3 classification.
- 13- Where the roadway dips to pass under a structure, a higher vertical clearance may be necessary. An additional 6 inches should be added for additional future surfacing.
- 14- The lower value is based on a 40 mph design speed, the middle value for 50 mph and the upper value for 60 mph.
- 15- LRFD for bridge design.

General Note:

DOTD pavement preservation minimum design guidelines or 3R minimum design guidelines (separate sheets) shall be applicable to those projects for which the primary purpose is to improve the riding surface.

P-1 - This alternative extends north from US 61 to LA 3188 (Belle Terre Boulevard) just south of that roadway's interchange with I-10. The alternative begins as an extension of LA 3179 (E. 22nd Street) at US 61. At the intersection of those two roadways, the alternative would first include some improvements at the intersection, including re-orientation and re-stripping of the center lane on LA 3179 south of US 61 (from turn lane to a through lane) as well as installation of a traffic signal and directional turning lanes on US 61.

North of US 61, the new roadway would be an at-grade roadway for a short distance (less than ¼ of a mile), and then would transition to an elevated highway on structure over wetlands. The elevated highway dimensions and specifications would be the same as those for AP-6B. And similar to AP-6B, it is assumed that in order to minimize impacts, end-on bridges construction would be utilized in wetland areas.

The elevated roadway proceeds north-northwest for approximately ¾ mile north of US 61 before curving to the northeast. Originally, the route was to pass over the extreme northern edge of non-wetland agricultural areas as it proceeded northeast, but during field research it was determined that the original route was located on a combination of a back levee and a drainage canal. As such, the alignment was refined in June 2013 so that it curved to the east earlier, and passed through the agricultural fields several hundred yards south of the canal and levee. Before returning to the wetland areas, the alternative shifts back to its original alignment near the northern edge of the fields. It should be noted that while this section of the roadway is not passing through undeveloped wetland areas, it remains on an elevated structure.

Just prior to its intersection with Belle Terre Boulevard, the elevated roadway turns more to the east and transitions back to an at-grade roadway to intersect with Belle Terre. The location of the Belle Terre intersection is the existing stub-out for the planned Woodland Drive extension, about ½ mile from the I-10 interchange.

The new intersection with Belle Terre would require some modification to the existing stub-out under two possible options. One option would be to convert the intersection to a signalized intersection, with corresponding turn lanes for each approach. The second option is installation of a free-flow roundabout intersection.

Bridge Structures

Type of Bridge Construction Used Over Wetlands

For most of the project length (on the main connector road structure between US 61 and I-10, there are several different types of construction that can be used. In other areas, such as the I-10 interchange under Alternative AP-6B and the at-grade connections under both alternatives, only standard construction methods can be used. An analysis on the method of bridge construction to be used on the main connector road over the wetland areas was completed as part of the design concept for this environmental analysis. The

analysis primarily examined the balance between cost to construct bridge structure and the estimated amount of wetlands that would be impacted. In general, the length of the structure would be the same for any method of construction for either of the two alternatives. Thus, the width or cross section being impacted under each method is the determining factor for the amount of wetland impacts (the wider the cross-section being disturbed, the more wetlands are being impacted). However, there is a trend that construction costs for the bridge are usually lower with those methods of construction that impact more wetlands.

Four different methods of construction were examined:

- *End-on construction*, which impacts the least amount of wetlands. End-on involves using the bridge structure itself as a base for construction cranes and pile drivers. It requires the least amount of cross-section to be impacted during construction. End-on construction, however, also necessitates shorter span lengths (a maximum of 40' long girders) and thus more numerous pile supports and pile bents than traditional construction.
- *Conventional construction*, which would entail a temporary construction road being built alongside the new bridge for access of construction cranes and pile drivers. As this would require a wider cross-section to be impacted during construction than under end-on construction, this method would initially impact more wetlands than end-on construction, but would include the restoration of the wetland areas in the footprint of the construction road once bridge construction is completed. Typically, all construction material is removed, and wetland tree seedlings such as cypress are planted at a rate of 50 per acre.
- *Use of a falsework gantry*, which rests on the surrounding ground but is elevated to a level higher than the bridge structure and can be rolled forward during construction. This would require a wider cross-section to be impacted during construction than under end-on construction, but slightly less (5 ft.) than would be impacted than under conventional construction. This method would also include the restoration of the wetland areas in the footprint of construction once the bridge is completed.
- *Use of a temporary bridge structure along one side of the new bridge*. This method would require a wider cross-section to be impacted during construction than under end-on construction, but with noticeably less cross-section impacted than would be under conventional construction or falsework gantry (17' temporary cross section vs. 45' or 40' temporary cross sections). This method would also include the restoration of the wetland areas in the footprint of construction once the bridge is completed. .

Conventional construction, use of a falsework gantry or a temporary bridge structure would enable longer girder spans than the 40' maximum in end-on construction: 50' Type II girders, 80' Type III girders, or 100' Type IV girders. Longer spans lessen the number of pile support bents needed, and also provides a smoother ride.

Costs were estimated for each of these, and they are compared on the following page (along with the cross-section affected and estimated acreage of wetlands impacted, both for permanent impacts and temporary impacts under each alternative) in **Table II-10**:

**Table II-10
Reserve to I-10 Connector Bridge Cost Comparison**

Type of Construction:	Cost /Linear ft <i>(includes wetland tree replanting in those alternatives with temporary construction areas):</i>	Cross-section width	Estimated Wetland Acres Impacted for Main Elevated Connector <i>(does not include at grade sections or interchange area for AP-6B)</i>	
			AP-6B	P-1
End on Construction-40' girder	\$5,064	82.5'	20.9 permanent	31.1 permanent
Falsework Gantry) 50' Type II girders	\$6,318	122.5' (82.5' permanent, 40' temporary)	20.9 permanent, 10.2 temporary	31.1 permanent, 15.1 temporary
Conventional (temp. construction road) 50' Type II girders	\$3,849	127.5' (82.5' permanent, 45' temporary)	20.9 permanent, 11.4 temporary	31.1 permanent, 17.0 temporary
Falsework Gantry 80' Type III girders	\$6,412	122.5' (82.5' permanent, 40' temporary)	20.9 permanent, 10.2 temporary	31.1 permanent, 15.1 temporary
Conventional (temp. construction road) 80' Type III girders	\$3,942	127.5' (82.5' permanent, 45' temporary)	20.9 permanent, 11.4 temporary	31.1 permanent, 17.0 temporary
Falsework Gantry 100' Type IV girders	\$6,492	122.5' (82.5' permanent, 40' temporary)	20.9 permanent, 10.2 temporary	31.1 permanent, 15.1 temporary
Conventional (temp. construction road) 100' Type IV girders	\$4,021	127.5' (82.5' permanent, 45' temporary)	20.9 permanent, 11.4 temporary	31.1 permanent, 17.0 temporary
Temporary Bridge – 80' Type III girders	\$5,070	99.5' (82.5' permanent, 17' temporary)	20.9 permanent, 4.3 temporary	31.1 permanent, 6.4 temporary

- The falsework gantry method was eliminated as it has the highest cost, even higher than end-on construction (which has the least impact to wetland areas). Falsework gantry construction also has approximately 50% more wetlands impacted than under end-on construction (albeit on a temporary basis).
- Although conventional construction methods would result in a lowest per-unit cost than the other methods, it has the longest cross-section width and will disturb the most amount of wetlands – more than 50% more wetlands are impacted than with end-on construction (albeit on a temporary basis), and as such conventional construction was eliminated.
- Between the end-on construction method and the temporary bridge method, there is very little difference in cost, and a 17' difference in cross section affected. It results in roughly 20% more wetland impacts (albeit on a temporary basis). As the wetland impacts are one of the key considerations of this project, it was determined that for

purposes of impact analysis as well as cost estimation, end-on construction would be used.

It should be re-iterated that end-on construction cannot be used in certain areas, such as the I-10 interchange under Alternative AP-6B and for the at-grade connections under both alternatives.

Bridge Description

The segments of AP-6B and P-1 elevated over wetland areas will be supported by 24" square pre-cast, pre-stressed concrete piles, supporting cast in place 3' foot deep concrete pile caps. Girders will be Type II pre-cast, pre-stressed concrete girders (40' spans) covered by an 8" thick cast in place concrete slab. Following the flooding events of Hurricane Isaac in 2012, elevations have been adjusted accordingly to elevation 16.0.

The USACE selected plan for a St. John the Baptist levee envisions earthen levees varying from elevation 7.0 to elevation 13.5. The segment of AP-6B crossing the levee may need to be raised during design to clear the levee. The spans over the levee will have to be increased longer than the typical 40' spans. Span lengths and pile locations for the bridge will be coordinated with the designs of the flood protection levee.

On Alternative AP-6B, the elevated approach ramps for the I-10 interchange will be similar in construction to the alternative mainline structure, except for the use of Type III girders. The two-lane mainline interchange ramp over I-10, however, will be built on three (3), 3.5' diameter cast in place columns supported by cast in place concrete footings, each supported by 16" PPC piles. The columns will support a cast-in-place cap, which in turn will support Type IV pre-cast pre-stressed concrete girders. Minimum Interstate Design Vertical Clearance will be applied/considered for Alternative AP-6B where it crosses I-10.

Drainage

Along the elevated structures through the wetlands areas, cross-drainage flow should not be an issue.

Along at-grade portions, pipes and/or box culverts have been estimated where ditch crossings were observed in the field and/or noted on quad maps, or where determined to be necessary to allow cross-drainage.

During preliminary plan preparation, a drainage study and drainage map will be prepared.

Utilities

General

The utility disposition table in the Appendix lists the public and private utilities identified within the roadway alternative alignments through discussions with the individual utilities. Private utilities requiring coordination during design for potential relocation include Entergy, AT&T, Cox Communications, and Atmos Entergy. Public utilities include sewer and water. The estimated cost to relocate the utilities potentially to be paid by this project are listed in the utility disposition table are included in the construction cost estimate. Order of magnitude relocation costs were requested from the individual utilities if to be paid for by this project. If the utility did not provide these costs, then costs were estimated.

TSM Alternative

Public Utilities:

No public utility conflicts were identified.

Private Utilities:

No private utility conflicts were identified.

Alternative AP-6B

Public Utilities:

The only public utility conflict identified at this time is a 12" water line at US 61. The relocation costs are included in the cost estimate.

Private Utilities:

Electric, telephone and cable utility conflicts were identified. As these are within the existing road right-of-way, the relocation costs will be borne by the respective utility.

Alternative P-1

Public Utilities:

The only public utility conflict identified at this time is a 12" water line at US 61 and a 12' water line at Belle Terre Blvd. The relocation costs are included in the cost estimate.

Private Utilities:

Electric, telephone and cable utility conflicts were identified. As these are within the existing road right-of-way, the relocation costs will be borne by the respective utility.

CONCEPTUAL PROJECT COST

CONSTRUCTION COST

Construction quantities for the alternatives were derived from the typical sections and the plan layouts included at the end of this chapter. Unit prices are based on Louisiana Department of Transportation and Development (LADOTD) 4th quarter, 2012 unit prices. Construction costs were divided into the following basic groups: At-Grade Roadway (including earthwork, base course, geotextile fabric, pavement, striping, raised pavement markers, drainage and fencing), Clearing and Grubbing, Traffic Signals, Bridge Structures, Mobilization, and Right-of-Way Acquisition. Some aspects of construction type and details used in cost estimation (bridge structures, drainage) were provided earlier within this chapter; some additional notes on some of the other categories are provided below.

At-Grade Roadway

The at-grade roadway cost estimate includes construction of new roadway with embankment, fill, base course, pavement, and striping. The area of proposed construction is mostly flat. Asphalt pavement was assumed for estimating purposes along the roadway corridor.

Traffic Signals

The conceptual cost estimate includes installation of new traffic signals at intersection locations where projected traffic volumes warrant the installation of new signals in the build year. These include the intersection of US 61 and W. 10th Street (LA 637) under Alternative AP-6b, the intersection of US 61 and the new roadway at E. 22nd Street and the intersection of the new roadway with Belle Terre Boulevard (LA 3188) under Alternative P-1, and the intersection of US 61 and Terre Haute Avenue under the TSM Alternative. A \$75,000 cost per signal was used.

Mobilization

A conceptual cost for mobilization was estimated and included as 10% of the roadway and bridge construction costs and utility relocations.

Right-of-Way Acquisition

Private property will need to be acquired to construct the either of the two build alternatives. The TSM Alternative will require no property acquisition, as the improvements will be constructed within existing right-of-way.

Two types of property will be purchased for the build alternatives each with very different costs: *wetland areas* and *developable areas* along US 61 (Airline Highway) and LA 3188 (Belle Terre Blvd.). The methodology employed in the determination of estimated costs for these types of properties involved internet research of both recent sales and property for sale in the project area. A recent sale example for wetland areas was the recent acquisition of 29,630 acres for the Maurepas Swamp Wildlife Management area, at a price of \$6.5 million, which translates to a cost of \$219.37 per acre. For purposes of this cost estimate, that cost was rounded to \$220/acre. For the commercially-zoned property along major thoroughfares such as Airline Highway and Belle Terre Boulevard, research on comparable asking prices of “for sale” properties located along the corridors in the project study area was performed and it was found that vacant land in the area was selling for an average price of about \$183,400 per acre. For purposes of the cost estimate, this type of property was rounded up to a cost of \$185,000 per acre.

Contingencies

A 25% construction cost contingency was included for this concept-level study.

OTHER PROJECT COSTS

Engineering Design Costs

Prior to construction, the project will need to be fully engineered, not only including actual design, but also including testing, surveying, and geotechnical investigation. Using a baseline estimate of 15% of construction cost, engineering design costs would be range between \$12.1 million to roughly \$175,000, depending on the alternative.

Utilities

Utility costs include costs for the relocation of existing utilities that have been identified by the utility companies as being a cost to the project. Private utilities are considered to be relocated at the utility provider’s cost unless the utility has stated they have a basis for the project paying for the relocation. The utility will have to provide the basis for the project paying the relocation costs. See the Appendix for those utilities identified with by the utility companies along the proposed alignments.

Environmental Mitigation

The last project cost would be cost of mitigation of any unavoidable impacts. One possible cost of mitigation has already been identified, that of wetland impacts: Mitigation of unavoidable wetland impacts on similar projects in the past has been achieved through a monetary contribution, as determined by the regulatory agencies, to the Louisiana Nature Conservancy that maintains several wetland mitigation areas in Louisiana. Three (3) current wetland mitigation areas (or wetland banks) were contacted, and mitigation purchases at these banks ranged between \$35,000 to \$50,000 per acre. Of course prior to the project progressing to the construction phase, coordination with the US Army Corps of Engineers will need to be undertaken, and depending on their findings and determination under the Modified Charleston Method, impacted wetlands may need to be replaced at a 1-1 ratio, a 1-2 ratio, a 1-3 ratio, or an even higher ratio.

For purposes of this study, a basic replacement ratio of 1:1 and a conservative mitigation cost estimate of \$50,000 per wetland acre impacted is included.

SUMMARY

Table II-11 on the following page presents detailed conceptual project cost estimates for the TSM Alternative, Alternative AP-6B, and Alternative P-1. The total cost estimate for constructing the TSM Alternative is **\$1,342,611** the cost for Alternative AP-6B is **\$95,005,187**, and the cost for Alternative P-1 is **\$92,463,642**. As of the date of this document, there is no current funding source identified for designing or constructing this project.

**Table II-11
Conceptual Project Cost Estimate**

RIGHT-OF-WAY AND CONSTRUCTION						
	AP-6B	P-1	TSM	TSM	TSM	TSM
			Marathon West Entry	Marathon Ave.	Terre Haute Ave.	West 10th St.
Roadway <i>(earthwork, base course, geotextile fabric, pavement, striping, raised pavement markers, drainage)</i>	\$4,684,200	\$621,500	\$172,000	\$206,400	\$196,100	\$206,400
Clearing and grubbing	\$2,609,100	\$2,957,300	\$0	\$0	\$0	\$0
Traffic Signals	\$75,000	\$150,000	\$0	\$0	\$75,000	\$0
Bridge Structures	\$50,394,400	\$52,833,300	\$0	\$0	\$0	\$0
Mobilization (10%)	\$5,768,770	\$5,641,210	\$17,200	\$20,640	\$19,610	\$20,640
Right-of-Way	\$1,269,356	\$818,354	\$0	\$0	\$0	\$0
Subtotal	\$64,800,826	\$63,021,664	\$189,200	\$227,040	\$290,710	\$227,040
Contingencies (25%)	\$16,200,207	\$15,755,416	\$47,300	\$56,760	\$72,678	\$56,760
Subtotal, Construction	\$81,001,033	\$78,777,080	\$236,500	\$283,800	\$363,388	\$283,800
OTHER PROJECT COSTS						
Engineering Cost (15%)	\$12,150,155	\$11,816,562	\$35,475	\$42,570	\$54,508	\$42,570
Utility Relocations	\$22,500	\$100,000	\$0	\$0	\$0	\$0
Wetland Mitigation	\$1,831,500	\$1,770,000				
Subtotal, Other Project Costs:	\$14,004,155	\$13,686,562	\$35,475	\$42,570	\$54,508	\$42,570
TOTAL PROJECT COST	\$95,005,187	\$92,463,642	\$271,975	\$326,370	\$417,896	\$326,370
			<i>Total, all TSM improvements:</i>			\$1,342,611

PROJECTED OPERATIONS AND MAINTENANCE COSTS

The annual total operation and maintenance costs for the two build alternatives include the annual maintenance cost of the roadway and bridge for re-striping the roadway and bridge every five years, coldmill and overlay of the asphalt pavement every ten years, bi-annual bridge inspections and periodic cleaning of bridge joints. The costs of routine grass cutting on the right-of-way and sweeping the roadway and bridge and cleaning joints on the bridge are considered negligible.

Typical maintenance costs were obtained through previous discussion with LADOTD Operations and Maintenance Department staff. Access to the elevated structures on either alignment is limited and will require a “snooper” along with an operator and a two-man inspection team for 1-2 days per structure. With the limited structure width, law enforcement should also be utilized for traffic control.

Table II-12 below gives a breakdown of the operations and maintenance costs:

Table II-12
Build Alternatives
Annual Operation and Maintenance Costs

O&M Category	Alternative AP-6B	Alternative P-1
Re-Striping	\$9,700	\$7,200
Roadway Coldmill and Overlay	\$151,200	\$29,300
Bridge Inspection	\$12,500	\$12,900
TOTAL:	\$173,400	\$48,400

ENGINEERING DRAWINGS

Plan view layouts, typical sections, and a u-turn detail for the TSM Alternative, Alternative AP-6B, and Alternative P-1 are presented beginning on the following page.

Source (Citation) for 2010 six inch pixel imagery Geotiffs

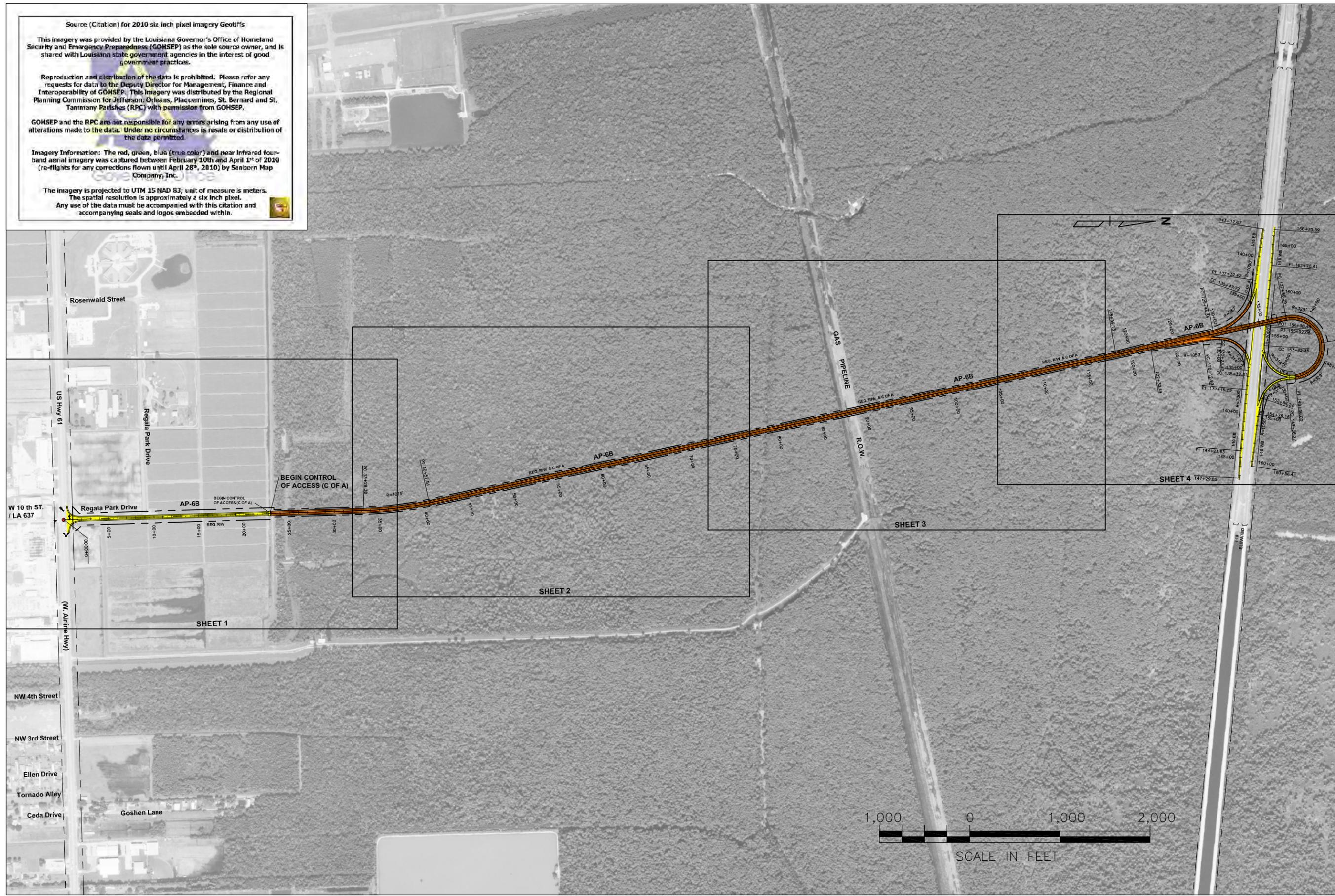
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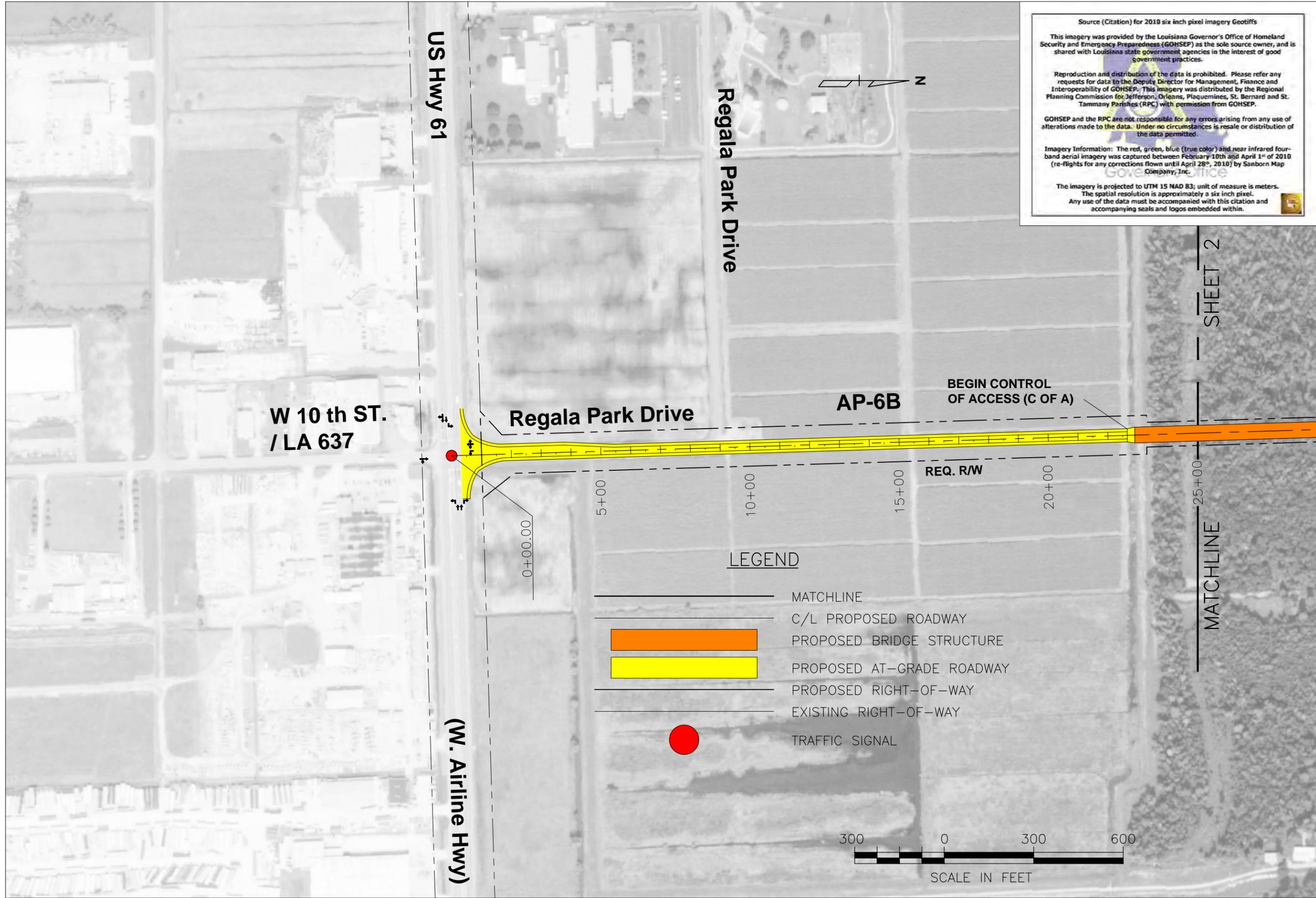


ENHANCED ACCESS BETWEEN US 61 IN RESERVE AND I-10
STAGE 1 - ENVIRONMENTAL IMPACT STATEMENT
ST. JOHN THE BAPTIST PARISH
 STATE PROJECT NO. H-004891/FEDERAL AID PROJECT NO. H004891/RPC NO. PSLC-STJ
PLAN LAYOUT - ALTERNATE AP-6B

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SHEET INDEX



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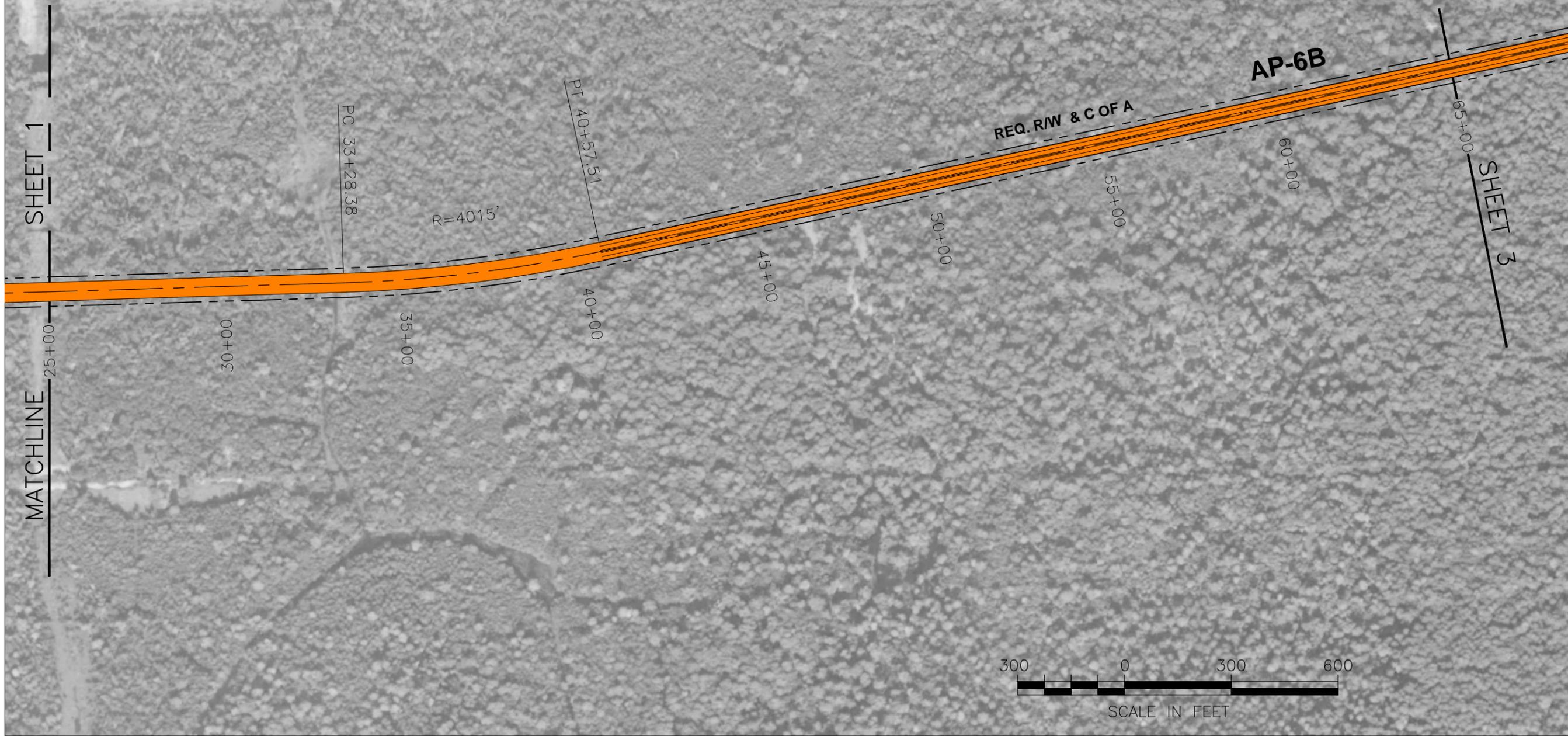
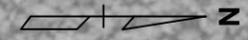
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 PLAN LAYOUT - ALTERNATE AP-6B

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 STAGE 1 - ENVIRONMENTAL IMPACT STATEMENT
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PLAN LAYOUT - ALTERNATE AP-6B

Source (Citation) for 2010 six inch pixel imagery Geotiffs

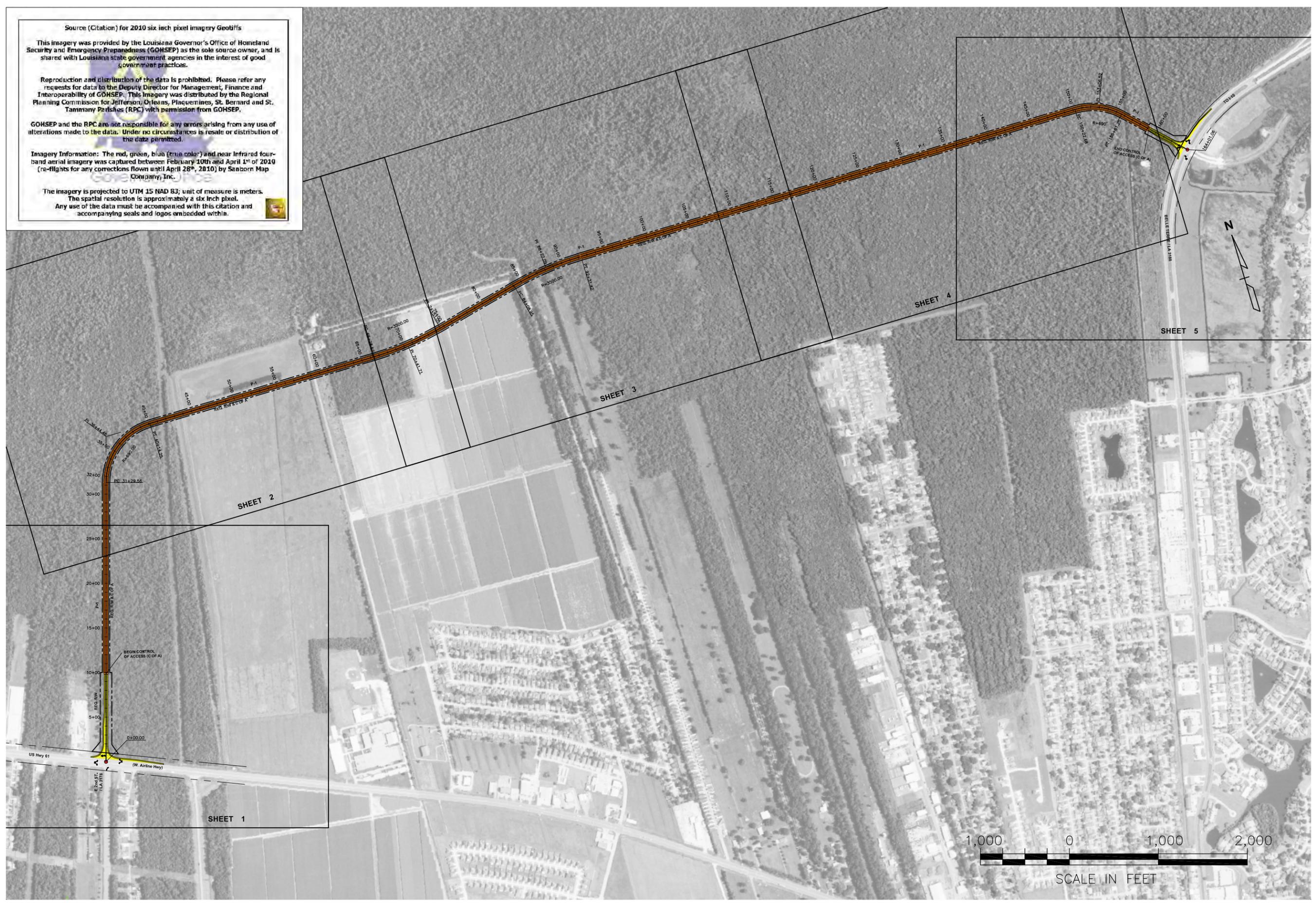
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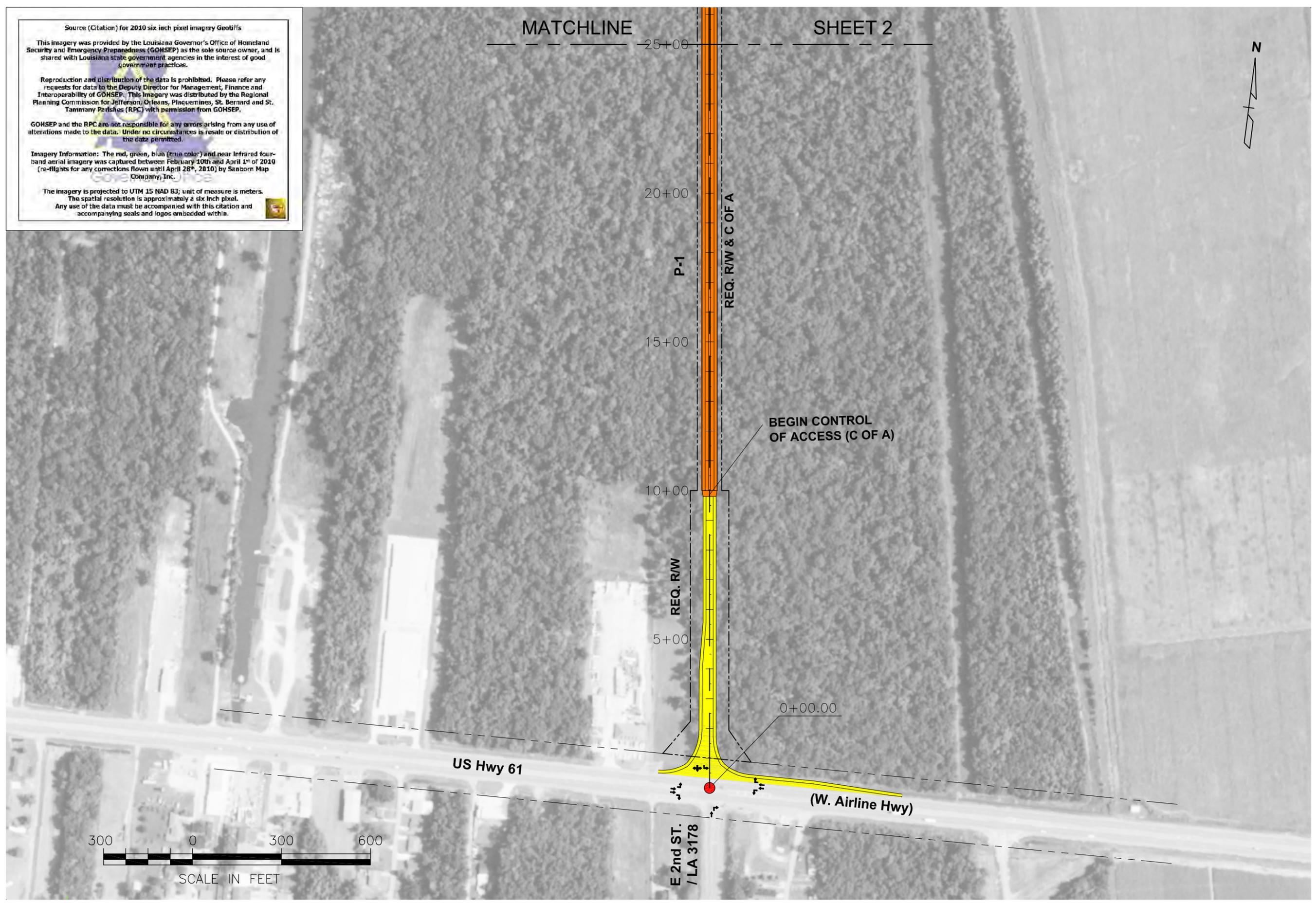
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MATCHLINE SHEET 2



SHEET
1

ENHANCED ACCESS BETWEEN US 61 IN RESERVE AND I-10
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ALTERNATIVE P-1 PLAN LAYOUT







Source (Citation) for 2010 six inch pixel imagery Geotiffs

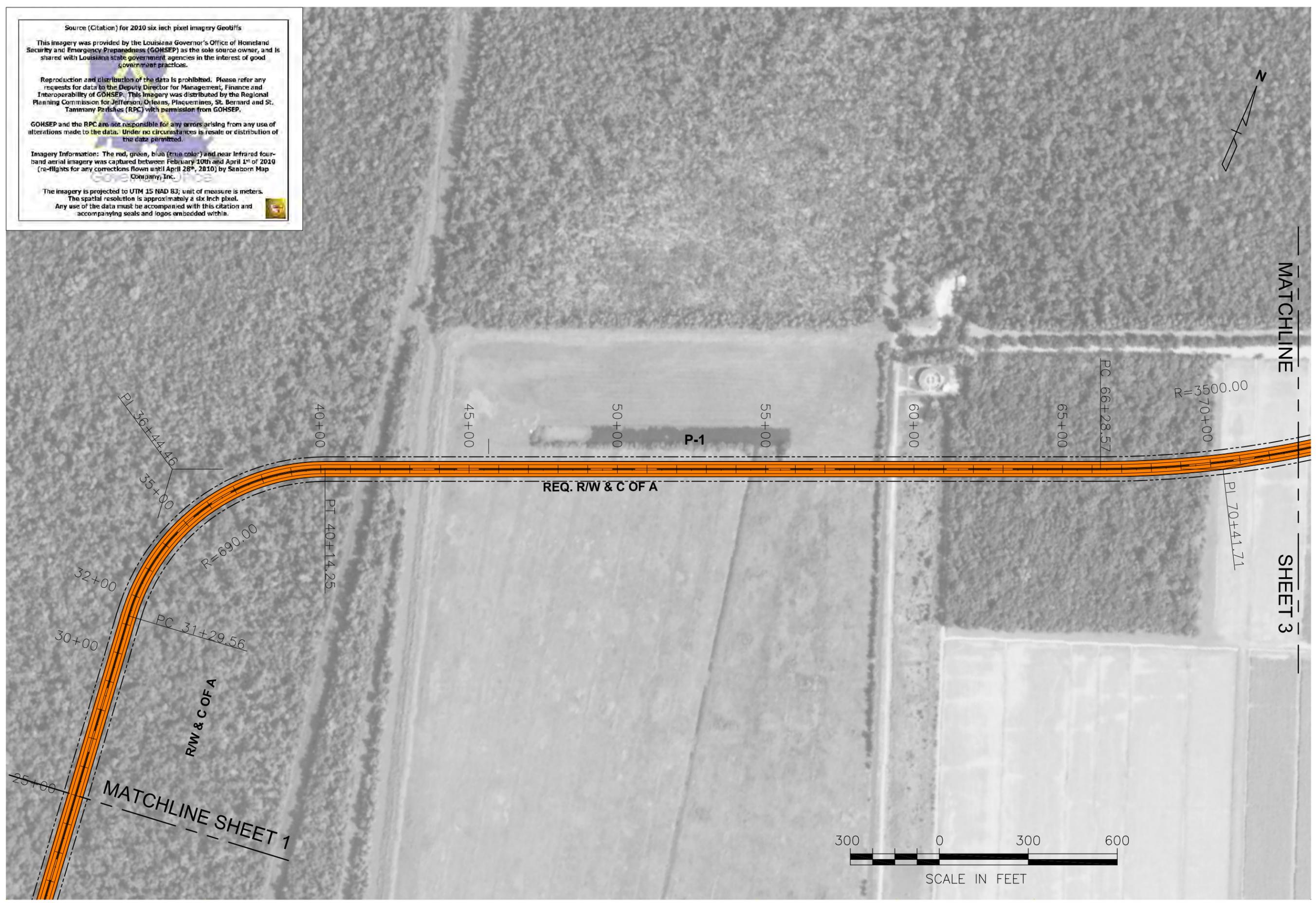
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 ALTERNATIVE P-1 PLAN LAYOUT

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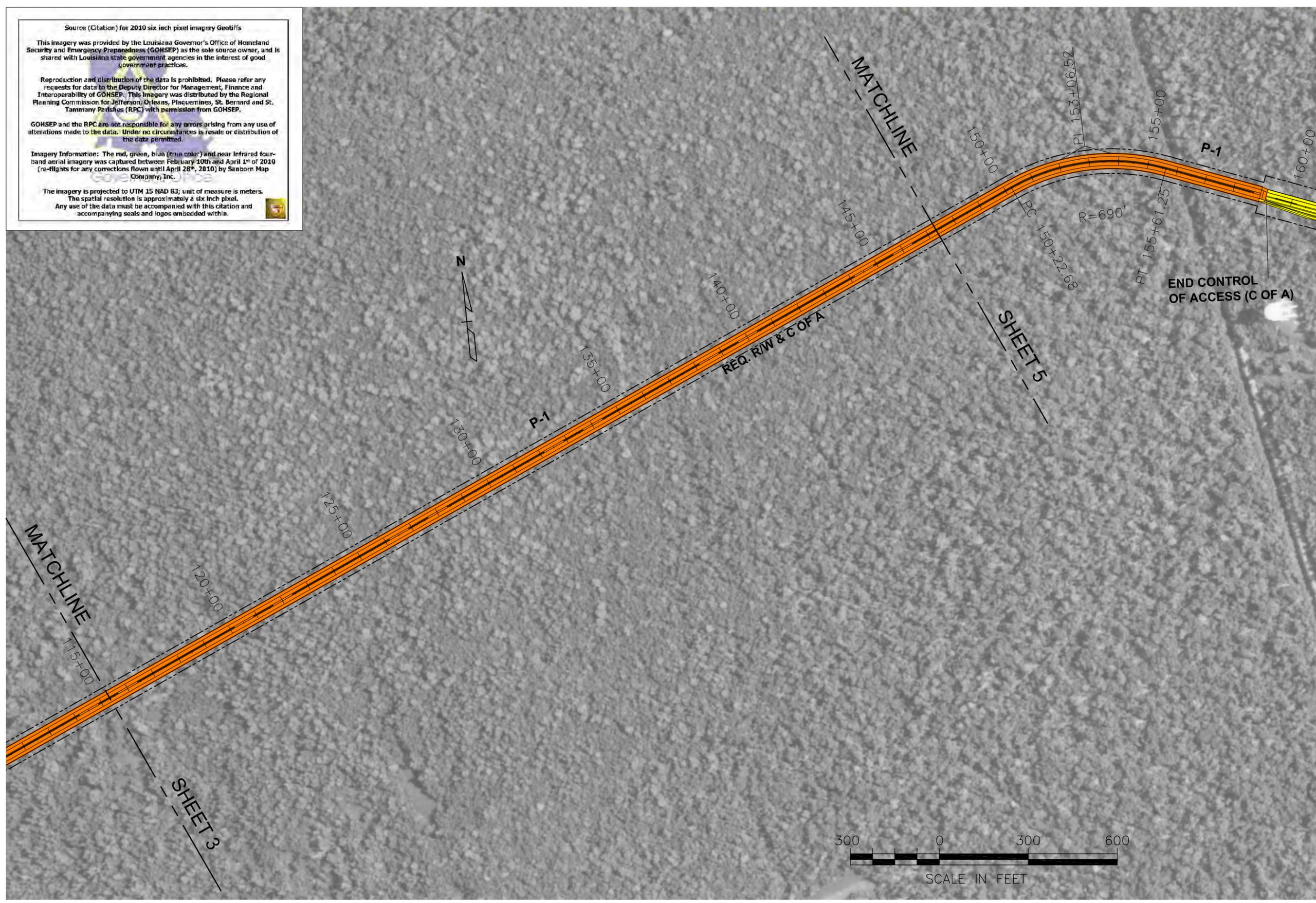
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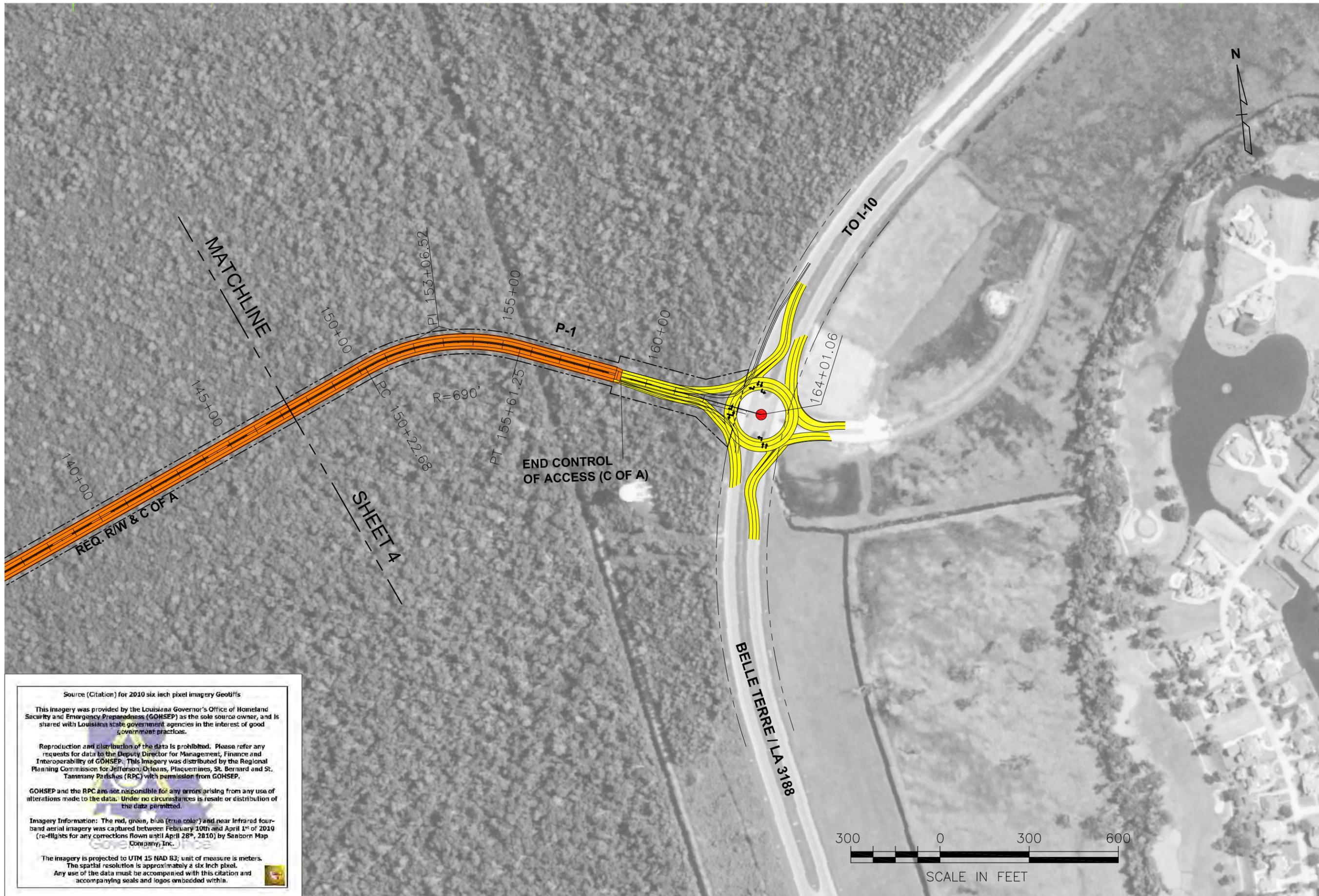


SHEET
4

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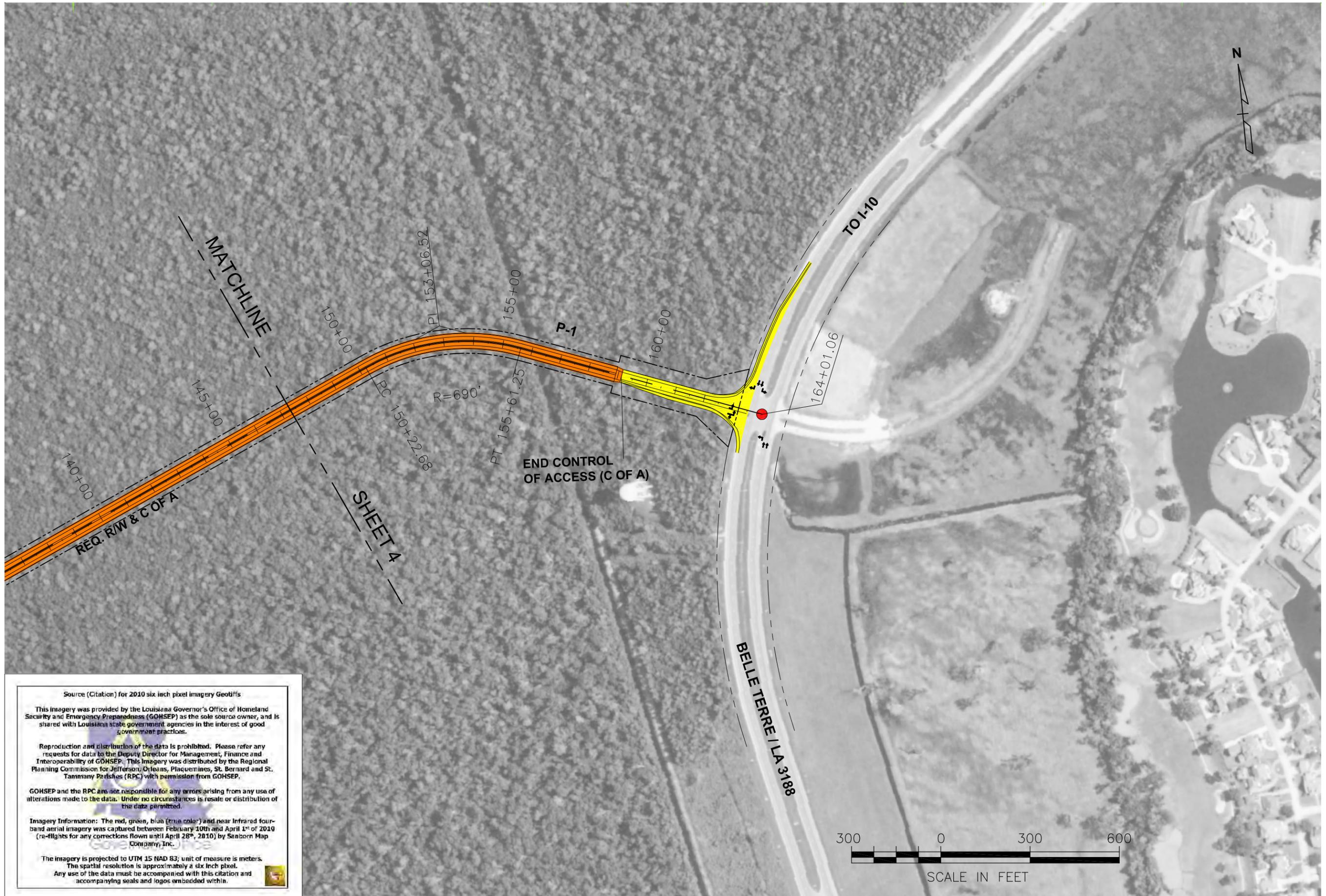
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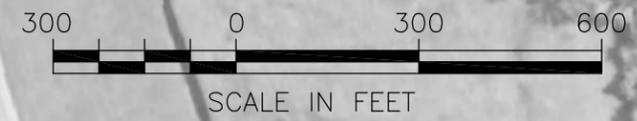
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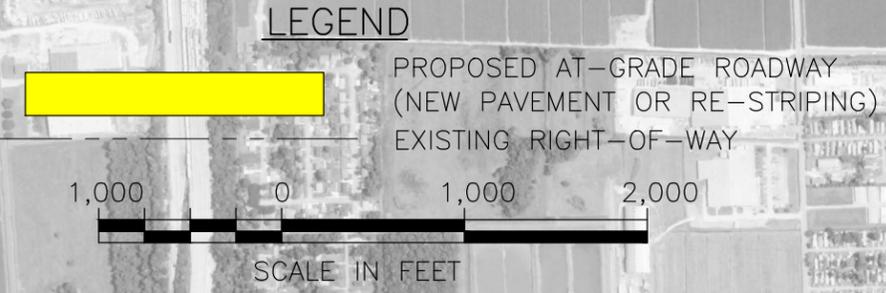
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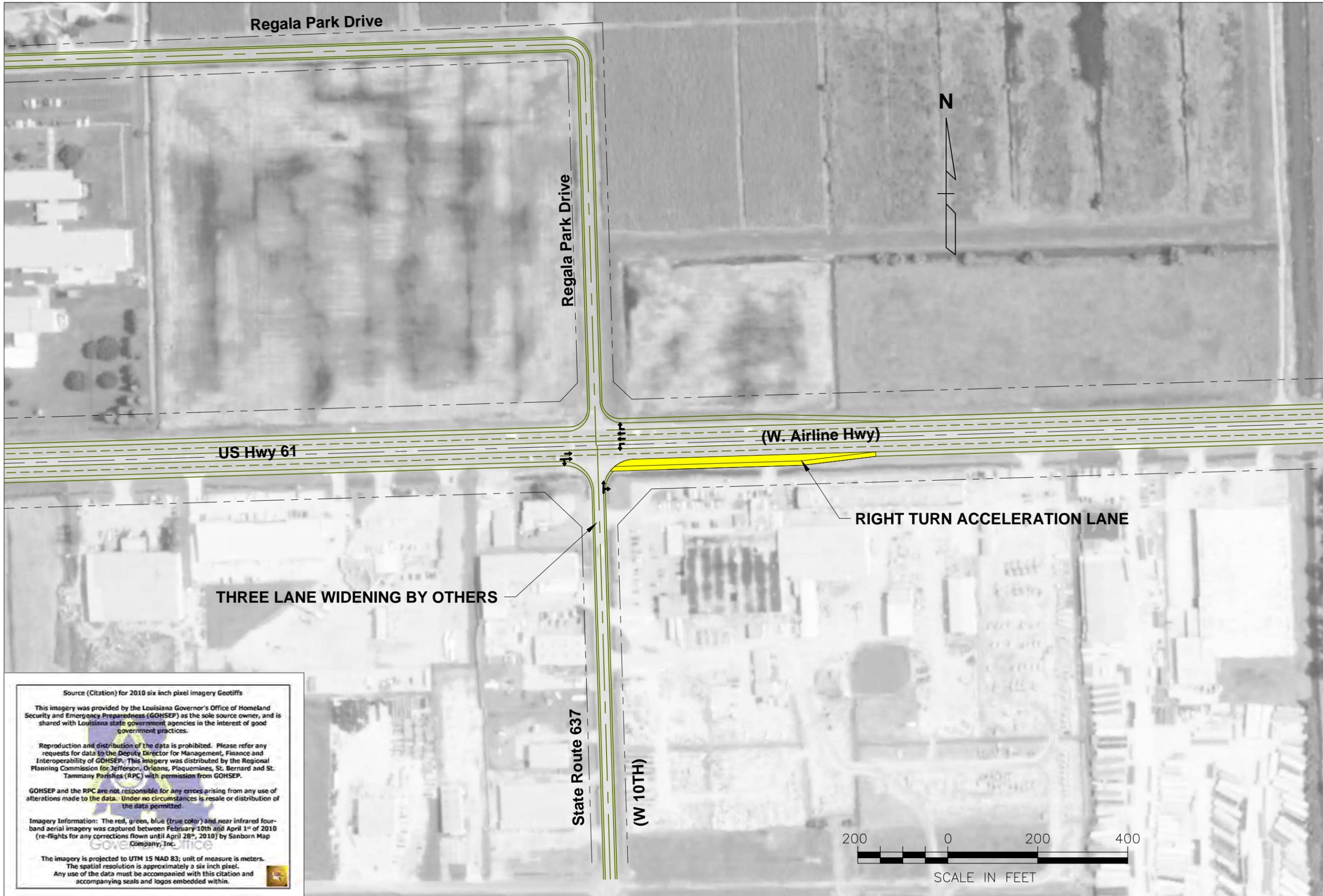


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 ST. JOHN THE BAPTIST PARISH
 STATE PROJECT NO. H.004891/FEDERAL AID PROJECT NO. H004891/RFC NO. PSLC-STJ
 TSM ALTERNATIVE INTERSECTIONS

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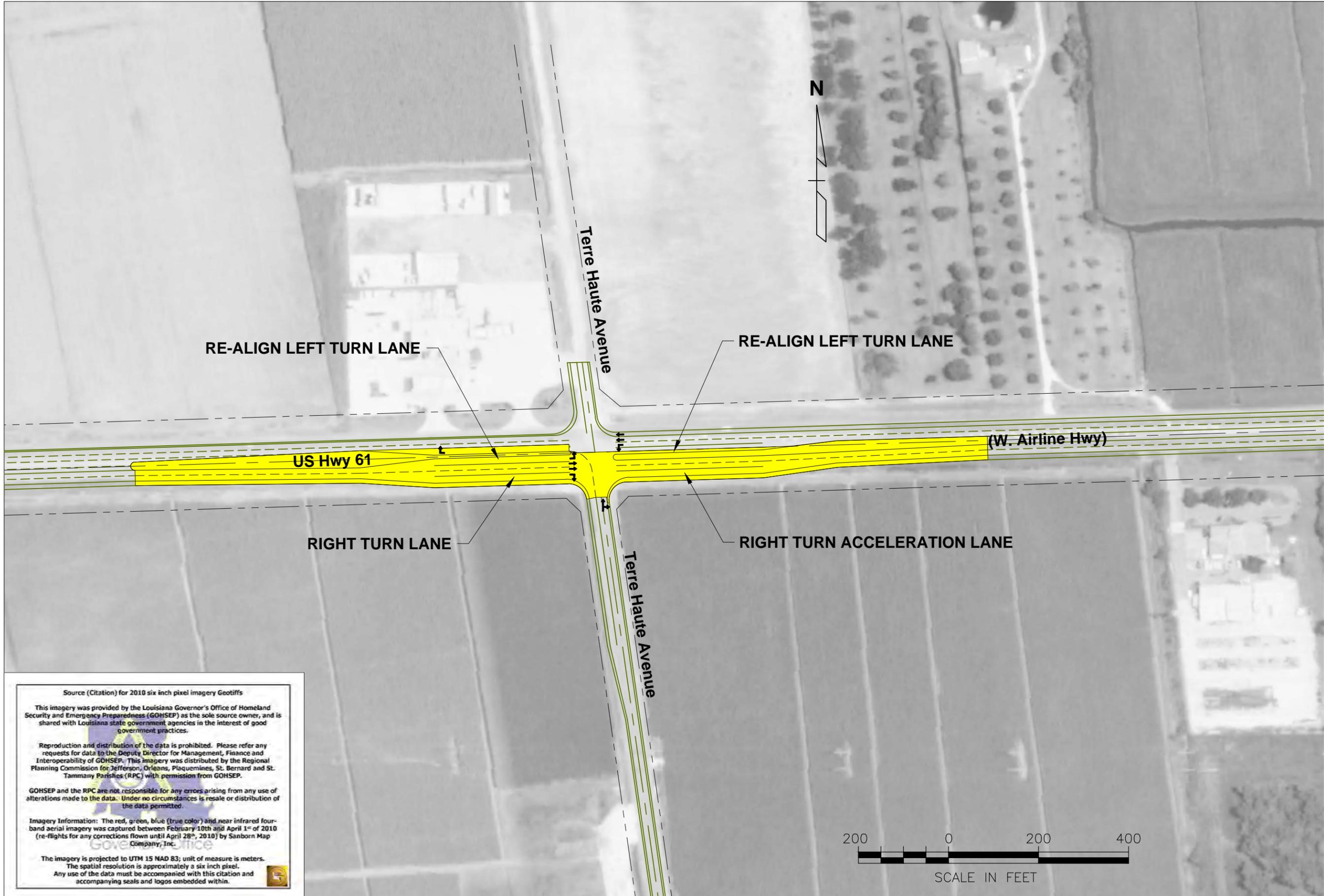
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 TSM ALTERNATIVE (AIRLINE @ 10TH INTERSECTION)

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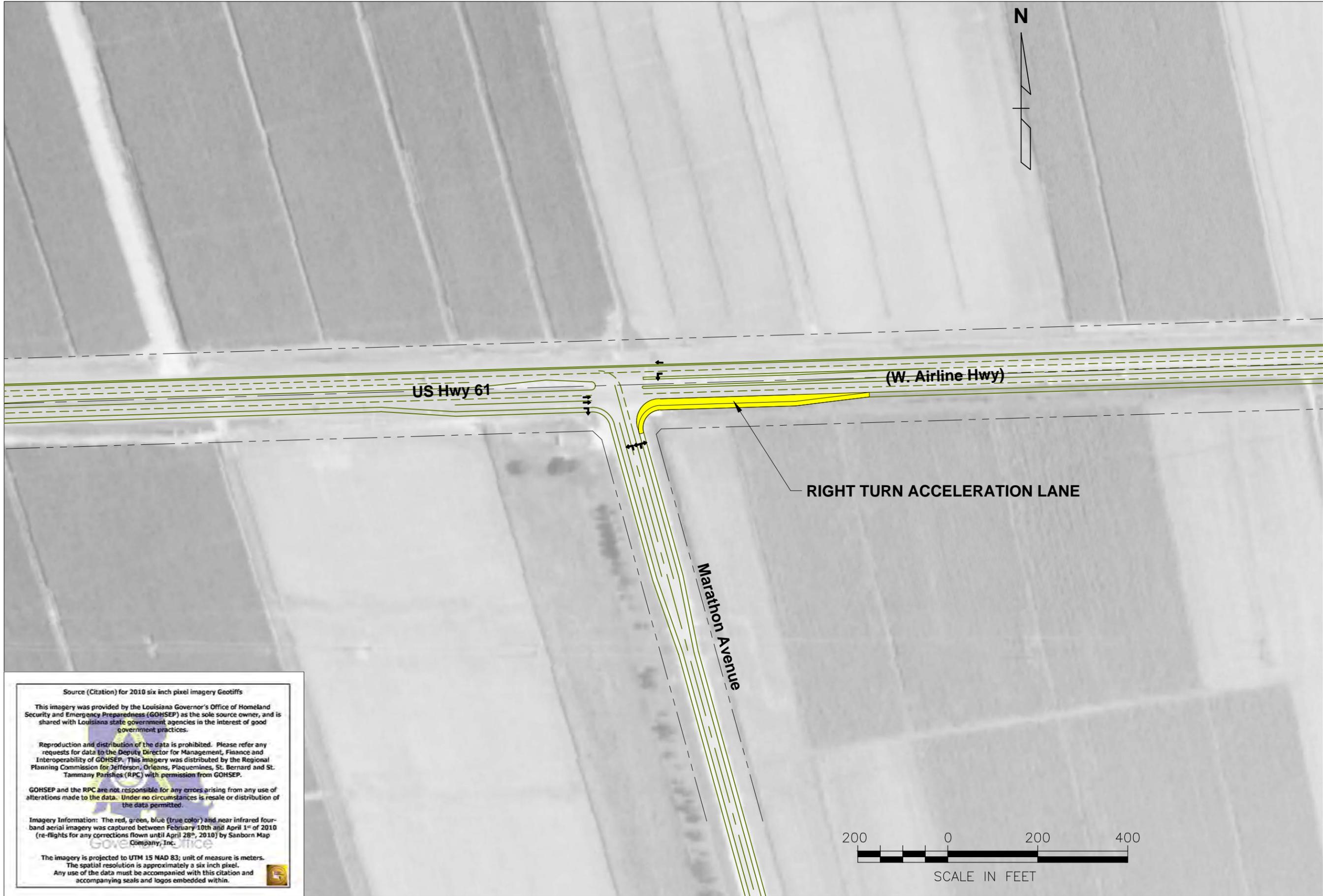
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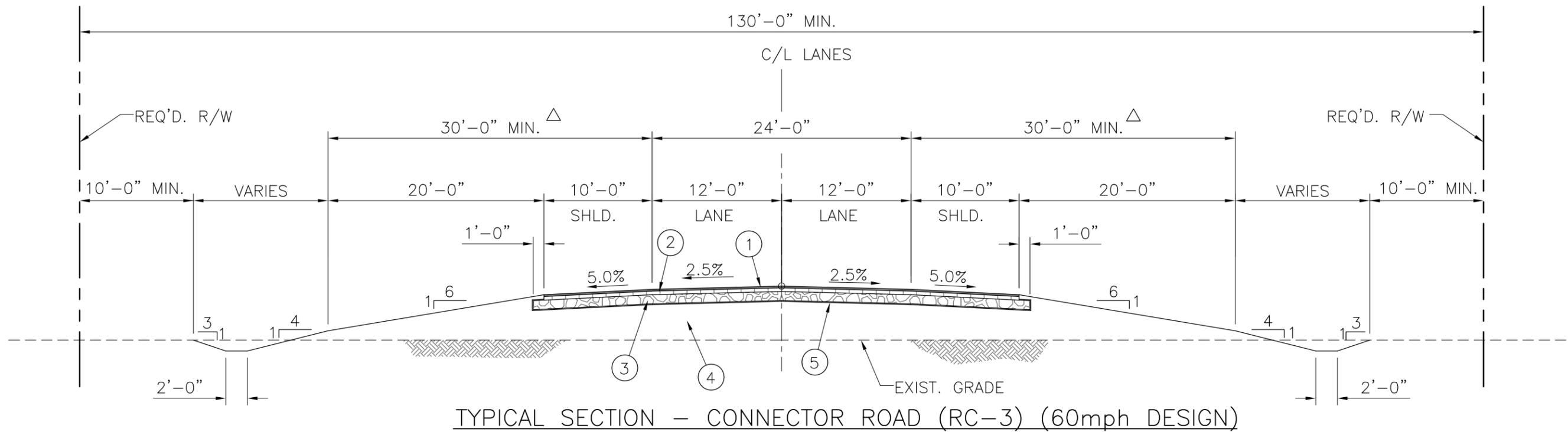
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TYPICAL SECTION - CONNECTOR ROAD (RC-3) (60mph DESIGN)

LEGEND

- ① 2" SUPERPAVE ASPHALTIC CONCRETE (WEARING COURSE).
- ② 6" SUPERPAVE ASPHALTIC CONCRETE (BINDER COURSE).
- ③ 10" CLASS II BASE COURSE (CRUSHED STONE OR RECYCLED PCCP).
- ④ EMBANKMENT MATERIAL.
- ⑤ GEOTEXTILE FABRIC
- ⑥ 8" SUPERPAVE ASPHALTIC CONCRETE (BINDER COURSE).

△ TO BE CONSTRUCTED FREE OF OBSTRUCTIONS



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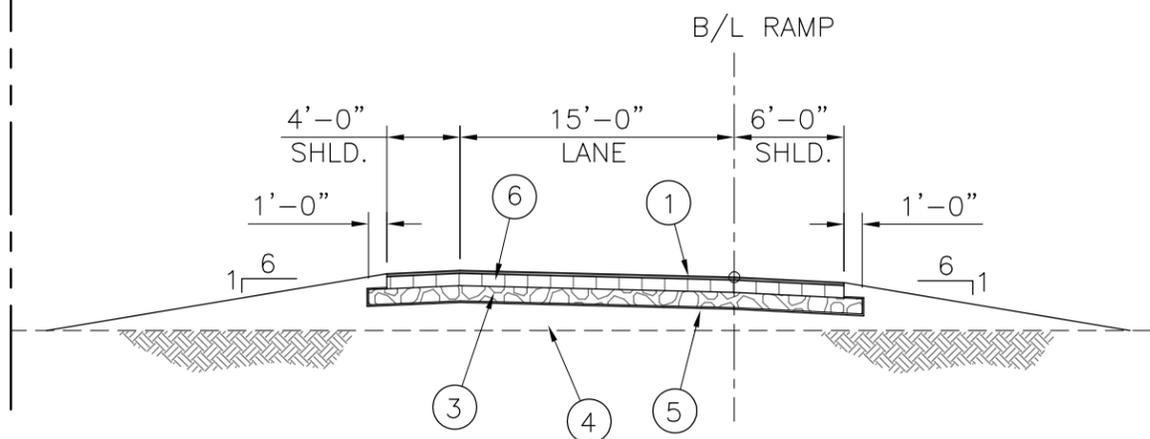
LEGEND

- ① 2" SUPERPAVE ASPHALTIC CONCRETE (WEARING COURSE).
- ② 6" SUPERPAVE ASPHALTIC CONCRETE (BINDER COURSE).
- ③ 10" CLASS II BASE COURSE (CRUSHED STONE OR RECYCLED PCCP).
- ④ EMBANKMENT MATERIAL.
- ⑤ GEOTEXTILE FABRIC
- ⑥ 8" SUPERPAVE ASPHALTIC CONCRETE (BINDER COURSE).

△ TO BE CONSTRUCTED FREE OF OBSTRUCTIONS

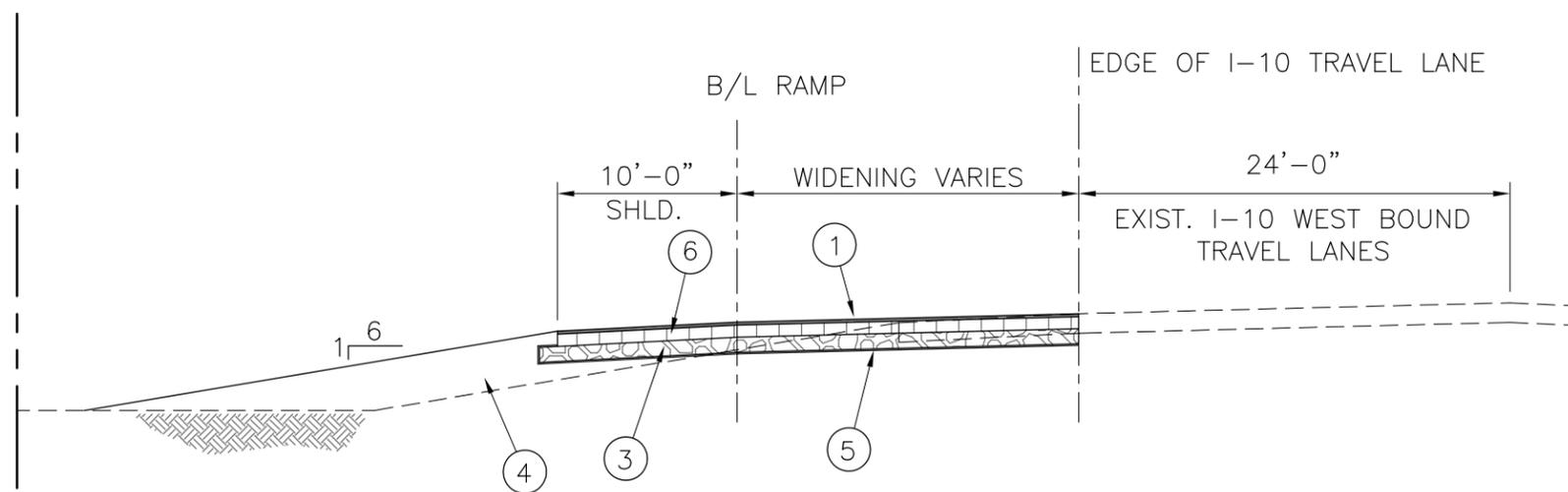
REQ'D. R/W & C OF A

REQ'D. R/W & C OF A



TYPICAL SECTION - RAMP AT INTERSTATE I-10

REQ'D. R/W & C OF A

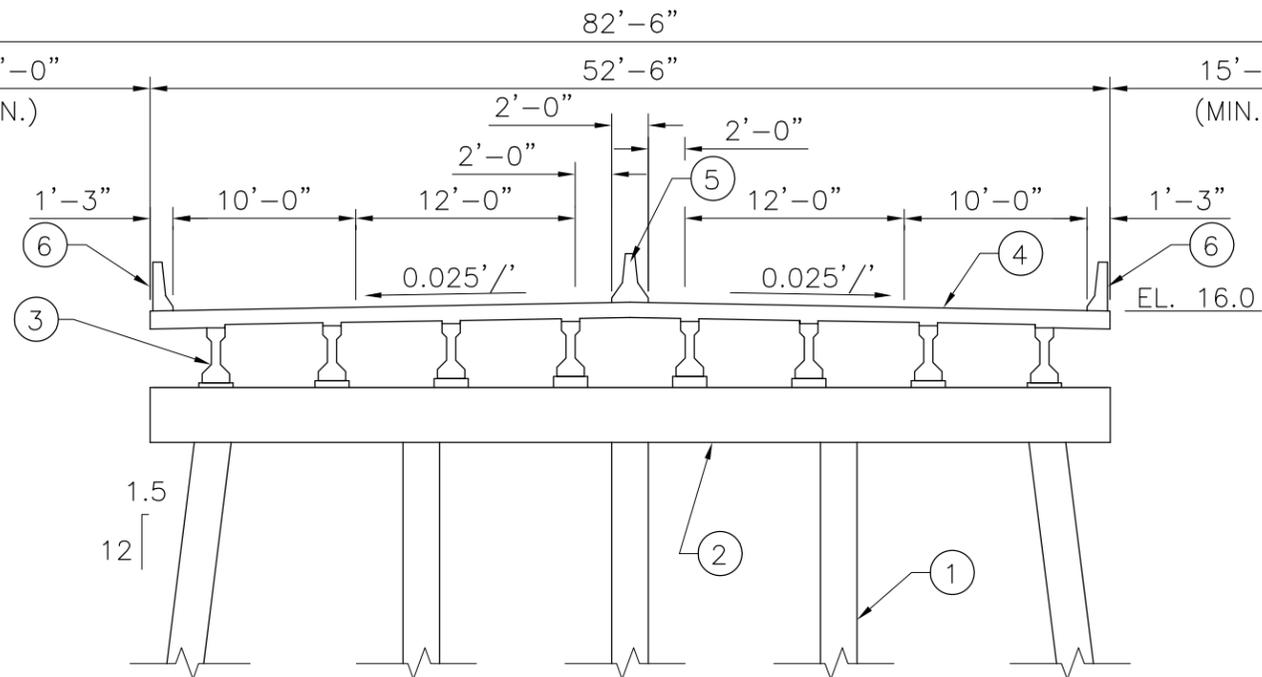


TYPICAL SECTION - I-10 WIDENING FOR RAMPS



REQ'D. R/W &
C OF A

REQ'D. R/W &
C OF A



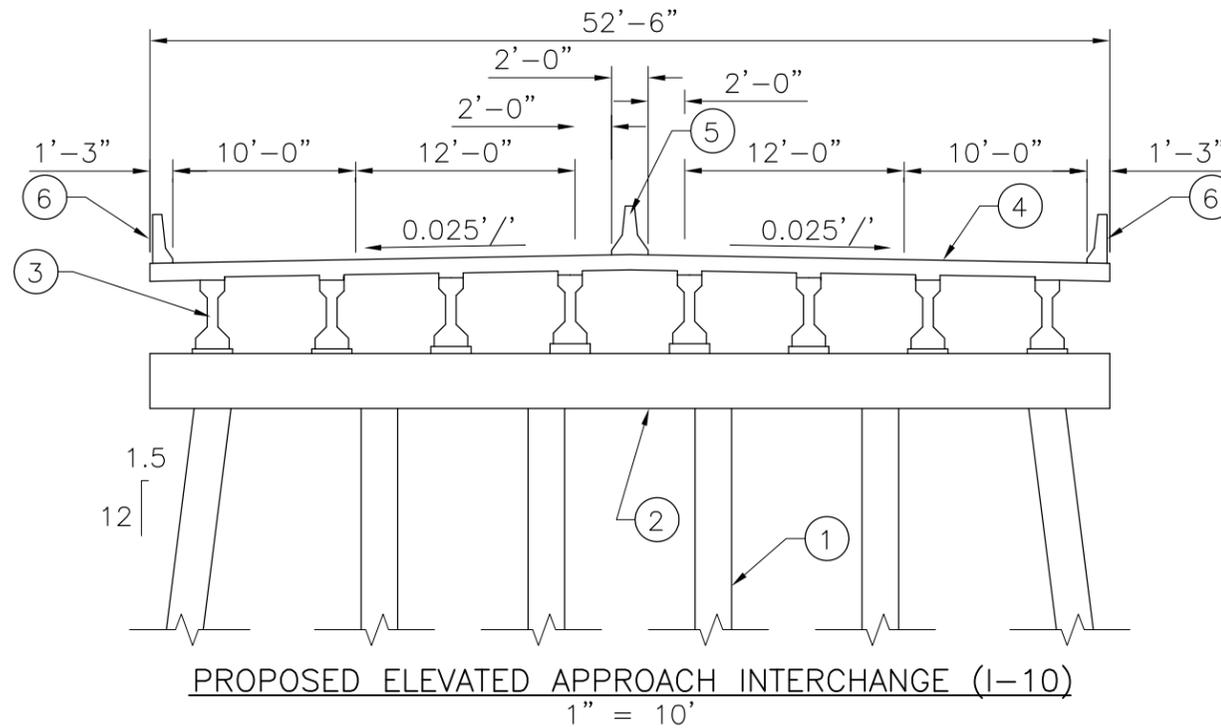
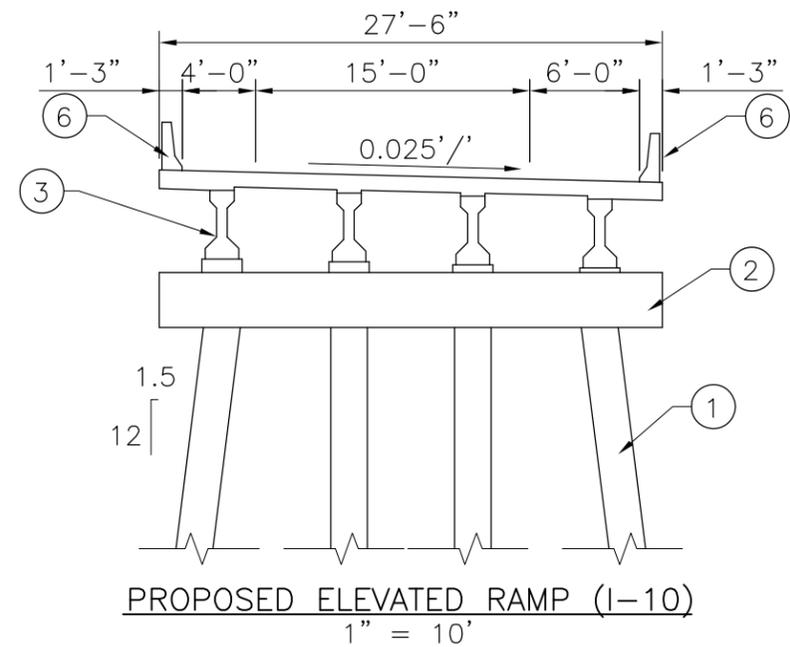
PROPOSED ELEVATED TWO LANE CONNECTOR
END-ON CONSTRUCTION

1" = 10'

LEGEND

- ① 24" PPC PILES
 - ② CAST-IN-PLACE PILE CAP
 - ③ TYPE II PRECAST PRESTRESSED CONCRETE GIRDERS
 - ④ CAST-IN-PLACE CONCRETE SLAB (8" THICK)
 - ⑤ 2' CONCRETE MEDIAN BARRIER RAIL
 - ⑥ 1'-1" CONCRETE BARRIER RAIL
- △ TO BE CONSTRUCTED FREE OF OBSTRUCTIONS





LEGEND

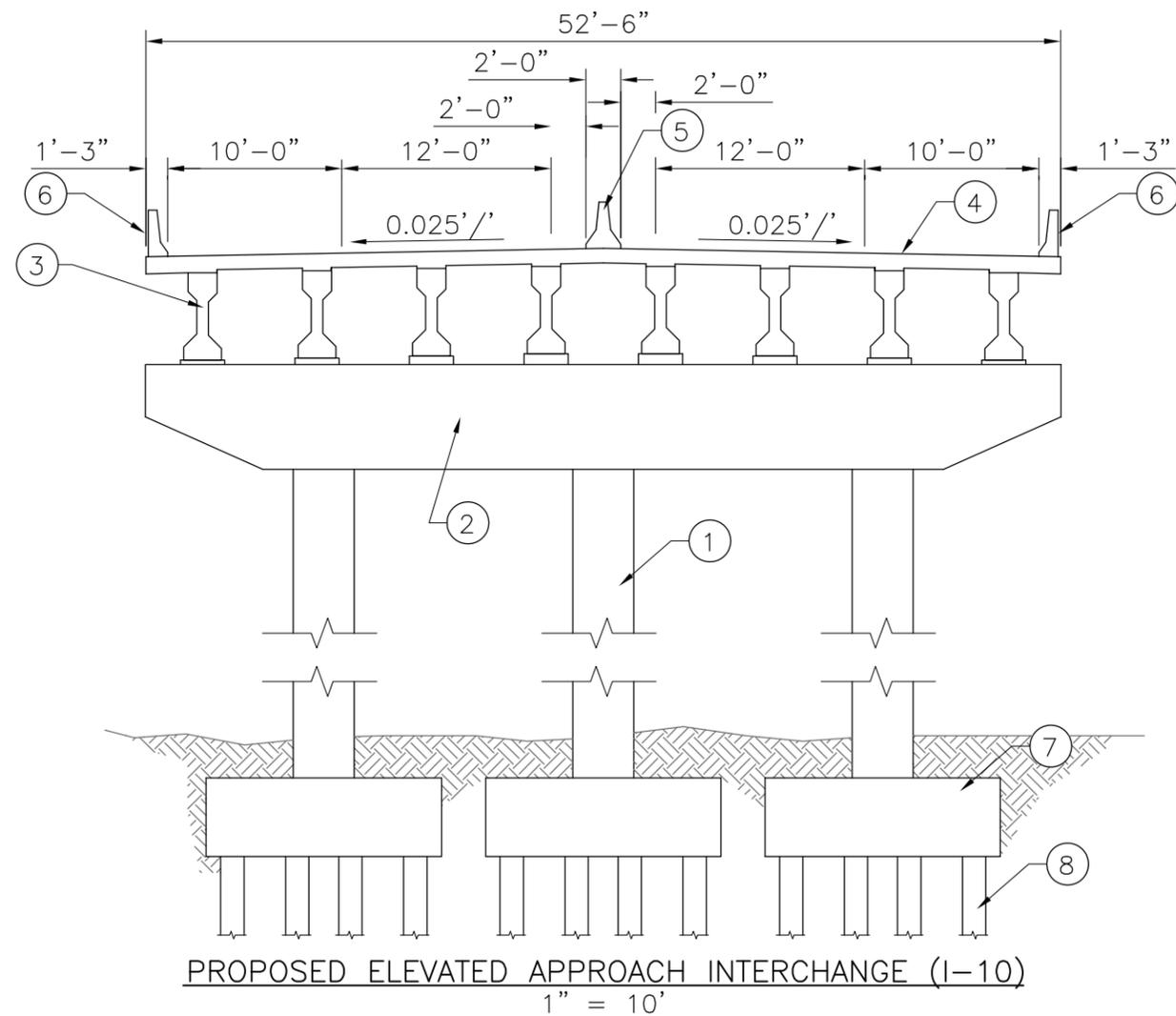
- ① 24" PPC PILES
- ② CAST-IN-PLACE PILE CAP
- ③ TYPE III PRECAST PRESTRESSED CONCRETE GIRDERS
- ④ CAST-IN-PLACE CONCRETE SLAB (8" THICK)
- ⑤ 2' CONCRETE MEDIAN BARRIER RAIL
- ⑥ 1'-1" CONCRETE BARRIER RAIL

△ TO BE CONSTRUCTED FREE OF OBSTRUCTIONS



WY ASSOCIATES, INC.
ENGINEERS • ARCHITECTS • PLANNERS
PROGRAM & PROJECT MANAGERS





LEGEND

- ① 3.5' DIA. CAST-IN-PLACE CONCRETE COLUMNS
 - ② CAST-IN-PLACE PILE BENT
 - ③ TYPE IV MOD. PRECAST PRESTRESSED CONCRETE GIRDERS
 - ④ CAST-IN-PLACE CONCRETE SLAB (8" THICK)
 - ⑤ 2' CONCRETE MEDIAN BARRIER RAIL
 - ⑥ 1'-1" CONCRETE BARRIER RAIL
 - ⑦ 3 EACH 4.25'X 10'X 13.5' CAST-IN-PLACE CONCRETE FOOTINGS
 - ⑧ 12 EACH 16" PPC PILES, EACH FOOTING
- △ TO BE CONSTRUCTED FREE OF OBSTRUCTIONS



CHAPTER III

THE AFFECTED ENVIRONMENT

In this chapter, the areas of primary impact and the overall project study area are first delineated and described. The existing transportation system, including existing highways and roadways, rail, transit and pedestrian facilities are presented. The chapter concludes with an examination of the affected human and natural environment for the project. For purposes of analysis, the affected environment was divided into the following categories and sub-categories:

EXISTING TRANSPORTATION SYSTEM

- Roadways
- Railroads
- Transit
- Pedestrian and Bicyclist Conditions
- Airports

EXISTING HUMAN ENVIRONMENT

- Demographics
- Public Facilities and Services
- Land Use and Zoning
- Visual/Aesthetic Conditions
- Historic/Cultural Resources
- Hazardous and Solid Waste Sites
- Coastal Zone Status

EXISTING NATURAL ENVIRONMENT

- Vegetation and Wetlands
- Wildlife and Endangered Species
- Flood Zones / Floodplains
- Water Quality
- Scenic Rivers
- Soils / Prime Farmland

PROJECT AREA

PROJECT STUDY AREA

The Project Study Area will be examined in order to categorize and list environmental conditions that would be less directly affected by construction of any of the alternatives and more

influenced by project implementation (these include traffic impacts and community, social and economic impacts). Exploration of the project study area also provides an accurate picture of surrounding neighborhoods.

The Project Study Area is shown on **Figure III-1** on the following page. To the north is Interstate 10, to the east is Old US 51 (Main Street), to the south is US 61, and to the west is the St. John the Baptist/St. James Parish line. As the number of alternatives was evaluated and screened down to two (with none in St. James Parish) the size of the study area was reduced from that shown initially in Figure I-1 to the smaller area focused on the remaining alternatives.

AREA OF PRIMARY IMPACT

The areas of primary impact deals with the “footprint” of each alternative. These are for purpose of analysis, narrow corridors along the length of the two build alternatives and those areas directly disturbed by the improvements in the TSM alternative. Within the primary area of impact, direct impacts associated with the project “footprint” will be assessed and explored. These include such impact factors as noise, hazardous and solid waste sites, parks and recreational facilities, visual/aesthetic impacts, construction-period impacts, and most natural environment impacts. The Area of Primary Impact is also shown on **Figure III-1** on the following page.

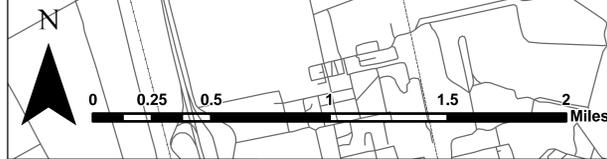
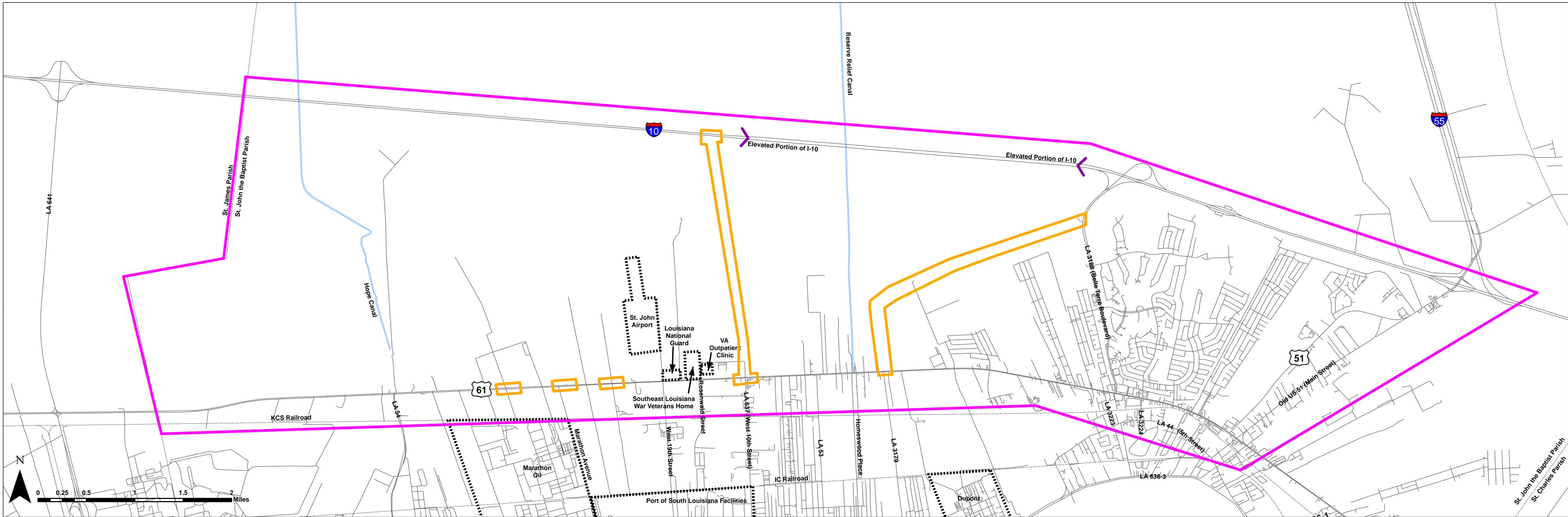
EXISTING TRANSPORTATION SYSTEM

ROADWAY NETWORK IN STUDY AREA

The project area contains a number of roadways with different functional classifications. The table below lists the major roadways in the project study area and their functional classifications as described by LADOTD.

Table III-1 - Major Roadway Classifications in the Study Area

ROADWAY	CLASSIFICATION
Interstate-10	Principal Arterial, Interstate Highway
Interstate-55	Principal Arterial, Interstate Highway
US 61 (Airline Highway)	Principal Arterial, Federal Highway
US 51	Principal Arterial, Federal Highway
LA 3188 (Belle Terre Boulevard)	Principal Arterial, State Highway
LA 3179 (E. 22 nd St.)	Major Collector, State Highway
LA 637(W. 10 th Street)	Minor Arterial, State Highway
LA 54	Major Collector, State Highway
LA 53	Minor Arterial, State Highway
West 19 th Street	Major Collector



Legend
 Project Study Area
 Areas of Primary Impact

Figure III-1 Project Study Area & Areas of Primary Impact
Airline Highway (US 61) to Interstate 10
Proposed Connector EIS

Current Traffic Volumes

Existing traffic volume data was collected within the project study area in April 2010. Twenty-four hour traffic counts were collected at the following locations:

- US 61 West of LA 3188
- US 61 between LA 3188 and US 51
- LA 3188 north of US 61
- US 51 north of US 61
- LA 641 north of US 61
- US 61 between LA 3188 and LA 3179
- US 61 between LA 641 and LA 54

Classification data was collected for LA 3188, US 51 and US 61 between LA 3188 and US 51 in June 2013. The heavy truck percentages for each of the three locations are presented in Table III-2. Heavy trucks include FHWA categories 8 through 13.

Table III-2
Classification Data

Location	Direction	Heavy Trucks Percentage AM (PM)
LA 3188 (Belle Terre Blvd.)	Northbound	1% (1%)
	Southbound	3% (4%)
US 51	Northbound	5% (3%)
	Southbound	6% (2%)
US 61 between LA 3188 and US 51	Eastbound	4% (2%)
	Westbound	3% (2%)

A review of Table III-2 indicates a higher percentage of trucks utilize US 51 instead of LA 3188 from US 61 to access I-10.

Intersection Turning Movement Counts

Intersection turning movement counts were collected during the AM peak period (7:00-9:00 AM) and the PM peak period (4:00-6:00 PM) at the subject intersections. The intersection of US 61 at Marathon West Drive was counted for 15-minute intervals during the AM and PM peak periods. These spot count volumes were used to estimate hourly volumes. Figures III-2 and III-3 present the resulting 2010 peak hour intersection turning movement counts and 24 hour daily traffic counts collected within the study area.

Commercial Truck Data

Truck traffic information was collected from various commercial developments in the port area. The results of the survey are presented in **Table III-3**.

**Table III-3
Port Related Truck Traffic**

Company Name	Number of Trucks	General Routes and/or Destination
Port of South Louisiana GlobalPlex Facility	38 Trucks per day	60% of trucks go to/from I-10 West 40% of trucks go to/from I-10 East
Cargill	32-133 Trucks per year	Entering: 80% down I-55 to US 51 to US 61 in Laplace Exiting: To Westwego and Baton Rouge
Cargo Carriers	No truck traffic	N/A
Petroleum Fuel & Terminal	No truck traffic	N/A
ADM Reserve	5-7 trucks per week	Go to/from Mississippi
Nalco Company	50 trucks per day (weekday)	Route: LA 44 to LA 54 to US 61 66% Use US 61 to US 51 33% Head north

A review of Table III- 3 indicates that the majority of port related truck traffic is currently accessing I-10 from US 51.

RAIL NETWORK IN STUDY AREA

There are two railways, Kansas City Southern (KCS) and Illinois Central (IC), in the vicinity of the project study area. KCS, the only railway in the actual study area, travels east-west along the southern most portion of the study area.

TRANSIT IN STUDY AREA

St. John the Baptist Parish is served by the River Parishes Transit Authority. The RPTA system is an on-demand system where riders must call 24 hours in advance in order to schedule pick-ups and drop-offs. Recurring appointments may be scheduled as well. Appointments can be made



LEGEND:

- X AM Peak Hour
- (X) PM Peak Hour
- [X] 24 Hour Volumes
- Signalized Intersection
- Unsignalized Intersection

* Volumes count at each intersection represents the critical peak hour at that intersection

DRAFT

Figure III-3
Existing Traffic Volumes
Proposed Connector Between
Airline Highway (US61)
and Interstate 10
St. John The Baptist Parish, Louisiana

NOT TO SCALE
FOR PLANNING PURPOSES ONLY
Source: LADOTD Website



from 8:30am to 4:30pm Monday through Friday. Service is available from 5:30am to 7:30pm Monday through Friday. Transit fare is \$2.00 each way.

BICYCLE AND PEDESTRIAN FACILITIES IN STUDY AREA

Bicycle and pedestrian facilities in the study area vicinity are somewhat limited. In terms of pedestrian facilities, most major thoroughfares in the area do not have sidewalks or pedestrian paths. Many residential areas, in particular older residential areas, do not have sidewalks either, although some newer subdivisions do have sidewalks. There are some recreational walking trails to be found at local parks within the study area.

The Mississippi River Trail (MRT) is a facility that exists along the length of the Mississippi River from Minnesota to Plaquemines Parish in Louisiana. In St. John the Baptist Parish, the MRT is designated as entering the Parish on the west bank, utilizing LA 18, then crossing to the east bank via the Edgard/Reserve ferry and proceeding downstream via LA 44. At E. 29th Street, the route transitions to a paved bicycle/pedestrian path atop the crown of the Mississippi River levee, and proceeds along the levee to the St. Charles Parish line.

AIRPORTS

The only airport in the study area is the St. John Airport, a single runway airport located off of Airport Road just north of US 61.

The nearest major airport is Louis Armstrong New Orleans International Airport in Kenner, LA.

EXISTING HUMAN ENVIRONMENT

DEMOGRAPHICS

Methodology

This section describes existing conditions of the human environment in the study area. The methodology employed involved research of demographic data that define the human environment for the study area available from the *U. S. Census Bureau American FactFinder*.

The study area is located in St. John the Baptist Parish, Louisiana and consists of portions of Census Tracts 701, 702, 703, 704, 705, 706, 707, 709 and 710. The boundaries of these census tracts are shown on **Figure III-4** on the second page following.

The demographic analysis examines trends in these census tracts for the following data in the study area:

- Population
- Housing
- Employment
- Income

Findings

Population Characteristics

Table III-3 documents the current general population in the study area at 31,650.

Table III-3 General Population in the Study Area

	CENSUS 2000	CENSUS 2010
Project Study Area	31,650	39,989
St. John the Baptist Parish	43,044	45,924
Louisiana	4,468,976	4,533,372

Age

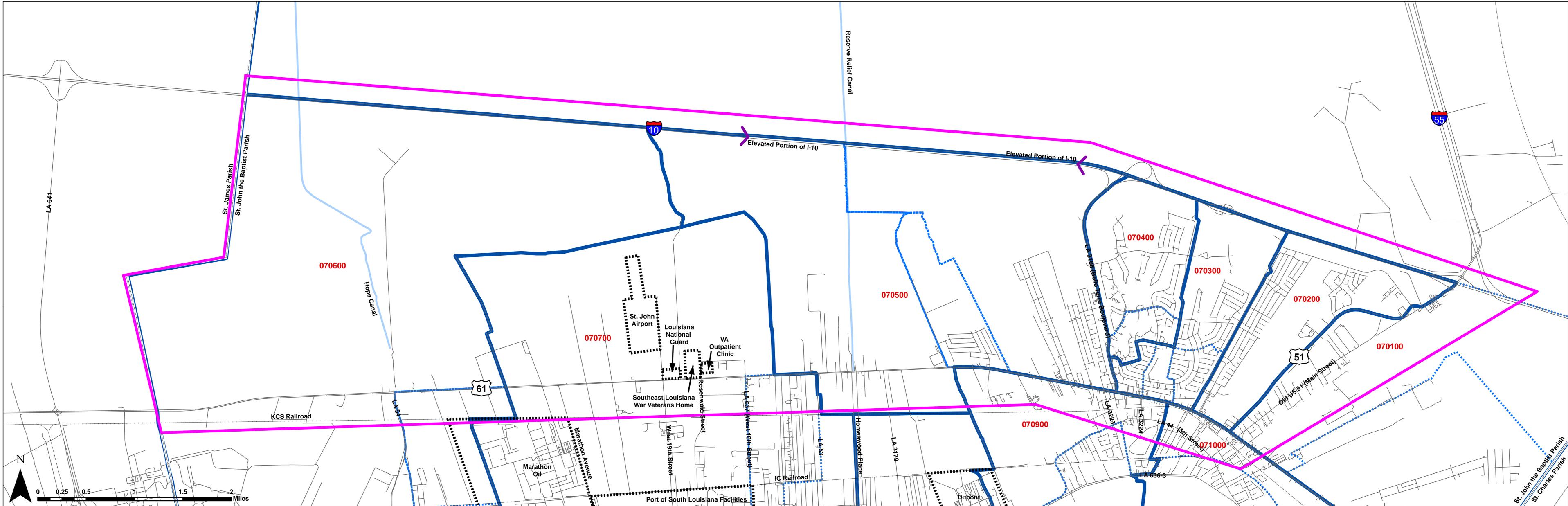
Table III-4 presents the age distribution of the population in the Study Area. As can be seen in the Table, as of the most recent census, the population in the Study Area is divided rather evenly among three categories between 0 to 59 years of age, with far fewer older residents. In terms of trends, it appears the population within the study area is aging, as the 0 to 20 age group was by far the largest percentage in 2000, but is about even with the two next higher categories in 2010.

Table III-4 - Age of the Population in the Study Area

RANGE	CENSUS 2000	CENSUS 2010
0 to 20 years	36%	30%
21 to 39 years	28%	26%
40 to 59 years	25%	29%
60 to 79 years	10%	13%
80+ years	2%	2%

Racial Composition

Table III-5 shows the racial composition of the study area for both 2000 and 2010. The study area is currently shown to be 47% White, 48% African American, less than 1% American Indian/Alaska Native, 1% Asian, less than 1% Native Hawaiian/other Pacific Islander and 2% Some Other Race.



Legend
 [Blue Outline] Census Tracts
 [Pink Outline] Project Study Area

Figure II-4 Census Tracts
Airline Highway (US 61) to Interstate 10
Proposed Connector EIS

Table III-5 - Racial Composition in the Study Area

	White	Black or African American	American Indian / Alaska Native	Asian	Native Hawaiian /Other Pacific Islander	Some Other Race
Census 2000	59%	38%	<1%	<1%	<1%	1%
Census 2010	47%	48%	<1%	1%	<1%	2%

Housing

Housing data in the study area shows that home owners predominate, and that there is a high occupancy rate. **Table III-6** shows 15,127 housing units in the study area, of which only 8% are vacant. The occupied units are divided into 80% owners and 20% renters.

Table III-6 - Housing in the Study Area

	NUMBER OF HOUSING UNITS	PERCENTAGE
Occupied	13,930	92%
<i>Owners</i>	<i>11,096</i>	80%
<i>Renters</i>	<i>2834</i>	20%
Vacant	1197	8%
Total in the Study Area	15,127	

Table III-7 documents the value of housing in the study area by looking at the average median value of owner occupied units across the study area. The value of housing in the project study area has increased tremendously since the previous census. It should be note that the median value of housing in the study area is higher than that of St. John the Baptist Parish and the State of Louisiana.

Table III-7 - Median Value of Housing in the Study Area

CENSUS 2000	\$80,656
CENSUS 2010	\$150,022
St. John the Baptist Parish (2010)	\$146,700
Louisiana (2010)	\$130,000

Income and Employment

Per Capita Income

Table III-8 illustrates the average per capita income across the study area recorded in the Census 2010 as \$21,632, a 41% increase over the per capita income in the Census 2000, which was \$15,314. This table also shows that parish per capita incomes is slightly lower than that of the study area, while the state level is slightly higher.

Table III-8 - Per Capita Income in the Study Area

CENSUS 2000	\$15,314
CENSUS 2010	\$21,632
St. John the Baptist Parish (2010)	\$20,921
Louisiana (2010)	\$22,535

Employment

Table III-9 looks at employment levels in the study area recorded in the Census 2010. The employment analysis is based on the work force population, which the U. S. Census Bureau defines as that portion of the population that is sixteen years or older.

As of the 2010 Census, the work force population constituted 78% of the general population in the study area. About 66% of the work force population was in the labor force. About 7% of the labor force was unemployed. This was less than the same rate for the Parish as a whole and the state in the same time period.

Table III-9 - Work Force Population in the Study Area, 2010

	Study Area	St. John the Baptist Parish	Louisiana
Total	31,225	35,521	3,428,972
Percent in Labor Force	65.64%	64.30%	61.60%
Percent Unemployed	6.64%	7.90%	7.60%

Poverty and Public Assistance

Table III-10 shows the percent of households below the poverty level as well as the percent of households receiving public assistance. In 2010, 13.67% of the households were below the poverty level. This percentage is lower than both the statewide and Parish-wide percentage.

Similarly, 16.7% of household were receiving cash public assistance or food stamps/SNAP, and this too was lower than both the statewide and Parishwide percentage

**Table III-10:
Poverty Level and Public Assistance, 2010**

	Study Area	St. John the Baptist Parish	Louisiana
Percent of households below poverty level	13.67%	15.5%	18.1%
Percent of households receiving public assistance income	16.7%	18.38%	17.13%

PUBLIC FACILITIES & SERVICES

Methodology

Locations for and lists of addresses for public facilities were obtained from internet web searches, windshield surveys, Google Maps and GIS data.

Findings

Figure III-5 provides a map of selected public facilities both within the study area and in the nearby vicinity. There are numerous public services and facilities that serve the project study area. Analysis of the study area and vicinity indicates that there are eighteen (18) schools/learning institutions, nineteen (19) churches, four (4) cemeteries, eleven (11) recreation facilities and parks/playgrounds, one (1) police station, twelve (12) fire stations, three (3) libraries, three (3) U.S. Post Offices, four (4) hospitals, and the St. John the Baptist Parish Government Complex. These are listed below:

Schools/Learning Institutions

- St. John Child Development Center – 117 Stebbins Street
- Garyville/Mt. Airy Math and Science Magnet School – 240 LA 54
- Fifth Ward Elementary School – 158 Panther Drive, Reserve, LA
- Our Lady of Grace School, 780 Louisiana 44, Reserve, L
- St. John Redirection Center - 152 Anthony F. Monica Street
- St. Peter Catholic School – 188 West 7th Street, Reserve
- John L. Ory Communications Magnet Elementary – 182 West 5th Street
- Riverside Academy – 332 Railroad Avenue, Reserve, LA
- St. Joan of Arc Catholic School – 412 Fir Street
- East St. John Elementary School – 400 Ory Drive

- St. Charles Catholic High School – 100 Dominican Drive
- LifeHouse Daniel Academy – 3556 West Airline Highway
- East St. John High School – 1 Wildcat Drive, Reserve, LA
- LaPlace Elementary School 393 Greenwood Drive
- Ascension of Our Lord School – 1809 Greenwood Drive
- Lake Pontchartrain Elementary School - 3328 US 51
- St. Timothy’s Episcopal Pre-School, 1101 Belle Alliance, LaPlace
- South Central Louisiana Technical College, River Parishes Campus, 181 Regala Park Drive, Reserve

Churches

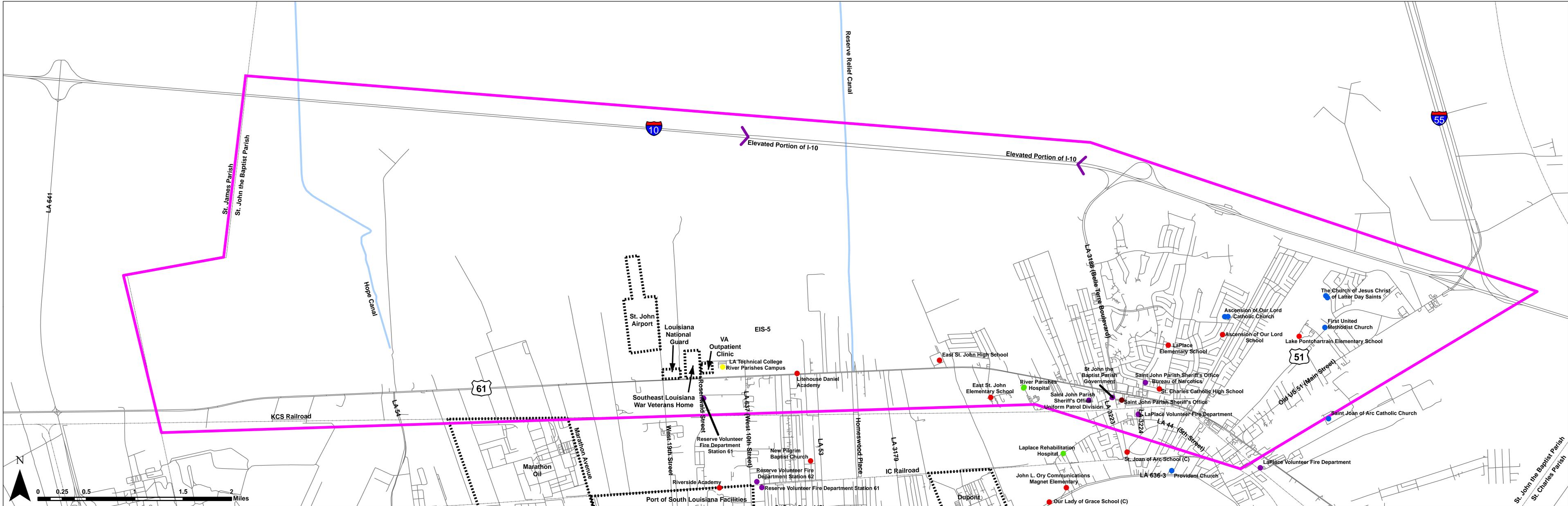
- LifeHouse Church, 3556 W Airline Hwy, Reserve
- New Wine Christian Fellowship, 1929 W Airline Hwy, LaPlace
- St. Timothy’s Episcopal Church, 1101 Belle Alliance, LaPlace
- First United Methodist Church, 301 Bamboo Rd, LaPlace
- Greater New Plymouth Rock Baptist Church, 110 NW 13th St, Reserve, LA
- St. Peter Catholic Church, 1550 Louisiana 44, Reserve, LA
- Our Lady of Grace Church, 772 Louisiana 44, Reserve, LA
- St Hubert Church, 176 Anthony F Monica St, Garyville, LA
- Tchoupitoulas Chapel, 1022 Louisiana 44, Reserve, LA
- Destiny Christian Center, 612 Main St, LaPlace, LA
- Providence Baptist Church, 240 Pine St, LaPlace
- New Pilgrim Baptist Church, 107 Pilgrim St, Reserve, LA
- Saint Joan of Arc Catholic Church, 529 W 5th St, LaPlace
- Faith Healing and Deliverance Church, 123 Marie St, LaPlace
- Ascension of Our Lord Catholic Church, 1809 Greenwood Dr, LaPlace
- Milesville Memorial Church-God, 129 Apple St, LaPlace
- First Baptist Church, 120 Ormond Blvd, LaPlace
- First Baptist Church, 268 W 10th St, Reserve, LA
- The Church of Jesus Christ of Latter Day Saints, 15 Palmetto Dr, LaPlace

Cemeteries

- Bishop Cemetery, W. 25th Street, Garyville, LA
- St John Memorial Gardens, 2205 W Airline Hwy, LaPlace, LA
- St Peter Catholic Church Cemetery, 1550 Louisiana 44, Reserve, LA
- Providence Rest Haven Cemetery, 170 West 2nd Street, LaPlace, LA

Parks, Playgrounds, Recreational Facilities, Community Centers

- Belle Pointe Park, 1621 Jackson Avenue, Reserve



- Legend**
- Public Buildings
 - Schools
 - Hospitals
 - Colleges
 - Churches
 - ▭ Project Study Area
 - ▭ Parish Boundary (LA DOTD, 2007)

**Figure III-5-Public Facilities
Airline Highway (US 61) to Interstate 10
Proposed Connector EIS**

- Regala Park, 194 Regala Park Drive, Reserve
- Reserve Canal Boat Launch, Reserve
- Bailey Boat Launch, LaPlace
- Stephanie Wilking Park, 2144 Greenwood Drive, LaPlace
- Greenwood Park, 398 Greenwood Drive, LaPlace
- Cambridge Park, 601 Colony Park Drive, LaPlace
- Hwy 51 Park, 2900 Hwy 51, LaPlace
- Emily C. Watkins Park, 239 Redbud Street, LaPlace
- Larayo Youth Park, 465 Bradford Place, LaPlace
- Ezekiel Jackson Park, 130 Historic Main Street, Garyville

Fire and Police Stations

- Garyville Volunteer Fire Department Station # 71, 170 West 10th Street, Garyville
- Garyville Volunteer Fire Department Station # 72, 3773 Jefferson Highway, Mt. Airy
- LaPlace Volunteer Fire Department Station 51, 521 Hemlock Street, LaPlace
- LaPlace Volunteer Fire Department Station 52, 801 Walnut Street, LaPlace
- LaPlace Volunteer Fire Department Station 53, 1703 St. Andrews Blvd., LaPlace
- LaPlace Volunteer Fire Department Station 54, 220 Woodland Drive, LaPlace
- LaPlace Volunteer Fire Department Station 55, 1401 Belle Pointe Blvd., LaPlace
- Reserve Volunteer Fire Department Station 61, Station 61, 105 Firehouse Lane, Reserve
- Reserve Volunteer Fire Department Station 62, 378 Railroad Avenue, Reserve, LA
- Reserve Volunteer Fire Department Station 63, 1152 Highway 44, Reserve
- Reserve Volunteer Fire Department Station 64, 394 Rosenwald Drive, Reserve
- Reserve Volunteer Fire Department Station 65, 337 Central Avenue, Reserve
- St. John the Baptist Parish Sheriff's Office, 1801 W Airline Hwy, LaPlace

Libraries

- Central Library, St. John the Baptist Parish Public Library, 2920 Highway 51, LaPlace
- Reserve Branch, St. John the Baptist Parish Public Library, 170 W. 10th Street, Reserve
- Garyville Branch, St. John the Baptist Public Library, 493 Historic Main St, Garyville

U.S. Post Offices

- 129 Central Ave, Reserve, LA
- 495 Historic Main St, Garyville, LA
- 190 Belle Terre Blvd, LaPlace

Hospitals/Medical Clinics

- LaPlace Rehabilitation Hospital – 508 West 5th Street, LaPlace

- St. John VA Outpatient Clinic –247 Veterans Blvd. Reserve
- River Parish Hospital – 500 Rue de Sante, LaPlace
- LA Dept. of Health and Hospitals Health Unit, 473 Central Ave., Reserve

Other

- St. John the Baptist Parish Government Complex, 1801 W Airline Hwy, LaPlace
- Louisiana National Guard Readiness Center, 4120 West Airline Highway, Reserve
- Maurepas Swamp Wildlife Management Area

LAND USE AND ZONING

Land Use

The project study area is largely undeveloped, with a large area of wetlands and rural / agriculture land being the dominant feature. Development exists primarily in the eastern portion of the study area in LaPlace as well as along the US 61 corridor. While the LaPlace and Reserve areas are predominately residential and commercial in nature, the US 61 corridor to the west contains large areas of industrial uses. These uses also extend outside of the study area, between US 61 and the Mississippi River.

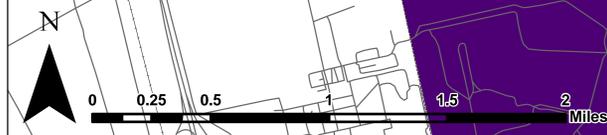
Zoning

Figure III-6 presents a zoning map for the study area in St. John the Baptist Parish. For the most part, zoning follows the existing land use, and is spread amongst several primary categories:

- Most of the residential sections are zoned R-1, with a few scattered locations of the more dense R-2 and R-3.
- Commercially-zoned sectors are generally located along the major travel corridors (US 61, US 51, LA 3188). Most of these areas are zoned C-3, with some scattered locations of C-1 and C-2 zoning.
- As mentioned under land use, industrial zoned areas predominate to the southwest of the study area, and are about evenly split between the I-3 and I-2 zoning classifications.
- The Wetland areas north of Garyville, Reserve and Laplace are zoned Rural.

There are some notable exceptions to where zoning does not follow existing land use. These occur in undeveloped areas:

- West of Belle Terre Boulevard extending to just west of East St. John High School, and north of a commercial zone strip along US 61 and extending as far north as I-10, there is a large area zoned R-1 residential. While the southerly sections of this area are developed



Zoning	
	B-1
	B-2
	C-1
	C-2
	C-3
	I-1
	I-2
	I-3
	MHD
	MHP
	PUD
	R-1
	R-2
	R-3
	R-4
	Project Study Area
	Parish Boundary (LA DOTD, 2007)

**Figure III-6-Zoning
Airline Highway (US 61) to Interstate 10
Proposed Connector EIS**


 LOUISIANA DEPARTMENT OF
 TRANSPORTATION & DEVELOPMENT
 Prepared by:  **ASSOCIATES, INC.**
 ENGINEERS • ARCHITECTS • PLANNERS
 PROGRAM & PROJECT MANAGERS


 REGIONAL
 PLANNING
 COMMISSION
 ST. TAMMANY • JEFFERSON • ORLEANS
 ST. BERNARD • ST. CHARLES • ST. JOHN THE BAPTIST

with residential homes, a large portion of this area is undeveloped wooded wetlands. It should be noted that this area is bisected by a long strip of land zoned for I-2 industrial.

- In the area of Regala Park and St. John Airport north of US 61, most of the land is zoned I-2 industrial, while the current uses are mostly public in nature (VA Clinic, War Veterans Home, LA National Guard facility, Technical School) or undeveloped agricultural fields.
- Similarly, north of the marathon oil facility and north of US 61, a large parcel is zoned I-3 industrial, but is currently used as agricultural fields.

VISUAL/AESTHETIC CONDITIONS

The Project Study Area corridor presents an interesting visual spectrum with developed commercial and residential areas focused on the southwest corner of the study area, moving to agricultural and industrial uses moving westward, and containing an almost entirely undeveloped wooded wetland in the north and northwest portion of the study area. All of the project study area is extremely flat, limiting viewpoints and vistas.

The east and southeast side of the corridor include the well-developed areas of LaPlace and Reserve, which provide typical small-town/suburban views: generally low-scale commercial development and single family homes scattered with apartments, schools and parks. There are only two routes within the study area which provide egress from this developed area to the west: I-10 and US 61. Each provides a different visual aspect:

- As one travels west on US 61, development lessens, and one sees vistas open up to agricultural fields interspersed with commercial/light industrial development. As one travels west there is less and less tree cover and heavier industrial development can be seen on the south, while the north is almost entirely taken up by agricultural views with woodlands in the distance.
- As one travels west on I-10, upon leaving the relatively developed views north of the Belle Terre Subdivision, the change in scenery west of the LA 3188 (Bell Terre Boulevard) is abrupt and sudden. The views transition immediately to a very arboreal, swampy woodland. This aesthetic is carried all the way to the western boundary of the study area.

HISTORIC/CULTURAL RESOURCES

Archaeology

A records search was conducted at the Division of Archaeology (DOA), Department of Culture, Recreation and Tourism. The DOA maintains archaeological site information for the State of Louisiana, assigning a trinomial number (e.g., 16EBR5 [State Number + Parish Abbreviation +

Site Number]) to each site. The DOA also maintains USGS 7.5-minute quadrangle maps depicting the locations of all recorded archaeological sites, site forms and corresponding reports.

Research of landforms and settlement patterns of the area indicated that the entire project area is considered to have a low archaeological potential.

Background research was conducted in St. John the Baptist parish to determine land ownership within the project area. Property owners were then contacted by telephone, email and in person. An archaeological survey was then conducted in June 2013 of Alternatives AP-6B and P-1.

Examination of these records indicates that there are no previously recorded archaeological sites within any of the alternatives of the proposed project area. No archaeological remains were encountered and no archaeological sites were recorded.

Standing Structures

A records search was also conducted at the Division of Historic Preservation (DHP), Department of Culture, Recreation and Tourism. Standing structure and NRHP files for the State of Louisiana are maintained by the DHP. Each recorded standing structure over fifty years of age is assigned a binomial number (e.g., 32-00112 [Parish Number + Structure Number]) by the DHP. The DHP also maintains USGS 7.5-minute and 15-minute quadrangle maps, and DOTD city maps depicting the location of each recorded structure, Louisiana Historic Resource Inventory forms, and corresponding reports. Although St. John the Baptist Parish has been surveyed for standing structures, the structures recorded are confined to the urban areas (e.g., Reserve and Laplace). None of these surveys is located within the indirect APE for the US 61 Connector Project. No NRHP properties are located within the indirect APE as well.

In addition to the records search, a standing structure survey was conducted within the indirect APE for the proposed project. The indirect APE, which encompasses the project area, extends outward from the edge of the proposed ROW approximately 250 ft (76.2 m).

One structure constructed before 1968 was examined within the US 61 Connector Project indirect APE. It is located within the indirect APE for Alternative P-1. It is not considered eligible for listing on the NRHP.

HAZARDOUS AND SOLID WASTE SITES

Methodology

An Environmental Site Assessment, Phase 1 (ESA 1) was conducted on the two build alternative alignments Alternatives AP-6B and P-1 (Coastal Environments, Inc. 2013). The ESA 1 investigation, conducted over an eight-week period from May 6, 2013 through June 27, 2013,

was performed in compliance with the standards of the American Society for Testing and Materials (ASTM) for Environmental Site Assessment for Commercial Real Estate, 5th edition, ASTM Designation: E 1527-05, Standard Practice for Environmental Site Assessments: Phase 1 Environmental Assessment Process (2005). The scope of work consisted of identifying hazardous substances that would constitute a recognized environmental condition on the LDOTD ESA 1 property, meets the ESA 1 requirements as established by the ASTM E 1527-05 Standard Practice (2005). The term *recognized environmental condition* is defined by the ASTM E 1527-05 Standard Practice (2005) as:

...the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property. The term includes hazardous substances or petroleum products even under conditions in compliance with laws. The term is not intended to include *de minimis* conditions that generally do not present a material risk to human health or the environment and generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. Conditions determined to be *de minimis* are not recognized environmental conditions.

The ESA 1 investigation consisted of the identification of potentially contaminated sites that could affect the acquisition and use of the selected alternative. The investigation was conducted with the objective of identifying: (1) potential, abandoned hazardous and solid waste sites, (2) active hazardous waste generators, (3) facilities that treat, store, and/or dispose of hazardous wastes, and (4) underground and above-ground storage tanks.

The ESA 1 investigation included, but was not limited to: (1) the review of federal and state agency databases, (2) the review of historic and current maps and aerial photographs, (3) conducting personal interviews, (4) conducting site inspections, and (5) the completion of two post-inspection ASTM questionnaires. This investigation was preceded by two ESA 1 investigations (Professional Service Industries, Inc. [PSI] 2003 and 2004a) and an Environmental Assessment (PSI 2004b). The ESA 1 investigation was conducted within the ASTM-required search distances of one-half and one mile around the footprints of the two alternatives (Figure 1 and Figure 2).

Results

The ESA 1 investigation did not identify any sites with recognized environmental conditions within, or adjoining the ROW of Alternatives AP-6B and P-1.

Federal and state agency records that were reviewed included the EPA Region VI Resource Conservation Recovery Information List (RCRIS) databases which indicate that the following facilities are near but not within the ROW of the two alternatives:

- Site 1. LAD155259500; LA Machinery Co., West Airline HWY, Reserve, LA 70084; Used Oil Program (located on south side of West Airline HWY, adjoins Alternative P-1) (Figure 1).

- Site 2. LAD980628937; A3M Vacuum Service, 3270 W West Airline HWY, Reserve, LA 70084; Transporter (of hazardous waste) and Used Oil Program (located on north side of West Airline HWY, adjoins Alternative AP-6B) (Figure 2).

The locations of the two aforementioned sites as well as the locations of water, oil and gas wells are depicted on **Figures III-7** and **III-8**.

COASTAL ZONE STATUS

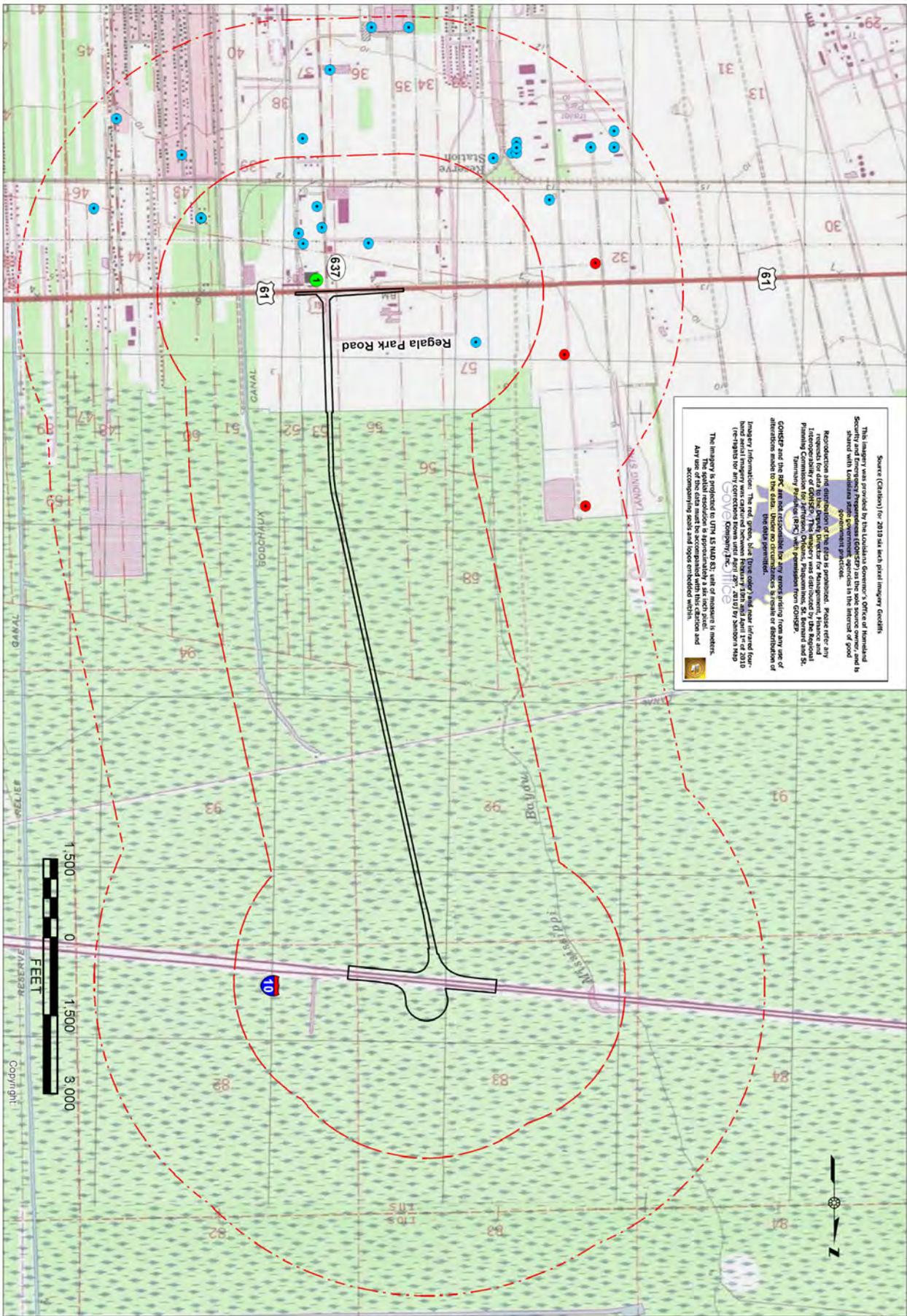
The proposed project is located within the Louisiana Coastal Zone. As a part of the earlier Environmental Assessment process, it was determined that if the project were to go forward, it would require a coastal use permit. Potential impacts to the coastal zone would be examined by the Louisiana Department of Natural Resources, Office of Coastal Management after an application for a coastal use permit for the project has been submitted for review.

EXISTING NATURAL ENVIRONMENT

VEGETATION AND WETLANDS

Vegetation species and wetland areas present along the Alternative P-1 and Alternative AP-6B alignments were observed during a field survey to map wetlands on June 3, 11, and 2013 and during an aerial overflight on June 12, 2013. Wetlands were mapped following criteria established by the USACE (*Environmental Laboratory 1987, 2010*). To help ascertain the types and distributions of habitats, vegetation and wetlands within the project area a variety of sources were consulted prior to the field investigations: aerial photographs (*Louisiana Governor's Office of Homeland Security and Emergency Preparedness [GOHSEP] 2010, U.S. Department of Agriculture, Farm Service Agency, Aerial Photography Field Office (USDA-FSA-APFO) 2010, U.S. Geological Survey 2008*), soils data (<http://websoilsurvey.nrcs.usda.gov> 2013, <http://soildatamart.nrcs.usda.gov> 2013), the USGS topographic map of Reserve, Louisiana and wetland maps (<http://107.20.228.18/Wetlands/WetlandsMapper.html>).

Both Alternative P-1 and Alternative AP-6B cross lands having active agricultural fields, wetlands, cleared and mowed areas and spoil banks with non-wetland vegetation. Alternative P-1 begins on the edge of a forested wetland at US 61, and traverses approximately 0.8 miles of



Source: (Citation) for 2010 and each aerial imagery credits.

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Imagery Information: The red, green, blue (true color) and near infrared four-band aerial imagery was captured between February 7th and April 1st of 2010 (re-rings for any corrections December 7, 2010) by Satcom Map.

The imagery is provided by USGS 30' and 1:250,000 scale maps.

The aerial resolution is approximately a six inch scale.

Any use of the data must be accompanied with this caution and accompanied with scale and logo embossed herein.

		WATER WELL	ALTERNATIVE AP-6B ROW
		OIL/GAS WELL	HALF MILE BUFFER
		RCRA (Used Oil Program)	ONE MILE BUFFER
		RCRA (Transporter/Used Oil Program)	

**ENHANCED ACCESS BETWEEN US 61 IN RESERVE AND I-10
ST. JOHN THE BAPTIST PARISH
ALTERNATIVE P-1**

S.P.N. H.004891 F.A.P.N. HP-TO21 (517)

HAZARDOUS WASTE & WATER, OIL & GAS WELLS

Fig. III-7

Date: 7/1/2013

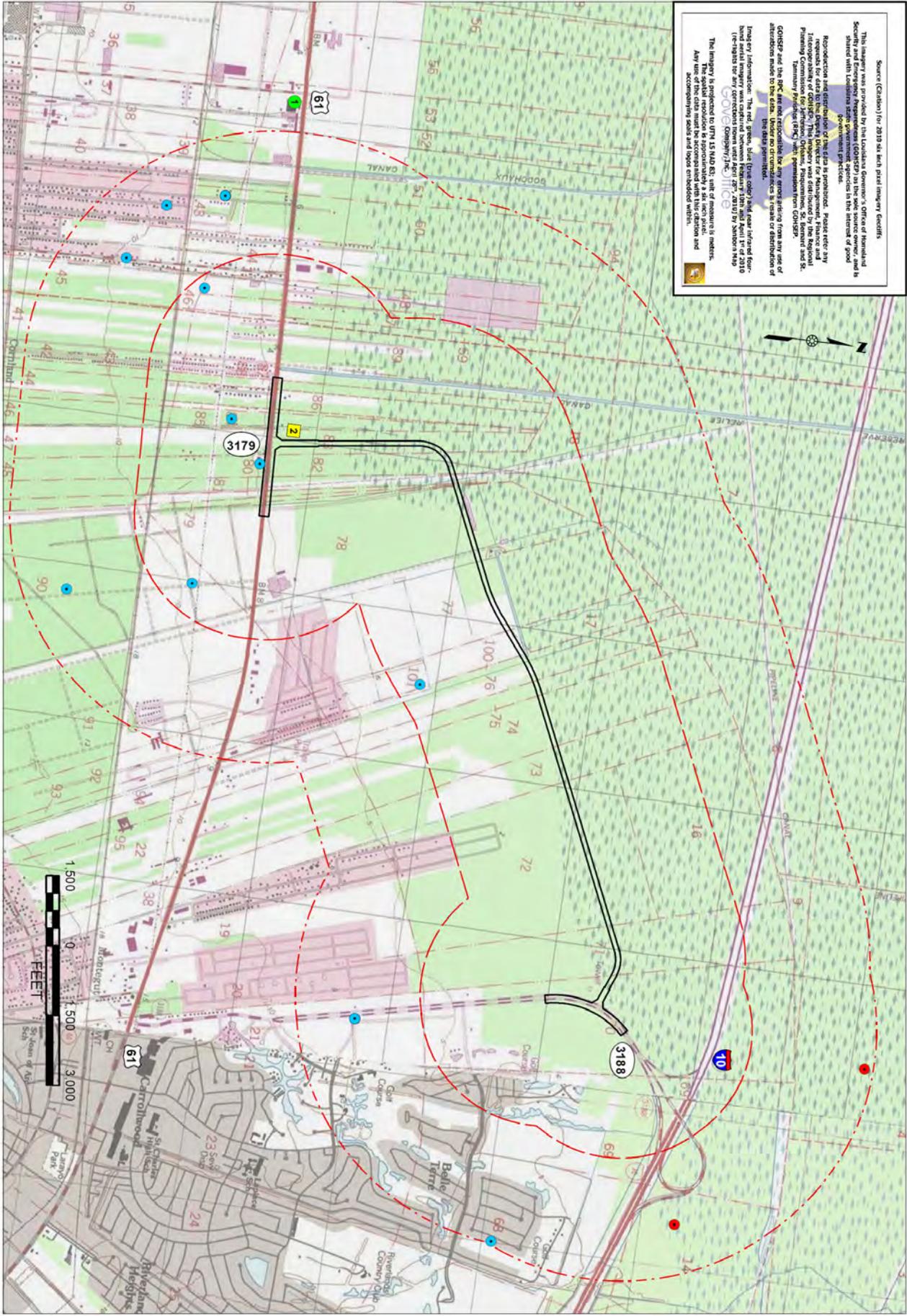


Source: (Citation) for 2010 of each parcel imagery footprints. This imagery was provided by the Louisiana Governor's Office of Homeland Security and Emergency Preparedness (GOHS&EP) on the state source owner, and is subject to the Louisiana State's policies on the release of public information and the state's open government practices.

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Imagery Information: The red, green, blue (true color) and near infrared false color imagery were captured on August 22, 2010 by a satellite (Landsat 5) and processed by the RPPC. The imagery is projected to UTM 15 NAD 83. Unit of measure is meters. Any resampling, scale and logo embedded within.

GOVERNOR'S OFFICE



Map Base: USGS Reserve 1a 7.5' Topographic Quadrangle, 1999



- WATER WELL
- OIL/GAS WELL
- RCRA (Used Oil Program)
- RCRA (Transporter/Used Oil Program)
- ALTERNATIVE P-1 ROW
- HALF MILE BUFFER
- ONE MILE BUFFER

**ENHANCED ACCESS BETWEEN US 61 IN RESERVE AND I-10
ST. JOHN THE BAPTIST PARISH
ALTERNATIVE P-1**

S.P.N. H_004891 F.A.P.N. HP-TO21 (517)

HAZARDOUS WASTE & WATER, OIL & GAS WELLS

Fig. III-8

wetlands before curving eastward across a narrow expanse of emergent wetland and a drainage ditch into an abandoned agricultural field (mowed pasture), which is now an emergent wetland. The route then passes through a narrow ditch, a road, a narrow stretch of wetland scrub-shrub habitat, a narrow ditch and into another expanse of forested wetland before crossing an active agricultural field containing sugarcane for approximately 0.25 miles. Once exiting the field, the route crosses a narrow roadside ditch, a road, a major drainage canal and traverses forested wetlands for the remainder of the route until the proposed interchange with LA Hwy 3188. The P-1 alternative crosses two south-north oriented drainage ditches in this last reach of forested wetland.

Alternative AP-6B traverses active agricultural areas containing sugarcane from its origin at US 61 until it reaches a narrow strip of emergent wetland north of a drainage levee and adjacent to a wider expanse of forested wetland area approximately 0.4 miles north of US 61. From there to I-10 the proposed route crosses forested wetlands and a narrow expanse of emergent wetland within a pipeline corridor. The AP-6B corridor crosses six man-made ditches including a drainage ditch at the edge of the agriculture lands, logging scars in the interior forested wetlands and two east-west oriented ditches on the north and south sides of I-10.

Figures IV-11 thru IV-23, in the following chapter, show the location of the wetland areas for each of the build alternatives.

The actively farmed agriculture areas within Alternative P-1 and AP-6B were in sugarcane production in June 2013. The large expanse of cleared, recently mowed or bush-hogged land within Alternative P-1 was classified as an emergent wetland (PEM) and it contained the following species: raven-foot sedge (*Carex crus-corvi*), St. Augustine grass (*Stenotaphrum secundatum*), alligatorweed (*Alternanthera philoxeroides*), serrate-leaf blackberry (*Rubus argustus*), Lambert's Rosemallow (*Hibiscus striatus* ssp. *lambertianus*), soft rush (*Juncus effusus*), round pennywort (*Hydrocotyle umbellata*), creeping spikerush (*Eleocharis palustris*) and common persimmon (*Diospyros virginiana*). The emergent wetlands along AP-6B contained cattail (*Typha latifolia*), alligatorweed, smartweed (*Polygonum spp.*), spikerush (*Eleocharis spp.*), and soft rush.

The vegetation within the forested wetlands along alternatives P-1 and AP-6B consisted of two communities, a bald cypress-tupelogum swamp community and a bottomland hardwood forest community. The bald cypress-tupelogum swamp vegetation community is dominated by trees, primarily bald cypress (*Taxodium distichum*), and tupelogum (*Nyssa aquatica*). Other trees include Drummund red maple (*Acer rubrum* var. *drummondii*) and American elm (*Ulmus americana*). Because these areas typically have standing water for some part of the year, the herbaceous community is often dominated by floating plants such as water hyacinth (*Eichhornia crassipes*), little salvinia (*Salvinia minima*), giant salvinia (*Salvinia molesta*) and duckweed (*Lemna minor*).

The bottomland hardwood wetland vegetation community is dominated by Nuttall oak (*Quercus texana*), American elm, sugarberry (*Celtis laevigata*), green ash (*Fraxinus pennylvanica*), Drummund red maple, and palmetto (*Sabal minor*).

The scrub-shrub wetland area within Alternative P-1, south of the Belle View Pump Station, has a vegetation community consisting mainly of Chinese tallow (*Triadica sebifera*), black willow (*Salix nigra*), ragweed (*Ambrosia trifida*), and Brazilian vervain (*Verbena brasilensis*).

All of the wetlands are classified as either palustrine forested (PFO) wetlands (e.g., bottomland hardwoods and bald cypress-tupelogum swamp), palustrine scrub-shrub (PSS) wetlands, or palustrine emergent (PEM) wetlands. Alternative AP-6B contains +/- 36.63 acres of wetlands and approximately 0.69 acres of ditches. Alternative P-1 contains +/-35.40 acres of wetlands and approximately 0.93 acres of ditches.

WILDLIFE AND ENDANGERED SPECIES

The cleared areas along existing roadways and the agriculture areas within Alternatives P-1 and AP-6B have low habitat value for wildlife because these areas are subject to constant disturbance and have less suitable vegetative habitat for cover, nesting and foraging. Common wildlife species that may be present in these cleared and agriculture areas are listed in **Table III-11**.

The forested wetlands, especially the large tract of mature growth bald cypress – tupelo gum swamps along Alternatives P-1 and AP-6B have a high value as habitat for wildlife and aquatic species. **Table III-12** lists the mammals, reptiles, fish and amphibians that would commonly occur in these wetland forests and larger drainage ditches within the swamp.

The United States Fish and Wildlife Service (USFWS) lists the West Indian Manatee (*Tricheuchus manatus*), Alabama Heelsplitter Mussel (*Potamilus inflatus*), Gulf Sturgeon (*Acipenser oxyrinchus desoto*), and Pallid Sturgeon (*Scaphirhynchus albus*) as either threatened or endangered in St. John the Baptist Parish. However, correspondence with USFWS (Rieck 2009) and LDWF (Bass 2013) stated that there were no rare, threatened or endangered species or critical habitat within the project area for Alternatives AP-6B and P-1.

The LDWF and LDWF recommended that a search should be made to determine whether any Bald eagle (*Haliaeetus leucocephalu*) nests or colonial nesting bird rookeries were within or near the proposed alignments now or at the time of construction of the proposed connector between US 61 and I-10. Neither rookeries nor Bald eagle nests were observed during ground reconnaissance on June 3, 11, or 20, 2013. Two CEI biologists made a low-altitude flight at an altitude of approximately 500-feet over the two proposed alternative alignments on June 12, 2013. Multiple passes were made over each alignment and no rookeries or bald eagle nests were observed.

**Table III-11
Common Wildlife Species within Agricultural Land of the Project Study Area**

Mammals

- Virginia Opossum (*Didelphis virginiana*)
- Eastern Pipistrelle (*Pipistrellus subflavus*)
- Red Bat (*Lasiurus borealis*)
- Seminole Bat (*Lasiurus seminolus*)
- Northern Yellow Bat (*Lasiurus intermedius*)
- Swamp Rabbit (*Sylvilagus aquaticus*)
- Grey Squirrel (*Sciurus carolinensis*)
- Fox Squirrel (*Sciurus niger*)
- Southern Flying Squirrel (*Glaucomys volans*)
- Marsh Rice Rat (*Oryzomys palustris*)
- White-footed Mouse (*Peromyscus leucopus*)
- Cotton Mouse (*Peromyscus gossypinus*)
- Eastern Wood Rat (*Neotoma floridana*)
- Common Muskrat (*Ondatra zibethicus*)
- Nutria (*Myocastor coypus*)
- Red Fox (*Vulpes fulva*)
- Northern Raccoon (*Procyon lotor*)
- North American Mink (*Mustela vison*)
- Nearctic River Otter (*Lutra canadensis*)
- Bobcat (*Lynx rufus*)
- White-tailed Deer (*Odocoileus virginianus*)

Fish

- Large Mouth Bass (*Micropterus salmoides*)
- Common Carp (*Cyprinus carpio*)
- Warmouth (*Lepomis gulosus*)
- Bluegill (*Lepomis macrochirus*)
- Spotted Bass (*Micropterus punctulatus*)
- Green Sunfish (*Lepomis cyanellus*)
- Pirate Perch (*Aphredoderus sayanus*)
- Swamp Darter (*Etheostoma fusiforme*)
- Starhead Topminnow (*Fundulus notti*)
- Golden Shiner (*Notemigonus crysoleucas*)
- Pugnose Minnow (*Notropis emiliae*)
- Spotted Sucker (*Minytrema melanops*)
- Chain Pickerel (*Esox niger*)
- Alligator Gar (*Lepisosteus spatula*)
- Paddlefish (*Polyodon spathula*)
- Tadpole Madtom (*Noturus gyrinus*)
- Mosquitofish (*Gambusia affinis*)
- Least Killifish (*Heterandria formosa*)
- Yellow Bullhead (*Ictalurus natalis*)
- Sailfin Molly (*Poecilia latipinna*)
- Gizzard Shad (*Dorosoma cepedianum*)

Reptiles

- Common Snapping Turtle (*Chelydra serpentina*)
- Alligator Snapping Turtle (*Macroclermys temminckii*)
- Red-eared Slider (*Trachemys scripta*)
- Eastern Mud Turtle (*Kinosternon subrubrum*)
- Common Musk Turtle (*Sternotherus odoratus*)
- Green Anole (*Anolis carolinensis*)
- Five-lined Skink (*Eumeces anthracinus*)
- Broad-headed Skink (*Eumeces laticeps*)
- Ground Skink (*Scincella lateralis*)
- Mud Snake (*Farancia abacura*)
- Speckled Kingsnake (*Lampropeltis getulus*)
- Western Green Water Snake (*Nerodia cyclopion*)
- Plain-bellied Water Snake (*Nerodia erythrogaster*)
- Southern Water Snake (*Nerodia fasciata*)
- Diamond-backed Water Snake (*Nerodia rhombifera*)
- Graham's Crawfish Snake (*Regina grahamii*)
- Glossy Crawfish Snake (*Regina rigida*)
- Western Ribbon Snake (*Thamnophis proximus*)
- Common Garter Snake (*Thamnophis sirtalis*)
- Copperhead (*Agkistrodon contortrix*)
- Cottonmouth (*Agkistrodon piscivorus*)
- American Alligator (*Alligator mississippiensis*)

Amphibians

- Gulf Coast Toad (*Bufo valliceps*)
- Northern Cricket Frog (*Acris crepitans*)
- Bird-voiced Treefrog (*Hyla avivoca*)
- Grey Treefrog (*Hyla chrysoscelis – versicolor complex*)
- Green Treefrog (*Hyla cinerea*)
- Spring Peeper (*Hyla crucifer*)
- Striped Chorus Frog (*Pseudacris triseriata*)
- Eastern Narrow-mouthed Toad (*Gastrophryne carolinensis*)
- Bullfrog (*Rana catesbeiana*)
- Green Frog (*Rana clamitans*)
- Southern Leopard Frog (*Rana sphenoccephala*)
- Three-toed Amphiuma (*Amphiuma tridactylum*)
- Dusky Salamander (*Desmognathus fuscus – auriculatus complex*)
- Eastern Newt (*Notophthalmus viridescens*)
- Lesser Siren (*Siren intermedia*)

Table III-12
Common Wildlife and Aquatic Species within the
Bald Cypress-Tupelo Gum Swamp of the Project Study Area

Mammals

- Virginia Opossum (*Didelphis virginiana*)
- Least Shrew (*Cryptotis parva*)
- Nine-banded Armadillo (*Dasypus novemcinctus*)
- Eastern Cottontail (*Sylvilagus floridanus*)
- Fulvous Harvest Mouse (*Reithrodontomys fulvescens*)
- Hispid Cotton Rat (*Sigmodon hispidus*)
- Roof Rat (*Rattus rattus*)
- Norway Rat (*Rattus norvegicus*)
- House Mouse (*Mus musculus*)
- Red Fox (*Vulpes fulva*)
- Gray Fox (*Urocyon cinereoargenteus*)
- Northern Raccoon (*Procyon lotor*)
- Spotted Skunk (*Spilogale putorius*)
- White-tailed Deer (*Odocoileus virginianus*)
- Fish Crow (*Corvus ossifragus*)
- American crow (*Corvus brachyrhynchos*)
- Blue Jay (*Cyanocitta cristata*)
- Carolina Chickadee (*Parus carolinensis*)
- House Wren (*Troglodytes aedon*)
- Carolina Wren (*Thryothorus ludovicianus*)
- Northern Mockingbird (*Mimus polyglottos*)
- Eastern Bluebird (*Sialia sialis*)
- American Robin (*Turdus migratorius*)
- Loggerhead Shrike (*Lanius ludovicianus*)
- Red-Winged Blackbird (*Agelaius phoeniceus*)
- Brown-Headed Cowbird (*Molothrus ater*)
- Common Grackle (*Quiscalus quiscula*)
- Eastern Meadowlark (*Sturnella magna*)
- European Starling (*Sturnus vulgaris*)
- House Sparrow (*Passer domesticus*)
- American Goldfinch (*Carduelis tristis*)
- Painted Bunting (*Passerina ciris*)
- Chipping Sparrow (*Spizella passerina*)
- Song Sparrow (*Melospiza melodia*)
- Savannah Sparrow (*Passerculus sandwichensis*)

Amphibians

- Gulf Coast Toad (*Bufo valliceps*)
- Eastern Narrow-mouthed Toad (*Gastrophryne carolinensis*)

Reptiles

- Ground Skink (*Scincella lateralis*)
- Worm Snake (*Carphophis amoenus*)
- Corn Snake (*Elaphe guttata*)
- Texas Rat Snake (*Elaphe obsoleta*)
- Brown Snake (*Storeria dekayi*)
- Rough Earth Snake (*Virginia striatula*)
- Smooth Earth Snake (*Virginia valeriae*)
- Timber Rattlesnake (*Crotalus horridus*)

Birds

- Cattle Egret (*Bubulcus ibis*)
- Killdeer (*Charadrius vociferous*)
- Common Bobwhite (*Colinus virginianus*)
- Red-Tailed Hawk (*Buteo jamaicensis*)
- Turkey Vulture (*Cathartes aura*)
- Black Vulture (*Coragyps atratus*)
- American Kestrel (*Falco sparverius*)
- Merlin (*Falco columbarius*)
- Mourning Dove (*Zenaida macroura*)
- Rock Dove (*Columba livia*)
- Yellow-billed Cuckoo (*Coccyzus americanus*)
- Eastern Kingbird (*Tyrannus tyrannus*)
- Eastern Phoebe (*Sayornis phoebe*)
- Horned Lark (*Eremophila alpestris*)
- Purple Martin (*Progne subis*)

Table III-12 (continued)
Common Wildlife and Aquatic Species within the
Bald Cypress-Tupelo Gum Swamp of the Project Study Area

Birds

- American Anhinga (*Anhinga anhinga*)
- Mallard (*Anas platyrhynchos*)
- Wood Duck (*Aix sponsa*)
- Ring-Necked Duck (*Aythya collaris*)
- Common Goldeneye (*Bucephala clangula*)
- Hooded Merganser (*Lophodytes cucullatus*)
- Great Blue Heron (*Ardea herodias*)
- Little Blue Heron (*Florida caerulea*)
- Louisiana Heron (*Hydranassa tricolor*)
- Great Egret (*Casmerodius albus*)
- Snowy Egret (*Egretta thula*)
- Cattle Egret (*Bubulcus ibis*)
- Black-crowned Night Heron (*Nycticorax nycticorax*)
- Yellow-crowned Night Heron (*Nyctanassa violacea*)
- Green Heron (*Butorides striatus*)
- White-faced Ibis (*Plegadis chihi*)
- Glossy Ibis (*Plegadis falcinellus*)
- White Ibis (*Eudocimus albus*)
- Killdeer (*Charadrius vociferous*)
- Wild Turkey (*Meleagris gallopavo*)
- Red-Tailed Hawk (*Buteo jamaicensis*)
- Red-Shouldered Hawk (*Buteo lineatus*)
- Broad-Winged Hawk (*Buteo platypterus*)
- Bald Eagle (*Haliaeetus leucocephalus*)
- Turkey Vulture (*Cathartes aura*)
- Black Vulture (*Coragyps atratus*)
- Common Screech Owl (*Otus asio*)
- Great Horned Owl (*Bubo virginianus*)
- Barred Owl (*Strix varia*)
- Belted Kingfisher (*Megaceryle alcyon*)
- Pileated Woodpecker (*Dryocopus pileatus*)
- Red-Bellied Woodpecker (*Melanerpes carolinus*)
- Downy Woodpecker (*Picoides pubescens*)
- Great Crested Flycatcher (*Myiarchus crinitus*)
- Eastern Pewee (*Contopus virens*)
- Acadian Flycatcher (*Empidonax virens*)
- Fish Crow (*Corvus ossifragus*)
- American crow (*Corvus brachyrhynchos*)
- Carolina Chickadee (*Parus carolinensis*)
- Tufted Titmouse (*Parus bicolor*)
- White-Breasted Nuthatch (*Sitta carolinensis*)
- Brown Creeper (*Certhia familiaris*)
- Carolina Wren (*Thryothorus ludovicianus*)
- Blue-Gray Gnatcatcher (*Poliophtila caerulea*)
- Wood Thrush (*Hylocichla mustelina*)
- Red-Eyed Vireo (*Vireo olivaceus*)
- White-Eyed Vireo (*Vireo griseus*)
- Yellow-Throated Vireo (*Vireo flavifrons*)

- Prothonotary Warbler (*Prothonotaria citrea*)
- Northern Parula Warbler (*Parula americana*)
- Black-And-White Warbler (*Mniotilta varia*)
- Cerulean Warbler (*Dendroica cerulea*)

Fishes

- Warmouth (*Lepomis gulosus*)
- Common Carp (*Cyprinus carpio*)
- Spotted Bass (*Micropterus punctulatus*)
- Green Sunfish (*Lepomis cyanellus*)
- Sailfin Molly (*Peocilia latipinna*)
- Pirate Perch (*Aphredoderus saysanus*)
- Swamp Darter (*Etheostoma fusiforme*)
- Starhead Topminnow (*Fundulus notti*)
- Golden Shiner (*Notemigonus crysoleucas*)
- Pugnose Minnow (*Notropis emiliae*)
- Paddlefish (*Polyodon spathula*)
- Tadpole Madtom (*Noturus gyrinus*)
- Yellow Bullhead (*Ictalurus natalis*)
- Mosquitofish (*Gambusia affinis*)
- Least Killifish (*Heterandria formosa*)

FLOOD ZONES / FLOOD PLAINS

Flood Plains

Flood plains in the project study area are influenced by hydrology in the region. The natural hydrology in the project area has been altered substantially by the construction of an extensive system of man-made canals, drainage ditches and flood protection levees (both on the federally maintained Mississippi River levee and mostly private levees at the rear side of developed areas). The hydrology of the entire project area generally features water flow from south to north, from the high land near the Mississippi River levee, then through the wetlands, bayous and canals leading north towards Lakes Maurepas and Pontchartrain. The natural hydrology has been changed and augmented by man-made drainage, including surface and subsurface drainage which leads to large pumps designed to pump storm water out of the developed areas.

In 2012, much of the project area received unprecedented flooding as a result of Hurricane Isaac. Most of the flooding was associated with high water levels in Lakes Maurepas and Pontchartrain backing up through the swamps into developed areas, and has provided impetus for a planned back levee system in the Parish to prevent further such intrusions. Such a levee system is now under study.

Flood Zones

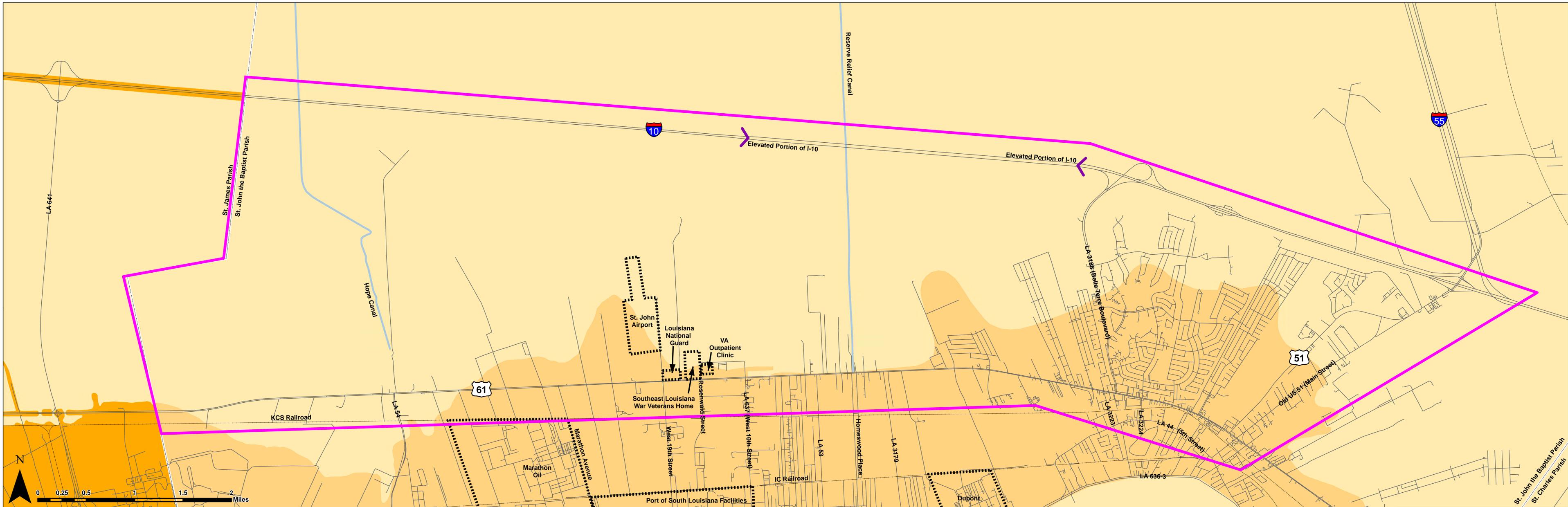
The National Flood Insurance Program (NFIP) was adopted by Congress in 1968 to provide flood insurance to homeowners, renters and business owners. Communities that participate in the NFIP agree to adopt and enforce ordinances meeting or exceeding standards established by the Federal Emergency Management Agency (FEMA) to reduce the risk of flooding. The NFIP regulates development within floodplains for substantial improvements to ensure projects do not present new obstructions to water flows or alter drainage.¹

St. John the Baptist Parish participates in the NFIP. Flood Insurance Rate Maps (FIRMs) are official maps on which FEMA has delineated both special flood hazard areas and (flood) risk zones applicable to a community. FIRMs were examined were consulted in this examination of flood risk in the project study area.

Findings indicate the project study area is primarily composed of high risk flood areas including “Flood Zone AE” with some areas of minimal flood hazards such as “Flood Zone X”. Flood Zone “X” areas are generally predominant south of US 61, and in the developed areas of LaPlace. There are a couple of notable extensions of Zone X north of US 61, in the vicinity of the St. John Airport and north of East St. John High School.

Figure III-9 presents the flood zones for the study area.

¹ <http://www.floods.org/index.asp?menuID+651&firstlevelmenuID=187&siteID=1>.



- Legend**
- Flood Zone AE
 - Flood Zone X
 - Project Study Area

**Figure III-9-Flood Zones
Airline Highway (US 61) to Interstate 10
Proposed Connector EIS**

Definitions of the FEMA flood zone designations² found in the project study area are as follows:

“Flood Zone AE” is a high risk area in which mandatory flood insurance is required with a 1% annual chance of flooding (100-year or “base” flood) and a 26% chance of flooding over the life of a 30-year mortgage.

“Flood Zone X (Shaded)” is a moderate flood hazard area in the 500-year floodplain, and areas of lesser hazards such as areas protected by levees from a 100-year flood, shallow flooding areas with average depths of less than one foot, or drainage areas less than 1 square mile.

“Flood Zone X (Unshaded)” is an area of minimal flood hazard, usually depicted as above the 500-year flood level (0.2% chance of flooding in any given year).

Federal, state and local permits may be required if it is determined that *St. John Connector* should proceed since the proposed project involves construction in designated flood hazard areas.

WATER QUALITY

Surface Water Quality

The general location of the study area containing Alternatives AP-6B and P-1 is between Airline Highway (US HWY 61) to the south, I-10 and a little north of the interstate to the north, Belle Terre Blvd (LA HWY 3188) to the east and an undefined boundary approximately one mile west of Alternative AP-6B.

Portions of both alignments include agricultural fields which are parts of different privately maintained forced drainage systems. The bottomland hardwood and cypress-tupelo forests which both alignments traverse are part of a much larger contiguous forested area that is only broken by linear features including I-10, pipeline servitudes and man-made waterways comprised of drainage and remnant logging canals. The cypress-tupelo swamp, located between Airline Highway and I-10 within the project area, has few discernible natural bayous and in addition to the canals, drainage is primarily by sheet flow across the swamp in a northerly direction towards Lake Maurepas and Lake Pontchartrain.

The *2012 Water Quality Integrated Report* is an assessment of water quality of water bodies located in the state that is conducted by the Louisiana Department of Environmental Quality (LDEQ) on a biannual basis. The assessment has no designated stream segments in the study area. The closest designated water body to the project area is a reach of Blind River that is located between the Amite River Diversion Canal and Lake Maurepas.

² <https://msc.fema.gov/webapp/wcs/stores/servlet/info?storeId=10001&catalogId=1001&la...>

Ground Water Quality

Alternatives AP-6B and P-1 lie above the Southern Hills aquifer system, formerly referred to as the Chicot equivalent aquifer system, which includes the Norco and Gonzales-New Orleans aquifers (Stuart et al. 1994). The important water-bearing strata consisted of sands located at 400 and 600 ft depths in 1994 (Stuart et al.). The two aquifers are comprised of fine to coarse sand and gravel (Stuart et al. 1994) with the New Orleans aquifer, the largest of the area's aquifers, increasing in depth from north to south (Tomaszewski, 2003). These two aquifers as well as others are separated by layers of clay and are underlain by saltwater that potentially compromises water quality (Tomaszewski, 2003). Despite containing freshwater, a number of shallow, but discontinuous aquifers located throughout the area, are not utilized because of poor water quality due to high levels of hardness and iron (Tomaszewski, 2003). Groundwater flow is generally in a southeasterly direction. Primary recharge occurs in the northern portion of the system, which underlies the northern Florida and Feliciana Parishes, extending northerly past the Mississippi state line (Stuart et al. 1994).

The EPA does not consider the aquifer system that that underlies Alternatives AP-6B and P-1 to be a sole source aquifer (Bechdol, written corr. 2013) and, according to the Louisiana Department of Health and Hospitals, there are no public potable water wells within one mile of either alignment (Zhu, email corr. 2013). In addition, well data obtained from the LDOTD indicates there are no private water wells that are located in the inside of either alternative's ROW.

SCENIC RIVERS

The Louisiana Natural and Scenic Streams System of the Louisiana Department of Wildlife and Fisheries (LDWF) does not list any wild and scenic rivers within the project study area. Additionally, the United States Geological Survey Maps do not denote any wild or scenic rivers in the area.

SOILS/ PRIME FARMLAND

According to the Soil Survey for St. James and St. John the Baptist Parishes, Louisiana, eight soil types are mapped within the project study area. These soil types are Barbary (Ba); Cancienne and Carville (CT); Cancienne Silt Loam (CmA); Cancienne Silty Clay Loam (CnA); Carville Silt Loam (CvA); Gramercy Silty Clay (GrA), Schriever Clay (SkA), and Schriever Clay, frequently flooded (Sm). **Figure III-10** provides a map showing the distribution of the soil types in the area. All but Barbary (Ba), Cancienne and Carville (CT), and Schriever Clay, frequently flooded (Sm) are identified as Prime Farmland soils³.

³ <http://soildatamart.nrcs.usda.gov/manuscripts/LA095/0/stjohn.pdf>



Soil Types

Ba	Ct	CvA	Ma	Sm	W
Cm	CT	GrA	Mh	Tn	
Cn	CU	IP	Sh	UL	
Co	CmA	Ke	SkA	Va	
Cr	CnA	LP	SK	Vh	

Figure III-10-Soils
Airline Highway (US 61) to Interstate 10
Proposed Connector EIS

CHAPTER IV

ENVIRONMENTAL IMPACT ANALYSIS

In this chapter, the impacts of the four alternatives considered (the No Build Alternative, the TSM Alternative and the two Build Alternatives) are assessed relative to the evaluation categories of transportation and traffic, human environment, and the natural environment.

Impact assessment categories include:

IMPACTS ON TRANSPORTATION AND TRAFFIC

IMPACTS ON THE HUMAN ENVIRONMENT

- Economic Impacts
- Displacements/Relocations
- Environmental Justice
- Neighborhood / Community Cohesion
- Land Use and Zoning
- Access to Community Facilities and Services
- Impacts to Parks and Recreation Facilities
- Historic/Cultural Resources
- Visual/Aesthetic Impacts
- Air Quality Impacts
- Traffic Noise and Impacts
- Construction Period Impacts
- Hazardous and Solid Waste Sites

IMPACTS ON THE NATURAL ENVIRONMENT

- Vegetation and Wetlands
- Wildlife
- Threatened / Endangered Species
- Natural and Scenic Rivers
- Hydrology, Floodplains & Flooding
- Water Quality
- Prime Farmland and Soils

IMPACTS ON TRANSPORTATION AND TRAFFIC

TRAFFIC ANALYSIS

Analysis was conducted for the 2010 Base, 2038 No Build, and 2038 Build conditions. Capacity analyses were performed for each of the project scenarios. The various types of analyses performed for this study included two-lane highway, multi-lane highway, unsignalized, signalized intersection, and roundabout. Roadway and intersection analysis were performed using Highway Capacity Software (HCS+) v 5.4. The LOS for the two-lane and multi-lane roadway segments is based on volume to capacity ratio and density (pc/mi/ln), respectively. Intersection LOS is based on control delay in seconds per vehicle.

Levels of Service represent a qualitative and quantitative evaluation of the traffic operation of a road segment and/or intersection using procedures developed by the Transportation Research Board and contained in the Highway Capacity Manual, Special Report 209. The Highway Capacity Manual (HCM) procedures have been adapted to computer based analysis packages, which include modules for each roadway condition.

Two-Lane Roadway Capacity Analysis

For two-lane highways that facilitate shorter trips and multiple trip purposes, the Highway Capacity Manual measures LOS quality by percent-time-spent-following. LOS A describes the highest quality of traffic service, when motorists are able to travel at their desired speed. LOS B characterizes a slightly higher impedance of traffic flow. LOS C describes further increases in flow, resulting in noticeable increases in platoon formation, platoon size, and frequency of passing impediments. LOS D describes unstable traffic flow. The two opposing traffic streams begin to operate separately at higher volume levels, as passing becomes extremely difficult. At LOS E, traffic flow conditions have a “percent time-spent-following” greater than 80 percent. Passing is virtually impossible and platooning becomes intense, as slower vehicles or other interruptions are encountered. LOS F represents heavily congested flow with traffic demand exceeding capacity. Volumes are higher than capacity and speeds are highly variable.

Table IV-1 presents Level of Service criteria for two-lane highways.

Table IV-1
Level of Service Criteria for Two-Lane Highways

Level of Service (Class I Highways)	Percent Time Spent Following
A	≤ 40
B	> 40 and ≤ 55
C	> 55 and ≤ 70
D	> 70 and ≤ 85
E	> 85

Multi-Lane Roadway Capacity Analysis

According to the Highway Capacity Manual, level of service on a multi-lane highway is characterized by three performance measures:

- Density, in terms of passenger cars per mile per lane (the primary performance measure);
- Speed, in terms of mean passenger car speed; and
- Volume to capacity ratio.

LOS A describes completely free-flow conditions. The operation of vehicles is virtually unaffected by the presence of other vehicles, and operations are constrained only by the geometric features of the highway and by driver preferences. LOS B also indicates free-flow, although the presence of other vehicles becomes noticeable. Average travel speeds are the same as in LOS A, but drivers have slightly less freedom to maneuver. In LOS C, the influence of traffic density on operations becomes evident. The ability to maneuver within the traffic stream is clearly effected by other vehicles. At LOS D, the ability to maneuver is severely restricted due to traffic congestion. Travel speed is reduced by the increasing volume. LOS E represents operations at or near capacity, an unstable level. LOS F represents forced or breakdown flow. **Table IV-2** presents Level of Service criteria for multi-lane highways.

Table IV-2
Level of Service Criteria for Multi-Lane Highways

Level of Service (Free-Flow Speed 45 mph)	Maximum Density (passenger cars/mile/lane)
A	≤ 11
B	> 11 and ≤ 18
C	> 18 and ≤ 26
D	> 26 and ≤ 35
E	> 35 and ≤ 45
F	> 45

Intersection Capacity Analysis

For signalized and stop controlled intersections, the HCM bases LOS quality on average control delay (in terms of seconds per vehicle). Levels of Service range from LOS A, a condition of little or no delay to LOS F, a condition of capacity breakdown represented by heavy delay and congestion.

LOS B is characterized as stable flow. LOS C is considered to have a stable traffic flow, but is becoming susceptible to congestion with general levels of comfort and convenience declining noticeably. LOS D approaches unstable flow as speed and freedom to maneuver are severely restricted and LOS E represents unstable flow at or near capacity levels with poor levels of comfort and convenience. LOS E and F are considered to be unacceptable.

Table IV-3 presents Level of Service criteria for unsignalized intersections.

**Table IV-3
Level of Service Criteria for Unsignalized Intersections**

Level of Service	Control Delay (seconds/vehicle)
A	≤ 10
B	> 10 and ≤ 15
C	> 15 and ≤ 25
D	> 25 and ≤ 35
E	> 35 and ≤ 50
F	> 50

Table IV-4 presents the Level of Service criteria for signalized intersections.

**Table IV-4
Level of Service Criteria for Signalized Intersections**

Level of Service	Control Delay (seconds/vehicle)
A	≤ 10
B	> 10 and ≤ 20
C	> 20 and ≤ 35
D	> 35 and ≤ 55
E	> 55 and ≤ 80
F	> 80

The analysis methods used are considered appropriate for this type of study and are the widely accepted practice of evaluating impacts on traffic operations.

2010 Base Conditions Analysis

Base Condition traffic volumes and roadway characteristics were entered into HCS+ software to determine expected capacity and Levels of Service for the roadway segments. The ramps from I-10 at LA 3188 were not analyzed as they are free flow to/ from LA 3188. Table IV-5, on the following page, presents the results of the roadway analysis. Full documentation is included in the Appendix.

**Table IV-5
Roadway Analysis Results for
2010 Base Conditions**

Roadway Segment	Direction	2010 Existing Conditions			
		AM Peak		PM Peak	
		LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)
LA 641 btw I-10 and US 61	Overall	B	0.1*	B	0.1*
US 61 btw LA 641 and LA 54	LA 61 Eastbound	A	5.5	A	2.9
	LA 61 Westbound	A	3.2	A	9.0
US 61 btw LA 3179 and LA 3188	LA 61 Eastbound	B	11.6	B	14.9
	LA 61 Westbound	B	11.2	B	12.5
US 61 btw LA 3188 and US 51	LA 61 Eastbound	A	6.6	B	17.1
	LA 61 Westbound	A	4.8	C	18.8
LA 3188 btw I-10 and US 61	LA 3188 Northbound	B	14.0	A	7.3
	LA 3188 Southbound	B	14.2	A	10.0
US 51 btw I-10 and US 61	US 51 Northbound	A	7.8	B	12.6
	US 51 Southbound	A	9.4	A	7.9

** Two-lane highway segment LOS criteria are based on v/c. Multilane highway segment LOS criteria are based on density (pc/mi/ln).*

Analysis results indicate that all existing roadways are expected to operate acceptably; however, this does not account for delays at intersections.

Base Condition traffic volumes, geometry, and traffic control were entered into HCS+ software to determine expected capacity and Levels of Service for the subject intersections. The signalized intersection analysis was based on current timing and phasing information obtained from the Traffic Signal Inventories and field observations. **Table IV-6** on the following page, presents the results of the analysis, documentation is included in the appendix.

Analysis results indicate the intersections of US 61 at LA 641, LA 3188 and US 51 are currently experiencing poor levels of service with the base conditions in the AM and PM peaks. Field observations concur with analysis results as queuing was observed at these intersections. The remaining intersections are expected to experience acceptable operating conditions in the AM and PM peaks.

**Table IV-6
2010 Base Conditions Analysis Results**

Intersection Approach	2010 Existing Conditions			
	AM Peak		PM Peak	
	LOS	Delay	LOS	Delay
US 61 at LA 641				
OVERALL	D	49.2	F	306.2
US 61 Eastbound	C	21.0	C	24.7
US 61 Westbound	F	86.7	F	357.1
LA 641 Northbound	D	44.0	F	395.5
LA 641 Southbound	D	35.5	C	30.1
US 61 at Marathon Avenue				
OVERALL	B	13.2	B	14.4
US 61 Eastbound	B	15.3	B	16.9
US 61 Westbound	A	9.3	A	6.9
Marathon Ave. Northbound	C	20.4	C	29.0
US 61 at LA 637				
OVERALL	B	13.5	C	24.2
US 61 Eastbound	B	12.7	C	25.8
US 61 Westbound	B	10.6	B	16.3
LA 637 Northbound	C	30.7	D	39.4
LA 637 Southbound	C	24.2	C	29.2
US 61 at LA 53				
OVERALL	B	15.6	C	22.2
US 61 Eastbound	B	14.8	C	25.8
US 61 Westbound	B	15.4	B	18.1
LA 53 Northbound	B	18.5	B	19.5
LA 53 Southbound	C	24.6	C	24.1
US 61 at LA 3179				
OVERALL	-	-	-	-
US 61 Westbound	B	11.7	B	15.0
LA 3179 Northbound	B	14.3	C	21.1
US 61 at LA 3188				
OVERALL	D	44.1	E	63.5
US 61 Eastbound	D	47.1	E	71.7
US 61 Westbound	C	32.8	D	42.9
LA 3188 Northbound	D	51.6	E	60.9
LA 3188 Southbound	E	57.7	F	90.9
US 61 at US 51				
OVERALL	D	51.2	F	85.9
US 61 Eastbound	C	31.2	E	77.0
US 61 Westbound	C	25.8	D	54.0
US 51 Northbound	E	56.6	E	64.4
US 51 Southbound	F	131.3	F	188.5
US 51 at I-10 WB Off Ramp				
OVERALL	B	15.9	D	52.7
I-10 Westbound	C	25.9	F	119.1
US 51 Northbound	A	7.1	B	15.6
US 51 Southbound	B	17.4	C	23.3
US 51 at I-10 EB Off Ramp				
OVERALL	B	17.9	B	19.7
I-10 Eastbound	C	34.5	C	23.2
US 51 Northbound	C	21.6	C	25.5
US 51 Southbound	A	4.5	A	9.7

* No conflicting movements for this approach.

Alternatives

The P-1 Alternative would add a north approach to the existing LA 3179 at US 61 intersection. From here a two-lane roadway would extend in the north-east direction and tie into LA 3188 (Belle Terre Boulevard) from the west approximately .5 miles to the south of the existing interchange of I-10. The tie-in point at LA 3188 is proposed to be either a signalized intersection or a multi-lane roundabout. This alternative could be utilized by motorist utilizing I-10 to by-pass the US 61 at LA 3188 intersection. The intersection of P-1/ LA 3179 at US 61 is expected to be a signalized intersection. The intersection of P-1 to LA 3188 is expected to be either a signalized intersection or a roundabout.

The AP-6B Alternative would add a north approach to the existing LA 637 (West 10th Street) at US 61 intersection. From this intersection a new two-lane roadway would extend north to a new directional interchange on I-10 between the LA 641 and LA 3188 interchanges. This alternative would provide a new direct route to I-10 for motorists from Reserve and Garyville. The AP-6B interchange with I-10 is expected to be a free flow intersection similar to LA 3188.

Both the P-1 and AP-6B alternatives are expected to include elevated sections due to wetlands impact and the majority will be controlled access. **Figure IV-1** presents the developed lane configurations and intersection control for Alternatives P-1 and AP-6B.

A TSM alternative was developed to provide a low-cost alternative to address the purpose and need. The improvements identified include minor modifications to the existing intersections on the US 61 corridor. Acceleration lanes were considered as low cost improvement that could improve operating conditions in the study area. An acceleration lane allows motorist to accelerate to desired roadway speed without disrupting through traffic. Acceleration lanes also increase the storage volume for left turning at unsignalized intersections resulting in lower delays for the side street. The proposed TSM improvements include: **Figure IV-2** presents the proposed lane configurations with the TSM improvements.

Marathon Avenue (signalized)

- Northbound to eastbound right-turn acceleration lane

Terre Haute Avenue (signalized)

- Northbound to eastbound right-turn acceleration lane

Marathon west access drive (unsignalized)

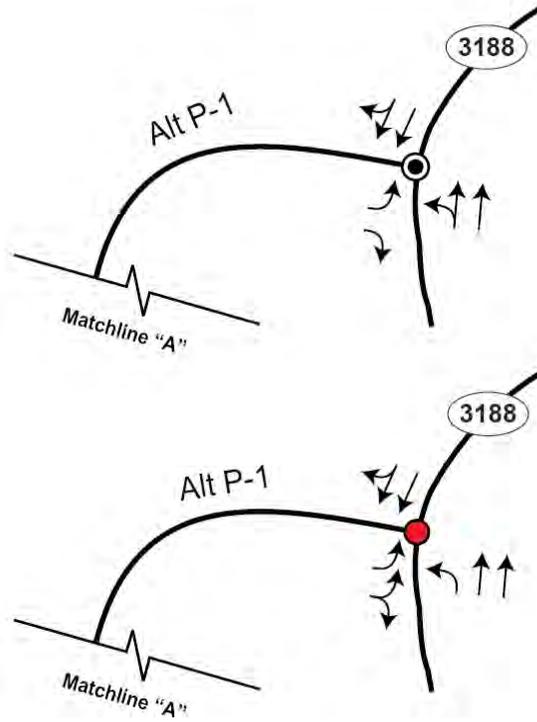
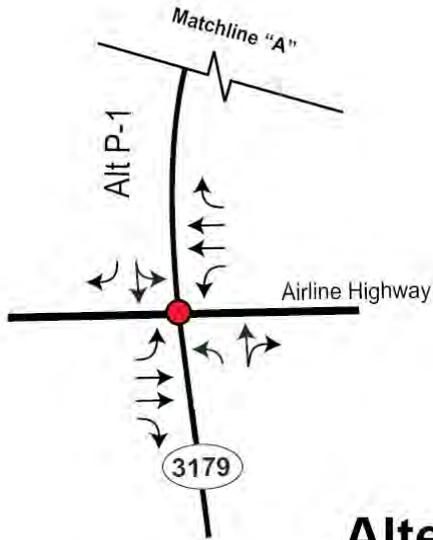
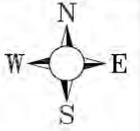
- Northbound to eastbound right-turn acceleration lane
- Northbound to westbound left-turn acceleration lane

West 10th Street (signalized)

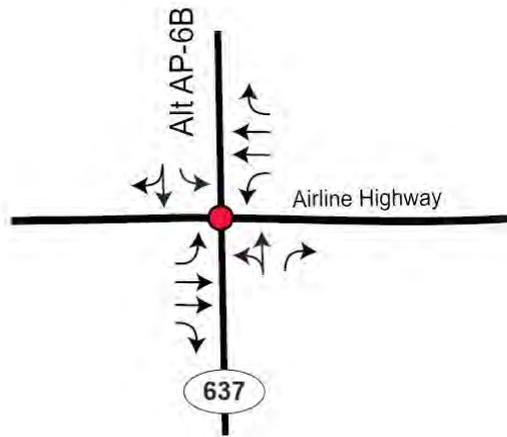
- Northbound to eastbound right-turn acceleration lane

LEGEND:

- Signalized Intersection
- Roundabout
- Proposed Lanes



Alternative P-1



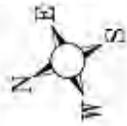
Alternative AP-6B

Figure IV-1
Alternative P-1 and AP6B Lane Configurations

**Proposed Connector Between
Airline Highway (US61)
and Interstate 10
St. John The Baptist Parish, Louisiana**

NOT TO SCALE
FOR PLANNING PURPOSES ONLY





LEGEND:

- Signalized Intersection
- Existing Lanes
- Proposed Turn Lanes
- Proposed Acceleration Lanes

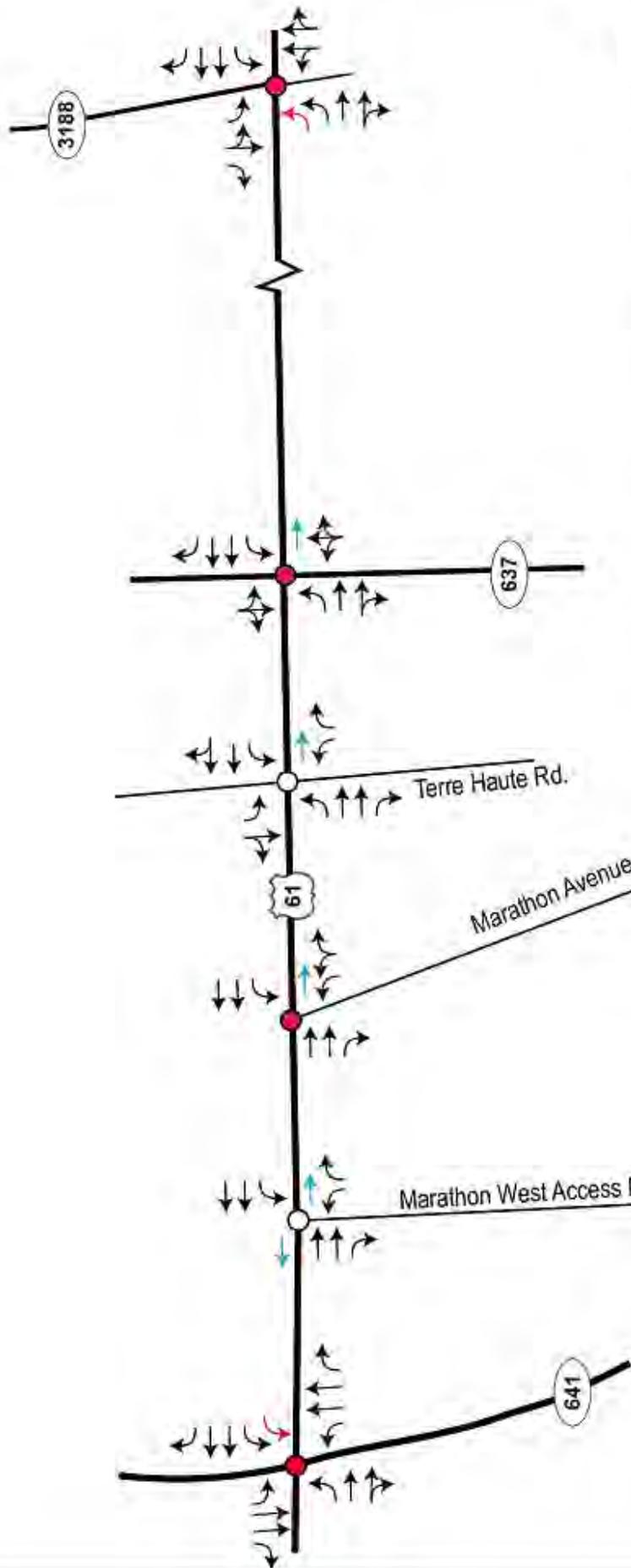


Figure IV-2
Alternative P-1 and AP-6B Lane Configurations

**Proposed Connector Between
Airline Highway (US61)
and Interstate 10
St. John The Baptist Parish, Louisiana**

NOT TO SCALE
FOR PLANNING PURPOSES ONLY

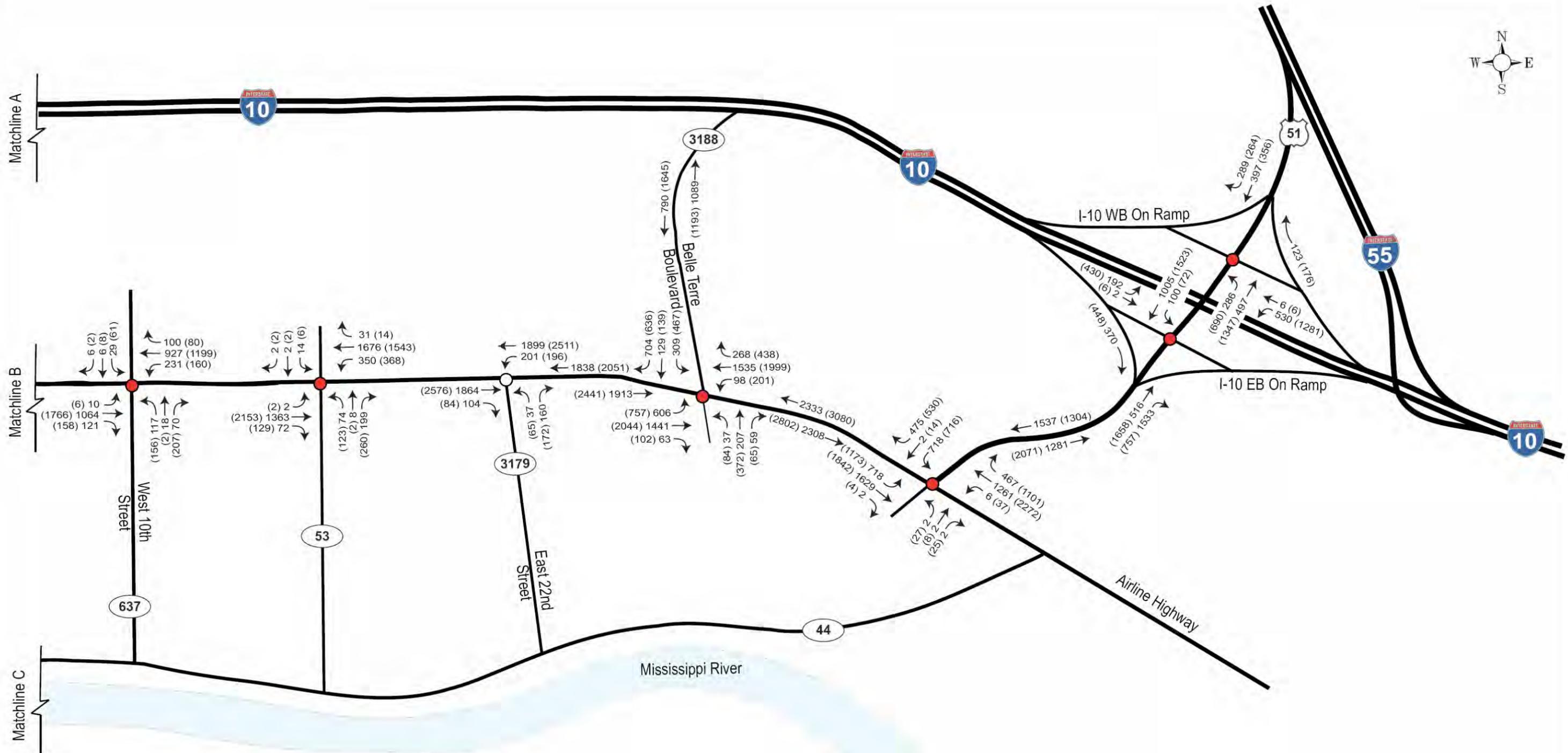
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Traffic Assignment and Forecasting

A projected annual growth rate of 2.5% was calculated based on data provided from the Regional Transportation Model provided by the (Regional Planning Commission) RPC to develop No Build traffic volumes. Base Conditions volumes were grown using this percentage for to calculate the 2038 design year No Build volumes. No Build traffic volumes were re-routed from LA 3188 and US 51 to account for the traffic that would alternatively use Alternatives P-1 and AP-6B. Traffic volumes were not re-distributed from the TSM alternatives as changes in traffic are not expected from these minor intersection improvements.

Projected No Build volumes for 2038 are presented in **Figures IV-3** and **IV-4**. The projected volumes for each of the 2038 Build AP-6B Alternative are presented in **Figures IV-5** and **IV-6**. The projected volumes for each of the 2038 Build P-1 Alternative are presented in **Figures IV-7** and **IV-8**.



LEGEND:

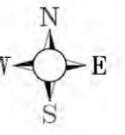
- X AM Peak Hour
- (X) PM Peak Hour
- Signalized Intersection
- Unsignalized Intersection

* Volumes count at each intersection represents the critical peak hour at that intersection.

DRAFT

Figure IV-3
 2038 No Build Volumes
Proposed Connector Between
Airline Highway (US61)
and Interstate 10
St. John The Baptist Parish, Louisiana
 NOT TO SCALE
 FOR PLANNING PURPOSES ONLY





LEGEND:

- X AM Peak Hour
- (X) PM Peak Hour
- Signalized Intersection
- Unsignalized Intersection

* Volumes count at each intersection represents the critical peak hour at that intersection

DRAFT

Figure IV-4
 2038 No Build Volumes
Proposed Connector Between
Airline Highway (US61)
and Interstate 10
St. John The Baptist Parish, Louisiana

NOT TO SCALE
 FOR PLANNING PURPOSES ONLY
 Source: LADOTD Website



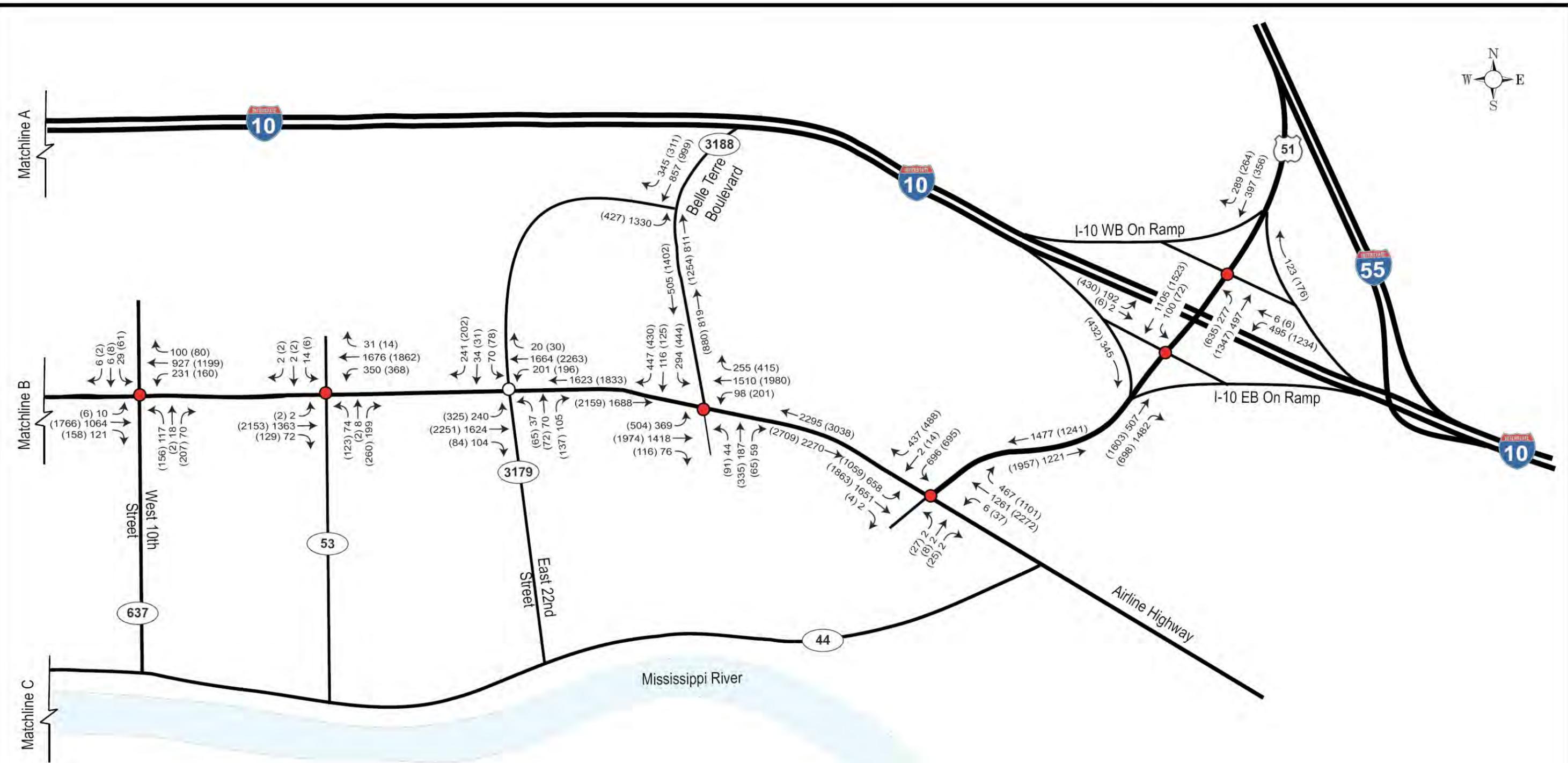


Figure IV-5
2038 P-1 Build Volumes

**Proposed Connector Between
Airline Highway (US61)
and Interstate 10
St. John The Baptist Parish, Louisiana**

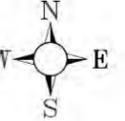
NOT TO SCALE
FOR PLANNING PURPOSES ONLY

LEGEND:	
X	AM Peak Hour
(X)	PM Peak Hour
●	Signalized Intersection
○	Unsignalized Intersection

* Volumes count at each intersection represents the critical peak hour at that intersection

DRAFT





LEGEND:

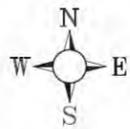
- X AM Peak Hour
- (X) PM Peak Hour
- Signalized Intersection
- Unsignalized Intersection

* Volumes count at each intersection represents the critical peak hour at that intersection

DRAFT

Figure IV-6
 2038 P-1 Build Volumes
Proposed Connector Between
Airline Highway (US61)
and Interstate 10
St. John The Baptist Parish, Louisiana
 NOT TO SCALE
 FOR PLANNING PURPOSES ONLY





LEGEND:

- X AM Peak Hour
- (X) PM Peak Hour
- Signalized Intersection
- Unsignalized Intersection

* Volumes count at each intersection represents the critical peak hour at that intersection

DRAFT

Figure IV-8
2038 AP-6B Volumes

Proposed Connector Between
Airline Highway (US61)
and Interstate 10
St. John The Baptist Parish, Louisiana

NOT TO SCALE
FOR PLANNING PURPOSES ONLY



Design Year Analysis

Projected conditions traffic volumes and roadway characteristics were entered into HCS+ software to determine expected capacity and Levels of Service of the roadway segments for the 2038 No Build and Build scenarios. LA 641 between I-10 and US 61 and US 61 between LA 641 and LA 54 were not analyzed for the alternatives because volumes are not expected to change from the No Build condition. **Table IV-7** presents a comparison summary of the roadway analysis results.

A review of Table IV-7 indicates a significant increase in density on US 61 between LA 3179 and US 51 in the 2038 No Build scenario. Analysis results indicate that US 61 is expected to have more capacity with both Alternative P-1 and AP-6B than with the No Build conditions due to motorists bypassing US 61 with the alternatives.

US 61 at LA 641 and at both Marathon driveways were not analyzed for the alternatives because volumes are not expected to change from the No Build condition. US 61 at Terre Haute was not analyzed because traffic data was not collected at this intersection. The proposed AP-6B interchange at I-10 is a free flow interchange so it was not analyzed. The intersection of P-1 to LA 3188 was analyzed as a signalized intersection and a roundabout. Unsignalized intersection analysis for the TSM improvements included a reduction in the right-turn volume to simulate a right-turn acceleration lane and a higher median storage value to simulate a left-turn acceleration lane. In signalized capacity analysis, a higher right turn on red volume was assumed to simulate a right-turn acceleration lane.

Projected conditions traffic volumes, geometry, and traffic control were entered into HCS+ software to determine expected capacity and Levels of Service for the subject intersections. Signal timings were modified as needed to simulate actuated conditions for volume variations. The roundabout was analyzed using Synchro 8.0 software. **Table IV-8** presents a comparison summary of the intersection analysis results.

Analysis results indicate that most of the study intersections are expected to experience failing LOS, some with significantly high delays, with the projected 2038 No Build and Build traffic in both the AM and PM peaks. The traffic demand is expected to exceed the capacity of the existing roadway.

Analysis results also indicate that the proposed TSM improvements are expected to reduce delays. US 61 at LA 3188 is expected to experience failing LOS in both peak periods with or without the TSM improvements. The intersection of US 61 at LA 641, LA 637 and Marathon West Drive are expected the experience failing LOS in the PM with or without the TSM improvements. The proposed TSM improvements for US 61 at Marathon Drive are expected to result in acceptable LOS.

A review of Table IV-8 indicates the study intersections in Alternatives P-1 and AP-6B are expected to also experience failing conditions in both the AM and PM peak periods.

**Table IV-7
Roadway Segments - Level of Service and Capacity Analysis Results**

Intersection Approach	AM Peak						PM Peak									
	2010 Existing		2038 No Build		2038 AP6B		2038 P-1		2010 Existing		2038 No Build		2038 AP6B		2038 P-1	
	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)
LA 641 between I-10 and US 61																
LA 641 Northbound	B	0.1*	C	0.18*						B	0.1*	C	0.22*			
LA 641 Southbound																
US 61 between LA 641 and LA 54																
US 61 Eastbound	A	5.5	B	11.3					A	2.9	A	5.8				
US 61 Westbound	A	3.2	A	6.6					A	9.0	C	18.5				
US 61 between LA 3179 and LA 3488																
US 61 Eastbound	B	11.6	C	23.8	D	26.1	C	21.0	B	14.9	D	30.4	D	34.0	D	26.9
US 61 Westbound	B	11.2	C	22.9	C	25.2	C	20.2	B	12.5	C	25.6	D	30.2	C	22.8
LA 3188 between US 61 and I-10																
LA 3188 Northbound	A	6.6	B	13.6	B	11.8	A	10.2	A	7.3	B	14.9	B	14.4	A	11.0
LA 3188 Southbound	A	4.8	A	9.8	A	8.3	A	6.3	A	10.0	C	20.5	C	20.6	B	17.5
US 61 between LA 3188 and US 61																
US 61 Eastbound	B	14.0	D	28.8	D	28.6	D	28.3	B	17.1	E	35.5	D	34.8	D	34.1
US 61 Westbound	B	14.2	D	29.1	D	28.8	D	28.6	C	18.8	E	39.8	E	39.3	E	39.1
US 51 between US 61 and I-10																
US 51 Northbound	A	7.8	B	16.0	B	15.2	B	15.2	B	12.6	C	25.8	C	24.6	C	24.4
US 51 Southbound	A	9.4	C	19.2	C	18.8	C	18.4	A	7.9	B	16.2	B	15.9	B	15.5

* Two-lane highway segment LOS criteria are based on v/c. Multilane highway segment LOS criteria are based on density (pc/mi/ln).

Table IV-8
Intersections - Level of Service and Capacity Analysis Results

Intersection Approach	AM Peak						PM Peak												
	2010 Existing			2038 No Build			2038 A/P/OB			2038 P-1			2038 A/P/OB			2038 P-1			
	LOS	Delay	LOS	LOS	Delay	LOS	LOS	Delay	LOS	Delay	LOS	LOS	Delay	LOS	Delay	LOS	Delay	LOS	
US 61 at LA 641																			
OVERALL	D	49.2	D	52.3	D	42.6	D	42.5	F	240.6	F	159.7	F	159.7	F	159.7	F	159.7	F
US 61 Eastbound	C	21.0	D	41.8	D	40.7	D	40.1	D	41.3	D	39.6	D	39.6	D	39.6	D	39.6	D
US 61 Westbound	F	86.7	D	52.8	C	34.5	C	34.5	F	289.7	F	174.7	F	174.7	F	174.7	F	174.7	F
US 641 Northbound	D	44.0	E	67.6	D	53.3	D	53.8	F	241.4	F	187.3	F	187.3	F	187.3	F	187.3	F
US 641 Southbound	D	55.5	D	49.9	D	49.3	D	49.8	F	143.9	F	143.8	F	143.8	F	143.8	F	143.8	F
US 61 at Marathon West Access Drive																			
US 61 Westbound	A	9.6	C	15.6	C	15.6	C	9.3	B	14.1	B	14.1	B	14.1	B	14.1	B	14.1	B
Marathon W. Access Dr. Northbound	B	11.6	C	18.6	C	19.5	C	16.2	F	196.5	F	143.9	F	143.9	F	143.9	F	143.9	F
US 61 at Marathon Avenue																			
OVERALL	B	13.2	C	23.1	C	23.1	C	14.4	E	55.2	D	52.7	D	52.7	D	52.7	D	52.7	D
US 61 Eastbound	B	15.3	C	29.4	C	29.4	C	16.9	E	77.7	E	77.7	E	77.7	E	77.7	E	77.7	E
US 61 Westbound	A	9.3	B	13.2	B	13.2	A	6.9	C	23.7	C	23.7	C	23.7	C	23.7	C	23.7	C
Marathon Ave. Northbound	C	20.4	C	25.9	C	25.5	C	29.0	E	72.5	D	54.6	D	54.6	D	54.6	D	54.6	D
US 61 at LA 637																			
OVERALL	B	13.5	D	45.0	D	42.2	D	48.4	D	45.0	C	24.2	F	206.1	F	195.1	F	105.8	F
US 61 Eastbound	B	12.7	D	49.2	D	49.2	D	52.8	D	49.2	C	25.8	F	293.1	F	150.3	F	150.3	F
US 61 Westbound	B	10.6	D	35.5	D	35.5	D	47.7	D	35.5	B	16.3	D	50.9	E	50.9	E	65.5	D
LA 637 Northbound	C	30.7	E	78.2	D	46.1	C	28.2	E	78.2	D	39.4	F	244.5	F	104.4	E	67.0	F
LA 637 Southbound	C	24.2	C	24.4	C	24.2	C	48.1	D	24.4	C	29.2	D	48.5	D	44.6	D	70.8	D
US 61 at LA 53																			
OVERALL	B	15.6	E	68.3	E	68.3	E	78.5	E	68.3	C	22.2	F	122.5	F	156.7	F	105.8	F
US 61 Eastbound	B	14.8	C	25.8	C	25.8	C	28.6	C	25.8	C	25.8	F	190.5	F	190.5	F	126.3	F
US 61 Westbound	B	15.4	F	98.1	F	112.4	F	98.1	F	112.4	F	113.3	F	106.5	F	106.5	F	108.4	F
LA 53 Northbound	B	18.5	D	45.0	D	45.0	D	78.2	D	45.0	B	19.5	F	146.1	F	198.4	F	146.1	F
LA 53 Southbound	C	24.6	F	106.1	F	106.1	F	183.9	F	106.1	C	24.1	E	69.3	E	69.5	E	69.3	E
US 61 at LA 3179																			
OVERALL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
US 61 Eastbound	B	11.7	F	85.9	F	85.9	F	59.6	D	41.2	B	15.0	F	471.0	F	302.2	F	111.3	F
US 61 Westbound	B	14.3	F	389.6	F	389.6	F	255.8	E	57.4	C	21.1	F	180.4	F	118.7	E	65.2	E
LA 3179 Northbound	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LA 3179 Southbound	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
US 61 at LA 3188																			
OVERALL	D	44.1	F	234.6	F	194.6	F	275.0	F	192.0	E	63.5	F	338.1	F	309.4	F	388.2	F
US 61 Eastbound	D	47.1	F	251.2	F	178.7	F	283.7	F	179.9	E	71.7	F	405.3	F	363.6	F	439.7	F
US 61 Westbound	C	32.8	F	213.0	F	194.8	F	203.2	F	205.2	D	42.9	F	208.4	F	247.0	F	280.9	F
LA 3188 Northbound	D	51.6	F	259.8	F	200.5	F	237.9	F	231.0	E	60.9	F	466.7	F	361.2	F	466.7	F
LA 3188 Southbound	E	57.7	F	235.5	F	223.6	F	233.9	F	169.6	F	90.9	F	418.5	F	305.0	F	491.8	F
P-1 at LA 3188 (Signalized Intersection)																			
OVERALL																			
P-1 Eastbound																			
LA 3188 Northbound																			
LA 3188 Southbound																			
P-1 at LA 3188 (Roundabout)																			
OVERALL																			
P-1 Eastbound																			
LA 3188 Northbound																			
LA 3188 Southbound																			
US 61 at US 51																			
OVERALL	D	51.2	F	168.0	F	168.0	F	159.6	F	160.8	F	85.9	F	353.6	F	338.2	F	338.2	F
US 61 Eastbound	C	31.2	F	169.5	F	158.3	F	156.1	F	158.3	F	77.0	F	337.5	F	295.9	F	301.8	F
US 61 Westbound	C	25.8	F	161.4	F	165.3	F	165.3	F	161.4	D	54.0	F	349.7	F	349.7	F	349.7	F
US 51 Northbound	E	56.6	E	71.2	E	71.2	E	71.2	E	71.2	E	64.4	F	115.1	F	115.1	F	115.1	F
US 51 Southbound	F	131.3	F	175.9	F	175.9	F	201.3	F	165.9	F	188.5	F	359.0	F	397.9	F	397.9	F
US 51 at I-10 WB Off Ramp																			
OVERALL	B	14.2	C	22.2	C	21.4	C	20.6	C	21.4	B	18.5	F	108.3	F	105.1	F	105.1	F
I-10 Westbound	C	20.3	C	23.8	C	23.8	C	15.1	C	21.1	C	21.1	F	95.3	F	92.2	F	92.2	F
US 51 Northbound	A	7.1	B	19.4	B	19.4	B	20.8	B	19.0	B	15.6	F	118.0	F	112.9	F	112.9	F
US 51 Southbound	B	17.4	C	24.2	C	24.2	C	26.0	C	24.2	C	23.3	F	104.0	F	108.2	F	108.2	F
US 51 at I-10 EB Off Ramp																			
OVERALL	B	17.9	F	110.9	F	110.9	F	98.5	F	97.3	B	19.7	E	70.6	E	66.5	E	66.5	E
I-10 Eastbound	C	34.5	E	68.2	E	68.2	E	80.6	F	56.8	C	23.2	F	94.9	F	94.8	F	94.8	F
LA 964 Northbound	C	21.6	F	193.7	F	193.7	F	165.7	F	172.2	C	25.5	F	97.0	F	89.6	F	89.6	F
LA 964 Southbound	A	4.5	A	7.3	A	6.8	A	6.8	A	7.7	A	9.7	C	20.3	C	19.9	C	19.9	C

The intersection of P-1 at LA 3188 is expected to operate acceptably as a signalized intersection or a roundabout. The intersection of P-1/ LA 3179 at US 61 is expected to operate with failing LOS in the PM peak; however, the intersection is expected to operate better as a signalized intersection than as an unsignalized intersection. Analysis results indicate that the intersection of AP-6B/ LA 637 at US 61 is expected to operate with failing LOS in the PM peak; however, the delays expected are significantly lower than the No Build and P-1 scenarios. Alternatives P-1 and AP-6B are expected to result in decreases in delay on US 61 from the No Build condition. US 61 is expected to operate poorly in general in the 2038 design year for all scenarios.

Emergency response time is expected to increase in the 2038 design year with or without Alternatives P-1 and AP-6B as high delays are expected at most intersections along US 61. Alternative AP-6B would provide a more direct access route for emergency response to I-10 which could decrease response time depending on incident location. Both alternatives allow emergency responders to by-pass sections of US 61 which could increase response time.

Safety

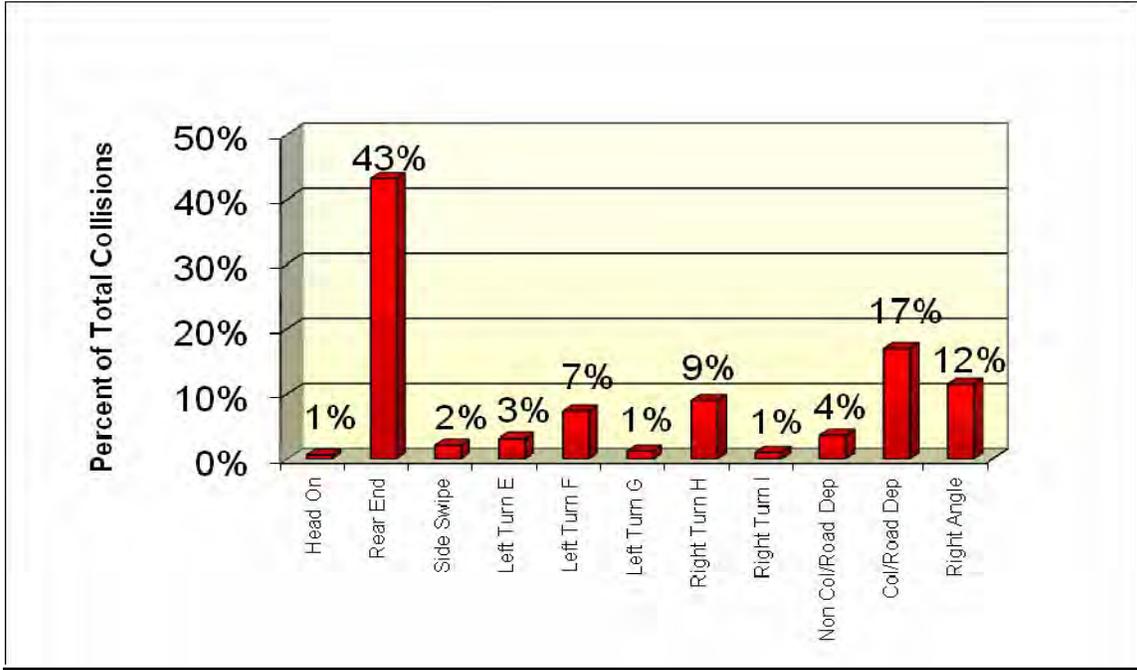
Existing Collision Data

Collision data for the US 61 corridor and the following intersections and roadway segments were provided by LADOTD from 2006 to 2009:

- US 61 at US 51
- US 61 at LA 3188
- US 61 at LA 637
- US 61 at LA 641
- LA 641 from I-10 to LA 44
- LA 3188 from US 61 to I-10
- US 51 from US 61 to I-10
- US 61 from LA 641 to US 51

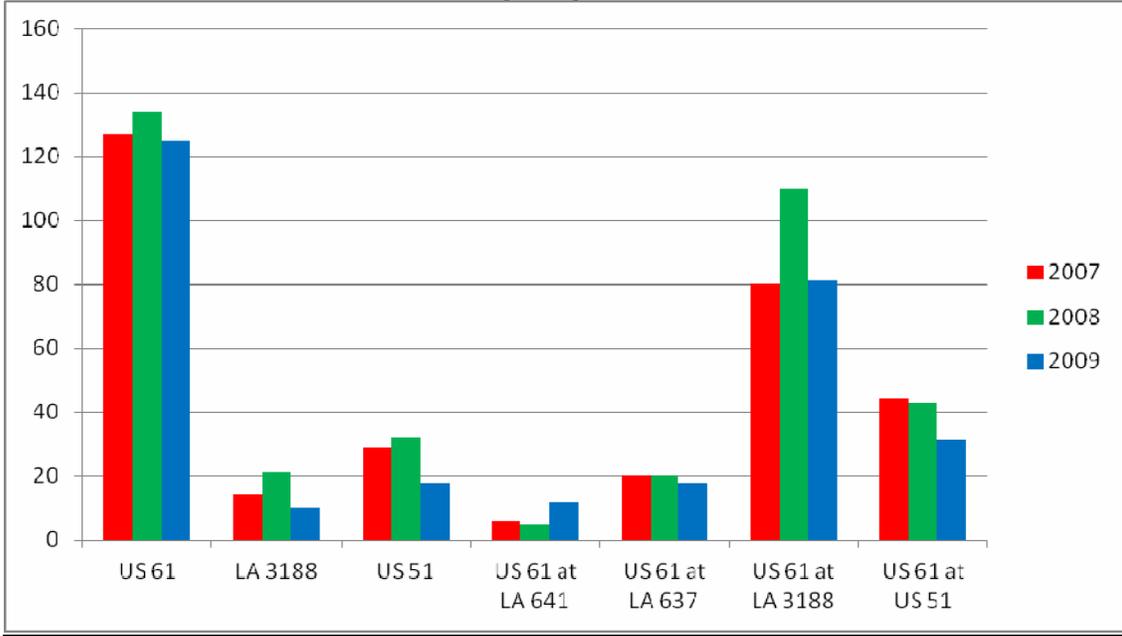
The collision data reviewed to determine the type of collision for all provided locations. Figure IV-9, on the following page, presents the graphical percentages of the different types of crashes.

**Figure IV-9
Distribution of Collision Type**



A graphical representation of number of crashes for each year is presented in Figure IV-10 for each intersection and roadway segment.

**Figure IV-10
Total yearly Crashes**



Safety in the Projected Conditions

The majority of Alternatives P-1 and AP-6B would be elevated roadway sections due to the wetland areas. The elevated sections of both alternatives will be controlled access. Traffic utilizing Alternatives P-1 or AP-6B would be bypassing a portion of US 61, travelling on a controlled access roadway in lieu of a roadway with numerous intersections, driveways and traffic signals. The conflict points these motorists would encounter would be greatly reduced. Alternatives P-1 and AP-6B; therefore, would provide a higher safety benefit compared to the TSM improvements and No Build condition.

Truck Traffic

Based on engineering judgment, surveys of truck data, and commercial land use, the majority of trucks in the port area are expected to utilize I-10. Alternative AP-6B would provide a direct route for truck to access I-10 resulting in fewer trucks utilizing the heavily congested areas on US 61. Alternative P-1 is also expected to have trucks bypass a portion of US 61.

Conclusions

Roadway analysis results indicated:

- A significant increase in density (passenger car per lane per mile) on US 61 between LA 3179 and US 51 in the 2038 No Build scenario.
- US 61 is expected to have more capacity with both Alternative P-1 and AP-6B than with the No Build or TSM conditions.

Intersection analysis results indicated:

- Most of study intersections are expected to experience failing LOS with the projected 2038 No Build conditions.
- TSM improvements are expected to overall reduce delays at the improvement intersections.
- The intersections on US 61 at LA 641, at LA 637 and at Marathon West Drive are expected the experience failing LOS in the PM with or without the TSM improvements.
- US 61 at LA 3188 is expected to experience failing LOS in both peak periods with or without the TSM improvements.
- US 61 at Marathon Drive is expected to operate acceptably with the TSM improvements.
- The study intersections in Alternatives P-1 and AP-6B are also expected to experience failing conditions in both the AM and PM peak periods.

- The intersection of P-1/ LA 3179 at US 61 and AP-6B/ LA 637 at US 61 is expected to operate with failing LOS in the PM peak
- Alternatives P-1 and AP-6B are expected to result in decreases in delay on US 61 from the No Build condition.
- US 61 is expected to operate poorly in the 2038 design year in all scenarios.

The following conclusions were made regarding the project purpose and need:

Emergency response time is expected to increase in the 2038 design year with or without the alternatives due to high delays at most intersections along US 61. Both Alternatives P-1 and AP-6B would allow emergency responders to by-pass sections of US 61 which could decrease response time. Alternative AP-6B would provide a more direct access route for emergency response to I-10.

Alternatives P-1 and AP-6B would provide more of a safety benefit compared to the TSM improvements and No Build condition due to controlled access on the elevated sections of the alternatives.

Both Alternatives P-1 and AP-6B are expected to provide more efficient truck access to I-10 compared to the No Build condition or TSM improvements. Alternative AP-6B is expected to provide the more efficient route for truck traffic than Alternative P-1 due to a direct connection to I-10.

POTENTIAL RAIL AND TRANSIT IMPACTS

No Build Alternative

No adverse or positive impacts are anticipated in the No Build Alternative.

TSM Alternative

No adverse or positive impacts are anticipated in the TSM Alternative.

Build Alternatives (Both AP-6B and P-1)

No rail or transit lines are present in either corridor. Consequently, none of the build alternatives will have a detrimental impact on these services.

POTENTIAL IMPACTS TO BICYCLE AND PEDESTRIAN FACILITIES

No Build Alternative

No adverse or positive impacts are anticipated in the No Build Alternative.

TSM Alternative

No adverse or positive impacts are anticipated in the TSM Alternative.

Build Alternatives (Both AP-6B and P-1)

The build alternatives will have no adverse or positive impacts on bicycle and pedestrian access.

In July of 2010, the Louisiana Department of Transportation and Development enacted a *Complete Streets Policy*. In short, the Complete Streets Policy addresses the needs of pedestrians and bicyclists, and calls for the LADOTD to consider and include (where appropriate) sidewalks and bicycle accommodations along new and reconstruction roadway projects.

As the build alternatives are access roads linking US 61 to I-10 (which does not allow bicycle or pedestrian usage) and for the most part are no-access elevated roadways, no specific facilities are shown or are included in cost estimates.

IMPACTS ON THE HUMAN ENVIRONMENT

ECONOMIC IMPACTS

As part of the EIS process, an economic impact study, Economic Impact Analysis: Proposed Connector between US 61 and I-10 in St. John the Baptist Parish, LA was completed by the Economic Research Group, Inc. and is included under separate cover. The findings and analysis are summarized herein. The economic impact study focused on changes in jobs and business activity in St. John the Baptist Parish and surrounding counties as a result of the project's construction phase and the on-going travel user benefits. The study assessed benefits from travel time and/or vehicle operating cost savings for local and regional commuters and for truck traffic, as well as the broader impacts of these travel benefits on the regional economy. In addition, the potential impact of changes in traffic volumes on local businesses in the project area was assessed.

Study Region

The economic analysis for this project was performed on a combined study region that includes four parishes:

Study Region	Included Counties	Relevant Population/Employment Centers
Project area	St. John the Baptist Parish	Garyville, Reserve, Laplace
Points east	Orleans Parish and Tangipahoa Parish	New Orleans, Hammond
Points west	East Baton Rouge Parish	Baton Rouge

Population and Employment

According to U.S. Census Bureau's Longitudinal Employer-Household Dynamics (LEHD) dataset,¹ Reserve, Garyville, and Laplace together account for 99% of the employment and 93% of the working population of St. John the Baptist Parish. Thus, the county-level is an appropriate scale of analysis. **Table IV-9** demonstrates the relatively high degree of commuting exchange between St. John the Baptist Parish and elsewhere. 69% of the jobs in the Parish are filled by residents of other areas and 77% of resident workers are employed outside of the Parish. **Table IV-10** presents data from the U.S. Census and American Community Survey (ACS). The ACS estimates for population in the labor force are slightly higher than those for working population living in the area from the LEHD because LEHD leaves out government, military, the self-employed, and agricultural workers.

Due to the high degree of outward commuting and the significance of local truck traffic, improved transportation routes into and out of the Parish will have both local and regional impacts. This analysis is performed at the regional scale, encompassing four counties.

Because of proximity to the Port of South Louisiana, many of the jobs in the project area are of an industrial nature (**Table IV-11** and **Table IV-12**). Providing better truck routes to and from the port and related industries is one of the objectives of the project. A branch of the South Louisiana Technical College, the pre-K through high school Riverside Academy, East St. John High School and East St. John Elementary School are all located in Reserve, accounting for the large share of educational services jobs in the area.

¹ <http://onthemap.ces.census.gov/>

Table IV-9 Working Population in 2011 (Source: LEHD 2011 OnTheMap)

Location	Employed in the Area	Living in the Area ²	Employed in the area but live outside	Living in the area but work outside	Live and work in the area
St. John the Baptist Parish	14,315	20,198	9,759	15,642	4,556
Reserve	4,325	4,310	3,879	3,864	446
Garyville	1,941	1,153	1,867	1,079	74
Laplace	7,872	13,326	6,100	11,554	1,772

Table IV-10 Total Population and Population in Labor Force (Source: U.S. Census Bureau)

Location	Total population ³	Population in labor force ⁴
St. John the Baptist Parish	45,924	23,409
Reserve	9,766	4,264
Garyville	2,811	1,332
Laplace	29,872	16,407

Table IV-11 Top Industry Sectors for Employment in St. John the Baptist Parish, 2011 (Source: LEHD OnTheMap)

NAICS Industry Sector	Count	Share
Manufacturing	2,404	16.80%
Retail Trade	1,668	11.70%
Health Care and Social Assistance	1,346	9.40%
Educational Services	1,128	7.90%
Transportation and Warehousing	1,062	7.40%
Accommodation and Food Services	1,059	7.40%

Table IV-12 Top Industry Sectors for Employment in Reserve, 2011 (Source: LEHD OnTheMap)

NAICS Industry Sector	Count	Share
Educational Services	1,085	25.10%
Transportation and Warehousing	661	15.30%
Manufacturing	618	14.30%
Mining, Quarrying, and Oil and Gas Extraction	516	11.90%
Wholesale Trade	295	6.80%

² Note: The numbers in Table IV-12 are slightly lower than those in Table IV-11 because LEHD data does not include government, military, the self-employed, and agricultural workers.

³ 2010 Census

⁴ 2007-2011 American Community Survey

Changes in Traffic Levels and Circulation Patterns

Forecasts of future changes of traffic patterns under the alternative scenarios were prepared by the Regional Planning Commission for Jefferson, Orleans, Plaquemines, St. Bernard and St. Tammany Parishes.⁵ These demonstrate a rerouting from Belle Terre (LA 3188) onto the new connector and a related increase in traffic along US-61, as traffic is directed towards the new route (P1 and AP-6B). Additionally, intersection delay estimates and predictions demonstrate that a significant amount of the travel time savings of this project will be derived by travelers avoiding intersection delays along the most congested portions of US-61 and Belle Terre, in Laplace. In general, much of the travel time savings will accrue to outbound commuters headed for points east or points west. Travel time savings will also accrue to the significant truck portion of affected traffic that will gain an easier access route to and from the Port of South Louisiana. Some of these freight flows will shift during the off-peak from both LA 641 to the west and Belle Terre to the east to the new connector. Finally, traffic counts provide a means of scaling model results to the actual observed levels of traffic in the study region.

The projections of future traffic patterns, predictions of intersection delay saving, and available volume counts were combined to produce inputs for the following assessments. **Table IV-13** summarizes the percent changes in annual vehicle miles traveled and vehicle hours for each alternative relative to the base. Note that in the peak period, both alternatives result in a savings of time, but an increase in distance traveled. Travelers are choosing to reroute to longer routes in order to avoid significant intersection delays caused by congestion. Trucks represent 12% of the affected traffic.

Table IV-13 - Change in annual VMT and VHT for Alternatives P-1 and AP-6B, relative to base

Change from base	Alternative P-1 (2038)	Alternative AP-6B (2038)
Annual vehicle miles – Peak period	13%	2%
Annual vehicle miles – Off-peak period	-2%	-12%
Annual vehicle hours – Peak period	-8%	-5%
Annual vehicle hours – Off-peak period	-3%	-10%

User Benefits and Economic Impacts from Travel Time and Cost Savings

Savings of travel time and cost translate into user benefits for local and regional commuters and truck traffic as well as into broader economic impacts of these travel benefits for the regional economy. The monetized values in **Table IV-14** use conversion factors published by the U.S. Department of Transportation to translate savings in vehicle miles and vehicle hours traveled into both real savings in money (vehicle operating costs) and valuations of personal time, as well as impacts on safety and the environment. These are annual totals for the year 2038. Savings will increase from project implementation in 2020 to the analysis year of 2038 as traffic increases (2.5% annually).

⁵ <http://www.norpc.org/>

Table IV-16 compares project construction and operating costs to benefits to derive benefit-cost ratios. Project costs are presented in **Table IV-15**. To compare costs and benefits that occur in different future years, all future costs and benefits are converted to a present value in 2013 constant dollars. The ratio of these present values produces the benefit/cost ratios presented in **Table IV-16**. Note: the Full User Benefit category includes savings accrued to shippers in addition to the benefits to travelers included in the Traveler Benefit category.

Wider regional-level economic impact can also occur as a result of changes in travel patterns that affect the ability of the region (relative to elsewhere in the US) to attract, expand and/or retain businesses and workers. This is captured in **Table IV-17**.

Table IV-14 Total Annual Value of Travel Impacts in 2038

Travel Impact Category	Alternative P-1 (2038)	Alternative AP-6B (2038)
Passenger Car Time Savings	\$78,789,394	\$54,798,352
Truck Time Savings	\$17,310,636	\$12,039,629
Freight Cost - Net Total	\$17,859,364	\$12,421,272
Veh Oper Cost - Net Total	-\$11,455,565	\$18,064,009
Safety Cost - Net Total	-\$2,753,288	\$4,341,595
Environmental Cost - Net Total	-\$676,328	\$1,066,486
Total Value of Travel Impacts:	\$99,074,213	\$102,731,343

Table IV-15 Project Alternative Construction and Operating Costs

	Alternative P-1	Alternative AP-6B
Total Construction Cost	\$75 M	\$77 M
Annual Operation & Maintenance Costs	\$0.05 M	\$0.17 M

Table IV-16 Benefit/Cost and Impact/Cost Ratios

	Alternative P-1	Alternative AP-6B
Efficiency Measures for Travel Impacts (Benefit/Cost Ratio)		
Traveler Benefit	10.7	10.9
Full User Benefit	13.0	12.4
Wider Measures (Impact/Cost Ratio)		
Add'l Gross Regional Product	3.9	3.1

Table IV-17 Total Economic Impacts in 2038

Travel Impact Category	Alternative P-1 (2038)	Alternative AP-6B (2038)
Business Output (\$ mil.)	56.39	50.94
Value Added (\$ mil.)	30.13	25.33
Jobs	489	459
Wage Income (\$ mil.)	22.85	20.99

Impact of Alternative P-1

The net benefits to users of alternative P-1 are positive (\$99M in year 2038). An increase in vehicle-miles traveled in peak does increase vehicle operating costs. However, this is outweighed by the travel time savings that occurs from avoiding congested intersections. Relative to construction and operating costs, the value of total traveler benefits is 10.7 times greater than costs for alternative P-1.

The additional Gross Regional Product calculated for alternative P-1 is approximately four times greater than the cost of the project. Up to 489 jobs may be added to the regional economy by 2038 as a result of the project.

Impact of Alternative AP-6B

Alternative AP-6B provides net user benefits in the form of both saved vehicle operating costs and saved time (for a total of \$103M in year 2038). The increase in miles traveled during the peak period is offset by a more significant distance savings in the off-peak period. Relative to construction and operating costs, the value of traveler benefits is 10.9 times greater than costs for alternative AP-6B, a slightly higher ratio than that for P-1.

The additional Gross Regional Product calculated for alternative AP-6B is approximately three times the cost of the project (lower than for P-1). Up to 459 jobs may be added to the regional economy by 2038 as a result of the project.

Both projects have a high benefit/cost ratio from so much delay avoidance. Differences between the two alternatives are negligible.

Effects on local business and employment

Neither Alternative P-1 nor AP-6B will require business relocations. Therefore, there are no expected job losses from business displacement or tax base effects from right-of-way acquisition.

Diversion of traffic from Belle Terre (LA 3188) to the new connector will change the volumes of pass-by traffic for businesses located in Reserve along US 61 and along Belle Terre Blvd (LA 3188) in Laplace. Because these flows are reallocated within the same Parish, they are most likely to represent shifts of business activity, rather than an overall loss to the region.

To determine the level of impact on local businesses, the businesses in these corridors were categorized according to their dependence on pass-by traffic for their customer base. For example, businesses such as gasoline/service stations or fast food restaurant are highly dependent on pass-by traffic as they depend on impulse decisions made by drivers. Other businesses such as automobile repair shops primarily serve a local customer base

and would therefore be unaffected by diverted traffic. Full-service restaurants with a primarily local customer base were included in the pass-by dependent category for which impacts were calculated, but the percentage of business from pass-by traffic was assumed to be small.

Businesses on US 61 between LA 3188 and 641

According to **Table IV-18**, of the 47 establishments surveyed on US 61, 11 were judged to be to some extent dependent on pass-by traffic. Industrial is the single largest use category along this stretch of US 61. Industrial businesses are unlikely to be affected by changes in traffic volumes. Similarly, local, office-based, and regional businesses are not dependent for customers on pass-by traffic and therefore unlikely to be affected by a traffic volume change on US 61.

Table IV-18 Classification of Businesses on US 61 by Importance of Pass-by Traffic

Classification	Number of Establishments	Description
Pass-by/Highway Dependent	11	Dependent on pass-by traffic for customers (e.g. fast food, gas stations, and a small percentage of full service restaurant business)
Industrial	13	Clustered industrial uses that do not depend on pass-by traffic
Regional	9	Require straightforward highway access but do not depend on pass-by traffic for sales
Local	6	Businesses with a local customer base; do not depend on pass-by traffic for most of their sales
Office-Based	4	Destination businesses, not dependent on pass-by traffic
Other	4	e.g. Army National Guard, St. John Airport

Businesses on LA 3188 (Belle Terre Blvd) between US 61 and I-10

Of the 28 retail businesses surveyed along Belle Terre Blvd, 15 were determined to be to some degree dependent on pass-by traffic. These include 1 gas station and 14 food establishments, including a range of full service, fast food, and specialty establishments.

Employment Subject to Change for Pass-by Dependent Businesses

The U.S. Census Zip Code Business Patterns (ZBP)⁶ database reports average number of employees for each type of pass-by dependent business in the study area, by zip code. Additionally, the U.S. Census County Business Patterns (CBP)⁷ database provides

⁶ <http://www.census.gov/econ/cbp/index.html>

⁷ <http://www.census.gov/econ/cbp/index.html>

information on average annual payroll per employee in St. John the Baptist Parish for each type of business under analysis.

The majority of the US 61 section under analysis is located in Reserve; according to ZBP the average number of employees per restaurant in Reserve is considerably lower than that in Laplace, where the relevant section of Belle Terre is located. At the same time, there are more full-service and specialty food establishments along Belle Terre. In comparison to fast food or gas stations, these businesses have a larger local customer base and are therefore less sensitive to changes in pass-by traffic.

Table IV-19 Affected Businesses and Estimated Employment

Affected Business Type	Number of Establishments	Estimated total number of employees	Description
US 61 between LA 3188 and 641:			
Gas station	7	31	Includes gas station only, gas station/convenience store, and truck stop/casino
Food Establishment	4	28	Includes full service, fast food, and specialty (i.e. coffee/ice cream)
Belle Terre Blvd (LA 3188) between US 61 and I-10			
Gas station	1	7	Includes gas station only, gas station/convenience store, and truck stop/casino
Food Establishment	14	240	Includes full service, fast food, and specialty (i.e. coffee/ice cream)

Based on the projected percent change in volumes along US 61 and Belle Terre (Table IV-20), and on assumed proportions of business dependent on pass-by volumes, an estimate of the number of jobs and annual payroll subject to change from the project is provided in **Table IV-21**. It is not certain that these jobs will be lost. This is a calculation of jobs and payroll *subject to change* along these two corridors due to volume shifts caused by the project alternatives. Moreover, any losses in revenue for specific gas or food establishments are likely to be offset by gains elsewhere in the Parish.

Table IV-20 Change in AM Peak Hour Traffic Relative to 2038 No-Build (Source: RPA Traffic Model Output)

Corridor	Alternative P-1 (2038)	Alternative AP-6B (2038)
US 61 (Airline) between E. 22nd Street (LA 3179) and Belle Terre Blvd. (LA 3188)	9%	15%
Belle Terre Blvd. (LA 3188) between US 61 (Airline) and I-10	-26%	-28%

**Table IV-21 Jobs and Annual Payroll Subject to Change
Because of Changes in Pass-by Traffic**

Corridor	Alternative P-1 (2038)		Alternative AP-6B (2038)	
	Jobs	Payroll (thousands)	Jobs	Payroll (thousands)
US 61 between LA 3188 and 641	+ 4 to 5	+ \$58 to \$72	+ 7 to 8	+ \$102 to \$116
Belle Terre Blvd (LA 3188) between US 61 and I-10	- 33 to 36	- \$415 to \$448	- 36 to 38	+ \$448 to \$481

Both alternatives are projected to cause a shift of traffic volumes from Belle Terre Blvd. to US-61. Belle Terre is subject to a loss of revenue from pass-by traffic, while US 61 stands to gain from the shifts in volume (**Table IV-21**). There is no potential for business relocations to parcels along the connector as it is built on a raised bridge structure through wetlands with no access.

Conclusion

Although a few jobs may be displaced because of redirected traffic, these jobs will not be lost to the region as the reallocation of traffic flows (and therefore of pass-by demand) occurs entirely within the study region. Moreover, the potential to create new jobs in the region as a result of changes in travel patterns and increased efficiency of the economy is on the order of 450-500 jobs, a much greater increment than the jobs subject to change due to localized changes in pass-by traffic.

DISPLACEMENTS/RELOCATIONS

Legal Requirements

Various federal statutes have been enacted to establish a uniform policy for the fair and equitable treatment of persons displaced, and from whom land is acquired as a result of programs designed and funded for the benefit of the public as a whole. Some of the applicable laws that guide government actions for acquisitions, displacements and relocations are:

- 49 CFR Part 24, Department of Transportation implementing regulations for: “The Uniform Relocation Assistance and Real Property Acquisitions Policies Act of 1970,” as amended.
- National Environmental Policy Act of 1969 (NEPA)

These laws provide for a process that is fair and require practical and financial assistance in helping individuals and businesses transition into a comparable situation. Any private property acquisition required for this project would be in compliance with the identified laws and statutes.

For housing units, these laws require that replacement housing must be “decent, safe and sanitary” and must be functionally equivalent to the number of rooms, living space, location, and general improvements of the displaced units. Replacement dwellings must also meet all of the minimum housing requirements established by federal regulations and conform to occupancy codes.

Relocation benefits may also be available for businesses, farms, and non-profit organizations. Payment may be made for:

- Moving costs
- Tangible personal property loss as a result of relocation or discontinuance of an operation
- Re-establishment expenses
- Costs incurred in identifying a replacement site

Businesses, farms or non-profit organizations may be eligible for fixed payments in lieu of moving and reestablishment costs.

No Build Alternative

Under the No Build alternative, existing conditions would be maintained. The No Build Alternative would not require any displacements or relocations and, thus, would not result in any direct or indirect impact(s) to the study area. In addition, no property acquisitions would be required with the No Build Alternative.

TSM Alternative

Under the TSM alternative, existing conditions would be maintained. The TSM Alternative would not require any displacements or relocations and, thus, would not result in any direct or indirect impact(s) to the study area. In addition, all TSM improvements would take place within existing rights-of-way, and no land acquisition would be required with the No Build Alternative.

Build Alternative AP-6B

Alternative AP-6b would require the acquisition of 41.62 acres of right-of-way, 34.8 of which is wooded wetland, and 6.82 of which is vacant yet developable land. No residential or commercial relocations are required under Alternative AP-6B.

Build Alternative P-1

Alternative P-1 would require the acquisition of 32.59 acres of right-of-way, 28.2 of which is wooded wetland, and 4.39 of which is vacant yet developable land. No residential or commercial relocations are required under Alternative P-1.

ENVIRONMENTAL JUSTICE

Background⁸

Environmental justice was originally established in 1994 by Executive Order 12898, which required federal agencies to achieve environmental justice to the greatest extent practicable by identifying and addressing disproportionately high and adverse human health or environmental effects of their programs, policies and activities on minority and low income populations in the United States.

In 2012, the United States Department of Transportation (DOT) and the Federal Highway Administration (FHWA) adopted order numbers 5610.2(a) and 6640.23A, respectively, updating and clarifying environmental justice procedures. Environmental justice is required to be incorporated early in the development of the programs, policies or activities to identify the risk of discrimination and disproportionately high and adverse effects on minority and low income populations so that positive corrective action can be taken. Under these orders, analysis of environmental justice issues will consider:

- Examination of environmental, public health and interrelated social and economic effects of programs, policies and activities.
- Mitigation and enhancement measures and potential offsetting benefits to the affected minority and low income populations will be taken into account in determining whether a particular program, policy or activity will have disproportionately high and adverse effects.
- Solicitation of public involvement opportunities including affected minority and low income populations in considering alternatives.
- Consideration of alternatives to proposed programs, policies and activities that would avoid, minimize and/or mitigate disproportionately high and adverse environmental or public health effects and interrelated social and economic effects.
- Programs, policies and activities that are determined to have disproportionately high and adverse effects on minority and low income populations will only be carried out if:

⁸ http://www.fhwa.dot.gov/environment/environmental_justice/ej_at_dot/order_56102a/inde...

1. A substantial need for the program, policy or activity exists based on the overall public interest and
2. Further mitigation measures or alternatives that would avoid or reduce the disproportionately high and adverse effects are not practicable. In determining whether a mitigation measure or alternative is practicable, the social, economic (including costs) and environmental effects of avoiding or mitigating the adverse effects will be taken into account.
3. Alternatives that would have less adverse effects on these populations have severe adverse social, economic, environmental or human health impacts.
4. Alternatives that would have less adverse effects on these populations involve increased costs of an extraordinary magnitude.

Methodology

The methodology employed in this section adheres to the previously noted FHWA policy in analyzing the St. John Connector project in relation to potential disproportionate adverse impact to the minority and low-income population in the study area.

As noted previously in the section on Socio-Economic Data, the project study area contains nine (9) census tracts in St. John the Baptist Parish. The key demographic elements measured are:

- Race
- Housing
- Poverty status

The racial breakdown⁹ is analyzed for the project study area from the following counts:

- White
- African American or Black
- Asian
- American Indian and Alaskan Native
- Native Hawaiian and Other Pacific Islanders
- Hispanic or Latino

Housing studies housing units in the study area with emphasis on vacancy and the level and quality of home ownership:

- Vacancy

⁹ <http://factfinder2census.gov>. DP-1 Profile of General Population and Housing Characteristics 2010 Demographic Profile Data.

- Renters
- Owner occupied
- Median value of owner occupied units

Poverty status utilizes a number of economic factors to identify poverty in the study area:

- Per capita income
- Population living below the poverty level
- Households with public assistance income

Percentages for the key demographic elements are determined for each census tract identified in the study area and compared to Louisiana state levels. Low income status for the project area is also determined at an absolute level, defined as a population whose median household income is at or below the Department of Health and Human Services (DHH) poverty guidelines. Census tracts that exceed state thresholds are shaded in the tables and would be considered for avoidance or minimizing impacts to minority and low income areas early in the planning process of project alternatives.

Findings

Race and Minority Composition

Table IV-22 breaks down the project study area and the State of Louisiana by race. The study area is 47.22% White, 48.38% African American or Black and 0.8% Asian. Hispanics or Latinos (of any race) account for 5.28% of the total population of the project study area.

The table also looks at percentages of the primary racial groups by census tract, which are White, African American or Black and Hispanic or Latino to determine if there are any concentrations of minority groups in the project study area. The analysis indicates that Census Tracts 702, 705, 706 and 709 have a majority (<50%) of African American or Black residents. As a whole, the study area has a significantly higher percentage of African American or Black than does the State (48.38% compared to 32.04%). The percentage of Hispanic or Latino in the study area is slightly higher than the state level (5.28% compared to 4.20%).

Table IV-22 - Population and Race in the Project Study Area

Race	CT 701	CT 702	CT 703	CT 704	CT 705	CT 706	CT 707	CT 709	CT 710	Project Study Area	Louisiana
White	70.65%	19.62%	62.56%	64.19%	30.09%	45.55%	64.88%	34.74%	62.08%	47.22%	62.60%
Black or African American	22.94%	75.11%	31.88%	30.31%	66.61%	53.45%	32.41%	61.54%	32.82%	48.38%	32.04%
Asian	0.67%	0.75%	1.17%	2.40%	0.43%	0.00%	0.44%	0.64%	0.14%	0.80%	1.50%
American Indian and Alaska Native	0.22%	0.16%	0.56%	0.37%	0.39%	0.11%	0.32%	0.32%	0.53%	0.34%	0.70%
Native Hawaiian and Other Pacific Islander	0.00%	0.05%	0.10%	0.02%	0.00%	0.00%	0.09%	0.03%	0.21%	0.06%	0.00%
Some Other Race	4.80%	2.17%	2.00%	1.16%	1.16%	0.18%	0.74%	1.06%	2.36%	1.68%	1.50%
Two or More Races	0.71%	2.13%	1.74%	1.55%	1.33%	0.71%	1.13%	1.67%	1.87%	1.52%	1.60%
Hispanic or Latino (of any race)	8.60%	6.30%	6.28%	5.59%	5.39%	0.93%	2.78%	3.24%	6.90%	5.28%	4.20%

Housing

Table IV-23 provides a view of the housing status of the project study area and state. The housing stock in the St. John Connector project study area contains a 7.91% vacancy rate; lower than the state level of 12%. However, two of the census tracts in the project study area, 706 and 710, have renter rates higher than those of the state (12.09% and 16.39% respectively)

The overwhelming majority of housing in the study area (79.66%) is owner occupied. A potential indication of poverty is a high level of renters. Renters represent only 20.34% of the occupied housing units in the project study area, a lower rate when compared to the 32.8% level of renters for the state. However, two of the census tracts in the project study area, 709 and 710, have renter rates higher than those of the state (37% and 33.06% respectively)

Table IV-23 - Housing in the Project Study Area

	CT 701	CT 702	CT 703	CT 704	CT 705	CT 706	CT 707	CT 709	CT 710	Project Study Area	Louisiana
% Vacant Housing Units	7.64%	5.87%	5.01%	4.53%	6.73%	12.39%	9.47%	9.32%	16.09%	7.91%	12%
% Renter- Occupied Housing Units	14.06%	14.13%	18.47%	16.48%	18.14%	22.11%	22.31%	37.00%	33.06%	20.34%	32.8%
Average Median Value of Owner- Occupied Housing	\$228,100	\$151,900	\$162,800	\$196,700	\$144,700	\$127,700	\$109,600	\$154,600	\$74,100	\$150,022	\$130,000

The average median value of owner occupied housing in the project study area is \$150,022, higher than the state average of \$130,000. However, three of the census tracts in the project study area, 706, 707 and 710, have lower median values than the state (rates higher than those of the state (\$127,000, \$109,600 and \$74,100 respectively)

Poverty Levels

As of the most recent census (2010) the median household income in the project area was \$21,632, which was below the 2010 Department of Health and Human Services Poverty Guidelines of \$22,050 (for a family of four). **Table IV-24** provides a comparison of income and poverty in the study area and state. The average per capita income for the project study area is slightly lower than the state average of \$23,094. Six of the nine census tracts comprising the study area have lower per capita incomes than the state. About 13.67% of the households in the study area were living below the poverty level, slightly lower than the state percentage (14%), although three census tracts (706, 709, and 710) have higher percentages than the state. Census estimates indicate that about 16.7% of the study area receives cash public assistance or food stamps/SNAP, lower than the 17.13% state level of public assistance, but four tracts within the project study area (702, 706, 709, and 710) have higher levels than do the state.

Table IV-24 - Poverty in the Project Study Area

	CT 701	CT 702	CT 703	CT 704	CT 705	CT 706	CT 707	CT 709	CT 710	Project Study Area	Louisiana
Per Capita Income	\$25,158	\$20,351	\$26,028	\$31,005	\$17,666	\$20,145	\$22,002	\$11,518	\$20,816	\$21,632	\$23,094
% households below poverty level	1.7%	8.7%	8.3%	9.9%	15%	28.9%	12.9%	37.00%	19.7%	13.67%	14%
% receiving public assistance	14.16%	17.42%	10.86%	13.97%	16.77%	18.65	16.39	28.28%	20.80	16.7%	17.13%

Conclusions

The indicators show that the project study area is in fact composed of a predominately minority population with a lower income component higher than that of the state. But on the other hand, housing in the area is largely owner-occupied, especially in comparison to state levels, and has a higher median value than that of the state.

Impacts

No Build

The No Build Alternative will have no impact in terms of Environmental Justice.

TSM Alternative

As the TSM Alternative includes no right-of-way acquisition, residential or commercial relocations, there should be no impacts in terms of Environmental Justice.

Build Alternatives

Of the nine (9) census tracts in the study area, only two (2) physically contain the build alternatives (705 and 707). Both build alternatives involve no residential or commercial relocations, and will mostly avoid develop areas. Thus, there should be minimum impact on the human environment in general, including both minority and general populations. Residents both within the project study area and outside of the study area should benefit from the positive impacts of the project including reduced travel time, economic development, and improved hurricane evacuation.

Due to the nature of the project there should be no environmental justice issues associated with the build alternatives. No disproportionately high or adverse effects to the minority population in the project study area were identified with the project.

NEIGHBORHOOD / COMMUNITY COHESION

The developed portions of the project study area consist largely of low-density residential development and some commercial and industrial development, along with assorted public uses. To some degree, neighborhood and community cohesion in these areas can be seen in terms of area-wide cohesion or sense of regional community (such as Reserve, LaPlace, or Garyville). However, with no incorporated cities on the east bank of the Parish, these community boundaries are somewhat fluid and subject to personal interpretation, rather than on a “neighborhood” basis. Within the study area, there are some distinct subdivisions and housing developments (as an example, Belle Terre), each of which has somewhat better specified boundaries and their own sense of neighborhood identity and cohesion.

No Build Alternative

Neighborhood and community cohesion in the project study area will not be adversely impacted by the No Build Alternative.

TSM Alternative

As the improvements in the TSM Alternative only occur in existing rights-of-way and include only minor improvements, neighborhood and community cohesion in the project study area will not be adversely impacted by the TSM Alternative.

Build Alternatives

As neither of the two Build Alternatives are located within or adjacent to any residential areas, they are not anticipated to adversely affect the neighborhood and community cohesion in the study area.

LAND USE AND ZONING

No Build Alternative

The No Build Alternative will not impact the land use and zoning in the project study area.

TSM Alternative

As the improvements in the TSM Alternative only occur in existing rights-of-way and include only minor improvements, land use and zoning in the project study area will not be impacted by the TSM Alternative.

Build Alternatives

Construction of either of the Build Alternatives may have some impact on Land Use in the study area, and to a lesser degree may have limited impact on Zoning in the study area.

Alternative AP-6B

The majority of the alignment for AP-6B is in undeveloped wetlands zoned Agricultural. As AP-6B is designed as an elevated bridge structure with no access as it passes through these areas, it is unlikely that there would be any pressures for development or rezoning of these areas. Compounding any change in land use is that wetland permits from the US Army Corps of Engineers would be needed in these wetland areas.

In the southern-most portion of AP-6B, in the “fastlands” section behind levees that is currently being used as agricultural fields, there may likely be the possibility of that land being developed with residential, commercial or its highest and best use (as some portions in the area are zoned), industrial. However, it should be noted that the all of surrounding parcels are currently publicly owned, either by St. John the Baptist Parish or by the State of Louisiana Community College System¹⁰.

Alternative P-1

The majority of the alignment for P-1 is in undeveloped wetlands. The alignment crosses areas zoned agricultural, low density residential, commercial and a small strip of industrial. According to parcel maps provided by the St. John Parish Assessor’s office, the alignment crosses through a subdivided “paper” subdivision zoned for low-density residential¹¹. As P-1 is designed as an elevated bridge structure with no access as it passes through these areas, it is unlikely that there would be any pressures for development or re-zoning of these areas. Compounding any change in land use is that wetland permits from the US Army Corps of Engineers would be needed in wetland areas.

At either end of P-1, adjacent to its intersections with US 61 and LA 3188, the roadway is not elevated, and there are small non-wetland areas that may be developed. Both of these areas are zoned commercial and as these areas along at-grade roadways are small in size,

¹⁰ St. John the Baptist Parish Assessor’s Office, 2013

¹¹ *Ibid.*

it is likely they may be developed with small-parcel auto-oriented commercial uses (gas stations/convenience stores, fast food restaurants, etc.).

ACCESS TO COMMUNITY FACILITIES & SERVICES

Community facilities and services define a community and further characterize its cohesion and sense of place. A vital factor in the utilization of these facilities and distribution of services is their access.

No Build Alternative

While the No Build alternative is not anticipated to adversely impact access to community facilities and services, conversely it will not contribute to enhancing service levels of the road network or improving through traffic to community facilities and services outside of the study area. The No Build Alternative will not improve access to public facilities and services.

TSM Alternative

The TSM alternative is designed to positively impact access to community facilities and services, but as was described in the traffic analysis section; this will only be a small incremental improvement of through traffic to community facilities and services within and outside of the study area. The No Build Alternative will not improve access to public facilities and services.

Build Alternatives

The development of either of the two Build Alternatives is expected to have a similar positive impact on access to community facilities and services. By improving local and regional access, residents and businesses will be better able to reach necessary facilities and services. Additionally, emergency vehicle access, including fire and police response and emergency medical service to trauma medical facilities at area hospitals, will be enhanced.

The Proposed Action would also provide quicker and safer access to area amenities, such as parks, playgrounds, other recreation facilities and services, and community centers. Those amenities are vital to the quality of life a community needs to sustain itself.

IMPACTS TO PARKS AND RECREATION FACILITIES

No Build Alternative

The No Build Alternative is not anticipated to impact parks and recreation facilities in the Project Study Area.

TSM Alternative

The TSM Alternative is not anticipated to impact parks and recreation facilities in the Project Study Area.

Build Alternatives

Alternative AP-6B

The Alternative AP-6B alignment is in close proximity to the facilities at Regala Park in Reserve. However, none of the existing or planned park facilities would be affected by construction of the Alternative. The Alternative is not anticipated to adversely impact other parks and recreation facilities in the project study corridor and will likely enhance access to parks and recreation facilities in the area.

Alternative P-1

Alternative P-1 will not affect nor is it located near any parks or recreation facilities. The Alternative is not anticipated to adversely impact other parks and recreation facilities in the project study corridor. It will likely enhance access to parks and recreation facilities in the area.

HISTORIC / CULTURAL RESOURCES

No Build Alternative

The No Build Alternative would have no impact on the historic/cultural resources in the project area.

TSM Alternative

As the TSM Alternative would only consist of changes within the existing US 61 right-of-way, it would have no impact on historic/cultural resources.

Alternative AP-6B

An archaeological survey was conducted of the proposed Alternative AP-6B ROW in June 2013. No archaeological sites were recorded. Therefore, the proposed action would have no impact on archaeological sites located within the proposed project ROW for Alternative AP-6B.

A standing structure survey of the project indirect APE was conducted of the proposed Alternative AP-6B in April 2013. No structures built prior to 1968 were recorded. Therefore, the proposed action would have no impact on structures examined within the project indirect APE for Alternative AP-6B.

Alternative P-1

An archaeological survey was conducted of the proposed Alternative P-1 ROW in June 2013. No archaeological sites were recorded. Therefore, the proposed action would have no impact on archaeological sites located within the proposed project ROW for Alternative P-1.

A standing structure survey of the project indirect APE examined one structure constructed before 1968. This property is considered not eligible for listing on the NRHP. Therefore, the proposed action would have no impact on structures examined within the project indirect APE for Alternative P-1.

VISUAL / AESTHETIC IMPACTS

No Build Alternative

Under the No Build Alternative, there will be little if any visual and aesthetic impacts related to the completion of some planned projects and projects under construction.

TSM Alternative

As the TSM Alternative only involves the installation of acceleration lanes on an existing highway, there will be little if any visual and aesthetic impacts.

Build Alternatives

The construction of either of the two Build Alternatives would have a limited visual / aesthetic impact on the project area.

Both alternatives would mostly be elevated and pass through bald cypress-tupelogum swamp. The visual impacts of this new route would vary widely depending on the individual or group and location. This roadway would not visually impact the majority of the population or businesses in the project study area due to the predominant tree coverage within the swamp area. From an aerial viewpoint, a roadway would be a prominent feature in the landscape that could be viewed as either a positive or negative impact. As the undeveloped wetlands surrounding both of the two alignments is public property, only a small percentage of individuals use the swamp/wetlands for recreational purposes (such as hunting leases). As these individuals approach the proposed roadway, the structure will become visible through the trees, which could be viewed as a negative impact. Individuals traveling along the proposed roadway, on the other hand, will likely have a positively impacted view of the bald cypress-tupelogum swamp.

AIR QUALITY

This section summarizes the results of an analysis of the potential air quality effects of the project. The purpose of this analysis is, first, to address the potential for the project to affect air quality standards including transportation conformity requirements; and second, to address the potential Mobile Source Air Toxics (MSATs) effects of the project.

National Ambient Air Quality Standards (NAAQS)

The United States Environmental Protection Agency (EPA) has established allowable concentrations and exposure limits called the National Ambient Air Quality Standards (NAAQS) for various “criteria” pollutants. These pollutants include carbon monoxide (CO), nitrogen oxides (NO_x), ozone (O₃), particulate matter (PM₁₀ and PM_{2.5}), sulfur oxides (SO_x), and lead (Pb).

In accordance with the Clean Air Act Amendments of 1990 (CAAA of 1990), EPA identified those areas that did not meet the NAAQS for the criteria pollutants and designated them as “nonattainment” areas. Once a nonattainment area meets the NAAQS, it is redesignated as a “maintenance” area.

St. John the Baptist Parish is currently not a nonattainment or maintenance area for any criteria pollutant.

Transportation Conformity

Transportation conformity is a process required of Metropolitan Planning Organizations (MPOs) pursuant to the Clean Air Act Amendments of (CAAA) of 1990. CAAA require that transportation plans, programs, and projects in nonattainment or maintenance areas that are funded or approved by the Federal Highway Administration (FHWA) be in

conformity with the State Implementation Plan (SIP), which represents the State's plan to either achieve or maintain the NAAQS for a particular pollutant.

The proposed project is not located in a nonattainment or maintenance area, so conformity does not apply to this project.

Carbon Monoxide (CO)

Transportation projects have the potential to affect air quality by changing the number of vehicles at specific locations. Tailpipe emissions from vehicles could result in increases in ambient concentrations of carbon monoxide (CO) near the project.

Carbon monoxide (CO) is a colorless, odorless gas that interferes with the delivery of oxygen to a person's organs and tissues. The health effects of CO exposure depend on the duration and intensity of exposure as well as a person's health. CO concentrations are usually higher during the winter months because vehicles emit higher CO emissions in cold weather due to the characteristics of internal combustion engines.

The state of Louisiana is in attainment statewide for CO. EPA and FHWA guidance state that a CO hot spot analysis is suggested only for *signalized* intersections operating below Level of Service C. For Alternative P-1 there are planned signalized intersections at the intersections of the proposed connector with US 61 and with LA 3188. For Alternative AP-6B there is a planned signalized intersection at the intersection of the proposed connector and US 61. It is anticipated that these signals will operate at or above LOS C. CO concentrations are not anticipated to cause or contribute to an exceedance of the CO NAAQS.

Mobile Source Air Toxins (MSATs)

On February 3, 2006, FHWA released "*Interim Guidance on Air Toxic Analysis in NEPA Documents.*"[5] The purpose of this guidance is to advise on when and how to analyze Mobile Source Air Toxins (MSATs) in the NEPA process for highways. This guidance is interim because MSAT science is still evolving. As the science progresses, FHWA will update the guidance.

A basic analysis of the potential MSAT emissions impacts of this project was completed in accordance with this Interim Guidance. Additional background information regarding MSATs is provided in Appendix D.

Technical shortcomings of emissions and dispersion models and uncertain science with respect to health effects prevent meaningful or reliable estimates of MSAT emissions of this project. However, even though reliable methods do not exist to accurately estimate the health impacts of MSATs at the project level, it is possible to qualitatively assess the levels of future MSAT emissions. The qualitative assessment presented below has been

prepared in accordance with FHWA's Interim Guidance derived in part from a study conducted by the FHWA entitled "*A Methodology for Evaluating Mobile Source Air Toxic Emissions Among Transportation Project Alternatives.*"

FHWA's Interim Guidance groups projects into the following categories:

- Exempt Projects or Projects with no Meaningful Potential MSAT Effects;
- Projects with Low Potential MSAT Effects; and,
- Projects with Higher Potential MSAT Effects.

Examples of projects with low potential MSAT emissions include minor widening projects and new interchanges, such as those that replace a signalized intersection on a surface street, or where design year traffic projections are less than 140,000 to 150,000 annual average daily traffic (AADT).

The Build Alternatives includes construction of a new roadway to connect US 61 and I-10 and meets the definition of a project with low potential MSAT effects as the highest design year AADT for the proposed connector is substantially lower than the FHWA criterion.

For the No-Build, TSM and Build Alternatives, the amount of MSATs emitted would be proportional to the vehicle miles traveled, or VMT, assuming that other variables such as fleet mix are the same for each alternative. The estimated VMT for the Build Alternative is essentially the same as the VMT for the No-Build Alternative. Therefore, it is expected that there would be no appreciable difference in overall MSAT emissions between the No-Build and Build Alternatives.

Additionally, travel speeds for the TSM and Build Alternatives will be higher than for the No-Build Alternative. According to EPA's MOBILE6 emissions model, emissions of all of the priority MSATs except for diesel particulate matter decrease as speed increases. The extent to which these speed-related emissions decreases will offset VMT-related emissions increases cannot be reliably projected due to the inherent deficiencies of technical models.

Also, regardless of the alternative chosen, emissions will likely be lower than present levels in the design year as a result of EPA's national control programs that are projected to reduce MSAT emissions by 57 to 87 percent from 2000 to 2020. Local conditions may differ from these national projections in terms of fleet mix and turnover, VMT growth rates, and local control measures. However, the magnitude of the EPA-projected reductions is so great (even after accounting for VMT growth) that MSAT emissions in the study area are likely to be lower in the future in nearly all cases.

The addition of a new roadway for Alternative P-1 will have the effect of moving some traffic closer to nearby homes; therefore, under P-1 there may be localized areas where ambient concentrations of MSATs could be higher than under the No-Build Alternative. However, as discussed above, the magnitude and the duration of these potential increases

compared to the other Alternatives cannot be accurately quantified due to the inherent deficiencies of current models.

In sum, when a highway is widened and, as a result, moves closer to receptors, the localized level of MSAT emissions for a Build Alternative could be higher relative to the No-Build Alternative, but this could be offset due to increases in speeds and reductions in congestion (which are associated with lower MSAT emissions). However, on a regional basis, EPA's vehicle and fuel regulations, coupled with fleet turnover, will over time cause substantial reductions that, in almost all cases, will cause region-wide MSAT levels to be significantly lower than today.

Substantial construction-related MSAT emissions are not anticipated for this project as construction is not planned to occur over an extended building period. However, construction activity may generate temporary increases in MSAT emissions in the project area.

TRAFFIC NOISE AND IMPACTS

A noise analysis was completed to assess the noise impacts of the Existing (2013) case, the No-Build (2033) Alternative, two Build Alternatives (P-1 and AP-6B), and a Transportation Systems Management (TSM) Alternative.

Alternative AP-6B extends north from the intersection of US 61 and LA 637 to I-10 through mostly uninhabited, forested, low elevation shrub land. Alternative P-1 extends north from the intersection of US 61 and LA 3179 over wetland areas, curving to the northeast and the ultimately connecting with LA 3188 (Belle Terre Boulevard) approximately 2800 feet south of the I-10 interchange at LA 3188.

The analysis was prepared in accordance with the FHWA noise standards, *Procedures for Abatement of Highway Traffic and Construction Noise, 23 CFR 772*¹², and the Louisiana Department of Transportation and Development (DOTD) *Highway Traffic Noise Policy*, revised in 2011¹³. The noise analysis included the following tasks:

1. Identification of noise-sensitive areas and associated receptors (discrete or representative locations in an NSA for the land uses listed in 23 CFR 772) within 500 feet of the project;
2. Determination of existing sound levels at selected receptors to characterize the existing noise environment in the project area;
3. Prediction of future sound levels with and without the project at the receptors;
4. Determination of impacted receptors;

¹² *Procedures for Abatement of Highway Traffic and Construction Noise, 23 CFR 772, Federal Highway Administration.*

¹³ *Highway Traffic Noise Policy, Louisiana Department of Transportation and Development, July 2011.*

5. Evaluation of noise abatement for impacted areas;
6. Discussion of construction noise; and
7. Coordination with local officials.

Each of these analysis steps is discussed below, following a discussion of basic terminology and DOTD's criteria for determining noise impacts.

Traffic Noise Terminology

Traffic noise levels are expressed in terms of the hourly, A-weighted equivalent sound level in decibels (dBA). A sound level represents the level of the rapid air pressure fluctuations caused by sources such as traffic that are heard as noise. A decibel is a unit that relates the sound pressure of a noise to the faintest sound the young human ear can hear. The A-weighting refers to the amplification or attenuation of the different frequencies of the sound (subjectively, the pitch) to correspond to the way the human ear "hears" these frequencies.

Generally, when the sound level exceeds the mid-60 dBA range, outdoor conversation in normal tones at a distance of three feet becomes difficult. A 9-10 dBA increase in sound level is typically judged by the listener to be twice as loud as the original sound while a 9-10 dBA reduction is judged to be half as loud. Doubling the number of sources (i.e., vehicles) will increase the hourly equivalent sound level by approximately 3 dBA, which is usually the smallest change in hourly equivalent A-weighted traffic noise levels that people can detect without specifically listening for the change.

Because most environmental noise fluctuates from moment to moment, it is standard practice to condense data into a single level called the equivalent sound level (L_{eq}). The L_{eq} is a steady sound level that would contain the same amount of sound energy as the actual time-varying sound evaluated over the same time period. The L_{eq} averages the louder and quieter moments, but gives much more weight to the louder moments in the averaging. For traffic noise assessment purposes, L_{eq} is typically evaluated over the worst one-hour period and is written as $L_{eq}(h)$.

The term insertion loss (IL) is generally used to describe the reduction in $L_{eq}(h)$ at a location after a noise barrier is constructed. For example, if the $L_{eq}(h)$ at a residence before a barrier is constructed is 75 dBA and the $L_{eq}(h)$ after a barrier constructed is 65 dBA, then the insertion loss would be 10 dBA.

Criteria for Determining Noise Impacts

Noise impacts are determined by comparing future "design year" project worst-hour $L_{eq}(h)$ values at areas of frequent human use to: (1) a set of Noise Abatement Criteria (NAC) for different land use categories, and (2) existing $L_{eq}(h)$ values. The FHWA noise standards (23 CFR 772) and DOTD's noise policy state that when traffic noise impacts have been identified, then noise abatement should be considered.

Table IV-25 shows the land uses that are classified as Activity Categories A - G and the corresponding NAC.

Table IV-25 - Noise Abatement Criteria in 23 CFR 772

<i>Activity Category</i>	<i>Activity $L_{eq}(h)$</i>	<i>Evaluation Location</i>	<i>Activity Description</i>
A	57	Exterior	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.
B ¹	67	Exterior	Residential
C ¹	67	Exterior	Active sport areas, amphitheatres, auditoriums, campgrounds, cemeteries, day care centers, hospitals, libraries, medical facilities, parks, picnic areas, places of worship, playgrounds, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, recreation areas, Section 4(f) sites, schools, television studios, trails, and trail crossings.
D	52	Interior	Auditoriums, day care centers, hospitals, libraries, medical facilities, places of worship, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, schools, and television studios.
E ¹	72	Exterior	Hotels, motels, offices, restaurants/bars, and other developed lands, properties or activities not included in A-D or F.
F	----	----	Agriculture, airports, bus yards, emergency services, industrial, logging, maintenance facilities, manufacturing, mining, rail yards, retail facilities, shipyards, utilities (water resources, water treatment, electrical), and warehousing.
G	----	----	Undeveloped lands that are not permitted.

¹ Includes undeveloped lands that are permitted for this activity category.

Specifically, a receptor is impacted in either of two ways:

1. The predicted, worst hour, design year $L_{eq}(h)$ approaches or exceeds the NAC, even if there is not a substantial increase over the existing levels. "Approach" is defined by DOTD as 1 dBA less than the appropriate NAC. As an example, the NAC for Activity Category B and C land uses is 67 dBA. An impact would occur if the design year $L_{eq}(h)$ is predicted to be 66 dBA or higher at a point of frequent exterior human use for a land use in either category.

2. The predicted, worst hour, design year $L_{eq}(h)$ exceeds the existing $L_{eq}(h)$ by 10 dBA or more, even if the NAC is not approached or exceeded.

Identification of Noise Sensitive Receptors

A review of available electronic mapping as well as field reconnaissance was conducted to identify noise sensitive land uses and receptors along the project

There are seven residences within 500 feet of the Alternative P-1 along Maurin Drive and Jean Marie Street on the south side of US 61 at the south end of the alignment.

There are no noise sensitive land uses within 500 feet of Alternative AP-6B.

There are no noise sensitive land uses within 500 feet of the TSM Alternative.

In an attempt to provide a comprehensive understanding of the effect of the project on the noise environment along the existing roadway network this study also analyzed potential noise impacts for noise sensitive land uses along US 61, LA 3188 and US 51. Other than the seven residence listed above within 500 feet of Alternative P-1, there are approximately 500 noise sensitive receptors (residences, churches, RV parks, schools, parks, cemeteries, and playgrounds) within 500 feet of these roadways within the project limits.

The NAC for Activity Category B will apply to the majority of these noise-sensitive land uses. Noise impacts will be identified if future sound levels are 66 dBA or higher, or if an increase of 10 dBA or more is predicted over existing sound levels.

Activity Category C land uses within 500 feet of US61, LA 3188 and US 51 and within the project limits include: East St. John High School, Belle Point Park playground, St. John's Memorial Gardens Cemetery, Layaro Youth Park pool and ball fields, Belle Terre KinderCare playground, St. John the Baptist Community Center playground, Lake Pontchartrain Elementary School playground, Lutheran Church basketball court, First United Methodist Church playground, and the Celebration Church playground. Noise impacts will be identified if future sound levels are 66 dBA or higher, or if an increase of 10 dBA or more is predicted over existing sound levels.

Activity Category E land uses within 500 feet of US61, LA 3188 and US 51, and within the project limits include: Barwell's RV Park, Quality Inn pool, Days Inn pool, Best Western pool, and the Hampton Inn pool. Noise impacts will be identified if future sound levels are 71 dBA or higher, or if an increase of 10 dBA or more is predicted over existing sound levels.

Several commercial land uses were noted during the field reconnaissance, however, since none of these land uses had exterior uses they were not included as part of this study.

There are several tracts of undeveloped Activity Category G lands along the project. These undeveloped lands are not noise-sensitive and have not been included in the noise analysis. However, noise impacts could occur in the future if noise-sensitive land uses are constructed along the proposed connector, US 61, LA 3188 or US 51. A discussion of future sound levels and the need for noise-compatible land use planning is provided later in this report.

Under most situations, a single building structure is considered a single receptor. Structures that contain multiple residential units are considered to have one receptor per residential unit.

Measurement of Existing Sound Levels

Noise measurements were conducted at several DOTD approved noise-sensitive land uses in the project area on June 5, 2013. **Table IV-26** summarizes the measured equivalent sound levels at each of the measurement locations.

As indicated in **Table IV-26**, the existing sound levels at the exterior measurement locations were between 51 dBA and 70 dBA. The lower sound levels were recorded at the more distant measurement locations from LA 3188 and the sound levels in the upper 60s to low 70s dBA range were recorded at the first row residences closest to US 61.

Table IV-26 - Measured Existing Equivalent Sound Levels at Measurement Locations

<i>Address/Location</i>	<i>Distance to Traffic Noise Source (ft)</i>	<i>Period</i>	<i>Measured L_{eq}(dBA)</i>
175 Ellen Drive	90 (US 61)	12:35-12:55	69.1
		16:45-17:00	70.1
259 Jean Marie Street	220 (US 61)	11:50-12:10	62.9
		17:10-17:25	66.0
Whitlow Court Trailer Park	170 (US 61)	11:10-11:30	63.0
		17:40-17:55	64.7
501 Foxwood Lane	400 (LA 3188)	14:25-14:45	51.3
		18:10-18:30	52.0
Celebration Church	320 (US 51)	15:10-15:30	53.8 ¹

¹ Interference from lawn care at residences prevented a measurement during the afternoon rush hour.

Model Validation

LADOTD policy requires validation of the FHWA Traffic Noise Model (TNM 2.5) computer program that is used to calculate worst-hour equivalent sound levels. Validation involves making noise measurements at a few representative locations near the existing roadway while making simultaneous vehicle classification counts of the traffic and estimating travel speed. Then, the traffic counts are factored up to be hourly volumes, and along with the speeds, are entered into a TNM 2.5 model that has been created for the existing highway situation. The modeled levels are compared to the measured levels, and if they are within 3 dBA of the measured levels, the model is said to be validated.

The TNM predicted noise levels for all noise measurement sites were within 3 dBA of the measured levels and the modeling is considered validated.

Determination of Existing and Future One-Hour Equivalent Sound Levels

The FHWA TNM 2.5 computer program was used to calculate worst-hour equivalent sound levels for the modeled receivers for the Existing case and the No Build, TSM and Build alternatives. These receivers included the measurement locations as well as numerous other noise receptors within 500 feet of the proposed alignments and along the existing US 61, LA 3188 and US 51 roadways.

Traffic data was provided by a traffic consultant on the project for use in the noise modeling. Morning and afternoon design hour traffic projections, including truck percentages, were provided for US 61, LA 3188, and US 51 for the existing case and all alternatives.

The predicted sound levels are provided in a separately bound noise technical report and the resulting impacts are discussed in the following section.

The analysis of potential noise impacts is typically limited to 500 feet from the edge of the proposed roadway, however, in an effort to provide an overall accounting of the potential impact or benefit to all noise sensitive receptors within the project limits, TNM predictions were also made at receivers along US 61, LA 3188, and US 51. The predicted TNM results discussions below are subdivided into those areas of concern.

Existing Year 2013

The TNM model that was developed for the validation testing were used to predict worst noise hour equivalent sound levels for the Existing Year conditions at the noise-sensitive land uses in the project area, including the measurement locations. The posted speeds were modeled for all roadways.

- **Along US 61:** Predicted worst noise hour L_{eq} (h) ranged from 47 dBA up to 69 dBA for the receivers along US 61. A total of twenty receptors are impacted along US 61 in the Existing case. All of those impacted receptors are residences (Activity Category B).
- **Along LA 3188:** Along LA 3188 (Belle Terre Boulevard) the predicted worst hour noise levels for the Existing case ranged from 51 dBA to 66 dBA. Sixteen receptors are impacted along LA 3188. The impacted receptors are four residential apartment buildings (Activity Category B) with four apartments per building located within 80 feet of LA 3188.
- **Along US 51:** Predicted worst noise hour L_{eq} (h) ranged from 48 dBA up to 62 dBA for the receivers along US 51. There are no impacted receptors along US 51 for the Existing case.

Build Year 2038

Build Alternative noise levels were determined by modeling the geometry of the Build Alternatives and traffic within TNM and then calculating the $L_{eq}(h)$ for each TNM receiver. Future posted speeds were modeled for both directions.

Alternative P-1

- **Within 500 feet of the Project:** Predicted worst noise hour L_{eq} (h) ranged from 63 dBA up to 69 dBA at the four receivers (representing seven residences) within 500 feet of the Alternative P-1 alignment. Predicted levels with Alternative P-1 are expected to be approximately 3 dBA higher than existing levels. One receiver representing one residence (Activity Category B) on Jean Marie Street is impacted by Alternative P-1.
- **Along US 61:** Predicted worst noise hour L_{eq} (h) ranged from 51 dBA up to 73 dBA for the receivers along US 61. Increases over the existing levels with Alternative P-1 are expected to be 3-4 dBA. A total of twenty four receptors are impacted along US 61 with Alternative P-1. Twenty three of those impacted receptors are residences (Activity Category B) and one receptor is an RV park (Activity Category E).
- **Along LA 3188:** Along LA 3188 (Belle Terre Boulevard) the predicted worst hour noise levels for Alternative P-1 ranged from 53 dBA to 68 dBA. Increases over the existing levels are expected to be approximately 2 dBA. A total of sixteen receptors are impacted along LA 3188, all of them residences (Activity Category B).

- **Along US 51:** Predicted worst noise hour L_{eq} (h) ranged from 51 dBA up to 68 dBA for the receivers along US 51. Increases over the existing levels with Alternative P-1 are expected to be 3 dBA. Two receptors are impacted along US 51 with Alternative P-1. Both of the impacted receptors are residences (Activity Category B).

Alternative AP-6B

- **Within 500 feet of the Project:** There are no noise sensitive receptors within 500 feet of the Alternative AP-6B alignment.
- **Along US 61:** Predicted worst noise hour L_{eq} (h) ranged from 50 dBA up to 72 dBA for the receivers along US 61. Increases over the existing levels with Alternative AP-6B are expected to be 2-3 dBA. A total of twenty-three receptors are impacted along US 61 with Alternative AP-6B. All of those impacted receptors are residences (Activity Category B).
- **Along LA 3188:** Along LA 3188 (Belle Terre Boulevard) the predicted worst hour noise levels for Alternative AP-6B ranged from 53 dBA to 69 dBA. Increases over the existing levels are expected to be approximately 2-3 dBA. A total of sixteen receptors are impacted along LA 3188, all of them residences (Activity Category B).
- **Along US 51:** Predicted worst noise hour L_{eq} (h) ranged from 51 dBA up to 69 dBA for the receivers along US 51. Increases over the existing levels with Alternative P-1 are expected to be 3 dBA. Two receptors are impacted along US 51 with Alternative AP-6B. Both of the impacted receptors are residences (Activity Category B).

TSM Alternative

The TSM Alternative includes the addition of acceleration lanes along US 61 at Marathon Entrance Road, Marathon Avenue, Terre Haute Avenue, and W. 10th Avenue. There are no noise sensitive receptors within 500 feet of any of these proposed improvements therefore there are no noise impacts anticipated from this alternative.

The analysis of impacts for the TSM Alternative along the other roadways within the project limits will be the same as for the No Build Alternative discussed in the next section.

No Build Year 2038

The TNM model that was used for the Existing case was modified to predict worst noise hour equivalent sound levels for the No Build Year 2038 conditions at the noise-sensitive land uses in the project area, including the measurement locations. The posted speeds for each roadway were modeled.

- **Along US 61:** Predicted worst noise hour L_{eq} (h) ranged from 51 dBA up to 73 dBA for the receivers along US 61. The No Build Alternative is predicted to increase levels by 3-4 dBA over the existing levels. A total of twenty-nine receptors are impacted along US 61 for the No Build Alternative. Twenty-seven of those impacted receptors are residences (Activity Category B), one impacted receptor is a cemetery, and one impacted receptor is an RV Park (Activity Category E).
- **Along LA 3188:** Along LA 3188 (Belle Terre Boulevard) the predicted worst hour noise levels for the No Build Alternative range from 54 dBA to 69 dBA. The No Build Alternative is predicted to increase levels by 3 dBA over the existing levels. Sixteen receptors are impacted along LA 3188. The impacted receptors are four residential apartment buildings (Activity Category B) with four apartments per building located within 80 feet of LA 3188.
- **Along US 51:** Predicted worst noise hour L_{eq} (h) ranged from 51 dBA up to 69 dBA for the receivers along US 51. The No Build Alternative is predicted to increase levels by 3 dBA over the existing levels. There are two impacted receptors along US 51 for the No Build Alternative. Both of the impacted receptors are residences (Activity Category B).

Summary of Impacts

An impact assessment was completed for the Existing case and Build and No Build Alternatives. As noted previously, a receptor is impacted in two ways:

1. The predicted, worst hour, design year L_{eq} (h) approaches or exceeds the NAC. DOTD defines “approach” as 1 dBA less than the NAC. These levels apply at areas of frequent human use.
2. The predicted, worst hour, design year L_{eq} (h) exceeds the existing L_{eq} (h) by 10 dBA or more.

All of the impacts will be in terms of approaching or exceeding the NAC with no impacts caused by an increase of 10 dBA over the existing noise level.

Table IV-27 provides a summary of the above discussed impacts for each alternative for the project.

Table IV-27 -. Summary of Noise Impacts

Prediction Case	Noise Impacts				Total Impacts
	Within 500 ft of Project	Within 500 ft of US 61	Within 500 ft of LA 3188	Within 500ft of US 51	
Existing Year 2013	--	20	16	0	36
Alternative P-1	1	24	16	2	43
Alternative AP-6B	0	23	16	2	41
TSM Alternative	1	28	16	2	47
No Build Year 2033	1	28	16	2	47

Noise Abatement Evaluation

In accordance with criteria in the DOTD noise policy, noise abatement needs to be studied first for “feasibility” and, if feasible, for “reasonableness.” Noise barriers must be both feasible and reasonable for them to be deemed likely for construction.

Feasibility includes acoustical and engineering considerations. Acoustical feasibility means that a noise barrier will provide at least a 5 dBA reduction in the one-hour equivalent sound level for at least 75% of the first-row, impacted receptors. If a barrier cannot meet this criterion, abatement is considered to not be acoustically feasible. Additionally, the noise barrier should be feasible from an engineering perspective. Engineering feasibility takes into account topography, drainage, safety, barrier height, utilities, and access and maintenance needs (which may include right-of-way considerations). If a barrier poses engineering problems, it may be judged as not feasible even if it meets the acoustical feasibility criterion, and it will not be recommended for construction.

If feasible, then the barriers are assessed for reasonableness in accordance with the criteria in DOTD’s noise policy. All proposed noise abatement must meet the following three criteria to be considered reasonable by DOTD. If any of the criteria is not met, noise abatement measures will not be constructed.

1. *Noise Reduction Design Goal:* At a minimum, at least one receptor must receive an 8 dBA reduction for the noise abatement system to be reasonable.
2. *Cost-Effectiveness:* If the estimated cost of constructing a noise barrier (including installation and additional necessary construction such as foundations or guardrails) divided by the number of benefited receptors (those who would receive a reduction of at least 5 dBA) is \$35,000 or less per benefited receptor, a barrier is considered to be cost-effective.

3. *Consideration and Obtaining Views of Residents and Property Owners:* The viewpoints of the affected property owners and residents are important. For those barriers found to be reasonable by the Cost-Effectiveness and Design Goal criteria above, viewpoints of the benefited receptors and affected property owners will be sought.

According to the FHWA noise standards and DOTD policy, abatement needs to be evaluated when impacts are predicted to occur. Noise barriers must be shown to be both feasible and reasonable, as described earlier, for them to be deemed likely for construction.

In general, noise abatement measures may include noise barriers, alteration of horizontal and vertical alignment, and traffic management measures (such as reducing speed limits or prohibition of heavy trucks). The latter two forms of abatement have already been considered during the planning phases for this project. US 61 is a significant roadway through the project corridor and restricting truck traffic is counter to the purpose of the roadway. The posted speed limits along the project are 45-55mph. Reducing speeds by 5-10 mph for US 61, LA 3188 and/or US 51 would only reduce the predicted noise levels by an estimated 1 dBA.

Noise barriers are the only available potential abatement measure to reduce noise levels for impacted receptors for this project. As stated earlier, barriers must pass acoustical feasibility and reasonableness tests. Acoustical feasibility means that any noise barrier will provide at least a 5 dBA reduction in traffic noise levels for 75% of the first-row impacted receptors.

For this project the only impacted residence within 500 feet of the proposed project (along Jean Marie Street for Alternative P-1) is an isolated single residence. The expense of protecting a single residence with a noise barrier will not pass the cost-effectiveness test of the reasonableness determination. Therefore, there are no noise barriers that are considered feasible or reasonable for this project.

Construction Noise

The construction of the project would result in temporary noise increases for the residences and noise-sensitive land uses near the intersection of the proposed connector and US 61 and LA 3188. Any other noise-sensitive land uses that are located farther from the project area would likely experience little, if any, increase in noise levels because of the background noise of the traffic along US 61 and LA 3188 as well as other community noise sources. The construction noise would be generated primarily from heavy equipment used in hauling materials and accomplishing the widening of the roadway.

The construction contractor has the responsibility for protection of the general public in all aspects of construction throughout the life of the project. All construction equipment

will be required to comply with OSHA Regulations as they apply to the employees' safety, and in accordance with the DOTD Standard Specifications. All construction equipment used in the construction phase of the project should be properly muffled and all motor panels should be shut during operation. In order to minimize the potential for impacts of construction noise on the local residents, the contractor should only operate, whenever possible, between the hours of 7:00 AM and 5:00 PM. At the I-10 interchange for AP-6B, there may be a need for some night time work (installing girders over traffic lanes, etc.) when traffic volumes are lower. This location is far from any developed or residential areas, however, so nighttime construction noise in this area should not be an impact.

Coordination with Local Officials

LADOTD encourages local communities and developers to practice noise compatibility planning in order to avoid future noise impacts. Two guidance documents on noise compatible land use planning are available from FHWA.

Table IV-28 presents future predicted equivalent sound levels based on an assumed at-grade situation for areas along US 61, LA 3188, and US 51 where vacant and possibly developable lands exist. Noise predictions were made for the design year 2033 PM peak hour. The results showed exterior residential activities would be considered to be impacted in terms of a level of 66 dBA or higher out to a distance of roughly 190, 110, 140, and 60 feet from edge pavement of the nearest travel lane of US61, LA 3188, US 51 and the US61 to I-10 connector, respectively. These values do not represent predicted levels at every location at a particular distance back from the roadway. Sound levels will vary with changes in terrain and other site conditions. This information is being included to make local officials and planners aware of anticipated highway noise levels so that future development will be compatible with these levels.

Table IV-28 - Design Year (2038) Predicted One-Hour Equivalent Sound Levels for Undeveloped Areas

Roadway	Distance from Near Lane Edge of Pavement to 66 dBA Impact (ft)
US 61	190
LA 3188	110
US 51	140
Airline Highway to I-10 Connector	60

CONSTRUCTION PERIOD IMPACTS

During construction of the TSM or Build Alternatives, constructing new roadways, roadway lane, intersections and structures would result in various construction-related

effects. As these improvements are generally located in areas without adjacent neighborhoods there should be little direct construction impact to residents. Vehicular traffic along intersecting routes (LA 3188, US 61 and I-10) would inevitably experience some delays and minor inconveniences as a result of construction.

No Build Alternative

The No Build Alternative includes several roadway improvements in the project study area, including W. 10th Street improvements, the raising in elevation of I-10 and I-10 ramps, and intersection improvements along US 61. These projects may produce construction impacts within the Study Area.

TSM Alternative

The TSM Alternative includes the installation of five (5) acceleration lanes along US 61 in the public area, as well as all the improvement under the No Build Alternative. These projects may produce construction impacts within the Study Area.

Build Alternatives

Both Build Alternatives include construction of a long elevated bridge structure, intersection improvements, and new at-grade roadways. Alternative AP-6B also includes upgrading a short stretch of existing roadway and construction of a new highway interchange with overpass. This construction will produce disturbances such as noise, vibration, excavation, debris and will require construction staging areas. Short-term construction traffic impacts will also be present under the build alternatives.

The construction impacts for the Build Alternatives are described for each type of impact below:

Construction Period Noise and Air Quality

As mentioned in the previous section, the construction of the Build Alternatives would result in temporary noise level increases within the study area. The noise would be generated primarily from heavy equipment used in hauling materials and building the roadway, bridges and overpasses. Sensitive areas located close to the construction alignments may temporarily experience increased noise levels; however, there are currently no areas within the study area where quiet is of extraordinary significance, and therefore no such areas should be significantly impacted by construction noise.

The construction of the Build Alternatives could result in short-term air quality impacts, particularly related to particulate matter (dust), during project construction. To minimize

potential air quality impacts, particularly related to control of particulate matter, the contractor shall comply with all applicable State, Federal and local laws and regulations.

Construction Period Vibration

The proposed bridge structures (bridges and overpasses) will require pile driving. Pile driving will cause vibrations that may affect nearby structures, pavements and underground utilities. Peak particle velocities due to pile driving operations should be monitored with a seismograph at critical structures, pavements and utilities. Only limited areas on each alternative will require monitoring due to distance to other structures or facilities: the gas pipeline area for Alternative AP-6B, and the treatment station and water tower on Alternative P-1. The record of peak particle velocities will provide information in assessing potential damage and the need for changes in the pile driving operations.

Peak particle velocities of 0.25 in. /sec, as measured by a seismograph, are generally regarded as the minimum vibration level uncomfortable to humans. In addition, sustained peak particle velocities of 0.25 in. /sec may densify cohesionless fill materials. This densification may result in settlement and damage to structures, pavements or utilities founded in or over these types of materials. Peak particle velocities in excess of 0.5 in. /sec, as measured at a structure, may induce damage to the structure.

Excavations, Fill Material, Debris and Spoil

Excavated material for roadway and foundation is not anticipated to require specialized disposal. A Phase I ESA was conducted for this study and a summary of this report is included as a part of this document. Fill material for the project is readily available locally. Construction debris from the project will require disposal. No anticipated construction debris is anticipated to require specialized disposal.

Construction Staging Areas

Construction staging areas will be needed for construction. Substantial amounts of vacant, privately-held land exist along the project route and will likely need to be leased as staging areas.

HAZARDOUS AND SOLID WASTE SITES

No Build Alternative

The No Build Alternative would have no impact on facilities/sites with recognized environmental conditions, hazardous and solid waste sites.

TSM Alternative

As the TSM Alternative would only consist of changes within the existing US 61 ROW, it would have no impact on facilities/sites with recognized environmental conditions, hazardous and solid waste sites.

Alternative AP-6B

No sites with recognized environmental conditions were identified within, or adjoining Alternative AP-6B. The action of moving forward with Alternative AP-6B would have no impact on hazardous and solid waste sites.

Alternative P-1

No sites with recognized environmental conditions were identified within, or adjoining Alternative P-1. The proposed action of using the P-1 alignment would have no impact on hazardous and solid waste sites.

IMPACTS ON THE NATURAL ENVIRONMENT

VEGETATION AND WETLANDS

No Build Alternative

The No Build Alternative would not impact the area's vegetation, including wetlands because there would be no acquisition of ROW and clearing for construction of road infrastructure and maintenance of the ROW.

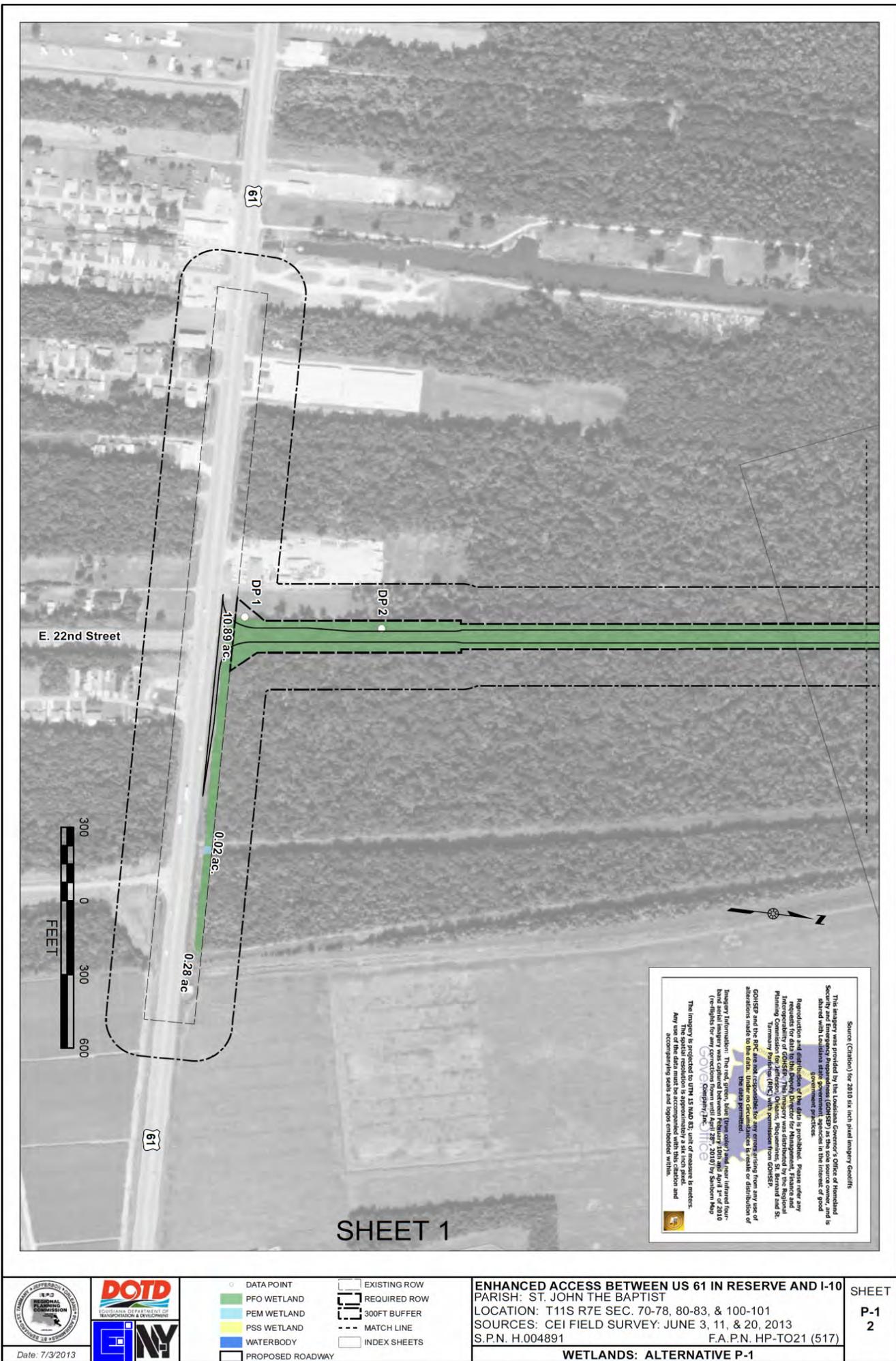
Transportation System Management (TSM) Alternative

The TSM Alternative would not impact the area's vegetation, including wetlands because there would be no acquisition of additional ROW and clearing for construction of road infrastructure and maintenance of the ROW.

Build Alternatives

As was stated in *Chapter III – The Affected Environment*, vegetation species and wetland areas present along the Alternative P-1 and Alternative AP-6B alignments were observed during a field survey to map wetlands on June 3, 11, and 2013 and during an aerial overflight on June 12, 2013. Wetlands were mapped following criteria established by the USACE. **Figures IV-11** through **IV-23** present these wetland maps for the two build alternatives. They are also described following the figures.

Figure IV-12



Source: (Citation) for 2010 six inch scale imagery GeoEye.
 This imagery was provided by the Louisiana Governor's Office of Homeland Security and Emergency Preparedness (GOHS&EP) as the sole source owner, and is shared with Louisiana state government agencies in the interest of good cooperation and public safety.
 Reproduction and distribution of the data is prohibited. Please refer any requests for information to the Louisiana State Geologist, Louisiana State University, Baton Rouge, Louisiana. The imagery was distributed by the Regional Planning Commission for Jefferson, Orleans, Plaquemine, St. Bernard and St. Tammany parishes (RCP) in accordance with GOHS&EP.
 GOHS&EP and the RCP are not responsible for any errors arising from any use of the data made by anyone other than the user of the data.
 Imagery Information: The red, green, blue (true color) and near infrared four-band aerial imagery was captured between February 10th and April 1st of 2010 (see flight for any corrections from April 28, 2010) by Satcom Map Services, Inc.
 This imagery is projected to UTM 15 NAD 83, unit of measure is meters.
 Any use of the data must be accompanied with this citation and accompanying soils and slope embedded within.



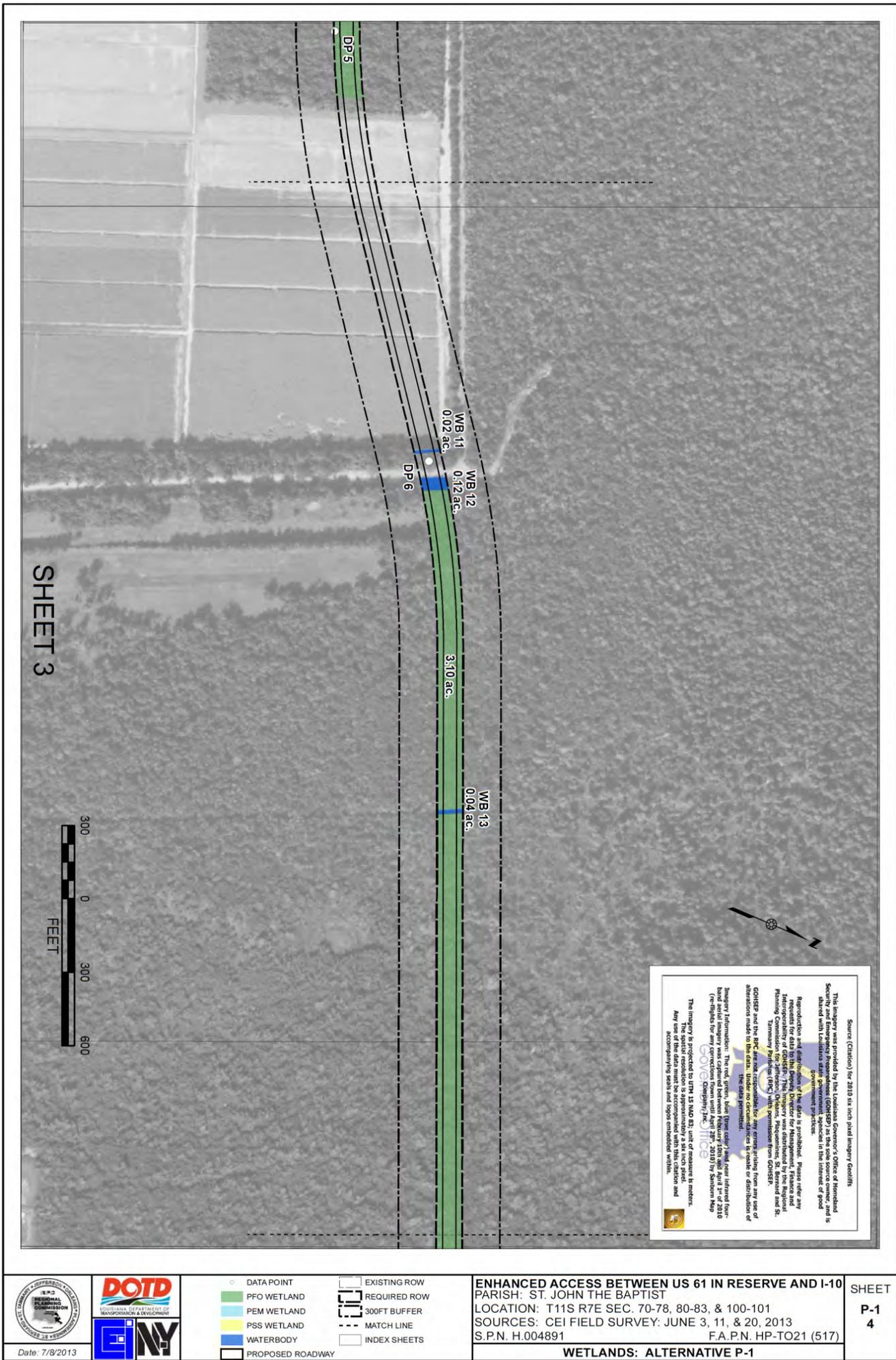
- DATA POINT
- PFO WETLAND
- PEM WETLAND
- PSS WETLAND
- WATERBODY
- PROPOSED ROADWAY
- EXISTING ROW
- REQUIRED ROW
- 300FT BUFFER
- - - MATCH LINE
- INDEX SHEETS

ENHANCED ACCESS BETWEEN US 61 IN RESERVE AND I-10
 PARISH: ST. JOHN THE BAPTIST
 LOCATION: T11S R7E SEC. 70-78, 80-83, & 100-101
 SOURCES: CEI FIELD SURVEY: JUNE 3, 11, & 20, 2013
 S.P.N. H.004891 F.A.P.N. HP-TO21 (517)
WETLANDS: ALTERNATIVE P-1

SHEET
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 2

Date: 7/3/2013

Figure IV-14



SHEET 3



Source: (Creation) for 2013 six inch road imagery GeoInfo.
 This imagery was provided by the Louisiana Governor's Office of Homeland Security and Emergency Preparedness. The imagery is provided as a courtesy and is shared with Louisiana state government agencies in the interest of good government practices.
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 GOWSEP and the BPC are not responsible for any errors or omissions or for any alterations made to the data. Under no circumstances is resale or distribution of the data permitted.
 Imagery Information: The red, green, blue (true color) and near infrared (false color) imagery was captured by a satellite in orbit over Louisiana on 06/20/2013. The spatial resolution is approximately 1.66 inch pixel. Any use of the imagery for any purposes from until April 28th, 2018 by Sabinom Map Governance, Inc. is prohibited.
 This imagery is projected to NAD 83. Unit of measure is meters.



- DATA POINT
- PFO WETLAND
- PEM WETLAND
- PSS WETLAND
- WATERBODY
- PROPOSED ROADWAY
- EXISTING ROW
- REQUIRED ROW
- 300FT BUFFER
- MATCH LINE
- INDEX SHEETS

ENHANCED ACCESS BETWEEN US 61 IN RESERVE AND I-10
 PARISH: ST. JOHN THE BAPTIST
 LOCATION: T 11S R7E SEC. 70-78, 80-83, & 100-101
 SOURCES: CEI FIELD SURVEY: JUNE 3, 11, & 20, 2013
 S.P.N. H.004891 F.A.P.N. HP-TO21 (517)

WETLANDS: ALTERNATIVE P-1

SHEET
 P-1
 4

Date: 7/8/2013



SHEET 4



Source (Station) for 2010 as each parcel imagery details.

This imagery was provided by the Louisiana Governor's Office of Homeland Security and Emergency Preparedness (GOHS&EP) as the sole source owner, and is shared with Louisiana state government agencies in the interest of food security and emergency preparedness.

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GOHS&EP and the RCP are not responsible for any errors resulting from any use of this data. The user of this data is responsible for any errors or omissions in the data.

The imagery is projected to UTM 18 NAD 83. Unit of measure is meters.

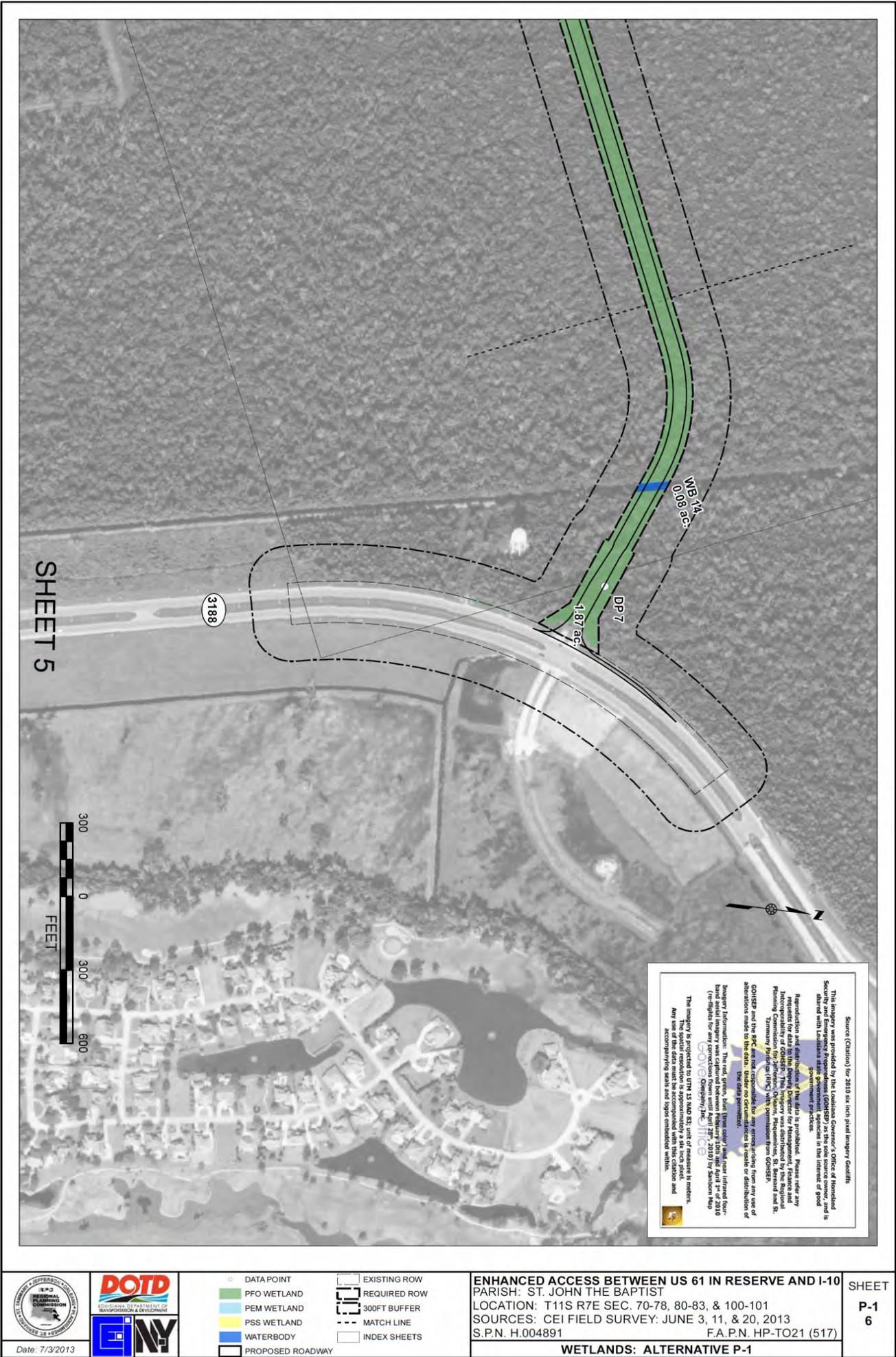
Imagery Information: This data is not from aerial, but from infrared false-color imagery. The imagery was captured between February 10th and April 1st of 2010 (re-flight for any corrections from until April 29th, 2010) by Sanborn Maps (www.sanborn.com). The imagery is provided by the Louisiana Governor's Office of Homeland Security and Emergency Preparedness (GOHS&EP) and the Regional Planning Commission for Jefferson, Orleans, Plaquemine, St. Bernard and St. Tammany parishes (RCP) with permission from GOHS&EP.

Any use of this data must be accompanied with this citation and accompanying seals and logos embedded within.

<p>REGIONAL PLANNING COMMISSION</p>	<p>LOUISIANA DEPARTMENT OF TRANSPORTATION & INFRASTRUCTURE</p>	<ul style="list-style-type: none"> DATA POINT PFO WETLAND PEM WETLAND PSS WETLAND WATERBODY PROPOSED ROADWAY 	<ul style="list-style-type: none"> EXISTING ROW REQUIRED ROW 300FT BUFFER MATCH LINE INDEX SHEETS 	<p>ENHANCED ACCESS BETWEEN US 61 IN RESERVE AND I-10 PARISH: ST. JOHN THE BAPTIST LOCATION: T 11S R7E SEC. 70-78, 80-83, & 100-101 SOURCES: CEI FIELD SURVEY: JUNE 3, 11, & 20, 2013 S.P.N. H.004891 F.A.P.N. HP-TO21 (517)</p> <p style="text-align: center;">WETLANDS: ALTERNATIVE P-1</p>	<p>SHEET P-1 5</p>
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Date: 7/3/2013

Figure IV-16



Source: (Citation) for 2010 air rich land imagery, GeoEye
 This imagery was provided by the Louisiana Governor's Office of Homeland Security and Emergency Preparedness (GOHSEP) as the sole source owner, and is provided with the understanding that it is for informational purposes only. It is not to be used for any other purpose without the express written consent of the state of Louisiana.
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 Tammery Pugh (TAP) with permission from GOHSEP.
 GOHSEP and the RDC are not responsible for any arrangement from any use of the data permitted.
 Imagery Information: The red, green, blue (true color) and near infrared four-band imagery was captured on 06/11/2010 at 10:00 AM. The imagery is projected to UTM 18 NAD 83; unit of measure is meters. The spatial resolution is approximately a 6x, 6x inch pixel. All data is accompanied by a metadata file. Any use of the data is subject to the terms and conditions of the license. © 2010 GeoEye, Inc. All rights reserved.



- DATA POINT
- PFO WETLAND
- PEM WETLAND
- PSS WETLAND
- WATERBODY
- PROPOSED ROADWAY
- EXISTING ROW
- REQUIRED ROW
- 300FT BUFFER
- MATCH LINE
- INDEX SHEETS

ENHANCED ACCESS BETWEEN US 61 IN RESERVE AND I-10
 PARISH: ST. JOHN THE BAPTIST
 LOCATION: T 11S R7E SEC. 70-78, 80-83, & 100-101
 SOURCES: CEI FIELD SURVEY: JUNE 3, 11, & 20, 2013
 S.P.N. H.004891 F.A.P.N. HP-TO21 (517)

WETLANDS: ALTERNATIVE P-1

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 6

Date: 7/3/2013

SHEET 5

300 0 300 600
 FEET

Source (Caption) for 3010 6x 6 inch grid imagery credits

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Imagery Information: The red, green, blue (true color) and near infrared false color imagery was captured on April 27th, 2010. The imagery is projected to UTM 15 WAD 83, unit of measure is meters. The spatial resolution is approximately 1.5 inch grid. Any use accompanying maps and maps embedded within.

Governor's Office

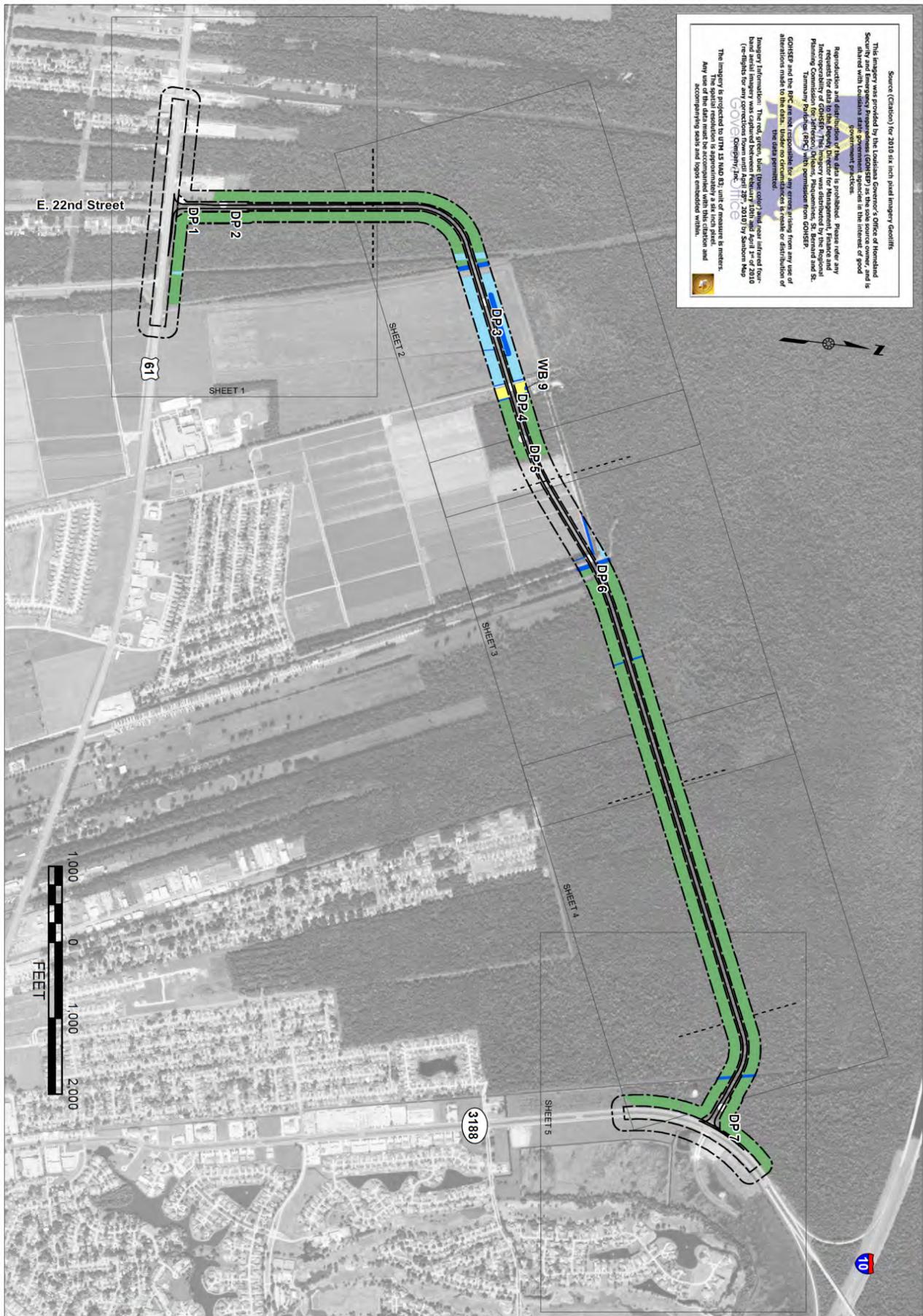
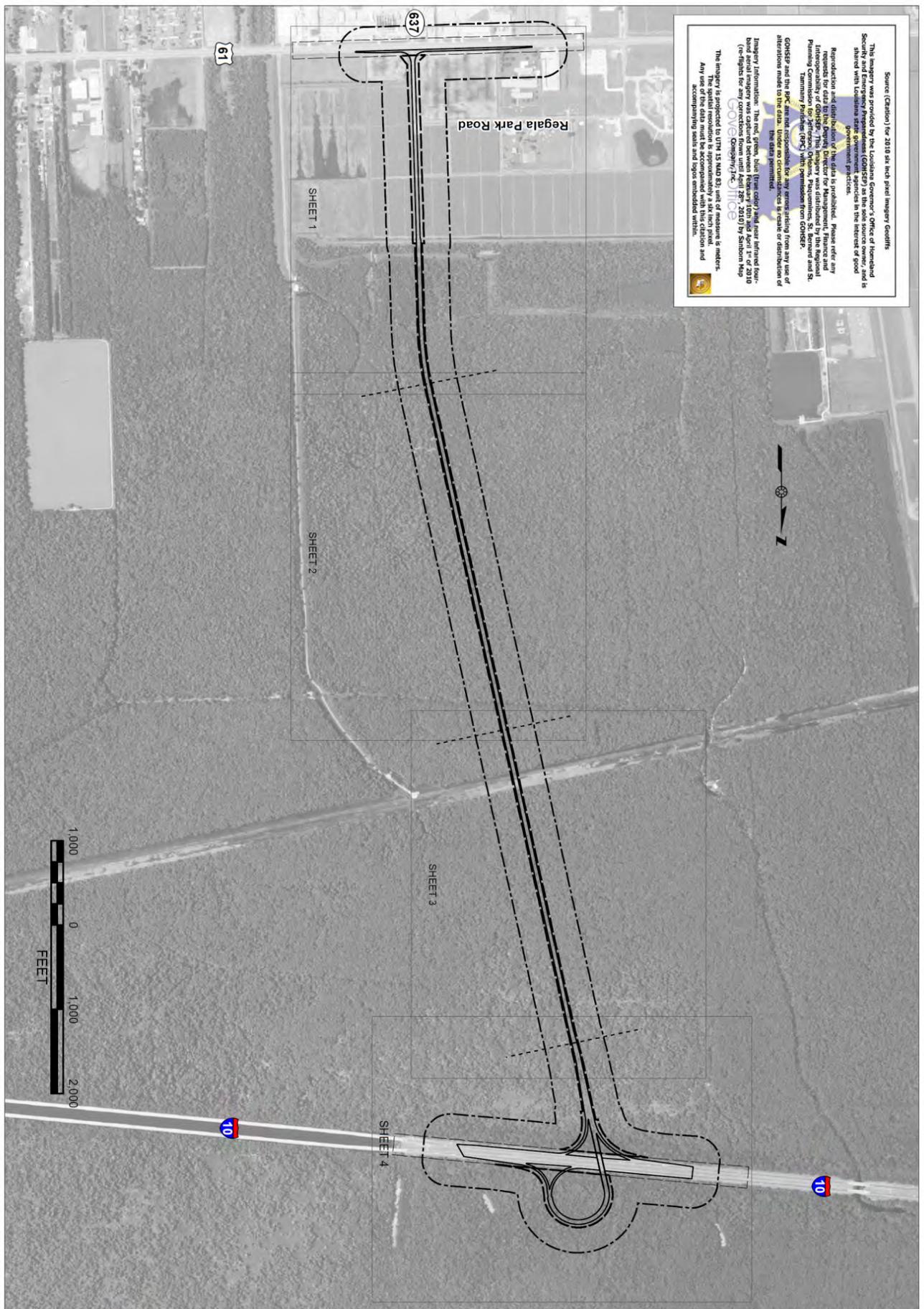


Figure IV-17

<p>DOTD LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT</p>	<p>LSU</p>	DATA POINT	EXISTING ROW	ENHANCED ACCESS BETWEEN US 61 IN RESERVE AND I-10 PARISH: ST. JOHN THE BAPTIST LOCATION: T 11S R7E SEC. 70-78, 80-83, & 100-101 SOURCES: CEI FIELD SURVEY: JUNE 3, 11, & 20, 2013 S.P.N. H.004891 F.A.P.N. HP-TO21 (517)	SHEET P-1 7
		PFO WETLAND	REQUIRED ROW		
Date: 7/8/2013		PEM WETLAND	300-FT BUFFER		
		PSS WETLAND	MATCH LINE		
		WATERBODY	INDEX SHEETS		
		PROPOSED ROADWAY			

Figure IV-18



Source: (Citation) for 2010 air and road imagery GeoEye

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Imagery Information: The red, green, blue (true color) and near infrared four-band imagery was captured from April 28, 2010 by GeoEye Inc. (the rights for this imagery are owned by GeoEye, Inc. © 2010).

The imagery is projected to UTM 15 MAD 83; unit of measure is meters. Any use of the data must be accompanied with this citation and accompanying data and logs contained within.



- PROPOSED ROADWAY
- EXISTING ROW
- REQUIRED ROW
- 300 FT BUFFER
- MATCHLINE
- INDEX SHEETS

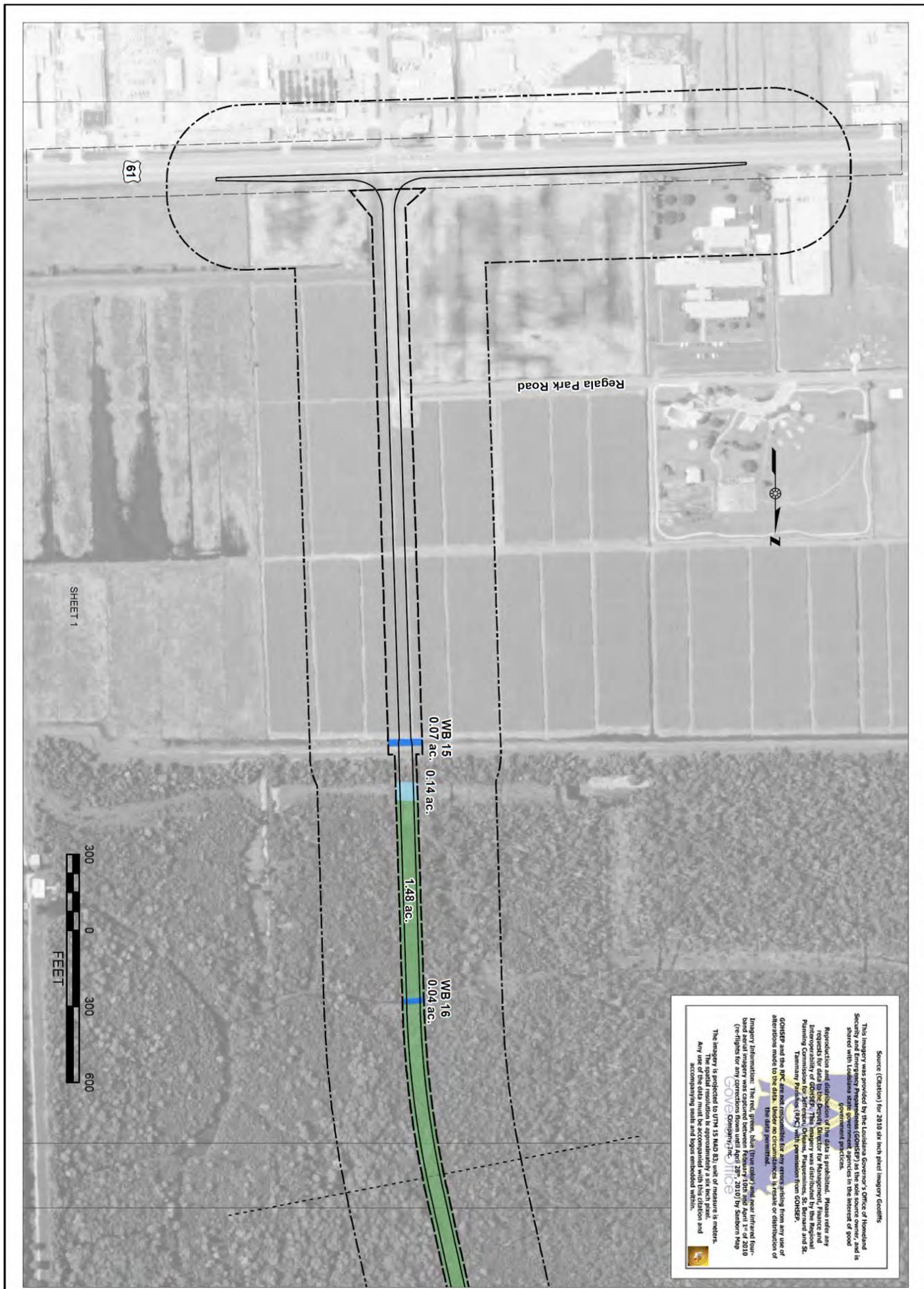
ENHANCED ACCESS BETWEEN US 61 IN RESERVE AND I-10
 PARISH: ST. JOHN THE BAPTIST
 LOCATION: T11S R6E SEC. 52, 53, 55, 82, 83, & 92
 SOURCES: CEI FIELD SURVEY: JUNE 3, 11, & 20, 2013
 S.P.N. H.004891 F.A.P.N. HP-TO21 (517)

WETLANDS: ALTERNATIVE AP-6B

SHEET
AP-6B
 INDEX
 1

Date: 7/3/2013

Figure IV-19



Source: (Creation) for 2010 six inch plan Imagery Credits.

This Imagery was provided by the Louisiana Governor's Office of Homeland Security and Emergency Preparedness (GOHS&EP) as the sole source owner, and is shared with Louisiana state government agencies in the interest of good government practices.

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GOHS&EP and the IFC are not responsible for any errors arising from any use of alterations made to this data. Under no circumstances is resale or distribution of this data permitted.

Imagery Information: The red, green, blue (true color) map, near infrared false color map, and grayscale map were created using data from the National Aerial Photography Program (NAPP) and the National Wetlands Inventory (NWI) (re-nights for any corrections from until April 28th, 2010) by Southern Map & Survey, Inc. (SM&S). The imagery is projected to UTM 15 MGRS 83J unit of measure is meters.

The partial resolution is approximately a six inch print.

Any other information, including but not limited to, data, maps, and/or accompanying sheets and logos embedded within.

GOVERNOR'S OFFICE

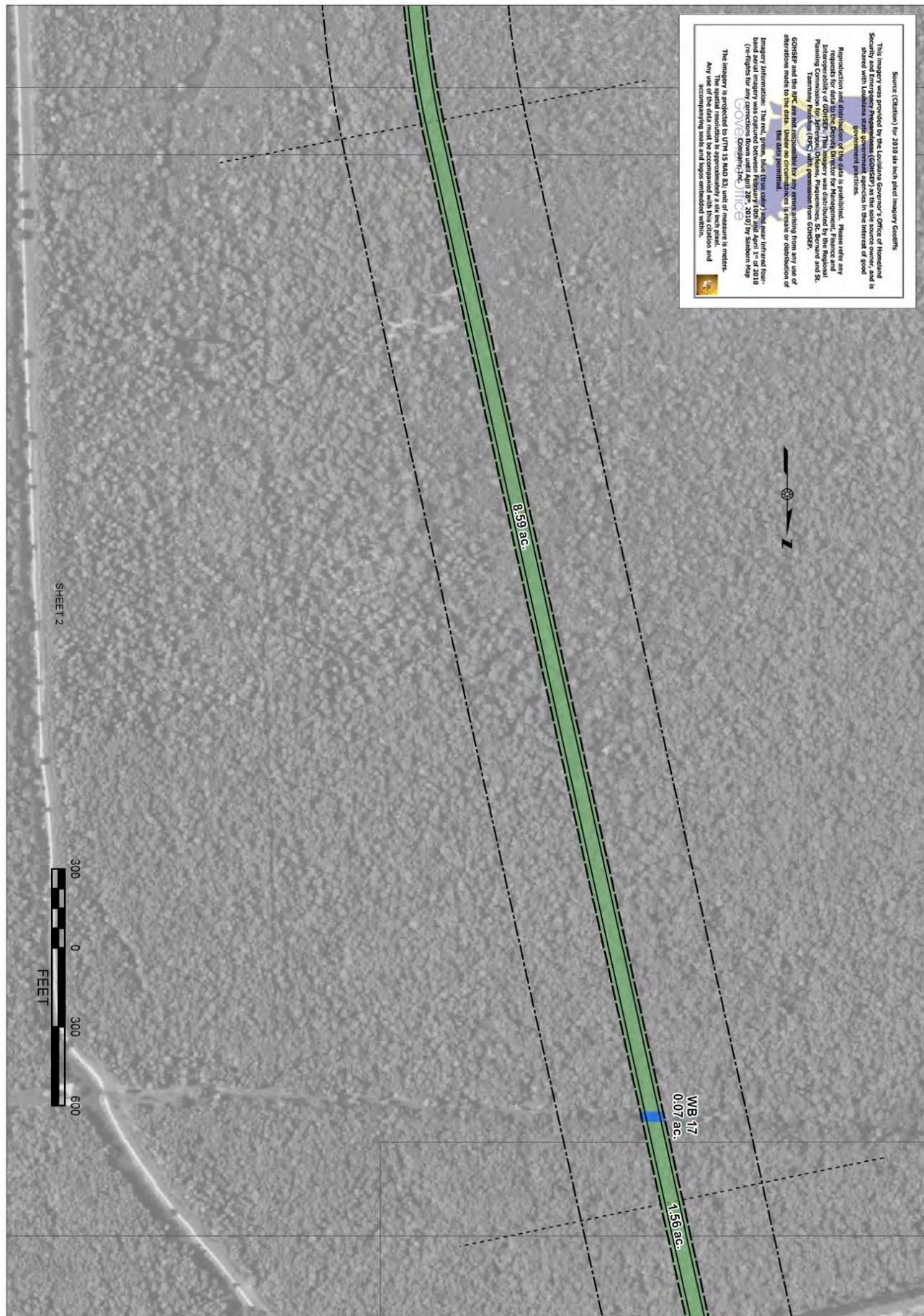
Date: 7/3/2013

ENHANCED ACCESS BETWEEN US 61 IN RESERVE AND I-10
 PARISH: ST. JOHN THE BAPTIST
 LOCATION: T11S R6E SEC. 52, 53, 55, 82, 83, & 92
 SOURCES: CEI FIELD SURVEY: JUNE 3, 11, & 20, 2013
 S.P.N. H.004891 F.A.P.N. HP-TO21 (517)

WETLANDS: ALTERNATIVE AP-6B

SHEET
AP-6B
 8

Source (Citation) for 2010 1:25000 scale Imagery GeoData
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 Imagery Information: This real-time imagery was captured between February 1st and April 1st of 2010 (re-flight for any corrections) Commissioned April 28th, 2010 by Sibley Map Services, Inc.
 The imagery is projected to the NAD 83 datum. The imagery is not georeferenced. Any use of the data must be accompanied with this citation and accompanying scale and logos embedded within.



SHEET 2



- DATA POINT
- PFO WETLAND
- PEM WETLAND
- PSS WETLAND
- WATERBODY
- PROPOSED ROADWAY
- EXISTING ROW
- REQUIRED ROW
- 300FT BUFFER
- - - MATCH LINE
- INDEX SHEETS

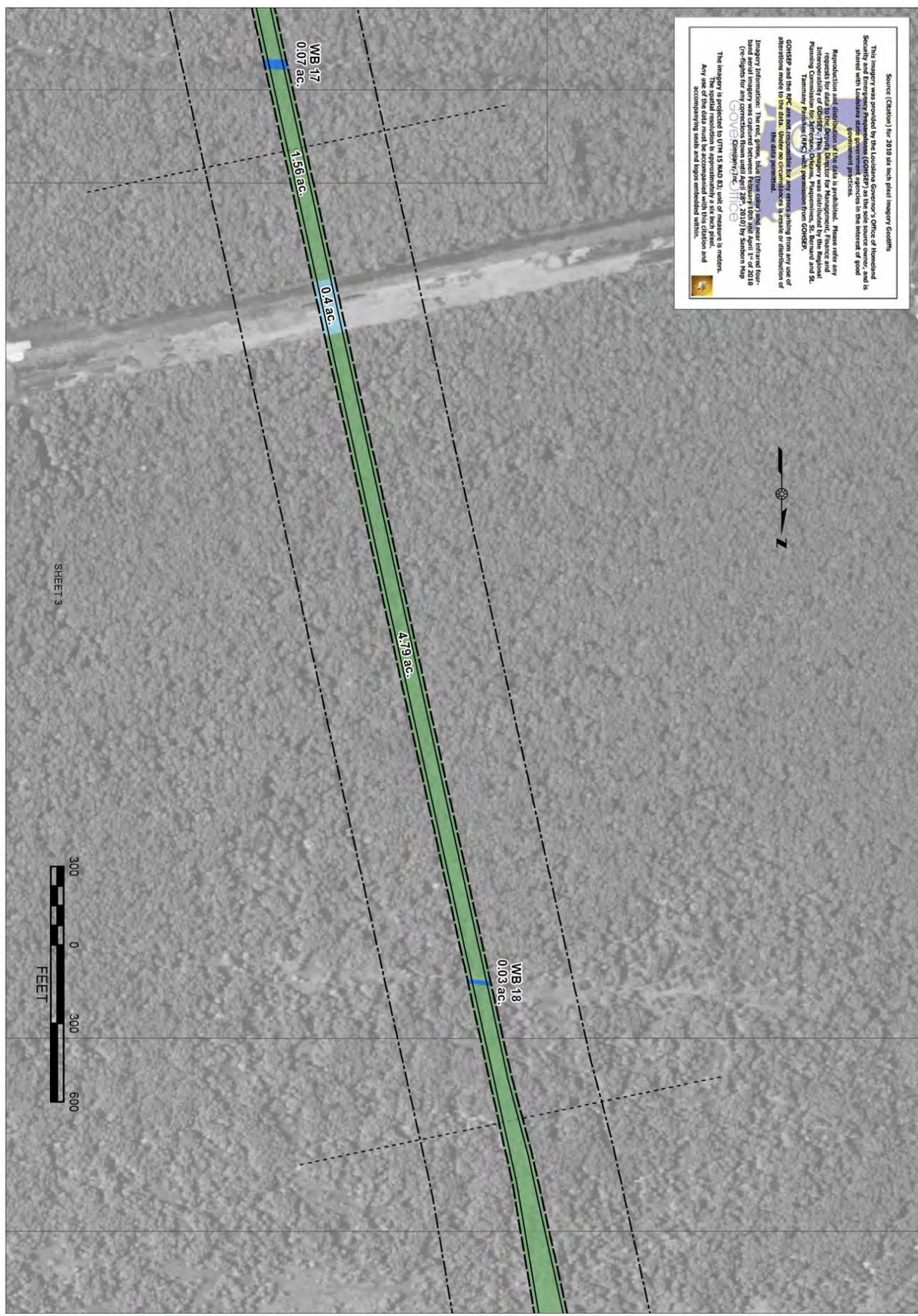
ENHANCED ACCESS BETWEEN US 61 IN RESERVE AND I-10
 PARISH: ST. JOHN THE BAPTIST
 LOCATION: T11S R6E SEC. 52, 53, 55, 82, 83, & 92
 SOURCES: CEI FIELD SURVEY: JUNE 3, 11, & 20, 2013
 S.P.N. H.004891 F.A.P.N. HP-TO21 (517)
WETLANDS: ALTERNATIVE AP-6B

SHEET
AP-6B
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Figure IV-20

Date: 7/3/2013

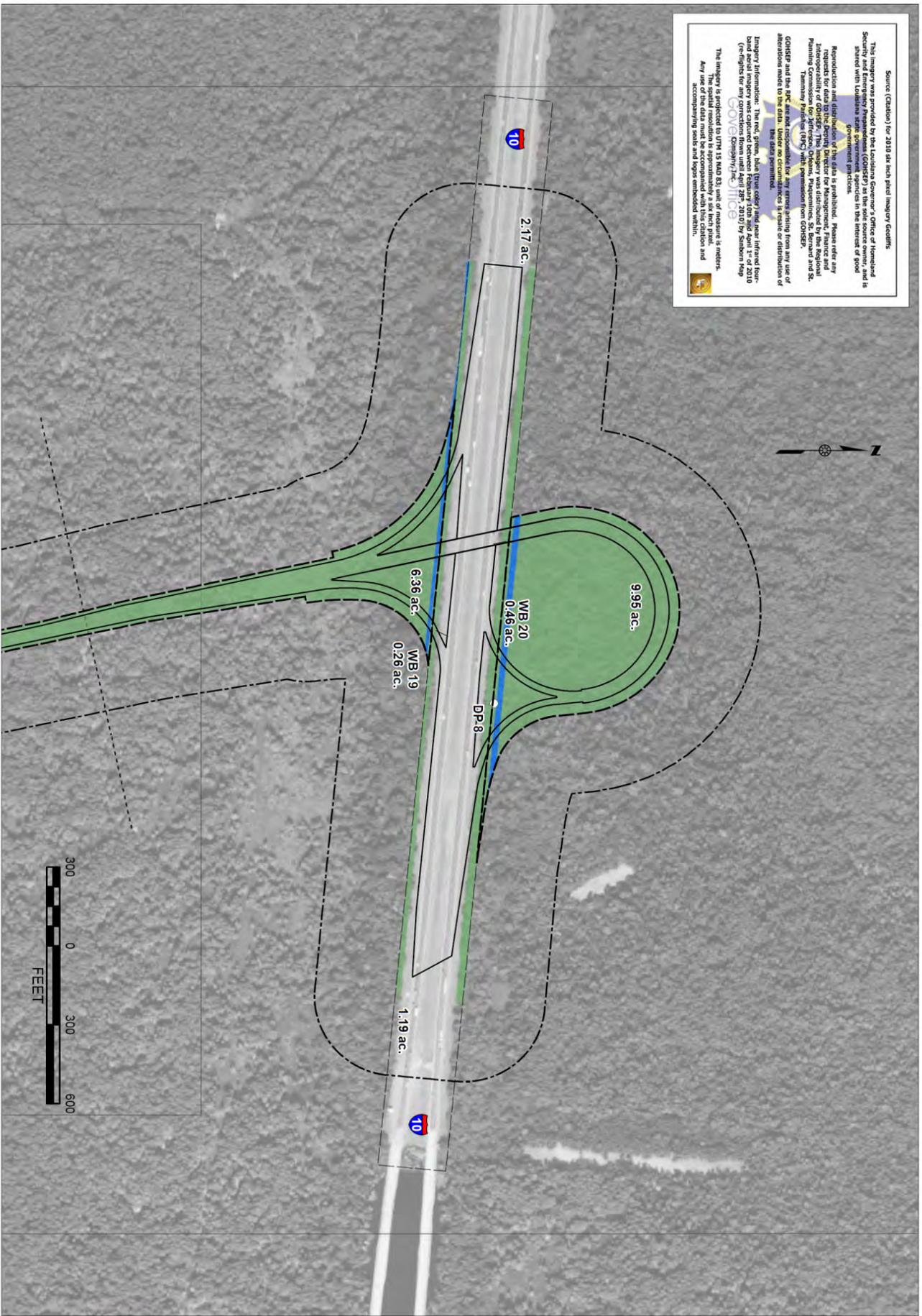
Figure IV-21



Source: (Clarion) for 2010 six inch grid imagery GeoEye
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 Imagery Information: This red, green, blue (true color) and near infrared false-color aerial imagery was captured between February 1, 2009 and April 1, 2010 (re-flight for any correction from until April 25, 2010) by Satcom Map Company, Inc. (SMC).
 The imagery is projected to UTM 18N UTM 53 zone of measure in meters. The imagery is not georeferenced to the Louisiana State Plane Coordinate System. Any use of the data must be accompanied with this citation and accompanying maps and logos embedded within.

	<ul style="list-style-type: none"> DATA POINT PFO WETLAND PEM WETLAND PSS WETLAND WATERBODY PROPOSED ROADWAY 	<ul style="list-style-type: none"> EXISTING ROW REQUIRED ROW 300FT BUFFER MATCH LINE INDEX SHEETS 	<p>ENHANCED ACCESS BETWEEN US 61 IN RESERVE AND I-10 PARISH: ST. JOHN THE BAPTIST LOCATION: T11S R6E SEC. 52, 53, 55, 82, 83, & 92 SOURCES: CEI FIELD SURVEY: JUNE 3, 11, & 20, 2013 S.P.N. H.004891 F.A.P.N. HP-TO21 (517)</p> <p>WETLANDS: ALTERNATIVE AP-6B</p>	<p>SHEET AP-6B 10</p>
	<p>Date: 7/3/2013</p>			

Figure IV-22



Source: (Caption) for 2013 as each panel imagery exists.

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Imagery Information: The red, green, blue (true color) and near infrared false color imagery was captured on 06/03/2013. The imagery was processed using the following flight parameters: 10000 ft altitude, 10000 ft ground speed, 10000 ft ground resolution. The imagery is projected to UTM 15 MGRS, unit of measure is meters.

The spatial resolution is approximately 6x each pixel.

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GOVERNOR
BRIAN KESTNER
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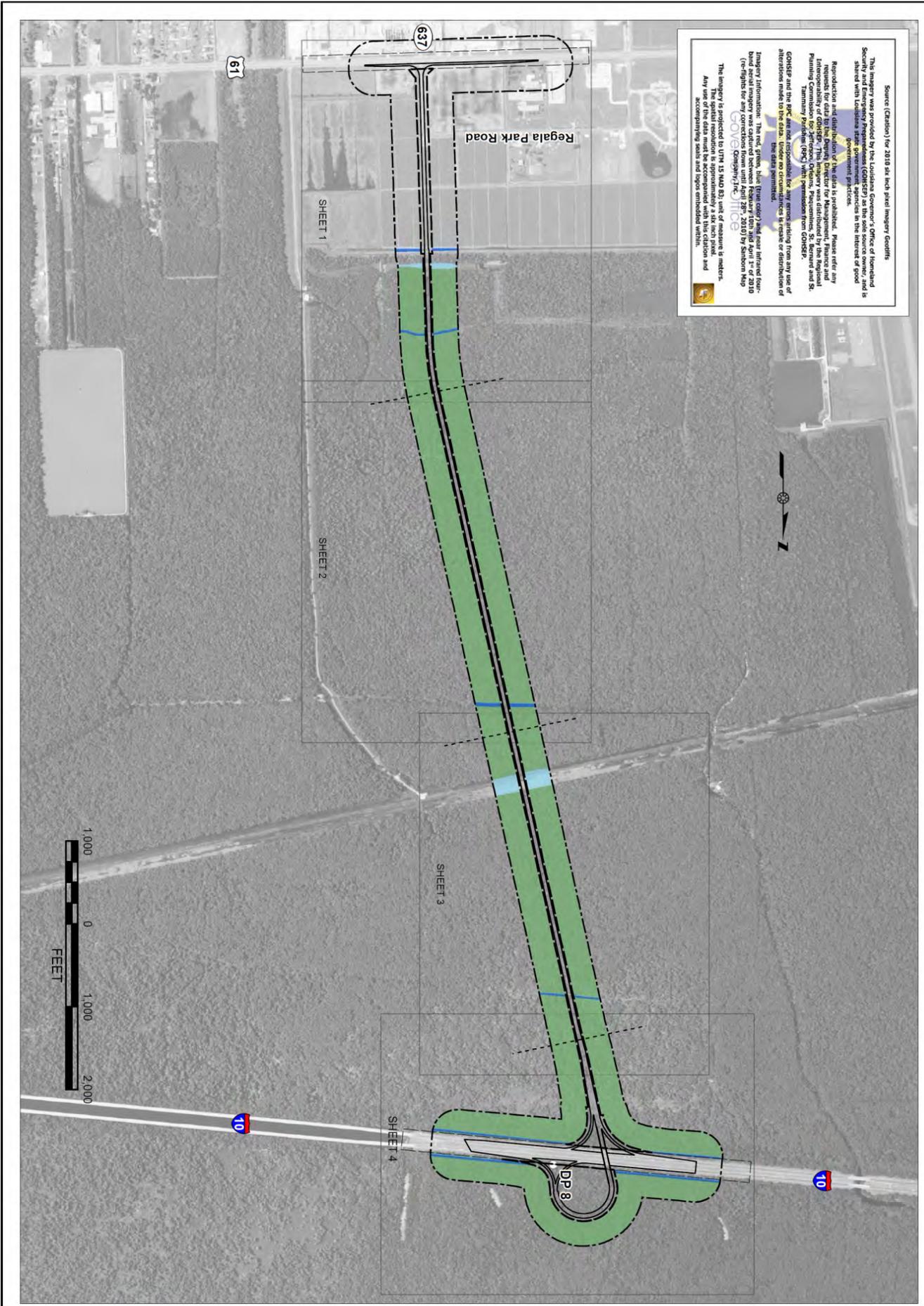

	DATA POINT		EXISTING ROW
	PFO WETLAND		REQUIRED ROW
	PEM WETLAND		300FT BUFFER
	PSS WETLAND		MATCH LINE
	WATERBODY		INDEX SHEETS
	PROPOSED ROADWAY		

ENHANCED ACCESS BETWEEN US 61 IN RESERVE AND I-10
 PARISH: ST. JOHN THE BAPTIST
 LOCATION: T11S R6E SEC. 52, 53, 55, 82, 83, & 92
 SOURCES: CEI FIELD SURVEY: JUNE 3, 11, & 20, 2013
 S.P.N. H.004891 FA.P.N. HP-TO21 (517)

WETLANDS: ALTERNATIVE AP-6B

SHEET
AP-6B
 11

Date: 7/3/2013



Source: (citation) for 2010 as high pixel imagery credits

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Imagery Information: The red, green, blue, false color, and near infrared false-color aerial imagery was captured between February 10th and April 1st of 2010 (re-flights for any corrections from April 28th, 2010) by Sanborn Map & Aerial Photography, Inc. (SAMAP). The imagery is projected to UTM 18 NAD 83 unit of measure is meters. Any use of the data must be accompanied with this citation and accompanying seals and logos embedded within.

<p>Date: 7/8/2013</p>	<p>LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT</p>	<ul style="list-style-type: none"> ○ DATA POINT ■ PFO WETLAND ■ PEM WETLAND ■ PSS WETLAND ■ WATERBODY ■ PROPOSED ROADWAY 	<ul style="list-style-type: none"> — EXISTING ROW — REQUIRED ROW — 300-FT BUFFER — MATCH LINE — INDEX SHEETS 	<p>ENHANCED ACCESS BETWEEN US 61 IN RESERVE AND I-10 PARISH: ST. JOHN THE BAPTIST LOCATION: T11S R6E SEC. 52, 53, 55, 82, 83, & 92 SOURCES: CEI FIELD SURVEY: JUNE 3, 11, & 20, 2013 S.P.N. H.004891 F.A.P.N. HP-TO21 (517) WETLANDS: ALTERNATIVE AP-6B 300-FT BUFFER</p>	<p>SHEET AP-6B 12</p>
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Figure IV-23

Alternative AP-6B

Construction of Alignment AP-6B would directly impact a total of +/- 36.63 acres of wetlands, which constitute the majority of the vegetation within the ROW, through the initial cutting of trees and grading of existing vegetated landscapes (in areas where the roadway will be constructed at grade). These wetlands consist of +/- 36.09 acres of palustrine forested (PFO) wetlands, and +/- 0.54 acres of palustrine emergent (PEM) wetlands. The ROW adjacent to on-ground infrastructure would be mowed and maintained after construction. Some portions of the ROW adjacent to the above-ground infrastructure could re-vegetate with species comparable to that which existed prior to clearing for the highway as long as the vegetation does not pose a hazard to the elevated infrastructure. The regrowth of vegetation under the above-ground infrastructure would be severely limited because of shading but some shade tolerant grass/herb communities or floating aquatic or emergent vegetation may develop. The potential for indirect impacts to vegetation is greatly reduced because the majority of the infrastructure is elevated, thereby preventing development along the constructed roadway.

Alternative P-1

Construction of Alignment P-1 would directly impact a total of +/- 35.40 acres of wetlands, which constitute the majority of the vegetation within the ROW, through the initial cutting of trees and shrubs and grading of existing vegetated landscapes (in areas where the roadway will be constructed at grade). These wetlands consist of +/- 31.63 acres of palustrine forested (PFO) wetlands, +/- 3.45 acres of palustrine emergent (PEM) wetlands and +/- 0.32 acres of palustrine scrub/shrub (PSS) wetlands. The ROW adjacent to on-ground infrastructure would be mowed and maintained after construction. Some portions of the ROW adjacent to the above-ground infrastructure could re-vegetate with species comparable to that which existed prior to clearing for the highway as long as the vegetation does not pose a hazard to the elevated infrastructure. The regrowth of vegetation under the above-ground infrastructure would be severely limited because of shading but some shade tolerant grass/herb communities or floating aquatic or emergent vegetation may develop. The potential for indirect impacts to vegetation is greatly reduced because the majority of the infrastructure is elevated, thereby preventing development along the constructed roadway.

Mitigation

Sections of Alternatives P-1 and AP-6B were located to the greatest extent possible, while still achieving project purpose and need, in already cleared and/or agricultural areas and existing roadways to avoid wetlands. The roadways through wetlands would be elevated to maintain surface water flow and to minimize the potential for a decrease in viability of or indirect loss of wetland forest due to surface water impoundment. Unavoidable direct impacts to forested wetlands would be mitigated according to the compensatory mitigation requirements of the state and federal regulatory authorities.

WILDLIFE

No Build Alternative

The No Build Alternative would have no impact on wildlife. This alternative would have no impact on colonial nesting bird rookeries or bald eagle nests.

TSM Alternative

The TSM Alternative would have no impact on wildlife. This alternative would have no impact on colonial nesting bird rookeries or bald eagle nests.

Alternative AP-6B

Alternative AP-6B would probably impact no colonial nesting bird rookeries or Bald eagle nests because they were not present within or adjacent to the proposed project ROW during the pedestrian or aerial surveys taken in June 2013. Surveys for rookeries and bald eagle nests should be conducted prior to construction in order to determine the need to conform to USFWS and LDWF guidelines and regulatory permit conditions designed to prevent disturbance to these species during their nesting season, should they be present.

Construction of the at-grade section of AP-6B extending north from US 61 encompasses the existing Regala Park Rd and sugarcane fields and would have minimal impact on wildlife beyond the current status (e.g., incidental road kill) because the area traverses an agricultural area with low quality wildlife habitat. The elevated section of Alternative AP-6B would permanently remove a long, narrow strip of high quality wildlife habitat currently used for foraging and nesting. There may be some temporary, short-term impacts to the foraging and nesting patterns of wildlife during construction as a result of noise and human presence. The movement of wildlife and fish species through the large wetland forest, marsh covered pipeline corridor and existing ditches would continue because the roadway is elevated.

Alternative P-1

Alternative P-1 would probably not impact colonial nesting bird rookeries or bald eagle nests because they were not present within or adjacent to the proposed project right-of-way during the pedestrian or aerial surveys taken in June 2013. Surveys for rookeries and bald eagle nests should be conducted prior to construction in order to determine the need to conform to USFWS and LDWF guidelines and permit conditions designed to prevent disturbance to these species during their nesting season, should they be present.

Construction of the at-grade sections of the highway near US 61 and the Hwy 3188 interchange would remove a very small area of forested wetland habitat used for cover, nesting and foraging and would probably increase the potential for road kill. Construction of the elevated sections of the highway would result in permanent direct loss of narrow strips of forested wetlands on the eastern and western reaches of the highway that currently have high habitat value for cover, nesting and foraging. There would be probably be minimal impact to wildlife habitat and associated wildlife species along the elevated section of P-1 over farmland and wetland pasture along the central reach of alternative P-1 because this area contains low quality wildlife habitat. There may be some temporary, short-term impacts to the foraging and nesting patterns of wildlife during construction as a result of noise and human presence. The movement of wildlife and fish species through the larger wetland forest area, sugarcane fields, wetland pasture and ditches would continue because the roadway is elevated.

Mitigation

As currently proposed, Alternatives P-1 and AP-6B have been located to avoid impacts to Bald eagle nests and colonial nesting bird colonies. To ensure mitigation of impacts to Bald eagles and colonial nesting birds at the time of construction, a survey would be conducted to verify the presence or absence of Bald eagle nests and rookeries. If present, construction would proceed in conformance with USFWS and LDWF guidelines and regulatory permit conditions designed to prevent disturbance to these species during nesting season.

Impacts to aquatic species in flooded forested wetlands, marshes and ditches are expected to be minimized through the implementation of a Stormwater Pollution Prevention Plan (SWPPP), which would include Best Management Practices for construction, and through implementation of standard emergency response procedures.

THREATENED / ENDANGERED SPECIES

No Build Alternative

There would be no adverse impacts to threatened or endangered species with implementation of the No Build Alternative.

TSM Alternative

There would be no adverse impacts to threatened or endangered species with implementation of the TSM Alternative.

Alternative AP-6B

Based on the result of agency coordination, research, and field surveys, it is unlikely that the project would have any adverse effect on threaten or endangered species because they were not present within or adjacent to Alternative AP-6B at the time of this investigation. The area did not contain suitable habitat for the four species of federally threatened or endangered species in St. John the Baptist Parish.

Alternative P-1

Based on the results of agency coordination, research and field surveys, it is unlikely that the project would have any adverse effects on threatened or endangered species because they were not present within or adjacent to Alternative P-1 at the time of this investigation. The area did not contain suitable habitat for the four species of federally listed threatened or endangered species in St. John the Baptist Parish.

NATURAL AND SCENIC RIVERS

No Build Alternative

No impacts to the area's natural or scenic rivers would occur under the No Build Alternative.

TSM Alternative

No scenic rivers are present within a 1-mile radius of the project area. Therefore, the TSM Alternative will have no adverse impacts on natural and scenic rivers.

Build Alternatives

No scenic rivers are present within a 1-mile radius of the project area. Therefore, neither of the Build Alternatives will have an adverse impact on natural and scenic rivers.

HYDROLOGY, FLOODPLAINS AND FLOODING

No Build Alternative

The No-Build Alternative does include the West Shore Lake Pontchartrain (WSLP) Louisiana Hurricane and Storm Drainage Risk Reduction Study (HSDRR) currently underway. The study involves the US Army Corps of Engineers, Pontchartrain Levee District, and St. John the Baptist Parish evaluating the economic and environmental feasibility of constructing a hurricane protection Levee on the east bank of St. John the

Baptist Parish. The selected alignment for the protection levee (*Alternative C , Pipeline Avoidance and Storage Capacity*) begins at the I-55/I-10 interchange, travels north a short distance along I-155, then turns to the west, following a natural gas pipeline to a point of intersection with I-10 just west of the LA 3188 interchange. It continues to follow the gas pipeline west-southwesterly to US 61 near its intersection with LA 54. From there the alignment traverses southwesterly to the Mississippi River Levee west of Garyville.

The levee is expected to be a tremendous positive impact in terms of flood protection for the project study area, and will also involve changes to the floodplains, hydrology and flood zones of the project study area.

TSM Alternative

The TSM Alternative also includes any impacts that would result from installation of a levee system under the No Build Alternative. The hydrology, flood plains, or flood zones will not be further affected by the construction or operation of the five (5) acceleration lanes under the TSM Alternative. .

Build Alternatives

Both Build Alternative also include any impacts that would result from installation of the levee system included and described under the No Build Alternative. As both Alternatives consist primarily of elevated bridge structures rather than roadways on fill, the hydrology, flood plains, or flood zones will not be further affected by the construction or operation of either Build Alternative. Both Alternatives were designed to comply with regulations regarding floodplains and are raised above the floodplain to insure the roadway would not be flooded, particularly for the route to meet the needs of a hurricane evacuation route.

Alternative AP-6B would cross the levee alignment while on a bridge structure. Alternative P-1 would not cross the levee alignment. The final engineering design of AP-6B would have to be coordinated with the USACE, Pontchartrain Levee District and the Parish to incorporate the proposed levee, as described in the *Bridge Structures* section in *Chapter II*.

WATER QUALITY

Surface Water Quality

No-Build Alternative

The No-Build alternative would have no impact on surface water quality.

Transportation System Management (TSM) Alternative

As the TSM Alternative would only consist of changes within the existing US 61 ROW, it would have no impact on surface water quality.

Alternative AP-6B

Construction activities related to the implementation of Alternative AP-6B could potentially increase surface water run-off, therefore increasing sedimentation and nonpoint source pollution into the adjacent agricultural and swamplands. Federal and state regulatory approvals for constructing the project in waters of the United States would include Sections 10/404 from the U. S. Army Corps of Engineers and Section 401 (Water Quality Certification) from the LDEQ, which are components of the Water Pollution Control (Clean Water) Act. The LDEQ and EPA would also require conformance to a Louisiana Pollutant Discharge Elimination System (LPDES) General Permit which would include the development and maintenance of a Storm Water Pollution Prevention Plan (SWPPP). The permit applicant would be expected to generate a number of acceptable Best Management Practices (BMPs), many of which would be incorporated into the SWPPP and combined with special conditions of the permits in order to minimize potential impacts from project construction and use.

Once the roadway is operational, some pollution from vehicles, consisting of small-scale fuel and lubricant leaks and small particles of rubber and metal, can be expected to comprise storm water runoff into the adjacent agricultural lands and forests. Large-scale releases are assumed to be rare based on the anticipated safety considerations to be incorporated in road design.

Should a large release of a hazardous material occur on the new roadway, it would be temporarily closed at its intersections with I-10 and US 61 and a hazardous response action would be initiated. It is possible that an incident location deep in the swamp would increase access and time considerations, necessitating the need to move equipment, containment gear and personnel from a staging location on the elevated roadway to the ground below.

Both small and large-scale spills releases have the potential to contaminate local surface waters, contribute to vegetation die-off and aquatic species mortality, but it is not expected to contribute to an overall decline in water quality.

Alternative P-1

Construction activities related to the implementation of Alternative P-1 could potentially increase surface water run-off, therefore increasing sedimentation and nonpoint source pollution into the adjacent agricultural and swamplands. Federal and state regulatory approvals for constructing the project in waters of the US would include Sections 10/404

from the U. S. Army Corps of Engineers and Section 401 (Water Quality Certification) from the LDEQ, which are components of the Water Pollution Control (Clean Water) Act. The LDEQ and EPA would also require conformance to a Louisiana Pollutant Discharge Elimination System (NPDES) General Permit which would include the development and maintenance of a Storm Water Pollution Prevention Plan (SWPPP). The permit applicant would be expected to generate a number of acceptable Best Management Practices (BMPs), many of which would be incorporated into the SWPPP and combined with special conditions of the permits in order to minimize potential impacts from project construction.

Once the roadway is operational, some pollution from vehicles, consisting of small-scale fuel and lubricant leaks and small particles of rubber and metal, can be expected to comprise storm water runoff into the adjacent agricultural lands and forests. Large-scale releases are assumed to be rare based on the anticipated safety considerations to be incorporated in road design.

Should a large release of a hazardous material occur on the new roadway, it would be temporarily closed at its intersections with LA 3188 and US 61 and a hazardous response action would be initiated. It is possible that an incident location deep in the swamp would be difficult to access, necessitating the need to move equipment containment gear and personnel from a staging location on the elevated roadway to the ground below.

Both small and large-scale spills releases have the potential to contaminate local surface waters, contribute to vegetation die-off and aquatic species mortality, but it is not expected to contribute to an overall decline in water quality.

Ground Water Quality

No-Build Alternative

The No-Build alternative would have no impact on ground water quality.

Transportation System Management (TSM) Alternative

As the TSM Alternative would only consist of changes within the existing US 61 ROW, it would have no impact on ground water quality.

Alternative AP-6B

Although the footprint of Alternative AP-6B is not located within a mile of a public well or near the primary recharge area for the aquifer, the driving of piles (associated with elevated roadway construction and currently planned to depths of 80 ft, but possibly deeper), could puncture underlying clay layer(s) that separate lenses of shallow ground

water. Perforation of a clay layer could provide travel ways for pollutants that currently do not exist. Prior to project construction, the LDEQ and possibly EPA would be contacted for consultation in order to identify measures and safeguards that would be required to minimize the potential of impacts to ground water resources.

Alternative P-1

Even though the footprint of Alternative P-1 is not located within a mile of a public well or near the primary recharge area, the driving of piles (associated with elevated roadway construction and currently planned to depths of 80 ft, but possibly deeper), could puncture underlying a clay layer(s) that separate lenses of shallow ground water. Perforation of a clay layer could provide travel ways for pollutants that currently do not exist. Prior to project construction, the LDOTD and possibly EPA would be contacted for consultation in order to identify measures and safeguards that would be required to minimize the potential of impacts to ground water resources.

PRIME FARMLAND AND SOILS

No Build Alternative

There would be no impacts to study area soils or geology if the No Build Alternative is selected. No mitigation would be proposed or required with this alternative.

TSM Alternative

There would be no impacts to study area soils or geology if the TSM Alternative is selected. No mitigation would be proposed or required with this alternative.

Build Alternatives

Although alternative routes seldom impact the entire right-of-way, calculations for prime farmlands (based on the soils map and definition of Prime Farmland Soils) were made using the right-of-way that would be required to complete each alternative. Alternative AP-6B will impact approximately 6.82 acres of prime farmland. Alternative P-1 will impact approximately 8.58 acres of prime farmland. Both of these amounts are considered negligible and not adverse impacts.

CHAPTER V

IMPACT SUMMARY, MITIGATION MEASURES, COMMITMENTS AND PERMITS, AND IDENTIFICATION OF THE PREFERRED ALTERNATIVE

In this Chapter, the Direct Impacts to the transportation system and the human and natural environments as a result of the implementation of each alternative are summarized. For unavoidable adverse impacts, this chapter provides a discussion of mitigation measures recommended to reduce those adverse effects. The indirect and cumulative impacts of the Alternatives are also examined in this chapter. Possible mitigation measures and commitments to further the project are then described. Permits required to complete each alternative are then listed. The Chapter concludes with a discussion as to the identification of the Preferred Alternative.

MITIGATION

DIRECT IMPACTS NOT REQUIRING MITIGATION

As outlined in *Chapter IV*, implementation of each Alternative will likely have some direct impacts within the project study area. Some of these impact categories are considered non-adverse/beneficial, and require no mitigation measures. They are listed below for each alternative:

No Build Alternative

- Traffic Impacts

TSM Alternative

- Traffic Impacts

Alternative AP-6B

- Traffic Impacts
- Economic Impacts
- Access to Community Facilities and Services

Alternative P-1

- Traffic Impacts
- Economic Impacts
- Access to Community Facilities and Services

DIRECT IMPACTS REQUIRING MITIGATION

Other impact area categories are considered unavoidable, adverse social, economic, or natural environmental impacts that require some form of mitigation:

No Build Alternative

- Construction Period Impacts

TSM Alternative

- Construction Period Impacts

Alternative AP-6B

- Construction Period Impacts
- Wetland Impacts (36.63 acres)
- Impacts to Wildlife
- Surface Water Quality Impacts
- Ground Water Quality Impacts

Alternative P-1

- Construction Period Impacts
- Wetland Impacts (35.40 acres)
- Impacts to Wildlife
- Surface Water Quality Impacts
- Ground Water Quality Impacts

A discussion of the proposed mitigation measures for each is provided below:

Mitigation of Construction Period Impacts

All four Alternatives are expected to face some form of construction impacts due to future roadway improvement and construction under each. For construction period impacts for improvements specific to this project (noise, air quality and vibration as a result of the TSM alternative or one of the Build Alternatives), several mitigation steps shall be taken and proper procedures followed. To minimize noise impacts, all construction equipment used in the construction phase of the project should be properly muffled and all motor panels should be shut during operation. In order to minimize the potential for impacts of construction noise on the local residents, the contractor should operate, whenever possible, between the hours of 7:00 a.m. and 5:00 p.m. At the I-10 interchange for AP-6B, there may be a need for some night time work (installing girders over traffic lanes, etc.) when traffic volumes are lower. This location is far from any developed or residential areas, however, so nighttime construction noise in this area should not be an impact.

To minimize potential air quality impacts, particularly related to control of particulate matter, the contractor shall comply with all relevant State, Federal and local laws and

regulations. To minimize vibration impacts, pile driving operations should be monitored at critical structures, pavements and utilities during all pile driving operations.

To minimize impacts to drainage channels and excavated ponds, the following procedures should be followed:

- Channel work should be minimized and the rerouting of stream segments should be avoided. If channel work is necessary, precautions should be taken to avoid channel degrading from head-cutting. For example, grades at the culverts and bridges should remain at their existing grade.
- Minimize impacts to the riparian corridor, especially forested areas. For new crossings, prior cleared areas in the floodplain should be used when possible.
- To reduce the width of impact through the floodplain/riparian area, the entire right-of-way through the riparian area of floodplain should not be cleared. Only clear what is needed for access and construction. Avoid constructing feeder roads across floodplains.
- Minimize impacts to the creek banks (soil and vegetation). Stabilize and replant disturbed banks as soon as construction at that specific site is finished.
- Best Management Practices (BMPs) should be used to avoid and minimize water quality impacts and to minimize erosion of banks and bare soil and the siltation of streams. Bare soil should be stabilized and re-vegetated as soon as possible.
- Wetlands or forested floodplains should not be used for staging or storage area. For AP-6b, a suggested area specifically for the I-10 interchange component is the triangular area created between the new westbound I-10 off-and on-ramps for that alternative, which will be bounded by at-grade roadways.
- The applicant should thoroughly brief contractors on all permit conditions. Copies of the issued permit should be posted at the project site during construction for easy reference to avoid misunderstanding and inadvertent violations.

Mitigation of Wetland Impacts

Sections of Alternatives P-1 and AP-6B were located to the greatest extent possible, while still achieving project purpose and need, in already cleared and/or agricultural areas and existing roadways to avoid wetlands. The roadways through wetlands would be elevated to maintain surface water flow and to minimize the potential for a decrease in viability of or indirect loss of wetland forest due to surface water impoundment. While the use of end-on construction is assumed in this study for purposes of impact analysis as they limit impacts to the smallest possible area, other options (conventional construction, temporary bridge) could be used. If used, these options would impact additional areas other than the final project footprint, but these additional areas would be restored as much as possible to pre-existing conditions: geotextile fabric is used as a base, all haul soils are

removed, and wetland trees seedlings (cypress) are planted at a rate of 50 per acre. Unavoidable direct impacts to forested wetlands would be mitigated according to the compensatory mitigation requirements of the state and federal regulatory authorities.

Mitigation of Impacts to Wildlife

As currently proposed, Alternatives P-1 and AP-6B have been located to avoid impacts to Bald eagle nests and colonial nesting bird colonies. To ensure mitigation of impacts to Bald eagles and colonial nesting birds at the time of construction, a survey would be conducted to verify the presence or absence of Bald eagle nests and rookeries. If present, construction would proceed in conformance with USFWS and LDWF guidelines and regulatory permit conditions designed to prevent disturbance to these species during nesting season.

Impacts to aquatic species in flooded forested wetlands, marshes and ditches are expected to be minimized through the implementation of a Stormwater Pollution Prevention Plan (SWPPP), which would include Best Management Practices for construction, and through implementation of standard emergency response procedures.

Mitigation of Surface Water Quality Impacts

Impacts to surface water quality under Alternatives AP-6B and P-1 are expected to be minimized through the implementation of a Stormwater Pollution Prevention Plan (SWPPP), which would include Best Management Practices for construction, and through implementation of standard emergency response procedures. As an example, should a large release of a hazardous material occur on the new roadway, it would be temporarily closed at its two intersection points and a hazardous response action would be initiated.

Mitigation of Ground Water Quality Impacts

Prior to project construction of Alternative AP-6B or P-1, the LDEQ and possibly EPA would be contacted for consultation in order to identify measures and safeguards that would be required to minimize the potential of impacts to ground water resources.

INDIRECT (SECONDARY) IMPACTS

The indirect or secondary impacts discussed in this section concern possible future conditions following construction of each Alternative.

NO BUILD ALTERNATIVE

No indirect (secondary) impacts are expected as a result of the No Build Alternative.

TSM ALTERNATIVE

No indirect (secondary) impacts are expected as a result of the TSM Alternative.

BUILD ALTERNATIVES

Indirect (secondary) impacts of either Build Alternative roadway should be limited due to the lack of access afforded to an elevated roadway, and no indirect impacts are likely to be experienced Parish-wide. As stated in the *Purpose and Need*, the driving force behind the project is enhanced access, not only for residents but also for the Port of South Louisiana and industries in the area. With a new route and improved access to and from Interstate 10 in place, there is also an opportunity for further economic growth than that which is anticipated—commercial, industrial and residential.

Some may see this economic growth as a positive trend, an economic boon to the area. Others see the growth as an encroachment of sprawl, and a degradation of the natural setting that makes this area so appealing. Depending on point of view, growth can be a positive or negative impact.

Transportation is, of course, tied to this growth. Without a transportation network there can be no growth. But transportation in and of itself does not and cannot create the growth-- there are several other factors at work, such as desirability of location, presence of utilities and other infrastructure, issuance of development permits by appropriate agencies, etc. Transportation developments, such as placement of a new highway interchange, can only *affect* this growth.

Normally, the mitigation measures for handling growth-related impacts are already in the public's hands, and the public sector will lead the way in determining the limit and scope of mitigation. The most common public process mechanism to do so is via *zoning*, which is in place in all of St. John the Baptist Parish. A second control over physical growth is *permitting*, be it at the local, state or federal level.

CUMULATIVE IMPACTS

METHODOLOGY

The Code of Federal Regulations (Title 40, Section 1508.7), states that cumulative effects are “...*impacts which result from the incremental consequences of an action when added to other past and reasonably foreseeable future actions, ...*” The assessment will determine the impact(s) upon quality of life and environmental quality. Consideration of past, present, and foreseeable future actions in conjunction with anticipated effects of the Preferred Alternative is required. The point of the assessment is to determine the past impacts that have occurred, the present impact implications, and future impacts to the entire study area.

Past Actions

The methodology of assessing cumulative impacts also considers the impacts from past projects within the project study area. Cumulative impacts include the impacts from the development of US 61, US 51, I-10 and I-55; residential, commercial, office, and industrial land uses; major area thoroughfares; and drainage.

Current Projects

The methodology of assessing the cumulative impacts of the Preferred Alternative also considers the impacts on other major current projects within the study area. Current, ongoing projects or developments that are included in the Preferred Alternative's cumulative impact analysis include:

- Improvements to LA 637 (W. 10th Street)
- Improvements to US 61

Future Projects

The methodology of assessing the cumulative impacts of the Preferred Alternative also considers the impacts on future foreseeable projects or developments within the study area. Several roadway and highway projects programmed for development are included as part of the No Build Alternative and described in detail in *Chapter II*, but of major importance is also the possibility (or, likelihood) of a new hurricane protection levee being constructed.

CUMULATIVE IMPACTS EVALUATION AND SUMMARY

Transportation/Traffic Circulation

The cumulative impact on the roadway system is that the TSM Alternative will slightly improve that system, while either of the two Build Alternatives will serve as a supplement to that system. Each of the Build Alternatives' cumulative impacts on the surrounding routes is positive in that it would prevent traffic circulation delays by providing a quicker route to I-10 and decreasing the amount of traffic that would be on US 61, and LA 3188. The Build Alternatives should effectuate a change in transportation utility and capacity, as well as in traffic circulation and traffic patterns on major roadways within the project study area.

Land Use Development/Redevelopment

New land use development and redevelopment of uses could possibly be a positive residual effect as a result of either Build Alternative, especially if considered in

conjunction with a new hurricane protection levee. Vacant or under-utilized land with both enhanced flood protection and more direct access will be seen as desirable, which could generate the development of further residential, commercial, office, or industrial uses. Due to the somewhat rural setting, it is anticipated that land use patterns would continue in a similar manner as past development. Substantial change is not anticipated to occur relative to the entire study area's land use character.

Summary

The overall cumulative impacts of the No Build Alternative on past, current, and foreseeable future projects in the project area would be negligible, as would those of the TSM Alternative. The overall cumulative impacts of the Build Alternatives on past, current, and foreseeable future projects in the project area would be generally beneficial. The additional transportation utility, access and traffic capacity of the Build Alternatives would assist in alleviating current traffic circulation problems and could encourage and increase new land use opportunities.

COMMITMENTS

No commitments relating to the construction of the preferred alternative are currently in place at this time.

PERMITS REQUIRED

Neither the No Build Alternative nor the TSM Alternative would require permits. The Build Alternative would require the following permits:

- A Section 10/401 Permit (Water Quality Certification) will be required from the Louisiana Department of Environmental Quality.
- Because the project affects wetlands, a Section 404 Permit will be required from the U. S. Army Corps of Engineers, New Orleans District.
- The LDEQ and EPA would also require conformance to a Louisiana Pollutant Discharge Elimination System (LPDES) General Permit which would include the development and maintenance of a Storm Water Pollution Prevention Plan (SWPPP).
- The Louisiana Department of Natural Resources, Office of Coastal Management has determined that the project would require a Coastal Use Permit as it is located within the Coastal Zone.

IDENTIFICATION OF THE PREFERRED ALTERNATIVE

EVALUATION OF ALTERNATIVES

This section presents the results of the evaluation conducted for each of the alternatives under consideration for the proposed Reserve to I-10 Connector Project. The purpose of the evaluation process is to bring together the salient facts for each alternative so that their benefits, costs, and environmental consequences can be evaluated against the stated goals for the proposed project as set forth in the Purpose and Need described in *Chapter I*. The intent of this comparative analysis is to facilitate the identification of a Preferred Alternative from among the four alternatives under consideration. The Preferred Alternative was identified by the lead agencies for the project: the Regional Planning Commission (RPC), the Louisiana Department of Transportation and Development (LADOTD), and the Federal Highway Administration (FHWA). The Preferred Alternative's identification is also to be done with the input of the cooperating and participating agencies involved with the project.

Evaluation Measures

In *Chapter I*, the *Purpose and Need* section provides a detailed identification of the transportation system's existing problems and needs as well as the purpose for the project, which is as follows:

Provide improved access between the US 61 (Airline Highway) corridor in the Reserve area north to I-10, for

- (1) general commercial and non-commercial traffic in the Parish; and for
- (2) the Port of South Louisiana.

These two aspects of the project purpose were used to compare the No-Build Alternative, TSM Alternative and the two proposed Build Alternatives.

Also compared were the impacts of the build alternatives on the environment, described in detail in the preceding chapter.

Addressing Project Purpose

No Build Alternative – The No Build Alternative does not address the project's purpose. In no manner does it provide for improved access between the US 61 (Airline Highway) corridor in Reserve north to I-10, neither for general commercial and non-commercial traffic nor for traffic related to the Port of South Louisiana.

TSM Alternative – The TSM addresses the project's purpose, albeit to a small degree. As noted in *Chapter IV*, TSM improvements are expected to overall reduce delays at the improvement intersections. This in vehicular access to existing routes leading from Reserve to I-10, but only for those vehicle trips which pass through those intersections.

Trips that do not pass through those intersections to access I-10 will not be affected positively.

Build Alternatives – The Build Alternatives both address the project’s purpose and need, much moreso than the TSM Alternative. As noted in *Chapter IV*, US 61 is expected to have more capacity with both Alternative P-1 and AP-6B than with the No Build or TSM conditions, and while US 61 is expected to operate poorly in the 2038 design year in all scenarios, Alternatives P-1 and AP-6B are expected to result in *decreases* in delay on US 61 from the No Build condition. Alternatives P-1 and AP-6B would also provide more of a safety benefit compared to the TSM improvements and No Build condition due to controlled access on the elevated sections of the alternatives. All of these changes will result in improved access within the US 61 corridor portion of the project.

However, there is a difference in degree to which the two projects address the project purpose and need:

- While both Alternatives P-1 and AP-6B would allow emergency responders to by-pass sections of US 61 which could decrease emergency response time, Alternative AP-6B would provide a more direct access route for emergency response to I-10.
- Both Alternatives P-1 and AP-6B are expected to provide more efficient port (truck) access to I-10 compared to the No Build Alternative or TSM Alternative. Alternative AP-6B is expected to provide the more efficient route for truck traffic than Alternative P-1 due to a direct connection to I-10, and due to its direct connection to newly improved W. 10th Street, the designated port access route.

Comparing Project Impacts

All four alternatives have some degree of environmental impacts, some beneficial, and some negative (requiring mitigation). **Table V-1** on the following page provides a summary matrix of those impacts, which are discussed below.

While the No Build Alternative would require no mitigation, and while the TSM Alternative requires little in mitigation, conversely, the No Build Alternative provides no beneficial impacts, and the TSM Alternative provides little in terms of impacts.

The larger comparison of project impacts is between the two Build Alternatives which address the project's purpose and need:

- As discussed above, each results in positive traffic impacts relating to enhanced access between I-10 and US 61 in Reserve.
- Each will also have a decided beneficial economic impact: as described in Chapter IV, the total economic impact of Alternative P-1 is estimated at \$99 million dollars in 2038, while Alternative AP-6B would have a slightly higher impact of \$103 million.

Table V-1 - Summary Matrix of Impacts, St. John the Baptist Parish Reserve to I-10 Connector

	No Build Alternative	TSM Alternative	Alternative AP-6B	Alternative P-1
Impacts not requiring mitigation (Beneficial Impacts)	Traffic Impacts	<ul style="list-style-type: none"> Significant increase in density (passenger car per lane mile) in 2038 Will reduce delay at improved intersections Will still have failing LOS conditions in 2038 at 3 of 4 improvement locations; (Marathon will operate acceptably) 	<ul style="list-style-type: none"> Will still have failing LOS conditions in 2038 at study intersections. US 61 to have more capacity compared to No Build and TSM Alternatives Expected to result in decrease in delay on US 61 compared to No Build and TSM Alternatives Should decrease emergency response time compared to all other alternatives Provides more of a safety benefit compared to No Build and TSM Alternatives Expected to provide more efficient truck access to I10 compared to all other alternatives. 	<ul style="list-style-type: none"> Will still have failing LOS conditions in 2038 at study intersections. US 61 to have more capacity compared to No Build and TSM Alternatives Expected to result in decrease in delay on US 61 compared to No Build and TSM Alternatives Should decrease emergency response time compared to all No Build and TSM alternatives, but not as much as Alternative AP-6B Provides more of a safety benefit compared to No Build and TSM Alternatives Expected to provide more efficient truck access to I10 compared to all No Build and TSM alternatives, but not as much as Alternative AP-6B
	Economic Impacts	None	Estimated at net benefits of \$103 million and up to 459 jobs by year 2038	Estimated at net benefits of \$99 million and up to 489 jobs by year 2038
Impacts requiring mitigation	Access to Community Facilities and Services	None	Positive Impact	Positive Impact
	Construction Period Impacts	<ul style="list-style-type: none"> Ongoing and planned projects will have some impact Installation of acceleration lanes will have some impact 	<ul style="list-style-type: none"> Ongoing and planned projects will have some impact Possible temporary noise, vibration and air quality impacts 	<ul style="list-style-type: none"> Ongoing and planned projects will have some impact Possible temporary noise, vibration and air quality impacts
	Wetland Impacts	None	Potential Impacts to 36.63 Acres of Wetlands (36.09 acres of palustrine forested wetlands and .54 acres of palustrine emergent wetlands)	Potential Impacts to 35.40 Acres of Wetlands (31.63 acres of palustrine forested wetlands, 3.45 acres of palustrine emergent wetlands, and .32 acres of palustrine scrub/shrub wetlands)
	Impacts to wildlife	None	Minimal Impact to wildlife	Minimal Impact to wildlife
	Surface Water Quality Impacts	None	Possible construction period impacts and minor operational period impacts that can be lessened via consultation and mitigation.	Possible construction period impacts and minor operational period impacts that can be lessened via consultation and mitigation.
	Ground Water Quality Impacts	None	Possibility of impacts that can be avoided via consultation and mitigation.	Possibility of impacts that can be avoided via consultation and mitigation.
	Indirect Impacts	None	Possibility of further economic growth than that quantified in direct economic impact study	Possibility of further economic growth than that quantified in direct economic impact study
	Cumulative Impacts	Negligible	Generally beneficial impacts on transportation/ traffic circulation and Land Use development/Redevelopment	Generally beneficial impacts on transportation/ traffic circulation and Land Use development/Redevelopment

- Both build alternatives are expected to have positive indirect and cumulative impacts.
- Each build alternative would have an impact on wetland acreages, which are estimated to be very similar in size: 36.63 acres directly impacted under Alternative AP-6B and 35.40 acres under Alternative P-1.
- Both build alternatives would have similar impacts on wildlife, surface water quality and ground water quality.

IDENTIFICATION OF PREFERRED ALTERNATIVE

The findings summarized in this section (including the summary matrix table) were presented to the lead agencies (RPC, LADOTD and FHWA) during a meeting on February 6th, 2014. The group then discussed the matrix and impacts (positive and negative) of each alternative:

All present agreed one of the more important items was how the project met the Purpose and Need, and that Alternative AP-6B provided better port and truck access as it would intersect directly with the soon-to-be-improved port access road (LA 637/W. 10th St) that linked River Road to US 61.

Another beneficial impact was discussed -- that of reduced emergency response time. It was noted that at the public meetings and at previous agency meetings, fire, police and EMS officials stated that AP-6B would be a tremendous benefit, but that P-1 would not benefit their operations in reaching incidents on I-10 between the Belle Terre and the LA 641 interchanges.

It was noted that the economic impact analysis indicated a net benefit of \$103 million for AP-6B and \$99 million for P-1, both higher than the estimated cost of each alternative (\$77 million and \$75 million respectively).

It was noted that the wetland impacts of the two build alternatives --probably the largest impact requiring mitigation-- were very similar --36.63 acres for Alternative AP-6B and 35.40 acres for P-1.

It was the consensus among the lead agencies that Alternative AP-6B was the preferred alternative for best meeting the purpose and need of the project, and as it was most beneficial in terms of impacts.

CHAPTER VI

PUBLIC PARTICIPATION, AGENCY COMMENTS AND COORDINATION

This chapter describes the public participation process for the project, including a summary of the Phase I early involvement process as well as documentation of public meetings and hearings and coordination efforts associated with the development of the project through the Phase II portion of the project. These efforts include meetings with the lead agencies (RPC, LADOTD, and FHWA), other agencies, and elected officials, and correspondence received during the project.

Files of all correspondence, actual meeting reports, sign-in sheets, meeting agendas, handouts, etc. are available for review at LADOTD.

PHASE I EARLY INVOLVEMENT (SCOPING) PROCESS

BACKGROUND

The Port of South Louisiana has experienced significant growth over the last few years, and looks to continue this growth into the future. Concurrently, the east bank of St. John the Baptist has also experienced growth and hopes to have continued economic growth in the future. In the wake of Hurricane Katrina and its impact on the New Orleans metro area, continued growth of the Port and the commercial/industrial component of the Parish are vital to the economic recovery of the region. However, one of the impediments to further development has been access to the interstate for Port and other commercial traffic. While port facilities exist along a 54-mile stretch of the Mississippi River, the main focus of port activities and need for port access has been focused in the Reserve area. Unfortunately, Reserve has no direct connection to the interstate system. Interchanges with I-10, the nearest interstate highway lie either eight miles to the east at Highway 3188 or twelve miles to the west at Highway 641. Access to I-10 from the port facilities at Reserve via either of these routes is rather cumbersome, using one of three state highways to access US 61, then traveling either west or east along this congested commercial thoroughfare to the state highways linking to I-10. The routes also pass through residential areas.

In order to address the Port access issues, an Environmental Assessment was undertaken. The Draft Environmental Assessment was completed in August 2004, followed by a public review period. As there were several major issues raised by agencies such as the US Army Corps of Engineers and US Fish and Wildlife Service, as well as concerns expressed by some residents and environmental groups, it was the agreement of the LADOTD, FHWA, Port of South

Louisiana, and St. John the Baptist Parish that a more far-reaching study-- an Environmental Impact Statement-- would be needed.

As a result, the Regional Planning Commission authorized an Environmental Impact Statement (EIS) for *Port of South Louisiana and St. John Parish Enhanced Commercial Interstate Access*. Under the new federal guidelines and regulations for an EIS, there was to be substantial opportunity for input by the participating agencies and the public. The project was also divided into two phases. Phase I more or less tracked the traditional Scoping process, and included the initial work on the project, including *Project Initiation, Agency Identification and Initiation*, development of the *Coordination Plan and Schedule*, the *Development of Purpose and Need*, and *Alternative Development and Consideration*. If, after the *Alternative Development and Consideration* process was complete and TSM, and/or Build Alternatives were included as Initial Alternatives, then the project would move forward into Phase II. Phase II includes evaluation and screening of the list of initial alternatives into candidate alternatives, conceptual design and cost estimates of the candidate alternatives, an Impact Analysis of those candidate alternatives, and preparation of a *Draft Environmental Impact Statement (DEIS)* followed by completion of a *Final Environmental Impact Statement (FEIS)* and *Record of Decision (ROD)*.

This section provides a listing of the tasks, processes, and findings of Phase I (Scoping) of the St. John the Baptist I-10 Access Project.

PROJECT INITIATION

The first step in the process was to initiate the environmental review process. The consultant prepared a Notification Letter to the FHWA, which described the type of work, termini, length, and general location of the proposed project, and also identified any other Federal approvals (e.g., Section 404 permits) that were anticipated to be necessary for the proposed project. This notification letter was sent on May 5th, 2009 to the FHWA, with a copy sent to the LADOTD. A copy of the notification letter is available in the Appendix.

The next step in the project initiation was the preparation and publishing of a *Notice of Intent*. The Lead Agencies Cooperated on drafting the Notice of Intent (NOI), and the FHWA submitted the NOI to the Federal Register for publication. The NOI was distributed to all Federal Agencies via the Federal Register published on May 15, 2009. A copy of the NOI is included in the Appendix.

AGENCY IDENTIFICATION AND INVITATION:

The next step in the Phase I process was the identification of all Federal, State, tribal, regional, and local government agencies that may have an interest in the project, to decide which of these should be invited to serve as participating, cooperating and lead agencies.

Lead Agencies

The lead agencies (FHWA, RPC and LADOTD) were determined first, actually prior to the project initiation phase, as the lead agencies collectively decide which agencies to invite to serve as participating and cooperating agencies. As specified in CEQ regulations for implementing NEPA (40 CFR § 1501.5), lead agencies are responsible for supervising the preparation of the environmental impact statement. SAFETEA-LU Guidance also specifies that lead agencies must:

- Provide increased oversight in managing the process and resolving issues;
- Identify and involve participating agencies;
- Develop coordination plans;
- Provide opportunities for public and participating agency involvement in defining the purpose and need and determining the range of alternatives; and
- Collaborate with participating agencies in determining methodologies and the level of detail for the analysis of alternatives.

During early project meetings, the Lead Agencies prepared a list of agencies to invite to serve as cooperating and participating agencies on the project. The invitation letters were sent on July 2, 2009.

Cooperating Agencies

Cooperating agencies share responsibility for developing information and environmental analyses related to their respective areas of expertise. Cooperating agencies are, by definition, also participating agencies. As such, cooperating agencies share the responsibilities of SAFETEA-LU participating agencies, including responsibility to participate in the NEPA process at the earliest possible time and to participate in the scoping process.

The only Agency that was invited as a cooperating agency was the **US Army Corps of Engineers (USACE) – New Orleans Division, Regulatory Section**. They accepted the invitation and have served as cooperating agency on the project due to the likelihood of project alternatives facing wetland issues, and the likelihood of build alternatives requiring Section 404 Wetlands permits.

Participating Agencies

Pursuant to Section 6002 of SAFETEA-LU, participating agencies are responsible to identify, as early as practicable, any issues of concern regarding the project's potential environmental or socioeconomic impacts. A participating agency's role is to:

- Participate in the scoping process;

- Provide meaningful and early input on defining the project "purpose and need," determining the range of alternatives to be considered, and the methodologies and level of detail required in the alternatives analysis;
- Participate in coordination meetings and joint field reviews as appropriate;
- Review and comment in a timely manner on the pre-draft or pre-final environmental documents;
- Provide meaningful and timely input on unresolved issues; and,
- Participate in meetings to resolve issues that could delay completion of the environmental review process or result in denial of approvals required for project under applicable laws.

Agencies that were invited as Participating Agencies and did not decline the invitation are listed beginning below:

- Environmental Protection Agency
- United States Fish and Wildlife Service
- Coastal Management Division, Louisiana Department of Natural Resources
- Louisiana Department of Wildlife and Fisheries
- South Central Planning and Development Commission
- St. John the Baptist Parish
- Pontchartrain Levee District
- Louisiana Department of Environmental Quality
- Port of South Louisiana
- Engineering Division, US Army Corps of Engineers-New Orleans District

COORDINATION PLAN AND SCHEDULE:

The consultant worked with the lead agencies to establish a plan for coordinating public and agency participation and comment during the EIS process. The coordination plan addressed public involvement requirements such as types of events that may be held, methods or strategies, etc. The goal of the plan was is to assist agencies and the public in better understanding the project and its potential impacts and to facilitate the exchange of information about the project area and the needs of the community.

A project schedule was also developed with the coordination plan, prepared in consultation with each participating agency, the project sponsor, FHWA and the LADOTD. The schedule included decision making deadlines for each agency approval, such as permits, licenses, and other final decisions, consistent with statutory and regulatory requirements, in order to encompass the full environmental review process.

It should be noted that particularly within the schedule portion, the Coordination Plan and Schedule was a *working document*. For instance, contact information in the Coordination Plan was updated due to changes in agency personnel and elected officials. More notably, dates and timeframes for events and milestones were posted first in terms of general dates (Summer 2010,

September-October 2009). As dates and items such as meeting times and locations were verified, they were revised within the schedule to reflect the actual date, times and location. Once a date had passed and/or a milestone completed, the timeframe within the schedule was italicized to indicate its completion. Thus the schedule also became a record of events. As it was updated, the Coordination Plan and schedule has been (and will continue to be) posted on RPC's web site: www.norpc.org.

1ST AGENCY SCOPING MEETING

Background

This meeting was held on August 4th, 2009 at the Regional Planning Commission offices. The purpose of this meeting was to explain what work had been done leading up to this point, to discuss the draft purpose and need statement as well as the draft coordination plan, and to solicit comments from the invited agencies. Handouts at this meeting were the Draft Purpose and Need and the Draft Coordination Plan.

Discussion:

The bulk of the information for this meeting came from the Draft Environmental Assessment completed in August 2004 for a connector road between the Port of South Louisiana and Interstate 10. After this was summarized, the draft purpose and need was presented as well as the draft coordination plan. Afterward, the floor was opened for comments.

General Comments:

- Ed Fike of Coastal Environments, Inc. explained that the Woodland Boulevard extension is currently in design and next year it will be going to the state for funding.
- Ed Fike also noted that there are geologic surface faults on I-10 just east of 641.
- It was suggested that in order to keep the process moving forward, the agency commenting period should be shortened to 10 days.
- In comments directed towards the Parish, Bob Mahoney, with FHWA suggested that during this EIS study period, no new developments should occur in the alternative corridors. This will just raise costs if any of the alternatives move forward. FHWA also encouraged that all facilities in wetlands be limited access.
- Louisiana Department of Natural Resources has an ongoing Mississippi River diversion project in the Garyville area. The purpose of this project is to help restore the Maurepas

Swamp. The location of this project could possibly affect any alternative coming from this study.

- Buddy Boe, representing St. John the Baptist Parish, mentioned the new National Guard Readiness Center located at 4120 West Airline in Reserve. There is also a new VA hospital facility at 247 Veterans Blvd in Reserve.

Purpose and Need Comments

Buddy Boe, representing St. John the Baptist Parish, expressed a desire to “beef up” the emergency response aspect of the EIS. This would cover not only the big disaster responses, but the day to day responses as well. He cited concern that emergency vehicles being dispatched to I-10 between the LA 3188 and LA 641 exits have no quick way to respond to additional emergencies occurring closer in. With a connector road in place, emergency vehicles would be able to get to I-10 and then return and prepare for the next call in a much timelier manner.

Proposed Alternative Comments

- There are currently three merge lanes near the Marathon Oil facility that are being extended in order to allow large trucks more space to accelerate without holding up traffic. A question was posed whether or not there would be additional merge lane enhancements in the area. The team responded that any suitable upgrades throughout the road network would be looked at.
- It was noted the four final alternatives from the EA connected to I-10 at grade and did not connect to the elevated portion over wetlands.
- In reference to bald eagle nests, and perhaps any other local birds such as egrets, the question was asked how flexible will the alignments need to be in order to accommodate these existing animals. This would be better answered by Louisiana Department of Wildlife and Fisheries.
- It was noted that the West 10th and West 19th alternatives cut through existing facilities.
- There are intersections that are scheduled for improvements: US 61 at Old US 51 (Main Street); US 51 at US 61; US 61 at Hemlock Street (LA 3224); US 61 at Belle Terre (LA 3188); and US 61 at Marathon Avenue which, in addition to merge lanes, will be signalized.
- It was asked if the “Belle Terre” alternative was alive. Originally dropped from consideration in the original EA, the Belle Terre, or Red Line, alternative is very much

alive, as are most of the alternatives previously considered. This alternative is considered to be a good alternative although the “backtrack” aspect is not appealing, as trucks needing to head west on I-10 have to in fact head east in order to connect to I-10.

- A new back levee may be constructed in the parish. Two alternatives from the EA, RR-4 and RR-5, could follow this new levee alignment. These two alternatives were eliminated in the EA but will be brought back into consideration in the EIS.

At the conclusion of the meeting, the attendees decided the following alternatives warranted further consideration:

- **AP-2.** This alternative extends north from US 61 just east of the Marathon Oil facility to I-10.
- **AP-7.** The alternative extends north from US 61 and West 19th Street to I- 10
- **AP-6.** This alternative north from US 61 and Rosenwald Street to I-10.
- **AP-6B.** This alternative extends north from US 61 and LA 637 to I-10.
- **EIS-1.** This alternative extends from US 61 just west of the St. John Airport north to I-10.
- **EIS-2.** This alternative extends from US 61 and LA 54 north to I-10.
- **EIS-3.** This alternative extends north from US 61 and Homewood Place toI-10.
- **EIS-4 and EIS-5.** These alternatives would extend from an improved Rosenwald Street north of US 61 to LA 3188, with EIS-4 being the more northerly of the two.

1ST PUBLIC SCOPING MEETING

Background:

This meeting was held on August 5th, 2009 at the St. John the Baptist Parish Council Chambers. 27 persons were in attendance including project team members and citizens. The purpose of this meeting was to explain what work had been done leading up to this point, to discuss the draft purpose and need statement as well as the draft coordination plan, and to solicit comments from public agencies and citizens. Handouts at this meeting were the Draft Purpose and Need and the Draft Coordination Plan.

Discussion:

The bulk of the information for this meeting came from the Draft Environmental Assessment completed in August 2004 for a connector road between the Port of South Louisiana and Interstate 10. After this was summarized, the draft purpose and need was presented as well as the draft coordination plan. Below is a summary of the comments received at the meeting and by fax and mail. The comments received via fax and mail are attached.

General Comments:

- One gentleman asked about the timeline of the project. Bruce Richards of N-Y Associates answered by saying the EIS should be finalized in May of 2011. A timeline for the actual construction of the project remains to be seen. There are far too many unknowns at this point in time to give an accurate answer.
- Rebecca W. Cope of the Lake Pontchartrain Basin Foundation felt that the project would destroy critical basin habitats. She stated that the EIS must address mitigation for this project. She also stated that the project was incompatible with on-going coastal restoration efforts.

Purpose and Need Comments:

- Allen St. Pierre of the Pontchartrain Levee District expressed a need for a connector road based on the amount of growth St. John has experienced.
- Rico Miller voiced concern over flooding in the I-10 / I-55 / US-51 area.
- Lloyd Bryars, Jr. voiced concern over congestion on US 61. A new connector road would help alleviate congestion.
- Rebecca W. Cope expressed concern that the current need for this project was unclear.

Proposed Alternatives Comments:

- Burton P. Mayeux proposed a five phase alternative. The first phase would connect LA 3179 to LA 3188. The second phase would connect the first phase with LA 54 near Garyville. The third phase would connect the Belle Terre / I-10 intersection with I-55. The fourth phase would feature a new I-10 intersection west of the Bonne Carre Spillway that would connect directly with Airline Highway and have a “split connection” to LA

3217. The fifth phase would be a new Mississippi River Bridge connecting LA 3179 to LA 3127 on the west bank.

- Rebecca W. Cope wanted to see the DOTD utilize existing roadways before pursuing alternatives that would require new roadway construction and impact environmental resources.

Based on the comments presented at the meeting and in writing after the meeting, the following alternatives were added to those coming out of the Agency Meeting held on August 4, 2009, as warranting further consideration:

- P1. This alternative extends north from US 61 and LA 3179 to LA 3188 (Belle Terre Boulevard) just south of the LA 3188 / I-10 interchange.
- P2. This alternative is an optional extension of P1, and extends north and east from US 61 and LA 54 and links with alternative P1.
- P3. This alternative is an improvement to the intersection area of US 51, I-55 and I-10.

2ND AGENCY SCOPING MEETING

Background

The 2nd Agency Scoping meeting was held on November 12, 2009. The purpose of this meeting was to take final comments on the draft *Purpose and Need* and to take final comments and input on the list of initial alternatives, with much of the alternatives discussion focusing on which Alternatives *could* be eliminated from the study due to some fatal flaw.

Discussion

After introductions and a welcome by Rebecca Otte of the Regional Planning Commission, consultant team manager Bruce Richards gave a brief recap of the scoping process to date. He summarized the meetings with the agencies and the public, the comments that came from them, and the alternatives that came about from these meetings and comments. The group was solicited for final comments on the draft *Purpose and Need*. Mr. Richards then went through the descriptions of each of the preliminary alternatives and asked the group what, if any, fatal flaws they thought existed for each. Prior to thanking the group and closing the meeting, Rebecca went over the remaining schedule for this portion of the study.

General Comments

- Bob Mahoney of the FHWA reminded the group that an Interchange Justification Report would need to be completed for the study. He mentioned interchange spacing as something that would need to be paid attention to. However, it is fairly probable that there will be no spacing issues.

Purpose and Need Comments

- There were no comments on the draft Purpose and Need.

Proposed Alternative Comments

- **AP-2:** The primary concern over this alternative was its proximity to the eastern tract of the Maurepas Swamp Wildlife Management Area. Kent Israel of URS Corporation, representing the Port of South Louisiana, asked if it could be shifted westward to align with Marathon Ave. Mr. Richards agreed that it could be shifted away from the WMA and more in line with Marathon.
- **AP-7:** Jeff Messina of sub-consultant Urban Systems mentioned that during the original Environmental Assessment, there were concerns that stored planes would need to be taxied across this new alignment on their way to the runway. Currently, this alignment is paved as a local street; under this alignment it would be widened into a two-lane highway with full shoulders (and higher travel speeds).
- **AP-6:** Alan St. Pierre of the Pontchartrain Levee District noted that this alternative is very close to the new Veterans Hospital and the War Veterans nursing home and would help facilitate more efficient transport to and from these facilities.
- **AP-6B:** Mr. Richards noted the rookery that lies very close to this proposed alignment. This alternative would need to be shifted.
- **EIS-1:** Mr. Richards noted that this alternative passes directly through the western tract of the Maurepas Swamp WMA. Mr. Messina added that when this alignment was considered during the EA, not only were there flight path concerns with this alignment due to its proximity to the St. John the Baptist Airport, there was also a navigation beacon used by the airport close to this alignment. Based on this, it was suggested that this alternative *could* be eliminated.
- **EIS-2:** This alternative is passes through the WMA as well as a possible Department of Natural Resources diversion project. Mr. Richards suggested that this alternative *could* be eliminated.

- **EIS-3:** Mr. Messina recalled that this alternative, when initially considered during the EA process, was cost-prohibitive due to the fact that it connected with the elevated portion of I-10. Bob Mahoney also noted that this alternative spanned more wetland area than most of the other alternatives.
- **EIS-4 & 5:** After some discussion about the future placement of levees in St. John the Baptist Parish, it was noted that neither of these alternatives have any “fatal” flaws.
- **P-1:** This alternative has no apparent “fatal” flaws and is similar to the alternative suggested by Joshua Marceaux of the United States Fish and Wildlife Service.
- **P-2:** This alternative passes through the WMA and spans the most wetlands of any of the alternatives. Mr. Richards noted that this citizen suggested alternative was not a primary route, but an “adjunct” of the main alignment, suggested (P-1). Rebecca Otte wondered if this alternative was outside of the Purpose and Need of this project. Bob Mahoney agreed, noting that the alternative acted more as a bypass of US 61, and did not serve as an alternative on its own. It was then suggested that this alternative *could* be eliminated.
- **P-3:** While this alternative addresses a known problem—flooding at the US 51/I-10/I-55 interchange, Bob Mahoney noted that as it operates currently, it is an incomplete interchange, and the issues associated with this status are different from those we are addressing in our project. As such, he thought that this was outside of the Purpose and Need. Frank Nicoladis of N-Y Associates voiced his agreement. It was then suggested that this alternative *could* be eliminated.
- **Improvements to US-61:** This alternative will move forward as the Transportation Systems Management (TSM) alternative.

After discussion of the alternatives, Rebecca Otte went of the schedule for the remainder of this portion of the study. The schedule is as follows:

- November 19, 2009: Second Public Meeting
- December 1st or 2nd: USACE Meeting
- December 29th: RPC to send out Final Documents for Agency Review
- January 13 or 14th, 2010: Follow up Agency Meeting to review Final Deliverables.
- Week of January 25th, 2010: Lead Agency Meeting to review Final Deliverables and lay out next steps.

2ND PUBLIC SCOPING MEETING

Background

The 2nd public meeting was held on November 19th, 2009 at the Central Branch of the St. John the Baptist Parish Library in LaPlace. The purpose of this meeting was to take final comments on the draft Purpose and Need and to take final comments and input on the list of initial alternatives, specifically to determine which alternatives *could* be eliminated from the study due to some fatal flaw.

Minutes

After introductions and a welcome by Rebecca Otte of the RPC, Bruce Richards gave a brief recap of the scoping process to date. He summarized the meetings with the agencies and the public, the comments that came from them, and the alternatives that came about from these meetings and comments

Purpose and Need Comments

The group was solicited for final comments on the draft Purpose and Need.

- There were no comments on the draft Purpose and Need.

Proposed Alternative Comments

Mr. Richards then went through the descriptions of each of the preliminary alternatives and asked the group what, if any, fatal flaws existed for each.

- **AP-2:** The primary concern over this alternative was its proximity to the eastern tract of the Maurepas Swamp Wildlife Management Area. Mr. Richards explained that in the agency meeting, the idea of shifting this alternative to better line up with Marathon Avenue was discussed.
- **AP-7:** It was noted that there is a retention pond and a pump station close to this alternative. Henry Sullivan, of the Port of South Louisiana, mentioned plans for a 1,005 foot runway extension to the St. John the Baptist Parish Airport. One attendee spoke of an alignment very similar to this one contained in the original I-10 plans that would allow access from I-10 to US 61. Currently, part of this alignment is paved as a local street; under this alternative that portion would be widened into a two-lane highway with full shoulders (and higher travel speeds).

- **AP-6:** There were no comments on this alternative.
- **AP-6B:** Mr. Richards noted the rookery that lies very close to this proposed alignment. This alternative would need to be shifted.
- **EIS-1:** Mr. Richards noted that this alternative passes directly through the western tract of the Maurepas Swamp WMA. He also mentioned flight path concerns as well as a navigational beacon in close proximity to this alternative. The planned runway extension was mentioned again. Based on this, it was suggested that this alternative *could* be eliminated.
- **EIS-2:** This alternative passes through the WMA as well as a possible Department of Natural Resources freshwater diversion project. Mr. Richards suggested that this alternative *could* be eliminated.
- **EIS-3:** Mr. Richards noted that this alternative connected to the elevated portion of I-10 and that it spanned more wetland area than most of the other alternatives.
- **EIS-4 & 5:** There were no comments on this alternative.
- **P-1:** There were no comments on this alternative.
- **P-2:** This alternative passes through the WMA and spans the most wetlands of any of the alternatives. Mr. Richards noted that this citizen suggested alternative was not a primary route and existed outside of the project's purpose and need. It was then suggested that this alternative *could* be eliminated.
- **P-3:** Mr. Richards described this alternative as one that address a known problem but exists outside of the project's purpose and need. It was then suggested that this alternative *could* be eliminated.
- **Improvements to US-61:** This alternative will move forward as the Transportation Systems Management (TSM) alternative.

After reviewing the alternatives, the floor was opened for discussion.

- One attendee, referring to the green shaded wetland portions displayed on the alternatives map, asked if any new roadway passing through these wetlands would be elevated. Mr. Richards answered yes, explaining that the US Army Corps of Engineers would want to limit access to any new roadway and thus minimize impacts. The attendee then asked if that meant there would be no development in the future along that route and Mr. Richards responded that that was correct.

- An attendee stated that EIS-3 and P-1 were not viable alternatives as they didn't offer any appreciable time and travel distance differences over the existing conditions.
- Mr. Sullivan believed that P-1 was not a viable alternative due to its proximity to East St. John High School. He mentioned a plan in process to add 1000 feet of dock to the Port of South Louisiana facilities and that there will be a big increase in truck traffic. He also said that the port is looking to complete this dock expansion in 18 months.
- One person said that AP-6B takes advantage of planned improvements to LA 637 and that because of this AP-6B as well as AP-6 were good choices.
- An attendee stated that while the port does not handle hazardous material, Marathon Oil does. Therefore hazardous material could be brought into close proximity of the War Veterans Home and VA clinic via alternatives AP-6 and AP-6B, making these alternatives undesirable.
- A combination of EIS-4, EIS-5 and P1 that would extend to LA 54 was suggested by one group member. This person also submitted written comments and an updated map illustrating his comments.
- Mr. Sullivan mentioned plans for a new east-west oriented runway. He also informed the group that while the Parish owns the airport, the Port manages it.
- One attendee said that the elevated portion of I-10 (Three Mile Bridge) had some of the worst auto accidents and tying into the elevated portion was a bad idea. He was in favor of alternatives AP-6 and AP-6B. He also said that many trucks were using Highway 51 to bypass the weighing station on I-10, and that any alternative would be underutilized until this problem was addressed.
- Mr. Sullivan expressed support for the portion of the Purpose and Need that called for a separation of commercial and local traffic.
- Bob Mahoney of FHWA explained that some of the east-west connections could be at grade. Mr. Richards noted that the lines as depicted on the map were conceptual in nature, and in those cases were they were adjacent to both wetlands and "fastlands", more than likely the roadway would be built on the fastlands portion.
- One attendee then asked about how the future location of the levee might affect roadway location on some of the east-west routes that linked to the Belle Terre interchange. Mr. Richards noted two points: one, that the EIS process should be complete before the levee process, and two, that regardless of the levee location, those areas within the protection levee that are currently wetlands will still be wetlands, similar to what has occurred with levee construction in St. Charles Parish. Mr. Richards noted that it is not as simple as building a roadway just inside or atop the future levee.

- This prompted a discussion on levee construction and road construction and how they were incompatible with each other. Henry Picard, a consulting engineer with the Pontchartrain Levee District, said that clay is often used for levees and is desirable because it is relatively impermeable to water. On the other, sand is often used as a base for roads and is desirable because it allows water to pass through.
- It was suggested that future public meetings held in Reserve would be better attended than this particular meeting held in LaPlace.

3RD AGENCY SCOPING MEETING, DECEMBER 1, 2009

Background

This meeting was held at the US Army Corps of Engineers Headquarter in New Orleans on December 1, 2009. The purpose of this meeting was to take final comments and input on the draft Purpose and Need and to take final comments and input on the list of initial alternatives, specifically to determine which alternatives *could* be eliminated from the study due to some fatal flaw.

Minutes

After introductions and a welcome by Rebecca Otte of the Regional Planning Commission, Bruce Richards of N-Y Associates gave a brief recap of the scoping process to date. He summarized the meetings with the agencies and the public, the comments that came from them, and the alternatives that came about from these meetings and comments as summarized in the meeting minutes from August and November 2009.

Purpose and Need Comments

The group was solicited for final comments on the draft Purpose and Need.

- James Barlow of the USACE wanted more specificity in the Purpose and Need. When he asked about “who” in the parish needed better access, Mr. Richards answered that the Parish wants more direct access for the residents of Reserve and also wants to reduce truck traffic on US 61 and roads such as Belle Terre Boulevard and new US 51. Mr. Barlow suggested revising the scope to focus on connecting Reserve with I-10. Mr. Richards and Ms. Otte will discuss this with the Parish.
- Bob Mahoney of FHWA mentioned that there are certain groups that want the truck traffic out of LaPlace. Bruce Richards noted that a revised Purpose and Need would help address this.

- Mr. Barlow thought that the hurricane evacuation and emergency response aspects should be left out. Mr. Richards responded that not only did the Parish express a desire for these aspects to be included; it wanted them to play prominent roles in the Purpose and Need. Ms. Otte said that the team would discuss this with the Parish.

Comments on the Proposed Alternatives

Looking for input on any fatal flaws that might exist, Mr. Richards then went through the list of alternatives.

- Although not on the list of alternatives, Mr. Barlow felt that an upgraded LA 641 should be looked at. The group agreed that an upgraded LA 641 should be added to the list. However, Mr. Richards noted that LA 641 doesn't necessarily improve access to Reserve.
- **AP-2:** Would be altered due to slight overlap of Maurepas WMA. No comments presented at this meeting.
- **AP-7:** Currently, some planes that are taxied from their airport hangars cross this alignment. No comments presented at this meeting.
- **AP-6:** No comments presented at this meeting.
- **AP-6B:** Would be altered due to proximity to avian site. No comments presented at this meeting.
- **EIS-1:** Due to flight path concerns, proximity to a navigational beacon and the fact this alternative passes directly through the WMA, Mr. Richards suggested that this alternative could be eliminated.
- **EIS-2:** This alternative passes through the WMA as well as a possible Department of Natural Resources diversion project. Mr. Richards suggested that this alternative *could* be eliminated. Mr. Barlow agreed.
- **EIS-3:** No comments presented at this meeting.
- **EIS-4 & 5:** Robert Lott, of DOTD, asked why neither EIS-4 nor EIS-5 connected with West 10th Street. Mr. Richards explained that these two alternatives came from the previous EA. He then agreed that EIS-5 should be altered so as to connect with West 10th and that doing so would better define and differentiate the two alternatives.
- **P-1:** Mr. Barlow wanted to go on record as being in favor of a modified P-1 alternative, as long as this alternative was kept closer to the agriculture lands than to the wetlands.

Bob Mahoney added that the P-1 would also provide an outer boundary for future development. Mr. Barlow later said that regardless of alternative placement, the Parish would not receive any new developable land. Mr. Richards stated that this was explained to the public at the last Public Scoping meeting, using the levee system of St. Charles Parish as an example.

- **P-2:** This alternative is an adjunct to the P-1 alternative and does not stand alone. It also traverses more wetland area than any other alternative. It was suggested that this alternative could be eliminated.
- **P-3:** This alternative does not address the Purpose and Need and could be eliminated. Jacqueline Farabee asked if roadway improvements would include the US-51 / I-55 interchange. Mr. Richards answered by saying US-61 would be the focus of the roadway improvements.
- **Improvements to US-61:** This alternative will move forward as the Transportation Systems Management (TSM) alternative.
- Mr. Barlow reiterated the Corps' desire to first avoid impacts to wetlands. If there are any impacts, they must be minimized in every way possible. Any alternative that goes through wetlands must traverse the shortest distance possible, the width of the roadway must be minimized and any roadway must be elevated. Any and all impacts must be mitigated, as well. He also said the Corps would like to see any future roadways hug current developments.
- Mrs. Farabee explained that the roadway itself is only one impact. There are also work zones during the construction of the roadway that must also be considered.

Summary of alternatives recommended for elimination based on comments from the second round of meetings with involved Agencies, the Public, and this meeting with the USACE:

- **EIS-1:** Passes through WMA, proximity to airport runway and navigation beacon.
- **EIS-2:** Passes through WMA and is close to future river diversion project
- **P-2:** Outside of Purpose and Need.
- **P-3:** Outside of Purpose and Need.

General Comments

Notice was given of the next meeting, a follow-up Agency meeting on January 13th to be held at the RPC offices. The Corps will have staff in attendance at that meeting.

FINAL AGENCY SCOPING MEETING

Background

The Final Agency Scoping Meeting was held on January 13, 2010, in the RPC offices. The purpose of this meeting was to review the Purpose and Need, Coordination Plan, List of Alternatives, and Initial Alternatives Map, as well as to reach consensus that the project should move forward to Phase 2.

Minutes

After introductions and a welcome by Rebecca Otte, of the RPC, Bruce Richards, of N-Y Associates, gave a brief recap of the scoping process to date. He summarized the meetings with the agencies and the public, the comments that came from them, and the alternatives that came about from these meetings and comments

Purpose and Need Comments

The group was solicited for final comments on the draft Purpose and Need.

- James Barlow, of the USACE, thought that the use of the words “enhance” and “improved” in the first sentence was redundant. The rest of the group agreed that the word “enhance” would be dropped.

Proposed Alternative Comments

Mr. Richards then presented the final list of initial alternatives and asked if the group felt comfortable moving forward with this set of alternatives. He also asked if there were any new alternatives that should be added.

- When Mr. Richards stated that the initial alternatives would be whittled down to 2 alternatives, Scott Nelson, of FHWA, asked if the two alternatives would include the TSM alternative. Mr. Richards clarified that two build alternatives, the TSM alternative, and the no-build alternative would be evaluated in the EIS.
- Buddy Boe, of St. John the Baptist Parish, asking about the alternatives map, wanted to know if the yellow lines representing the alternatives brought forward from the previous EA spanned equal distances over wetlands. Mr. Richards responded by explaining that while the alternatives in question were of similar length, AP-2 and AP-7 spanned much shorter distances over wetlands than the other two alternatives. These two alternatives hugged the agricultural lands for significant distances before crossing over into the

wetlands. It's important to note that this type of minimization of impacts is something that the Army Corps of Engineers will be looking for when they are evaluating any 404 permit application.

- Chris Davis, of the Louisiana Department of Wildlife and Fisheries, asked if the four alternatives from the previous EA would impact the north side of I-10. Mr. Richards stated that, based on conversations with the Corps, any alternative would be designed so as to avoid, minimize or at the very least mitigate any impacts to wetlands. Therefore the goal is to limit as much as possible any construction on the north side of I-10.
- Buddy Boe asked what would cause an alternative to be removed from the EIS process. Mr. Richards explained that the criteria for the screening process would be established by this group. Bob Mahoney added that the group needed to look at the different kinds of impacts and how they will be prioritized for the screening process. Mr. Barlow informed the group that the Corps would be looking for the most practical yet least damaging alternative and that they would be looking at not only the primary impacts, but the secondary and cumulative impacts as well. He mentioned that the P1 alternative could have cumulative impacts. To a developer, this alternative looks like a line that development could extend to. This should not be the case. The Corps will look at the impacts to the wetlands, and how those impacts service the community. He also said that an alternative being too costly in and of itself is not a good enough reason for it to be thrown out.
- Ms. Otte asked how interchanges would figure into any impact analysis. Doree Magiera, of URS, representing the Port of South Louisiana, stated that one criteria of analysis would relate to the footprint of the interchange. Mr. Barlow said that the Corps would prefer that any interchange be built on a structure. As well, it is preferred that any selected alternative be built on structure, however, the Corps would not ask that an alternative go from structure to grade and / or back again based on multiple wetlands crossings, such as that shown by the P1 alternative.
- Mr. Mahoney asked if there were any standardized sets of criteria that could be used to help formulate the criteria to be used for the screening of these alternatives. Mr. Barlow said that the EPA would be good source and that he would try to provide a standardized set.
- Mr. Mahoney asked about impacts associated with hazardous waste. The various environmental agencies replied that that they would be looking at ambient air quality, water quality associated with construction, drainage and runoff, as well as transportation related spills.
- Chris Davis, of the Louisiana Department of Wildlife and Fisheries, asked if the LA 641 ROW would need to be widened. The ROW is thought to be wide enough to accommodate an additional travel lane in each direction. Mr. Davis said he would check

to see if this is true. Mr. Boe mentioned that the existing interchange at LA 641 and I-10 cannot handle additional truck traffic. Ms. Magiera asked how much traffic the interchange could handle. Mr. Davis wanted to know what the numbers were as well. Mr. Mahoney said that we should have the numbers soon.

- Mr. Mahoney again stated that while an Interchange Justification Report may not be necessary, it is something that should be kept in mind.
- Mr. Mahoney, on the topic of screening criteria, said that it was best to avoid a numerical rating system and that everything should be well documented. As well, if there's a way to solicit public input while whittling the alternatives down from 9 to 2, it would be beneficial to the project.
- Mr. Barlow said it was best to first eliminate that which is not practical, then eliminate that which is most damaging. He also stressed the importance of documenting everything.
- Mr. Nelson asked if the public would be involved during the screening phase or if they would be presented the results after the screening process was complete. It was explained that a public meeting would occur before the process, to show that the build alternatives have been culled down to nine, and once the evaluation and screening process is complete, another public meeting would be held prior to impact analysis.

Mr. Richards then asked the group if there were any objections to carrying the current initial alternatives forward and moving the project into phase 2. There were no objections. As such, the meeting was adjourned.

The meeting concluded that with valid feasible alternatives to explore, there was a consensus among all the agencies to commence actual EIS process (Phase II).

PHASE II ENVIRONMENTAL IMPACT STATEMENT PROCESS

AGENCY MEETING, APRIL 26, 2010

Background

This meeting was held on April 26, 2010 at the LADOTD headquarters building in Baton Rouge, LA. The US Army Corps of Engineers, as the sole Cooperating Agency on this EIS, expressed their issues and concerns with the Evaluation and Screening (E&S) process designed to reduce the number of build alternatives to an acceptable number (no more than 2). They called for a meeting with their Federal partners, the RPC, LADOTD and the consultant to address these concerns and issues before moving forward. Although most participants were present at the

meeting, two representatives of the EPA in Dallas, TX participated via teleconference, as did Frank Nicoladis of consultant N-Y Associates.

Key issues

- Bruce Richards of N-Y Associates began the meeting by outlining the issues as he saw them, particularly the notion of practicability and the need to select the least damaging practicable alternative. He noted that the first issue appeared to be the establishment of practicability.
- James Barlow of the Corps agreed, stating that there must be some sort of levels derived to state which alternatives are practicable. Richards noted that it was his understanding that at the January 19th Agency meeting, that all of the remaining alternatives were in effect determined to be practicable, as they related to the purpose and need, were all buildable in terms of cost and technology, etc., and that three alternatives were screened out at that meeting as they were not practicable. Bob Mahoney asked if the lead agencies (FHWA, LADOTD, and RPC) could determine the “most practicable” and “least damaging” criteria. Barlow replied that Corps’ 404(b) guide lines still needed to be followed. It was then determined that the main focus for initial screening was to determine which alternatives were practicable as they relate to the purpose and need, i.e., improving access to and from I-10 by reducing travel time. All parties agreed that under that definition, P-4 (the widening of LA 641) would immediately fall out.
- An acceptable arrangement was reached when Barlow agreed that the Corps would sign off on a process where it is first determined which alternatives are most appropriate to our purpose and need (most practicable or acceptably practicable) and screened, THEN the consultant could complete the planned full impact analysis of the two build alternatives (and the required TSM Alternative and No Build Alternative) and determine and document at that point which is the Least Damaging Practicable Alternative (LDPA).
- The approach agreed to was to leave in the existing review on human environment impacts, amount of wetlands affected, and the Corps’ three primary criteria, as these could be used to determine whether or not the alternative was practicable -- for instance, alternatives may be screened out if they are considered impracticable for doing such things as infringing on the WMA areas, or causing too many relocations, etc.
- However, the EPA and the Corps requested that the screening analysis write-up in the document be a little more complete. In response to a query from EPA of the criteria for determining high, medium or low assignments for the last three E& S criteria, Brady Turk of Coastal Environments explained how he graded alternatives as high, medium or low. Although they agreed with the procedure, the agencies agreed that this needed better explanation in the text. In addition, the biological resources, water quality, and physical resources analyses sections need to be more thorough (for example, under

biological resources/wetlands, existing infrared photography will be used to determine if wetlands are forested or open). Coastal and N-Y agreed to revise these sections.

- The public meeting would go ahead as scheduled, as an informational meeting and to obtain public input. It was agreed that the consultant will present the existing information gathered on the alternatives, including plan view maps, projected travel times savings, amount of wetlands likely to be affected, conceptual cost estimates, typical cross-sections, and human environment impacts. However, as the Biological Resource Impacts, Water Quality Impacts, and Physical Resource Impacts were being improved, these criteria would not be presented. Comment forms distributed will be general in nature and will not ask the public's preference among alternatives, though if a preference is offered we will note it.

Other Issues Discussed:

- James Barlow noted that those alternatives that veered to the east and joined Belle Terre Boulevard (P-1, EIS-4 and EIS-5) may encourage fill development in wetlands between the route alignment and developed areas, development that may or may not be done with a permit. Bruce Richards noted that for cost estimation purposes, N-Y assumed an elevated section through those areas designated as existing wetlands in order to reduce the amount of impacts on the wetlands. He stated that this would help to discourage fill development, as tying in to the new roadway will be difficult and discouraged. Noel Ardoin of LADOTD asked if the elevated roadway was a commitment, to which Richards replied, no; it was an assumption for cost estimating purposes. All parties agreed that it was important that that no commitments to type of construction, etc. be made until after the analysis phase.
- Josh Marceaux of USFWS, noting the changing nature of things such as databases and maps, recommended that a field survey be done to ascertain environmental data and likely impacts. N-Y and FHWA agreed that field surveys will be done once the nine alternatives are screened down to no more than two. Information gained during this process may cause one alternative to be eliminated or passed over in favor of another alternative.
- Jeanene Peckham and Sharon Osowski of the EPA noted that they were late in coming to this process. Bruce Richards described how he received an e-mail from Morton Wakeland (the previous contact) on March 4th stating that he was no longer in the Section and that a new contact was needed. Richards placed calls on that same day to EPA in Dallas who informed him that Hector Pena was the person to contact. After e-mailing Pena, on April 4th he received a letter from Cathy Gilmore saying she was the contact, and just last week was informed that both Jeanene Peckham and Sharon Osowski were also to be included in correspondence and coordination. He has sent some information to EPA already; and agreed to send previous meeting reports and documents to help bring them up to speed on the project.

- FHWA requested that the “pubic input screening criteria” as shown on the matrix not be used in the public meeting, and that when the write-up is being done for the screening, a combined discussion criteria for “public and agency comments” be used.
- The EPA suggested adding secondary impacts as a screening criterion. LADOTD, N-Y and FHWA noted that secondary and cumulative impacts will be addressed during the impact analysis phase of the project.
- Timeframe was then discussed. A joint meeting of the lead, cooperating and participating agencies was planned for the last full week of May, at which time the decision on the screening would be made based on recommendations relating to practicability. The consultant team was left to schedule the details of this meeting such as date, time and location. The consultant team will complete the revised screening write-up by mid-May and transmit it to the agencies for their review prior to the agency meeting.

PUBLIC MEETING, APRIL 29TH 2010

Background:

A public meeting was held on April 29th, 2010 at the Central Branch of the St. John the Baptist Public Library in LaPlace. The purpose of this meeting was to inform the public of the current state of the project, and to share information and obtain public input on the nine build alternatives for improving access between Reserve and I-10.

Minutes

Bruce Richards of N-Y Associates gave a brief presentation in which he explained the EIS process to date, including project purpose and need, project background and history and the early involvement scoping process. He then described the remaining build alternatives and the initial data collected for each. The data collected included: conceptual cost estimates; expected impacts to wetlands in terms of acres affected; anticipated noise, visual, relocation and utility impacts; and travel time savings.

After the presentation there was a short recess where participants could ask questions of the project team in a “one on one” format. Staff members made note of informal comments and questions received from attendees during this period. These included:

- A few attendees had questions relating to the timetable of the project, specifically when the study would be complete and when construction may occur.

- Several attendees stated that alternative P-4 did nothing to help their current situation, and preferred the other alternatives.
- One attendee asked where the origin point was for emergency access calculations (it was explained that it was the same origin point as for regular traffic).
- Two attendees had questions about the proposed improvements to W. 10th Street between US 61 and River Road, thinking that this project also covered that area; it was explained to them that study area for this EIS did not extend more than ¼ mile south of US 61 and we had little information on the particulars of improvements to W. 10th.
- A reporter for L'Observateur asked questions about the difference between an EA and an EIS, the project timetable, and the reason behind the Corps' request to add alternative P-4.
- Several attendees noted that travel times savings for emergency access vehicles to the center area between the 641 and Belle Terre interchanges was significant and important, noting that the posted response time savings of 7-8 minutes (for the alternatives they were referring to as they made the comments, primarily the AP alternatives) could mean the difference between life and death. They also noted that there seemed to be problems with access for accidents occurring on the elevated stretch of I-10 just west of Belle Terre.
- One attendee described two gravel roads/old logging roads in the vicinities of West 10th Street and Marathon Avenue that crossed the wetlands from US-61 to I-10. He indicated that one of the roadways could be seen from the approach of the western side of the 3 Mile Bridge.
- One attendee pointed out that EIS should be extended across the rear of the VA tract and merge with AP-6 as yet another alternative. Chris Mills of project consultant N-Y Associates explained that said route had been previously identified in the original EA and eliminated during Phase I.

After this short recess the participants were given the opportunity to make public comments on the record.

- Carl Monica wanted to know why an alternative could not be “piggy-backed” onto the freshwater diversion project located in the vicinity of the Hope Canal. Mr. Richards answered that alternatives in the western portion of the project area tend to get away from the project’s purpose and need to provide improved access between Reserve and I-10. There is also a wildlife management area in the vicinity which would need to be avoided.
- Jake Maus asked about the timetable for the study. Mr. Richards said that the study should be complete in the early summer of 2011.

- Henry Sullivan wished to go on record as saying that he was opposed to alternative P4 because it did not serve the community.
- Ricky Deslatte asked about the construction of the alternatives. Mr. Richards said that end-on construction, where the contractors would build a section, travel across that section and then build the next section from the previous section, would be desirable as it would impact less wetlands. Bob Mahoney of FHWA clarified that end-on construction was more expensive than typical methods and that as of yet there is no definitive answer as what construction methods, if any, would be used.
- A representative for councilman Darnel Usry asked about the posted speed limits on the alternatives. Jim Simmons, of N-Y Associates, said that the speed limit used for design purposes and assumed for the alternatives was 55 mph, the same as LA Highway 641.
- Carl Monica noted that US-61 traffic congestion could be alleviated by building a road parallel to US-61. Henry Sullivan stated that trucks coming from the port don't need a parallel road; they need a faster more direct route to I-10.

The meeting was then adjourned.

AGENCY MEETING, JUNE 29, 2011

Background

This meeting was held at the RPC offices in New Orleans. When the agencies last met regarding the project - just over a year ago -it was determined that an Origin-Destination (O/D) Survey would be beneficial to determine the number of vehicles headed east vs. west to and from Reserve. The data would be used to develop travel time saving criteria for vehicular and truck traffic. This was determined to be necessary to develop defensible travel time saving criteria and provide better backup for evaluating alternatives. The additional work meant an amendment (increase of funds and scope) to the contract between RPC and N-Y, as well as the agreement between LADOTD and RPC. It took quite a while for this to get processed, leading to a delay of roughly one year. With the O/D Survey recently completed and the last task item in the Scope of Work for the O/D Survey being a meeting with the project team and agencies to discuss methodologies and results from that survey, an agency meeting was called for. The occasion of this required meeting was used to concurrently hold a "re-start" session, so that all parties could collectively refresh their memories as the project once again moves forward.

Although most participants were present at the meeting, several representatives participated via teleconference.

Key issues:

- Following a prepared PowerPoint presentation, Bruce Richards of N-Y Associates began the meeting by going over the brief agenda and starting introductions of participants, both within the conference room and on the teleconference. He then went through a project recap, including the need for the project, a background history of the project, the Phase I effort which was completed in January 2010, and the Phase II efforts already completed which left off in May 2010. This included public meetings and a primary analysis of the nine (9) alternatives. Mr. Richards then completed this project recap by re-iterating exactly where the project went on hiatus -- prior to evaluating and screening the nine build alternatives based on the idea of selecting the least damaging practicable alternatives. This is where the need for the O/D Survey arose.
- Mr. Richards then handed the meeting over to Ms. Nicole Stewart of sub-consultant Urban Systems. Ms. Stewart then provided a description of the methodologies and findings of the O/D Survey using a PowerPoint presentation. Ms. Stewart described the questions on the survey card, and the details of distribution, including the times, locations, and unique difficulties encountered on the survey day. She then reviewed the survey results such as number of cards distributed and rate of return before presenting the survey findings.
- As Ms. Stewart described not surprisingly, the largest percentage of potential I-10 users was headed to and from I-10 east towards New Orleans (54%). Potential I-10 users to and from the west were the next highest group. Potential I-10 users to and from I-55 were also substantial, (at almost 10%).
- Scott Nelson of the FHWA asked if the use of I-10 for “local” trips (primarily to avoid congestion on Airline drive in Laplace) was included. Ms. Stewart noted that it was and went over the figures for those trips. Both St. John the Baptist Parish President Natalie Robottom and Kathryn Gilmore noted that this was a common occurrence in the area, and something that they themselves did.
- Jeff Roesel brought up the issue of commercial (truck) traffic. Ms. Stewart showed on the chart that while the majority of the commercial percentage of traffic was going to New Orleans, it was only a fraction more than the percentage heading west to Baton Rouge. This seemed to meet with the comments and perception received at the public meetings that while regular traffic heads east, a bigger share of the traffic heading west is truck traffic.
- Ms. Stewart concluded her presentation and handed the meeting back to Mr. Richards, who then went through a list of Future Steps/ Game Plan for completing the project. The first step is to use the Findings of the Origin-Destination Survey and modeling numbers from RPC (still being finalized) to provide a better idea on where vehicles are going, how

many are going there, and how many would use each alternative. That info would then be paired with the earlier-completed travel time savings analysis.

- Using that information, the consultant team would then engage in a two-step evaluation and screening process—first determining if an alternative was practicable, then deciding amongst the remainders which was the least damaging. Such an approach was discussed and generally agreed to at the last Agency meeting in April 2010.
- The consultant team would document this process in a revised “Evaluation and Screening of Build Alternatives” Section and submit to Agencies for review and comment. The agencies would then be called to a “decision point” meeting in late July/ early August of 2011 to discuss and agree upon alternatives (2) to be carried forward and fully developed as candidate alternatives (along with No Build and TSM alternatives) to be analyzed in terms of likely impacts.
- The consultant team could then begin work on and complete the Draft Environmental Impact Statement (DEIS), including the both agency and public review (public hearings) and concluding with the completion of a Final Environmental Impact Statement (FEIS) and obtaining of a Record of Decision (ROD).
- Mr. Richards then asked for any further questions or comments. Mr. John McFarlane of the EPA asked if the project was included in the RPC’s Transportation Improvement Program. Jeff Roesel of the RPC noted that it was not, but it was included in the RPC’s Long Range Transportation Plan.
- Bob Mahoney of the FHWA reiterated the need for early feedback, comment and participation from all the agencies as being vital to the success of the project. He also asked to make sure that all invitees, and not just participants, received a meeting report complete with attachments such as the PowerPoint presentations.

There being no more comments or discussion, the meeting was adjourned.

AGENCY MEETING, NOVEMBER 2, 2011

Background

The Evaluation and Screening of Alternatives section was re-formulated the section so as to more closely follow the US Army Corps of Engineers procedure of determining the “least damaging practicable alternative” (LDPA), with a distinct screening process focused on *least damaging* and *practicability*. One of the steps needed to accomplish this was an Origin/Destination Study, which was completed in late spring and the results of which were presented in an Agency Meeting on June 29th. A second step was traffic modeling, which was recently completed by the RPC. The addition of these two items helped to develop defensible

travel time saving calculations and provide better backup for evaluating alternatives, particularly as to whether or not they were deemed *practicable*.

This revised section was submitted to the agencies in October 2011 for review, and a meeting was held at the RPC offices in New Orleans, to collectively discuss the evaluation and screening findings and recommendations and gain approval of the process and approval of the two build alternatives recommended to be carried forward as candidate alternatives.

Although most participants were present at the meeting, several representatives participated via teleconference.

Minutes

After a round of introductions and a welcome from Bruce Richards, discussion then began on the Evaluation and Screening section, with those comments being sent in via earlier being addressed first.

- Josh Marceaux of the USFWS re-iterated his comments sent earlier via e-mail, that the proposed road is considered to be non-water dependent, it does not require siting within a jurisdictional wetland to fulfill its primary purpose. The Environmental Protection Agency's 404(b)(1) guidelines prohibit the discharge of dredged or fill material for non-water-dependent proposals in wetland areas if there is a practicable alternative which would have less impact on the aquatic ecosystem. Those guidelines further specify that, for non-water-dependent activities proposed for special aquatic sites (e.g., wetlands), practicable alternatives which do not involve special aquatic sites are presumed to exist unless clearly demonstrated otherwise. According to revised evaluation and screening document, it does appear that efforts are being made to satisfy the 404(b)(1) guidelines; however, it is was his understanding that all least damaging practicable alternatives should be included in the EIS document. Therefore, they cannot concur/not concur on alternatives pre-EIS (at this time); however, we will do so upon reviewing the EIS document.
- Jeanene Peckham of the EPA re-iterated some of their comments sent in:
 - They noted that they were concerned that the screening process in regards to wetlands impacts was focused on acreage. A functional assessment of the wetlands in the various sites should be provided. Mr. Richards noted that a full Wetland Delineation Report would be completed for the two build alternatives.
 - There are no impacts shown for any alternative to aquatic resources, such as wetlands, streams, lakes, rivers, estuaries, etc. and the EPA recommended that wetland impacts/function be evaluated and included in the table and that aquatic resources should be re-evaluated. Mr. Richards countered that under the category

of biological resources, five categories (special aquatic sites, vegetation, wildlife populations and habitat, threatened and endangered species, and aquatic resources).were examined for each alternative and described in detail in the text for each alternative. EPA stated that they do not necessarily agree with the numeric designations of the biological resources stated at this time.

- Overall, Ms. Peckham noted that the major concern for EPA was that all alternatives that could be least environmentally damaging and practicable be fully evaluated, and that they cannot concur on the present preliminary proposed alternatives.
- James Barlow of the US Army Corps of Engineers stated that you cannot determine the least damaging practicable alternative (LDPA) if it has been eliminated from consideration. He added that arbitrarily deciding to move forward with only two build alternatives, using a list of criteria that mixes practicability and environmental impacts is a decision the Corps could not support. In his opinion, they are trying to lump too much into a single decision making stage. Mr. Richards and RPC staff noted that this was the Scope as written dealing with the limited budget, and the approach of using the valuation and screening process to yield two (2) build alternatives was described as such from the beginning of the project to all the agencies. Mr. Barlow stated that while it may be applicable to have used this approach for previous FHWA/DOTD projects it's not applicable to this situation.

The meeting concluded without a consensus concerning the acceptance of the evaluation and screening process nor the two final build alternatives.

ONGOING PUBLIC INVOLVEMENT - COMMUNITY ADVISORY PANEL MEETING, NOVEMBER 14, 2011.

At the request of the Regional Planning Commission, Bruce Richards of the project consultant team gave a presentation to the St. John the Baptist Community Advisory Panel at their meeting on November 14, 2011 in LaPlace. The presentation consisted of a PowerPoint presentation of the status of the project and the fielding of several questions from attendees.

LEAD AGENCY MEETING, FEBRUARY 8, 2012

Background

A revised *Evaluation and Screening of Build Alternatives* section was submitted to the lead, cooperating and participating agencies and was the topic of discussion at an agency meeting held on November 2, 2011. Prior to and at that meeting, EPA staff, US Fish and Wildlife Service

staff, and Corps staff voiced their continued objections to the general process followed and gave several comments on the evaluation and screening process that the project team agreed to address. After addressing those comments and further revising the section, the project team presented the further revised *Evaluation and Screening of Build Alternatives* section to the Lead Agencies for their review, and the section and the screening process itself were discussed at a meeting of the Lead Agencies held on February 8, 2012 at the regional Planning Commission offices in New Orleans.

Results

At that meeting, the Lead Agencies were in full agreement that:

- (1) the Evaluation and Screening of Build Alternatives section was satisfactorily completed; and,
- (2) the project team would move forward with the impact analysis of the two build alternatives recommended within that section (AP-6B and P-1).

A copy of the final version of the *Evaluation and Screening of Build Alternatives* section of the EIS document was sent to all cooperating and participating agencies for their review, with the statement that any further comments would be received and taken under advisement as project moved forward.

LEAD AGENCY ALTERNATIVES REVIEW MEETING, JANUARY 10, 2013 AND JANUARY 28, 2013

Upon completion of the engineering layouts of the two Build Alternatives and the TSM Alternative, a meeting of the Lead Agencies was held to present and gain approval (particularly from the LADOTD engineering staff) for the completed designs prior to beginning impact analysis. The meeting was called for January 10, 2013 at the St. John the Baptist Parish Government complex. However, severe weather conditions prevented all but the consultant team, RPC representatives, and the hosting St. John the Baptist Parish representatives from attending the meeting.

A follow-up meeting was held a few weeks later, on January 28, 2013 at the LADOTD District headquarters in Hammond, LA. At the meeting the LADOTD staff reviewed and approved the engineering layouts of the alternatives, allowing impact analysis to begin.

PUBLIC MEETING, APRIL 11th, 2013

Background:

A public meeting was held on April 11th, 2013 at the Reserve Branch of the St. John the Baptist Public Library in LaPlace. The purpose of this meeting was to inform the public of the current state of the project, and to allow area residents to review the conceptual drawings of the two (2) build and TSM alternatives and share their input on possible impacts of each of the considered alternatives.

Minutes

Bruce Richards of N-Y Associates gave a brief presentation in which he explained the EIS process to date, including project purpose and need, project background and history and the early involvement scoping process. He then described the evaluation and screening process which resulted in the final two build alternatives. Mr. Richards then provided a detailed description of each build alternative, the improvements associated with the TSM Alternative, and improvements planned or underway under the No Build Alternative.

After the presentation there was a short recess where participants could view large-scale engineering drawings of the alternatives and ask questions of the project team in a “one on one” format. Staff members made note of informal comments and questions received from attendees during this period. These included:

- How much money will either alternative cost?
- How long will it take to build these?
- “I believe roundabouts are a bad idea”
- How high will the bridge sections be?
- Will the alternative routes flood?
- These alternatives will make residential areas expand rapidly around them, causing a lot of additional traffic.

After this short recess the participants were given the opportunity to make public comments on the record. They are listed below:

- Gerald Keller (Reserve Resident) stated that AP6B is the “only” alternative; he doesn’t like P-1. He asked will it be or can it be a hurricane evacuation route? He also reminded everyone that the Belle Terre interchange flooded during Isaac so Alternative P-1 will just put people back on Belle Terre.
- Henry Sullivan (Port of South Louisiana) was upset / concerned that the Corps says this is not an evacuation route. He asked if additional funding could be given because it was

determined to be an evacuation route. He said he likes Alternative AP-6B and added that most traffic comes from the west.

- Chris Guidry asked about a public hearing so that comments could be formally recorded. Mr. Guidry was informed that this was a public meeting, but that a public hearing would be held once the draft EIS document was completed and distributed. Mr. Guidry also asked that the study include updated components based on Isaac.
- Roy Quezairé (Port of South LA) inquired about the height of the bridge section.
- Glen Bourg (Reserve Fire Department) stated that he does not like P-1, feels it would be inefficient and cause problems for emergency response for the three fire departments on the Parish's east bank (Garyville, Reserve and LaPlace). He stated his preference for AP-6B, and inquired about schedule and when it would be completed.
- Ricky Deslatte (Reserve Resident) stated that he prefers AP-6B over P-1, as he feels P-1 will do nothing to reduce traffic on US 61. He added that evacuation via P-1 makes people go "backwards" for west-bound evacuating. Mr. Deslatte also stated that there is an existing old gravel road in the vicinity of the proposed AP-6B route, that may be used for the alignment as it might affect the wetlands less. He then re-stated that P-1 would be useless for residents of Reserve/ Garyville.
- Randy Wilson wanted to remind everyone that US 51 flooded during Isaac, as did LA 641. He felt that Alternative AP-6B will help, as it is elevated.
- Mr. Chris Guidry then asked if the Parish was obligated to provide EMS services on I-10, which was answered by Mr. Bourg, who said they were.
- Mr. Bourg then asked about the project timetable, which was described by Mr., Richards. Jeff Roesel of the RPC described the full LADOTD development process from Stage 1 through Stage 5-6. He noted that they are following the federal process, as federal funds are and will be involved in this project.
- Mr. Sullivan asked if the project was more likely to get funded if it is a hurricane evacuation route. Mr. Roesel replied that while there was no set fund or "pot" of money, it MAY help by illustrating the roadway's importance.
- Chris Guidry had the last in-person comment. He said that the project could use CDBG Parish funds. He re-iterated the need to examine recent Isaac impacts and noted the upcoming elevation of I-10 north of LaPlace.

The meeting was then adjourned.

CHAPTER VII

REFERENCES AND APPENDIX

The Environmental Impact Statement concludes with this chapter. The References section lists publications, websites and other sources of information used in the writing of this document. The included Appendix lists the stand-alone documents and other data which were completed as part of this EIS and are considered part of this EIS. The included Appendix also includes a utility disposition table listing the public and private utilities identified within the roadway alternative alignments, which were used in preparing the conceptual cost estimates of the alternatives.

Under separate file from this document, the stand-alone Appendix file also includes formal agency correspondence received during the both the Phase I and Phase II portions of the project, as well as information from the Public Meetings and Public Hearing, including Meeting Notices and advertisements, sign-in sheets, and written comment forms.

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APPENDIX:

The following are stand-alone documents which were completed as part of this EIS and are considered as part of this EIS. They are available for review from the Regional Planning Commission.

- *Phase I Cultural Resource Examinations: Proposed Connector between Airline Highway (US 61) and Interstate 10 in St. John the Baptist Parish, LA*, Prepared by Coastal Environments, Inc. June 2013
- *Draft Biological Assessment: Proposed Connector between Airline Highway (US 61) and Interstate 10 in St. John the Baptist Parish, LA*, Prepared by Coastal Environments, Inc. August 2013

- *Traffic Noise and Air Quality Analysis Draft Technical Report – Airline Highway (US 61) to I-10 Connector, St. John the Baptist Parish, Louisiana.* Prepared by Bowlby and Associates, Inc. July 2013.
- *Draft Environmental Site Assessment, Phase I – Proposed Connector between West Airline Hwy (US 61) and Interstate 10 in St. John the Baptist Parish, LA.* Prepared by Coastal Environments, Inc. July 2013.
- *Draft Wetlands Delineation Report: Proposed Connector between Airline Highway (US 61) and Interstate 10 in St. John the Baptist Parish, LA,* Prepared by Coastal Environments, Inc. August 2013.
- *Proposed Connector between Airline Hwy (US 61) and Interstate 10 Environmental Impact Statement Traffic Study, St. John the Baptist Parish, Louisiana.* Prepared by Urban Systems Associates, Inc., May 2013.
- *Economic Impact Analysis: Proposed Connector between US 61 and I-10 in St. John the Baptist Parish, LA.* Prepared for the RPC and LADOTD by Economic Development Research Group, Inc., July 2013.

A utility disposition table listing the public and private utilities identified within the roadway alternative alignments is presented beginning on the following page.

Under separate file from this document, the stand-alone Appendix file also includes formal agency correspondence received during the both the Phase I and Phase II portions of the project, as well as information from the Public Meetings and Public Hearing, including Meeting Notices and advertisements, sign-in sheets, and written comment forms.

**ENHANCED ACCESS BETWEEN US 61 IN RESERVE AND I-10
ENVIRONMENTAL IMPACT STATEMENT (EIS)**

SP No. H.004891

EAP No. HP-TO21 (517)

RPC PROJECT NO. PSLC=STJ

ST. JOHN THE BAPTIST PARISH

UTILITY DISPOSITIONS

DESCRIPTION	ROUTE	B/L STATION TO STATION	SIDE	OWNER	OWNERSHIP	ROW/ SERV.	DISPOSITION
ALTERNATIVE P-1							
Overhead Elec. Power	LA 3179	Crossing at (-) 1+00	Lt./Rt.	Energy	Private	Roadway	No conflict
Overhead Elec. Power	US 61	ALONG at 1+00	Lt./Rt.	Energy	Private	Roadway	No conflict
Overhead Elec. Power	P-1	Crossing at 59+50	Lt./Rt.	Energy	Private	Private	Relocation by Project
Underground Elec. Power							None Identified
Overhead Telephone	LA 3179	Crossing at (-) 1+00	Lt./Rt.	AT&T/ BellSouth	Private	Roadway	No conflict
Overhead Telephone	US 61	ALONG at 1+00	Lt./Rt.	AT&T/ BellSouth	Private	Roadway	Relocation by Owner
Underground Telephone							None Identified
Overhead Cable TV	LA 3179	Crossing at (-) 1+00	Lt./Rt.	Cox Communications	Private	Roadway	No conflict
Overhead Cable TV	US 61	ALONG at 1+00	Lt./Rt.	Cox Communications	Private	Roadway	Relocation by Owner
Underground Cable TV:							None Identified
Water:							
12" Water line	LA 3179	Crossing at 1+00	Lt./Rt.		Public	Roadway	Relocation by Project
12" Water line	LA3188	Crossing at 163+00	Lt./Rt.		Public	Roadway	Relocation by Project
12" Water line	LA3188	Crossing at 164+80	Lt./Rt.		Public	Roadway	Relocation by Project
Sewer:							
6" SFM	LA 3179	Crossing at (-) 1+00	Lt./Rt.		Public	Roadway	No conflict
8" SFM	P-1	Crossing at 59+50	Lt./Rt.		Public	Private	No conflict
6" SFM	LA3188	Crossing at 164+80	Lt./Rt.		Public	Roadway	No conflict
Gas:							
2" PE MAIN	LA 3179	Crossing at (-) 1+00	Lt./Rt.	Atmos/Energy	Private	Roadway	No conflict

