Final

Environmental Assessment

East-West Corridor

Winfield Road Extension
Bossier Parish, Louisiana

State Project No. 700-08-0130
F.A.P. No. DE-0806(509)

November 2010

DOTD Environmental Section

FEDERAL HIGHWAY ADMINISTRATION
FINDING OF NO SIGNIFICANT IMPACT

F.A.P. No. DE-0806(509)
EAST-WEST CORRIDOR
WINFIELD ROAD EXTENSION
Bossier Parish, Louisiana

EXAMINED AND
APPROVAL
DATE 11/

R

he Federa inistration (FHWA) has determined the Selected Alignment identified in the nal Environmental Assessment (EA) for this is project will have no significant impact on the human nvironment. This Finding of No Significant Impact (FONSI) is based on the attached Final EA that has een independently evaluated by the FHWA and determined to adequately and accurately discuss the eed, environmental issues, and impacts of the proposed project and appropriate mitigation measures. provides sufficient evidence and analysis for determining that an Environmental Impact Statement IS) is not required.

APPROVED
CARL M. HIGHSMITH
PROJECT DELIVERY TEAM LEADER
FEDERAL HIGHWAY ADMINISTRATION
DATE 11-24-10

FAXED

State Project No. 700-08-0130
F.A.P. No. DE-0806(509)

EAST-WEST CORRIDOR
WINFIELD ROAD EXTENSISON

Bossier Parish, Louisiana

Final Environmental Assessment

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

by the

U.S. Department of Transportation – Federal Highway Administration
Louisiana Department of Transportation and Development
Northwest Louisiana Council of Governments
Bossier Parish Police Jury

This project is a proposal to initially construct a two-lane facility with right-of-way clearance for future widening to a five-lane facility, (four thru-lanes with a dedicated left-turn lane) on new location between Louisiana Highway 3 (Benton Road), the western terminus, and Winfield Road at Bellevue Road, the eastern terminus in Bossier Parish, Louisiana. The proposed action is to improve area-wide vehicular mobility and safety by providing an additional east-west roadway within the central portion of Bossier Parish. The proposed roadway would be approximately eight (8) miles in length through Bossier Parish. Several alternatives were considered including the No-Build Alternative.

ENVIRONMENTAL DETERMINATION CHECKLIST

State Project No. **700-08-0130**
Federal Aid No. **DE-0806(509)**
Name: **Bossier Parish East-West Corridor (Winfield Road Extension)**
Route: **New Roadway from LA 3 (Benton Road) to Bellevue Road at its intersection with Winfield Road**
Parish: **Bossier Parish**

1. General Information

Status: ( ) Conceptual Layout ( ) Plan-in-Hand
(**X**) Line and Grade ( ) Preliminary Plans
( ) Survey ( ) Final Design

2. Class of Action

( ) Environmental Impact Statement (E.I.S.)
(**X**) 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)

See Sections 1, 2, and 3

4. Public Involvement

(**X**) Views were solicited on **June 23, 2008**.
Responses are attached.
(**X**) No adverse comments were received.
( ) 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.
(**X**) A Public Hearing was held on **March 11, 2010**.
(**X**) A Public Meeting was held on **September 25, 2008** and **May 14, 2009**.

5. Real Estate (If yes, use attachment)

	NO	YES
a. Will additional right-of-way be required?	( )	(**X**)
b. Will any relocations be required?	( )	(**X**)
c. Are construction or drainage servitudes required?	(**X**)	( )

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

		NO	YES
a.	**Section 4(f) or 6(f) lands**		
	Are any impacted by the project? (If so, list below)……..	(**X**)	( )
	Are any adjacent to the project? (If so, list below)……..	(**X**)	( )
b.	**Known Historic sites/structures**		
	Are any impacted by the project? (If so, list below)……..	(**X**)	( )
	Are any adjacent to the project? (If so, list below)……..	(**X**)	( )
c.	**Known Archaeological sites**		
	Are any impacted by the project? (If so, list site # below)…….....	( )	(**X**)
	Are any adjacent to the project? (If so, list site # below)…….....	( )	(**X**)
d.	**Cemeteries**		
	Are any impacted by the project? (If so, list below)……..	(**X**)	( )
	Are any adjacent to the project? (If so, list below)……..	( )	(**X**)
e.	**Historic Bridges**……..	(**X**)	( )

7. Wetlands (Attach wetlands finding, if applicable)

		NO	YES
a.	Are wetlands being affected?.....	( )	(**X**)
b.	Are other waters of the U.S. being affected?.....	( )	(**X**)
c.	Can C.O.E. Nationwide Permit be used?.....	(**X**)	( )

8. Natural Environment (use attachment if necessary)

		NO	YES
a.	Endangered/Threatened Species/Habitat……..	(**X**)	( )
b.	Within 100 Year Floodplain?.....	( )	(**X**)
	Is project a significant encroachment in Floodplain?.....	(**X**)	()
c.	In Coastal Zone Management Area?.....	(**X**)	( )
	Is the project consistent with the Coastal Management Program?.....	( )	( )
	Will a Coastal Use Permit be required?.....	( )	( )
d.	Coastal Barrier Island (Grand Isle only)……..	(**X**)	( )
e.	Farmlands (use form AD 1006 if necessary)……..	( )	(**X**)
f.	Is project on Sole Source Aquifer?.....	(**X**)	( )
	Is coordination with EPA necessary?.....	( )	( )
g.	Natural & Scenic Stream Permit required……..	(**X**)	( )
h.	Is project impacting a waterway?.....	( )	(**X**)
	Has navigability determination been made?.....	( )	(**X**)
	…..Will a US Coast Guard permit or amended permit be required?.....	(**X**)	( )

9. Physical Impacts (use attachment if necessary)

		NO	YES
a.	Is a noise analysis warranted (Type I project)……..	( )	(**X**)
	Are there noise impacts based on violation of the (NAC)?.....	( )	(**X**)
	Are there noise impacts based on the 10 dBA increase?.....	( )	(**X**)
	Are noise abatement measures reasonable and feasible?.....	(**X**)	( )
b.	Is an air quality study warranted?.....	(**X**)	( )
	Do project level air quality levels exceed the NAAQS for CO?.....	( )	( )
c.	Is project in a non-attainment area for Carbon monoxide (CO), Ozone (O_3), Nitrogen dioxide (NO_2), or Particulates (PM-10)? ……..	(**X**)	( )
d.	Is project in an approved Transportation Plan,Transportation Improvement Program (TIP) and State Transportation Improvement Program (STIP)?.....	( )	(**X**)
e.	Are construction air, noise, & water impacts major?……..	(**X**)	( )
f.	Are there any known waste sites or U.S.T.s?.....	(**X**)	( )
	Will these sites require further investigation prior to purchase? ……..	( )	( )

10. Social Impacts (use attachment if necessary)

		NO	YES
a.	**Land use changes**……..	( )	(**X**)
b.	**Churches and Schools**		
	Are any impacted by the project? (If so, list below)……..	(**X**)	( )
	Are any adjacent to the project? (If so, list below)……...	( )	(**X**)
c.	**Title VI Considerations**……	(**X**)	( )
d.	**Will any specific groups be adversely affected**		
	(i.e., minorities, low-income, elderly, disabled, etc.)? ……..	(**X**)	( )
e.	**Hospitals, medical facilities, fire police**		
	Are any impacted by the project? (If so, list below)……..	(**X**)	( )
	Are any adjacent to the project? (If so, list below)……	( )	(**X**)
f.	**Transportation pattern changes**……	( )	(**X**)
g.	**Community cohesion**……	(**X**)	( )
h.	**Are short-term social/economic impacts due to construction**		
	considered major?.....	(**X**)	( )
I.	**Do conditions warrant special construction times**		
	(i.e., school in session, congestion, tourist season, harvest)?.....	(**X**)	( )
j.	**Were Context Sensitive Solutions considered?** (If so explain below)……..	( )	(**X**)
k.	**Will the roadway/bridge be closed? (If yes, answer questions below)**……..	()	(**X**)
	Will a detour bridge be provided?.....	( )	( )
	Will a detour route be signed?.....	( )	(**X**)

11. Other (Use this space to explain or expand answers to questions above.)

5(b) Line 1 requires the relocation of one single family residence. Lines 2, 3 and 3R (Preferred Alignment) do not require any relocations. The Selected Alignment requires the relocation of one single family residence.

6(a) North Bossier Park is in close proximity to Lines 3, 3R (Preferred Alignment) and the Selected Alignment.

6(c) Line 2 - Sites 16BO7 and 16BO572

Lines 3 and 3R - Sites 16BO8 and 16BO387

Adjacent to: Lines 3 and 3R - Sites 16BO330 and 16BO388

Adjacent to: Selected Alignment – Sites 16BO330, 16BO388, 16BO8 and 16BO387

6(d) Adjacent to: Line 2 - Rose Neath Cemetery

8(b) 100-year floodplain encroachment would be mitigated as part of final design to ensure no adverse floodplain and floodway impacts. See Final Environmental Assessment Section 4.12.

10(b) Adjacent to: Line 1 – Shiloh Baptist Church
Line 2 – Legacy Elementary School

10(e) Adjacent to: Line 2 -- Benton Fire District building.

10(j) Early involvement and participation by community leaders, federal and state resource agencies, Native American tribes, and the public to receive comments regarding possible adverse economic, social or environmental effects or concerns and to receive input on proposed alignment locations.

Identification of potential impacts to natural, cultural and physical resources as a means to locate proposed alignments and avoid impacts.

Design considerations include the use of bridges and culverts in order to minimize impact to water resources and implementation of BMPs to reduce erosion and minimize sediment transport during construction.

During the public participation process, stakeholder comments led to the evaluation of possible realignments based on proximity and potential impacts to well established neighborhoods; realignment along existing pipeline right-of-way in order to reduce the need split private property into unusable tracts; realignment to reduce impacts to wetlands and reduce the need for mitigation.

10(k) Roadway closures will be required for Lines 1 and 2.

11. Other

Mitigations, Commitments and Permits

- Relocation Mitigation – Relocation assistance will be made available to all residential and business relocates in accordance with the Uniform Relocation Assistance and Real Property Polices Act of 1970 (as amended).

- Access will be maintained to properties and all residences and businesses adjacent to the Project.

- A qualified petroleum engineer will conduct a feasibility study for each impacted oil or gas well, located within the acquired right-of-way, to determine the estimated reserves.

- Wetland Mitigation – Per 404 permit requirements.

- Section 401 Water Quality Certification.

- Levee Crossing Permit, Bossier Levee District

- Section 402 NPDES / LPDES including Stormwater Pollution Prevention Plan (SWPPP)

- Section 404 Permit

- Detailed hydrologic and hydraulic studies would be performed during final design, and drainage structures sized and additional floodwater storage created to ensure no adverse floodplain and floodway impacts. Hydraulic design and construction practices would be in accordance with current DOTD and FHWA design policies and standards as well as Bossier Parish Flood Ordinances. The Bossier Parish Police Jury (BPPJ) will ensure that development permits meeting all Federal, State, and local regulations are issued prior to construction.

- Minimization of traffic delays due to construction will be achieved through the development of signing plans to inform the general public of work zones, road closures, detours and other temporary changes.

- Minimization of temporary construction impacts through:

    - Erosion control
    - Fugitive dust control

Preparer:	**Michel Baker Jr., Inc.**
	Christopher G. Gesing, P.E.
Title:	**Project Manager**
Date:	**September 1, 2010**

Attachments

(**X**) S.O.V. and Responses
(**X**) Wetlands Finding
(**X**) Project Description Sheet (**See Sections 1, 2, and 3**)
( ) Conceptual Stage Relocation Plan
(**X**) Noise Analysis (**See Section 4**)
( ) Air Analysis
(**X**) Exhibits and/or Maps
( ) 4(f) Evaluation
(**X**) Form AD 1006 (Farmlands)
( ) 106 Documentation
(**X**) Other: Public Meeting Transcripts: The transcripts from the Public Scoping Meeting and Public Alignment Meeting are on file at NLCOG and were submitted to NLCOG and DOTD on March 20, 2009 and August 14, 2009 respectively. The transcript from the Public Hearing is on file at NLCOG and was submitted to NLCOG and DOTD on June 14, 2010.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF EXHIBITS

Section 1: DESCRIPTION OF THE PROPOSED ACTION

1.1 PROPOSED ACTION

The Northwest Louisiana Council of Governments (NLCOG), the designated Metropolitan Planning Organization (MPO) for transportation planning in the Shreveport-Bossier area, and the Bossier Parish Police Jury (BPPJ), in cooperation with the Louisiana Department of Transportation and Development (DOTD) and the Federal Highway Administration (FHWA), propose to provide a new east-west roadway through rural, but rapidly developing, areas of Bossier Parish. This Proposed Action would link these rapidly developing residential areas of Bossier Parish to the employment centers of Shreveport and Bossier City.

The Proposed Action is identified in the *Bossier Parish 2004 - 2015 Transportation Plan* (Plan), dated February 2004. Within the Plan, the Proposed Action is identified as the "Winfield Road Extension", consisting of a new two-lane roadway from Bellevue Road to Airline Drive, a distance of approximately seven miles. The Proposed Action is also identified in the *Caddo – Bossier Transportation Plan Update 2001 – 2025*, dated July 2003. The Proposed Action is part of the statewide fully-funded plan and is considered a future needs project.

The Proposed Action would be initially constructed as a two-lane facility with rights-of-way clearance for future widening to a five-lane (four thru-lanes with a center left-turn lane) facility if, and when, traffic conditions warrant.

The DOTD adopted a Project Development Process (PDP) that includes seven stages defining the way major projects are developed, which includes:

- ❏ Stage 0 – Feasibility,
- ❏ Stage 1 – Planning / Environmental,
- ❏ Stage 2 – Funding / Project Prioritization,
- ❏ Stage 3 – Final Design,
- ❏ Stage 4 – Letting,
- ❏ Stage 5 – Construction, and
- ❏ Stage 6 – Operation.

NLCOG does not typically include Stage 0 or Stage 1 studies in their short-range Transportation Improvement Program (TIP). The Proposed Action would be included as an identified project in the TIP upon completion of Stage 1 and as the project advances through further stages of DOTDs PDP.

Funding for environmental analysis, environmental documentation and final design is currently available. Construction funding will be determined, and corridor preservation efforts enacted upon completion of the Stage 1 environmental documentation. It is anticipated that Federal and

Parish funds will be utilized for construction of the Proposed Action.

The study of alternatives and the environmental consequences of the Proposed Action were assessed following the National Environmental Policy Act (NEPA), FHWA Guidance for Preparing and Processing Environmental and Section 4(f) Documents (TA6640.8a); and DOTDs Stage 1 Planning/Environmental Manual of Standard Practice (Manual). The Environmental Assessment (EA) prepared for this Proposed Action satisfies these requirements.

1.2 PROJECT STUDY AREA

The Study Area (see Exhibit 1-1), is located within the central portions of Bossier Parish and is bounded by Louisiana Highway 162 on the north; Louisiana Highway 157 on the east; Louisiana Highway 3 (Benton Road) on the west; and on the south by a line roughly following Interstate Highway 220 and US Highways 79/80.

The Study Area encompasses the logical termini and the area that is potentially affected by the indirect and cumulative impacts of the Proposed Action. Logical Terminus 1, the western logical terminus, is located at Louisiana Highway 3 (Benton Road) at or between Brownlee Road and Kingston Road. Logical Terminus 2, the eastern logical terminus, is located at the intersection of Princeton Road and Louisiana Highway 157 (see Exhibit 1-1).

Improvements between the logical termini include the Proposed Action (between Louisiana Highway 3 (Benton Road), the western terminus, and Bellevue Road at its intersection with Winfield Road), and planned improvements to Winfield Road and Princeton Road, the eastern terminus, by the BPPJ. The Winfield Road and Princeton Road improvements would be implemented separate from the Proposed Action using local funds.

Within the Study Area, a smaller area identified as the Federal Action Area (FAA) encompasses the area that is potentially affected by the direct impacts of the Proposed Action (see Exhibit 1-2).

1.3 LOGICAL TERMINI

FHWA guidelines define the logical termini for project development as (1) rational end points for a transportation improvement, and (2) rational end points for a review of the environmental impacts. The environmental impact review frequently covers a broader geographic area than the strict limits of the transportation improvements. The most common termini are points of major traffic generation, especially intersecting roadways. This is due to the fact that in most cases traffic generators determine the size and type of facility being proposed. Choosing a corridor of sufficient length to look at all impacts need not preclude staged construction. Therefore, related improvements within a transportation facility should be evaluated as one project, rather than selecting

termini based on what is programmed as short range improvements. Construction may then be "staged," or programmed for shorter sections or discrete construction elements as funding permits.

The logical termini identified in Exhibit 1-1 are a direct result of discussions amongst the project sponsors. The Proposed Action, when combined with planned BPPJ improvements to Winfield Road and Princeton Road comprise a new east-west roadway that connects the logical termini and is wholly contained with the Study Area.

The environmental consequences of the Proposed Action and the planned BPPJ improvements to Winfield and Princeton Roads were treated with a broad scope and evaluated as a single project to ensure that the Proposed Action functions properly without requiring additional improvements elsewhere, thereby not restricting consideration of alternatives for other reasonably foreseeable transportation improvements.

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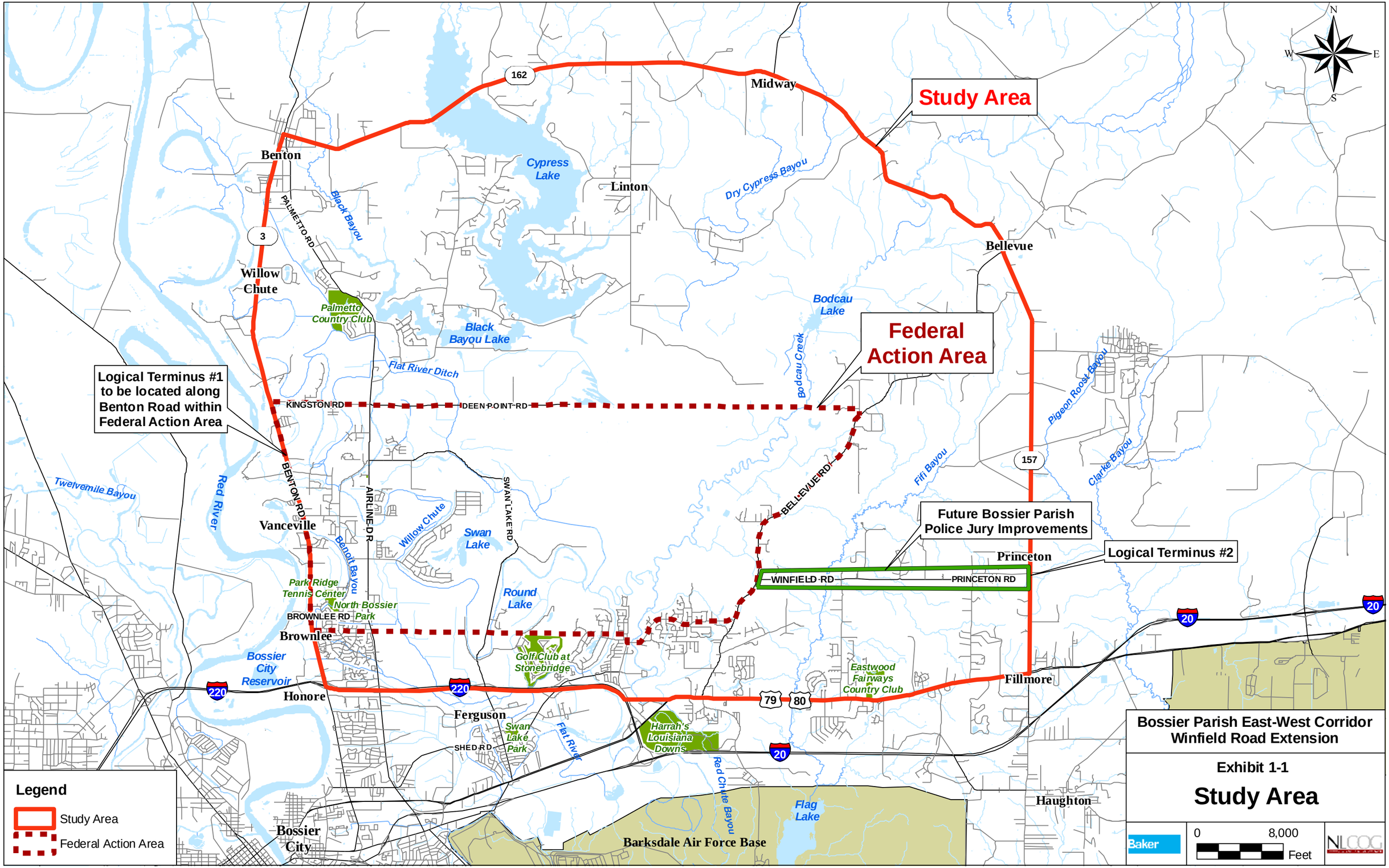
Study Area
Federal Action Area
Logical Terminus #1 to be located along Benton Road within Federal Action Area
Future Bossier Parish Police Jury Improvements
Logical Terminus #2
WINFIELD RD
PRINCETON RD
Benton
Midway
Linton
Bellevue
Willow Chute
Vanceville
Brownlee
Honore
Ferguson
Princeton
Fillmore
Haughton
Bossier City
Barksdale Air Force Base
Cypress Lake
Black Bayou Lake
Round Lake
Swan Lake
Bodcau Lake
Flag Lake
Dry Cypress Bayou
Black Bayou
Bodcau Creek
Pigeon Roost Bayou
Clarke Bayou
Fifi Bayou
Red River
Twelvemile Bayou
Benoit Bayou
Willow Chute
Red Chute Bayou
Flat River
Flat River Ditch
Palmetto Country Club
Park Ridge Tennis Center
North Bossier Park
Golf Club at Stonebridge
Eastwood Fairways Country Club
Harrah's Louisiana Downs
Swan Lake Park
Bossier City Reservoir
PALMETTO RD
BENTON RD
AIRLINE DR
SWAN LAKE RD
BELLEVUE RD
KINGSTON RD
IDEEN POINT RD
BROWNLEE RD
SHED RD
162
3
157
220
20
79
80
Legend
Study Area
Federal Action Area
Bossier Parish East-West Corridor
Winfield Road Extension
Exhibit 1-1
Study Area
Baker
0
8,000
Feet
NLCOG

Federal Action Area

Bossier Parish East-West Corridor
Winfield Road Extension

Exhibit 1-2

Federal Action Area

Baker

0 4,000 Feet

NLCOG

Section 2: PURPOSE OF AND NEED FOR ACTION

Bossier City and Bossier Parish are located in northwest Louisiana, approximately 20 miles east of Texas and 35 miles south of Arkansas. Bossier City covers 38 square miles while Bossier Parish contains 838 square miles. By ground travel, Bossier City is centrally located among major southcentral cities, just three hours from Dallas, Texas, three hours from Jackson, Mississippi, six hours from New Orleans, five hours from Houston, Texas, three hours from Little Rock, Arkansas, and seven hours from Memphis, Tennessee.

Bossier City is located on the eastern banks of the Red River, across from Shreveport, the largest city in the region. Together, the two cities form a major transportation hub, serviced by US Interstates I-20, I-220, and I-49, and US Highways 71, 79, and 80. Another major interstate highway, I-340 lies 60 miles to the north at Hope, Arkansas, and is accessed by Louisiana Highway 3.

Since 1933, Bossier City has been the home of Barksdale Air Force Base (BAFB), one of the largest military installations in the nation and the single largest regional employer with 9,018 military and civilian employees (North Louisiana Economic Partnership (NLEP), 2009). Other significant Shreveport-Bossier City employers by sector include government, healthcare, education, gaming and automotive with 20,304, 16,446, 11,239, 6,515 and 4,058 employees respectively (NLEP, 2009).

As of the 2000 US Census, Bossier City had 56,461 residents, and all of Bossier Parish had 98,310 residents, and the Bossier City – Parish Metropolitan Planning Commission (MPC) Planning Area had an estimated population of 74,836, representing 76 percent of the Parish-wide total. Bossier City and Bossier Parish have continued to gain in population in recent decades, with both growing at a pace faster than statewide rates for Louisiana. Between 1990 and 2000, Bossier City and Bossier Parish populations grew at an annual rate of 7.1 and 14.2 percent respectively, compared to the state-wide average of 5.9 percent.

The unincorporated areas of Bossier Parish continue to show higher signs of population growth than the incorporated city. The most significant residential development has occurred beyond the city limits in the MPC Planning Area (Bossier Parish, 2003).

2.1 PROJECT PURPOSE

The purpose of the Proposed Action is to improve area-wide vehicular mobility and safety by providing an additional east-west roadway within the central, unincorporated portion of Bossier

Parish that will alleviate congestion by diverting traffic from parallel facilities and reducing travel delays along other area roadways that link the rapidly growing residential areas of Bossier Parish to the employment centers of Shreveport and Bossier City. The Proposed Action will also provide an alternate route that will enable quicker access to hospitals and medical care and may have the added benefit of reducing driver frustration, contributing to improved safety.

2.2 PROJECT NEED

The needs for the Proposed Action include:

- ❑ Support planned residential and business growth
- ❑ Improve access and mobility of people and goods throughout the Study Area
- ❑ Improve access to hospitals and medical care
- ❑ Provide a continuous east-west roadway across the Study Area
- ❑ Relieve future congestion problems on area roadways
- ❑ Improve area-wide access, mobility and safety.

Population projections developed specifically for the MPC Planning Area for purposes of long-range planning indicate that the Bossier metropolitan area will continue to grow at approximately 13 percent in each of the next two decades (Bossier Parish, 2003). Recent announcements for the development of a Common Battlefield Airmen Training (CBAT) facility at BAFB and Global Strike Command at BAFB, and exploration and gas extraction of the Haynesville Shale natural gas formation field will further add to the projected growth in the Bossier metropolitan area and place additional demands on the existing transportation infrastructure.

Bossier Parish officials have indicated significant development pressure within the Study Area as evidence by the continued development of existing subdivisions and the number of new permits for strip plazas and large-scale subdivisions. The Bossier Parish School Board recently completed construction of the Legacy and the WT Lewis Elementary Schools within the Study Area due to residential and population growth in the area.

Very limited primary healthcare providers are available within the Study Area. Major medical care is provided at facilities in Shreveport and Bossier City such as Willis – Knighton Medical Centers, Christus Schumpert Heathcare System, Promise Healthcare System, Shriners Hospital, and Louisiana Heathcare Science Center. Within the Study Area, east-west access to north-south principal arterials and Interstate Highway 220 and US Highways 79/80 is limited to a non-continuous network of local roads and streets.

Existing-year (2008) traffic volumes along area roadways were determined through a

comprehensive data collection program. Recent count data was obtained from the DOTD, the proposed *North-South Corridor Traffic Study* (January 2008), and a traffic count program conducted in May and June, 2008 that included collecting roadway segment and intersection turning movement volumes.

The Northwest Louisiana Council of Governments (NLCOG), the designated Metropolitan Planning Organization (MPO) for transportation planning in the Shreveport-Bossier area, is responsible for both long- and short-range roadway and transportation plans, selects and approves projects for federal funding based on regional priorities, and develops ways to reduce traffic congestion. The NLCOG maintains a regional travel demand model (TDM) to forecast traffic conditions on area roadways and evaluate system improvements. A sub-model of the regional TDM, was used to evaluate the opening- (2012) and design-year (2030) traffic volumes for the No-Build and Build alternatives satisfying the Proposed Action.

The population within the Study Area is expected to increase from approximately 30,000 in 2008 to approximately 50,000 by the year 2030. Traffic volumes are projected to increase along area roadways as shown in Table 2-1 and Exhibit 2-1. The travel demand projections for the opening- (2012) and design-year (2030) include the impacts of other planned roadway improvements in the region including the proposed Bossier Parish North-South Corridor (SPN. 700-08-0129).

Traffic operations analyses were conducted to determine Level of Service (LOS) for the existing- (2008), opening- (2012) No-Build, and design-year (2030) No-Build traffic conditions using Highway Capacity Software (HCS) version 5.3. LOS is a qualitative measure describing operational conditions within a traffic stream, generally in terms of such service measures as speed and travel time, freedom to maneuver, traffic interruptions, and comfort and convenience. Six Levels of Service are defined, with letters designating each level, from A to F. LOS A represents the best operating conditions and LOS F the worst. Each level of service represents a range of operating conditions and the driver's perception of those conditions. Safety is not included in the measures that establish service levels.

DOTD Design Standards specify an acceptable LOS based on roadway classifications (LOS C is typically acceptable for urban areas; however, in heavily developed urban areas, LOS D is allowable).

Analysis locations included signalized and stop-controlled intersections, freeway segments, freeway weave segments, freeway ramp merge and diverge locations, and two-lane and four-lane roadway segments within the Study Area.

The analyses indicate that No-Build traffic congestion is projected to worsen along areas roadways by the design-year (2030). The existing- (2008) and opening-year (2012) No-Build conditions analyses indicate that two (2) locations currently operate at, and are projected to continue to operate at, LOS D or worse during at least one of the peak hours.

By the design-year (2030), twenty-two (22) locations are projected to operate at LOS D or worse, including nine (9) locations with projected LOS E or F, indicating a clear need for transportation improvements in the Study Area Existing- (2008), opening- (2012), and design-year (2030) No-Build levels of service are shown in Tables 2-2, 2-3, and 2-4, respectively and on Exhibit 2-1.

Table 2-1
AVERAGE DAILY TRAFFIC VOLUMES

Location	Average Daily Traffic Volume		
	2008 Existing	2012 No-Build	2030 No-Build
I-220 between LA 3 & Airline Drive	31,500	35,900	67,000
I-220 between Airline Drive & Swan Lake Road	30,500	33,800	64,900
I-220 between Swan Lake Road & Shed Road	22,400	24,500	43,300
LA 162 east of LA 3	5,700	5,700	6,800
LA 157 south of Princeton Road	1,500	2,000	3,200
Swan Lake Road north of Cardnell Road	2,100	4,200	15,800
Swan Lake Road south of Cardnell Road	1,000	1,600	20,400
Bellevue Road north of Winfield Road	3,800	3,800	4,200
Winfield Road east of Bellevue Road	1,700	1,900	3,200
Airline Drive south of Swan Lake Road	10,900	11,200	13,500
LA 3 near Vanceville Road	23,500	23,800	29,700
LA 3 north of I-220	28,600	29,400	38,000
Airline Drive north of I-220	32,600	34,200	52,000

Source: Michael Baker Jr., Inc.

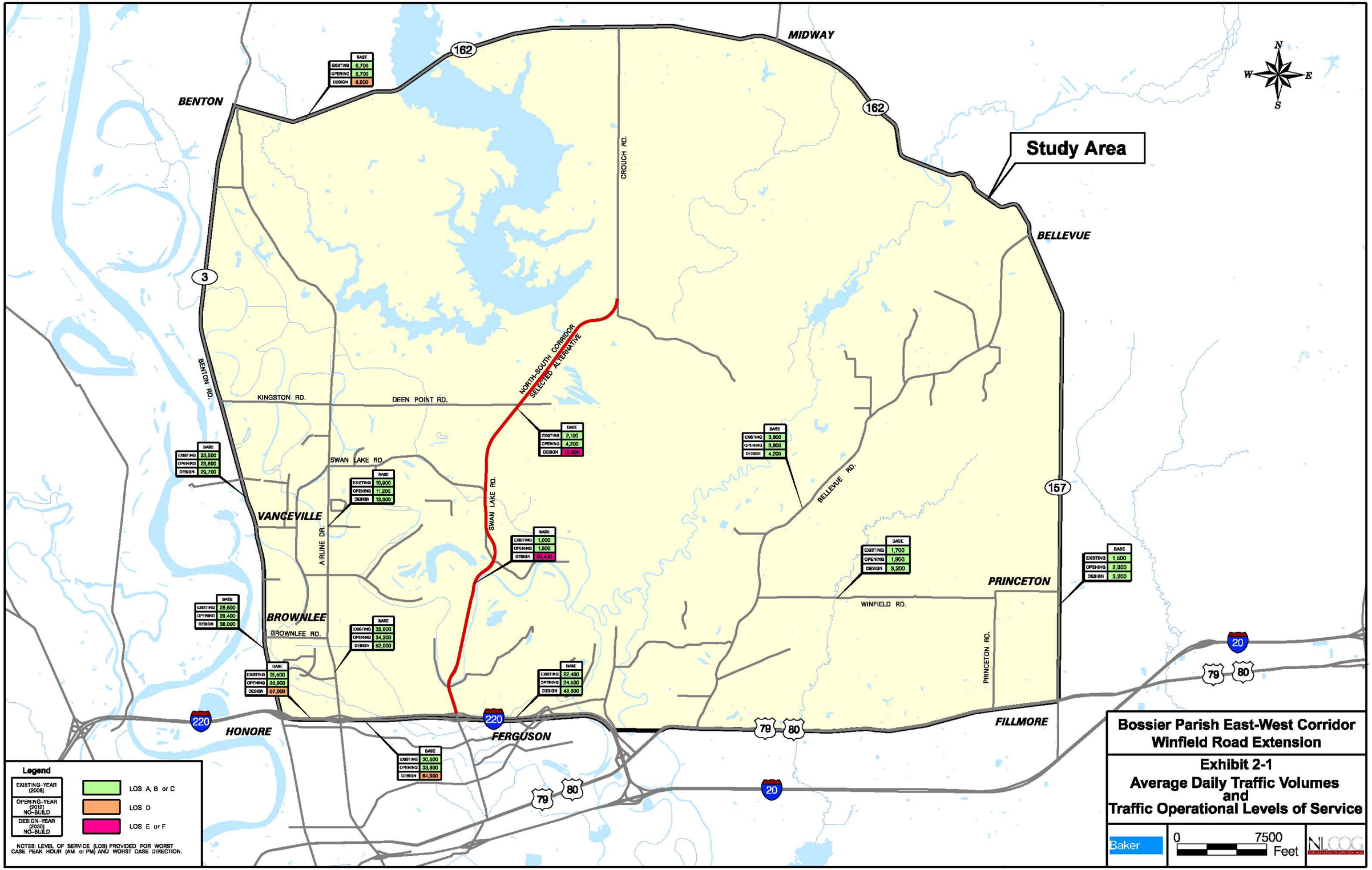
MIDWAY
BENTON
162
162
Study Area
BELLEVUE
CROUCH RD.
3
BENTON RD.
KINGSTON RD.
DEEN POINT RD.
NORTH-SOUTH CORRIDOR
SELECTED ALTERNATIVE
SWAN LAKE RD.
SWAN LAKE RD.
AIRLINE DR.
VANCEVILLE
BROWNLEE
BROWNLEE RD.
BELLEVUE RD.
157
WINFIELD RD.
PRINCETON
PRINCETON RD.
FILLMORE
HONORE
FERGUSON
220
220
20
79
80
79
80
79
80
N
W
E
S
BASE
EXISTING 5,700
OPENING 5,700
DESIGN 6,800
BASE
EXISTING 2,100
OPENING 4,200
DESIGN 15,600
BASE
EXISTING 3,600
OPENING 3,800
DESIGN 4,200
BASE
EXISTING 23,500
OPENING 23,800
DESIGN 29,700
BASE
EXISTING 10,900
OPENING 11,200
DESIGN 13,500
BASE
EXISTING 1,000
OPENING 1,800
DESIGN 20,400
BASE
EXISTING 1,700
OPENING 1,900
DESIGN 3,200
BASE
EXISTING 1,500
OPENING 2,000
DESIGN 3,200
BASE
EXISTING 28,600
OPENING 28,400
DESIGN 38,000
BASE
EXISTING 32,800
OPENING 34,200
DESIGN 52,000
BASE
EXISTING 31,600
OPENING 35,900
DESIGN 67,000
BASE
EXISTING 22,400
OPENING 24,500
DESIGN 43,300
BASE
EXISTING 30,500
OPENING 33,800
DESIGN 64,900
Legend
EXISTING-YEAR (2008)
OPENING-YEAR (2012) NO-BUILD
DESIGN-YEAR (2030) NO-BUILD
LOS A, B or C
LOS D
LOS E or F
NOTES: LEVEL OF SERVICE (LOS) PROVIDED FOR WORST CASE PEAK HOUR (AM or PM) AND WORST CASE DIRECTION.
Bossier Parish East-West Corridor
Winfield Road Extension
Exhibit 2-1
Average Daily Traffic Volumes
and
Traffic Operational Levels of Service
Baker
0
7500
Feet
NLCOG

Table 2-2
INTERSECTION LEVELS OF SERVICE

	Intersection / Direction / Movement			2008 Existing		2012 No-Build		2030 No-Build	
				AM	PM	AM	PM	AM	PM
				LOS	LOS	LOS	LOS	LOS	LOS
Signalized Intersections	LA 162 @ LA 3		Overall	B	B	B	B	B	B
	Airline Drive @ Swan Lake Road		Overall	B*	B	B*	B	B*	B*
	LA 3 @ I-220 WB Ramps		Overall	B*	B*	C*	B*	C*	D
	LA 3 @ I-220 EB Ramps		Overall	C	B*	C	C	C	C*
	Airline Drive @ I-220 WB Ramps		Overall	C*	C*	C*	C	D	C*
	Airline Drive @ I-220 EB Ramps		Overall	B	B*	B	C	C	C*
	Swan Lake Road @ I-220 WB Ramps**		Overall	**	**	**	**	F	F
	Swan Lake Road @ I-220 EB Ramps**		Overall	**	**	**	**	D	F
	US 80 @ Bellevue Road		Overall	E	D	E	D	F	D
Stop-Controlled Intersections	LA 157 @ Bellevue Road	Eastbound	Thru-Right	n/a	n/a	n/a	n/a	n/a	n/a
		Westbound	Left-Thru	A	A	A	A	A	A
		Northbound	Left	A	A	A	A	A	A
			Right	A	A	A	A	A	A
	LA 157 @ Princeton Road	Eastbound	Left-Right	A	A	A	A	B	B
		Northbound	Left- Thru	A	A	A	A	A	A
		Southbound	Thru -Right	n/a	n/a	n/a	n/a	n/a	n/a
	Bellevue Road @ Winfield Road	Westbound	Left-Right	B	B	B	B	B	B
		Northbound	Through-Right	n/a	n/a	n/a	n/a	n/a	n/a
		Southbound	Left- Thru	A	A	A	A	A	A
	Swan Lake Road @ I-220 WB Ramps**	Westbound	Left	C	D	C	E	**	**
			Right	A	A	A	B	**	**
		Northbound	Left	A	A	A	A	**	**
			Thru	n/a	n/a	n/a	n/a	**	**
		Southbound	Thru	n/a	n/a	n/a	n/a	**	**
			Right	n/a	n/a	n/a	n/a	**	**
	Swan Lake Road @ I-220 EB Ramps**	Eastbound	Left	B	B	C	C	**	**
			Right	C	B	C	B	**	**
		Northbound	Thru	n/a	n/a	n/a	n/a	**	**
			Right	n/a	n/a	n/a	n/a	**	**
		Southbound	Left	A	A	A	A	**	**
			Thru	n/a	n/a	n/a	n/a	**	**

Source: Michael Baker Jr., Inc.

Notes:
n/a – Not applicable. Highway Capacity Manual procedures do not calculate overall levels of service for two-way stop-controlled intersections; however levels of service are calculated for the minor movements.
* – Individual movements operate at LOS E or F
** – Signalized intersection is proposed by the design-year (2030) based on findings presented in the *North-South Corridor Traffic Study*.

Table 2-3
FREEWAY LEVELS OF SERVICE

	Intersection	Direction	2008 Existing		2012 No-Build		2030 No-Build	
			AM	PM	AM	PM	AM	PM
			LOS	LOS	LOS	LOS	LOS	LOS
Freeway Segments	I-220 between LA 3 & Airline Drive	Eastbound	B	B	B	B	D	D
		Westbound	A	B	B	B	C	D
	I-220 between Airline Drive & Swan Lake Road	Eastbound	B	B	B	B	D	D
		Westbound	A	B	B	B	C	D
	I-220 between Swan Lake Road & Shed Road	Eastbound	B	B	B	B	C	C
		Westbound	A	A	A	B	B	C
Weaves	I-220, from LA 3 to Airline Drive	Eastbound	B	B	B	B	C	C
	I-220, from Airline Drive to LA 3	Westbound	A	B	B	B	C	C
Ramp Merges & Diverges	I-220 Off Ramp to LA 3	Eastbound	C	C	C	C	F	E
	I-220 On Ramp from LA 3	Westbound	B	B	B	B	C	D
	I-220 On Ramp to Airline Drive	Eastbound	B	B	B	B	D	C
	I-220 Off Ramp to Airline Drive	Westbound	B	B	B	B	C	D
	I-220 Off Ramp to Swan Lake Road	Eastbound	B	B	C	B	E	D
	I-220 On Ramp to Swan Lake Road	Eastbound	B	B	B	B	C	C
	I-220 Off Ramp to Swan Lake Road	Westbound	B	B	B	B	C	C
	I-220 On Ramp to Swan Lake Road	Westbound	A	B	B	B	C	C

Source: Michael Baker Jr., Inc.

Table 2-4
ROADWAY SEGMENT LEVELS OF SERVICE

	Location	Direction	2008 Existing		2012 No-Build		2030 No-Build	
			AM	PM	AM	PM	AM	PM
			LOS	LOS	LOS	LOS	LOS	LOS
Two-Lane Segments	LA 162 east of LA 3	Eastbound	A	C	A	C	A	C
		Westbound	C	B	C	B	D	B
	LA 157 south of Princeton Road	Northbound	B	B	B	B	C	B
		Southbound	B	B	B	B	C	C
	Swan Lake Road north of Cardnell Road	Northbound	A	B	A	C	B	E
		Southbound	B	A	C	A	D	C
	Swan Lake Road south of Cardnell Road	Northbound	A	A	A	A	B	E
		Southbound	A	A	B	A	E	D
	Bellevue Road north of Winfield Road	Northbound	A	C	A	C	A	C
		Southbound	C	A	C	A	C	A
	Winfield Road east of Bellevue Road	Eastbound	A	C	A	C	A	C
		Westbound	B	A	B	A	C	A
Four-Lane Segments	LA 3 near Vanceville Road	Northbound	A	A	A	A	A	A
		Southbound	A	A	A	A	A	A
	Airline Drive south of Swan Lake Road	Northbound	A	A	A	A	A	A
		Southbound	A	A	A	A	A	A
	LA 3 north of I-220	Northbound	A	B	A	B	B	C
		Southbound	B	B	B	B	B	B
	Airline Drive north of I-220	Northbound	A	B	A	B	B	C
		Southbound	B	B	B	B	C	C

Source: Michael Baker Jr., Inc.

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Section 3: ALTERNATIVES

3.1 THE STUDY PROCESS

The study of alternatives and the environmental consequences of the Proposed Action were assessed following the National Environmental Policy Act (NEPA), FHWA Guidance for Preparing and Processing Environmental and Section 4(f) Documents (TA6640.8a); and DOTDs Stage 1 Planning/Environmental Manual of Standard Practice (Manual). The study process for the location and environmental study of the Proposed Action followed DOTDs Manual and is shown in Exhibit 3-1. Three phases of work are involved and include:

- ❑ Scoping & Purpose and Need Assessment, which includes identifying significant issues related to the Proposed Action; documenting the purpose of and need for the Proposed Action, and determining the scope of the issues to be addressed in the environmental document
- ❑ Alternatives Development and Analysis, which includes developing reasonable and feasible alternatives satisfying the purpose and need; physical considerations and environmental constraints, evaluating potential environmental impacts; presenting the findings for stakeholder comment
- ❑ Environmental Documentation, which consists of preparing the Draft and Final Environmental Assessments (EA) and other supporting documents; identifying a Preferred Alignment in the Draft EA; and selecting of a single Selected Alignment identified in the Final EA and Finding of No Significant Impact (FONSI).

This study process satisfies regulatory and coordination requirements for projects integrating the National Environmental Policy Act (NEPA) and the Clean Water Act (CWA) Section 404 Permit process. The multi-step project approach allowed a thorough consideration of all alternatives developed with respect to potential impacts to "waters of the United States", including wetlands, as required under Section 404 of the CWA.

The required CWA Section 404 b(1) alternatives analysis was conducted as the project progressed. This approach first emphasized avoidance, and then minimization efforts to insure that the Selected Alignment minimized wetland impacts to the greatest extent possible.

Potential impacts of the Proposed Action alternatives, including the “No-Build” alternative, to relevant resources within the Study Area are presented in Section 4. Coordination with and comments from agencies, organization, and persons consulted during the Study Process and

methods to solicit public involvement are presented Section 5.

3.2 NO-BUILD ALTERNATIVE

The No-Build alternative would not involve constructing the Proposed Action, but would involve normal maintenance activities and planned safety improvements to area roadways.

Selection of the No-Build alternative would avoid major local, state, and federal expenditures and would avoid impacts to the social, economic, natural and cultural environments. The No-Build alternative will be maintained as an alternative to the Proposed Action alternatives until a final decision has been determined and documented through the completion of the Study Process.

3.3 DESIGN CRITERIA AND PROJECT IMPLEMENTATION

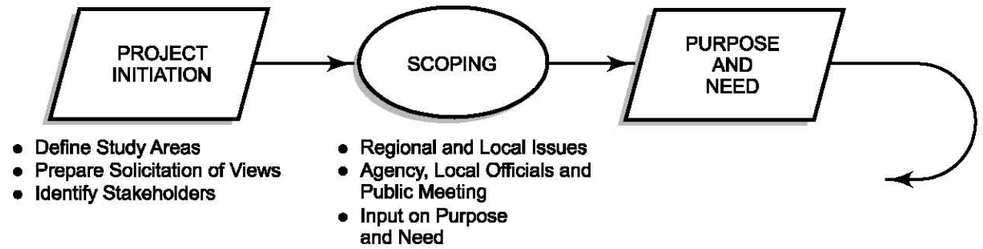
The Proposed Action would be a five-lane roadway (four thru-lanes with a center left-turn lane) designed to DOTD urban collector design guidelines (DOTD Design Standard UC-2). The roadway design criteria used to develop the Proposed Action are presented in Table 3-1.

The Proposed Action would be initially constructed as a two-lane facility and would be widened to the five-lane facility if, and when, traffic conditions warrant. Because there is no timeline for these improvements, the earthwork for the initial construction would be limited to that necessary for the two-lane facility. This will locate ditches adjacent to the improvements and minimize maintenance costs. The shoulders would be constructed to the same specifications as the travel lanes to allow for future expansion. As part of the initial construction, bridges and drainage structures would be constructed to the full five-lane section.

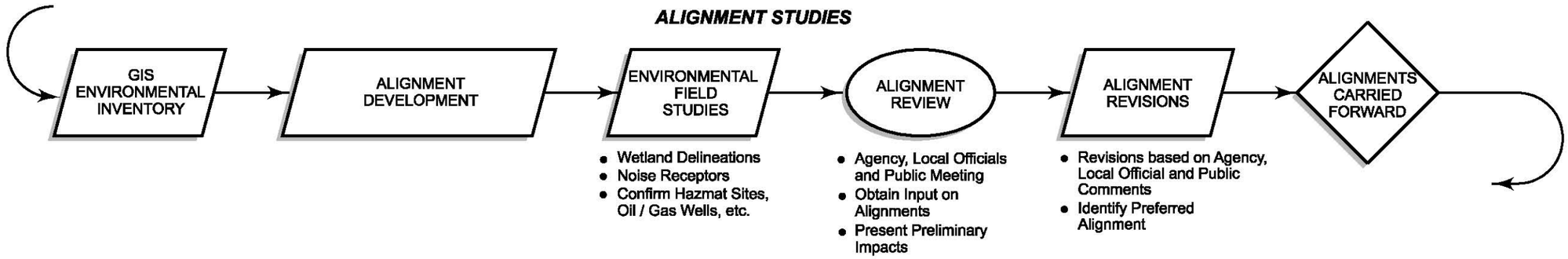
The typical roadway sections for the initial construction, and the future construction illustrating the continuous flush median and dedicated left-turn lane, are presented in Exhibit 3-2. The initial two-lane facility satisfies DOTD urban collector design guidelines. However, the future five-lane facility (four thru-lanes with a two-way left-turn lane) preferred by BPPJ does not. Current DOTD design guidelines for multi-lane facilities specify a raised median separating opposing traffic flow, commonly referred to as a “boulevard”. BPPJ has had good success with multi-lane facilities constructed with a continuous flush median and a two-way left turn lane. As they have done with other similar facilities, BPPJ would control facility ingress and egress. The five-lane facility is also more cost effective to construct and maintain.

The Transportation Research Board’s Access Management Manual indicates that roadways with non-traversable medians are increasingly safer than roadways with a continuous two-way left-turn lane (TWLTL) when volumes exceed 24,000 to 28,000 vehicles per day.

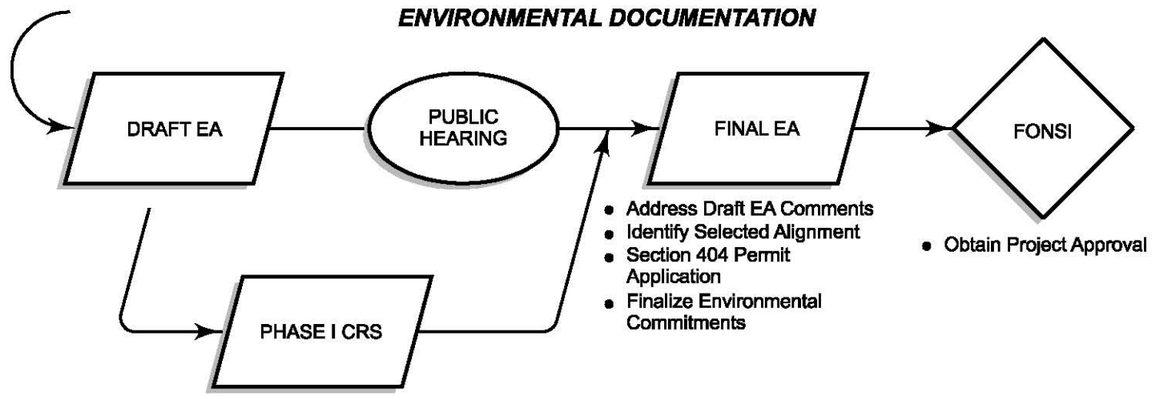
SCOPING & PURPOSE and NEED



ALIGNMENT STUDIES



ENVIRONMENTAL DOCUMENTATION



SYMBOLOGY:

- Outreach Period
- Work in Progress
- Decision and/or Concurrence Point

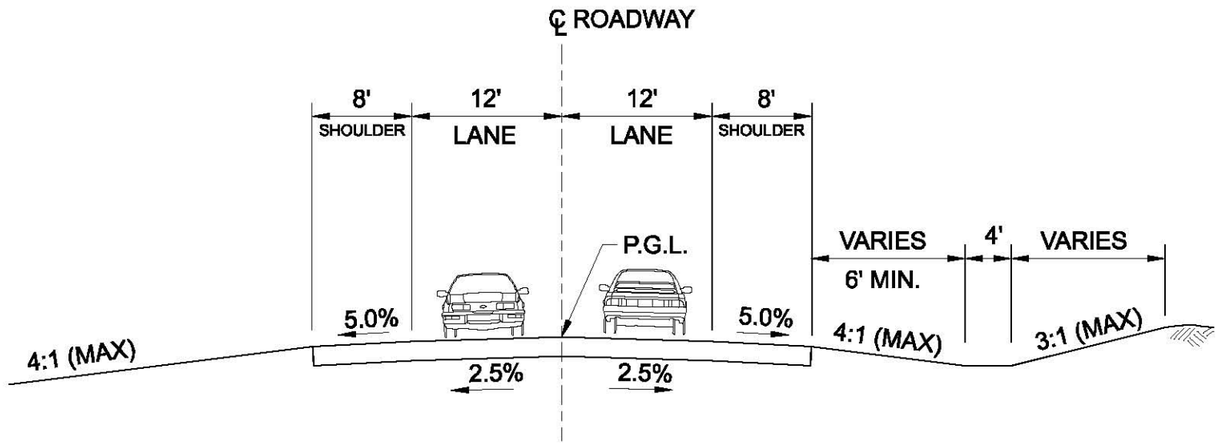
Bossier Parish East-West Corridor
Winfield Road Extension

Exhibit 3-1

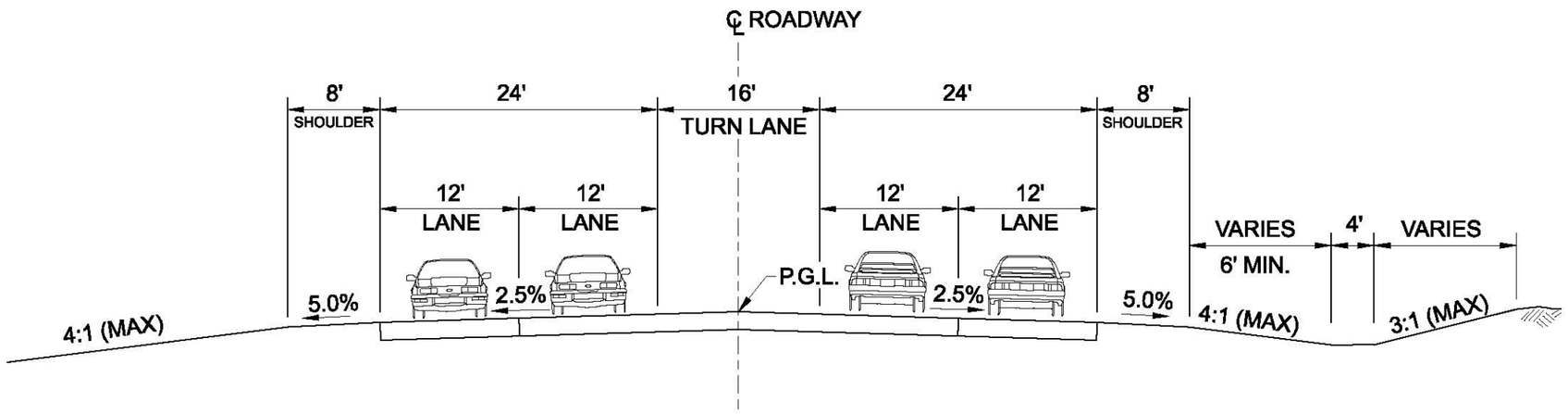
Study Process

Baker

Take page out



2-LANE URBAN COLLECTOR
INITIAL CONSTRUCTION



5-LANE URBAN COLLECTOR WITH TWO WAY LEFT TURN LANE
FUTURE CONSTRUCTION

Bossier Parish East-West Corridor
Winfield Road Extension

Exhibit 3-2

Typical Sections

Baker | Not To Scale | NLCOG

Take page out

Table 3-1
DOTD URBAN COLLECTOR DESIGN CRITERIA (UC-2)

Design Factors	Recommended Guidelines
Average Daily Traffic	N/A
Design Speed (mph)	45
Number of Lanes (minimum)	2 – 4
Width of Travel Lanes (ft)	12 [2]
Width of Shoulders (ft)	
(a) Inside on multilane facilities	N/A
(b) Outside	8 [2, 4]
Shoulder Type	Paved
Width of Parking Lanes (where used) (ft)	11
Width of Median on multilane facilities (ft)	
(a) Depressed	N/A
(b) Raised	4 (min) – 30 (des)
(c) Two way left turn lane	11 – 14 typ. [7]
Width of Sidewalk (minimum) (where used) (ft) [8]	
(a) When offset from curb	4
(b) When adjacent to curb	6
Fore Slope (vertical – horizontal)	1:3 – 1:4 [9]
Back Slope (vertical – horizontal)	1:3
Pavement Cross Slope (%)	2.5
Minimum Stopping Sight Distance (ft)	360
Maximum Super elevation (%)	4
Minimum Radius (ft) [11, 12]	
(a) With normal crown (-2.5% cross slope)	1,000
(b) With 2.5% super elevation	750
(c) With full super elevation	700
Maximum Grade (%)	8
Minimum Vertical Clearance (ft) [13]	15
Minimum Clear Zone (ft)	
(a) From edge of through travel lane	10
(b) Outside (from back of curb) (when curb is used)	6 (min) – 8 (des)
(c) Median (from back of curb) (when curb is used)	1 (min) – 8 (des)
Bridge Design Live Load [16]	AASHTO
Minimum Width of Bridges (face to face of bridge rail at gutter line)	
(a) Curbed facilities (without sidewalks)	Traveled [17] way plus 8’
(b) Shoulder facilities	Roadway width
Guardrail Required at Bridge Ends	[17]

Source: DOTD; American Association of State Highway and Transportation Officials

1. These guidelines may be used only on a rural roadway section that adjoins a roadway section currently classified as urban. The classification selected should be based upon the posted speed.
2. For ADT less than 2,000 refer to Exhibit 6-5 on page 425 in the “AASHTO 2004 Policy on Geometric Design of Highways and Streets”.
3. Applicable to depressed medians only.
4. Curb may be used instead of shoulder. Where bicycle activity is observed, a bike lane should be considered.
5. If curb will not be used, shoulder widths may be reduced, see footnote 2. When curb is used on multilane facilities, it shall be placed at the edge of shoulder. When curb is used on two lane facilities, 8 foot shoulders will be required if a future center turn lane will be added. Curb will not be placed in front of guardrail.
6. 7 and 8-foot widths are limited to residential areas for 30 and 40 mph respectively.
7. Cannot be used on multilane roadways (with four or more through lanes) without Chief Engineer’s approval.
8. If shoulders are used, sidewalks should be separated from shoulder.
9. Where shoulders are used, 1:4 minimum fore slopes are required through the limits of minimum clear zone.
10. 1:2 back slopes are allowed where right of way restrictions dictate.
11. 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.
12. Different radii apply at divisional islands. See footnote 7 under urban arterial design guidelines.
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 higher value is applicable to roadways with an ADT greater than 6,000.
15. These values apply to roadways with 8-foot shoulders. For outside shoulders less than 8 feet, further increase should be proportional to the reduced shoulder width.
16. LRFD for bridge design.
17. Refer to EDSM II.3.1.4 when sidewalks will be provided and for guardrail requirements.

The Design Year 2030 average daily traffic volume along the East-West Corridor is not projected to exceed 12,000 vehicles per day along any of the segments studied, well below the threshold where a TWLTL is considered to have safety issues.

BPPJ requested, and DOTD approved, a design exception for the future five-lane facility. Correspondence is included in the Appendix.

While a five-lane facility is preferred, the acquired rights-of-way would be sufficient to construct a boulevard satisfying current DOTD design guidelines if and when traffic conditions warrant.

3.4 GIS ENVIRONMENTAL INVENTORY

A project-specific Geographic Information Systems (GIS) was developed to maintain and analyze the various natural, human and cultural environment information and the Proposed Action preliminary alignments. An environmental inventory of existing secondary-source natural, social, and cultural resources was collected within the Study Area. This information was augmented within the Federal Action Area (FAA) and along the Proposed Action alignments with primary-source (field-collected) environmental resource information. These environmental resources are fully discussed in Section 4.

Preliminary alignments were developed based on physical considerations such as topography, developed areas and planned subdivisions, property boundaries, watercourse crossings, existing major utilities, connections with existing highways, traffic analyses, and the Study Area and FAA environmental resources inventory.

3.5 ALIGNMENT DEVELOPMENT

3.5.1 Planning Corridors

Two 2,000-foot wide planning corridors within the Federal Action Area, one north and one south, were identified prior to this study. Both corridors have western termini at Louisiana Highway 3 (Benton Road) and converge at a shared eastern terminus at the intersection of Winfield Road and Bellevue Road.

The South Corridor was identified in the Stage 0 Feasibility Study prepared by NLCOG and BPPJ in May 2006. The South Corridor begins at Benton Road between the Brownlee Estates and River Bluff subdivisions and extends due east for 1.5 miles, crossing Benoit Bayou, then curving slightly southeast and northeast again in the vicinity of Crosscreek Drive and then straightening into an eastward path as it crosses Swan Lake Road, Willow Chute and Cardnell Road. The corridor then continues due east with its northern border along Cardnell Road, crossing Macks Bayou and Bodcau Creek before converging with the southeastern path of the northern corridor, approximately 4,000 feet west of the terminus at the Winfield Road/Bellevue Road intersection.

NLCOG and BPPJ identified a second planning corridor, the North Corridor, prior to this Stage 1 study because of significant development pressure within the Study Area and along the South Corridor as evidence by the continued development of existing subdivisions and the number of new permits for strip plazas and large-scale subdivisions. The North Corridor begins just north of the Cypress Bend subdivision, south of Haymeadow Drive and extends southeasterly, crossing two forks of Willow Chute, then continuing due east along the centerline of Vanceville Road/ Swan Lake Road through the intersection with Airline Drive. The corridor continues to follow the alignment of Swan Lake Road, curving northeasterly as it crosses the Flat River Drainage Canal, then maintaining an eastern path through undeveloped terrain for approximately one mile. At this point the corridor turns southeasterly again, passing through farmland and undeveloped terrain and crossing portions of Macks Bayou, Cypress Bayou, and Bodcau Creek before terminating at the Winfield Road/Bellevue Road intersection.

3.5.2 Alignments

Three alignments were developed: Line 1, Line 2, and Line 3. Each alignment corresponds roughly to one of the 2,000-foot planning corridors, and all make use of one or more existing roadways in order to increase efficiency and reduce environmental impacts. The alignments are shown in Exhibit 3-3. Brief descriptions of the alignments and environmental and engineering issues follow.

Line 1

Beginning at the intersection of Kingston Road and Benton Road, approximately 5,000 feet north of the North Corridor, Line 1 utilizes Kingston Road due east for approximately one and three-quarter miles, crossing Willow Chute at two locations. Kingston Road becomes Deen Point Road at the Airline Drive intersection. Line 1 crosses Airline Drive and follows Deen Point Road due east for approximately one and one-quarter miles, crossing Willow Chute a third time, and also crossing the Flat River Drainage Canal. At this point the alignment veers southeasterly from Deen Point Road and extends across farmland and undeveloped terrain for approximately one mile, at which point it crosses into the North Corridor. Line 1 continues southeasterly within the North Corridor for approximately 4 miles. Along this stretch the alignment passes through undeveloped terrain and crosses portions of Macks Bayou, Cypress Bayou and Bodcau Creek before turning east and terminating at the Winfield Road/Bellevue Road intersection. The alignment avoids impacts to Swan Lake, as well as the Willow Lake and Legacy subdivisions located to the north.

Line 2

Beginning at the intersection of Lafitte Lane (Cash Point Road) and Benton Road, approximately 2,000 feet south of the North

Corridor, Line 2 utilizes Lafitte Lane due east for approximately one mile to Audubon Circle, then extends across a short stretch of undeveloped terrain to connect with and follow Vanceville Road, which curves northeasterly and crosses into the North Corridor. Vanceville Road becomes Swan Lake Road at the Airline Drive intersection. From here the alignment continues to follow Swan Lake Road due east along the centerline of the North Corridor, curving northeasterly as it crosses the Flat River Drainage Canal. The alignment then diverges from Swan Lake Road, maintaining an easterly path within the North Corridor for approximately one mile through farmland and undeveloped terrain. At this point the alignment curves southeasterly and converges with Line 1 for the duration of its route. In this stretch the alignment crosses portions of Macks Bayou, Cypress Bayou and Bodcau Creek, terminating at the Winfield Road/Bellevue Road intersection. The alignment avoids impacts to Swan Lake, as well as the Willow Lake and Legacy subdivisions located to the south.

Line 3

Line 3 generally follows the centerline of the South Corridor. Extending due east from Benton Road, north of the Brownlee Estates subdivision and North Bossier Park, the alignment extends due east across farmland and undeveloped terrain, crossing Benoit Bayou, Old Brownlee Road, and Airline Drive. The alignment continues to follow the centerline of the South Corridor as it passes south of Willow Chute and the Lakewood Point subdivision. However, as it crosses Willow Chute and Swan Lake Road, the alignment maintains an easterly direction as the South Corridor curves northward. The alignment then continues easterly through farmland and undeveloped terrain, passing south of Willow Chute Road, north of Round Lake, then curves northeasterly, crossing another section of Willow Chute and the Flat River Drainage Canal as it reenters the South Corridor. From this point, Line 3 continues to generally follow the centerline of the South Corridor, crossing Bodcau Creek before converging with the southeastern path of the North Corridor. The alignment then curves southeasterly, merging with Line 1 and Line 2. The alignment avoids impacts to the Brownlee Estates, Airline Estates and Lakewood Point subdivisions, as well as North Bossier Park, Swan Lake, Round Lake and portions of Willow Chute.

Palmetto Country Club
Black Bayou
Black Bayou Lake
Lake
CROUCH RD
Flat River Ditch
Willow Chute
Red River
N
W
E
S
PARKER RD
WELLS RD
KINGSTON RD
Line 1
DEEN POINT RD
WELLS CUTOFF RD
3
HAYMEADOW DR
N WILLOW DR
Legacy Subdivision
SAWGRASS PARKWAY
Line 2
Willow Lake Subdivision
Cypress Bend Subdivision
North Corridor
CASH POINT RD
LAFITTE LN
VANCEVILLE RD
SWAN LAKE RD
Bodcau Creek
Line 1 & 2
MYERS RD
FAWN HOLLOW
AUDUBON DR
LE OAKS DR
BELLEVUE RD
BUSBY RD
Vanceville
Autumn Creek Subdivision
South Corridor
The Colony Subdivision
OLD BROWNLEE RD
AIRLINE DR
LAKEWOOD POINT DR
Lakewood Point Subdivision
Swan Lake
CARDNELL RD
Line 3
Riverbluff Subdivision
WEMPLE RD
Benoit Bayou
Willow Chute
Line 3R & Selected Alignment
WINFIELD RD
CROSSCREEK DR
North Bossier Park
Airline Park Estates
Brownlee Estates
Brownlee
BROWNLEE RD
Round Lake
HOLLYRIDGE DR
DOGWOOD TR
Fifi Bayou
Tiburon Subdivision
Brookhaven Estates
NORTHPARK DR
Greenacres Place
GREENACRES BLVD
PETE MODICA LN
NODICA LOTT RD
Carriage Oaks
SURREY LN
HICKORY RIDGE DR
STOCKWELL RD
HOLLOW BLUFF DR
ADNER RD
3105
Golf Club at Stonebridge
TALL PINES RD
Country Place
Tall Timbers
Eastwood Fairways Country Club
220
220
79
80
Honore
VIKING DR
HAZEL JONES RD
Ferguson
Swan Lake Park
Harrah's Louisiana Downs
BENTON RD
SHED RD
Mack's Bayou
20

Legend

- Federal Action Area
- Planning Corridor
- Line 1
- Line 2
- Line 3
- Line 3R (Preferred Alignment)
- Selected Alignment

Bossier Parish East-West Corridor
Winfield Road Extension

Exhibit 3-3

Alignments

Baker

0 4,000 Feet

NLCOG

3.5.3 Navigation

The US Coast Guard, Eighth Coast Guard District was invited to participate in a September 25, 2008 Scoping Meeting to solicit their input on the project and to identify specific issues relative to their area of expertise. In their October 20, 2008 response (see Appendix), the Coast Guard indicated that the Proposed Action may involve work over Benoit Bayou, Willow Chute, and Flat River Ditch, but pursuant to the Coast Guard Authorization Act of 1982 (Public Law 97-322), they have determined that these are not waterways over which the Coast Guard exercises jurisdiction for bridge administrative purposes. Therefore, a Coast Guard permit is not required.

3.5.4 Traffic Analysis

Traffic projections were developed using the NLCOG Regional Travel Demand Model (TDM) and capacity analyses were conducted to evaluate the existing-year (2008) traffic and estimated future traffic for the opening- (2012), and design-years (2030), and the traffic impacts associated with the Project.

The primary traffic analysis measure of effectiveness is level of service (LOS), which is a quality measure describing operational conditions within a traffic stream, generally in terms of such service measures as speed and travel time, freedom to maneuver, traffic interruptions, and comfort and convenience. Six Levels of Service are defined, with letters designating each level, from A to F. LOS A represents the best operating conditions and LOS F the worst. Each level of service represents a range of operating conditions and the driver's perception of those conditions. Safety is not included in the measures that establish service levels.

DOTD Design Standards specify an acceptable LOS based on roadway classifications (LOS C is typically acceptable for urban areas; however, in heavily developed urban areas, LOS D is allowable). For this study, the lowest acceptable traffic analysis measure of effectiveness is assumed to be LOS C because the Study Area is on the fringe of the Shreveport urbanized area.

Build Conditions

Opening-year (2012) and design-year (2030) Build traffic volumes were developed for north and south analysis scenarios. The north scenario represents Line 1 and Line 2 while the south scenario represents Lines 3, 3R (Preferred Alignment) and the Selected Alignment. Table 3-2 (also see Exhibit 3-4) compares existing-year (2008), opening-year (2012) No-Build, opening-year (2012) Build North, and opening-year (2012) Build South traffic volumes and shows a projected decrease of 4-5% (1,400–1,800 vehicles per day) along I-220 as a result of constructing the Project along a route approximating the North Planning Corridor. At these same locations, there is a projected decrease of 8-10% (2,500–3,100 vehicles per day) as a result of constructing the Project along a route

approximating the South Planning Corridor. Winfield Road is projected to experience an increase of 16% (300 vehicles per day) during the opening-year (2012) and 37% (700 vehicles per day) by constructing the Project along the North and South Planning Corridors, respectively.

Table 3-2
OPENING-YEAR (2012) AVERAGE DAILY TRAFFIC VOLUME COMPARISON

Location	Existing-year (2008)	Opening-year (2012) No-Build	Opening-year (2012) Build North	Opening-year (2012) Build South
I-220 between LA 3 & Airline Drive	31,500	35,900	34,500	32,900
I-220 between Airline Drive & Swan Lake Road	30,500	33,800	32,000	30,700
I-220 between Swan Lake Road & Shed Road	22,400	24,500	23,400	22,000
LA 162 east of LA 3	5,700	5,700	5,500	5,600
LA 157 south of Princeton Road	1,500	2,000	1,900	1,900
Swan Lake Road north of Cardnell Road	2,100	4,200	3,600	6,000
Swan Lake Road south of Cardnell Road	1,000	1,600	3,900	5,000
Bellevue Road north of Winfield Road	3,800	3,800	3,900	4,300
Airline Drive south of Swan Lake Road	10,900	11,200	12,100	11,100
LA 3 near Vanceville Road	23,500	23,800	22,800	27,200
LA 3 north of I-220	28,600	29,400	29,200	33,800
Airline Drive north of I-220	32,600	34,200	31,600	28,500
East-West Corridor between LA 3 and Airline Drive	n/a	n/a	1,500	6,500
East-West Corridor between Airline Drive to Swan Lake Road	n/a	n/a	2,100	6,200
East-West Corridor between Swan Lake Road to Bellevue Road	n/a	n/a	2,100	2,900
Winfield Road east of Bellevue Road	1,700	1,900	2,200	2,600

Source: Michael Baker Jr., Inc.
Note: n/a = Location does not exist under scenario.

	BASE	NORTH	SOUTH
EXISTING	5,700	NA	NA
OPENING	5,700	5,500	5,600
DESIGN	6,600	6,600	6,700

	BASE	NORTH	SOUTH
EXISTING	NA	NA	NA
OPENING	NA	1,500	NA
DESIGN	NA	2,300	NA

	BASE	NORTH	SOUTH
EXISTING	NA	NA	NA
OPENING	NA	2,100	NA
DESIGN	NA	7,400	NA

	BASE	NORTH	SOUTH
EXISTING	NA	NA	NA
OPENING	NA	1,500	NA
DESIGN	NA	2,300	NA

	BASE	NORTH	SOUTH
EXISTING	23,600	NA	NA
OPENING	23,800	22,800	27,200
DESIGN	29,700	28,700	33,900

	BASE	NORTH	SOUTH
EXISTING	NA	NA	NA
OPENING	NA	NA	6,500
DESIGN	NA	NA	10,600

	BASE	NORTH	SOUTH
EXISTING	28,600	NA	NA
OPENING	29,400	28,200	33,800
DESIGN	38,000	37,700	43,700

	BASE	NORTH	SOUTH
EXISTING	31,600	NA	NA
OPENING	36,900	34,500	32,900
DESIGN	67,000	64,400	62,400

	BASE	NORTH	SOUTH
EXISTING	10,900	NA	NA
OPENING	11,200	12,100	11,100
DESIGN	13,500	14,600	13,400

	BASE	NORTH	SOUTH
EXISTING	NA	NA	NA
OPENING	NA	NA	6,200
DESIGN	NA	NA	11,300

	BASE	NORTH	SOUTH
EXISTING	32,800	NA	NA
OPENING	34,200	31,800	28,500
DESIGN	52,000	48,000	43,700

	BASE	NORTH	SOUTH
EXISTING	30,500	NA	NA
OPENING	33,800	32,000	30,700
DESIGN	64,800	62,000	59,800

	BASE	NORTH	SOUTH
EXISTING	1,000	NA	NA
OPENING	1,800	3,900	5,000
DESIGN	20,400	14,500	21,900

	BASE	NORTH	SOUTH
EXISTING	2,100	NA	NA
OPENING	4,200	3,600	6,000
DESIGN	16,800	12,600	15,700

	BASE	NORTH	SOUTH
EXISTING	NA	NA	NA
OPENING	NA	NA	2,900
DESIGN	NA	NA	4,400

	BASE	NORTH	SOUTH
EXISTING	22,400	NA	NA
OPENING	24,600	23,400	22,000
DESIGN	43,300	41,700	39,800

	BASE	NORTH	SOUTH
EXISTING	NA	NA	NA
OPENING	NA	2,100	NA
DESIGN	NA	3,200	NA

	BASE	NORTH	SOUTH
EXISTING	3,800	NA	NA
OPENING	3,800	3,800	4,300
DESIGN	4,200	4,300	4,700

	BASE	NORTH	SOUTH
EXISTING	1,700	NA	NA
OPENING	1,900	2,200	2,600
DESIGN	3,200	3,700	4,300

	BASE	NORTH	SOUTH
EXISTING	1,500	NA	NA
OPENING	2,000	1,900	1,900
DESIGN	3,200	3,000	3,000

BENTON

MIDWAY

BELLEVUE

PRINCETON

VANCEVILLE

BROWNLEE

HONORE

FERGUSON

FILLMORE

Study Area

162

3

157

220

20

79

80

BENTON RD.

KINGSTON RD.

DEEN POINT RD.

SWAN LAKE RD.

BROWNLEE RD.

WINFIELD RD.

CROUCH RD.

AIRLINE DR.

SWAN LAKE RD.

BELLEVUE RD.

PRINCETON RD.

NORTH-SOUTH CORRIDOR SELECTED ALTERNATIVE

LINE 1

LINE 2

LINE 3

LINE 3R & SELECTED ALIGNMENT

N

W

E

S

Legend

EXISTING–YEAR (2008)		
OPENING–YEAR (2012) NO–BUILD	OPENING–YEAR (2012) NORTH	OPENING–YEAR (2012) SOUTH
DESIGN–YEAR (2030) NO–BUILD	DESIGN–YEAR (2030) NORTH	DESIGN–YEAR (2030) SOUTH

LOS A, B or C

LOS D

LOS E or F

NOTES: LEVEL OF SERVICE (LOS) PROVIDED FOR WORST CASE PEAK HOUR (AM or PM) AND WORST CASE DIRECTION. LINE 3 PREFORMS BETTER THAN LINE 1 AND LINE 2 AND REQUIRES FEWER ADDITIONAL IMPROVEMENTS TO PROVIDE LOS C ON THE STUDY AREA ROADWAYS.

Bossier Parish East-West Corridor
Winfield Road Extension

Exhibit 3-4
Average Daily Traffic Volumes and Traffic Operational Levels of Service

Baker

0 7500 Feet

NLCOG

Table 3-3 compares existing-year (2008), design-year (2030) No-Build, design-year (2030) Build North, and design-year (2030) Build South traffic volumes. The comparison of the design-year (2030) No-Build and Build scenarios shows similar trends as the opening-year (2012) conditions.

Table 3-3
DESIGN-YEAR (2030) AVERAGE DAILY TRAFFIC VOLUME COMPARISON

Roadway	Existing-year (2008)	Design-year (2030) No-Build	Design-year (2030) Build North	Design-year (2030) Build South
I-220 between LA 3 & Airline Drive	31,500	67,000	64,400	62,400
I-220 between Airline Drive & Swan Lake Road	30,500	64,900	62,000	59,800
I-220 between Swan Lake Road & Shed Road	22,400	43,300	41,700	39,800
LA 162 east of LA 3	5,700	6,800	6,600	6,700
LA 157 south of Princeton Road	1,500	3,200	3,000	3,000
Swan Lake Road north of Cardnell Road	2,100	15,800	12,600	16,700
Swan Lake Road south of Cardnell Road	1,000	20,400	14,500	21,300
Bellevue Road north of Winfield Road	3,800	4,200	4,300	4,700
Airline Drive south of Swan Lake Road	10,900	13,500	14,600	13,400
LA 3 near Vanceville Road	23,500	29,700	28,700	33,900
LA 3 north of I-220	28,600	38,000	37,700	43,700
Airline Drive north of I-220	32,600	52,000	48,000	43,700
East-West Corridor between LA 3 and Airline Drive	n/a	n/a	2,300	10,600
East-West Corridor between Airline Drive to Swan Lake Road	n/a	n/a	7,400	11,300
East-West Corridor between Swan Lake Road to Bellevue	n/a	n/a	3,200	4,400
Winfield Road east of Bellevue Road	1,700	3,200	3,700	4,300

Source: Michael Baker Jr., Inc.
Note: n/a = Location does not exist under scenario.

In general, construction of the Project following a route approximating the South Planning Corridor diverts a greater amount of traffic from parallel facilities than the North Planning Corridor given the South Planning Corridor's proximity to I-220. For example, for the North Planning Corridor, under the design-year (2030), the projected volume along the East-West Corridor between Airline Drive and Swan Lake Road is 7,400. At this same location, the projected South Planning Corridor volume is 11,300.

Traffic analyses were conducted for the opening-year (2012) Build, and design-year (2030) Build conditions for the North and South Planning Corridors. Traffic signal warrant analyses were conducted using the Manual on Uniform Traffic Control Devices (MUTCD) Peak Hour Traffic Warrant 3 (Peak Hour) as needed. Level of service results are shown for the signalized and stop-controlled intersections (Table 3-4); freeway segments, weaves, ramp merges, and ramp diverges (Table 3-5); and two-lane and four-lane roadway segments (Table 3-6 and Exhibit 3-4).

Table 3-4
BUILD INTERSECTION LEVELS OF SERVICE

	Intersection	Existing-year (2008)		Opening-year (2012) No-Build		Opening-year (2012) Build North		Opening-year (2012) Build South		Design-year (2030) No-Build		Design-year (2030) Build North		Design-year (2030) Build South	
		AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
Signalized Intersections	LA 162 @ LA 3	B	B	B	B	B	B	B	B	B	B	B	B	B	B
	East-West Corridor @ LA3	n/a	n/a	n/a	n/a	Stop		B	B	n/a	n/a	Stop		B	C
	East-West Corridor @ Airline Drive	n/a	n/a	n/a	n/a	Stop		B	B	n/a	n/a	B	B	B	B
	East-West Corridor @ Swan Lake Road / North-South Corridor	n/a	n/a	n/a	n/a	Stop		Stop		n/a	n/a	B	B	C	C
	Bellevue Road @ Winfield Road	Stop	Stop	Stop	Stop	Stop		Stop		Stop		Stop		B	B
	LA 3 @ I-220 WB Ramps	B*	B*	C*	B*	B*	C*	C*	C*	C*	D	C*	D	C*	D
	LA 3 @ I-220 EB Ramps	C	B*	C	C	C	C	C	C	C	C*	C	C*	C*	C*
	Airline Drive @ I-220 WB Ramps	C*	C*	C*	C	C	B	C	C	D	C*	D	D	D	C*
	Airline Drive @ I-220 EB Ramps	B	B*	B	C	B	C	B	C	C	C*	C	D	C	C*
	Swan Lake Road @ I-220 WB Ramps	Stop		Stop		B	B	C	B	F	F	F	E	F	E
	Swan Lake Road @ I-220 EB Ramps	Stop		Stop		C	B	B	B	D	F	C*	F	C*	F
	US 80 @ Bellevue Road	E	D	E	D	E	D	E	C*	F	D	F	D	F	D
Stop-Controlled Intersections	LA 157 @ Bellevue Road	A	A	A	A	A	A	A	A	A	A	A	A	A	A
	LA 157 @ Princeton Road	A	A	A	A	B	A	B	A	B	B	B	B	A	B
	Swan Lake Road @ I-220 WB Ramps	C	D	C	E	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Swan Lake Road @ I-220 EB Ramps	C	B	C	C	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	East-West Corridor @ LA 3	n/a	n/a	n/a	n/a	C	C	Signal		n/a	n/a	C	C	Signal	
	East-West Corridor @ Airline Drive	n/a	n/a	n/a	n/a	C	C	Signal		n/a	n/a	Signal		Signal	
	East-West Corridor @ Swan Lake Road / North-South Corridor	n/a	n/a	n/a	n/a	B	B	B	C	n/a	n/a	Signal		Signal	
	Bellevue Road @ Winfield Road	B	B	B	B	C	B	C	C	B	B	C	C	Signal	

Source: Michael Baker Jr., Inc.

Notes:
Overall LOS provided for signalized intersections. Worst-movement LOS provided for stop-controlled intersections.
n/a – Not applicable. Location does not exist under condition.
* – Individual movements operate at LOS D, E or F.
Signal – Location analyzed as signalized intersection.
Stop – Location analysis as stop-controlled intersection.
Bold – LOS D, E or F.
Red – Worse compared to No-Build condition.
Amber – No change compared to No-Build condition.
Green – Better compared to No-Build condition.
Gray – Comparison not relevant.

Table 3-5
BUILD FREEWAY LEVELS OF SERVICE

	Location	Direction	Existing-year (2008)		Opening-year (2012) No-Build		Opening-year (2012) Build North		Opening-year (2012) Build South		Design-year (2030) No-Build		Design-year (2030) Build North		Design-year (2030) Build South	
			AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
Freeway Segments	I-220 between LA 3 & Airline Drive	Eastbound	B	B	B	B	B	B	B	B	D	D	D	D	D	D
		Westbound	A	B	B	B	B	B	A	B	C	D	C	D	C	D
	I-220 between Airline Drive & Swan Lake Road	Eastbound	B	B	B	B	B	B	B	B	D	D	D	D	D	C
		Westbound	A	B	B	B	A	B	A	B	C	D	C	D	C	C
	I-220 between Swan Lake Road & Shed Road	Eastbound	B	B	B	B	B	B	B	B	C	C	C	C	C	C
		Westbound	A	A	A	B	A	A	A	A	B	C	B	C	B	B
Weaves	I-220, between LA 3 & Airline Drive	Eastbound	B	B	B	B	B	B	B	B	C	C	B	C	C	C
		Westbound	A	B	B	B	B	B	A	B	C	C	C	C	B	C
Ramp Merges & Diverges	I-220 Off Ramp to LA 3	Eastbound	C	C	C	C	C	C	C	C	F	E	F	E	F	E
	I-220 On Ramp from LA 3	Westbound	B	B	B	B	B	B	B	B	C	D	C	D	C	D
	I-220 On Ramp from Airline Drive	Eastbound	B	B	B	B	B	B	B	B	D	C	D	C	D	C
	I-220 Off Ramp to Airline Drive	Westbound	B	B	B	B	B	B	B	B	C	D	C	D	C	D
	I-220 Off Ramp to Swan Lake Road	Eastbound	B	B	C	B	B	B	B	B	E	D	E	D	D	D
	I-220 On Ramp from Swan Lake Road	Eastbound	B	B	B	B	B	B	B	B	C	C	C	C	C	C
	I-220 Off Ramp to Swan Lake Road	Westbound	B	B	B	B	B	B	B	B	C	C	C	C	C	C
	I-220 On Ramp from Swan Lake Road	Westbound	A	B	B	B	B	B	A	B	C	C	C	C	B	C

Source: Michael Baker Jr., Inc.

Notes:
Bold – LOS D, E or F.
Red – Worse compared to No-Build condition.
Amber – No change compared to No-Build condition.
Green – Better compared to No-Build condition.
Gray – Comparison not relevant.

Table 3-6
BUILD ROADWAY SEGMENT LEVELS OF SERVICE

	Location	Direction	Existing-year (2008)		Opening-year (2012) No-Build		Opening-year (2012) Build North		Opening-year (2012) Build South		Design-year (2030) No-Build		Design-year (2030) Build North		Design-year (2030) Build South	
			AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
Two-Lane Segments	LA 162 east of LA 3	Eastbound	A	C	A	C	A	C	A	C	A	C	A	C	A	C
		Westbound	C	B	C	B	C	B	C	B	D	B	C	B	C	B
	LA 157 south of Princeton Road	Northbound	B	B	B	B	B	B	B	B	C	B	B	B	B	B
		Southbound	B	B	B	B	B	B	B	B	C	C	C	C	C	C
	Swan Lake Road north of Cardnell Road	Northbound	B	B	A	C	A	B	A	C	B	E	B	D	B	E
		Southbound	B	A	C	A	C	A	C	B	D	C	D	B	E	C
	Swan Lake Road south of Cardnell Road	Northbound	A	A	A	A	A	B	A	B	B	E	B	D	C	E
		Southbound	A	A	B	A	B	A	B	A	E	D	D	C	E	D
	Bellevue Road north of Winfield Road	Northbound	A	C	A	C	A	C	A	C	A	C	A	C	A	C
		Southbound	C	A	C	A	C	B	C	B	C	A	C	B	C	B
	East-West Corridor between LA 3 & LA 3105	Eastbound	n/a	n/a	n/a	n/a	A	A	C	C	n/a	n/a	B	A	Four-lane	
		Westbound	n/a	n/a	n/a	n/a	A	A	C	C	n/a	n/a	A	B	Four-lane	
	East-West Corridor between LA 3105 & Swan Lake Rd	Eastbound	n/a	n/a	n/a	n/a	B	B	C	C	n/a	n/a	Four-lane		Four-lane	
		Westbound	n/a	n/a	n/a	n/a	A	A	C	C	n/a	n/a	Four-lane		Four-lane	
	East-West Corridor between Swan Lake Rd & Bellevue Rd	Eastbound	n/a	n/a	n/a	n/a	B	A	B	B	n/a	n/a	B	B	C	C
		Westbound	n/a	n/a	n/a	n/a	A	A	A	B	n/a	n/a	B	B	B	B
	Winfield Road east of Bellevue Road	Eastbound	A	C	A	C	A	C	B	C	A	C	A	C	B	C
		Westbound	B	A	B	A	B	A	B	A	C	A	C	A	C	A
Four-Lane Segments	LA 3 near Vanceville Road	Northbound	A	A	A	A	A	A	A	A	A	A	A	A	A	A
		Southbound	A	A	A	A	A	A	A	A	A	A	A	A	A	A
	Airline Drive south of Swan Lake Road	Northbound	A	A	A	A	A	A	A	A	A	A	A	A	A	A
		Southbound	A	A	A	A	A	A	A	A	A	A	A	A	A	A
	LA 3 north of I-220	Northbound	A	B	A	B	B	B	B	C	B	C	B	C	B	C
		Southbound	B	B	B	B	B	B	B	B	B	B	C	B	C	B
	Airline Drive north of I-220	Northbound	A	B	A	B	A	B	A	B	B	C	B	C	B	C
		Southbound	B	B	B	B	B	B	B	B	C	C	C	C	C	B
	East-West Corridor between LA 3 & LA 3105	Eastbound	n/a	n/a	n/a	n/a	Two-lane		Two-lane		n/a	n/a	Two-lane		A	A
		Westbound	n/a	n/a	n/a	n/a	Two-lane		Two-lane		n/a	n/a	Two-lane		A	A
	East-West Corridor between LA 3105 & Swan Lake Rd	Eastbound	n/a	n/a	n/a	n/a	Two-lane		Two-lane		n/a	n/a	A	A	A	A
		Westbound	n/a	n/a	n/a	n/a	Two-lane		Two-lane		n/a	n/a	A	A	A	A

Source: Michael Baker Jr., Inc.

Notes:
Four-lane – Location analyzed as four-lane roadway.
Two-lane – Location analyzed as two-lane roadway.
Bold – LOS D, E or F.
Red – Worse compared to No-Build condition.
Amber – No change compared to No-Build condition.
Green – Better compared to No-Build condition.
Gray – Comparison not relevant.

For the purposes of the travel demand modeling, two through travel lanes were assumed along the Project during the opening-year (2012) condition and four through travel lanes were assumed during the design-year (2030) condition. However, for the purposes of the capacity analysis, the projected traffic volumes were utilized to determine the number of lanes required to achieve an acceptable level of service. The lanes required along the Project during the design-year (2030) are as follows:

East-West Corridor Segment	Design-year (2030) Number of Through Lanes, both directions	
	North Scenario	South Scenario
LA 3 to Airline Drive	Two	Four
Airline Drive to Swan Lake Road	Four	Four
Swan Lake Road to Bellevue Road	Two	Two
Bellevue Road to LA 157	Two	Two

Source: Michael Baker Jr., Inc.

If, and when, traffic conditions warrant, the East-West Corridor would be widened to a five-lane facility (four thru-lanes with dedicated left-turn lanes at major intersections), where required.

Many locations show improved LOS as a result of the Project. For example, LA 162 is projected to operate at LOS D during the AM peak hour under the design-year (2030) No-Build condition. The LOS is projected to improve to LOS C at this location under both Build conditions.

Despite the improvements in LOS projected to occur on area roadways as a result of the Project, a number of locations are projected to operate at LOS D or worse, as was the case under the No-Build conditions. In general, construction of East-West Corridor roughly following the South Planning Corridor would require less extensive improvements compared to the North Planning Corridor in order to obtain LOS C or better on area roadways.

Conclusion

By the year 2030, multiple locations along area roadways are projected to operate at LOS D or worse. The East-West Corridor is expected to divert traffic from parallel facilities that are projected to be congested, including I-220 and LA 162. While this diversion improves operations along these corridors, it does not create acceptable operations at all locations where LOS D or worse are projected under the No-Build conditions. Additional improvements to area roadways (see Table 3-7) would be required, and would be advanced as separate projects in conformance, as applicable, with NEPA and related laws.

Table 3-7
RECOMMENDED AREA ROADWAY IMPROVEMENTS

	Location	Design-year (2030) Build North Recommended Improvement	Design-year (2030) Build South Recommended Improvement
Signalized Intersections	LA 162 @ LA 3	None	None
	Airline Drive @ Swan Lake Road	None	None
	LA 3 @ I-220 WB Ramps	• Add southbound through lane • Add northbound through lane • Add westbound left turn lane	• Add southbound through lane • Add northbound through lane
	LA 3 @ I-220 EB Ramps	• Add southbound through lane • Add northbound through lane	• Signal retiming (modified cycle length)
	Airline Drive @ I-220 WB Ramps	• Add southbound through lane • Add northbound through lane • Add westbound left turn lane	• Signal retiming (modified cycle length)
	Airline Drive @ I-220 EB Ramps	• Add southbound through lane • Add northbound through lane	• Signal retiming (modified cycle length)
	Swan Lake Road @ I-220 WB Ramps	• Add southbound through lane • Add northbound through lane • Add northbound left turn lane • Add westbound left turn lane	• Add southbound through lane • Add northbound through lane • Add westbound through lane
	Swan Lake Road @ I-220 EB Ramps	• Add southbound through lane • Add northbound through lane • Add eastbound left turn lane	• Add southbound through lane • Add northbound through lane • Add eastbound left turn lane
	US 80 @ Bellevue Road	• Add eastbound through lane • Add westbound through lane • Add westbound free-flow right turn lane • Add southbound free-flow right turn lane • Add northbound left turn lane • Add northbound free-flow right turn lane	• Add eastbound through lane • Add westbound through lane • Add westbound free-flow right turn lane • Add southbound free-flow right turn lane • Add northbound left turn lane • Add northbound free-flow right turn lane
Stop-Controlled Intersections	LA 157 @ Bellevue Road	None	None
	LA 157 @ Princeton Road	None	None
	Airline Drive @ Swan Lake Road	• Signalized	None
	Bellevue Road @ Winfield Road	None	• Signalized
Freeway Segments	I-220, LA 3 to Airline Drive	• Widen to a six-lane roadway	• Widen to a six-lane roadway
	I-220, Airline Drive to Swan Lake Road	• Widen to a six-lane roadway	• Widen to a six-lane roadway
	I-220, Swan Lake Road to Shed Road	None	None

Source: Michael Baker Jr., Inc.
Note: North scenario represents Line 1 and Line 2. South scenario represents Lines 3, 3R (Preferred Alignment) and the Selected Alignment.

Table 3-7 (cont.)
RECOMMENDED AREA ROADWAY IMPROVEMENTS

	Location	Design-year (2030) Build North Recommended Improvement	Design-year (2030) Build South Recommended Improvement
Weaves	I-220 from LA 3 to Airline Drive	None	None
	I-220 from Airline Drive to LA 3	None	None
Ramp Merges & Diverges	I-220 EB Off Ramp to LA 3**	• Extend deceleration lane (200' to 1,500')	• Extend deceleration lane (200' to 1,500')
	I-220 WB On Ramp from LA 3	• Extend acceleration lane (1,000' to 1,290')	• Extend acceleration lane (1,000' to 1,260')
	I-220 EB On Ramp from Airline Drive	• Extend acceleration lane (940' to 1,150')	• Extend acceleration lane (940' to 1,020')
	I-220 WB Off Ramp to Airline Drive	• Extend deceleration lane (250' to 760')	• Extend deceleration lane (250' to 680')
	I-220 EB Off Ramp to Swan Lake Road	• Extend deceleration lane (190' to 1,060')	• Extend deceleration lane (190' to 960')
	I-220 EB On Ramp from Swan Lake Road	None	None
	I-220 WB Off Ramp to Swan Lake Road	None	None
	I-220 WB On Ramp from Swan Lake Road	None	None
Two-Lane Segments	LA 157 south of Princeton Road	None	None
	Swan Lake Road north of Cardnell Road	• Widen to a four-lane roadway	• Widen to a four-lane roadway
	Swan Lake Road south of Cardnell Road	• Widen to a four-lane roadway	• Widen to a four-lane roadway
	Bellevue Road north of Winfield Road	None	None
	Winfield Road east of Bellevue Road	None	None
Four-Lane Segments	LA 3 near Vanceville Road	None	None
	Airline Drive south of Swan Lake Road	None	None
	LA 3 north of I-220	None	None
	Airline Drive north of I-220	None	None

Source: Michael Baker Jr., Inc.
Note: North scenario represents Line 1 and Line 2. South scenario represents Lines 3, 3R (Preferred Alignment) and the Selected Alignment.
** - The maximum deceleration lane length which can be entered into HCS is 1,500 feet. LOS C or better can not be obtained at this location by extending the deceleration lane length.

The number of locations projected to operate at LOS D or worse during at least one of the peak hours, by analysis type, without any additional improvements includes:

Location	Design-year (2030) No-Build	Design-year (2030) Build North	Design-year (2030) Build South
Intersections	8	7	7
Freeway Segments	4	4	3
Weave Segments	0	0	0
Ramp Merges & Diverges	5	5	5
Two-lane Segments	5	4	4
Four-lane segments	0	0	0

Source: Michael Baker Jr., Inc.

Construction of the East-West Corridor along a route roughly following the South Planning Corridor diverts more traffic from congested roadways than a route roughly following the North Planning Corridor, resulting in the need for fewer additional improvements to provide LOS C on the roadways in the Study Area. While the Project alone does not solve all of the projected congestion in the Study Area, it does serve to support area growth, improve operations on area roadways, improve mobility by providing more options for east-west travel, and provide access to existing and planned land uses in the region.

3.6 ALIGNMENT STUDIES OUTREACH

After expanding the environmental inventory; developing preliminary alignments; and performing comparative analyses and screening; federal and state agencies, Native American tribes, and local officials were invited to participate in a combined agency/local officials meeting on May 14, 2009, with a separate public meeting held later that evening. The purpose of these meetings was to present the preliminary alignments developed, identify specific issues of concern, and gather public input and alignment preference.

The resource agency/local officials/Native American tribes' meeting summarized the project and presented the three alignments for review and comment. The Bossier City Mayor indicated that Line 3 appeared to be the best route. The resource agencies and Native American tribes were provided with copies of the meeting handouts in advance of the meeting. Neither resource agencies nor Native American tribes attended the meeting.

Nearly 50 people attended the public meeting and 20 individual written comment forms were received. Petitions containing 131 names from the Plantation Estates residents were also received. Public concern continued to be the proximity to and potential loss of personal property with 13 out of 20 comments referencing this potential impact. Additional concerns included potential impacts to

natural and historic resources. The Plantation Estates residents strongly opposed Line 2.

Two comments were received regarding relocating the western terminus of Line 3 further to the north. The first requested shifting the alignment to the northern edge of Cypress Run, a planned, but not yet Parish-approved subdivision, then following this line to Benton Road. The second suggested that Line 3 be shifted to cross Old Brownlee Road further to the north, connecting with the Wemple Road Extension, or on new alignment terminating near the House of Purpose Baptist Church.

A third comment was received regarding relocating the eastern portion of Line 3 to follow an existing TEPCO pipeline easement.

No other alignment revisions to improve service or constructability or to further minimize impacts to sensitive environmental areas were identified.

Fourteen of the 20 comment forms and the Plantation Estates residents indicated a preference for Line 3 stating least effect on residential properties and the community at large as well as overall lowest impacts and cost.

3.7 ALIGNMENT REVISIONS

Based on the comments received following the May 14, 2009 meetings, potential alignment revisions were reviewed and, where feasible, were incorporated into the preliminary alignments.

The suggestion to shift Line 3 to the northern edge of the Cypress Run Estates subdivision was dismissed because, in further discussion with the property owner, the current alignment location was satisfactory.

The suggestion to shift Line 3 to cross Old Brownlee Road further to the north, connecting with either the Wemple Road Extension, or on new alignment terminating near the House of Purpose Baptist Church were dismissed. Connecting Line 3 to the Wemple Road Extension would pass the alignment through a planned medical complex. Establishing a western terminus at Benton Road (LA 3) near the House of Purpose Baptist Church would preclude adding a traffic signal, if warranted, because the terminus would not meet the DOTD minimum distance requirements between signalized intersections.

Relocating the eastern portion of Line 3 to follow an existing TEPCO pipeline easement was determined to be viable alternative. It would shorten the overall roadway length, avoid further dividing a large land tract, and possibly further minimize wetland impacts. This revision would also avoid property owned by the Corps of Engineers.

An additional alignment, Line 3R, which is a revision to Line 3, was developed. Beginning at the western terminus, Line 3R is identical to Line 3 and follows the centerline of the South Planning

Corridor as it extends due east from Benton Road, north of the Brownlee Estates subdivision and North Bossier Park. The alignment continues due east across farmland and undeveloped terrain, crossing Benoit Bayou, Old Brownlee Road, and Airline Drive, then continues to follow the centerline of the South Planning Corridor as it passes south of the Lakewood Point subdivision and Swan Lake. However, as it crosses Swan Lake Road the alignment then continues easterly through farmland and undeveloped terrain, passing south of Willow Chute Road, north of Round Lake, then gently curves northeasterly, crossing another section of Willow Chute. The alignment then continues slightly northeast and follows the TEPCO pipeline easement, joining with the southern boundary line of the South Planning Corridor. From this point, Line 3R continues to generally follow the southern boundary line of the South Planning Corridor, crossing Bodcau Creek before converging with the southeastern path of the North Planning Corridor. The alignment then curves southeasterly, and rejoins Line 3 approximately 3,500 feet west of the intersection of Winfield and Bellevue Roads. This is also the approximate location where the Line 1 and Line 2 alignments converge.

3.8 PRELIMINARY COST ANALYSIS

Preliminary cost estimates prepared for the highway alignments include construction; utility relocation; rights-of-way; surveying, engineering, construction supervision and inspection; and mitigation costs (see Table 3-8).

3.9 PRELIMINARY ENVIRONMENTAL IMPACT ANALYSIS

Table 3-9 presents a comparison of Lines 1, 2 and 3 and revised alignment Line 3R with respect to important engineering and environmental parameters.

The following parameters were reviewed in relationship to each of the alignments:

- Natural resources including 100-year floodplain, wetland and prime farmland
- Cultural resources including known and probable archaeological resources
- Known hazardous sites, water wells and oil and gas wells
- Location of residential, business, public or other structures.

Line 1 would be the longest in length and most costly to construct while Line 3R is the shortest in length and would be the least costly to construct.

Line 1 also has the greatest wetland and prime farmland impacts and also the highest floodplain encroachment.

Line 2 has the second highest wetland impacts, third highest prime farmland impacts and second highest floodplain encroachment.

Line 3 would have the third highest floodplain encroachment, third lowest wetland impacts and lowest prime farmland impacts.

Line 3R would have the lowest wetland impacts, lowest floodplain encroachment and second highest impact to prime farmlands.

Impacted structures that require relocation are those located within the construction limits of the alignment. Additional identification of structures located within 50 feet of the construction limits was made. The 50 foot designation was established from the Bossier Parish code designating a 50 foot setback for new construction along major thoroughfares. This parameter was used to aid in determining proximity of existing structures to the alignment locations and the associated construction activities.

Line 1 would have one residential relocation while Lines 2, 3, and 3R would have no relocations. Line 1 would have the greatest number of structures within 50 feet of the construction limits with fourteen residences, two businesses and the Shiloh Baptist Church. Line 2 would have the second highest number of structures within 50 feet of the construction limits with six residences, the Benton Fire District building, and Rose Neath Cemetery. Lines 3 and 3R would have the least with two residences within 50 feet of the construction limits.

Detailed location of structures relative to construction limits will be performed during final design. Access will be maintained to properties and all residences and businesses adjacent to the Project.

3.10 PREFERRED ALIGNMENT

As a result of the comprehensive involvement by the public, local officials, federal and state resource agencies, and Native American tribes, sufficient information and public opinion exists to identify Line 3R as the Preferred Alignment for the Bossier Parish East-West Corridor. Line 3R is a revision to Line 3 that was initially developed.

Exhibit 3-5 presents the alignment locations and the environmental resources considered throughout alignment development. Resources such as archaeological sites are not shown to protect those resources.

In summary, Line 3R, as the Preferred Alignment:

- ❑ Satisfies the stated Purpose and Need to improve area-wide access, mobility and safety
- ❑ Has the lowest residential impacts
- ❑ Has the lowest wetland impacts
- ❑ Does not have the greatest impact to other identified environmental resources
- ❑ Has the lowest 2-lane, 5-lane and overall estimated cost
- ❑ Is the publicly-preferred alignment

- ❑ Most effectively balances the expected project benefits with the overall impacts.

3.11 PUBLIC HEARING

The Draft EA, which identified Line 3R as the Preferred Alignment, was distributed to federal and state agencies, local officials, Bossier Parish libraries, NLCOG, BPPJ, and DOTD District 4 offices on January 29, 2010. The Draft EA was also made available for public viewing on the NLCOG website (www.nlcog.org).

Federal and state agencies, Native American tribes, local officials, and the public were invited to participate in a March 11, 2010 Public Hearing held at the Bossier Parish Courthouse, Police Jury Meeting Room in Benton, Louisiana. The Hearing summarized the project development process and the alignments developed, including Line 3R (Preferred Alignment) for review and comment. Potential impacts to human, natural and cultural resources, relocation and right-of-way assistance and costs were presented.

Over 50 individuals along with agency and local officials attended the public hearing. Three individuals made public statements. Eleven written comments were received from local citizens and organizations by the March 22, 2010 close of the comment period and are on file at the NLCOG office. Table 5-6 presents a summary of each comment received and a response.

3.12 SELECTED ALIGNMENT

Public concern continued to be the proximity to and potential loss of personal property with 12 of 15 comments referencing this potential impact. The Plantation Estates residents continue to state strong opposition to Line 2.

A comment was made to evaluate a slight shift to the Preferred Alignment at the western terminus due to construction activities associated with the North Bossier Office Complex (NBOC) located north of and adjacent to the Preferred Alignment. The Bossier City – Parish Metropolitan Planning Commission previously approved NBOC development on January 12, 2010. It was determined that a minor shift in the Preferred Alignment at this location was viable.

A second comment was made to evaluate shifting a portion of the Preferred Alignment adjacent to an existing TEPCO pipeline easement to reduce property fragmentation. A shift to the Preferred Alignment in this location would introduce additional horizontal/reverse curvature into the alignment which according to DOTD Roadway Design procedures should be avoided. It was determined that a minor shift in the Preferred Alignment at this location was not viable.

A third comment was made to evaluate shifting the Preferred Alignment north to minimize potential noise and property impact to a property located along Old Brownlee Road. Shifting the alignment

to the north at this location would encroach upon the Cypress Run Child Development Center (CRCDC) and impact their parking facilities, and also affect Cypress Run, a planned, but not yet Parish-approved subdivision. A shift further to the north to avoid the CRCDC would impact other residential properties along Old Brownlee Road. It was determined that a shift in the Preferred Alignment at this location was not viable.

Two comments were received regarding adding a public boat ramp in the vicinity of the Preferred Alignment where it crosses Bodcau Creek. Addition of a public boat ramp will be evaluated as part of the rights-of-way acquisition and final design.

A slight shift was also made to the Preferred Alignment south of the Lakewood Point Subdivision and Willow Chute to avoid environmentally sensitive areas identified during on-going field studies.

No other alignment revisions to improve service or constructability or to further minimize impacts to sensitive environmental areas were identified.

As a result of the comprehensive involvement by the public, local officials, federal and state resource agencies, and Native American tribes, sufficient information and public opinion exists to identify a Selected Alignment for the Bossier Parish East-West Corridor. The Selected Alignment is the Preferred Alignment (Line 3R) identified in the Draft EA with the exception of the two minor alignment shifts previously described.

Exhibit 3-5 presents the Lines 1, 2, 3, 3R (Preferred Alignment), the Selected Alignment, and the environmental resources considered. Resources such as archaeological sites are not shown to protect those resources.

Table 3-8 presents preliminary cost estimates for the roadway alignments and includes construction, utility relocation, rights-of-way, surveying, engineering, construction supervision and inspection and mitigation costs.

Table 3-9 presents the roadway alignments with respect to important engineering and environmental parameters.

The Selected Alignment:

- ❑ Satisfies the stated Purpose and Need
- ❑ Has one residential relocation
- ❑ Has the lowest wetland impacts
- ❑ Does not have the greatest impact to other identified environmental resources
- ❑ Has the second lowest 2-lane, 5-lane and overall estimated cost
- ❑ Is the publicly-preferred alignment
- ❑ Most effectively balances the expected project benefits with the overall impacts.

The identification of the Selected Alignment satisfies, to the fullest extent possible, the objectives of the merged NEPA process that has been adopted for this study and DOTDs Stage 1 Planning/Environmental Manual of Standard Practice. This multi-step project approach allowed a thorough consideration of the alternatives with respect to potential impacts to "waters of the United States", including wetlands, and functioned as the Alternatives Analysis. Impacts were minimized to the greatest extent practicable in accordance with Section 404 b(1) Guidelines.

Table 3-8
CONSTRUCTION COSTS

Alignment	Length (Miles)	Initial 2-Lane Construction						Future Construction to 5-Lanes						GRAND TOTAL
		Construction	Utility Relocation	ROW	Surveying, Engineering, Construction Supervision & Inspection	Mitigation	TOTAL	Construction	Utility Relocation	ROW	Surveying, Engineering, Construction Supervision & Inspection	Mitigation	TOTAL	
Line 1	9.35	$31,800,000	$240,000	$1,260,000	$4,760,000	$440,000	$38,500,000	$16,000,000	-	-	$2,400,000	-	$18,400,000	$56,900,000
Line 2	8.88	$29,800,000	$220,000	$1,020,000	$4,470,000	$430,000	$35,940,000	$14,900,000	-	-	$2,260,000	-	$17,160,000	$53,100,000
Line 3	8.04	$29,000,000	$700,000	$940,000	$4,350,000	$230,000	$35,220,000	$13,100,000	-	-	$2,000,000	-	$15,100,000	$50,320,000
Line 3R	8.01	$27,800,000	$700,000	$930,000	$4,180,000	$130,000	$33,740,000	$12,500,000	-	-	$1,870,000	-	$14,370,000	$48,110,000
Selected Alignment[1]	8.03	$27,900,000	$1,200,000	$1,100,000	$4,190,000	$130,000	$34,520,000	$12,500,000	-	-	$1,880,000		$14,380,000	$48,900,000

Source: Michael Baker Jr., Inc.
Note: All Costs in 2009 dollars

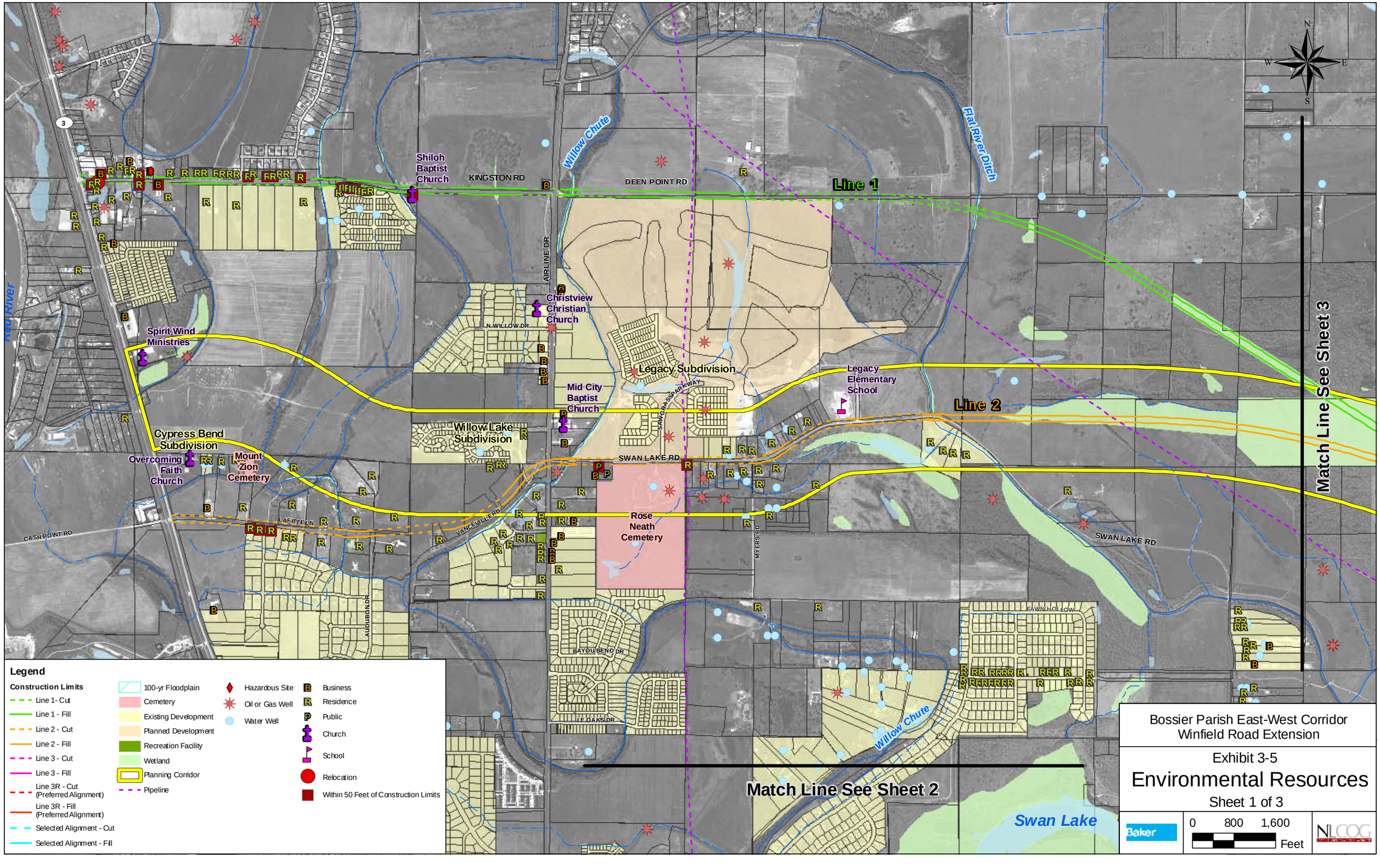
Table 3-9
IMPACTS SUMMARY

Alignment	Structures								Cemetery	Natural Resources				Cultural Resources				Known Hazardous Sites	Water Wells	Oil and Gas Wells
	Relocations				Within 50 Feet of Construction Limits					100-yr Floodplain (acres)	Floodway (Acres)	Wetland (acres)	Prime Farmland (acres)	Known Archaeology Sites		Archaeology Probability Areas				
	Residence	Business	Church	Public Facility	Residence	Business	Church	Public Facility						Count	Eligibility	High (acres)	Moderate (acres)			
Line 1	1	-	-	-	14	2	1	-	-	99.3	2.5	88.0	96.3	-	-	38.9	4.2	-	-	-
Line 2	-	-	-	-	6	-	-	1	1	88.5	0.4	86.2	90.3	1	Eligible	33.8	8.9	-	-	-
Line 3	-	-	-	-	2	-	-	-	-	74.7	10.7	45.5	86.7	2	Unknown	53.4	-	-	1	-
Line 3R	-	-	-	-	2	-	-	-	-	63.1	7.8	26.9	93.5	2	Unknown	56.7	-	-	1	-
Selected Alignment[1]	1	-	-	-	2	-	-	-	-	67.0	7.8	26.9	93.8	-	-	52.8	-	-	1	-

Source: Michael Baker Jr., Inc.

Note: [1]The Selected Alignment is the Preferred Alignment (Line 3R) identified in the Draft EA with the exception of the two minor alignment shifts previously described in Section 3.12

Take page out



Legend

Construction Limits

- Line 1- Cut
- Line 1 - Fill
- Line 2 - Cut
- Line 2 - Fill
- Line 3 - Cut
- Line 3 - Fill
- Line 3R - Cut (Preferred Alignment)
- Line 3R - Fill (Preferred Alignment)
- Selected Alignment - Cut
- Selected Alignment - Fill

- 100-yr Floodplain
- Cemetery
- Existing Development
- Planned Development
- Recreation Facility
- Wetland
- Planning Corridor
- Pipeline

- Hazardous Site
- Oil or Gas Well
- Water Well

- B Business
- R Residence
- P Public
- Church
- School
- Relocation
- Within 50 Feet of Construction Limits

Bossier Parish East-West Corridor
Winfield Road Extension

Exhibit 3-5

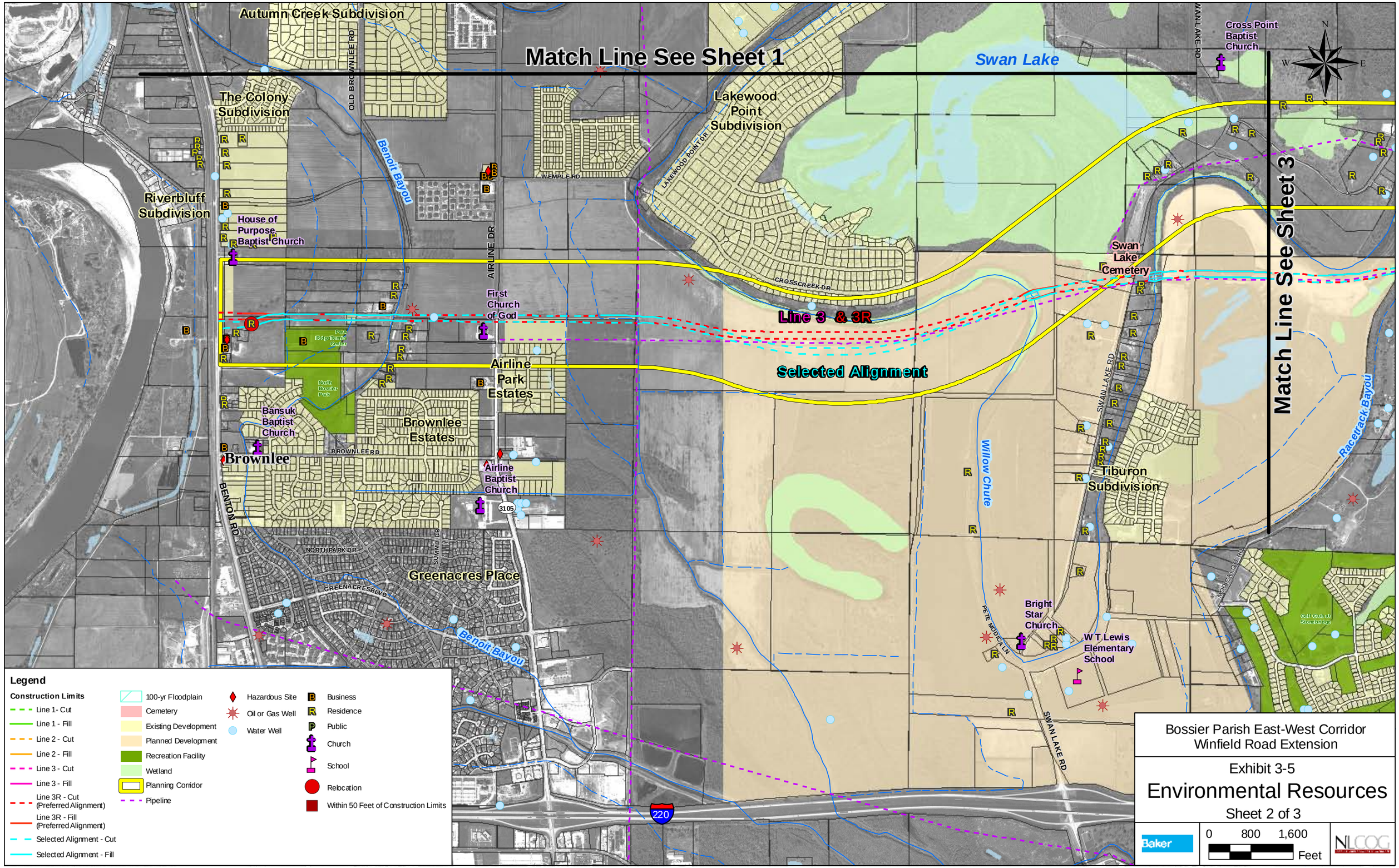
Environmental Resources

Sheet 1 of 3

Baker

0 800 1,600 Feet

NLCOG



Bossier Parish East-West Corridor
Winfield Road Extension

Exhibit 3-5

Environmental Resources

Sheet 2 of 3

Baker

0 800 1,600 Feet

NLCOG

Match Line See Sheet 1 and 2

Line 1 & 2

Line 3

Line 3R & Selected Alignment

Flat River Ditch

Bodcau Creek

Cross Point Baptist Church

Swan Lake Cemetery

Methodist Episcopal Church

Brookhaven Estates

CARDNELL RD

BELLEVUE RD

WINFIELD RD

BUSBY RD

DOGWOOD TR

HOLLYRIDGE DR

SWAN LAKE RD

N

S

E

W

Legend

Construction Limits

- Line 1- Cut
- Line 1 - Fill
- Line 2 - Cut
- Line 2 - Fill
- Line 3 - Cut
- Line 3 - Fill
- Line 3R - Cut (Preferred Alignment)
- Line 3R - Fill (Preferred Alignment)
- Selected Alignment - Cut
- Selected Alignment - Fill

- 100-yr Floodplain
- Cemetery
- Existing Development
- Planned Development
- Recreation Facility
- Wetland
- Planning Corridor
- Pipeline

- Hazardous Site
- Oil or Gas Well
- Water Well

- B Business
- R Residence
- P Public
- Church
- School
- Relocation
- Within 50 Feet of Construction Limits

Bossier Parish East-West Corridor
Winfield Road Extension

Exhibit 3-5

Environmental Resources

Sheet 3 of 3

Baker

0 800 1,600

Feet

NLCOG

Section 4: IMPACTS

This section presents an analysis of the potential impacts, both beneficial and adverse, of the Project's Build and No-Build alternatives. The Proposed Action would be a five-lane roadway (four thru-lanes with a center left-turn lane) designed to DOTD urban collector design guidelines and would be initially constructed as a two-lane facility and widened to a five-lane facility if, and when, traffic conditions warrant.

The Study Area encompasses the logical termini and the area that is potentially affected by the indirect and cumulative impacts of the Project. The smaller FAA encompasses the area that is potentially affected by the direct impacts of the Project.

The Project is evaluated with respect to transportation, social, economic, cultural, physical, natural and biological resources. This section discusses primary, direct impacts (the loss of a resource) and, where feasible, indirect impacts (changes in the function or quality of a resource) along with cumulative impacts (historical, project related and foreseeable).

4.1 HUMAN ENVIRONMENT

The Project is located within an area that is predominantly residential to the west and undeveloped to the east. Lines 1, 2, 3 and 3R (Preferred Alignment) and the Selected Alignment have been located so as to minimize community, residential and business impacts while attempting to maximize public access. All of the Lines are expected to have similar social impacts unless otherwise noted.

4.1.1 Land Use and Land Cover

Land use in the FAA is primarily single and multiple family residential generally located in housing developments along existing parish and municipal roadways. Land not serviced by existing roadways or in housing developments is primarily rural and used for agricultural purposes and timber production. There is some industrial and commercial development throughout the FAA, but it is not considered a dominant land use.

Major housing developments include, Brownlee Estates, near the intersection of Benton Road (LA 3) and Brownlee Road, Lakewood Point Subdivision off of Wemple Road, Legacy and Willow Lake Subdivisions near the intersection of Swan Lake Road and Airline Drive, Airline Park Estates along Airline Drive north of Brownlee Road, Plantation Estates at Lafitte Lane and Audubon Drive and Brookhaven Estates serviced by Stockwell Road and Dogwood Trail in the southeastern corner of the FAA. North Bossier Park is located on Old Brownlee Road in the Brownlee Estates housing development. Land

directly used to construct the Project would be converted from its present use to transportation use. For the majority of the alignments, land would be converted from undeveloped agricultural lands, floodplain and wetlands. Where feasible, existing roadway locations were incorporated into the alignment alternatives.

For Line 1, approximately one third of the alignment would include the expansion of existing road right-of-way with the balance of the alignment requiring the conversion of undeveloped agricultural land, floodplain and wetlands to transportation use. Line 2 would include the expansion of existing road right-of-way for one sixth of the alignment with the balance requiring the conversion of agricultural land, floodplain and wetlands. Lines 3, 3R (Preferred Alignment), and the Selected Alignment would require the conversion of agricultural lands, floodplain and wetlands.

The build alternatives would improve accessibility within the Study Area and would likely facilitate further residential and commercial development along the selected alignment. Further development would result in an increase in residential density and commercial activity. The Project would be expected to produce temporary adverse impacts to land use due to detours and construction zones on existing roadways in the vicinity of Benton Road (LA 3) and along roadways in the developed areas along Lines 1 and 2. This could cause localized traffic delays and a temporary inconvenience to the local traveling public.

The No-Build alternative would not result in an immediate change in current land use or land cover within the FAA. However, based on current growth patterns in Bossier Parish, development in the Study Area and FAA is likely to occur regardless of construction of the Project.

4.1.2 Residential, Business and Public Facilities Relocations

Structures that have the potential to be impacted by the proposed alignments were identified, field verified and entered into the GIS for impact assessment. Efforts to minimize residential, business and community facility impacts were made during the Alignment Study. Line 1 would require one residential relocation and no business or public facility relocations. Fourteen residences, two businesses, and the Shiloh Baptist Church would be located within 50 feet of the construction limits for this alignment. Lines 2, 3, and 3R (Preferred Alignment) would not require any relocations. Six residences and the Benton Fire District building would be within 50 feet of Line 2 construction limits, and two residences are located within 50 feet of Lines 3 and 3R (Preferred Alignment) construction limits. The Selected Alignment would require one residential relocation and no business or public facility relocations. Two residences would be located within 50 feet of the

Selected Alignment construction limits. Further steps to minimize displacements will be considered during final design. Access will be maintained to properties and all residences and businesses adjacent to the Project.

Exhibit 3-5 shows relocations and structures within 50 feet of the proposed alignments.

Relocation Mitigation

An assessment of available housing within the Study Area was made in order to determine its comparability to potential relocatee needs (see Table 4-1). A Multiple Listing Service (MLS) internet search was conducted to determine housing availability within the Study Area. This search returned 108 single family homes for sale ranging in price from $39,900 to $699,900. Five (5) lots were for sale ranging in price from $30,000 - $99,999. Review of the current real estate market within the Study Area and FAA indicates that there is adequate housing available.

Table 4-1
CURRENT AVAILABLE HOUSING (STUDY AREA)

Price Range	Number of Housing Units
$30,000 - $99,999	5
$100,000 - $199,999	28
$$200,000 - $ 299,999	39
$300,000 - $699,900	36

Source: Multiple Listing Service, July 31, 2009

Property acquisition and relocation assistance will be in accordance with the Uniform Relocation Assistance and Real Property Policies Act of 1970 (as amended).

Relocation assistance will be made available to all residential and business relocatees without discrimination as to race, color, national origin, age, sex or religion. In all cases, decent, safe and sanitary housing will be made available for all relocatees. Replacement housing within the occupant's financial means and within the general area of the project will be located and, when necessary, housing of last resort provided. Real estate availability will be reassessed during final design.

The No-Build alternative would not require any relocations, and therefore, would not result in any impacts to residences, businesses or public facilities.

4.2 ECONOMIC IMPACTS

Economic impacts related to the development of the Project include a temporary increase in construction related employment, an increase in other employment areas and a reduction in travel costs. Economic impacts would be similar for all alignments.

Project construction would positively impact the local economies of area communities. New employment opportunities would be generated by

highway construction activities, in addition to the services required to support a large scale construction operation. A national FHWA study on employment impacts of highway investment, (*Highway Infrastructure Investment and Job Generation: A Look at the Positive Employment Impacts of Highway Investment*, USDOT, FHWA, 1997) found that every $1 billion in Federal-aid highway investment supported approximately 42,100 total full-time equivalent jobs. Jobs were further classified as:

- Direct or on-site highway construction jobs specifically involved with the highway improvement project such as construction laborers, engineers, and construction managers
- Indirect or supply industry jobs at firms that supply equipment, materials, and administrative support
- Secondary or induced jobs are created when construction-based employees spend their wages on various goods and services throughout the area.

An estimate of the number of jobs potentially created by the Proposed Action is shown in Table 4-2.

Individual employment projections were not made for each alignment due to the similarity in estimated construction costs. Based on an average estimated project cost, approximately 1,515 temporary jobs could be generated by construction of the Project with a subsequent generation of 661 temporary jobs generated by the additional construction to five lanes. Actual employment numbers would vary depending on the timing and staging of construction activities.

Table 4-2
ESTIMATED EMPLOYMENT IMPACTS OF HIGHWAY CONSTRUCTION

Job Category (Person-Years)	Jobs per $1 billion of Construction Costs	No-Build	Build Alternative Initial 2-Lane (Average in Billion $)	Build Alternative Additional Construction to 5-Lane (Average in Billion $)
Average Construction Costs (Billions)		$0	$0.036	$0.0157
Direct/On-site Jobs	7,900	0	284	124
Indirect Jobs	19,700	0	709	309
Induced Jobs	14,500	0	522	228
Total Jobs	42,100	0	1,515	661

Source: Michael Baker Jr. Inc., FHWA, 1997

Many Study Area residents would benefit from the proposed Project. Increased accessibility to connecting highways would allow commuters to reach their employment destinations in a safer and more time efficient manner. Providing an additional travel option will redistribute traffic throughout the transportation system, which will reduce congestion along parallel facilities, such as I-220 and LA 162, and likely reduce driver frustration. An efficient transportation network not only accommodates traffic operations through maximizing capacity, but also provides adequate options to travelers.

Projected travel times were analyzed for the preliminary alignments, a route to the south utilizing the existing roadway network including I-220, and a route to the north utilizing the existing roadway network including LA 162 based on non-congested, free-flow conditions. The estimated average travel time (see Table 4-3) is a combination of the average speed over the appropriate distance and the estimated signalized intersection delay. Lines 3, 3R (Preferred Alignment) and the Selected Alignment have the lowest estimated travel time.

Travel time savings would also be realized due to a reduction in congestion along existing parallel facilities. For example, travelers on I-220 Eastbound between LA 3 and Shed Road during the PM peak hour could experience an approximate 2 miles per hour increase in travel speed over this 4.1-mile distance. This speed increase for the forecasted 2,600 vehicles along this roadway segment during the Design Year (2030) Build condition results in approximately 3.1 vehicle-hours of time savings during the PM peak hour each day.

The No-Build alternative could have a negative economic impact on the Study Area. The No-Build alternative would not result in construction employment, could limit rural resident employment opportunities, and increase travel and vehicle operating costs through a decreasing level of service on area roadways.

Table 4-3
ESTIMATE AVERAGE TRAVEL TIME

Travel Route	Distance (miles)	Travel Time (minutes)
Line 1	9.35	14.7
Line 2	8.88	14.0
Line 3 and Line 3R (Preferred Alignment)	8.04/8.01	13.3
Selected Alignment	8.03	13.3
South Route via I-220	11.42	14.1
North Route via LA 162	30.74	34.9

Source: Michael Baker Jr., Inc.
Note: Signal delay assumed to be 20 seconds per signal, which represents the LOS B/C threshold.

4.3 ENVIRONMENTAL JUSTICE

Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority and Low-Income Populations*, directs all Federal agencies to determine whether a proposed action would have an adverse and disproportionately high impact on minority and/or low-income populations. In addition, elderly populations (>65 years old) were also assessed. The objective of the Environmental Justice policy is not to develop alternatives that simply move the impacts from one affected group to another, but to fully and equitably consider potential project impacts to minority and low-income populations during the project development process.

Twenty three U.S. Census Bureau Census Block Groups were identified within the Study Area and initially examined to determine the presence of minority, low-income, or elderly populations (see Table 4-4 and Exhibit 4-1). Five of these twenty three block groups would be crossed by the proposed alignments. This information was compared with Parish level data and a Study Area reference population that consisted of averages of the Census Block Groups within the Study Area in order to identify potential disproportionate impacts.

Table 4-5 presents the minority, low-income, and elderly populations potentially affected by each of the proposed alignments compared to the Parish and Study Area reference population. The Census Block Groups traversed by each of the proposed alignments showed no indication of disproportionate impacts. In general, the block groups intersected or adjacent to the proposed alignments contained lower than average numbers of minorities and people below poverty than those found in the Study Area average and Parish. The median household incomes were also greater than the Study Area average and that of the Parish.

Bossier Parish Census Block Group 2 in Census Tract 111.08 contained a slightly higher percentage of Asian/Pacific Islander minorities (2.3%) when compared to the Study Area average (0.9%), and Parish (1.4%), but this small difference is not expected to cause a disproportionate impact.

In addition to reviewing census data, a field visit was performed in April 2009. Observations revealed that minority and low income populations are concentrated on the eastern edge of the FAA at Bellevue Road, and the western edge at Benton Road. Mobile home communities were noted at Benton Road and Maplewood Drive and at Bellevue and Busby Roads. None of these communities would be bisected by any of the proposed alignments.

Table 4-4
MINORITY AND LOW INCOME CHARACTERISTICS OF STUDY AREA BLOCK GROUPS AND REFERENCE POPULATIONS

Census Geography [1]		Total Pop.	Race [2]					Ethnicity [3]	Income		Age
Census Tract	Block Group		White (%)	African-American (%)	American Indian/ Alaskan Native (%)	Asian/ Pacific Islander (%)	Other/ Multi (%)	Hispanic or Latino (%)	Below Poverty Level [4] (%)	Median Household Income [5] ($)	65 and Older (%)
105	1	1,753	87.2	7.6	0.9	1.5	2.8	3.0	8.6	38,083	12.5
106.01	1	940	62.7	31.8	0.1	1.3	4.1	5.2	30.8	20,417	21.1
111.03	1	1,532	81.0	17.9	0.5	0.1	0.5	1.2	12.9	35,838	10.6
111.03	2	1,327	92.1	5.5	0.5	0.8	1.2	2.6	4.8	53,500	9.9
111.03	3	3,010	92.4	4.5	0.7	0.8	1.7	2.4	1.2	59,856	5.6
111.04	1	1,507	88.7	7.8	0.3	1.6	1.7	2.1	3.6	42,031	12.1
111.04	2	3,757	91.5	3.3	0.3	3.4	1.7	1.2	3.9	77,979	7.9
111.04	3	1,783	95.2	2.3	0.3	1.2	1.0	2.2	3.0	76,138	10.3
111.04	4	3,207	87.8	8.1	0.7	1.6	1.7	3.0	5.9	43,819	6.7
111.05	1	1,232	86.2	9.7	0.7	0.9	2.5	3.0	10.9	44,792	7.4
111.05	2	1,772	82.1	13.8	0.6	1.2	2.4	3.0	13.9	54,926	9.6
111.05	3	1,245	90.5	5.0	1.2	0.6	2.7	3.9	4.8	45,469	4.3
111.05	4	1,938	89.1	6.9	0.7	0.6	2.8	2.5	10.4	44,583	11.0
111.06	1	1,136	87.5	9.5	0.7	0.5	1.8	2.7	15.4	38,611	7.7
111.06	2	974	59.5	39.0	0.3	0.2	0.9	0.7	13.1	34,219	10.8
111.06	3	1,574	84.6	12.6	0.4	0.4	2.1	1.5	5.8	39,694	14.6
111.06	4	3,317	75.6	21.1	0.4	0.2	2.7	1.2	15.6	33,542	8.9
111.06	5	14	100.0	0.0	0.0	0.0	0.0	0.0	0.0	61,250	0.0
111.07	1	1,332	41.1	56.2	0.2	0.4	2.1	1.4	30.9	20,294	12.6
111.07	2	818	77.5	18.6	1.0	0.1	2.8	5.4	13.0	36,750	9.8
111.08	1	4,248	92.8	5.2	0.5	0.4	1.2	1.6	6.1	67,500	9.5
111.08	2	2,211	89.9	6.3	0.3	2.3	1.2	1.7	1.9	77,296	7.1
112	5	805	75.2	23.6	0.2	0.0	1.0	0.9	19.4	36,302	11.3
Study Area average[6]		1,801	83.0	13.7	0.5	0.9	1.8	2.3	10.3	47,082	9.6
Bossier Parish		98,310	74.7	20.8	0.5	1.4	1.7	3.1	10.6	39,203	10.4

Source: U.S. Census Bureau, 2000 Census.

Notes:

1. The block groups within the Study Area were used to represent the population potentially affected by the proposed project.
2. Percent of persons reporting as White, African-American, American Indian and Alaskan Native, Asian American, and other.
3. Percent of persons reporting as Hispanic or Latino ethnic origin. The U.S. Census Bureau considers race to be separate from ethnicity. These persons may be of any race.
4. 1999 poverty level as reported in the 2000 Census (most recent available).
5. 1999 median household income as reported in the 2000 Census (most recent available).
6. Average of Study Area block groups for racial distribution, Hispanic or Latino ethic origin, poverty level, percent age 65 and older, and median household income.

Table 4-5
MINORITY AND LOW INCOME CHARACTERISTICS OF
BLOCK GROUPS POTENTIALLY IMPACTED BY PROPOSED ALIGNMENTS

Proposed Alignment	Census Geography [1]		Total Pop.	Race [2]					Ethnicity [3]	Income		Age
	Census Tract	Block Group		White (%)	African-American (%)	American Indian/ Alaskan Native (%)	Asian/ Pacific Islander (%)	Other/ Multi (%)	Hispanic or Latino (%)	Below Poverty Level [4] (%)	Median Household Income [5] ($)	65 and Older (%)
1	111.03	3	3,010	92.4	4.5	0.7	0.8	1.7	2.4	1.2	59,856	5.6
	111.08	1	4,248	92.8	5.2	0.5	0.4	1.2	1.6	6.1	67,500	9.5
	111.08	2	2,211	89.9	6.3	0.3	2.3	1.2	1.7	1.9	77,296	7.1
2	111.03	3	3,010	92.4	4.5	0.7	0.8	1.7	2.4	1.2	59,856	5.6
	111.08	2	2,211	89.9	6.3	0.3	2.3	1.2	1.7	1.9	77,296	7.1
3, 3R (Preferred Alignment) and Selected Alignment	111.03	3	3,010	92.4	4.5	0.7	0.8	1.7	2.4	1.2	59,856	5.6
	111.04	1	1,507	88.7	7.8	0.3	1.6	1.7	2.1	3.6	42,031	12.1
	111.04	3	1,783	95.2	2.3	0.3	1.2	1.0	2.2	3.0	76,138	10.3
	111.08	2	2,211	89.9	6.3	0.3	2.3 [7]	1.2	1.7	1.9	77,296	7.1
Study Area Average[6]			1,801	83.0	13.7	0.5	0.9	1.8	2.3	10.3	47,082	9.6
Bossier Parish			98,310	74.7	20.8	0.5	1.4	1.7	3.1	10.6	39,203	10.4

Source: U.S. Census Bureau, 2000 Census.

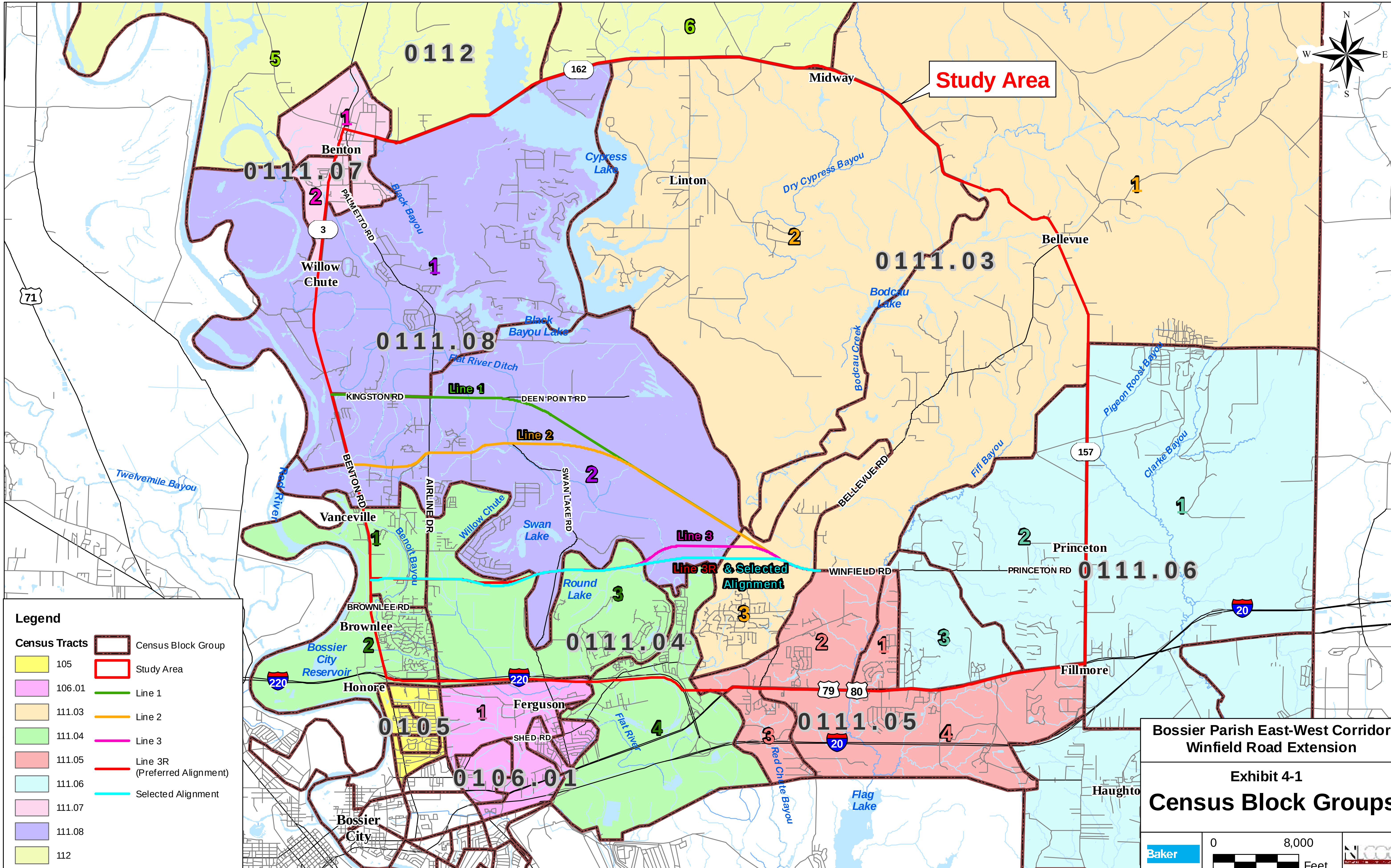
Notes:

1. The census tracts/block groups within the Study Area were used to represent the population potentially affected by the proposed project.
2. Percent of persons reporting as White, African-American, American Indian and Alaskan Native, and Asian American.
3. Percent of persons reporting as Hispanic or Latino ethnic origin. The U.S. Census Bureau considers race to be separate from ethnicity. These persons may be of any race.
4. 1999 poverty level as reported in the 2000 Census (most recent available).
5. 1999 median household income as reported in the 2000 Census (most recent available).
6. Average of Study Area block groups for racial distribution, Hispanic or Latino ethic origin, poverty level, percent age 65 and older, and median household income.
7. Shading indicates values substantially different from the reference population.

No disproportionate impacts to minority, low-income, or elderly population groups would be expected for any of the alignments. Line 1 would require one residential relocation and Lines 2, 3 and 3R (Preferred Alignment) would not require any relocations. The Selected Alignment would require one relocation. Every reasonable effort will be made to relocate affected residents within their immediate community. The No-Build alternative would have no disproportionate affect on environmental justice populations.

4.4 LIMITED ENGLISH PROFICIENCY

Executive Order 13166, *Improving Access to Services for persons with Limited English Proficiency (LEP)*, requires federal agencies to examine the services they provide and identify any need for services to those with limited English proficiency.



Study Area
Legend
Census Tracts
105
106.01
111.03
111.04
111.05
111.06
111.07
111.08
112
Census Block Group
Study Area
Line 1
Line 2
Line 3
Line 3R (Preferred Alignment)
Selected Alignment
0112
0111.07
0111.08
0111.03
0111.04
0111.05
0111.06
0105
0106.01
Benton
Willow Chute
Midway
Linton
Bellevue
Vanceville
Brownlee
Honore
Ferguson
Princeton
Fillmore
Haughton
Bossier City
Cypress Lake
Black Bayou Lake
Bodcau Lake
Swan Lake
Round Lake
Flag Lake
Bossier City Reservoir
Dry Cypress Bayou
Black Bayou
Flat River Ditch
Bodcau Creek
Pigeon Roost Bayou
Clarke Bayou
Fifi Bayou
Twelvemile Bayou
Red River
Benoit Bayou
Willow Chute
Flat River
Red Chute Bayou
KINGSTON RD
DEEN POINT RD
PALMETTO RD
BENTON RD
AIRLINE DR
SWAN LAKE RD
BELLEVUE RD
WINFIELD RD
PRINCETON RD
BROWNLEE RD
SHED RD
Line 1
Line 2
Line 3
Line 3R & Selected Alignment
Bossier Parish East-West Corridor
Winfield Road Extension
Exhibit 4-1
Census Block Groups
0
8,000
Feet
Baker

The Executive Order requires federal agencies to work to ensure that recipients of federal financial-assistance provide meaningful access to their LEP applicants and beneficiaries. Failure to ensure that LEP persons can effectively participate in or benefit from federally assisted programs and activities may violate the provision under Title VI of the Civil Rights Restoration Act of 1987 and Title VI regulations against national origin discrimination.

Year 2000 Census data for "Ability to Speak English" for the population five years of age and over indicates that between 0.8 and 2.9 percent of people within block groups transected by or adjacent to the proposed alignments speak English less than "very well" (see Table 4-6). The LEP populations within the Study Area speak a variety of languages including Spanish, other Indo-European languages, and Asian and Pacific languages.

Table 4-6
LIMITED ENGLISH PROFICIENCY POPULATIONS

Census Tract	Block Group	Speak English Less then "Very Well" (%)
111.03	3	1.6
111.04	1	2.9
111.04	3	1.6
111.08	1	0.8
111.08	2	2.3

Source: U.S. Census Bureau, 2000 Census.

In addition, a windshield survey was performed on February 4, 2009 to determine whether the project would affect a LEP population. The FAA is dominated by residential land use. One Asian Baptist Church was noted on Bellevue Road. No other indicators such as ethnic business districts, billboards in non-English or religious centers were observed.

The Build and No-Build alternatives would have no disproportionate impact on Limited English Proficiency populations.

4.5 CULTURAL RESOURCES

Section 106 of the National Historic Preservation Act of 1966, as amended, protects those properties that are listed in or eligible for listing in the National Register of Historic Places (NRHP). In addition, Section 4(f) of the Department of Transportation Act of 1966, as amended (49 U.S.C. 303) protects public parks, publicly owned recreation areas, wildlife and waterfowl refuges, and historic and/or cultural resources of national, state or local significance from conversion to highway use unless there is no prudent or feasible alternative. In accordance with the requirements of Section 4(f), Section 106, the NEPA, and Executive Order 11593, an assessment was made of the cultural resources within the FAA. The identification and assessment of potential cultural resource impacts within the FAA were based on a records search at the State Historic Preservation Office (SHPO), Louisiana Division of Archaeology and the Office of Cultural Development, Louisiana Division of Historic Preservation, field survey and

Phase I Archaeological testing within the Preferred and Selected alignments.

4.5.1 Historic and Archaeological Resources

Historic Resources

The identification and assessment of potential cultural resources was conducted for the FAA. The FAA served as the Area of Potential Effect (APE) and was defined to include all land areas that could include historic properties that could be directly or indirectly affected by the Proposed Action.

The identification of architectural resources included examination of Louisiana Historic Resource Inventory Forms, cultural resource management reports and other records available at the Louisiana State Historic Preservation Office (SHPO). A field reconnaissance was conducted and all properties 50 years of age or older within the FAA were identified, recorded on Louisiana Historic Resource Inventory Forms and photo documented. All resources identified were evaluated according to the guidelines established in National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation. NPS, 1991.

The records search conducted at the SHPO identified four previously recorded resources within the FAA. Three of the sites, 16BO598, 16BO276 and 16BO277 are no longer extant and site 16BO278 was improperly recorded as a historic resource (see Exhibit 4-2).

The field reconnaissance identified 26 previously unrecorded historic resources within the FAA. Ten of the resources were located along Bellevue Road north of the eastern terminus at Winfield and Bellevue roads.

None of the alignments would impact these historic resources. One of the resources is located in the vicinity of Line 1 and three resources were identified in the vicinity of Line 2. Eight resources were identified in the vicinity of Lines 3, 3R (Preferred Alignment) and the Selected Alignment (see Exhibit 4-2).

The historic properties evaluation concluded that none of the 26 identified historic resources are eligible for the National Register of Historic Places (NHRP), either individually or as a contributor to a historic district. In their July 9, 2010 letter, the SHPO concurred with the assessment that no historic properties would be adversely affected by the Selected Alignment (see Appendix).

The Build and No-Build alternative would not impact cultural and historic resources.

Federal Action Area

Line 1

Line 2

Line 3

Line 3R & Selected Alignment

16BO277

16BO598

16BO278

16BO276 Vicinity

Cypress Bend Subdivision

Willow Lake Subdivision

The Colony Subdivision

Riverbluff Subdivision

Airline Park Estates

Brownlee Estates

Greenacres Place

Tiburon Subdivision

Carriage Oaks

Country Place

KINGSTON RD

DEENIPOINT RD

HAY MEADOW DR

N WILLOW DR

SAWGRASS PARKWAY

VANCEVILLE RD

LAFITTE LN

SWAN LAKE RD

MYERS RD

FAWN HOLLOW

AUDUBON DR

LE OAKS DR

LAKEWOOD POINT DR

OLD BROWNLEE RD

AIRLINE DR

WEMPLE RD

CARDNELL RD

CROSSCREEK DR

BROWNLEE RD

NORTHPARK DR

GREENACRES BLVD

PETE MODICAIN

MODICA LOTT RD

SURREY LN

HICKORY RIDGE DR

STOCKWELL RD

HOLLOW BLUFF DR

TALL PINES RD

DOGWOOD TR

ADNER RD

WINFIELD RD

BUSBY RD

BELLEVUE RD

WELLS CUTOFF RD

WELLS RD

HAZEL JONES RD

220

79

80

Legend

- Previously Recorded Historic Structure
- Historic Structure
- Previously Recorded Historic Structure
- Line 1
- Line 2
- Line 3
- Line 3R (Preferred Alignment)
- Selected Alignment

Bossier Parish East-West Corridor
Winfield Road Extension

Exhibit 4-2

Historic Structures

Baker

0 4,000 Feet

NLCOG

Archaeological Resources

A geomorphological assessment of the FAA was completed in order to determine if factors that would have fostered human settlement or that would have preserved or destroyed associated archaeological sites are present. The assessment also reviewed the distribution of recorded archaeological sites throughout the FAA. Site records demonstrate that the majority of archaeological sites, both prehistoric and historic, within the FAA occur along the natural levees of Willow Chute.

In addition, prehistoric archaeological probability areas were developed to determine, in a broad sense, the likelihood of encountering buried resources. Areas of high, medium and low probability within the Red River Alluvial Valley and upland areas were developed using data such as terrain characteristics, proximity to water, soil types, locations of previously recorded sites, historic mapping and other documentation as appropriate.

All alignments, except Line 1 and the Selected Alignment, would impact known archaeological sites (see Table 3-9). Line 2 would impact one eligible archaeological site and Lines 3 and 3R (Preferred Alignment) would impact two sites with unknown eligibility.

All alignments would potentially impact unrecorded archaeological sites. Terraces, floodplains, bayou and stream crossings typically are high probability areas for cultural material. Lines 3, 3R (Preferred Alignment) and the Selected Alignment would have the greatest involvement with areas of high probability for archaeological resources, followed by Line 1 and Line 2 with the lowest probabilities.

Lines 1 and 2 also have areas with moderate probability for archaeological resources with Line 2 being slightly larger.

A Phase I archaeological survey was conducted on the Preferred and Selected alignments. The survey was designed to identify all archaeological sites located within the Preferred and Selected alignments and evaluate their potential eligibility for nomination to the National Register for Historic Places (NRHP). Fieldwork for the Phase I survey included a combination of pedestrian survey, surface collection and systematic shovel testing. The results of the Phase I survey were detailed in a Phase 1 Archaeological Survey report submitted to the State Historic Preservation Office (SHPO).

In their June 28, 2010 letter, the SHPO concurred with the findings and recommendations contained in the Phase I Archaeological Survey report (see Appendix). Specifically, of the nine archaeological sites investigated during the Phase I survey, eight sites were ineligible for the NRHP and the NRHP eligibility of one site was undetermined. The SHPO concurred that Phase II archaeological testing would be necessary only if the site could not be

avoided. The Selected Alignment does not impact the site.

The No-Build alternative would not impact cultural resources.

4.6 SECTION 4(f) AND 6(f) RESOURCES

Section 4(f) of the U.S. Department of Transportation Act of 1966, as amended (49 U.S.C. 303) protects public parks, publicly owned recreation areas, wildlife and waterfowl refuges, and historic and/or cultural resources of national, state or local significance from conversion to highway use unless there is no prudent or feasible alternative.

Section 6(f) of the Land and Water Conservation Fund Act of 1965, (Public Law 88-578) prohibits property acquired or developed with assistance under the Act from being converted to other than public outdoor recreation uses without the approval of the Secretary of the Interior.

No resources protected by either Section 4(f) or Section 6(f) would be used by the Build or No-Build alternatives.

4.7 NOISE IMPACTS

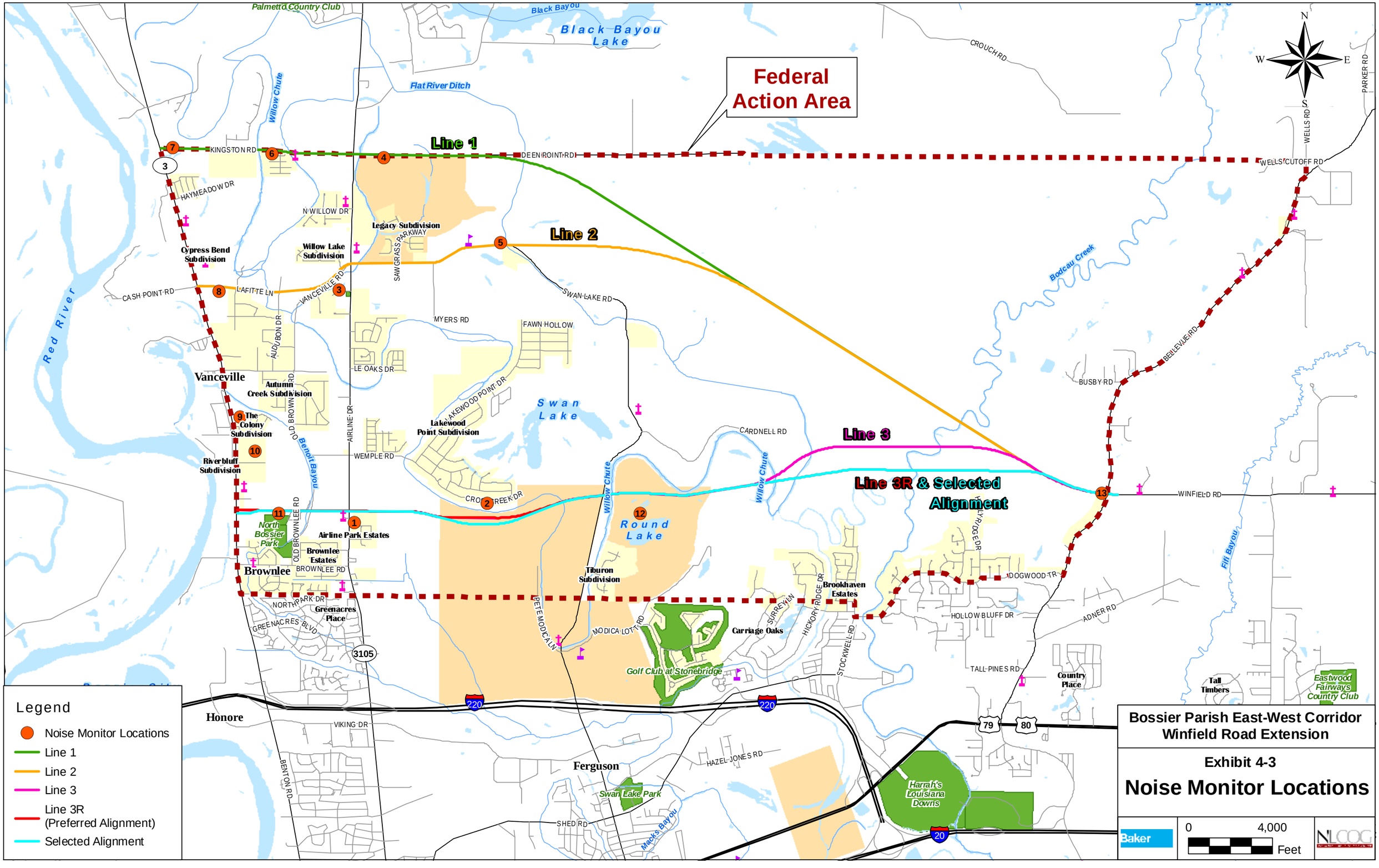
Noise is defined as unwanted or excessive sound that interferes with normal activities such as sleep, work or recreation. Noise is described in terms of loudness, frequency, and duration. Loudness is the sound pressure level measured on a logarithmic scale in units known as decibels (dB). For community noise impact assessment, sound level frequency characteristics are based upon human hearing using an A-weighted (dBA) frequency filter that approximates the way humans hear sound.

4.7.1 Measured Sound Levels

A noise monitoring program was conducted within the FAA in order to establish existing sound levels for various highway conditions in accordance with the DOTD Highway Traffic Noise Policy (August 2009). The DOTD requires that highway traffic noise prediction requirements, noise analyses, noise abatement criteria and requirements for informing local officials comply with the noise standard mandated by 23 U.S.C. 109(i).

Thirteen ambient noise measurements were collected along roadways within the FAA representing the existing exterior sound environment. Measurements were not collected during periods of Barksdale Air Force Base bomber flyover exercises so that existing traffic and design year conditions can be more accurately compared.

The noise monitoring locations are shown in Exhibit 4-3 and described in Table 4-7. Noise measurements were collected during peak traffic times and values reflect the peak hour Leq.


Federal Action Area
Line 1
Line 2
Line 3
Line 3R & Selected Alignment
Palmetto Country Club
Black Bayou
Black Bayou Lake
Flat River Ditch
Willow Chute
Red River
Bodcau Creek
Swan Lake
Round Lake
KINGSTON RD
DEEN POINT RD
WELLS CUTOFF RD
WELLS RD
PARKER RD
CROUCH RD
HAYMEADOW DR
N WILLOW DR
Legacy Subdivision
SAWGRASS PARKWAY
Willow Lake Subdivision
Cypress Bend Subdivision
CASH POINT RD
LAFITTE LN
VANCEVILLE RD
SWAN LAKE RD
MYERS RD
FAWN HOLLOW
AUDUBON DR
LE OAKS DR
Vanceville
Autumn Creek Subdivision
The Colony Subdivision
Riverbluff Subdivision
OLD BROWNLEE RD
AIRLINE DR
WEMPLE RD
Benoit Bayou
LAKEWOOD POINT DR
Lakewood Point Subdivision
CARDNELL RD
CROSS CREEK DR
BUSBY RD
BELLEVUE RD
WINFIELD RD
North Bossier Park
Airline Park Estates
Brownlee Estates
Brownlee
BROWNLEE RD
NORTHPARK DR
Greenacres Place
GREENACRES BLVD
Tiburon Subdivision
PETE MODICA LN
MODICA LOTT RD
Carriage Oaks
Golf Club at Stonebridge
SURREY LN
HICKORY RIDGE DR
Brookhaven Estates
STOCKWELL RD
RIVERRIDGE DR
DOGWOOD TR
HOLLOW BLUFF DR
ADNER RD
TALL PINES RD
Country Place
Tall Timbers
Fifi Bayou
Eastwood Fairways Country Club
Honore
VIKING DR
BENTON RD
Ferguson
HAZEL JONES RD
Swan Lake Park
SHED RD
Macks Bayou
Harrah's Louisiana Downs
3105
220
79
80
20
N
S
W
E
Legend
Noise Monitor Locations
Line 1
Line 2
Line 3
Line 3R (Preferred Alignment)
Selected Alignment
Bossier Parish East-West Corridor
Winfield Road Extension
Exhibit 4-3
Noise Monitor Locations
Baker
0
4,000
Feet
NLCOG

Take page out

Table 4-7
MEASURED AMBIENT NOISE LEVELS WITHIN THE FAA

Noise Monitoring Location	Land Use	L_{eq} (h) dBA		Observed Traffic Data*	Dominant Noise Source(s)**
		Field	Validated		
1	Residential	59	56	Autos-283 MedTrk-3	Airline Drive, natural gas compressors, Airline Park Estates activities
2	Residential	46	N/A	Autos-9	Lakewood Point Subdivision activities, nature, distant traffic
3	Residential	50	47	Autos-240	Airline Drive, Willow Lake Subdivision activities
4	Residential	54	N/A	Autos-3	Deen Point Road, distant Airline Drive traffic, nature
5	Legacy Elem. Sch., Residential	51	52	Autos-43	Swan Lake Road, nature
6	Residential	52	51	Autos-111	Kingston Road, nature, distant LA 3 (Benton Road) traffic
7	Residential Business	57	59	Autos-105 MedTrk-3	Kingston Road, nature, nearby LA 3 (Benton Rd) traffic (270 autos, 3 medium & 3 heavy trucks)
8	Residential	47	N/A	Autos-4	Local Roads, distant LA 3 (Benton Road) traffic, nature, neighborhood activities
9	Residential	54	57	Autos-390 HvyTrk-12	LA 3 (Benton Road)
10	Residential	53	56	Autos-90 MedTrk-3	Wemple Road, LA 3 (Benton Road)
11	N. Bossier Park, Res	51	N/A	No traffic	Park activities, nature, Old Brownlee Road, distant LA 3 (Benton Road)
12	Residential	47	N/A	No traffic	Nature, distant traffic, Tiburon Subdivision activities
13	Residential	51	53	Autos-165	Bellevue Rd, Winfield Rd (30 autos), nature

* No motorcycles or buses were encountered during the measurement periods. However, they were accounted for in the modeling.
**Measurements were not taken during Bomber activity from Barksdale AFB.
Source: Michael Baker Jr., Inc.

These measurements resulted in noise levels ranging from 46 to 59 dBA. Generally, the highest noise levels were recorded in the vicinity of Benton Road (LA 3). The lowest noise levels measured at existing and proposed subdivisions located away from Benton Road. Noise Monitoring Location 1, Airline Drive, resulted in the highest recorded noise level at 59 dBA. Contributing to this level is the presence of natural gas compressors and Airline Park Estates activities.

4.7.2 Prediction of Traffic Noise Levels for the Build Alternative

Traffic noise calculations were performed for the design year 2030 using the FHWA Traffic Noise Model (TNM) 2.5. Posted speed limits were used for the model. Nearly 200 representative receptor

sites were modeled to account for areas most likely affected by the proposed Project (see Appendix). Noise impacts were based on the projected noise levels exceeding the established criteria and by the increase over the existing conditions as a result of the proposed highway.

Table 4-8 presents a summary of the projected noise impacts resulting from the traffic noise calculations performed for the current year, design year No-Build and design year for Lines 1, 2, 3, 3R (Preferred Alignment) and the Selected Alignment.

Table 4-8
TRAFFIC NOISE IMPACT COMPARISON

	Existing Year (2008)	2030 Design Year No-Build	2030 Design Year Line 1	2030 Design Year Line 2	2030 Design Year Line 3	2030 Design Year Line 3R (Preferred Alignment)	2030 Design Year Selected Alignment
Total Number of Modeled Representative Sensitive Receptors	194	194	194	194	194	194	194
Sensitive Receptors Equaling or Exceeding the DOTD Noise Abatement Criteria*	5	5	4	5	5	5	5
Sensitive Receptors with Substantial Noise Increase Criteria **	N/A	0	0	0	10	10	10
Sensitive Receptors Meeting Both Criteria	N/A	0	0	1	0	0	0
Total Representative Receptors Impacted	5	5	4	6	15	15	15

Source: Michael Baker Jr., Inc.
* DOTD NAC - 66 dBA for Category B receptors; 71 dBA for Category C receptors
** An increase of 10 or more dBA over the existing condition

This comparison includes receptors equaling or exceeding the DOTD Noise Abatement Criteria (NAC) of 66 dBA for Category B (residential) receptors; 71 dBA for Category C (commercial) receptors; Sensitive Receptors meeting the substantial noise increase criteria (10 dBA or more over existing conditions); and Receptors meeting both criteria.

For Lines 1, 2, 3, 3R (Preferred Alignment) and the Selected Alignment, no schools churches or parks are impacted. All projected impacts are to residential dwelling units and one commercial property. Lines 3, 3R (Preferred Alignment) and the Selected Alignment have the greatest impacts while Line 1 has the least impacts.

Line 1 has four impacts exceeding DOTD NAC while Line 2 has six impacts with five receptors exceeding DOTD NAC and one receptor exceeding both the DOTD NAC and substantial noise increase criteria. Line 3 has fifteen impacts with five receptors exceeding DOTD NAC and ten receptors meeting the substantial noise increase criteria. The impacts for Line 3R (Preferred Alignment) and the Selected Alignment are the same as those identified for Line 3.

For the Existing-Year and Design-Year No-Build alternative five receptors exceed the DOTD NAC. (See Appendix for table listing of all Noise Receptors including existing and predicted sound levels). Construction noise is expected to have temporary impacts upon all receptors resulting from earth moving activities, demolition of and removal of existing physical structures, foundation placement, grading, paving and clean up. Noise at any given site depends on the construction activity and type of equipment being used. Indirect impacts could also occur as a result of travel to and from the construction site. Therefore, receptors may experience varying degrees of temporary impacts from construction noise.

4.7.3 Noise Abatement

Noise abatement must be considered when predicted traffic noise levels either meet or exceed DOTD NAC or exceed the existing noise levels at any sensitive receptor by 10 dBA. A noise level reduction of 8 dBA is sought during noise abatement analysis.

Abatement measures are not required for the existing conditions or Design-Year No-Build alternative. Abatement measures are only required for Type I highway noise impacts.

Several types of noise reduction measures were considered to mitigate noise impacts including:

- ❏ Traffic management measures
- ❏ Alteration of horizontal and vertical alignments
- ❏ Acquisition of property rights for construction of noise barriers

- Noise insulation of certain structures and construction of noise barriers.

Noise abatement consideration evaluates both feasibility and reasonableness. An abatement measure is considered feasible if one receptor receives a minimum reduction of 8 dBA. Reasonableness balances the overall public good with social, economic and environmental impacts and cost. DOTD noise policy identifies reasonableness as a receptor receiving a 5 dBA reduction in noise levels and the cost of the measure being equal to or less than $25,000 per benefited receptor.

Areas with predicted noise increases were evaluated for noise abatement measures. The following receptor locations were evaluated by Line:

- Line 1: Receptors 124, 125, 126 and 178
- Line 2: Receptors 93, 94, 124, 125, 126, and 178
- Lines 3, 3R (Preferred Alignment) and the Selected Alignment: Receptors 124, 125, 126, 137, 161, 162, 178 and RL-1 through RL-8

For Lines 1 and 2, noise mitigation cannot achieve the required 8 dBA reduction in noise levels and further mitigation consideration is not warranted. Results of the noise mitigation analysis for Lines 3 3R (Preferred Alignment) and the Selected Alignment indicate that noise mitigation cannot achieve the required 8 dBA reduction in noise levels and further mitigation consideration is not warranted except at receptor locations RL1 through RL8 which represent Tiburon Subdivision. At these receptor locations, two ten foot high barriers achieve the required 8 dBA reduction with 32 of 75 receptors meeting the 5 dBA reduction for feasibility, but the preliminary cost estimate per benefited receptor is $56,974 which exceeds the DOTD cost limit for reasonableness. Consequently, there are no reasonable and feasible noise abatement measures that would eliminate or reduce the expected highway traffic noise impact at the identified sites.

There would be no increase in noise levels for the No-Build alternative and, therefore, no impact resulting from noise. Under the No-Build alternative, five receptors currently exceed the DOTD NAC in 2030. The Substantial Noise Increase Criteria was predicted to be zero for the No-Build alternative.

4.8 OIL & GAS WELLS

Producing oil and gas well location information was obtained from the Louisiana Department of Natural Resources, Strategic Online Natural Resource Information System (SONRIS) database and entered in the GIS to determine impacts for each alignment. Thirty-two oil or gas wells are located within the FAA. Of these wells, twenty-two were plugged and abandoned dry wells, three were

plugged and abandoned producers, three have expired permits and one was not able to be located. Three wells were identified as orphan wells which identifies them as abandoned and requiring clean up or wells not in compliance with applicable laws and regulations. Table 4-9 summarizes the oil and gas wells located within the FAA.

The Build and No-Build alternative would have no impact on oil and gas wells.

Table 4-9
OIL AND GAS WELLS WITHIN THE FEDERAL ACTION AREA

Map ID	Well Serial Number	Api Number	Organization ID	Well Name	Well Status
1	22401	17015008710000	9999	WP & MARY LEONARD	P&A Dry Hole
2	13188	17015008730000	9999	LEONARD	P&A Dry Hole
3	3272	17015024130000	9999	FULLILOVE	P&A Dry Hole
4	6619	17015027210000	9999	A C GRAY	P&A Dry Hole
5	62974	17015008750000	9999	JESSIE JONES	P&A Dry Hole
6	4870	00000000000000	9999	FILLULOVE	P&A Dry Hole
7	161947	17015212930000	3195	JONES	P&A Dry Hole
8	161479	17015212880000	3195	JONES	P&A Dry Hole
9	120827	17015200380000	9999	JONES HEIRS	P&A Dry Hole
10	119142	17015200260000	9999	JESSE E JONES	Wells Unable To Be Located(No P&A Report)
11	36088	17015009240000	9999	ROY E REED	P&A Dry Hole
12	113342	17015009230000	3628	NANCY JOHNSON	P&A Dry Hole
13	127023	17015201150000	9999	COLEMAN & MOORE	P&A Dry Hole
14	90140	17015009220000	5979	F E WEMPLE	P&A Dry Hole
15	2542	17015025180000	9999	BROWN-MCCULLER	P&A Producer
16	115116	17015009200000	9999	STINSON ESTATE	P&A Dry Hole
17	156872	17015210790000	9999	FORD E STINSON	P&A Dry Hole
18	141254	17015204050000	9999	FORD E STINSON	Permit Expired/No Product Code
19	142804	17015204050000	9999	FORD E STINSON	Permit Expired/No Product Code
20	152354	17015204050000	9999	FORD E STINSON	P&A Dry Hole
21	136095	17015203220000	D160	FORD E STINSON	Orphan Wells
22	136474	17015203260000	D160	FORD E STINSON	Orphan Wells
23	136910	17015203310000	B234	FORD E STINSON	Orphan Wells
24	103165	17015008770000	9999	ATKINS	P&A Dry Hole
25	11070	00000000000000	9999	PEASE	P&A Producer
26	122694	17015200960000	9999	WURTZBAUGH ET AL	P&A Dry Hole
27	29855	17015009310000	9999	PIRKLE	P&A Dry Hole
28	171484	17015215410000	9999	WYCHE	Permit Expired/No Product Code
29	2726	00000000000000	9999	SCOTT	P&A Dry Hole
30	41806	17015009460000	9999	RAY PODEN JR	P&A Dry Hole
31	40204	17015009290000	9999	VERA ODEN	P&A Dry Hole
32	15533	00000000000000	9999	ROY ODEN	P&A Producer

Source: SONRIS June 2008, Michael Baker Jr., Inc.

4.9 PIPELINES

Pipelines are an integral part of the distribution of oil and natural gas resources from and throughout the region. There are five (5) pipeline routes identified within the FAA.

The Build alternative would involve pipeline crossings for each alignment. Lines 1 and 2 would have three pipeline crossings each. Lines 3 and 3R (Preferred Alignment) would require five pipeline crossings for each alignment and the Selected Alignment would require seven pipeline crossings. The pipeline locations are shown on Exhibit 4-4.

The No-Build alternative would not impact any pipelines within the FAA.

4.10 HAZARDOUS MATERIALS SITES & UNDERGROUND STORAGE TANKS

A standard environmental records review and site reconnaissance was conducted to locate sites of potential concern for hazardous materials or previously identified recognized environmental conditions on properties within the FAA. The environmental site assessment focused on the locations for Lines 1, 2, 3, 3R (Preferred Alignment) and the Selected Alignment and was completed utilizing the standard practices outlined in ASTM E1527-05: *Standard Practice for Environmental Site Assessment: Phase I Environmental Site Assessment Processes* in conjunction with *40 CFR Part 312, Standards and Practices for All Appropriate Inquiries*.

Contamination of soils, groundwater or surface waters can result from former use, storage or disposal of hazardous materials on subject properties, or from migration of contaminants from adjacent properties. The purpose of conducting an environmental site assessment is to determine a property's potential for containing soil, groundwater or surface water contamination with respect to the range of contaminants within the scope of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and petroleum products.

A records search was conducted by Environmental Data Resources, Inc. for the FAA and surrounding vicinity. In addition, historic aerial photographs of the Study Area and adjoining properties were reviewed for evidence of environmental concerns. The photographs ranged in date from 1939 to 2007.

Because EDR locates sites based on addresses, which are not always representative of the actual location of a site, the results of the EDR search were further researched to develop more accurate site locations. Accordingly, the locations of some sites were found to differ slightly from their placements on the EDR map.

Federal Action Area

Line 1

Line 2

Line 3

Line 3R & Selected Alignment

Legend

- Hazardous Site
- Oil or Gas Well
- Water Well
- Pipeline
- Line 1
- Line 2
- Line 3
- Line 3R
- Selected Alignment

Bossier Parish East-West Corridor
Winfield Road Extension

Exhibit 4-4

Haz Sites, Pipelines, Oil and Gas Wells, and Water Wells

Baker

0 4,000 Feet

NLCOG

In addition, certain sites listed in the EDR report are considered to represent *de minimis* conditions that generally do not present a material risk of harm to public health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies.

Thirty-one sites or properties with known environmental conditions were identified to be present within the boundaries of the FAA as a result of the EDR records search. Six potential hazardous sites are located near the preliminary alignments (see Table 4-10 and Exhibit 4-4).

The preliminary alignments would have no impact on sites or properties with known or potential environmental conditions.

The No-Build alternative would have no impact on sites identified to have known potential environmental conditions or on unidentified sites that may have the presence or likely presence of hazardous substances, petroleum products or those that pose a material threat of release.

Table 4-10
IDENTIFIED HAZARDOUS MATERIALS SITES NEAR ALIGNMENTS

Site Number	Site Name /Address	Site Type/ Database
1	Sand Blasting Services, Inc., 223 Kingston Rd., Benton	RCRA-SQG
9a	Circle K # 5985, 4151 Airline Drive, Bossier City	UST
9b	J&J Grocery # 100454, 4200 Airline Dr., Bossier City	UST
15b	Perry's, 4326 Benton Rd., Bossier City	UST
19b	Dixie Mart # 13, 4128 Benton Rd., Bossier City	UST
21	Airline Drive Center, 4903 Airline Drive, Bossier City	UST

Source: EDR Report, 2008, Michael Baker Jr., Inc., 2009.

4.11 WATER QUALITY

Potential water quality impacts were assessed for surface water, groundwater and public water supplies. The requirements of the Clean Water Act, as amended, will be complied with and, if necessary, the following permits obtained for the Project: a Section 401 Water Quality Certification, a Section 402 National Pollutant Discharge Elimination System (NPDES) permit, a Louisiana Water Discharge Permit System (LWDPS) permit issued by the Louisiana Department of Environmental Quality (LADEQ), and a Section 404 permit issued by the US Army Corps of Engineers for the placement of dredged or fill material in waters of the United States.

4.11.1 Surface Water Resources

Surface water resources crossed by all alignments include perennial and intermittent streams or

bayous. Surface water crossings for Line 1 include Willow Chute and Bodcau Creek along with Macks Bayou, Cypress Bayou and the Flat River Drainage Canal. Line 2 surface water crossings include Willow Chute, the Flat River Drainage Canal, Macks Bayou, Cypress Bayou and Bodcau Creek. Line 3 crossings include Benoit Bayou, Willow Chute, the Flat River Drainage Canal, Macks Bayou and Bodcau Creek while Line 3R (Preferred Alignment) and the Selected Alignment cross Benoit Bayou, Willow Chute, the Flat River Drainage Canal and Bodcau Creek.

The Louisiana Department of Environmental Quality, (LDEQ) Office of Water Resources (OWR) is responsible for monitoring, protecting, and enhancing the quality of Louisiana's surface and groundwater. OWR monitors surface water quality through a series of fixed long term sampling stations located throughout the state. Results from Louisiana's 2006 303(d) impaired waters list were used to identify the water quality of streams within the FAA, and whether these streams met state water use designations.

Black Bayou Lake from Highway 1 to the spillway was the only water body in the FAA that was found to be listed on the 2006 303(d) impaired water bodies list. Black Bayou Lake is classified as (FWP) for fish and wildlife propagation, and is classified due to mercury content. Suspected sources of impairment were listed as either atmospheric deposition or unknown. No other water bodies listed as impaired were found within the Study Area. Multiple surface water crossings will be required for the alignments. Water quality impacts would be similar for all alignments and would be temporary due to construction related activities such as removal of existing vegetation during clearing and grubbing, culvert installation, bridge construction and roadway construction.

Water quality impacts would be similar for all alignments and likely be restricted to the temporary influx of sediment laden surface runoff associated with roadway construction and associated construction activities. No long term adverse impacts would be expected.

Adverse impacts to water quality would be reduced by the implementation of Best Management Practices (BMPs) as outlined in a project specific Storm Water Pollution Prevention Plan (SWPPP) and Erosion and Sedimentation Control Plan for the Project. Measures to reduce sediment transport, properly store materials and equipment, properly store and dispose of waste materials, maintain equipment and avoid accidental discharges of fuels or other chemicals will be outlined in the SWPPP. Any water quality degradation that may occur during construction activities would be localized and temporary.

The No-Build alternative would have limited impacts to water resources.

4.11.2 Groundwater Resources

The Red River Alluvial Aquifer is the primary aquifer in the area. This water source is mostly used for irrigation purposes. Shallow groundwater exists in layers of silt and sand deposited by the nearby Red River. Water levels are generally within 30 to 40 feet of the land surface and movement is down gradient towards rivers and streams. The maximum depths of occurrence of freshwater in the Red River Alluvial aquifer ranges from 20 feet above sea level to 160 feet below sea level.

Construction of a Build alternative and subsequent stormwater runoff would have minimal impacts on groundwater quality. Construction would increase the amount of impervious cover within the local watersheds, which would reduce the amount of infiltration to recharge underlying aquifers. However, because of the remaining amount of undeveloped land available for groundwater recharge, the change in land use associated with a Build alternative would have a negligible effect on recharge.

Additional potential impacts associated with the construction of the Build alternative include the potential release of fuels, oils, grease, or other chemicals. During construction, the potential exists for the discharge of fuel (gasoline and diesel), lubricants or other chemicals used for construction equipment. Such discharges would be controlled through proper equipment maintenance, management of storage and disposal of product, and by prompt response and cleanup of releases. Potential impacts to the groundwater resources would be minimized by the implementation of BMPs during construction activities.

The No-Build alternative would have no impact on groundwater resources.

4.11.3 Sole Source Aquifers

Review of the U.S. Environmental Protection Agency, Sole Source Aquifer Designation Map indicates that Bossier Parish is not located within the boundaries of a designated sole source aquifer. Therefore, there will be no impact to any sole source aquifer from a Build or No-Build alternative.

4.11.4 Public and Domestic Water Wells

A review of water wells registered with the Water Resources Division of DOTD showed that approximately 127 wells are located within the FAA. The Water Well Registration Data File contains only wells registered with DOTD. It is possible that unregistered wells exist in the FAA.

One registered domestic well would be impacted by Lines 3, 3R (Preferred Alignment) and the Selected Alignment. Line 2 may impact one registered

domestic well that is located just outside the construction limits. Line 1 does not impact any registered wells. Exhibit 4-4 shows all known water wells in the FAA, and their proximity to the alignments. No other known registered wells would be impacted by the Build alternative.

The No-Build alternative would have no impact on public or domestic water wells.

4.12 FLOODPLAINS AND FLOODWAYS

The protection of floodplains and floodways is required by EO 11988 "Floodplain Management", 23 CFR 650, Subpart A, "Location and Hydraulic Design of Encroachments on Floodplains" and US DOT 5650.2, "Floodplain Management and Protection". The location of the 100-year floodplain and floodways throughout the FAA was identified from the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRM) for the Community of Bossier Parish and is shown on Exhibit 4-5. Most of the FAA is located within the 100-year flood zone.

Table 4-11 presents a comparison of the amount of floodplain and floodway encroachment by each alignment. These encroachments would be mitigated as part of final design to ensure no adverse floodplain and floodway impacts.

Table 4-11
SUMMARY OF FLOODPLAIN AND FLOODWAY ENCROACHMENT BY ALIGNMENT

Alignment	Alignment (acres)	Floodplain (acres)	Percent Floodplain	Floodway (acres)	Percent Floodway
No-Build	0	0	0	0	0
1	158.3	99.3	62.7%	2.5	1.6%
2	147.5	88.5	60.0%	0.4	0.3%
3	132.4	74.7	56.5%	10.7	8.1%
3R (Preferred Alignment)	125.6	63.1	50.2%	7.8	6.2%
Selected Alignment	126.1	67.0	53.2%	7.8	6.2%

Source: Michael Baker Jr., Inc.

Line 1 would have the greatest encroachment on floodplains while Line 3R (Preferred Alignment) would have the least. The greatest floodplain encroachment would be associated with Benoit Bayou, the Flat River Ditch, Bodcau Creek and Willow Chute and would be similar for all alignments. Line 3 would have the greatest floodway encroachment while Line 2 would have the least. Floodway encroachments would be associated with the Benoit Bayou, the Flat River Ditch and Willow Chute.

Federal Action Area

Line 1

Line 2

Line 3

Line 3R & Selected Alignment

Red River
Black Bayou
Black Bayou Lake
Flat River Ditch
Willow Chute
Bodcau Creek
Swan Lake
Round Lake
Bossier City Reservoir
Bellevue Bayou
Fill Bayou
Macks Bayou

KINGSTON RD
DEEN POINT RD
CROUCH RD
PARKER RD
WELLS RD
WELLS CUTOFF RD
HAYMEADOW DR
N WILLOW DR
SAWGRASS PARKWAY
CASH POINT RD
LAFITTE LN
VANCEVILLE RD
SWAN LAKE RD
MYERS RD
FAWN HOLLOW
AUDUBON DR
LE OAKS DR
OLD BROWNLEE RD
AIRLINE DR
LAKEWOOD POINT DR
WEMPLE RD
CROSSCREEK DR
CARDNELL RD
BELLEVUE RD
BUSBY RD
WINFIELD RD
DOGWOOD TR
HOLLOW BLUFF DR
ADNER RD
TALL PINES RD
HICKORY RIDGE DR
STOCKWELL RD
SURREY LN
MODICA LOTT RD
PETE MODICA LN
BROWNLEE RD
NORTH PARK DR
GREENACRES BLVD
HAZEL JONES RD
SHED RD

Vanceville
Cypress Bend Subdivision
Willow Lake Subdivision
The Colony Subdivision
Riverbluff Subdivision
Brownlee
Brownlee Estates
Airline Park Estates
Greenacres Place
Tiburon Subdivision
Carriage Oaks
Country Place
Tall Timbers
Ferguson

3
3105
220
20
79
80

N
S
E
W

Legend

- Floodplain
- Floodway
- Wetland
- Line 1
- Line 2
- Line 3
- Line 3R (Preferred Alignment)
- Selected Alignment

Bossier Parish East-West Corridor
Winfield Road Extension

Exhibit 4-5

Wetlands and Floodplains

Baker

0 4,000 Feet

NLCOG

Detailed hydrologic and hydraulic studies would be performed during final design to demonstrate that the proposed encroachment would not result in any increase in flood level due to construction that would violate applicable floodplain regulations, including National Flood Insurance Program Regulations and the Bossier Parish Flood Ordinances, including the Flood Damage Prevention Ordinance.

Drainage structures would be sized and additional floodwater storage created to ensure that these structures have sufficient capacity to eliminate upstream and downstream impacts and maintain flow values, floodplain and floodway elevations and floodway widths in accordance with applicable floodplain regulations.

Net floodwater storage volume within the floodplain would not be decreased. Possible measures include utilizing embankment and other materials from within the floodplain and using borrow pits to maintain floodwater storage volumes. Hydraulic design and construction practices would be in accordance with current DOTD and FHWA design policies and standards, and would allow for occurrence of a base flood inundation, accumulation, and flow of floodwater. Engineering "No Rise" Certificates would be prepared as part of the final design of the Project.

Floodplains Finding

There is no practicable alternative to the proposed construction of the Selected Alignment that does not cross floodplains or floodways. The Selected Alignment includes all practicable measures to minimize floodplain impacts. A detailed floodplain evaluation will be conducted during the final design of the project in accordance with Executive Order 11988 and 23 CFR 650, Subpart A.

The DOTD Hydraulics Manual (DOTD 1987), requires a 50-year design frequency and geometric design standards require the finished roadway elevation be above the calculated water surface for the design frequency event.

DOTD and FHWA will review these studies to confirm that adequate measures have been taken to insure that floodplain encroachment does not increase the risk of flooding to adjacent properties. These studies, along with applicable Engineering "No Rise" Certificates, will be submitted to the Bossier Parish Floodplain Administrator for review and approval. The No-Build alternative would have no impact on floodplains.

4.13 THREATENED AND ENDANGERED SPECIES

Section 7 of the Endangered Species Act of 1973 (ESA) (16 USC 1531 *et seq*.), as amended, requires that Federal agencies ensure that any action authorized, funded, or carried out by that agency is not likely to jeopardize the continued

existence of any endangered or threatened species or result in the destruction or adverse modification of critical habitat, unless such agency has been granted an exemption for that action.

Endangered species are species in danger of extinction throughout all or a significant portion of its range, while a threatened species are species likely to become endangered within the foreseeable future throughout all or a significant portion of their range. Critical habitat contains physical or biological features essential to the conservation of the protected species and is given special protection.

The Louisiana Department of Wildlife and Fisheries Natural Heritage Program (LNHP) maintains a database with the known locations of federally listed threatened and endangered species as well as a list of state species of special concern. Table 4-12 lists state and federal threatened and endangered species as tracked by the Louisiana Natural Heritage Program. State species of special concern are not afforded legal protection as are federally-listed threatened and endangered species.

Table 4-12
THREATENED AND ENDANGERED SPECIES FOR BOSSIER PARISH

Scientific Name	Common Name	State Status	Federal Status
Haliaeetus leucocephalus	Bald Eagle	Endangered	Delisted
Picoides borealis	Red-cockaded Woodpecker	Endangered	Listed Endangered
Sterna antillarum athalassos	Interior Least Tern	Endangered	Partial Status: Listed Endangered

Source: Louisiana Natural Heritage Program

The US Fish and Wildlife Service (FWS) and the LNHP were contacted to determine the potential presence of threatened or endangered species or critical habitat that may exist within the Study Area. In their July 1, 2008 response to the Solicitation of Views (see Appendix), the FWS indicated that Proposed Action would have no effect on resources protected by the ESA and that Section 7 consultation was complete.

The No-Build alternative would have no impact on threatened and endangered species.

4.14 NATURAL COMMUNITIES

The Louisiana Department of Wildlife and Fisheries, Natural Heritage Program (NHP) compiles data on rare, endangered, or otherwise significant plant and animal species, plant communities, and other natural features throughout the State. In their July 17, 2008 Solicitation of Views response, NHP identified four natural

communities within the FAA including a mixed hardwood-loblolly forest considered imperiled/rare in Louisiana, a Cypress-tupelo swamp and two Bottomland hardwood forests.

None of the alignments impact the Cypress-tupelo swamp or two Bottomland hardwood forests. Lines 1, 2, 3, 3R (Preferred Alignment) and the Selected Alignment are in close proximity to the NHP-identified mixed hardwood-loblolly forest, with Line 3R (Preferred Alignment) and the Selected Alignment having the greatest distance from the identified forest. American sweetgum (*Liquidambar styraciflua*) and Loblolly pine (*Pinus taeda*) were identified as the tree stratum dominant species along all alignments near the eastern terminus during wetland and stream field studies.

The No-Build alternative would have no impact on the NHP-identified natural communities.

4.15 WETLANDS AND WATERS OF THE UNITED STATES

All wetlands identified within the FAA were evaluated in accordance with Executive Order 11990, *Protection of Wetlands* (1977). This Executive Order established a national policy "to avoid to the extent possible, the long and short-term adverse impacts associated with the destruction or modification of wetlands and to avoid direct or indirect support of new construction in wetlands wherever there is a practicable alternative."

Potential wetland systems were initially identified using color infrared aerial photography and U.S. Department of Agriculture Soils Survey Mapping and entered into the Project GIS as part of the environmental inventory established for the FAA.

Utilizing the information obtained from available resources, wetlands within the FAA were field verified (where reasonably accessible and where property owner permission was granted) using methods outlined in the USACE *Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region, 2008.* The FHWA Technical Advisory T 6640.8A (FHWA, 1987) provides guidelines for addressing wetland impacts in environmental documents, including identification of the extent of wetlands impacted, their type, quality, and function.

Wetlands are defined by the Environmental Protection Agency (EPA) and the U.S. Army Corps of Engineers (COE) as “those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions” (40 CFR 230.0 and 33 CFR 328.3). Current federal authority for activities affecting wetlands and navigable water of the United States lies principally with the COE through Section 404 of the Clean Water Act (CWA) and Section 10 of the Rivers and Harbors Act.

Subsequent amendments to the CWA established a permit program and authorized the COE to issue permits for regulating the discharge of dredged or fill material into all waters of the United States. The COE is responsible for enforcement, implementation, and permitting of the Act's provisions. Proposed construction activities associated with the project would impact wetlands and aquatic systems to varying degrees. Land clearing during construction activities would remove vegetative cover. These activities may increase surface runoff during storm events and could lead to erosion. If runoff is allowed to flow into streams without erosion and sediment control measures, increased turbidity and sedimentation may modify water chemistry because of elevated levels of sediments, nutrients and pollutants, which would also diminish suitable habitat for aquatic species, including littoral zone plants. To aid in minimizing such impacts, placement and monitoring of erosion control measures at the start of, during, and after construction would be incorporated into project plans according to DOTD SWPPP guidelines. DOTD requirements for re-vegetation and stabilization within rights-of-way would be complied with.

Any action that proposes to place fill into wetlands and other waters of the United States requires a COE jurisdictional determination. Table 4-13 and Exhibit 3-5 show the wetland area that would be impacted by each alignment.

Due to the relative number and spatial distribution patterns of wetland communities, as well as a thorough consideration of other features including existing topography, existing structures and other physical or natural resources, a practicable alignment that avoids all wetlands is not possible. However, throughout the development of the alignments, wetland impacts were minimized to the greatest extent possible. Exhibit 4-5 shows the extent of wetlands within the FAA.

Table 4-13
SUMMARY OF WETLAND IMPACTS BY ALIGNMENT

Alignment	Forested PFO (Acres)	Scrub/Shrub PSS (Acres)	Emergent PEM (Acres)	Total (Acres)
No Action	0	0	0	0
Line 1	68.8	10.5	8.7	88.0
Line 2	68.4	8.6	9.2	86.2
Line 3	38.9	4.4	2.2	45.5
Line 3R (Preferred Alignment)	24.8	0	2.1	26.9
Selected Alignment	24.8	0	2.1	26.9

Source: Michael Baker Jr., Inc.

All alignments would impact similar wetland resources within the FAA. Line 1 would have the greatest wetland impacts while Line 3R (Preferred Alignment) and the Selected Alignment would have the least impacts. The majority of wetland impacts would be to palustrine forested wetlands (PFO) adjacent to area streams and bayous with some impacts to palustrine scrub-shrub (PSS) and palustrine emergent (PEM) systems. Early wetland identification allowed for avoidance and minimization of impacts to major wetland areas in the alignment development process.

Wetlands Finding

Based on the above analysis, it is determined that there is no practicable alternative to the proposed construction of the Selected Alignment in wetlands. The location of the Selected Alignment includes all practicable measures to minimize harm to wetlands as specified in Executive Order 11990.

Wetland Mitigation

The northeastern portion of the FAA is part of a large, primarily forested, wetland area associated with Cypress Bayou and Bodcau Creek, making wetland impacts unavoidable.

Based on the comments received following the May 14, 2009 meetings, the eastern portion of Line 3 was revised to follow an existing TEPCO pipeline easement east of Swan Lake Road. This alignment, Line 3R (Preferred Alignment), shortened the overall roadway length, avoided further dividing a large land tract, avoided property owned by the Corps of Engineers, and further minimized wetland impacts to the wetland area associated with Cypress Bayou and Bodcau Creek.

Wetland area lost due to construction of the Project would be replaced through mitigation activities. Mitigation includes measures which avoid, minimize, and/or compensate for unavoidable losses to resources that cannot be further minimized. The assessment of mitigation measures (avoidance, minimization, and compensation) is an integral part of the NEPA/Section 404 Process. For those impacts that cannot be avoided, other mitigation efforts must be considered. These efforts include minimization of potentially adverse impacts and compensation for those remaining adverse impacts that cannot be further reduced. Wetland areas classified as jurisdictional by the COE would be replaced at a ratio to be determined by application of an appropriate assessment methodology for compensatory mitigation. Final compensatory mitigation ratios and requirements will be determined during an evaluation of the project pursuant to the Section 404 permitting process.

The No-Build alternative would have no impact on wetlands or waters of the United States.

4.16 WILD & SCENIC RIVERS

The Louisiana Natural and Scenic Stream System and the National Wild and Scenic River Systems are programs designed to preserve and protect state and national river resources. Streams and rivers are designated as Wild, Scenic, or Recreational.

There are no designated streams or rivers in the FAA; consequently, there will be no impacts to Wild or Scenic Rivers for the Build or No-Build alternative.

4.17 FARMLAND SOILS

The U. S. Department of Agriculture, through the Natural Resource Conservation Service (NRCS), administers the Farmland Protection Policy Act (FPPA 1983) "to minimize the extent to which Federal programs contribute to the unnecessary and irreversible conversion of farmland to nonagricultural uses". The NRCS defines prime farmland as soils that have the best combination of physical and chemical characteristics to economically produce high yields of agricultural crops when treated and managed according to acceptable farming practices.

The NRCS *Soil Survey of Bossier Parish* identifies 40 different soil types within the FAA. Twenty-two (22) of the soils identified are listed as prime farmland soils. All alignments would impact soils identified as prime farmland (see Table 4-14).

A Farmland Conversion Impact Rating For Corridor Type Projects form (Form NRCS-CPA-106) was completed and forwarded to the NRCS State office in Alexandria for their review and completion. Completed forms are included in the Appendix.

Table 4-14
FARMLAND IMPACTS

Alignment	Prime (ac)
No-Build	0
Line 1	96.3
Line 2	90.3
Line 3	86.7
Line 3R (Preferred Alignment)	93.5
Selected Alignment	93.8

Source: Michael Baker Jr., Inc.

The NRCS office reviewed the proposed Project to determine whether any of the land area along the proposed alignments will involve the conversion of farmland (as defined by FPPA) to a non-agricultural use which would require protection measures. The FPPA states that if the site assessment for any project alternative received a score of 160 points or higher, then the site should receive consideration for farmland protection.

The NRCS has determined that none of the proposed alignments exceeds 160 points or higher therefore, none of the proposed alignments require further consideration for farmland protection.

Line 1 would impact the greatest amount of prime farmland soils and Line 3 would impact the least

amount of prime farmland soils. Impacts to farmland soils in active agricultural production were minimized to the extent practicable. Due to the extensive agricultural activity in the FAA, there is no feasible highway alternative that would avoid impacts to this resource.

The No-Build alternative would not impact farmlands.

4.18 AIR QUALITY

The 1990 Clean Air Act Amendments (CAAA) require that a proposed project not cause any new violation of the National Ambient Air Quality Standards (NAAQS), or increase the frequency or severity of any existing violations, or delay attainment of any NAAQS. The U.S. Environmental Protection Agency (EPA) established the NAAQS for Carbon Monoxide (CO), Ozone (O_3), Nitrogen Oxide (NO_2), and Particulate Matter ($PM_{2.5}$ and PM_{10}). The State of Louisiana adopted the standards set forth in the NAAQS. The National Air Monitoring System (NAMS) and the State and Local Air Monitoring System (SLAMS) programs conduct ambient air monitoring for these pollutants at various locations throughout Louisiana.

Louisiana is divided into attainment and non-attainment areas with classifications based upon the severity of the air quality problems. The Project is located in Bossier Parish which is within the Northwest Louisiana Council of Government's (MPO) planning boundaries and is in an area designated as in attainment by the Environmental Protection Agency for all criteria pollutants. Attainment areas are areas that meet the National Ambient Air Quality Standards (NAAQS).

The Project will be included in the MPO's Transportation Improvement Plan (TIP) upon completion of DOTDs Project Development Process and in turn the State Transportation Improvement Plan (STIP), which is found to conform to the State Implementation Plan (SIP) for air quality. Therefore, a micro-scale analysis of air quality is not warranted.

None of the signalized intersections in the FAA have a Level-of-Service (LOS) that is LOS D or worse, including the proposed improvements. Therefore, in addition to being in attainment of the NAAQS, a CO micro-scale analysis is not warranted. Additionally, since the area is designated as being in attainment of the $PM_{2.5}$ standard, a localized analysis is also not required.

4.18.1 Air Toxics

Mobile Source Air Toxics (MSATs) are not a criteria pollutant. However, the FHWA issued interim guidance on MSAT Analysis in NEPA Documents (FHWA Memorandum Feb. 2006). The purpose of this guidance was to advise FHWA Division offices on when and how to analyze MSATs in the NEPA

process for highways in compliance with the U. S. EPA Final Rule, *Control of Hazardous Air Pollutants from Mobile Sources* (66 CFR 17229, Feb 2007).

For a project to be labeled as an MSAT category for higher potential MSAT effects, the project must create new or add significant capacity to urban highways such as interstates, urban arterials, or urban collector-distributor routes with traffic volumes where the AADT is projected to be in the range of 140,000-150,000, or greater, by the design year. The predicted design year volumes for the East-West Corridor are well below this threshold with less than 20,000 AADT and therefore further analysis as an MSAT category project will not be required.

Also, MSAT emissions would likely be lower in the design year than the present levels as a result of EPA's national control programs that are projected to reduce MSAT emissions by 57 to 87 percent by the year 2020. Though local conditions may differ, the magnitude of the EPA-projected reductions is so great (even accounting for VMT growth) that MSAT emissions in the Study Area are likely to be lower in the future.

4.18.2 Air Quality Construction Impacts

Construction activities can have a short-term impact on local air quality during periods of site preparation with particulate matter, also known as fugitive dust, having the greatest impact. This impact would occur in association with excavation and earth moving, asphalt aggregate handling, heavy equipment operation, use of haul roads and wind erosion of exposed areas and material storage piles. The effect of fugitive dust would be temporary and would vary in scale depending on local weather conditions, the degree of construction activity, and the nature of the construction activity.

Where fugitive dust is likely to be a problem, effective dust control measures would be required following standard roadway construction procedures. This would include minimizing exposed erodible earth areas to the extent possible, stabilizing exposed earth, periodic application of stabilizing agents (e.g. water), covering or stabilizing of stockpiled material as necessary, and the use of covered haul trucks. All abatement measures shall be in strict accordance with the Louisiana Standard Specifications of Roads and Bridges.

The Build or No-Build alternative would not impact air quality.

4.19 TRAFFIC IMPACTS

4.19.1 Construction Impacts & Traffic Flow

Construction activities associated with the Build alternative are anticipated to impact the human and natural environment. Short term impacts would include erosion from areas cleared of vegetation in

preparation for construction. This activity would result in siltation of local creeks and bayous. Additional short term impacts would include the disruption and displacement of wildlife, temporary increases in noise levels from construction equipment and possible reduction in air quality resulting from dust and emissions created by use of heavy equipment.

Temporary impacts to traffic flow are expected to be minimal for those portions of the Project constructed on previously undeveloped land. Unavoidable impacts to traffic flow would occur during construction along existing roads and at intersections with existing roads. Line 1 construction would impact traffic flow along Kingston Road and Deen Point Road; while Line 2 construction would impact traffic flow along Lafitte Lane, Vanceville Road and Swan Lake Road. Traffic flow impacts during construction of Line 3, Line 3R (Preferred Alignment) and the Selected Alignment would be limited to intersections with existing roadways.

Local and through traffic during construction would be maintained in strict accordance with the Louisiana Standard Specifications of Roads and Bridges. Maintenance of traffic flow and the phasing of construction would be scheduled to minimize traffic delays and access to any affected properties would be maintained throughout the construction period. Signing plans would be developed and implemented to inform the general public of work zones, road closures, detours, and other temporary changes.

Long term impacts would include the conversion of wetland, prime farmland and floodplain areas by placing fill material required for construction of the proposed Project. Additional long term impacts would include the conversion of vegetative cover to a transportation use. The No-Build alternative would not result in construction related impacts or impacts to traffic flow.

4.19.2 Mobility and Safety

The Proposed Action is identified in the Bossier Parish 2004 - 2015 Transportation Plan (Plan), dated February 2004. The Plan guides the movement patterns and desirability of areas for development and land use. The Plan defined the Proposed Action as a principal arterial needed to satisfy the primary and secondary functional roles of mobility and accessibility, respectively. The Build alternatives were developed through consultation with local transportation planners and the public.

The Build alternatives would have a positive impact on both highway and overall public safety by reducing area congestion, providing an alternative route that can improve mobility and improving access to hospitals and medical care. All alignments would have a similar affect on safety.

The No-Build alternative would not address safety and mobility needs.

4.20 CUMULATIVE IMPACTS

4.20.1 Methodology

Definition of Cumulative Impacts

Three types of impacts are routinely assessed for proposed federal actions and are defined by the Council on Environmental Quality (CEQ) regulations (40 CFR § 1500-1508). Direct impacts are defined as effects that are caused by the action and occur at the same place and time. Indirect impacts, also known as secondary impacts, are defined as effects that are caused by the action and are later in time or farther removed in distance but are still reasonably foreseeable. Indirect effects may include growth induced effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems (40 CFR § 1508.8). An example of a direct impact is the taking of a wetland within the right-of-way. An indirect impact could be the conversion of forestland or farmland adjacent to an interchange location for commercial development due to new access provided by this proposed action. Direct and indirect impacts have been previously addressed throughout this section.

Cumulative impacts are defined as the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other action (CFR 40 § 1508.7). Cumulative impacts include the direct and indirect impacts of a project together with the reasonable foreseeable future actions of others. The cumulative impacts that result from an action may be undetectable but can add to other disturbances and eventually lead to a measurable environmental change.

The assessment of cumulative impacts is required by the CEQ regulations and although secondary and cumulative impacts are not specifically defined or referenced in FHWA regulations for preparation of environmental impact statements (23 CFR Part 771), they have been addressed in a FHWA 1992 position paper titled “Secondary and Cumulative Impact Assessment in the Highway Impact Development Process”. This paper encourages incorporation of cumulative impact issues into the highway development process in order to fulfill the NEPA mandate of environmentally sensitive decision-making.

Indirect Impacts

For the Build Alternatives, the conversion of undeveloped agricultural, floodplain and wetlands would be required for all or most of the alignments. The Build Alternatives would improve accessibility within the Study Area and would likely facilitate further residential and commercial development

within the FAA. It is reasonable to predict that land values would increase as a result of the improved accessibility and increase in development. Further development would result in an increase in residential density and commercial activity and could cause the additional loss of, floodplain, wetlands, and natural habitat. Land values would be expected to escalate.

Indirect impacts to water quality may occur from the finished impervious roadway surface and further land development resulting in increased storm water runoff.

The indirect impacts would be similar for all of the Build Alternatives.

The No-Build Alternative would not result in an immediate change in current land use or land cover within the FAA. However, based on current growth patterns in Bossier Parish, development in the Study Area and FAA is likely to occur regardless of construction of the Project.

Cumulative Impacts

For this Project, foreseeable actions are defined as planned development within the FAA. Exhibit 3-5 illustrates the existing and planned development. It is planned development that is reasonably expected to occur under both the No-Build and Build alternatives.

Although beyond the FAA, two reasonably foreseeable future Federal actions, the development of a Common Battlefield Airmen Training (CBAT) facility and Global Strike Command at Barksdale Air Force Base, could induce potential cumulative effects on the social, natural, and cultural environments within the FAA. These projects are subject to separate environmental analyses.

4.21 PERMITS, MITIGATION AND COMMITMENTS

4.21.1 Permits

Section 404 and Section 10 Permits

The Build Alternative would require COE authorization under Section 404 of the Clean Water Act prior to the discharge of fill materials into waters of the U.S., including wetlands. This alternative would affect more than the allowable threshold acreages in tidal and non-tidal waters to qualify for a Nationwide Permit. The discharge cannot cause the loss of greater than ½ acre in non-tidal waters and 1/3 acre in tidal waters, therefore, it is anticipated that a COE Section 404 Individual Permit would be required (See Appendix for the Draft Section 404 Permit Application). All appropriate permits would be acquired prior to construction. A review of COE requirements would be conducted as design plans are finalized.

Section 401 Water Quality Certification

The Build Alternative would require a Section 401 Water Quality Certification in conjunction with the Section 404 permit per Louisiana's Water Quality Regulations (LAC 3:IX Chapter 15). This permit would be coordinated with the Louisiana Department of Environmental Quality (DEQ) by the COE.

LPDES Permit and Stormwater Pollution Prevention Plan

The Build alternative would require a Louisiana Pollutant Discharge Elimination System (LPDES) permit for construction related activities. The Stormwater Pollution Prevention Plan (SWPPP) will be required to be submitted along with the LPDES application. Construction related LPDES permits are issued for activities that disturb from 1 to 5 acres (LAR 20000) or 5 acres or more (LAR 10000).

US Coast Guard Bridge Permit

No US Coast Guard bridge permit is required because the Build alternatives do not cross waterways over which the Coast Guard exercises jurisdiction.

Levee Crossing Permit

The Build alternative would require a Levee Crossing Permit which includes letters of "no objection" from the COE, Vicksburg District and DOTD and a permit issued by the Bossier Levee District.

4.21.2 Mitigation

Wetland Mitigation

Compensatory mitigation for Section 404 effects would be coordinated with the COE and performed in accordance with the terms of the approved permits. Exhibit 3-5 shows the locations of wetlands potentially impacted by the proposed alignments.

Relocation Mitigation

Property acquisition and relocation assistance will be made available to all residential and business relocatees in accordance with the Uniform Relocation Assistance and Real Property Policies Act of 1970 (as amended). Real estate availability will be reassessed during final design.

Threatened and Endangered Species

No mitigation measures are required because there are no impacts to threatened or endangered species, or critical habitat.

4.21.3 Commitments

Floodplains

Detailed hydrologic and hydraulic studies would be performed during final design, and drainage structures sized and additional floodwater storage created to ensure no adverse floodplain and floodway impacts. Hydraulic design and construction practices would be in accordance with current DOTD and FHWA design policies and standards as well as Bossier Parish Flood

Ordinances. The Bossier Parish Police Jury (BPPJ) will ensure that development permits meeting all Federal, State, and local regulations are issued prior to construction.

Cultural Resources

A Phase I Archaeological Resources Survey Report was prepared to identify and assess archaeological resources along the Preferred and Selected Alignments. In their June 28, 2010 letter, the SHPO concurred with the findings and recommendations contained in the report. No further archaeological work will be required for the Selected Alignment.

A Historic Resources Survey and Eligibility Report was prepared to identify and assess the National Register of Historic Places (NRHP) eligibility of historic-age structures within the FAA. The historic structure survey identified 26 historic-age properties within the FAA; none of these properties were recommended to be NRHP-eligible. These survey findings and NRHP eligibility recommendations were accepted by the SHPO on July 9, 2010.

Property Access

Access will be maintained to properties and all residences and businesses adjacent to the Project.

Traffic Control

Traffic delays due to construction will be minimized through the development of signing plans to inform the general public of work zones, road closures, detours and other temporary changes.

Oil & Gas Wells

Economic impacts may occur to landowners due to the loss of active oil or gas wells. A qualified petroleum engineer will conduct a feasibility study for each impacted oil or gas well, located within the right-of-way for the Selected Alignment, to determine the estimated reserves. This study will determine whether a well would be replaced by directional drilling or compensation provided to landowners based on estimated reserves. All wells impacted by the Selected Alignment would be properly abandoned according to procedures established by the Louisiana Department of Environmental Quality.

Temporary Construction Impacts

Erosion Control

Adverse impacts to water quality as a result of construction activities would be reduced by the implementation of Best Management Practices (BMPs) as outlined in a project specific Storm Water Pollution Prevention Plan (SWPPP) and Erosion and Sedimentation Control Plan for the Project. Measures to reduce sediment transport, properly store materials and equipment, properly store and dispose of waste materials, maintain equipment and avoid accidental discharges of fuels or other chemicals will be outlined in the SWPPP.

Fugitive Dust

Where fugitive dust is likely to be a problem, effective dust control measures would be required following standard roadway construction procedures.

Section 5: COORDINATION AND PUBLIC INVOLVEMENT

Community leaders, federal and state resource agencies, Native American tribes, and the public were invited to participate in the transportation decision making process. The outreach program was specifically designed to address stakeholder concerns and encourage written comments. This section discusses these efforts from project initiation through the publication and distribution of the Draft EA. Tables 5-1 and 5-2 provide information on meeting locations, dates, and the approximate number of attendees. Minutes and attendance records of the meetings are on file at the Northwest Louisiana Council of Governments (NLCOG) office.

5.1 SOLICITATION OF VIEWS

Early in the project planning stages, federal, state, and local agency views were requested through the Solicitation of Views (SOV) process. The purpose of this process is to inform interested persons and agencies of the proposed project and allow time to receive early comment regarding possible adverse economic, social or environmental effects or concerns.

An SOV packet containing a project description and site map was mailed to various federal, state, and local environmental agencies and conservation organizations requesting their views and comments. The SOV packet and distribution list is included in the Appendix.

5.2 SCOPING PROCESS

The objective of the scoping process is to identify environmental, socioeconomic, engineering or other issues that should be considered during the Study. Local officials, federal and state resource agencies, Native American tribes and the public were invited to participate in scoping meetings. These meetings provided an opportunity for participants to gain an understanding of the Study Process, discuss project benefits and concerns and identify key issues to be considered during alternatives development. It was emphasized that early identification of environmental concerns maximizes the ability to avoid and minimize impacts to these resources.

5.2.1 Agency/Local Officials/Native American Tribal Involvement

A combined resource agency/local officials/Native American tribes scoping meeting was held on September 25, 2008 at the Bossier Parish Courthouse, Police Jury Meeting Room in Benton, Louisiana. This meeting discussed and reviewed the Study process and purpose and need, and identified specific issues of concern early in the study process.

Representatives from the Office of Indian Affairs, Baton Rouge, LA, the Inter-Tribal Council of LA, Inc., the Caddo Nation of Oklahoma, the Mississippi Band of Choctaw Indians, the Jenna band of Choctaws and the Quapaw Tribe of Oklahoma were invited to participate in the scoping meeting to identify any issues or areas of traditional religious and cultural importance that should be considered during the alignment study. No correspondence was received from any tribe identifying specific concerns.

A response from the US Fish & Wildlife Service indicated that there were no threatened or endangered species or critical habitat within the Study Area and that the Endangered Species Act Section 7 consultation was complete (see Appendix). No correspondence was received by any other agency citing specific issues of concern.

5.2.2 Public Involvement

The public was invited to participate in a scoping meeting held on September 25, 2008 at the Bossier Parish Courthouse, Police Jury Meeting Room in Benton, Louisiana.

The meeting was advertised on September 18 and 21, 2008 in the Shreveport Times, the local newspaper with circulation throughout the Study Area. Landowners along the North and South Planning Corridors identified from Parish property records were sent meeting notices. The meeting was to inform the public early in the scoping process of the Federal Action Area, the Study Area, preliminary alignment corridors, and to outline the steps to be taken as the planning and environmental process moved forward.

The meeting was attended by nine (9) members of the public in addition to local elected officials. Seven (7) individual written comment forms were received with three of the seven comments indicating that the project would result in improved travel time, allow for safer travel, stimulate growth and reduce emergency response time. Three comments indicated no improvement to travel time. Audience comments included concern for adequate notification of meetings, awareness of pipeline locations within the Study Area and time frame to complete field work.

5.3 ALIGNMENT STUDIES OUTREACH

5.3.1 Agency/Local Officials/ Native American Tribal Involvement

After expanding the environmental inventory, developing preliminary alignments and performing comparative analyses and screening, federal and state agencies, Native American tribes, and local officials were invited to participate in a combined agency/local officials meeting held on May 14, 2009 at the Bossier Parish Courthouse, Police Jury Meeting Room in Benton, Louisiana. This meeting summarized the project development process and presented the three alignments for review and comment. Additional discussion

included traffic study results, potential impacts to human, natural and cultural resources, construction sequencing and costs. The Bossier City Mayor stated that Line 3 appeared to be the best route. The resource agencies and Native American tribes were provided copies of the handout materials in advance of the meeting. No resource agencies or Native American tribes attended the meeting.

5.3.2 Public Involvement

The public was invited to participate in a May 14, 2009 meeting held on at the Bossier Parish Courthouse, Police Jury Meeting Room in Benton, Louisiana. This meeting summarized the project development process and presented the three alignments for review and comment. Additional discussion included traffic study results, potential impacts to human, natural and cultural resources, construction sequencing and costs.

The meeting was advertised in the Shreveport Times, the local newspaper in the project area, on April 30, May 3 and May 14, 2009. Meeting notices were mailed to landowners along the North and South Planning Corridors, the three alignments, and those attending the September 25, 2008 public meeting or indicating by other means their desire to be added to the mailing list. Nearly 50 people attended this public meeting. Twenty (20) individual written comment forms and petitions containing 131 names from the Plantation Estates residents were received. Public concern continued to be the proximity to and potential loss of personal property with 13 out of 20 comments referencing this potential impact. Although most comments identified an alignment preference, 5 out of 20, along with the Plantation Estates petition, specifically addressed the potential impacts to personal property and the overall Lafitte Lane neighborhood associated with Line 2. Additional concerns included potential impacts to natural and historic resources. Fourteen of the 20 comment forms received identified Line 3 as their preferred alignment stating that this alignment had the overall lowest impacts.

Two comments were received regarding relocating the western terminus of Line 3 further to the north. The first requested shifting the alignment to the northern edge of Cypress Run, a planned, but not yet Parish-approved subdivision, then following this line to Benton Road. The second suggested that Line 3 be shifted to cross Old Brownlee Road further to the north, connecting with the Wemple Road Extension, or on new alignment terminating near the House of Purpose Baptist Church.

A third comment was received regarding relocating the eastern portion of Line 3 to follow an existing TEPCO pipeline easement.

No other alignment revisions were identified.

Fourteen of the 20 comment forms and the Plantation Estates residents indicated a preference for Line 3 stating that this alignment had the least

effect on residential properties and the community at large as well as overall lowest impacts and cost.

5.4 PUBLIC HEARING

The Draft EA, which identified Line 3R as the Preferred Alignment, was distributed to federal and state agencies, local officials, Bossier Parish libraries, NLCOG, BPPJ, and DOTD District 4 offices on January 29, 2010. The Draft EA was also made available for public viewing on the NLCOG website (www.nlcog.org).

Federal and state agencies, Native American tribes, local officials, and the public were invited to participate in a March 11, 2010 Public Hearing held at the Bossier Parish Courthouse, Police Jury Meeting Room in Benton, Louisiana. The Hearing summarized the project development process and the alignments developed, including Line 3R (Preferred Alignment) for review and comment. Potential impacts to human, natural and cultural resources, relocation and right-of-way assistance and costs were presented.

The Public Hearing was advertised in the Shreveport Times and the Bossier-Press Tribune, local newspapers in the project area, on February 7, February 28, March 11, 2010 and February 4, March 4, and March 11, 2010 respectively. The Hearing was also advertised on the NLCOG, BPPJ, and DOTD websites. Meeting notices were mailed to landowners along the alignments identified in the Draft EA, federal and state resource agencies, local officials, Native American tribes, and those attending the September 25, 2008 or May 14, 2009 public meetings or indicating by other means their desire to be added to the mailing list.

Over 50 individuals along with agency and local officials attended the Public Hearing. Four individuals made public statements. Eleven written comments were received from local citizens and organizations by the March 22, 2010 close of the comment period and are on file at the NLCOG office. Table 5-6 presents a summary of each comment received and a response. Comment letters made by state and federal resource agencies are included in the Appendix

Public concern continued to be the proximity to and potential loss of personal property with 12 of 15 written and oral comments referencing this potential impact. The Plantation Estates residents continue to state strong opposition to Line 2.

A comment was made to evaluate a slight shift to the Preferred Alignment at the western terminus due to construction activities associated with the North Bossier Office Complex (NBOC) located north of and adjacent to the Preferred Alignment. The Bossier City – Parish Metropolitan Planning Commission previously approved NBOC development on January 12, 2010. It was determined that a minor shift in the Preferred Alignment at this location was viable.

A second comment was made to evaluate shifting a portion of the Preferred Alignment adjacent to an existing TEPCO pipeline easement to reduce property fragmentation. A shift to the Preferred Alignment in this location would introduce additional horizontal/reverse curvature into the alignment which according to DOTD Roadway Design procedures should be avoided. It was determined that a minor shift in the Preferred Alignment at this location was not viable.

A third comment was made to evaluate shifting the Preferred Alignment north to minimize potential noise and property impact to a property located along Old Brownlee Road. Shifting the alignment to the north at this location would encroach upon the Cypress Run Child Development Center (CRCDC) and impact their parking facilities, and also affect Cypress Run, a planned, but not yet Parish-approved subdivision. A shift further to the north to avoid the CRCDC would impact other residential properties along Old Brownlee Road. It was determined that a shift in the Preferred Alignment at this location was not viable.

Two comments were received regarding adding a public boat ramp in the vicinity of the Preferred Alignment where it crosses Bodcau Creek. Addition of a public boat ramp will be evaluated as part of the rights-of-way acquisition and final design.

A slight shift was also made to the Preferred Alignment south of the Lakewood Point Subdivision and Willow Chute to avoid environmentally sensitive areas identified during on-going field studies.

No other alignment revisions to improve service or constructability or to further minimize impacts to sensitive environmental areas were identified.

5.5 OTHER MEANS OF PUBLIC OUTREACH

5.5.1 Project Mailings

Three types of mailing lists were maintained for the study: public, local officials and agencies. The public mailing list was initiated from sign-in sheets collected at the September 25, 2008 and May 14, 2009 public meetings as well as property owner information obtained through the planning process for the project. As phone calls, written comments or other inquiries were received, the individuals were added to the mailing list. As part of the Alignment Study phase, property information within the Federal Action Area was collected. The property owners identified were also added to the public mailing list to reach those individuals who might not have already been aware of the project. The current public mailing list contains more than 380 names.

The local officials list is comprised of representatives from state, regional and local government (see Table 5-3). A combination of federal and state agencies (see Table 5-4)

participated throughout the project either through meeting attendance or through regular mailings regarding on-going project status. In addition, project information was sent to the Office of Indian Affairs, Baton Rouge, LA, the Inter-Tribal Council of LA, Inc., the Caddo Nation of Oklahoma, the Mississippi Band of Choctaw Indians, the Jenna band of Choctaws and the Quapaw Tribe of Oklahoma (see Table 5-5).

Direct project mailings were used to inform the addressees of upcoming meetings.

5.5.2 Project Materials Viewing Locations

Exhibits and handout materials from the public meetings were made available for further public review at the Northwest Louisiana Council of Governments (NLCOG) and the Bossier Parish Police Jury (BPPJ). Viewing times were during normal business hours. Information was also available for viewing on the NLCOG and Bossier Parish Police Jury (BPPJ) websites at www.nlcog.org and www.bossierparishla.gov respectively.

5.5.3 Public Meeting Transcripts

Transcripts were prepared for each public meeting. The transcripts include the transcript of the technical presentation, names of individuals making formal statements, copies of handout materials including comment forms, meeting sign-in sheets and all written comments received within 10 days following the meeting date. The transcripts of the public meetings were distributed to state and federal agencies, Native American tribes and were made available for public review at all local public library branches.

Table 5-1
PUBLIC MEETINGS

Date	Location	Attendance	Number of Written Comments
September 25, 2008 Scoping	Bossier Parish Court House, Police Jury Meeting Room	Nine (9) individuals along with agency/local officials/MPO	7 written comments were received
May 14, 2009 Alignment Studies	Bossier Parish Court House, Police Jury Meeting Room	50 individuals along with agency/local officials/MPO	20 written comments and one petition with 131 signatures were received
March 11, 2010 Public Hearing	Bossier Parish Court House, Police Jury Meeting Room	51 individuals along with agency/local officials/MPO	11 written comments were received

Source: Michael Baker Jr., Inc.

Table 5-2
COMBINED AGENCY / LOCAL OFFICIALS MEETINGS

Date	Location	Invitees	Purpose
September 25, 2008 Scoping	Bossier Parish Court House, Police Jury Meeting Room	Combined Resource Agency/Local Officials/native American Tribes	Scoping Meeting
May 14, 2009 Alignment Studies	Bossier Parish Court House, Police Jury Meeting Room	Combined Resource Agency/Local Officials/native American Tribes	Presentation of the results of the Alignment Studies.

Source: Michael Baker Jr., Inc.

Table 5-3
STATE AND LOCAL OFFICIALS

Name	Affiliation
Honorable Charlie Melancon	US House of Representatives (District 3)
Honorable John C. Fleming,M.D.	US House of Representatives (District 4)
Rebecca Turner Wilson	District Director – the Northern Region of District 4
Honorable Charles W. Boutsany, Jr.	US House of Representatives (District 7)
Honorable Rodney Alexander	US House of Representatives (District 5)
Honorable Steve Scalise	US House of Representatives (District 1)
Honorable William Cassidy	US House of Representatives (District 6)
Honorable Joseph Cao	US House of Representatives (District 2)
Senator Mary Landrieu	United States Senate
Senator David Vitter	United States Senate
	Bossier Parish Chamber of Commerce
Honorable Robert Adley	State Senate (District 36)
Sam Marsiglia	Bossier City Parish Metro
Honorable Roy A. Burrell	LA House of Representatives (District 2)
Honorable Henry Burns	LA House of Representatives (District 9)
Honorable James H. Morris	LA House of Representatives (District 1)
Honorable Lorenz Walker	City of Bossier
	Caddo-Bossier Port Commission
Honorable B.L. "Buddy" Shaw	The State Senate (District 37)
Honorable Jane H. Smith	LA House of Representatives (District 8)
Honorable Thomas Carmody	LA House of Representatives (District 6)

Source: Michael Baker Jr., Inc.

Table 5-4
AGENCIES

Name	Affiliation
Hector W. Santiago, P.E. Lismary Gavillan	US Department of Transportation, Federal Highway Administration
Douglas J. Kamien, P.E.	US Army Corps of Engineers, Vicksburg District
Michael P Jansky	US Environmental Protection Agency
Eric Washburn	8th Coast Guard District Commander
	US Fish & Wildlife Service
Greg Solvey	FEMA Region VI
Kevin D. Norton	US Department of Agriculture, Natural Resources Conservation Service
Tiffinee Brown	Louisiana Department of Transportation & Development
Pam Breaux	LA Dept of Culture Recreation & Tourism, Division of Archaeology
Diane Hewitt	LA Dept of Environment Quality
Gary Lester	LA Natural Heritage Program, Dept of Wildlife & Fisheries
James H. Welsh	LA Dept of Natural Resources, Office of Conservation

Source: Michael Baker Jr., Inc.

Table 5-5
TRIBAL CONTACTS

Name	Affiliation
Joey Strickland, Director	Office of Indian Affairs
	Inter-Tribal Council of LA, Inc.
Phillip Martin	Mississippi Band of Choctaw Indian
Christine Norris	Jena Band of Choctaws
	Caddo Nation of Oklahoma
John Verry	Quapaw Tribe of Oklahoma

Source: Michael Baker Jr., Inc.

Table 5-6
SUMMARY OF DRAFT EA COMMENTS AND RESPONSES

AGENCY COMMENTS (in chronological order)	
Agency: U.S. Department of the Interior, Fish and Wildlife Service, Lafayette, Louisiana, February 18, 2010 Brad S. Rieck	
Issue: DOCUMENT EVALUATION	
Comment:	The U.S. Fish and Wildlife Service (Service) has reviewed the information you provided and offers the following comments. The draft EA is generally well-written and well-organized. It addresses the purpose and need for the proposed action and presents an evaluation of project alternatives. As stated in our July 1, 2008 response, and according to our records, the proposed project would not affect any federally listed threatened or endangered species. Therefore, no further threatened or endangered species consultations are necessary unless the scope or location of the project is changed. The Service recommends the final EA include a detailed description of the different types of forested wetlands present within the preferred Line 3R route and how those wetlands will be traversed.
Response:	Detailed descriptions of the wetlands within the Preferred Alignment are discussed in the Wetlands and Surface Waters technical report. Additional information about how the wetland areas will be traversed will be included in the Section 404 Permit application.
Agency: U.S. Department of Homeland Security, FEMA Region 6, Denton, TX, February 24, 2010 Dianna B. Herrera, CFM	
Issue: DOCUMENT EVALUATION	
Comment:	We are in receipt of the caption projects (Bossier Parish East-West Corridor, Winfield Road Extension, State Project No. 700-08-0130) submitted to this office for review. The Draft EA addresses the floodplain issues. However, as part of the project includes floodways, Federal regulations 44CFR 65.12 and Federal dollars are to be used for part of the project, EO 11988 and 11990 issues must also be addressed and processed prior to the development.
Response:	FEMA has made revisions to the floodplain and floodway limits since the data was originally obtained for the project. These revisions, which include floodways, have been evaluated and incorporated into the Final EA.
Agency: U.S. Dept of Agriculture, Natural Resources Conservation Service, Alexandria, LA, March 12, 2010 Bradley A. Sticker, P.E.	
Issue: DOCUMENT EVALUATION	
Comment:	NRCS has previously provided the prime Farmland determination and has no additional comments at the present time.
Response:	Comment noted.
Agency: Louisiana Department of Environmental Quality, February 23, 2010 Diane Hewitt, Performance Management	
Issue: DOCUMENT EVALUATION	
Comment:	There were no objections based on the information in the document submitted to us.
Response:	Comment noted.

Table 5-6 (cont.) SUMMARY OF DRAFT EA COMMENTS AND RESPONSES	
AGENCY COMMENTS (cont.)	
Agency: Louisiana Department of Environmental Quality Diane Hewitt, Performance Management	
Issue: PERMITTING	
Comment:	The Office on Environmental Services/Permits Division recommends that you investigate the following requirements that may influence your proposed project: If the project results in a discharge to waters of the state, submittal of a Louisiana Pollutant Discharge Elimination System application may be necessary. LDEQ has stormwater general permits for construction areas equal to or greater than one acre. It is recommended that you contact LDEQ Water Permit Division at (225) 219-3181 to determine if your proposed improvements require one of these permits. All precautions should be observed to control nonpoint source pollution from construction activities. If any of the proposed work is located in wetlands or other areas subject to the jurisdiction of the U.S. Army Corps of Engineers, you should contact the Corps directly to inquire about the possible necessity for permits. If a Corps permit is required, part of the application process may involve a Water Quality Certification from LDEQ. All precautions should be observed to protect the groundwater of the region. If any solid or hazardous wastes, or soils and/or groundwater contaminated with hazardous constituents are encountered during the project, notification to LDEQ's Single-Point-of-Contact (SPOC) at 225-219-3640 is required.
Response:	All necessary permits will be obtained for the project. Draft Environmental Assessment Section 4.11 Water Quality and Section 4.21 Permits, Mitigation and Commitments both identify water quality permitting requirements including the required NPDES and Section 404 permits and Section 401 Water Quality Certificate.
Issue: AIR QUALITY	
Comment:	Currently, Bossier Parish is classified as an attainment parish with the National Ambient Air Quality Standards for all criteria air pollutants.
Response:	Comment noted.

Table 5-6 (cont.) SUMMARY OF DRAFT EA COMMENTS AND RESPONSES	
INDIVIDUAL ORAL COMMENTS (in alphabetic order)	
Brooks, Gerald R. March 11, 2010	
Comment:	The Preferred Alignment is very close to our historic home located on Old Brownlee Road. Concerns that the centerline is right down the property line. I am concerned about the noise that will result due to road and that our property will be de-valued. Vacant land is to the north. Consider moving the road to the north.
Response:	An historic resources survey conducted as part of the project identified the home, based on its age, as a previously unrecorded historic resource. Upon further evaluation, the home does not appear to possess sufficient significance and integrity to qualify it for inclusion in the National Register of Historic Places. A highway traffic noise study was conducted as part of the project. This location (Receptor 137) has an existing sound level of 64 dBA and a predicted 2030 No-Build sound level of 65 dBA. The predicted sound level for Lines 3 and 3R (Preferred Alignment) at this location is 66 dBA. While a 1 dBA noise level change is not detectable by the human ear, the 66 dBA value equals the DOTD Category B (residential) Noise Abatement Criteria (NAC) threshold for noise abatement consideration. The home is located within 50 feet of the Lines 3 and 3R (Preferred Alignment) construction limits and will be evaluated as part of the Rights-of-Way acquisition process. A noise barrier at this location was considered, but did not satisfy DOTD Highway Traffic Noise Policy feasibility and reasonableness criteria and further mitigation consideration is not warranted. Shifting the alignment to the north at this location would encroach upon the Cypress Run Child Development Center (CRCDC) and impact their parking facilities, and also affect Cypress Run, a planned, but not yet Parish-approved subdivision. A shift further to the north to avoid the CRCDC would impact other residential properties along Old Brownlee Road.
Caudle, Stephen March 11, 2010	
Comment:	Line 2 crosses the southern 5 acres of my land. We built our dream house here in the country. There are no sidewalks here. Kids ride their bikes in the road. Looks like you're taking front yards along Line 2. The road will split the neighborhood.
Response:	Comment noted.
Caudle, Susan March 11, 2010	
Comment:	There was a comment in the Draft EA to shift Line 3 to the north a little bit but it wasn't possible because of the daycare center. Can people still comment on moving the line a little bit north?
Response:	Yes we are still accepting comments.

Table 5-6 (cont.) SUMMARY OF DRAFT EA COMMENTS AND RESPONSES	
INDIVIDUAL WRITTEN COMMENTS (in alphabetic order)	
Lewis, Reggie March 11, 2010	
Comment:	I work for Raley and Associates as an engineer. We have three subdivisions in direct conflict with the Preferred Alignment. My client is owner of Tiburon subdivision and as his consultant we have concerns with the impact to the master plan for the subdivision. Can you tell us what the schedule is for right-of-way acquisition? This will affect his ability to sell lots and ability to modify master plan especially to the north of the alignment.
Response:	BPPJ responded at the Public Hearing that they have had several discussions with the owner of the Tiburon subdivision and that the alignment through the subdivision was acceptable. Rights-of-way acquisition to preserve the corridor can begin any time after DOTD and FHWA accept the Final Environmental Assessment and FHWA executes the Finding of No Significant Impact (FONSI).
Caudle, Susan Bossier City, LA	
Comment:	I am writing to push for route 3R of the East-West Corridor, Winfield Road Extension Bossier Parish, LA. This route seems to be the less intrusive to people who have already built near routes 1 and 2. On Kingston Route 1, one person would have to move and there are many homes already built here. Route 2 along Lafitte would not be favorable because it is a quiet neighborhood that enjoys children riding on their bicycles down the street without fear of being run over. This neighborhood does not have sidewalks and this 4 or 5 lane highway would split the neighborhood. Many bought land back in this area because it was close to town but also a nice caring neighborhood. We own 20 acres on Audubon Circle and this road would take about 5 acres of our property and our quite area would be ruined. With route 3R there is one person that has an older home near the route that has requested the route be moved over a distance from his house. I believe that if small concessions can be made that would be wonderful. Route 3R seems to be the preferred route and we are asking that route to be the final route. We are not sure what will be done with the traffic once it is diverted to Benton Road and should be a concern that needs to be addressed.
Response:	Comment noted.
Conger, Lewis P. Princeton, LA	
Comment:	On the Alignment Locations, Sheet 3 of 3, Line 3R follows along and adjacent to the existing pipeline right of way expect in Section 31 (highlighted in red on the enclosure). Were this East-West Corridor to also locate adjacent to the pipeline in this section there would be even less fragmentation and unusable acreage.
Response:	The existing pipeline utilizes a reverse curve between the eastern portion of Section 1 and the western portion of Sections 6 and 31 for its horizontal alignment. According to the DOTD Roadway Design Procedures and Details, the use of sharp curvature or abrupt reversals in alignment should be avoided. The area does not have any unusual topographical or rights-of-way conditions that warrant introducing an additional horizontal/reverse curve into the alignment.

Table 5-6 (cont.) SUMMARY OF DRAFT EA COMMENTS AND RESPONSES	
INDIVIDUAL WRITTEN COMMENTS (cont.)	
Farmer, Larry Princeton, LA	
Comment:	I heard there was going to be a road crossing Bodcau Bayou, State Project 700-08-0130. I am very much in favor of having a public ramp put in place where the road crosses the bayou. I really believe that anyone who lives in the area and likes boating/fishing would also want to have public access to this body of water.
Response:	Addition of a public boat ramp will be evaluated as part of the rights-of-way acquisition and final design.
Galloway, Cook, Yancey, King & Shreveport, LA	
Comment:	This letter is written on behalf of NBOC, LLC to communicate its comments following the March 11, 2011 public hearing on the referenced project. NBOC, LLC is the owner of Lot1, Chinaberry Square, Unit 3, a subdivision of Bossier Parish, Louisiana, as per plat thereof recorded in Conveyance Book 1364, at Page 519 of the Records of Bossier Parish, Louisiana. The Lot is bounded on the West by Benton Road and on the North by Chinaberry Drive, and will be bounded on the south by the Winfield Road extension. NBOC's lot is zoned B-2 for commercial purposes. For your information I have enclosed copies of the subdivision plat, the planned unit development for an office complex, and the January 12, 2010, letter of approval of the development from the Bossier City-Parish Metropolitan Planning Commission. As currently proposed, the Winfield Road extension to intersect with Benton Road would entail the taking of approximately the south fifty feet of NBOC's development to be the north half of the Winfield Road. NBOC will be directly and adversely impacted by the taking because it will deprive NBOC of between four and six of these previously approved office units. While NBOC has no objection to an extension of Winfield Road to intersect with Benton Road, it objects to the location insofar as it would require the taking of its property and the concomitant adverse impact on its development. A portion of the adjacent property south of NBOC's lot is also proposed to be used for the Winfield Road extension. It is our understanding that this tract of land currently is zoned residential/agricultural, is undeveloped, and that there are no pending plans for its development or any kind. We respectfully suggest that the location of Winfield Road extension be re-located south, entirely onto this tract of land, to avert any adverse impact on NBOC's development and to minimize the land acquisition cost by acquiring only undeveloped agricultural land. NBOC's suggested minimal re-location is a feasible alternative that would have no adverse effect on its development, minimal additional impact on its southerly neighbor whose property will be impacted in any event under the current proposal, and would result in a reduction of the land acquisition costs to the public.
Response:	The Bossier City – Parish Metropolitan Planning Commission previously approved North Bossier Office Complex (NBOC) development on January 12, 2010. Line 3R (Draft EA Preferred Alignment) was shifted to the south, avoiding impacts to the NBOC. The shifted alignment location is shown in the Final Environmental Assessment.

Table 5-6 (cont.) SUMMARY OF DRAFT EA COMMENTS AND RESPONSES	
INDIVIDUAL WRITTEN COMMENTS (cont.)	
Guillory, Clara Bossier City, LA	
Comment:	After reviewing the 4 options – I agree preferred alignment 3R would have the least impact on surrounding communities. I personally would not be thrilled if Line 2 was the choice. I would not want a 5 lane road and losing my front yd. I do not want to lose any value of our property ($550,000). This is our retirement home.
Response:	Comment noted.
Johnson, Mike Bossier City, LA	
Comment:	Please note that I and my family & neighbors are very strongly opposed to Route 2 through our neighborhood in Plantation Estates for this East-West Corridor highway project. It would seem that Route 3 would be the least disruptive to all concerned. I would really like to see the people's concerns considered in this project. If we are using taxpayer monies for this project, please consider the people for a change. If you run this project through an established area & property values are affected, you will a lot of tax revenues from the residents of Plantation Estates. Please consider the people & choose Route 3 for you project.
Response:	Comment noted.
Kern, Charles & Tena Bossier City, LA	
Comment:	We are opposed to the East-West Corridor being considered near Lafitte Lane, which is 2 blocks north of our home. It is unclear to us why this corridor is needed, since I-220 is one mile away. Please consider the families who have invested heavily in their homes, as we have with ours.
Response:	Comment noted.
Lowe, Jesse & Melanie Bossier City, LA	
Comment:	We are totally opposed to Route #2! This will disrupt our neighborhood which <u>now</u> is peaceful. Do not decide (PLEASE) on Route #2. Please go with the one that will disrupt less people. It only makes sense.
Response:	Comment noted.
Rankin, Fred Benton, LA	
Comment:	This letter is in reference to the LA state project 700-08-0130. A newly proposed road will connect LA Hwy 3 and Bellevue Road at the intersection of Winnfield Road and Bellevue Road. The proposed road will cross Bodcau Bayou. This beautiful stream at present has little public access for sportsmen. I request that a public boat launch be installed on Bodcau Bayou where this new road crosses it.
Response:	Addition of a public boat ramp will be evaluated as part of the rights-of-way acquisition and final design.

Table 5-6 (cont.) SUMMARY OF DRAFT EA COMMENTS AND RESPONSES	
INDIVIDUAL WRITTEN COMMENTS (cont.)	
Sellers, Barbara Bossier, LA	
Comment:	I am writing this letter on behalf of my husband and I in strong opposition to utilizing LaFitte Road as a cut through access road. This area is a residential area with many small children that reside here. One in particular to my 2 year old grandson, and I absolutely would not want the added traffic exposure to the area for that reason. As many American's pursue their joint dream of working and realizing that effort, it saddens my family to believe that part of the land that we worked for would be taken from us for a project that we had no knowledge of prior to the purchase of this property. This project will bring in increased traffic, noise and disruption to a peaceful neighborhood as well as the damage to the value of our homes.
Response:	Comment noted.
Sellers, Daniel Bossier, LA	
Comment:	I Do Not want anymore unnecessary traffic and the dangers caused by excessive traffic. We have a two year old. Very Dangerous. My son has access now to safely play in his yard. Please consider another location.
Response:	Comment noted.

Source: Michael Baker Jr., Inc. 2010

Section 6: REFERENCES

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APPENDIX

June 23, 2008 Solicitation Of Views and Responses

Other Agency Correspondence

Noise Receptor Sites And
Existing And Predicted Sound Levels

Section 404 Permit Application

JUNE 23, 2008
SOLICITATION OF VIEWS AND RESPONSES

Michael Baker Jr., Inc.

Airside Business Park
100 Airside Drive
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June 23, 2008

«Name_1» «Name_2»
«Affiliation_1»
«Affiliation_2»
«Address_1»
«Address_2»
«City», «State» «Zip»

RE: State Job No. 700-08-0130
F.A.P. No. DE-0806(509)
Bossier Parish East-West Corridor
Winfield Road Extension
Bossier Parish, Louisiana
Solicitation of Views

Dear «Salutation» «Name_2»:

The Northwest Louisiana Council of Governments (NLCOG), the designated Metropolitan Planning Organization (MPO) for transportation planning in the Shreveport-Bossier area, and the Bossier Parish Police Jury (BPPJ), in cooperation with the Louisiana Department of Transportation and Development (DOTD) and the Federal Highway Administration (FHWA), are proposing extending Winfield Road from Bellevue Road to Benton Road (LA 3). The primary purpose of the project is to provide an additional east-west facility that will alleviate congestion and reduce travel delay along other east-west facilities that link the rapidly growing residential areas of Bossier Parish to the employment centers of Shreveport and Bossier City.

The proposed roadway is an urban collector facility on new location approximately 8 miles in length and is identified in the Bossier Parish 2004 - 2015 Transportation Plan. The roadway would be initially constructed as a two-lane facility with rights-of-way clearance for possible future widening to a four-lane boulevard, should future traffic warrant.

It is reasonable to assume that a project of this type and magnitude will have some degree of impact on the natural and human environments. The NLCOG has retained a Consultant Team led by Michael Baker Jr., Inc. to conduct environmental and engineering studies. It is envisioned that the project will be processed environmentally as an Environmental Assessment (EA) / Finding of No Significant Impact (FONSI). Public meetings and a formal Public Hearing will be conducted at a location and time to be announced. The EA will be made available for public and agency review and comment prior to the Public Hearing.

Early in the planning stages of a transportation project, views from federal, state, and local agencies, organizations, and individuals are solicited. The special expertise of these groups assists with the early identification of possible adverse economic, social, or environmental effects or concerns. Your assistance in this regard is appreciated.

Due to the earliness of this request for your views, very limited data concerning the proposed project exists. We have, however, attached a Study Area Map showing the general location of the project.

Please review the Study Area Map and furnish us with your views and comments by July 25, 2008. Replies should be addressed to Christopher G. Gesing, P.E., at the address listed at the top of this letter. Please reference the State Project Number in your reply.

Sincerely,

MICHAEL BAKER JR., INC.

Christopher G. Gesing, P.E.
Senior Project Manager

Attachment
CGG/mew

cc: J. Kent Rogers (NLCOG), Tiffinee Brown (DOTD) – both w/a

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State Senate (District 36)
611 Jessie Jones Drive
Benton, LA 71006

Bossier City Parish Metro
Planning Commission
620 Benton Road
Bossier City, LA 71111

Louisiana State Police Troop G
5300 Industrial Drive Extension
Bossier City, LA 71112

Bossier Office of Community Services
P.O. Box 6004
Bossier City, LA 71111

Federal Program Rev Coordinator
P.O. Box 37005
Shreveport, LA 71133-7005

Northwest Louisiana Council of Governments
401 Market Street, Suite 460
Shreveport, LA 71101

Bossier Parish Police Jury
P.O. Box 68
Benton, LA 71006

Honorable Roy A. Burrell
LA House of Representatives (District 2)
820 Jordan Street, Suite 315A
Shreveport, LA 71101

Chamber of Commerce
Executive Vice President
P.O. Box 20074
Shreveport, LA 71120-0074

Bossier Parish School Board
P.O. Box 2000
Benton, LA 71006-2000

Honorable Henry Burns
LA House of Representatives (District 9)
954 Hwy 80, Suite 400
Haughton, LA 71307

Floodplain Administrator
Bossier Parish Police Jury
P.O. Box 68
Benton, LA 71006

Sheriff Larry C. Deen
Bossier Parish Sheriff
P.O. Box 850
Benton, LA 71106

Honorable James H. Morris
LA House of Representatives (District 1)
P.O. Box 63
Oil City, LA 71061

Honorable Lorenz Walker
City of Bossier
Mayor
P.O. Box 5337
Bossier City, LA 71171-5337

Caddo-Bossier Port Commission
P.O. Box 52071
Shreveport, LA 71135-2071

Shreveport Transport Mgmt
P.O. Box 7314
Shreveport, LA 71137-7314

Douglas J. Kamien, P.E.
Deputy for Programs & Project Management
Vicksburg Dist Corps of Engineers
4155 Clay Street
Vicksburg, MS 39183-3435

Honorable B.L. "Buddy" Shaw
The State Senate (District 37)
3825 Gilbert
Shreveport, LA 71104-2016

Honorable Jane H. Smith
LA House of Representatives (District 8)
P.O. Box 72624
Bossier City, LA 71172

Anita J. Jackson
Southeast Region National Park Service
100 Alabama Street SW
Atlanta, GA 30303

Honorable Thomas Carmody
LA House of Representatives (District 6)
8570 Business Park Drive
Shreveport, LA 71105-5654

Phillip Martin
Mississippi Band of Choctaw Indian
P.O. Box 6257
Philadelphia, MS 39350

Christine Norris
Jena Band of Choctaws
P.O. Box 14
Jena, LA 71342

Caddo Nation of Oklahoma
P.O. Box 487
Binger, OK 73009

John Verry
Quapaw Tribe of Oklahoma
P.O. Box 765
Quapaw, OK 74363

N

Study Area

Federal Action Area

Logical Terminus #1 to be located along Benton Road within Federal Action Area

Future Bossier Parish Police Jury Improvements

Logical Terminus #2

Red River
Cypress Lake
Black Bayou Lake
Flat River Ditch
Willow Chute
Dry Cypress Bayou
Bodcau Creek
Connell Bayou
Swan Lake
Round Lake
McCain Creek
Twelvemile Bayou
Bayou Bodcau
Red Chute
Red Chute Bayou
Flat River

Burt Blvd
PALMETTO RD
Crouch Rd
Wells Rd
DEEN POINT RD
BENTON RD
AIRLINE DR
SWAN LAKE RD
BELLEVUE RD
WINFIELD RD
Modica Loft Rd
Hickory Ridge Dr
Stockwell Rd
Dogwood Tr
Northpark Dr
Viking Dr
SHED RD

162
3
3105
157
220
20
79
80
614

Vanceville
Lakewood Point Subdivision
Brownlee
Bossier City Reservoir
Golf Club at Stinebridge
Clifford Almond Park
Hillcrest Memorial Park
Harrah's Louisiana Downs
Red Chute
Ferguson
BOSSIER CITY

Legend

- Major_Roads
- Federal Action Area
- Study Area

Bossier Parish East-West Corridor
Winfield Road Extension

Study Area

Baker

0 8,000 Feet

NLCOG

June 2008

Baker

This project has been reviewed for effects to Federal trust resources under our jurisdiction and currently protected by the Endangered Species Act of 1973 (Act). The project, as proposed,
(✓) Will have no effect on those resources
( ) Is not likely to adversely affect those resources.
This finding fulfills the requirements under Section 7(a)(2) of the Act.

Acting Supervisor
Louisiana Field Office
U.S. Fish and Wildlife Service

July 1, 2008
Date

Michael Baker Jr., Inc.
Airside Business Park
100 Airside Drive
Moon Township, Pennsylvania 15108
(412) 269-6300
FAX (412) 375-3995

June 23, 2008

US Fish & Wildlife Service
646 Cajundome Blvd, Suite 400
Lafayette, LA 7050;6

RECEIVED
JUN 2 6 2008
FISH & WLDL. SERV
LAFAYETTE, LA.

RE: State Job No. 700-08-0130
F.A.P. No. DE-0806(509)
Bossier Parish East-West Corridor
Winfield Road Extension
Bossier Parish, Louisiana
Solicitation of Views

SITE MAY CONTAIN WETLANDS. Contact the U.S. Army Corps of Engineers for a jurisdictional determination.
District: Vicksburg, MS
Telephone No. 601-631-5289

Dear Sir or Madam:

The Northwest Louisiana Council of Governments (NLCOG), the designated Metropolitan Planning Organization (MPO) for transportation planning in the Shreveport-Bossier area, and the Bossier Parish Police Jury (BPPJ), in cooperation with the Louisiana Department of Transportation and Development (DOTD) and the Federal Highway Administration (FHWA), are proposing extending Winfield Road from Bellevue Road to Benton Road (LA 3). The primary purpose of the project is to provide an additional east-west facility that will alleviate congestion and reduce travel delay along other east-west facilities that link the rapidly growing residential areas of Bossier Parish to the employment centers of Shreveport and Bossier City.

The proposed roadway is an urban collector facility on new location approximately 8 miles in length and is identified in the Bossier Parish 2004 - 2015 Transportation Plan. The roadway would be initially constructed as a two-lane facility with rights-of-way clearance for possible future widening to a four-lane boulevard, should future traffic warrant.

It is reasonable to assume that a project of this type and magnitude will have some degree of impact on the natural and human environments. The NLCOG has retained a Consultant Team led by Michael Baker Jr., Inc. to conduct environmental and engineering studies. It is envisioned that the project will be processed environmentally as an Environmental Assessment (EA) / Finding of No Significant Impact (FONSI). Public meetings and a formal Public Hearing will be conducted at a location and time to be announced. The EA will be made available for public and agency review and comment prior to the Public Hearing.

Early in the planning stages of a transportation project, views from federal, state, and local agencies, organizations, and individuals are solicited. The special expertise of these groups assists with the early identification of possible adverse economic, social, or environmental effects or concerns. Your assistance in this regard is appreciated.

Due to the earliness of this request for your views, very limited data concerning the proposed project exists. We have, however, attached a Study Area Map showing the general location of the project.

RECEIVED
JUL 0 8 2008

cc: J. Kent Rogers - NLCOG
Tiffinee Brown - DOTD

Please review the Study Area Map and furnish us with your views and comments by July 25, 2008. Replies should be addressed to Christopher G. Gesing, P.E., at the address listed at the top of this letter. Please reference the State Project Number in your reply.

Sincerely,

MICHAEL BAKER JR., INC.

Christopher G. Gesing, P.E.
Senior Project Manager

Attachment
CGG/mew

cc: J. Kent Rogers (NLCOG), Tiffinee Brown (DOTD) – both w/a

LOUISIANA HOUSE OF REPRESENTATIVES

954 Highway 80, Suite 400
Haughton, LA 71037
Email: burnsh@legis.state.la.us
Phone: 318.949.2463
Fax: 318.949.5019

Legislative Assistant:
Dodie Horton

Agriculture, Forestry, Aquaculture,
and Rural Development
Natural Resources and Environment
Transportation, Highways,
and Public Works

HENRY L. BURNS
State Representative ~ District 9

Michael Baker Jr., Inc.

Airside Business Park
100 Airside Drive
Moon Township, Pennsylvania 15108
(412) 269-6300

RECEIVED
JUL 08 2008

RE: State Job No. 700-08-0130
F.A.P. No. DE-0806(509)
Bossier Parish East-West Corridor
Winfield Road Extension
Bossier Parish. Louisiana
Solicitation of Views

Dear Mr. Baker,

This project was determined to be necessary to support growth in Bossier Parish as far back as 2002-2003. This comprehensive study did not consider the impact of Cyber Command, C-BAT, or the traffic stemming from the development of the (oil & gas) Haynsville Shale Play.

I feel that it is critical to address these needs to insure safe and dependable traffic support for the rapidly growing Bossier Parish. This project has my full support.

Sincerely,

State Representative Henry L. Burns
District 9

HLB/dh

cc: J. Kent Rogers - NLCOG
Tiffinee Brown - DOTD

From: Joanna Gardner <Joanna.Gardner@LA.GOV>
To: "cgesing@mbakercorp.com" <cgesing@mbakercorp.com>
Date: 7/8/2008 10:20 AM
Subject: DEQ SOV: 80627213/1160 Bossier East-West Corridor

July 8, 2008

cc: J. Kent Rogers - NLCOG
Tiffinee Brown - DOTD

Christopher G. Gesing, PE
100 Airsode Dr
Moon Township, PA 15108

RE:
80627213/1160 Bossier East-West Corridor
Bossier Parish

Dear Mr. Gesing:

The Department of Environmental Quality, Office of Environmental Assessment and Office of Environmental Services received your request for comments on the above referenced project. Please take the appropriate steps to obtain and/or update all necessary approvals and environmental permits regarding this proposed project.

There were no objections based on the limited information submitted to us. However, the following comments have been included. Should you encounter a problem during the implementation of this project, please make the appropriate notification to this Department.

The Office of Environmental Services/Permits Division recommends that you investigate the following requirements that may influence your proposed project:

- If your project results in a discharge to waters of the state, submittal of a Louisiana Pollutant Discharge Elimination System (LPDES) application may be necessary.
- If the project results in a discharge of wastewater to an existing wastewater treatment system, that wastewater treatment system may need to modify their LPDES permit before accepting the additional wastewater.
- LDEQ has stormwater general permits for construction areas equal to or greater than one acre. It is recommended that you contact Melissa Conti at (225) 219-3078 to determine if your proposed improvements require one of these permits.
- All precautions should be observed to control nonpoint source pollution from construction activities.
- If any of the proposed work is located in wetlands or other areas subject to the jurisdiction of the U.S. Army Corps of Engineers, you should contact the Corps to inquire about the possible necessity for permits. If a Corps permit is required, part of the application process may involve a Water Quality Certification from LDEQ.
- All precautions should be observed to protect the groundwater of the region.

Currently, Bossier Parish is classified as an attainment parish with the National Ambient Air Quality Standards for all criteria air pollutants.

Please forward all future requests to Ms. Joanna Gardner, LDEQ/Performance Management/ P.O. Box 4301, Baton Rouge, LA 70821-4301 and we will expedite it as quickly as possible.

If you have any questions, please contact me at (225)219-3958 or by email at joanna.gardner@la.gov. Permitting questions should be directed to the Office of Environmental Services at 225-219-3181.

Sincerely,

Joanna Gardner
Performance Management
Louisiana Department of Environmental Quality
Office of the Secretary
PO Box 4301
Baton Rouge, LA 70821-4301
FAX 225.325.8208
225.219.3958
joanna.gardner@la.gov

BOSSIER PARISH SCHOOL BOARD
P.O. Box 2000
Benton, Louisiana 71006-2000
Telephone (318) 549-5000
FAX (318) 549-5044

Kenneth N. Kruithof
Superintendent

William C. Kostelka
President

July 10, 2008

Christopher G. Gesing, P.E.
Airside business Park
100 Airside Drive
Moon Township, PA 15108

Dear Mr. Gesing:

Thank you for the opportunity to have input for the extension of Winfield Road in Bossier Parish, Louisiana. The project is State Job No. 700-08-013, F.A.P. No. DE-0806 (509). It is our opinion that this proposed extension would be beneficial to our bus transportation for the Bossier Parish School Board.

Thank you again for this solicitation of our opinion, and if there are further questions, please contact us.

Sincerely,

Kenneth N. Kruithof
Superintendent

cc: J. Kent Rogers - NLCOG
Tiffinee Brown - DOTD

KNK:bqs

RECEIVED
JUL 14 2008

BOSSIER CITY—PARISH
METROPOLITAN PLANNING COMMISSION
PHONE 741-8824—620 BENTON RD.
BOSSIER CITY, LOUISIANA 71111

July 15, 2008

Michael Baker Jr., Inc.
Attn: Christopher Gesing, P.E.
100 Airside Drive
Moon Township, PA
15108

Re: F.A.P. No. DE-0806(509)
State Job No. 700-08-0130
Bossier Parish East-West Corridor

Dear Mr. Gesing:

Contained within the Bossier City-Parish Comprehensive Plan is a Master Thoroughfare Plan for Bossier City-Parish. This master thoroughfare plans illustrates a proposed route for the extension of Winnfield Road to LA 3.

The Bossier Comprehensive Plan was adopted on January 1, 2003. The extension of Winnfield Road is a component and recommendation of the plan and the Bossier City-Parish Metropolitan Planning Commission fully supports the desire to extend Winnfield Road.

The proposed alignment of the extension of Winnfield Road extends the road through mostly rural undeveloped land and connects the new extension to the recently extended Wemple Road at the intersection of Wemple Road and Airline Drive.

This recommendation in the comprehensive plan is definitely worth considering as is does not displace many existing residences.

If you have any questions, please contact me at 318-741-8824.

Sincerely,

Sam Marsiglia
Executive Director

RECEIVED
JUL 18 2008

cc: J. Kent Rogers - NLCOG
Tiffinee Brown - DOTD

MITCHELL J. LANDRIEU
LIEUTENANT GOVERNOR

State of Louisiana

OFFICE OF THE LIEUTENANT GOVERNOR
DEPARTMENT OF CULTURE, RECREATION & TOURISM
OFFICE OF CULTURAL DEVELOPMENT
DIVISION OF ARCHAEOLOGY

PAM BREAUX
SECRETARY

July 14, 2008

Mr. Christopher G. Gesing, P.E.
Senior Project Manager
Michael Baker Jr., Inc.
Airside Business Park
100 Airside Drive
Moon Township, PA 15108

cc: J. Kent Rogers - NLCOG
Tiffinee Brown - DOTD

Re: State Job No. 700-08-0130; F.A.P. No. DE-0806(509)
Bossier Parish East-West Corridor; Winfield Road Extension
Bossier Parish, Louisiana

Dear Mr. Gesing:

This is in response to your letter dated June 23, 2008, concerning the above-referenced project. Our office has reviewed the Study Area Map and offers the following comments. There are numerous archaeological sites located within the study area. Due to the geographical setting of the study area, there is a high probability for discovering additional archaeological deposits. Therefore, at the time when the corridor for the Winfield Road Extension is selected, we are requesting a Phase I archaeological survey.

I have enclosed a list of contracting archaeologists for your use. If you have any questions concerning our comments, please do not hesitate to contact Rachel Watson in the Division of Archaeology at (225) 342-8170.

Sincerely,

Pam Breaux

Pam Breaux
State Historic Preservation Officer

RECEIVED
JUL 21 2008

PB:RW:kc

BOBBY JINDAL
GOVERNOR

State of Louisiana
DEPARTMENT OF WILDLIFE AND FISHERIES
OFFICE OF WILDLIFE

ROBERT J. BARHAM
SECRETARY
JIMMY L. ANTHONY
ASSISTANT SECRETARY

RECEIVED
JUL 24 2008

Date	July 17, 2008
Name	Christopher G. Gesing
Company	Micheal Baker Jr., Inc.
Street Address	100 Airside Drive
City, State, Zip	Moon Township, Pennsylvania 15108
Project	State Job No. 700-08-0130 Bossier Parish East-West Corridor Winfield Road Extension
Project ID	2842008
Invoice Number	08071713

cc: J. Kent Rogers - NLCOG
Tiffinee Brown - DOTD

Personnel of the Habitat Section of the Fur and Refuge Division have reviewed the preliminary data for the captioned project.

Our records also indicate the presence of a mixed hardwood-loblolly forest within the proposed project's boundaries. Mixed hardwood-loblolly forests are considered imperiled/rare in Louisiana with a state ranking of S2S3. This mixed hardwood-loblolly forest is located at [redacted].

Our records also indicate the presence of a Cypress-tupelo swamp & Bottomland hardwood forests within the proposed project's boundaries . The Cypress-tupelo swamp is located at [redacted]. The Bottomland hardwood forests are located at [redacted]

These point locations for the above mentioned natural communities represent only the center, not the extent, of these critical habitats and further delineations are necessary. Please use caution while working near these areas to avoid impacts to these natural communities. Contact LNHP community ecologist Patti Faulkner at (225) 765-2975 for more information on avoiding impacts to these rare natural communities.

After careful review of our database, no other impacts to rare, threatened, or endangered species or critical habitats are anticipated for the proposed project. No state or federal parks, wildlife refuges, scenic streams, or wildlife management areas are known at the specified site within Louisiana's boundaries.

The Louisiana Natural Heritage Program (LNHP) has compiled data on rare, endangered, or otherwise significant plant and animal species, plant communities, and other natural features throughout the state of Louisiana. Heritage reports summarize the existing information known at the time of the request regarding the location in question. The quantity and quality of data collected by the LNHP are dependent on the research and observations of many individuals. In most cases, this information is not the result of comprehensive or site-specific field surveys; many natural areas in Louisiana have not been surveyed. This report does not address the occurrence of wetlands at the site in question. Heritage reports should not be considered final statements on the biological elements or areas being considered, nor should they be substituted for on-site surveys required for environmental assessments. LNHP requires that this office be acknowledged in all reports as the

source of all data provided here. If at any time Heritage tracked species are encountered within the project area, please contact the LNHP Data Manager at 225-765-2643. If you have any questions, or need additional information, please call 225-765-2357.

Sincerely,

Gary Lester

Gary Lester, Coordinator
Natural Heritage Program

BOBBY JINDAL
GOVERNOR

State of Louisiana

DEPARTMENT OF NATURAL RESOURCES
OFFICE OF CONSERVATION

SCOTT A. ANGELLE
SECRETARY

JAMES H. WELSH
COMMISSIONER OF CONSERVATION

July 24, 2008

TO: Michael Baker Jr., Inc.
Attention: Mr. Christopher G. Gesing, P.E.
Airside Business Park
100 Airside Drive
Moon Township, Pennsylvania 15108

cc: J. Kent Rogers - NLCOG
Tiffinee Brown - DOTD

RE: State Job No. 700-08-0130
F.A.P. No. DE-0806(509)
Bossier Parish East-West Corridor
Winfield Road Extention
Bossier Parish, Louisiana

Dear Mr. Gesing:

In response to your letter dated June 23, 2008, concerning the referenced matter, please be advised that the Office of Conservation collects and maintains many types of information regarding oil and gas exploration, production, distribution, and other data relative to the petroleum industry as well as related and non-related injection well information, surface mining and ground water information and other natural resource related data. Most information concerning oil, gas and injection wells for any given area of the state, including the subject area of your letter can be obtained through records search via the SONRIS data access application available at:

http://www.dnr.state.la.us/CONS/Conserv.ssi

A review of our computer records for the referenced project area indicates numerous wells drilled in search of oil and gas in the immediate vicinity of the project area. Additionally, there may be several domestic and one public supply registered water wells within the proposed right of way. Due care should be taken to assess the vicinity of the project area for any wells that are not registered and are not in the database.

The Office of Conservation maintains records of all activities within its jurisdiction in either paper, microfilm or electronic format. These records may be accessed during normal business hours, Monday through Friday, except on State holidays or emergencies that require the Office to be closed. Please call 225-342-5540 for specific contact information or for directions to the Office of Conservation, located in the LaSalle Building, 617 North Third Street, Baton Rouge, Louisiana. For pipelines and other underground hazards, please contact Louisiana One Call at 1-800-272-3020 prior to commencing operations. Should you need to direct your inquiry to any of our Divisions, you may use the following contact information:

Division	Contact	Phone No.	E-mail Address
Engineering	Jeff Wells	225-342-5638	JeffW@dnr.state.la.us
Pipeline	Michael Peikert	225-342-2989	MichaelP@dnr.state.la.us
Injection & Mining	Laurence Bland	225-342-5515	LaurenceB@dnr.state.la.us
Geological	Mike Kline	225-342-3335	MikeKl@dnr.state.la.us
Ground Water	Tony Duplechin	225-342-5528	TonyD@dnr.state.la.us

If you have difficulty in accessing the data via the referenced website because of computer related issues, you may obtain assistance from our technical support section by selecting "Help" on the SONRIS tool bar and submitting an email describing your problems and including a telephone number where you may be reached.

Sincerely,

James H. Welsh
Commissioner of Conservation

JHW:MBK

BOBBY JINDAL
GOVERNOR

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
P.O. Box 94245
Baton Rouge, Louisiana 70804-9245
www.dotd.la.gov
Floodplain Management

WILLIAM D. ANKNER, Ph.D.
SECRETARY

July 23, 2008

STATE PROJECT NO.: 700-08-0130
F.A.P. NO.: DE-0806(509)
NAME: BOSSIER PARISH EAST-WEST CORRIDOR, WINFIELD ROAD EXTENTION
ROUTE: WINFIELD ROAD
PARISH: BOSSIER

Mr. Christopher G. Gesing, P.E.
Senior Project Manager
Michael Baker Jr., Inc
Airside Business Park
100 Airside Drive
Moon Township, Pennsylvania 15108

cc: J. Kent Rogers - NLCOG
Tiffinee Brown - DOTD

RECEIVED
JUL 3 0 2008

Subject: Solicitation of Views

Dear Mr. Gesing:

The proposed study area appears to include special flood hazard area and a designated *floodway.*

Section 60.3(d)(3) of National Flood Insurance Program Regulations states: "Prohibit encroachments, including fill, new construction, substantial improvements, and other development within the adopted regulatory *floodway*, unless it has been demonstrated through hydrologic and hydraulic analyses performed in accordance with standard engineering practice, that the proposed encroachment would not result in any increase in flood levels within the community during the occurrence of the base flood discharge;"

If a person wishes to build in a floodway and can show through technical analysis that the construction would have no adverse effect on the floodway and provide a "No-Rise Certification" (copy enclosed), then the floodplain administrator has the authority to grant the permit.

During construction, there must be allowance for the adequate flow of water and assurance that there will be no back up of water. There must be no instance of the creation of flooding where there was no flooding prior to construction. At this time, consideration must also be given to the responsibility for clearing debris and keeping the surrounding area clear in order to allow for the accumulation and flow of flood water.

Our office cautions that development in the floodway fringe area may alter drainage patterns, reduce the natural storage of flood waters, and/or compound the damages caused by smaller floods.

In order to assure compliance with local requirements for the National Flood Insurance Program (NFIP), and ensure that appropriate permits are obtained, please contact the floodplain administrator for Bossier Parish. The contact person is: Mr. Butch Ford, P.O. Box 70, Benton, LA, 71006, and telephone no. 318-965-2329.

We thank you for the opportunity to comment on this project. If you need additional information, please contact our office, (225) 274-4354.

Sincerely,

Susan Veillon

Susan Veillon
Floodplain Management Program Coordinator

pc: Mr. Butch Ford, P.E.

Engineering "No Rise" Certification

This is to certify that I am a duly qualified registered professional engineer licensed to practice in the State of Louisiana.

It is further to certify that the attached technical data supports the fact that proposed

_____

(Name of Development)

will not impact (0.000 foot rise) the base (100-year) flood elevations, floodway elevations and floodway widths on

_____

(Name of Stream)

at published sections in the Flood Insurance Study for _____

(Name of Community)

dated _____ and will not impact (0.000 foot rise) the base (100-year) flood elevations, floodway elevations, and floodway widths at unpublished cross sections in the vicinity of the proposed development.

_____ _____

(Date) (Signature)

_____

(Title)

SEAL: _____

(Address)

_____

(License number)

U.S. Department of Homeland Security

United States Coast Guard

Commander
Eighth Coast Guard District

1222 Spruce Street
St. Louis, MO 63103-2832
Staff Symbol: dwb
Phone: (314)269-2378
Fax: (314)269-2737
Email:

16591.1/Winfield Road
July 21, 2008

Mr. Christopher Gesing
Michael Baker Jr., Inc.
State Project # 700-08-0130
Airside Business Park
100 Airside Drive
Moon Township, PA 15108

Subj: WINFIELD ROAD IMPROVEMENT PROJECT, BOSSIER PARISH

Dear Mr. Gesing:

Please refer to your letter of June 23, 2008. It is our understanding that the subject project may involve work over Benoist Bayou, Willow Chute, and Flat River Ditch. We have determined that pursuant to the Coast Guard Authorization Act of 1982, the subject project does not involve bridges over navigable waters of the United States. Therefore, a Coast Guard bridge permit is not required for this project.

We appreciate the opportunity to comment on the project.

Sincerely,

ROGER K. WIEBUSCH
Bridge Administrator
By direction of the District Commander

RECEIVED
JUL 30 2008

cc: J. Kent Rogers - NLCOG
Tiffinee Brown - DOTD

OTHER AGENCY CORRESPONDENCE

From: Joanna Gardner <Joanna.Gardner@LA.GOV>
To: "cgesing@mbakercorp.com" <cgesing@mbakercorp.com>
Date: 10/1/2008 5:05 PM
Subject: DEQ SOV: 80923310/1710 700-08-0130

October 1, 2008

Christopher G Gesing, PE
Baker
100 airside Drive
Moon township, PA 15108
cgesing@mbakercorp.com

cc: J. Kent Rogers - NLCOG
Tiffinee Brown - DOTD

RE:
80923310/1710 700-08-0130
Bossier Parish East-West
Extension
Bossier Parish

Dear Mr. Gesing:

The Department of Environmental Quality, Office of Environmental Assessment and Office of Environmental Services received your request for comments on the above referenced project. Please take the appropriate steps to obtain and/or update all necessary approvals and environmental permits regarding this proposed project.

There were no objections based on the limited information submitted to us. However, the following comments have been included. Should you encounter a problem during the implementation of this project, please make the appropriate notification to this Department.

The Office of Environmental Services/Permits Division recommends that you investigate the following requirements that may influence your proposed project:

- If your project results in a discharge to waters of the state, submittal of a Louisiana Pollutant Discharge Elimination System (LPDES) application may be necessary.
- If the project results in a discharge of wastewater to an existing wastewater treatment system, that wastewater treatment system may need to modify their LPDES permit before accepting the additional wastewater.
- LDEQ has stormwater general permits for construction areas equal to or greater than one acre. It is recommended that you contact Melissa Conti at (225) 219-3078 to determine if your proposed improvements require one of these permits.
- All precautions should be observed to control nonpoint source pollution from construction activities.
- If any of the proposed work is located in wetlands or other areas subject to the jurisdiction of the U.S. Army Corps of Engineers, you should contact the Corps to inquire about the possible necessity for permits. If a Corps permit is required, part of the application process may involve a Water Quality Certification from LDEQ.
- All precautions should be observed to protect the groundwater of the region.
- Please be advised that water softeners generate waste waters that may require special limitations depending on local water quality considerations. Therefore if your water system improvements include water softeners, you are advised to contact DEQ, Water Permits to determine if special water quality based limitations will be necessary
- Any renovation or remodeling must comply with LAC 33:III.Chapter 28.Lead-Based Paint Activities, LAC 33:III.Chapter 27.Asbestos-Containing Materials in Schools and State Buildings (includes all training and accreditation) and LAC 33:III.5151.Emission Standard for Asbestos for any renovations or demolitions.

Currently, Bossier Parish is classified as an attainment parish with the National Ambient Air Quality Standards for all criteria air pollutants.

Please forward all future requests to Ms. Joanna Gardner, LDEQ/Performance Management/ P.O. Box 4301, Baton Rouge, LA 70821-4301 and we will expedite it as quickly as possible.

If you have any questions, please contact me at (225)219-3958 or by email at joanna.gardner@la.gov. Permitting questions should be directed to the Office of Environmental Services at 225-219-3181.

Sincerely,

Joanna Gardner
Performance Management
Louisiana Department of Environmental Quality
Office of the Secretary
PO Box 4301
Baton Rouge, LA 70821-4301
FAX 225.325.8208
225.219.3958
joanna.gardner@la.gov

From: Diane Hewitt [Diane.Hewitt@LA.GOV]
Sent: Monday, June 01, 2009 9:26 AM
To: Gesing, Chris
Subject: DEQ SOV:700-08-0130/1185 Bossier Parish East-West Corridor

June 1, 2009

Christopher G. Gesing, P.E.
Michael Baker Jr., Inc.
100 Airside Dr.
Moon Township, PA 15108
cgesing@mbakercorp.com

cc: J. Kent Rogers - NLCOG
Tiffinee Brown - DOTD
Butch Ford - BPPJ

Re:

700-08-0130/1185	Bossier Parish East-West Corridor
	DOTD
	Bossier Parish

Dear Mr. Gesing:

The Department of Environmental Quality, Office of Environmental Assessment and Office of Environmental Services received your request for comments on the above referenced project. Please take the appropriate steps to obtain and/or update all necessary approvals and environmental permits regarding this proposed project.

There were no objections based on the limited information submitted to us. However, the following comments have been included. Should you encounter a problem during the implementation of this project, please make the appropriate notification to this Department.

The Office of Environmental Services/Permits Division recommends that you investigate the following requirements that may influence your proposed project:

- If your project results in a discharge to waters of the state, submittal of a Louisiana Pollutant Discharge Elimination System (LPDES) application may be necessary.
- If the project results in a discharge of wastewater to an existing wastewater treatment system, that wastewater treatment system may need to modify their LPDES permit before accepting the additional wastewater.
- LDEQ has stormwater general permits for construction areas equal to or greater than one acre. It is recommended that you contact Melissa Conti at (225) 219-3078 to determine if your proposed improvements require one of these permits.
- All precautions should be observed to control nonpoint source pollution from construction activities.
- If any of the proposed work is located in wetlands or other areas subject to the jurisdiction of the U.S. Army Corps of Engineers, you should contact the Corps to inquire about the possible necessity for permits. If a Corps permit is required, part of the application process may involve a Water Quality Certification from LDEQ.
- All precautions should be observed to protect the groundwater of the region.
- Please be advised that water softeners generate waste waters that may require special limitations depending on local water quality considerations. Therefore if your water system improvements include water softeners, you are advised to contact DEQ, Water Permits to determine if special water quality based limitations will be necessary
- Any renovation or remodeling must comply with LAC 33:III.Chapter 28.Lead-Based Paint Activities, LAC 33:III.Chapter 27.Asbestos-Containing Materials in Schools and State Buildings (includes all training and accreditation) and LAC 33:III.5151.Emission Standard for Asbestos for any renovations or demolitions.

Currently, Bossier Parish is classified as an attainment parish with the National Ambient Air Quality Standards for all criteria air pollutants.

Please forward all future requests to Ms. Diane Hewitt, LDEQ/Performance Management/ P.O. Box 4301, Baton Rouge, LA 70821-4301 and we will expedite it as quickly as possible.

If you have any questions, please contact me at (225)219-4079 or by email at diane.hewitt@la.gov. Permitting questions should be directed to the Office of Environmental Services at 225-219-3181.

Sincerely,

Diane Hewitt
LDEQ/Community and Industry Relations
Business and Community Outreach Division
Office of the Secretary
P.O. Box 4301 (602 N. 5th Street)
Baton Rouge, LA 70821-4301
Phone: 225-219-4079
Fx: 225-325-8208
Email: ***diane.hewitt@la.gov***

BOBBY JINDAL
GOVERNOR

State of Louisiana

DEPARTMENT OF NATURAL RESOURCES
OFFICE OF CONSERVATION

SCOTT A. ANGELLE
SECRETARY

JAMES H. WELSH
COMMISSIONER OF CONSERVATION

October 16, 2008

TO: Michael Baker Jr., Inc.
Att.: Mr. Christopher G. Gesing, P.E.
Airside Business Park
100 Airside Drive
Moon Township, Pennsylvania 15108

RE: State Project No. 700-08-0130
F.A.P. No. DE-0806(509)
Bossier Parish East-West Corridor
Winfield Road Extension
Bossier Parish, Louisiana

Dear Mr. Gesing:

In response to your letter dated September 17, 2008, concerning the referenced matter, please be advised that the Office of Conservation collects and maintains many types of information regarding oil and gas exploration, production, distribution, and other data relative to the petroleum industry as well as related and non-related injection well information, surface mining and ground water information and other natural resource related data. Most information concerning oil, gas and injection wells for any given area of the state, including the subject area of your letter can be obtained through records search via the SONRIS data access application available at:

http://www.dnr.state.la.us/CONS/Conserv.ssi

A review of our computer records for the referenced project area indicates numerous oil and gas wells and registered water wells located in the project area. Due care must be taken to locate any other wells installed before registration was required.

The Office of Conservation maintains records of all activities within its jurisdiction

in either paper, microfilm or electronic format. These records may be accessed during normal business hours, Monday through Friday, except on State holidays or emergencies that require the Office to be closed. Please call 225-342-5540 for specific contact information or for directions to the Office of Conservation, located in the LaSalle Building, 617 North Third Street, Baton Rouge, Louisiana. For pipelines and other underground hazards, please contact Louisiana One Call at 1-800-272-3020 prior to commencing operations. Should you need to direct your inquiry to any of our Divisions, you may use the following contact information:

Division	Contact	Phone No.	E-mail Address
Engineering	Jeff Wells	225-342-5638	JeffW@dnr.state.la.us
Pipeline	Michael Peikert	225-342-2989	MichaelP@dnr.state.la.us
Injection & Mining	Laurence Bland	225-342-5515	LaurenceB@dnr.state.la.us
Geological	Mike Kline	225-342-3335	MikeKl@dnr.state.la.us
Ground Water	Tony Duplechin	225-342-5528	TonyD@dnr.state.la.us

If you have difficulty in accessing the data via the referenced website because of computer related issues, you may obtain assistance from our technical support section by selecting "Help" on the SONRIS tool bar and submitting an email describing your problems and including a telephone number where you may be reached.

Sincerely,

James H. Welsh
Commissioner of Conservation

JHW:MBK

United States Department of Agriculture

NRCS

Natural Resources Conservation Service
3737 Government Street
Alexandria, LA 71302

(318) 473-7787
Fax: (318) 473-7603

May 4, 2009

Rain Nox
Environmemtal Associate
Michael Baker Jr. Inc.
7700 Chevy Chase Drive
Building 1, Suite 210
Austin, Texas 78752

RE: Prime Farmlands Present Within the Proposed Alternatives for Bossier Parish East-West Corridor

Dear Mr. Nox:

Per your request, we have reviewed the soils information for the project sites (alternative 1, 2, and 3) as it pertains to prime farmlands. Please find the attached NRCS-CPA-106 Farmland Conversion Impact Rating for Corridor Type Projects form with our agencies information completed. Alternative 1 and 2 had a relative value of 82 and alternative 3 had a relative value of 90. Also enclosed are soils maps of the project areas indicating the map unit symbols, their Prime Farmland designation along the corridors, and a Prime Farmland Legend indicating the Map unit names which are Prime

Also enclosed is a Hydric Soils Legend for each alternative. The office review of the soils map indicates that alternative 1 and 2 contain the following map unit symbols which are hydric, BmA, BwA, BxA, MsA, SrB, and WrA. Alternative 3 contains the following hydric map unit symbols, BmA, BwA, BxA, MsA, and WrA. Wetlands may be present in these areas if there is a prevalence of hydrophytic vegetation and wetland hydrology. Deposition of fill material in wetlands is subject to Section 404 of the Clean Water Act. You should contact the U.S. Army Corps of Engineers concerning wetland matters.

Please contact me if additional soils information is needed. I can be reached at (318) 473-7789 by phone or charles.guillory@la.usda.gov by email.

Sincerely,

Charles Guillory
Assistant State Soil Scientist

Enclosure

cc: Rick Adams, District Conservationist, NRCS, Benton Field Office
Marc Bordelon, MLRA Project Soil Survey Leader, NRCS, Ringgold SS Office

U.S. DEPARTMENT OF AGRICULTURE
Natural Resources Conservation Service

NRCS-CPA-106
(Rev. 1-91)

FARMLAND CONVERSION IMPACT RATING FOR CORRIDOR TYPE PROJECTS

PART I *(To be completed by Federal Agency)*	3. Date of Land Evaluation Request 4/27/09	4. Sheet 1 of 1
1. Name of Project Bossier Parish East-West Corridor	5. Federal Agency Involved Louisiana Department of Transportation and Development	
2. Type of Project New alignment roadway	6. County and State Bossier Parish, Louisiana	
PART II *(To be completed by NRCS)*	1. Date Request Received by NRCS 5/1/09	2. Person Completing Form Charles Guillory
3. Does the corridor contain prime, unique statewide or local important farmland? (If no, the FPPA does not apply - Do not complete additional parts of this form) YES ☑ NO ☐	4. Acres Irrigated 0	Average Farm Size 303
5. Major Crop(s) Soybeans, Cotton, Corn	6. Farmable Land In Government Jurisdiction Acres: 366,877 % 67	7. Amount of Farmland As Defined in FPPA Acres: 363,157 % 67
8. Name Of Land Evaluation System Used Bossier Parish LESA	9. Name of Local Site Assessment System None	10. Date Land Evaluation Returned by NRCS 5/4/09

PART III *(To be completed by Federal Agency)*	Alternative Corridor For Segment			
	Corridor A 1	Corridor B 2	Corridor C 3	Corridor D
A. Total Acres To Be Converted Directly	158	147	132	
B. Total Acres To Be Converted Indirectly, Or To Receive Services				
C. Total Acres In Corridor	158	147	132	0
PART IV *(To be completed by NRCS) Land Evaluation Information*				
A. Total Acres Prime And Unique Farmland	91	86	82	
B. Total Acres Statewide And Local Important Farmland				
C. Percentage Of Farmland In County Or Local Govt. Unit To Be Converted	.04	.02	.02	
D. Percentage Of Farmland In Govt. Jurisdiction With Same Or Higher Relative Value	14	14	9	
PART V *(To be completed by NRCS) Land Evaluation Information Criterion Relative value of Farmland to Be Serviced or Converted (Scale of 0 - 100 Points)*	82	82	90	
PART VI *(To be completed by Federal Agency) Corridor Assessment Criteria (These criteria are explained in 7 CFR 658.5(c))* — Maximum Points				
1. Area In Nonurban Use — 15	14	14	14	
2. Perimeter In Nonurban Use — 10	9	9	9	
3. Percent Of Corridor Being Farmed — 20	18	18	18	
4. Protection Provided By State And Local Government — 20	0	0	0	
5. Size of Present Farm Unit Compared To Average — 10	10	10	10	
6. Creation Of Nonfarmable Farmland — 25	5	5	5	
7. Availability Of Farm Support Services — 5	5	5	5	
8. On-Farm Investments — 20	5	5	5	
9. Effects Of Conversion On Farm Support Services — 25	0	0	0	
10. Compatibility With Existing Agricultural Use — 10	0	0	0	
TOTAL CORRIDOR ASSESSMENT POINTS — 160	66	66	66	0
PART VII *(To be completed by Federal Agency)*				
Relative Value Of Farmland (From Part V) — 100	82	82	90	
Total Corridor Assessment (From Part VI above or a local site assessment) — 160	66	66	66	0
TOTAL POINTS *(Total of above 2 lines)* — 260	148	148	156	0

1. Corridor Selected:	2. Total Acres of Farmlands to be Converted by Project:	3. Date Of Selection:	4. Was A Local Site Assessment Used?
			YES ☐ NO ☐

5. Reason For Selection:

Signature of Person Completing this Part: | DATE

NOTE: Complete a form for each segment with more than one Alternate Corridor

United States Department of Agriculture

NRCS

Natural Resources Conservation Service
3737 Government Street
Alexandria, LA 71302

(318) 473-7787
Fax: (318) 473-7603

July 16, 2009

Rain Nox
Environmemtal Associate
Michael Baker Jr. Inc.
7700 Chevy Chase Drive
Building 1, Suite 210
Austin, Texas 78752

RE: Prime Farmlands- Bossier Parish East-West Corridor Additional Alternative (3R)

Dear Mr. Nox:

Per your request, we have reviewed the soils information for the project site (3R) as it pertains to prime farmlands. Please find the attached NRCS-CPA-106 Farmland Conversion Impact Rating for Corridor Type Projects form with our agencies information completed. Alternative (3R) has a relative value of 88. Also enclosed are soils maps of the project area indicating the map unit symbols, their Prime Farmland designation along the corridor, and a Prime Farmland Legend indicating the Map unit names which are Prime.

Also enclosed is a Hydric Soils Legend for the new alternative. The office review of the soils map indicates that thenew alternative contains the following map unit symbols which are hydric, BmA, BwA, BxA, MsA, and WrA. Wetlands may be present in these areas if there is a prevalence of hydrophytic vegetation and wetland hydrology. Deposition of fill material in wetlands is subject to Section 404 of the Clean Water Act. You should contact the U.S. Army Corps of Engineers concerning wetland matters.

Please contact me if additional soils information is needed. I can be reached at (318) 473-7789 by phone or charles.guillory@la.usda.gov by email.

Sincerely,

Charles Guillory

Charles Guillory
Assistant State Soil Scientist

Enclosure

cc: Rick Adams, District Conservationist, NRCS, Benton Field Office
Marc Bordelon, MLRA Project Soil Survey Leader, NRCS, Ringgold SS Office

U.S. DEPARTMENT OF AGRICULTURE
Natural Resources Conservation Service

NRCS-CPA-106
(Rev. 1-91)

FARMLAND CONVERSION IMPACT RATING FOR CORRIDOR TYPE PROJECTS

PART I *(To be completed by Federal Agency)*	3. Date of Land Evaluation Request 7/10/09	4. Sheet 1 of 1
1. Name of Project **Bossier Parish East-West Corridor**	5. Federal Agency Involved **Lousiana Department of Transportaion and Devlopment**	
2. Type of Project **New alignment roadway**	6. County and State **Bossier Parish, Louisiana**	
PART II *(To be completed by NRCS)*	1. Date Request Received by NRCS 7/15/09	2. Person Completing Form Charles Guillory
3. Does the corridor contain prime, unique statewide or local important farmland? (If no, the FPPA does not apply - Do not complete additional parts of this form). YES ☑ NO ☐		4. Acres Irrigated 0 / Average Farm Size 303
5. Major Crop(s) Soybeans, Cotton, Corn	6. Farmable Land in Government Jurisdiction Acres: 366,877 % 67	7. Amount of Farmland As Defined in FPPA Acres: 363,157 % 67
8. Name Of Land Evaluation System Used Bossier Parish LESA	9. Name of Local Site Assessment System None	10. Date Land Evaluation Returned by NRCS 7/15/09

PART III *(To be completed by Federal Agency)*	Alternative Corridor For Segment			
	Corridor # 1	Corridor # 2	Corridor # 3	Corridor # 3A
A. Total Acres To Be Converted Directly	158	147	132	126
B. Total Acres To Be Converted Indirectly, Or To Receive Services				
C. Total Acres In Corridor	158	147	132	126
PART IV *(To be completed by NRCS) Land Evaluation Information*				
A. Total Acres Prime And Unique Farmland				90
B. Total Acres Statewide And Local Important Farmland				-
C. Percentage Of Farmland In County Or Local Govt. Unit To Be Converted				.03
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value				9
PART V *(To be completed by NRCS) Land Evaluation Information Criterion Relative value of Farmland to Be Serviced or Converted (Scale of 0 - 100 Points)*	82	82	90	88
PART VI *(To be completed by Federal Agency) Corridor Assessment Criteria (These criteria are explained in 7 CFR 658.5(c))* — Maximum Points				
1. Area in Nonurban Use — 15	14	14	14	14
2. Perimeter in Nonurban Use — 10	9	9	9	9
3. Percent Of Corridor Being Farmed — 20	18	18	18	18
4. Protection Provided By State And Local Government — 20	0	0	0	0
5. Size of Present Farm Unit Compared To Average — 10	10	10	10	10
6. Creation Of Nonfarmable Farmland — 25	5	5	5	5
7. Availability Of Farm Support Services — 5	5	5	5	5
8. On-Farm Investments — 20	5	5	5	5
9. Effects Of Conversion On Farm Support Services — 25	0	0	0	0
10. Compatibility With Existing Agricultural Use — 10	0	0	0	0
TOTAL CORRIDOR ASSESSMENT POINTS — 160	66	66	66	66
PART VII *(To be completed by Federal Agency)*				
Relative Value Of Farmland (From Part V) — 100	82	82	90	88
Total Corridor Assessment (From Part VI above or a local site assessment) — 160	66	66	66	66
TOTAL POINTS *(Total of above 2 lines)* — 260	148	148	156	154

1. Corridor Selected:	2. Total Acres of Farmlands to be Converted by Project:	3. Date Of Selection:	4. Was A Local Site Assessment Used?
			YES ☐ NO ☐

5. Reason For Selection:

Signature of Person Completing this Part: | DATE

NOTE: Complete a form for each segment with more than one Alternate Corridor

U.S. Department of Homeland Security

United States Coast Guard

Commander
Eighth Coast Guard District

1222 Spruce Street
St. Louis, MO 63103
Staff Symbol: (dwb)
Phone: 314-269-2381
Fax: 314-269-2737
Email: David.H.Studt@uscg.mil

16210.2/Bossier Parish
April 7, 2009

Mr. Christopher Gesing, P.E.
Michael Baker Jr. Inc.
Airside Business Park
100 Airside Business Park
Moon Township, PA 15108

Subj: EAST-WEST CORRIDOR (WINFIELD ROAD EXTENSION) BOSSIER PARISH, LOUISIANA

Dear Mr. Gesing:

Please refer to your letter dated March 20, 2009 which transmitted the Public Meeting Transcript for our review. We understand the subject project may require water crossings which have yet to be defined. By our review we determined that pursuant to the Coast Guard Authorization Act of 1982, the subject project does not involve bridges over navigable waters of the United States. Therefore, a Coast Guard bridge permit is not required for this project.

We appreciate the opportunity to comment on the project.

Sincerely,

ROGER K. WIEBUSCH
Bridge Administrator
By direction of the District Commander

cc: J. Kent Rogers - NLCOG
Tiffinee Brown - DOTD
Butch Ford - BPPJ

U.S. Department of Homeland Security

United States Coast Guard

Commander
Eighth Coast Guard District

1222 Spruce Street
St. Louis, MO 63103-2832
Staff Symbol: dwb
Phone: (314)269-2378
Fax: (314)269-2737
Email:

16591.1/Winfield Road
October 20, 2008

Mr. Christopher Gesing
Michael Baker Jr., Inc.
State Project # 700-08-0130
Airside Business Park
100 Airside Drive
Moon Township, PA 15108

RECEIVED
OCT 27 2008

Subj: WINFIELD ROAD IMPROVEMENT PROJECT, BOSSIER PARISH

Dear Mr. Gesing:

Please refer to your letter of September 17, 2008. It is our understanding that the subject project may involve work over Benoist Bayou, Willow Chute, and Flat River Ditch. We have determined that pursuant to the Coast Guard Authorization Act of 1982, the subject project does not involve bridges over navigable waters of the United States. Therefore, a Coast Guard bridge permit is not required for this project.

We appreciate the opportunity to comment on the project.

Sincerely,

ROGER K. WIEBUSCH
Bridge Administrator
By direction of the District Commander

cc: J. Kent Rogers - NLCOG
Tiffinee Brown - DOTD

BOSSIER PARISH POLICE JURY

P.O. BOX 70
PH. 318-965-2329 FAX 318-965-3703
BENTON, LOUISIANA 71006
www.bossierparishla.gov

February 10, 2009

NORTHWEST LOUISIANA COUNCIL OF GOVERNMENTS
ENGINEERING AND ENVIRONMENTAL SERVICES
STATE PROJECT NO. 700-08-0130
FAP NO. DE-0806(509)
BOSSIER PARISH EAST-WEST CORRIDOR,
WINFIELD ROAD EXTENSION
BOSSIER PARISH

Mr. Richard L. Savoie, P.E.
Deputy Chief Engineer
Louisiana Department of Transportation & Development
1201 Capitol Access Road, Room 506C
Baton Rouge, Louisiana 70802

Dear Mr. Savoie:

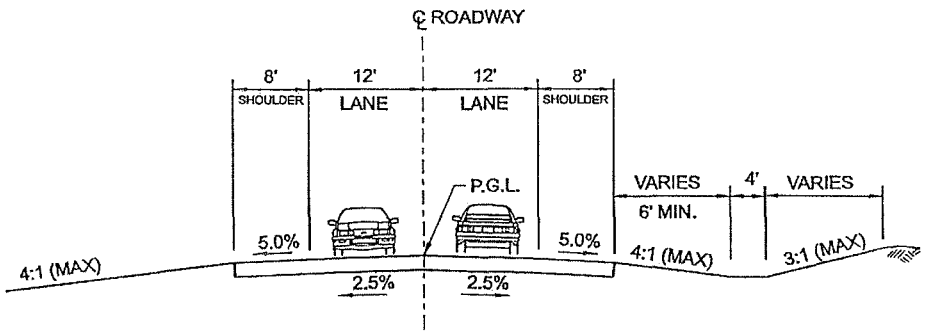
The Northwest Louisiana Council of Governments (NLCOG) and the Bossier Parish Police Jury (BPPJ) have discussed further comments from all parties concerning the raised median roadway required by UC-2 standards on the above captioned project. We request a design exception to plan for and construct a 5-lane roadway with the center lane being a continuous 16' two-way left turn lane. I have attached a typical section depicting the initial and future sections required.

This typical will allow us to build an initial section consisting of two 12' lanes with 8' shoulders; however, the shoulder sections would be constructed to the same sections as the roadway allowing for future expansion. We appreciate the opportunity to work with you on this project. Should you need any other information, please contact me at (318) 965-2329.

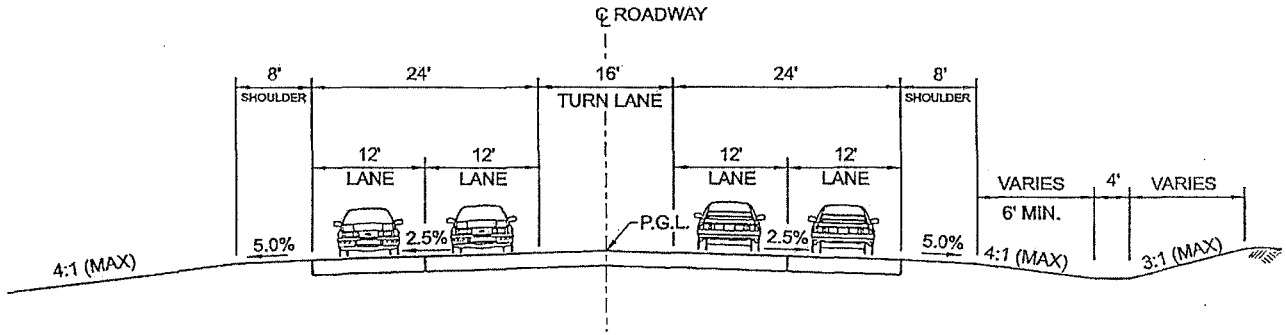
Sincerely,

Joe E. Ford
Bossier Parish Engineer

Enclosures: As Stated
cc: Mr. Bill Altimus, BPPJ
Mr. Bruce Easterly, BPPJ
Mr. Kent Rogers, NLCOG
Mr. Mike Aghayan, LaDOTD
Mr. Chris Gesing, Michael Baker



2-LANE URBAN COLLECTOR
INITIAL CONSTRUCTION



4-LANE URBAN COLLECTOR WITH TWO WAY LEFT TURN LANE
FUTURE CONSTRUCTION

Bossier Parish East-West Corridor
Winfield Road Extension

Typical Sections (No Median)

Not to Scale

February 2009

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
P.O. Box 94245
Baton Rouge, Louisiana 70804-9245
www.dotd.la.gov
(225) 379-1234

BOBBY JINDAL
GOVERNOR

WILLIAM D. ANKNER, Ph.D.
SECRETARY

February 27, 2009

Mr. Joe E. Ford
Bossier Parish Engineer
Bossier Parish Police Jury
P. O. Box 70
Benton, LA 71006

RE: S. P. NO. 700-08-0130
FAP DE-0806(509)
BOSSIER PARISH EAST-WEST CORRIDOR
BOSSIER PARISH

Dear Mr. Ford:

The use of a continuous 16' two-way left turn lane for the Bossier Parish East-West Corridor project is allowable under the UC-2 design standards and therefore approved for use on your route (off the state system).

We encourage you to utilize effective access control tools once your project is built.

We look forward to working with you on advancing the design and construction of this project.

Sincerely,

Richard L. Savoie, P.E.
Deputy Chief Engineer

United States Department of the Interior

FISH AND WILDLIFE SERVICE
646 Cajundome Blvd.
Suite 400
Lafayette, Louisiana 70506

February 18, 2010

Mr. Christopher G. Gesing
Michael Baker Jr., Inc.
2600 CitiPlace Drive., Suite 450
Baton Rouge, LA 70808

Dear Mr. Gesing:

Please reference your January 29, 2010, letter and attached documentation, requesting our review of the draft Environmental Assessment (EA), in cooperation with the Louisiana Department of Transportation and Development (LADOTD) and the Federal Highway Administration (FHWA), for the East-West Corridor, Winfield Road Extension project (FAPN DE-0806(509)), SPN 700-08-0130) in Bossier Parish, Louisiana. The U.S. Fish and Wildlife Service (Service) has reviewed the information you provided, and offers the following comments in accordance with the National Environmental Policy Act of 1969 (83 Stat. 852. as amended; 42 U.S.C. 4321 et seq.), the Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.).

The draft EA is generally well-written and well-organized. It addresses the purpose and need for the proposed action and presents an evaluation of project alternatives. According to the draft EA, the proposed project is designed to lessen vehicular congestion by providing an additional east-west roadway within the central unincorporated portion of Bossier Parish. That proposed roadway, the preferred alternative (line 3R), would link growing residential areas to employment centers within Shreveport and Bossier City, LA. Line 3R would consist of initially constructing a two lane roadway, which would be widened to a five lane roadway if necessary. The roadway shoulders, bridges and drainage structures would be constructed to the full five-lane section.

The Louisiana Ecological Services Office was sent a solicitation-of-views (SOV) letter on June 26, 2008, requesting our review of the subject project. As stated in our July 1, 2008, response, and according to our current records, the proposed project would not affect any federally listed threatened or endangered species. Therefore, no further threatened or endangered species consultations are necessary unless the scope or location of the project is changed.

The draft EA states that line 3R would transverse Benoit Bayou, Bodcau Creek, sections of Willow Chute and their associated wetlands; resulting in the second highest floodplain encroachment and lowest wetland impacts. The Service does not oppose the proposed project; however, the subject project will provide access through isolated wetlands. Therefore, we have concerns regarding possible project related secondary impacts in those isolated wetlands.

Some potential secondary impacts to the project area wetlands, which the draft EA does recognize, would be residential and commercial developments. Accordingly, the Service recommends the final EA include a detailed description of the different types of forested wetlands present within the preferred Line 3R route and how those wetlands will be traversed. In addition, if the final EA reveals higher quality forested wetlands (i.e., cypress swamp and/or mature bottomland hardwoods), within the preferred Line 3R route, the Service highly encourages LADOTD to utilize elevated roadways in those areas in order to restrict future development.

We appreciate the opportunity to provide comments regarding the subject proposal. Should you have any further questions, please contact Joshua Marceaux (337/291-3110) of this office.

Sincerely,

Brad S. Rieck
Deputy Supervisor
Louisiana Field Office

cc: FHWA, Baton Rouge, LA
Corps of Engineers, New Orleans, LA
EPA, Dallas, TX
LADOTD, Baton Rouge, LA

U.S. Department of Homeland Security
FEMA Region 6
800 North loop 288
Denton, TX 76209-3698

FEMA

February 24, 2010

Mr. Christopher G. Gesing, P.E.
Michael Baker Jr., Inc.
2600 CitiPlace Drive, Suite 450
Baton Rouge, LA 70808

Re: Bossier Parish East-West Corridor, Winfield Road Extension
State Project No. 700-08-0130

Dear Mr. Gesing:

We are in receipt of the captioned projects submitted to this office for review.

As the community of Bossier Parish is participating in the National Flood Insurance Program (NFIP), these projects must be reviewed by the appropriate Floodplain Administrator in the community to ensure compliance with their Flood Damage Prevention Ordinance.

The Draft EA addresses the floodplain issues. However, as part of the project includes floodways, Federal regulations 44 CFR 65.12 and Federal dollars are to be used for part of the project, EO 11988 and 11990 issues must also be addressed and processed prior to the development.

Information on permitting can be coordinated by contacting Butch Ford, Bossier Parish Engineer, at (318) 965-2329. If you have other questions, please feel free to contact me at (940) 898-5523 or via email at Diana.b.herrera@dhs.gov.

Sincerely,

Lisa Jennings for

Diana B. Herrera, CFM
Natural Hazards
Program Specialist

cc: Butch Ford, Bossier Parish Engineer
Cindy O'Neal, LA DOTD, NFIP State Coordinator

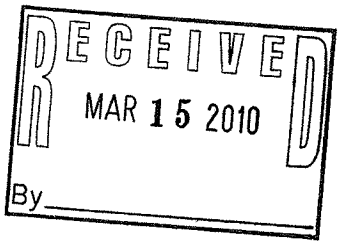
United States Department of Agriculture

NRCS

Natural Resources Conservation Service
3737 Government Street
Alexandria, LA 71302

(318) 473-7795
Fax: (318) 473-7750

March 12, 2010



Mr. Christopher G. Gesing, P.E.
Michael Baker Jr., Inc.
2600 CitiPlace Drive, Suite 450
Baton Rouge, Louisiana 70808

Dear Mr. Gesing:

RE: **SPN # 700-08-0130**
F.A.P. # DE-0806(509)
Bossier Parish East-West Corridor
Winfield Road Extension
Draft Environmental Assessment
Bossier Parish, Louisiana

Thank you for the opportunity to provide comments regarding the above referenced project.

NRCS has previously provided the Prime Farmland determination and has no additional comments at the present time.

Should you have questions regarding the above comments, please feel free to contact Rick Adams, District Conservationist, in our Benton Field Office, at phone number (318) 965-2185, Ext. 3.

Sincerely,

Bradley A. Sticker, P.E.
State Conservation Engineer

cc: Rick Adams, District Conservationist, NRCS, Benton, Louisiana

From: Diane Hewitt [Diane.Hewitt@LA.GOV]
Sent: Tuesday, February 23, 2010 12:34 PM
To: Gesing, Chris
Subject: DEQ SOV: 700-08-0130/0270 Bossier Parish East-West Corridor

February 23, 2010

Christopher G. Gesing, P.E.
Michael Baker, Jr., Inc.
2600 CitiPlace Drive, Ste. 450
Baton Rouge, LA 70808
cgesing@mbakercorp.com

RE:
700-08-0130/0270 Bossier Parish East-West Corridor
Draft EA
DOTD funding
Bossier Parish

Dear Mr. Gesing:

The Department of Environmental Quality (LDEQ), Offices of Environmental Assessment and Environmental Services have received your request for comments on the above referenced project. Please take any necessary steps to obtain and/or update all necessary approvals and environmental permits regarding this proposed project.

There were no objections based on the information in the document submitted to us. However, the following comments have been included below. Should you encounter a problem during the implementation of this project, please notify LDEQ's Single-Point-of-contact (SPOC) at (225) 219-3640.

The Office of Environmental Services/Permits Division recommends that you investigate the following requirements that may influence your proposed project:

- If your project results in a discharge to waters of the state, submittal of a Louisiana Pollutant Discharge Elimination System (LPDES) application may be necessary.
- If the project results in a discharge of wastewater to an existing wastewater treatment system, that wastewater treatment system may need to modify its LPDES permit before accepting the additional wastewater.
- LDEQ has stormwater general permits for construction areas equal to or greater than one acre. It is recommended that you contact the LDEQ Water Permit Division at (225) 219-3181 to determine if your proposed improvements require one of these permits.
- All precautions should be observed to control nonpoint source pollution from construction activities.
- If any of the proposed work is located in wetlands or other areas subject to the jurisdiction of the U.S. Army Corps of Engineers, you should contact the Corps directly to inquire about the possible necessity for permits. If a Corps permit is required, part of the application process may involve a water quality certification from LDEQ.
- All precautions should be observed to protect the groundwater of the region.
- Please be advised that water softeners generate wastewaters that may require special limitations depending on local water quality considerations. Therefore if your water system improvements include water softeners, you are advised to contact the LDEQ Water Permits to determine if special water quality-based limitations will be necessary.
- Any renovation or remodeling must comply with LAC 33:III.Chapter 28.Lead-Based Paint Activities, LAC 33:III.Chapter 27.Asbestos-Containing Materials in Schools and State Buildings (includes all training and accreditation), and LAC 33:III.5151.Emission Standard for Asbestos for any renovations or demolitions.
- If any solid or hazardous wastes, or soils and/or groundwater contaminated with hazardous constituents are encountered during the project, notification to LDEQ's Single-Point-of-Contact (SPOC) at (225) 219-3640 is required. Additionally, precautions should be taken to protect workers from these hazardous constituents.

Cu·ently, Bossier Parish is classified as an attainment parish with the National Ambient Air Quality Standards for all criteria air pollutants.

Please forward all future requests to Ms. Diane Hewitt, LDEQ/Performance Management/ P.O. Box 4301, Baton Rouge, LA 70821-4301, and your request will be processed as quickly as possible.

If you have any questions, please feel free to contact me at (225) 219-4079 or by email at diane.hewitt@la.gov. Permitting questions should be directed to the Office of Environmental Services at (225) 219-3181.

Sincerely,

Diane Hewitt
Performance Management
LDEQ/Community and Industry Relations
Business and Community Outreach Division
Office of the Secretary
P.O. Box 4301 (602 N. 5th Street)
Baton Rouge, LA 70821-4301
Phone: 225-219-4079
Fx: 225-325-8208
E-mail: **diane.hewitt@la.gov**

SCOTT ANGELLE
LIEUTENANT GOVERNOR

State of Louisiana
OFFICE OF THE LIEUTENANT GOVERNOR
DEPARTMENT OF CULTURE, RECREATION & TOURISM
OFFICE OF CULTURAL DEVELOPMENT

PAM BREAUX
SECRETARY

June 28, 2010

Ms. Noel Ardoin
Louisiana Department of
Transportation and Development
P.O. Box 94245
Baton Rouge, LA 70804-9245

Re: Draft Phase I CRM Report
LA Division of Archaeology Report No. 22-3468
Phase I Archaeological Survey:
East-West Corridor, Winnfield Road Extension
Bossier Parish, Louisiana
State Project No. 700-08-0130
F.A.P. No. DE-086(509)

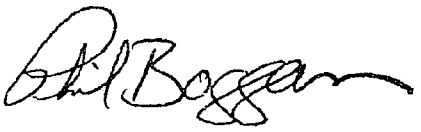
Dear Ms. Ardoin:

We are in receipt of your April 28, 2010, letter transmitting two copies of the above-cited report. We have completed our review and have the following comments to offer.

We find that this report in general meets the standards for such cultural resource surveys in Louisiana and we concur with the findings and recommendations of the report. Namely, that of the nine archaeological sites newly reported or revisited during this survey, all are ineligible for the National Register of Historic Places (NRHP) with the exception of the Werner Mound site (16BO8/387). We concur with the recommendation that this site's eligibility for the NRHP is undetermined and Phase II archaeological testing will be necessary if the site can not be avoided.

Technical comments concerning several items are included with this letter. Please address these as appropriate in the preparation of the final report for this project and transmit two copies for our files. Also, please include a compact disk containing a pdf copy of the report for the Division's electronic files. In addition, please finalize all site forms that were submitted as a result of this project. Should you have any questions concerning our current comments, do not hesitate to contact Dennis Jones in the Division of Archaeology at (225) 342-6932 or by email at djones@crt.state.la.us

Sincerely,



Phil Boggan
Deputy State Historic Preservation Officer
SH:DJ:s

SCOTT ANGELLE
LIEUTENANT GOVERNOR

PAM BREAUX
SECRETARY

State of Louisiana

OFFICE OF THE LIEUTENANT GOVERNOR
DEPARTMENT OF CULTURE, RECREATION & TOURISM
OFFICE OF CULTURAL DEVELOPMENT
DIVISION OF HISTORIC PRESERVATION

July 9, 2010

Noel Ardoin
Environmental Engineer Administrator
LDOTD
P.O. Box 94245
Baton Rouge, LA 70804-9245

Re: Draft Report (22-3468)
Historic Resources Survey and
Determination of Eligibility
East-West Corridor\Winnfield
Road Extension
Bossier Parish, LA

Dear Ms. Ardoin:

Thank you for your letter April 28, 2010, concerning the above-referenced project. We concur with your assessment that no historic properties would be adversely affected by the proposed road extension project.

In reference to the Louisiana Historic Resource Inventory forms, we request that individual copies of the LHRI forms be submitted to the Division of Historic Preservation once survey numbers have been assigned to you by the Division. In order to obtain instructions on the form submission process or if you have any questions, please contact Mike Varnado in the Division of Historic Preservation at (225) 219-4596.

Sincerely,

Phil Boggan
Deputy State Historic Preservation Officer

PB:MV:s

BOSSIER PARISH POLICE JURY

P.O. BOX 70
PH. 318-965-2329 FAX 318-965-3703
BENTON, LOUISIANA 71006
www.bossierparishla.gov

July 14, 2010

Mr. Chris Gesing, P.E.
Michael Baker Jr., Inc.
Airside Business Park
100 Airside Park
Moon Township. PA 15108

Project: Bossier Parish East-West Corridor
Winfield Road Extension
State Project No. 700-08-0130
F.A.P. No. DE-0806(509)

Dear Mr. Gesing:

We understand that comments were received on the abovementioned project concerning the flood plain issues. This project will cross a number of streams (Willow Chute, Flat River and Red Chute Bayou) as it travels East to West and each area will have to be designed to meet the appropriate section of 44CFR (Natural Flood Insurance Program Regulations as well as the Bossier Parish Flood Ordinances).

The flood plain issues associated with the project including but not limited to effects on the floodways/backwater will be part of the design process and the hydraulic and hydrological studies will be submitted to my office for review and approval. Development permits will be issued prior to construction that meets all Federal, State and Local Regulations.

If any additional information is needed, please contact our office at 318-965-2329.

Sincerely,

Joe E. Ford Jr., P.E.
Bossier Parish Floodplain Administrator

JEF:rg

Cc: Mr. Bill Altimus, Parish Administrator
Mr. Patrick Jackson, Parish Attorney

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
P.O. Box 94245
Baton Rouge, Louisiana 70804-9245
www.dotd.louisiana.gov
(225) 242-4502

BOBBY JINDAL
GOVERNOR

SHERRI LEBAS
INTRIM-SECRETARY

August 11, 2010

STATE PROJECT NO.: 700-08-0130
F.A.P. NO.: DE-0806(509)
NAME: EAST-WEST CORRIDOR WINFIELD ROAD EXTENSION
PARISH: BOSSIER

The Final Report has been reviewed and accepted.

Phil Boggan 8/27/2010
Phil Boggan — Date
Deputy State Historic Preservation Officer

Mr. Scott Hutcheson
State Historic Preservation Officer
Department of Culture, Recreation and Tourism
Office of Cultural Development
P.O. Box 44247, Capitol Station
Baton Rouge, LA 70804

SUBJECT: PLEASE REVIEW THE ATTACHED DOCUMENTS

Dear Mr. Hutcheson:

Attached for your final approval are the following: Historic Resources Survey and Determination of Eligibility, Phase I Archaeological Survey and an envelope containing the information on a disk format and Louisiana Historic Resource Inventory. If you have any questions or comments, please call Tiffinee Brown at (225) 242-4518.

Sincerely,

Noel Ardoin
Environmental Engineer Administrator

Attachment
NA/RL/tb

AUG 13 2010

NOISE RECEPTOR SITES
AND
EXISTING AND PREDICTED SOUND LEVELS

EXISTING AND PREDICTED SOUND LEVELS								
Receptor ID	Land Use	Estimated L_{eq}(h) dBA						
		Existing	No Build	Line				
				1	2	3	3R (Preferred Alignment)	Selected Alignment
1	Residential	59	60	64	59	59	59	59
2	Residential	61	62	R/W	61	61	61	61
3	Residential	56	57	61	56	56	56	56
4	Commercial	55	56	59	55	55	55	55
5	Residential	53	54	56	53	53	53	53
6	Shiloh Baptist Church	50	51	53	50	50	50	50
7	Residential	52	53	56	52	52	52	52
8	Residential	52	54	55	52	52	52	52
9	Residential	52	53	58	52	52	52	52
10	Residential	52	53	59	52	52	52	52
11	Commercial	52	53	55	52	52	52	52
12	Commercial	51	53	54	51	51	51	51
13	Residential	52	53	56	52	52	52	52
14	Residential	52	53	56	52	52	52	52
15	Residential	52	53	57	52	52	52	52
16	Residential	52	53	59	52	52	52	52
17	Residential	51	52	53	51	51	51	51
18	Residential	52	53	57	52	52	52	52
19	Residential	52	53	57	52	52	52	52
20	Residential	52	53	55	52	52	52	52
21	Residential	52	53	55	52	52	52	52
22	Residential	52	53	56	52	52	52	52
23	Residential	52	53	57	52	52	52	52
24	Residential	52	53	57	52	52	52	52
25	Residential	52	53	56	52	52	52	52
26	Residential	52	53	55	52	52	52	52
27	Commercial	52	53	60	52	52	52	52
28	Residential	51	51	60	59	59	59	59
29	Residential	50	51	60	59	59	59	59
30	Residential	54	55	55	55	55	55	55
31	Residential	52	52	55	54	55	55	55
32	Residential	52	52	55	54	55	55	55
33	Residential	52	52	53	53	54	54	54
34	Residential	59	60	64	61	61	61	61
35	Commercial	47	48	51	54	48	48	48
36	Residential	56	57	62	59	59	59	59
37	Residential	47	47	47	50	47	47	47
38	Residential	56	57	61	58	58	58	58
39	Residential	47	47	47	55	47	47	47
40	Residential	63	64	64	64	64	64	64
41	Residential	47	47	47	56	47	47	47
42	Residential	62	63	63	62	62	62	62

EXISTING AND PREDICTED SOUND LEVELS								
Receptor ID	Land Use	Estimated L_{eq}(h) dBA						
				Line				
		Existing	No Build	1	2	3	3R (Preferred Alignment)	Selected Alignment
43	Residential	47	47	47	53	47	47	47
44	Residential	62	63	63	63	63	63	63
45	Residential	47	47	47	53	47	47	47
46	Residential	54	55	58	54	54	54	54
47	Residential	47	47	47	47	47	47	47
48	Residential	52	53	56	52	52	52	52
49	Residential	47	47	47	54	47	47	47
50	Commercial	60	61	64	61	61	61	61
51	Residential	47	47	47	52	47	47	47
52	Spirit Wind Ministries	54	55	58	55	55	55	55
53	Residential	47	47	47	50	47	47	47
54	Residential	54	55	58	54	54	54	54
55	Residential	47	47	47	51	47	47	47
56	Commercial	55	59	59	57	59	59	59
57	Residential	47	47	47	48	47	47	47
58	Commercial	56	59	59	58	59	59	59
59	Residential	47	47	47	50	47	47	47
60	Commercial	56	59	59	58	59	59	59
61	Residential	48	48	48	52	48	48	48
62	Commercial	55	58	59	57	59	59	59
63	Residential	47	47	47	47	47	47	47
64	Commercial	55	59	59	58	59	59	59
65	Residential	47	47	47	47	47	47	47
66	Christview Christian Church	52	53	54	52	54	54	54
67	Residential	47	49	49	50	49	49	49
68	Commercial	56	57	57	56	57	57	57
69	Residential	53	57	57	57	57	57	57
70	Commercial	61	61	61	61	61	61	61
71	Residential	50	50	50	52	50	50	50
72	Commercial	51	53	53	53	58	58	58
73	Residential	50	50	50	52	50	50	50
74	Residential	50	50	50	52	50	50	50
75	Residential	50	50	50	52	50	50	50
76	Residential	50	50	50	52	50	50	50
77	Residential	50	50	50	53	50	50	50
78	Residential	50	50	50	53	50	50	50
79	Mid City Baptist Church	52	54	54	54	54	54	54
80	Residential	53	54	54	57	54	54	54
81	Residential	53	55	55	56	56	56	56
82	Residential	58	59	59	61	58	58	58
83	Residential	53	55	55	56	56	56	56

EXISTING AND PREDICTED SOUND LEVELS								
Receptor ID	Land Use	Estimated L_{eq}(h) dBA						
		Existing	No Build	Line				
				1	2	3	3R (Preferred Alignment)	Selected Alignment
84	Residential	59	60	60	62	59	59	59
85	Residential	45	47	47	49	47	47	47
86	Residential	57	58	58	60	57	57	57
87	Commercial	45	47	47	53	47	47	47
88	Residential	57	58	58	60	57	57	57
89	Commercial	53	54	54	63	54	54	54
90	Commercial	58	59	59	62	59	59	59
91	Commercial	50	50	50	56	50	50	50
92	Residential	61	62	62	64	61	61	61
93	Residential	54	55	55	66	55	55	55
94	Residential	64	65	65	67	63	63	63
95	Residential	50	50	50	53	50	50	50
96	Residential	55	56	56	60	57	57	57
97	Residential	51	51	51	55	51	51	51
98	Residential	56	57	57	60	57	57	57
99	Residential	51	51	51	55	51	51	51
100	Residential	52	53	53	57	53	53	53
101	Residential	51	51	51	57	51	51	51
102	Residential	53	54	54	58	55	55	55
103	Residential	51	51	51	57	51	51	51
104	Residential	54	55	55	59	55	55	55
105	Residential	51	51	51	57	51	51	51
107	Residential	51	51	51	58	51	51	51
108	Residential	51	51	51	58	51	51	51
110	Residential	51	51	51	55	51	51	51
111	Residential	51	51	51	57	51	51	51
112	Residential	51	51	51	57	51	51	51
113	Residential	51	51	51	57	51	51	51
115	Legacy Elementary School	51	51	51	55	51	51	51
116	Residential	51	51	51	51	51	51	51
118	Residential	53	54	54	57	55	55	55
119	House of Purpose Baptist Church	54	55	55	57	54	54	54
120	Residential	49	50	50	50	52	52	52
121	Residential	49	50	50	50	50	50	50
122	Commercial	50	51	51	53	53	53	54
123	Commercial	71	72	68	68	69	69	69
124	Residential	71	72	67	67	67	67	67
125	Residential	71	72	67	67	67	67	67
126	Residential	71	72	68	68	67	67	67
127	Commercial	65	66	64	64	64	64	64

EXISTING AND PREDICTED SOUND LEVELS								
Receptor ID	Land Use	Estimated L_{eq}(h) dBA						
		Existing	No Build	Line				
				1	2	3	3R (Preferred Alignment)	Selected Alignment
128	Commercial	65	66	64	64	64	64	64
130	Residential	56	57	57	56	58	58	62
131	Residential	58	59	59	59	63	63	R/W
133	Residential	47	48	48	48	51	51	52
135	Residential	49	50	50	50	53	53	53
137	Residential	64	65	65	65	66	66	66
138	Residential	54	55	55	55	59	59	59
140	Residential	52	53	53	53	54	54	54
142	First Church of God	57	59	59	59	61	61	61
144	Residential	49	50	50	50	52	52	52
146	Residential	49	50	50	50	50	50	50
147	Commercial	57	57	57	57	60	60	60
149	Commercial	55	55	55	62	58	58	58
150	Commercial	54	54	54	61	57	57	57
151	Commercial	55	58	58	60	58	58	58
152	Residential	57	59	59	61	60	60	60
153	Residential	57	59	59	61	60	60	60
154	Residential	57	59	59	61	60	60	60
155	Residential	60	62	62	64	63	63	63
156	Residential	52	54	54	56	56	56	56
157	Residential	50	52	52	53	54	54	54
158	Residential	48	50	50	51	53	53	53
159	Residential	47	47	47	47	56	56	56
160	Residential	47	47	47	47	51	51	51
161	Residential	47	47	47	47	57	57	57
162	Residential	47	47	47	47	61	61	61
163	Residential	47	47	47	47	48	48	48
164	Residential	63	63	63	63	64	64	64
165	Residential	62	62	62	62	63	63	63
166	Residential	59	59	59	59	59	59	59
167	Residential	57	57	57	57	57	57	57
168	Residential	54	54	54	54	55	55	55
169	Residential	52	52	52	52	53	53	53
170	Residential	51	51	52	52	53	53	53
171	Residential	51	51	52	52	53	53	53
172	Residential	51	51	51	52	53	53	53
173	Residential	51	51	51	52	53	53	53
174	Residential	51	51	52	52	53	53	53
175	Residential	51	51	51	52	53	53	53
176	Residential	51	51	51	51	52	52	52
177	Residential	51	51	51	52	53	53	53
178	Residential	71	72	67	67	67	67	67

EXISTING AND PREDICTED SOUND LEVELS								
Receptor ID	Land Use	Estimated L_{eq}(h) dBA						
		Existing	No Build	Line				
				1	2	3	3R (Preferred Alignment)	Selected Alignment
LP10	Residential	46	46	46	46	48	48	48
LP6	Residential	46	46	46	46	48	48	48
LP18	Residential	46	46	46	46	51	51	49
LP7	Residential	46	46	46	46	49	49	48
LP5	Residential	46	46	46	46	50	50	49
Tib4	Residential	47	47	47	47	48	48	48
Tib1	Residential	47	47	47	47	48	48	48
Tib3	Residential	47	47	47	47	48	48	48
Tib1	Residential	47	47	47	47	50	50	50
Tib1B	Residential	47	47	47	47	50	50	50
Deen1	Residential	54	54	56	54	54	54	54
RL1	Residential	47	47	47	47	60	60	60
RL2	Residential	47	47	47	47	59	59	59
RL3	Residential	47	47	47	47	59	59	59
RL4	Residential	47	47	47	47	58	58	58
RL5	Residential	47	47	47	47	60	60	60
RL6	Residential	47	47	47	47	61	61	61
RL7	Residential	47	47	47	47	61	61	61
RL8	Residential	47	47	47	47	60	60	60
L1	Residential	54	54	57	54	54	54	54
L2	Residential	54	54	58	54	54	54	54
L3	Residential	54	54	58	54	54	54	54
L4	Residential	54	54	58	54	54	54	54
L5	Residential	54	54	60	54	54	54	54
L6	Residential	54	54	60	54	54	54	54
L7	Residential	54	54	59	54	54	54	54
L8	Residential	54	54	59	54	54	54	54

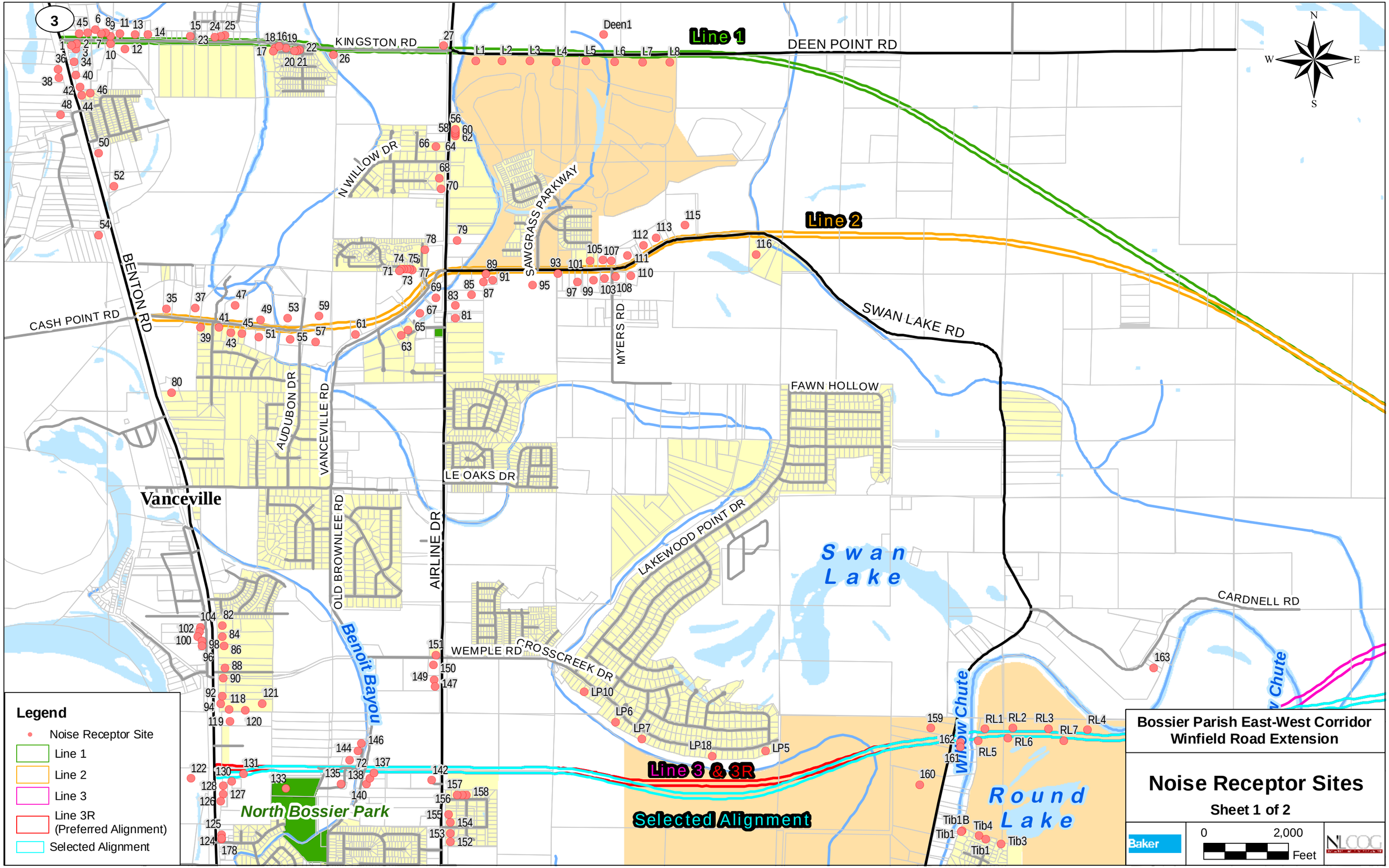
Source: Michael Baker Jr., Inc.

Note1: Shaded areas warrant noise mitigation consideration according to DOTD policy. Shaded areas approach and/or exceed DOTD noise policy criteria.

Note 2: Receptors located far away from various Lines had very low L_{eq} predicted by TNM. Therefore, the no-build results were assumed to represent the sound levels at those locations for those Lines.

Note 3: Some numbers were deleted as they were found to be duplicated from other TNM Line runs. However, to keep the continuity and order intact, they were eliminated instead of renumbering the entire list.

Indicates receptor that equals or exceeds DOTD Noise Abatement Criteria (NAC).
Indicates receptor that meets DOTD substantial noise increase criteria
Indicates receptor that meets both DOTD substantial noise increase criteria and DOTD NAC.


3
KINGSTON RD
DEEN POINT RD
Deen1
Line 1
Line 2
BENTON RD
CASH POINT RD
N WILLOW DR
SAWGRASS PARKWAY
MYERS RD
SWAN LAKE RD
FAWN HOLLOW
AUDUBON DR
VANCEVILLE RD
LE OAKS DR
Vanceville
OLD BROWNLEE RD
AIRLINE DR
LAKEWOOD POINT DR
WEMPLE RD
CROSSCREEK DR
Benoit Bayou
Swan Lake
CARDNELL RD
Willow Chute
Round Lake
North Bossier Park
Line 3 & 3R
Selected Alignment
N
S
E
W
Legend
Noise Receptor Site
Line 1
Line 2
Line 3
Line 3R (Preferred Alignment)
Selected Alignment
Bossier Parish East-West Corridor
Winfield Road Extension
Noise Receptor Sites
Sheet 1 of 2
Baker
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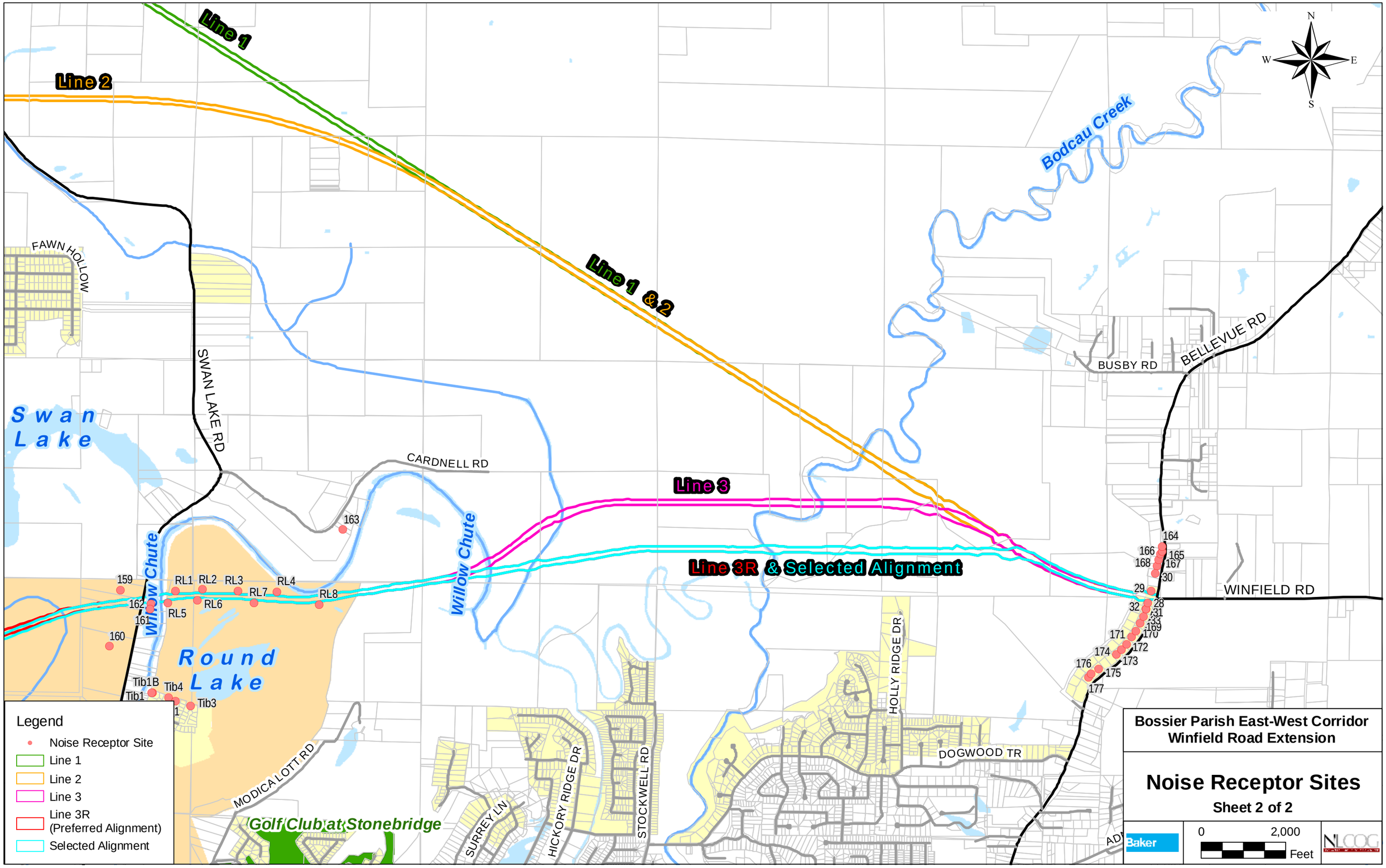
Line 1
Line 2
Line 1 &2
Line 3
Line 3R & Selected Alignment
Bodcau Creek
Willow Chute
Willow Chute
Swan Lake
Round Lake
Golf Club at Stonebridge
FAWN HOLLOW
SWAN LAKE RD
CARDNELL RD
MODICA LOTT RD
BUSBY RD
BELLEVUE RD
WINFIELD RD
HOLLY RIDGE DR
DOGWOOD TR
SURREY LN
HICKORY RIDGE DR
STOCKWELL RD
N
W
E
S
159
162
161
160
163
RL1
RL2
RL3
RL4
RL5
RL6
RL7
RL8
Tib1B
Tib1
Tib4
Tib3
164
166
165
168
167
30
29
32
28
31
33
169
170
171
172
174
173
176
175
177
Legend
Noise Receptor Site
Line 1
Line 2
Line 3
Line 3R
(Preferred Alignment)
Selected Alignment
Bossier Parish East-West Corridor
Winfield Road Extension
Noise Receptor Sites
Sheet 2 of 2
Baker
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NLCOG

SECTION 404
PERMIT APPLICATION

APPLICATION FOR DEPARTMENT OF THE ARMY PERMIT *(33 CFR 325)*	OMB APPROVAL NO. 0710-0003 EXPIRES: 31 August 2012

Public reporting burden for this collection of information is estimated to average 11 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Department of Defense, Washington Headquarters, Executive Services and Communications Directorate, Information Management Division and to the Office of Management and Budget, Paperwork Reduction Project (0710-0003). Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. Please DO NOT RETURN your form to either of those addresses. Completed applications must be submitted to the District Engineer having jurisdiction over the location of the proposed activity.

PRIVACY ACT STATEMENT

Authorities: Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 USC 1344; Marine Protection, Research, and Sanctuaries Act, Section 103, 33 USC 1413; Regulatory Programs of the Corps of Engineers; Final Rule 33 CFR 320-332. Principal Purpose: Information provided on this form will be used in evaluating the application for a permit. Routine Uses: This Information may be shared with the Department of Justice and other federal, state, and local government agencies, and the public and may be made available as part of a public notice as required by Federal law. Submission of requested information is voluntary, however, if information is not provided the permit application cannot be evaluated nor can a permit be issued. One set of original drawings or good reproducible copies which show the location and character of the proposed activity must be attached to this application (see sample drawings and instructions) and be submitted to the District Engineer having jurisdiction over the location of the proposed activity. An application that is not completed in full will be returned.

(ITEMS 1 THRU 4 TO BE FILLED BY THE CORPS)

1. APPLICATION NO.	2. FIELD OFFICE CODE	3. DATE RECEIVED	4. DATE APPLICATION COMPLETE

(ITEMS BELOW TO BE FILLED BY APPLICANT)

5. APPLICANT'S NAME:	8. AUTHORIZED AGENT'S NAME AND TITLE (an agent is not required)
First - Middle - Last –	First - Middle - Last –
Company –	Company –
E-mail Address –	E-mail Address –
6. APPLICANT'S ADDRESS. Address -	9. AGENT'S ADDRESS Address -
City – State – Zip – Country –	City – State – Zip – Country –
7. APPLICANT'S PHONE NOs. W/AREA CODE.	10. AGENT'S PHONE NOs. W/AREA CODE
a. Residence b. Business c. Fax	a. Residence b. Business c. Fax

STATEMENT OF AUTHORIZATION

11. I hereby authorize, _____ to act in my behalf as my agent in the processing of this application and to furnish, upon request, supplemental information in support of this permit application.

APPLICANT'S SIGNATURE DATE

NAME, LOCATION, AND DESCRIPTION OF PROJECT OR ACTIVITY

12. PROJECT NAME OR TITLE (see instructions)

EAST-WEST CORRIDOR (WINFIELD ROAD EXTENSION), BOSSIER PARISH, LA

13. NAME OF WATERBODY, IF KNOWN (if applicable)	14. PROJECT STREET ADDRESS (if applicable)
See Attachment 1 and Table 1.	Address
15. LOCATION OF PROJECT	
Latitude: °N See Attachment 1, Table 2. Longitude: °W See Attachment 1, Table 2.	City - State – Zip -

16. OTHER LOCATION DESCRIPTIONS, IF KNOWN (see instructions)

State Tax Parcel ID Municipality

Section – See Exhibit 1 Township – Range –

17. DIRECTIONS TO THE SITE

See Exhibit 1.

18. Nature of Activity (Description of project, include all features)

See Attachment 1 and Final Environmental Assessment, Section 3.12 - Selected Alignment

19. Project Purpose (Describe the reason or purpose of the project, see instructions)

See Attachment 1 and Final Environmental Assessment, Section 2 - Purpose and Need

USE BLOCKS 20-23 IF DREDGED AND/OR FILL MATERIAL IS TO BE DISCHARGED

20. Reason(s) for Discharge

See Attachment 1.

21. Type(s) of Material Being Discharged and the Amount of Each Type in Cubic Yards:

Type Amount in Cubic Yards	Type Amount in Cubic Yards	Type Amount in Cubic Yards
Information will be developed during Final Design		

22. Surface Area in Acres of Wetlands or Other Waters Filled (see instructions)

Acres 26.85 Acres of wetlands and 0.11 acres of Other Waters. See Attachment 1, Table 2 and Exhibit 2

Or

Liner Feet

23. Description of Avoidance, Minimization, and Compensation (see instructions)

See Attachment 1.

24. Is Any Portion of the Work Already Complete? Yes ☐ No ☑ IF YES, DESCRIBE THE COMPLETED WORK

25. Addresses of Adjoining Property Owners, Lessees, Etc., Whose Property Adjoins the Waterbody (If more than can be entered here, please attach a supplemental list).

Address – See Attachment 1.

City – State – Zip –

26. List of Other Certifications or Approvals/Denials Received from other Federal, State, or Local Agencies for Work Described in This Application.

AGENCY	TYPE APPROVAL*	IDENTIFICATION NUMBER	DATE APPLIED	DATE APPROVED	DATE DENIED
LA DEPT OF ENV QUALITY	SEC 401 WATER QUALITY CERT.				
LA DEPT OF ENV QUALITY	LPDES				
Bossier Levee District	Levee Crossing Permit				

* Would include but is not restricted to zoning, building, and flood plain permits

27. Application is hereby made for a permit or permits to authorize the work described in this application. I certify that the information in this application is complete and accurate. I further certify that I possess the authority to undertake the work described herein or am acting as the duly authorized agent of the applicant.

SIGNATURE OF APPLICANT _____ DATE _____ SIGNATURE OF AGENT _____ DATE _____

The application must be signed by the person who desires to undertake the proposed activity (applicant) or it may be signed by a duly authorized agent if the statement in block 11 has been filled out and signed.

18 U.S.C. Section 1001 provides that: Whoever, in any manner within the jurisdiction of any department or agency of the United States knowingly and willfully falsifies, conceals, or covers up any trick, scheme, or disguises a material fact or makes any false, fictitious or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious or fraudulent statements or entry, shall be fined not more than $10,000 or imprisoned not more than five years or both.

Attachment 1

Block 13. Name of Waterbody

The East-West Corridor crosses Benoit Bayou, Willow Chute, the Flat River Drainage Canal, Bodcau Creek and associated tributaries. Table 1 summarizes the stream impacts.

Table 1
SURFACE WATER IMPACTS SUMMARY

Stream ID	Name	Stream Classification	Station		Selected Alignment	
			Start	End	Area Impacted (acres)	Bridge / Culvert
11	Unnamed Tributary 5	Intermittent	113+20		0.013	Culvert
12	Unnamed Tributary 6	Intermittent	125+77		0.010	Culvert
13	Benoit Bayou	Perennial	133+65		0.041	Culvert
14	Unnamed Tributary 7	Intermittent	166+64		0.003	Culvert
15	Unnamed Tributary 8	Intermittent	172+66	180+19	0.039	Culvert
16	Willow Chute	Perennial	257+52		<0.001	Bridge
17	Willow Chute	Perennial	279+92		<0.001	Bridge
18	Willow Chute	Perennial	358+44		<0.001	Bridge
19	Flat River Ditch	Perennial	368+21		<0.001	Bridge
20	Bodcau Creek	Perennial	423+50	425+78	<0.001	Bridge
TOTAL IMPACTS (Acres)					0.11	
# Crossings					10	

Source: Michael Baker Jr., Inc. 2009
Note: Culvert impacts are based on watercourse length and approximate width between construction limits. Bridge impacts are based on watercourse width and assumed 20-foot slab spans on pier bents with 6 – 16 inch square piles.

Block 18. Nature of Activity (Description of project, include all features).

The East-West Corridor consists of the construction of approximately 8.0 miles of new roadway extending from Winfield and Bellevue Roads to Benton Road (LA 3). The roadway would be initially constructed as a two-lane facility with rights-of-way clearance for future widening to a five-lane (four thru-lanes with a center left-turn lane) facility if, and when, traffic conditions warrant. Because there is no timeline for these improvements, the earthwork for the initial construction would be limited to that necessary for the two-lane facility. This will locate ditches adjacent to the improvements and minimize maintenance costs. The shoulders would be constructed to the same specifications as the travel lanes to allow for future expansion.

As part of the initial construction, bridges and drainage structures would be constructed to the full five-lane section.

Block 19. Project Purpose (Describe the reason or purpose of the project, see instructions).

The purpose of the East-West Corridor project is to improve area-wide vehicular mobility and safety by providing an additional east-west roadway within the central, unincorporated portion of Bossier Parish that will alleviate congestion by diverting traffic from parallel facilities and reduce travel delays along other area roadways that link the rapidly growing residential areas of Bossier Parish to the employment centers of Shreveport and Bossier City. The roadway would also provide an alternate route that will enable quicker access to hospitals and medical care and may have the added benefit of reducing driver frustration, contributing to improved safety.

Block 20. Reason(s) for Discharge.

Material will be removed or placed at nineteen (19) identified sites along the alignment to support the construction of the proposed roadway or installation of drainage structures or bridges. The identified sites are primarily palustrine emergent or palustrine forested wetlands with several areas meeting the criteria for prior converted cropland. A summary of the wetland impacts by location including potential prior converted croplands are identified in Table 2.

Block 23. Description of Avoidance, Minimization, and Compensation.

The development of alternatives for the East-West Corridor followed a systematic, interdisciplinary approach to first identify, then avoid, and if not practicable, minimize impacts to human, cultural and natural resources, including wetlands. The northeastern portion of the Federal Action Area, as defined in the Final Environmental Assessment prepared for the project, is part of a large, primarily forested, wetland area associated with Cypress Bayou and Bodcau Creek, making wetland impacts avoidance impossible. Of the alignments developed, the Selected Alignment identified in the Final Environmental Assessment has the least impact on wetland resources and best balances the expected benefits with the overall impacts.

Wetlands determined to be jurisdictional by the COE and lost due to roadway construction would be replaced through mitigation activities. Information maintained by the NRCS on prior converted croplands is not available due to privacy laws. A review of 1939, 1950 and 1966 aerial photography and information obtained during the wetland field investigation indicates that Wetlands 22, 23 and 25 appear to have been in agricultural use prior to December 23, 1985 and would be considered prior converted cropland if positive wetland conditions were once present.

Final compensatory mitigation ratios and requirements for impacted jurisdictional wetlands will be determined by the COE.

TABLE 2
WETLAND DELINEATION SITE SUMMARY TABLE
SELECTED ALIGNMENT

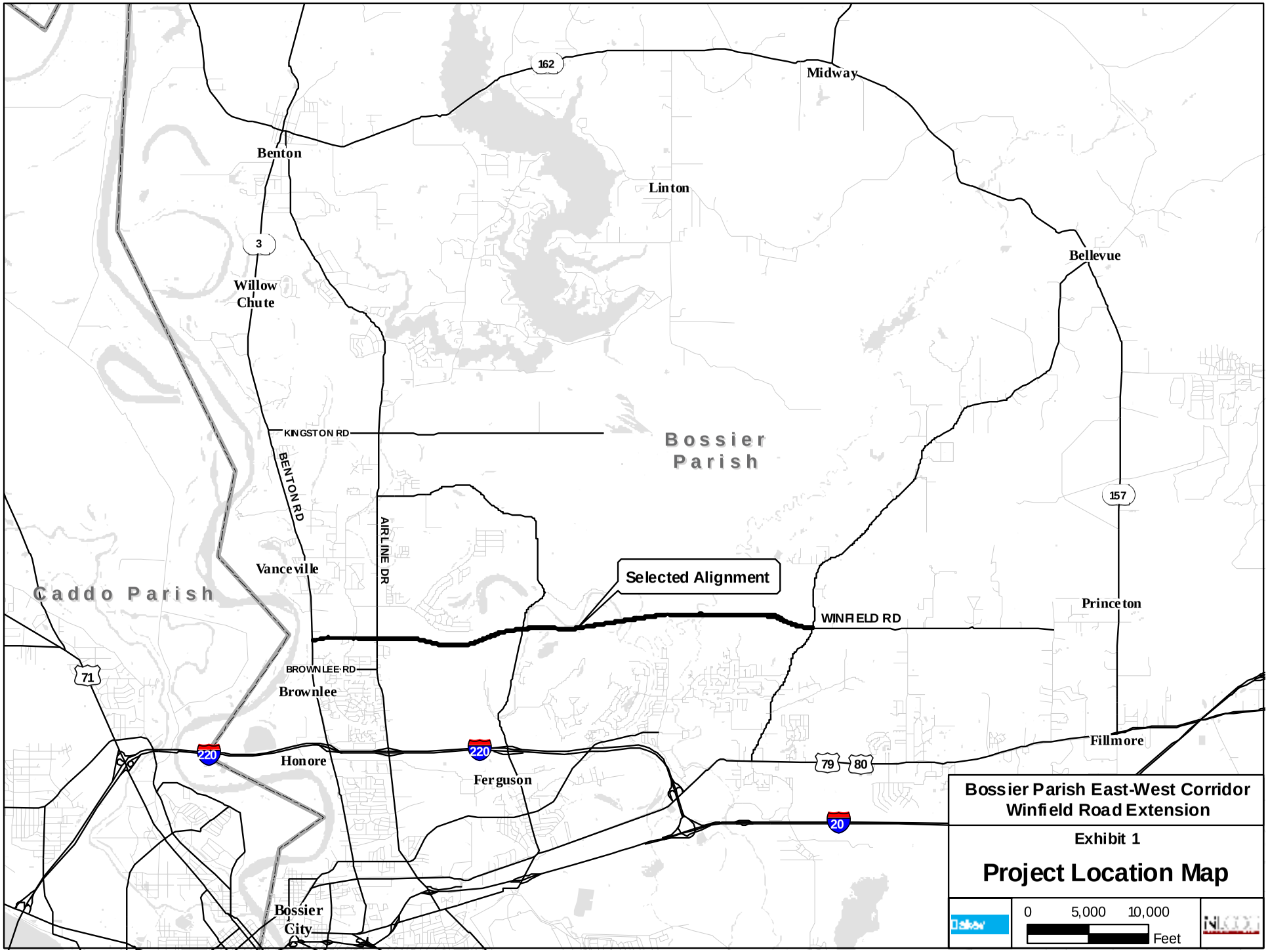
Wetland ID	STATION		LOCATION		TOTAL IMPACTS (Acres)		TYPE
	Start	End	Latitude	Longitude	Wetlands	Other Waters	
22*	109+65	113+50	32.583	-93.728	0.15	0.013	PEM, IS
23*	124+68	126+67	32.583	-93.723	0.40	0.010	PEM, IS
24	133+50	134+11	32.583	-93.721	0.07	0.041	PEM, PS
25*	154+11	179+95	32.583	-93.710	1.24	0.042	PEM, IS
26	257+08	258+26	32.584	-93.681	0.40	<0.001	PFO, PS
28	279+33	280+50	32.585	-93.674	0.28	<0.001	PFO, PS
29	292+98	293+24	32.586	-93.669	0.04	--	PEM
30	323+80	333+45	32.586	-93.658	1.56	<0.001	PFO, IS
31	331+12	332+50	32.586	-93.657	0.01	--	PFO
32	340+10	340+47	32.586	-93.654	0.02	--	PEM
33	358+00	359+18	32.587	-93.648	0.33	<0.001	PFO, IS
40	428+72	440+48	32.589	-93.623	4.97	--	PFO
	479+42	486+50					
41	367+00	369+47	32.588	-93.645	0.18	<0.001	PFO, PS
42	381+58	419+52	32.589	-93.634	10.42	--	PFO
43	419+90	420+63	32.589	-93.628	0.05	--	PEM
44	421+52	428+67	32.589	-93.627	2.77	<0.001	PFO, PS
45	492+20	502+94	32.587	-93.604	3.43	--	PFO
46	503+82	506+04	32.587	-93.601	0.42	--	PSS
47	514+96	517+60	32.586	-93.598	0.11	--	PEM
				TOTALS	26.85	0.11	

Source: Michael Baker Jr., Inc. 2009
*Potential Prior Converted Cropland

Legend: PEM-Palustrine Emergent Wetland; PSS-Palustrine Scrub Shrub Wetland; PFO-Palustrine Forested Wetland
PS-Perennial Stream; IS; Intermittent Stream

Block 25. Addresses of Adjoining Property Owners, Lessees, Etc., Whose Property Adjoins the Waterbody.

Wetland ID	Mapping Number	Assessor Number	Owner Name	Name2	Mailing Address 1	Mailing Address 2
22	1813053A1	101527	Digilormo Investments LLC, Et Al		4308 Benton Rd	Bossier City, LA 71111
	1813054G	128361	Zydeco 3	Robert D Bond	1097 Wemple Rd	Bossier City, LA 71111
	1813054G2	149639	Rick Dale Ganey	Christi Meyer Ganey	120 Bayou Crossing	Bossier City, LA 71111
	1813053B1	105016	Earl Ferguson		5116 Holly Pointe Ln	Benton, LA 71006
23	1813041G2, 1813054G, 1813054G3	128361	Zydeco 3	Robert D Bond	1097 Wemple Rd	Bossier City, LA 71111
24	1813041G2	128361	Zydeco 3	Robert D Bond	1097 Wemple Rd	Bossier City, LA 71111
	18130415A	139696	Tommie Sue Walker		4430 Old Brownlee Rd	Bossier City, LA 71111
	1813042A	106155	Frances Youngblood, Et Al		4464 Richmond Ave	Shreveport, LA 71106
25	1813031A	104035	Stuart Oden		P O Box 1806	Shreveport, LA 71166
	1813043, 1813042B	104037	Stuart Oden		P O Box 1806	Shreveport, LA 71166
	1813044	102461	Wajey Roger Shihadeh		9011 Highway 157	Haughton, LA 71037
26	1813021B	106159	James Dee Youngblood, III Et Al		4464 Richmond Ave	Shreveport, LA 71106
28	1813021A5	161381	Tiburon Development LLC		P O Box 137	Shreveport, LA 71161
29	1813011A	161381	Tiburon Development LLC		P O Box 137	Shreveport, LA 71161
30	1813011A	161381	Tiburon Development LLC		P O Box 137	Shreveport, LA 71161
	1813011B3	100722	Charles P Brigham		5425 Modica Lott Rd	Bossier City, LA 71111
31	1813011B3	100722	Charles P Brigham		5425 Modica Lott Rd	Bossier City, LA 71111
32	1813011B2	101178	Lewis P Conger		2641 Village Ln	Bossier City, LA 71112
33	1912315	101178	Lewis P Conger		2641 Village Ln	Bossier City, LA 71112
40	19123215	102504	Lewis P Conger		2641 Village Ln	Bossier City, LA 71112
	19123213A	101181	Lewis P Conger		2641 Village Ln	Bossier City, LA 71112
	19123318	118605	North LA Land Corp		707 Benton Rd	Bossier City, LA 71111
41	19123215	101178	Lewis P Conger		2641 Village Ln	Bossier City, LA 71112
42	1912314, 19123214	101178	Lewis P Conger		2641 Village Ln	Bossier City, LA 71112
43	19123214	101178	Lewis P Conger		2641 Village Ln	Bossier City, LA 71112
44	19123214, 19123213A	101178, 101181	Lewis P Conger		2641 Village Ln	Bossier City, LA 71112
45	19123318B	165231	L & A Real Estate Co LLC	Collins Real Estate Co LLC	707 Benton Rd, Ste 125	Bossier City, LA 71111
46	19123318B	165231	L & A Real Estate Co LLC	Collins Real Estate Co LLC	707 Benton Rd, Ste 125	Bossier City, LA 71111
47	SB91 0002	151593	Timothy John Moon		1950 Bellevue Rd	Haughton, LA 71037
	SB91 0030	151623	North LA Land Corp		707 Benton Rd	Bossier City, LA 71111


Midway
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Willow Chute
KINGSTON RD
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Caddo Parish
WINFIELD RD
Princeton
BROWNLEE RD
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Bossier Parish East-West Corridor
Winfield Road Extension
Exhibit 1
Project Location Map
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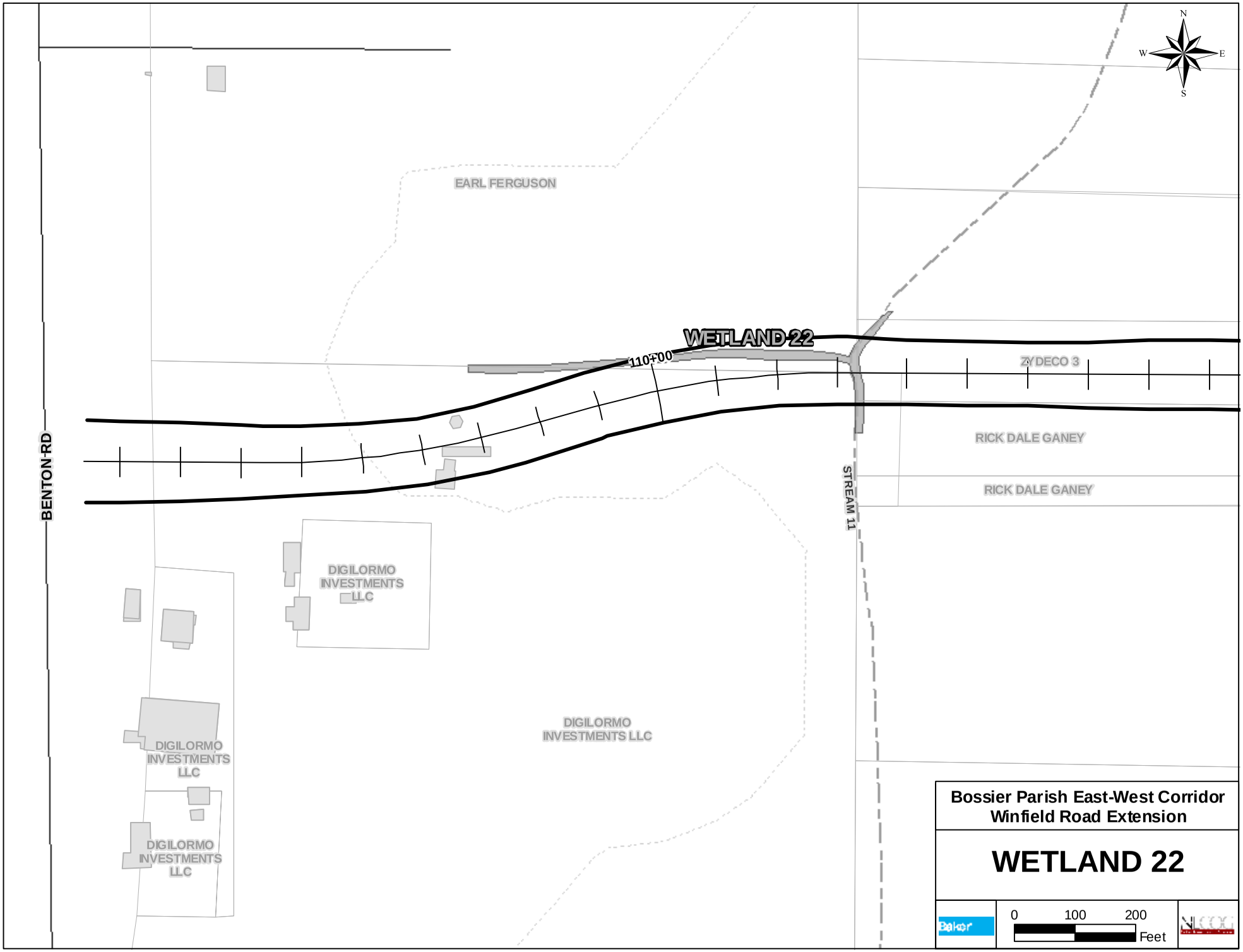
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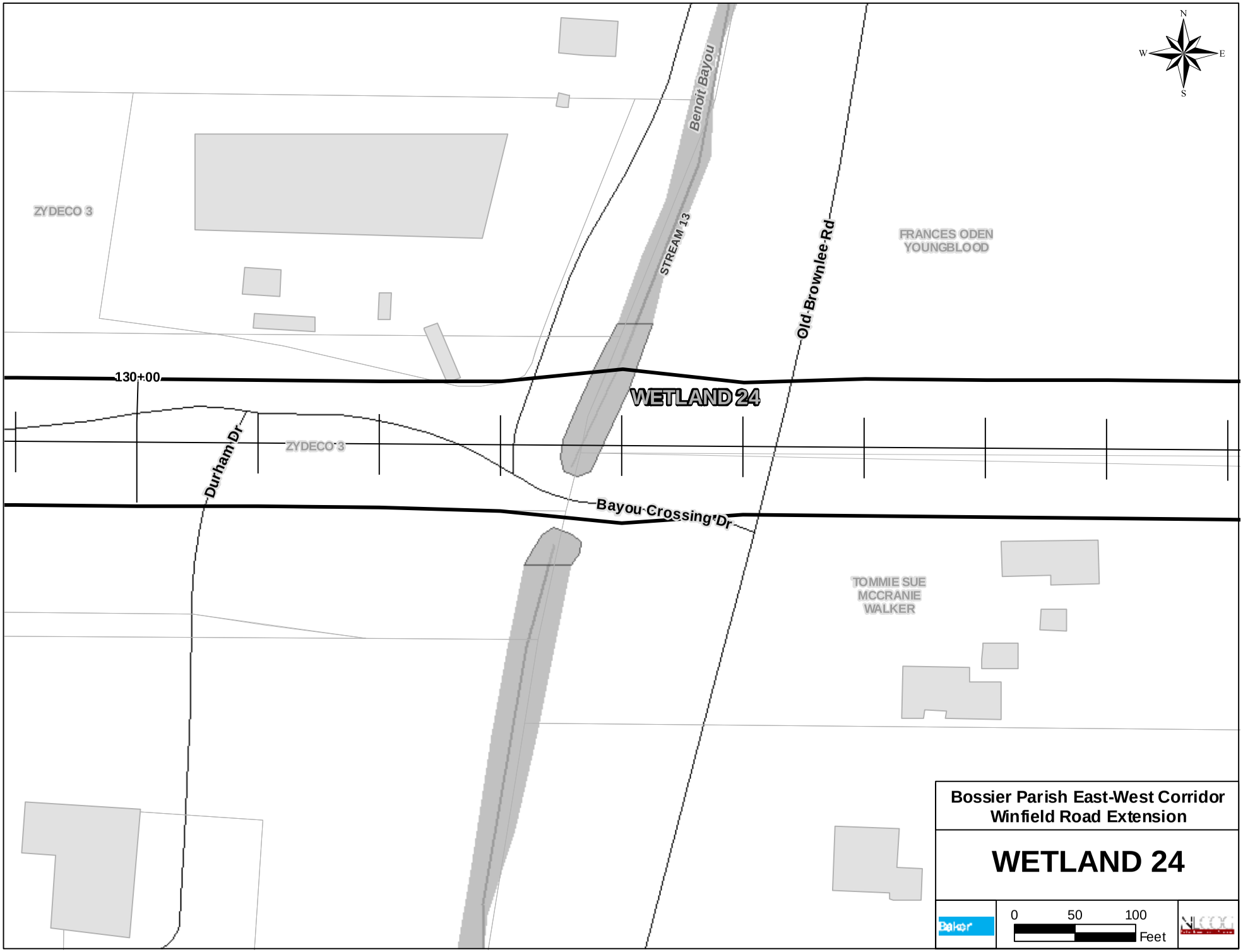
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FRANCES ODEN YOUNGBLOOD
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Durham Dr
ZYDECO 3
Bayou Crossing Dr
TOMMIE SUE MCCRANIE WALKER
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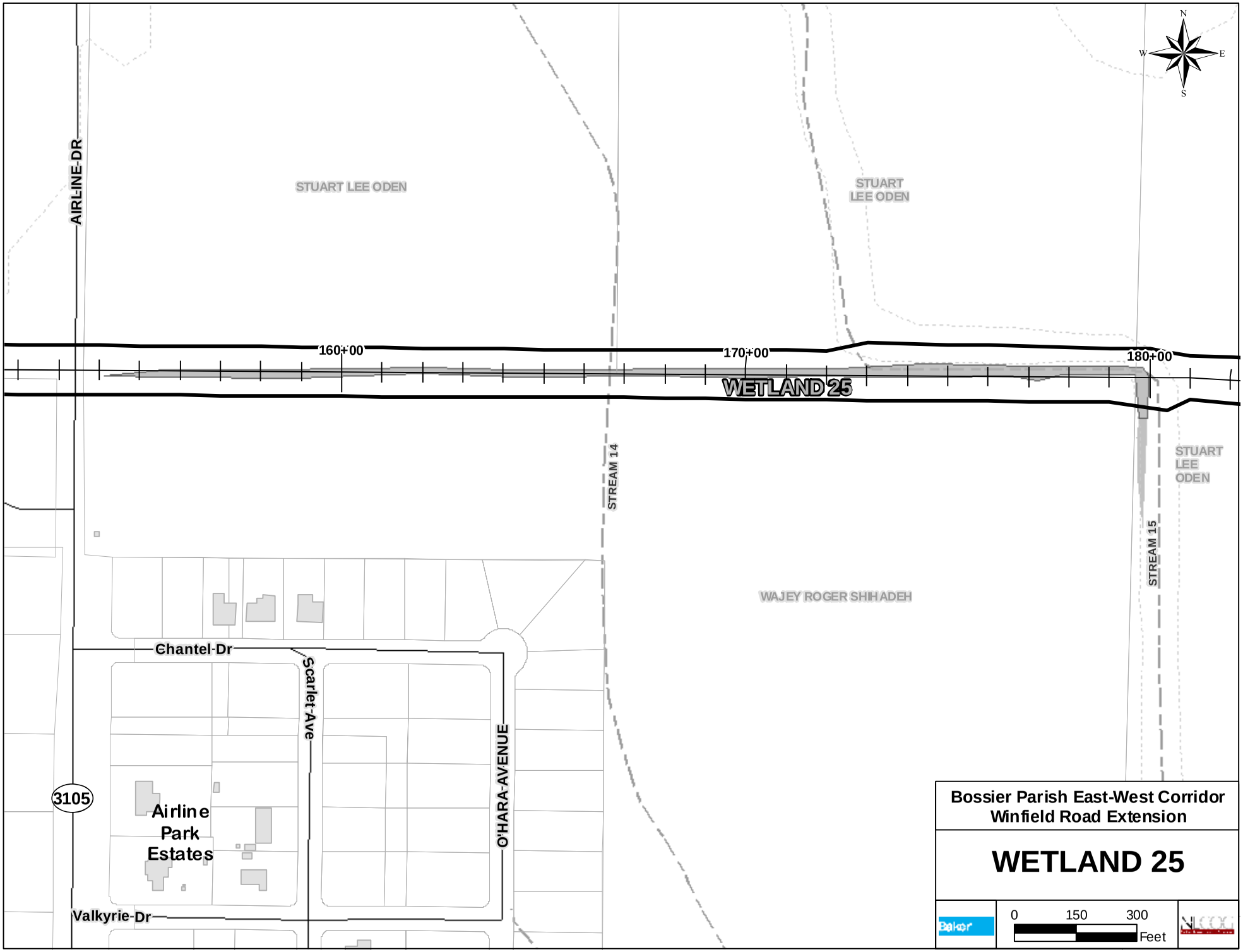
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WAJEY ROGER SHIHADEH
Chantel-Dr
Scarlet-Ave
O'HARA-AVENUE
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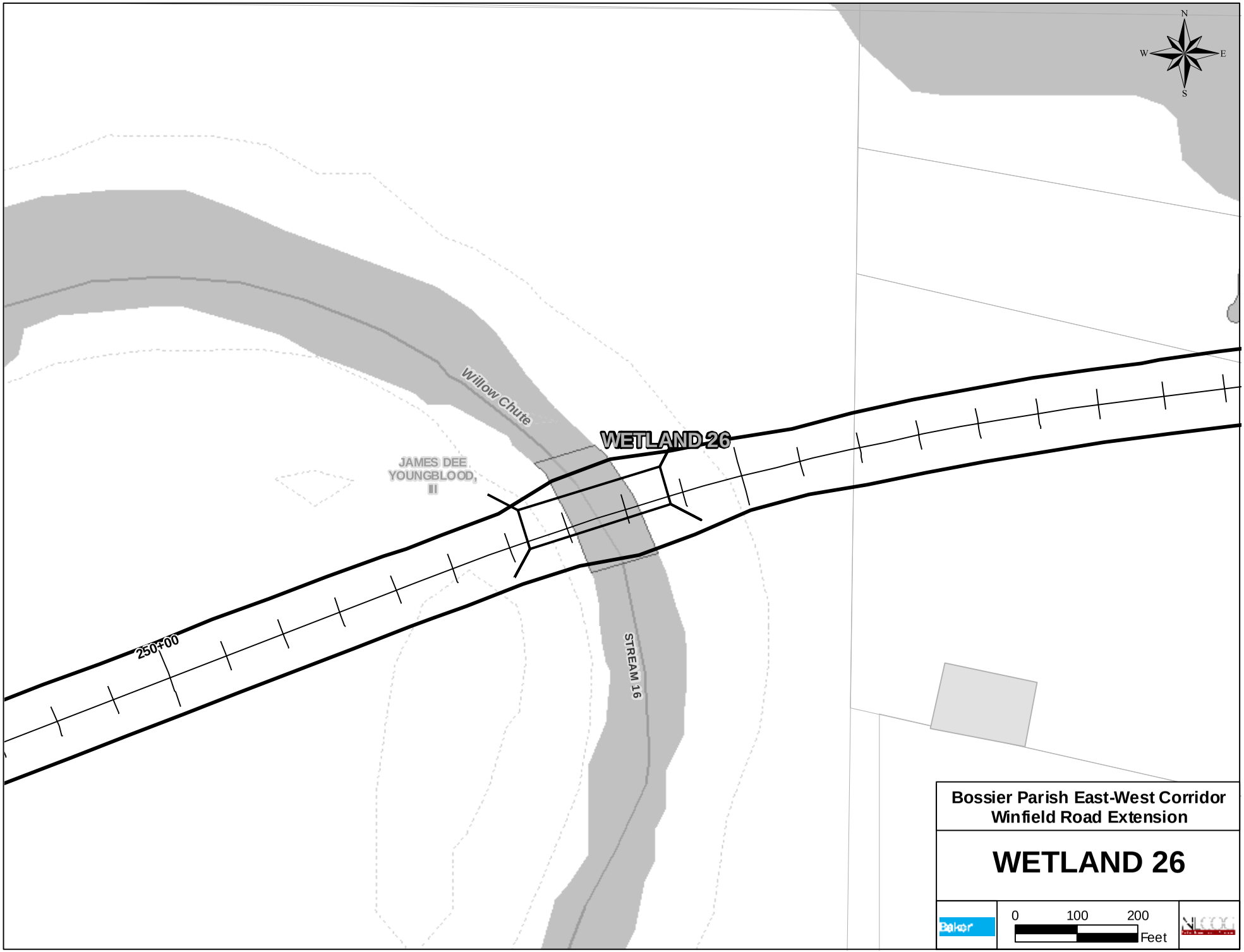
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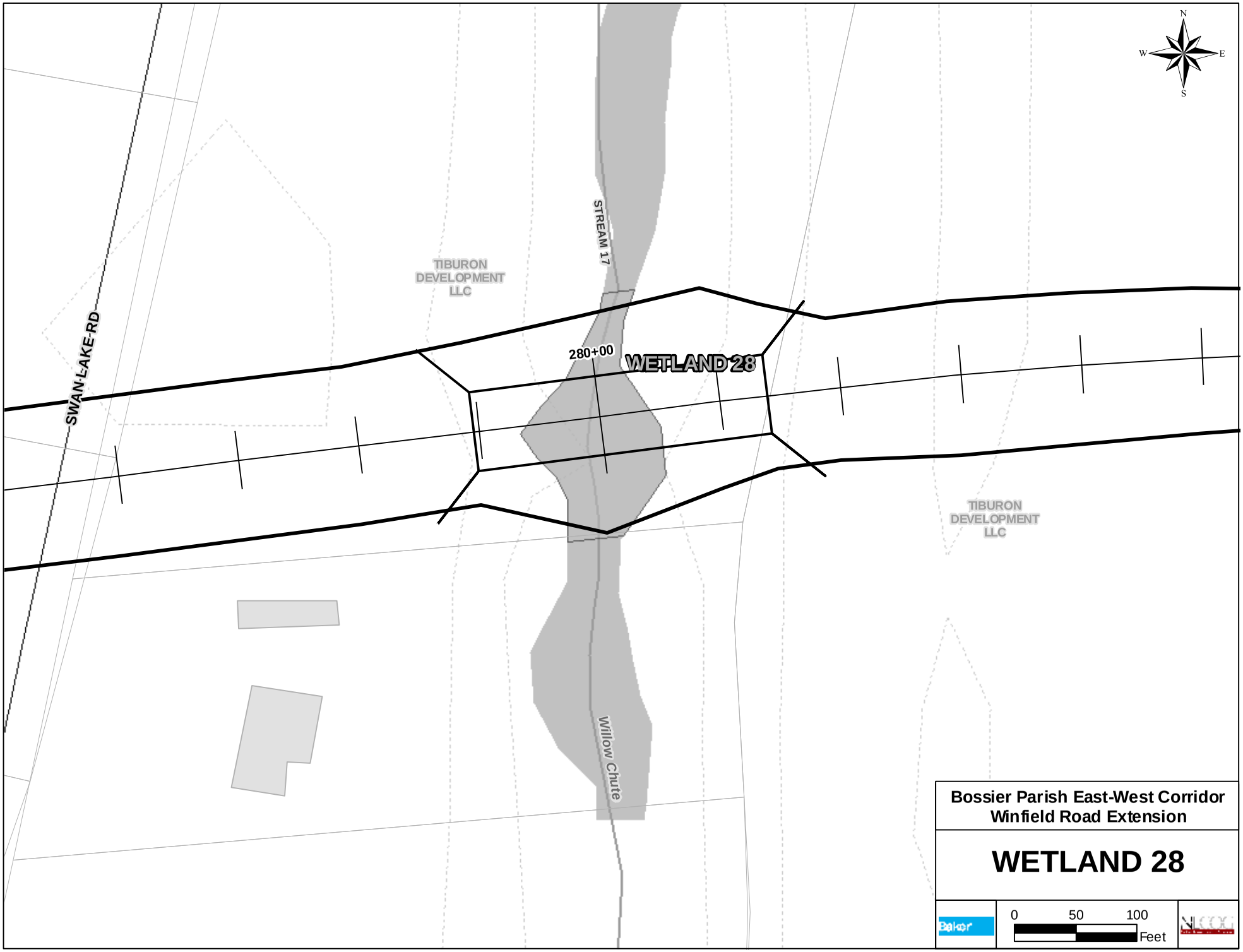
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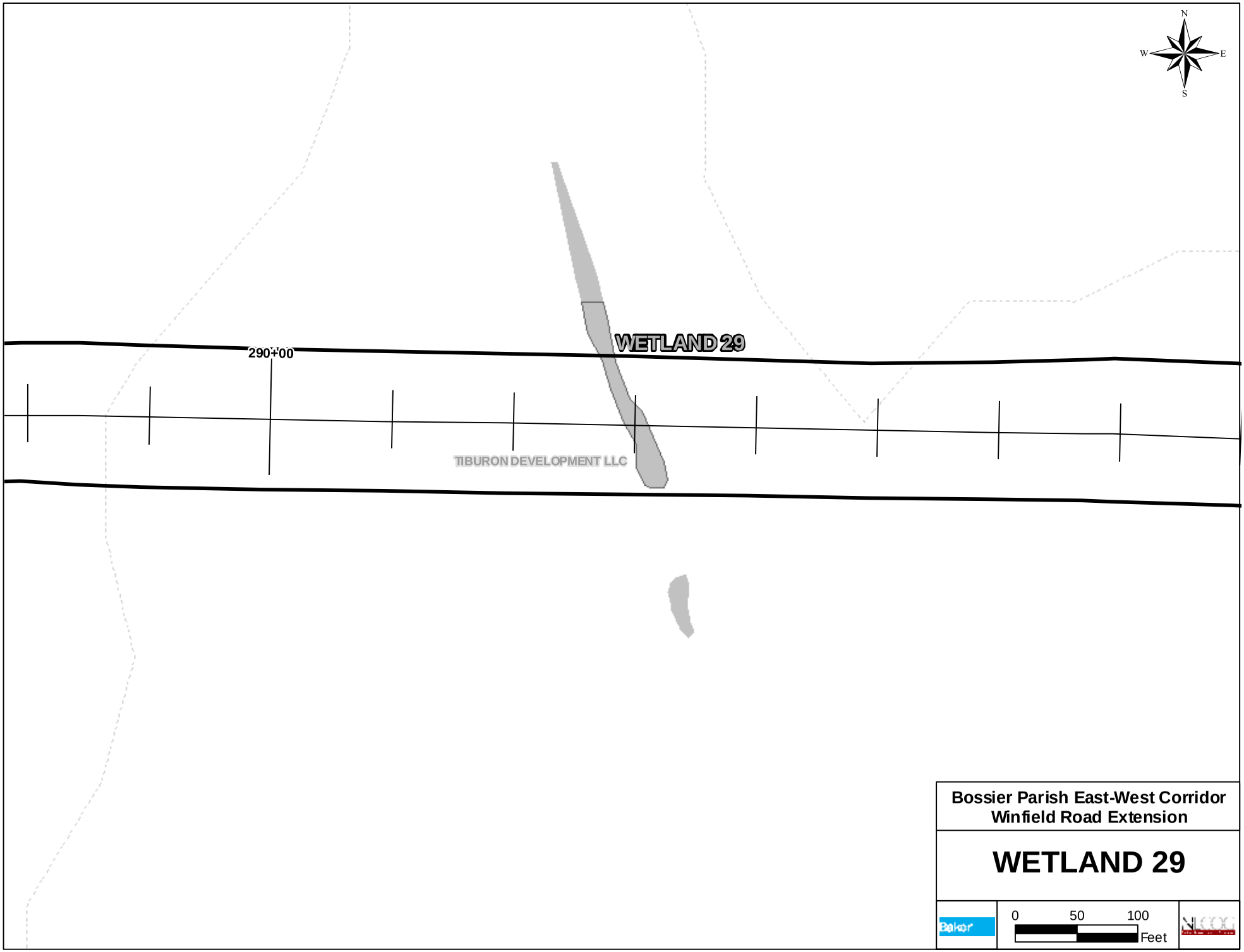
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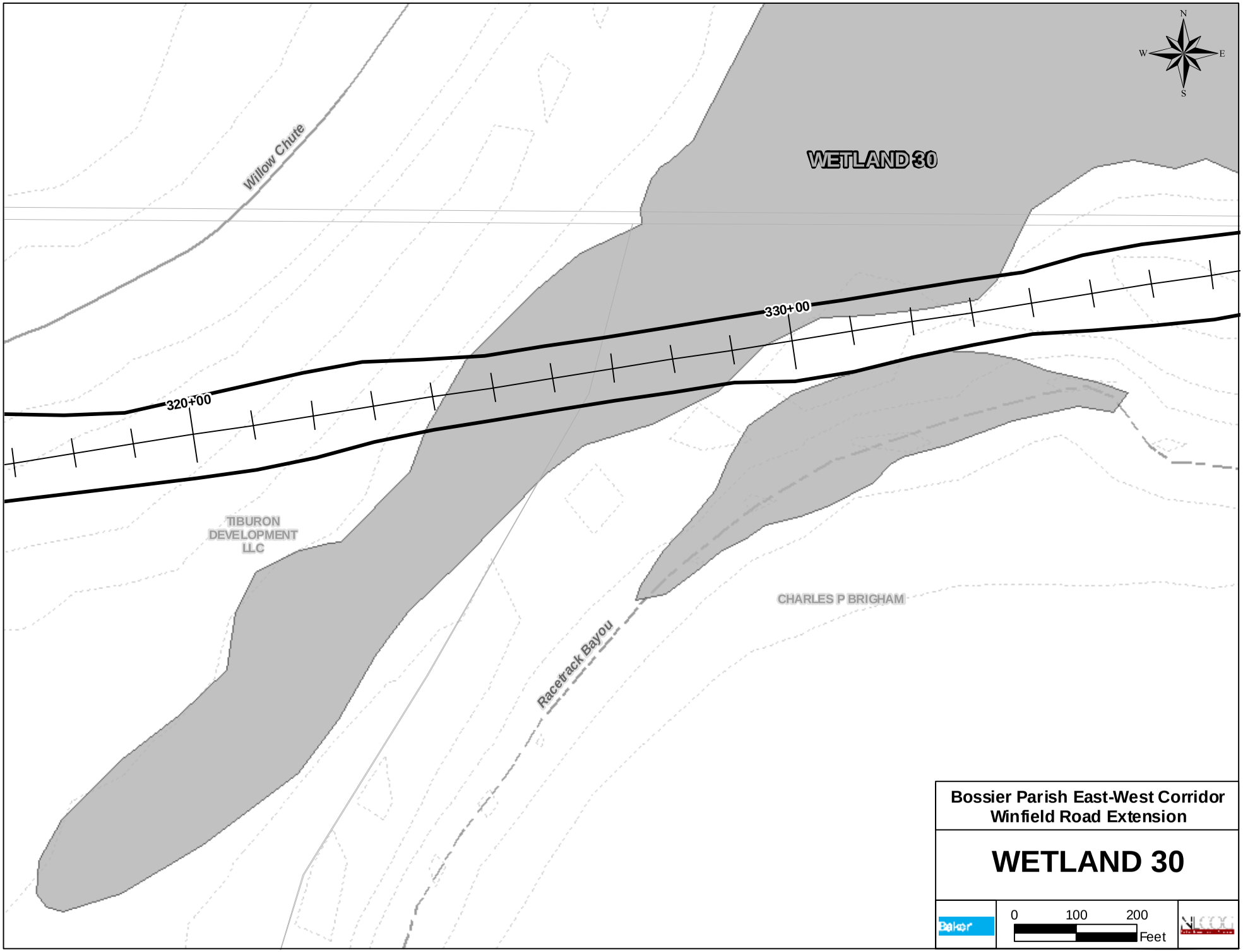
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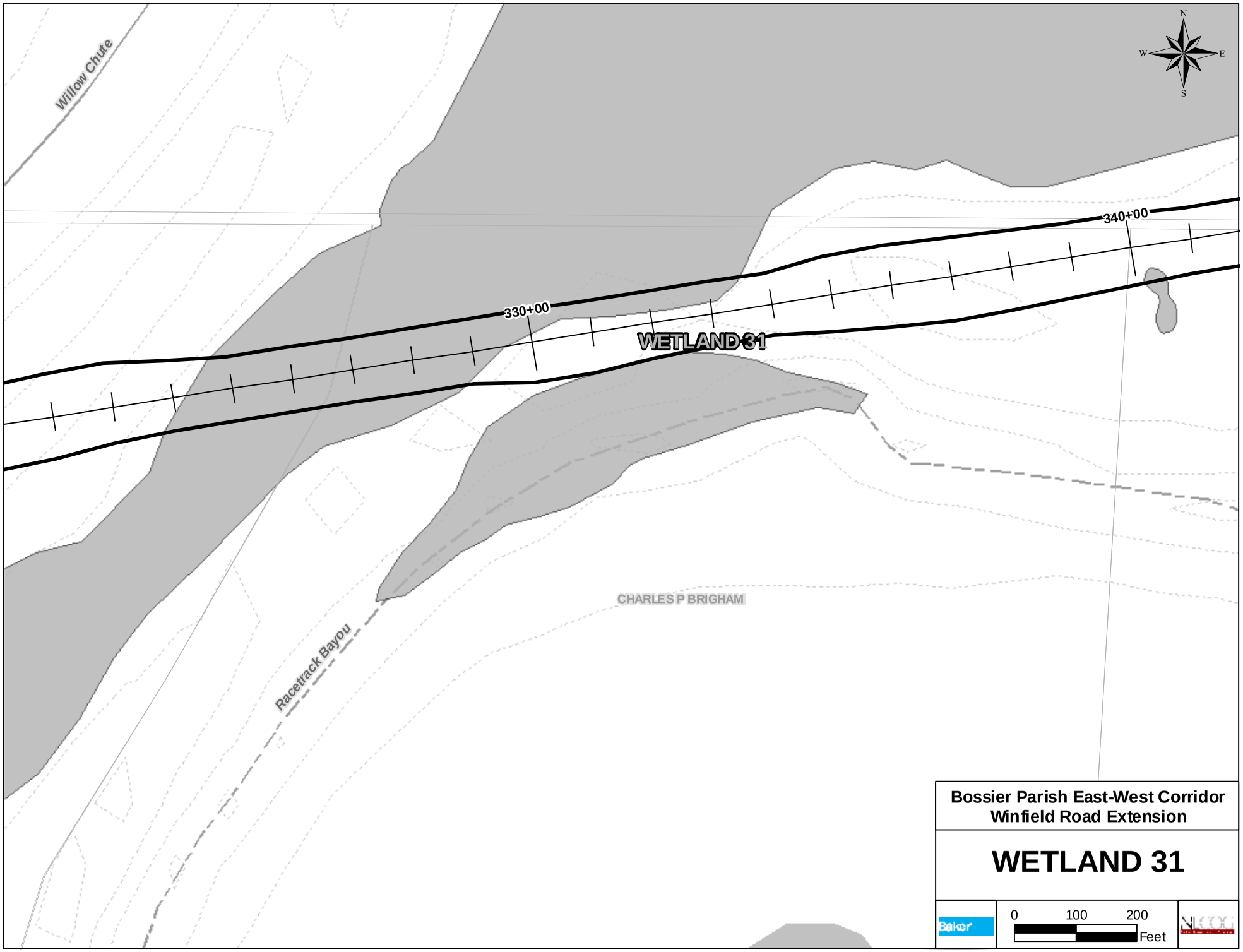
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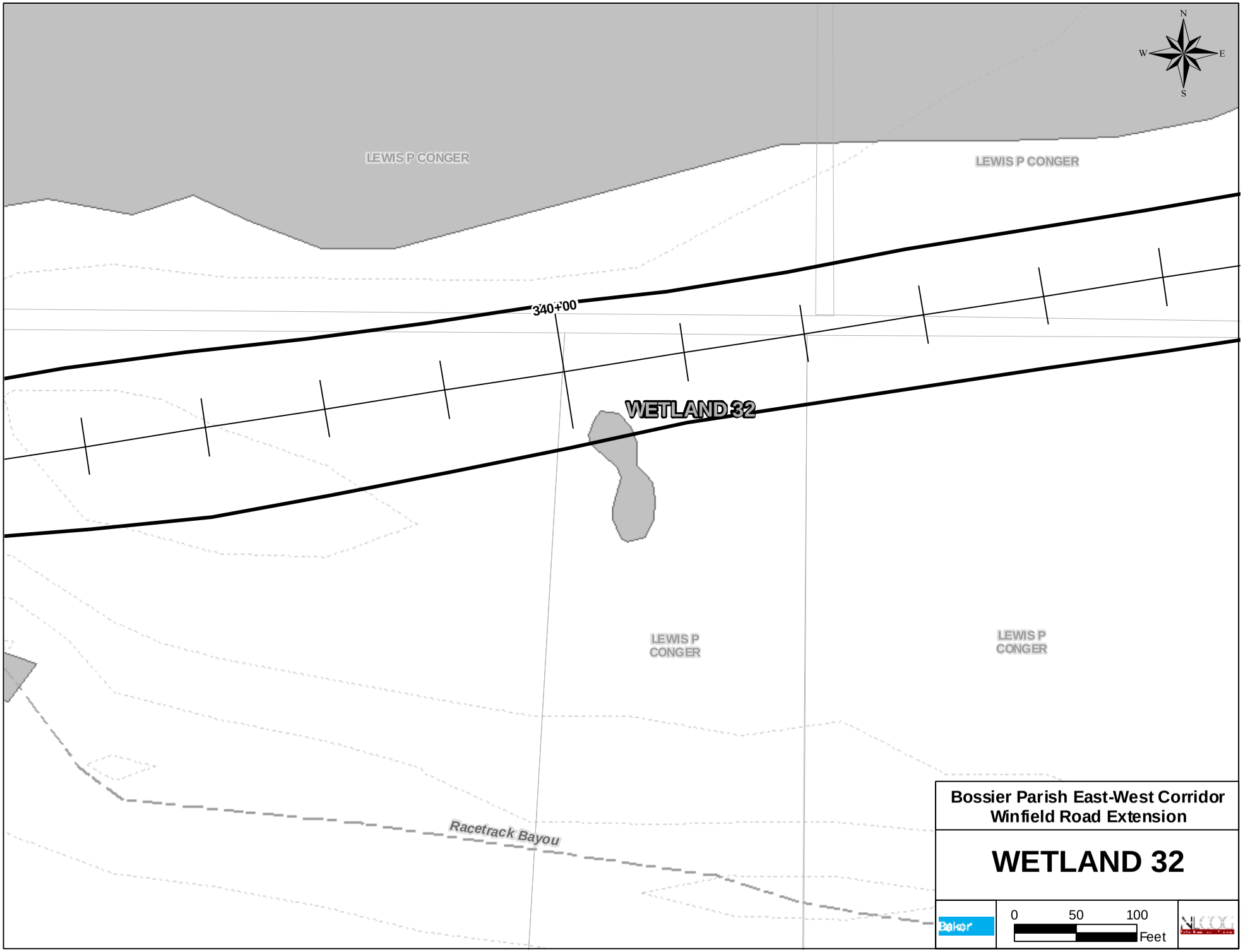
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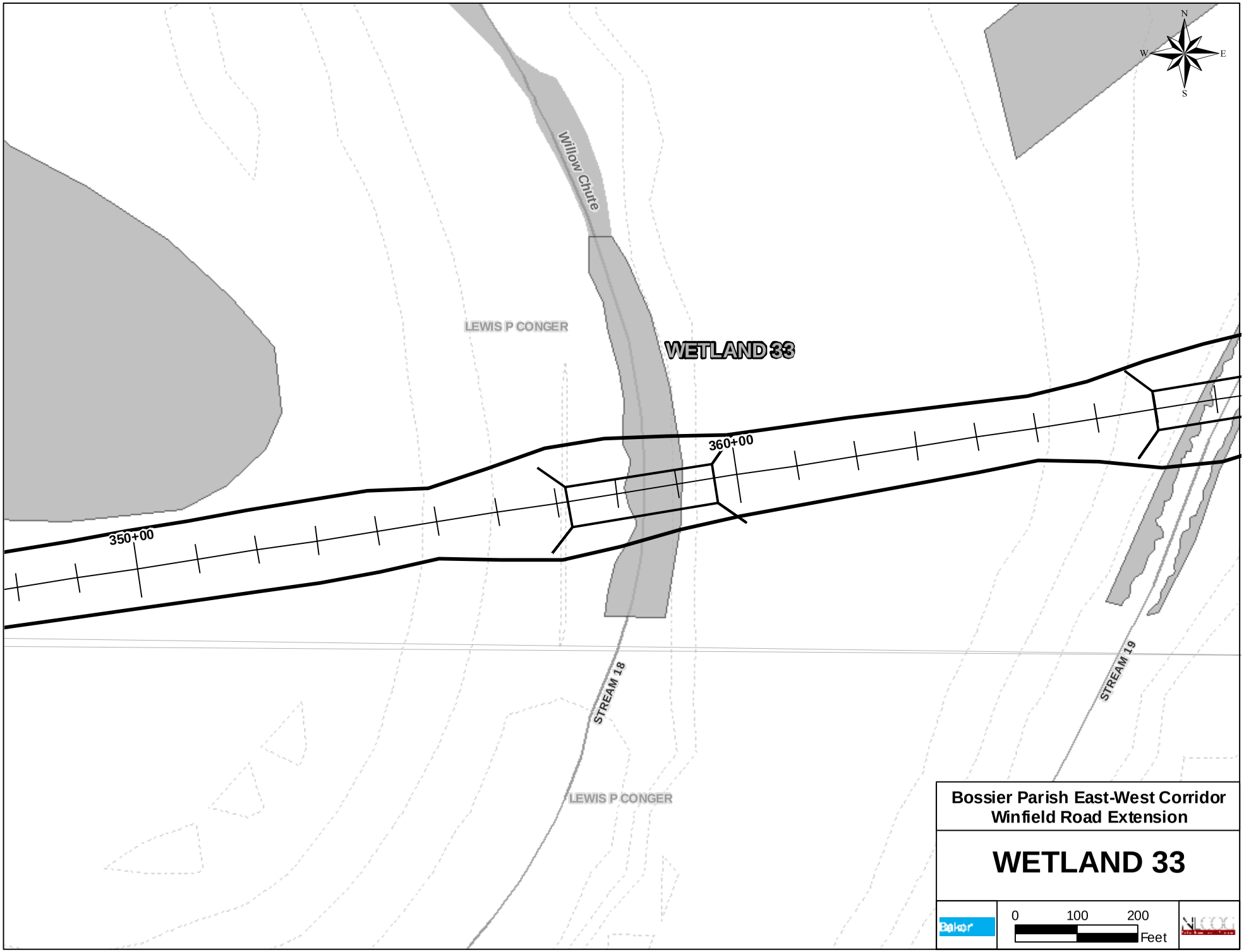
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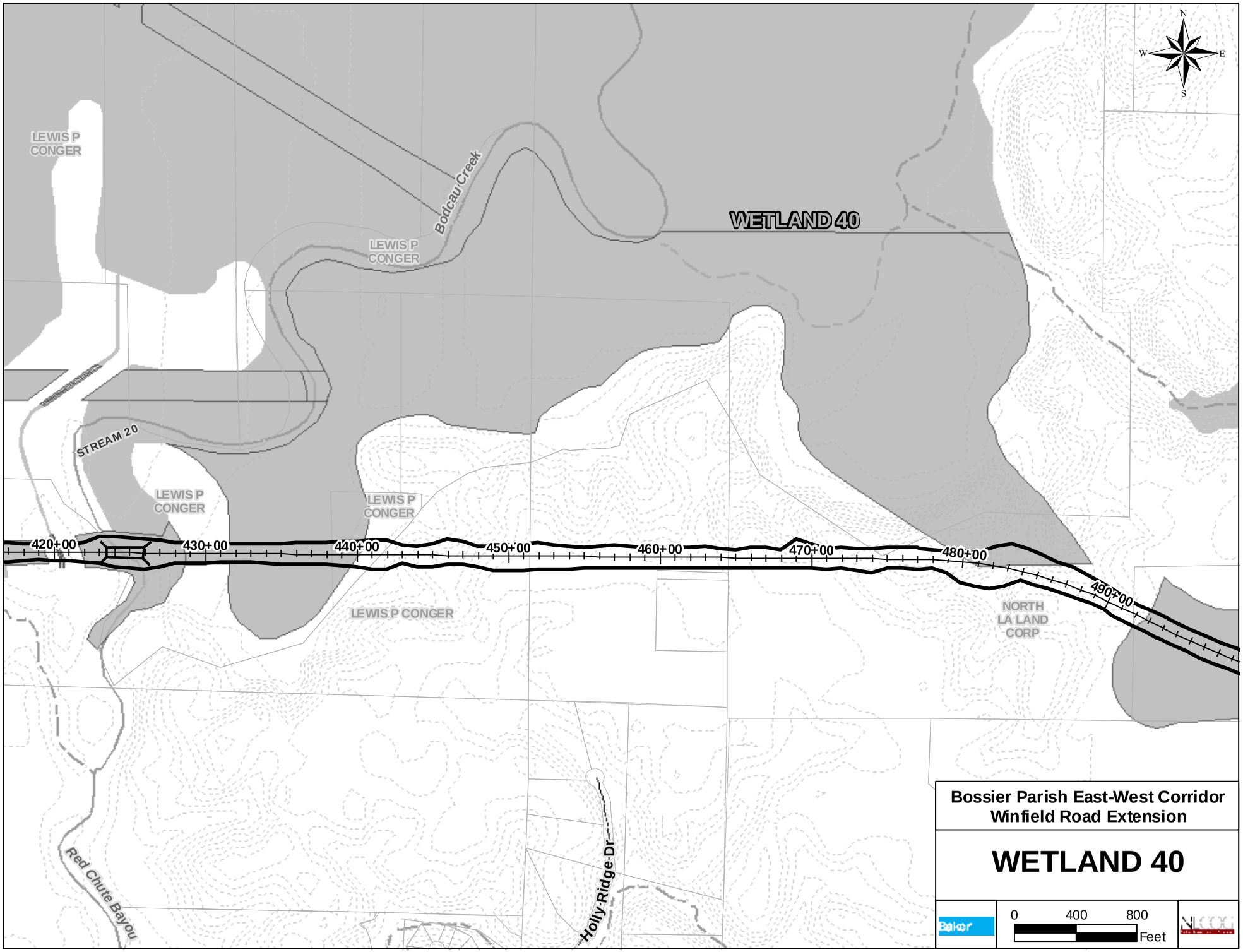
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NORTH LA LAND CORP
Red Chute Bayou
Holly Ridge Dr
Bossier Parish East-West Corridor
Winfield Road Extension
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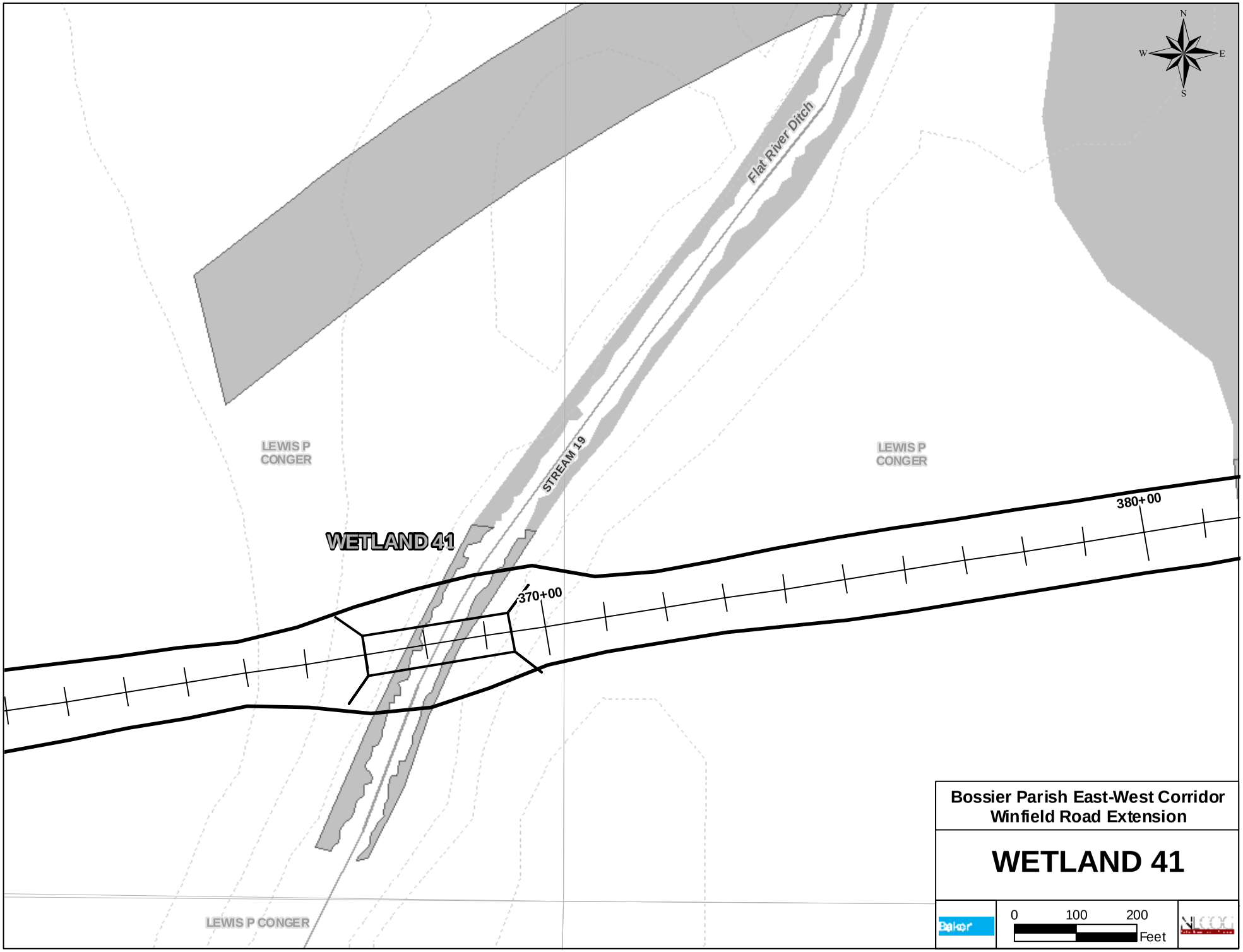
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Flat River Ditch
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Bossier Parish East-West Corridor
Winfield Road Extension
WETLAND 41
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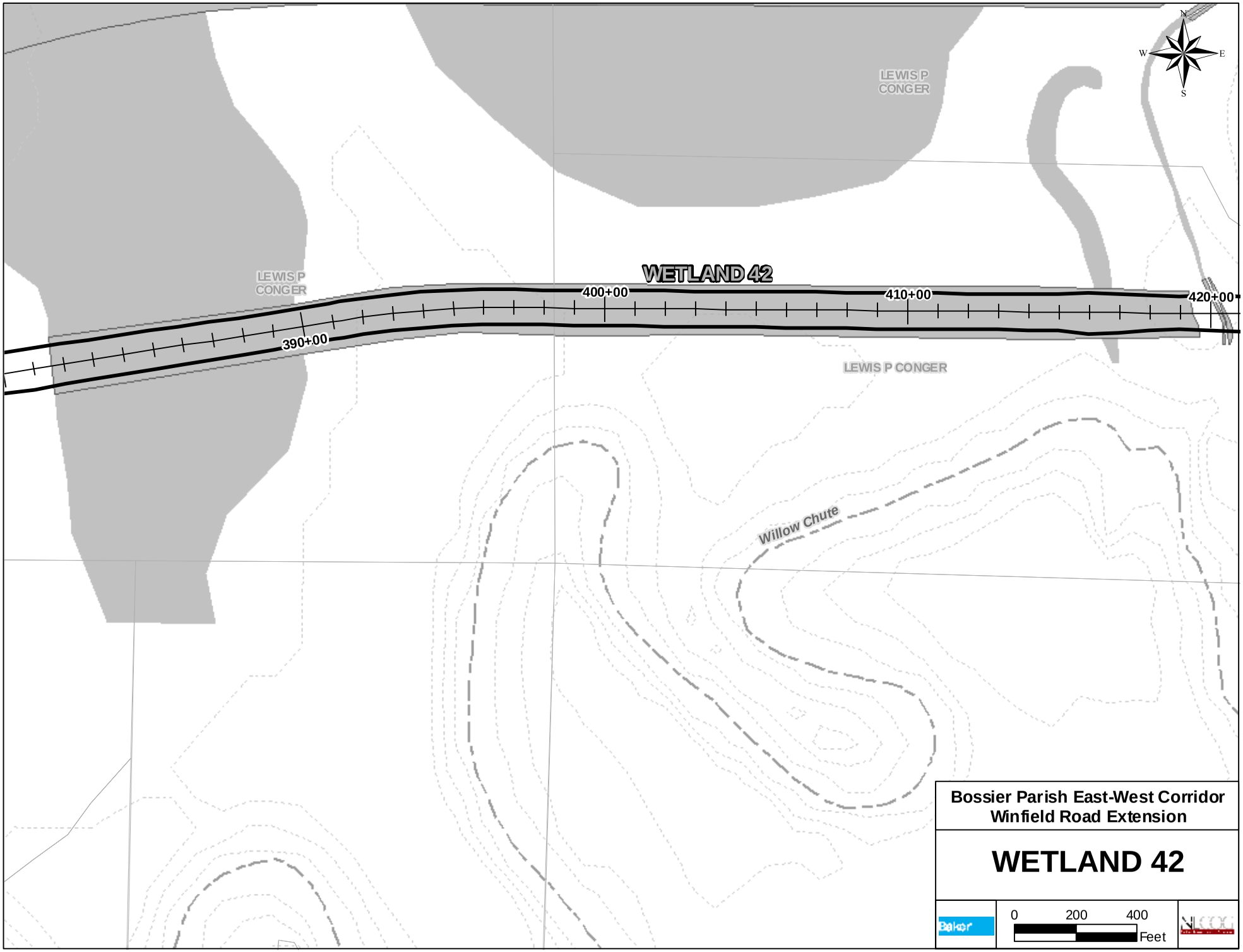
200
Feet


N
W
E
S
LEWIS P CONGER
LEWIS P CONGER
WETLAND 42
390+00
400+00
410+00
420+00
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Willow Chute
Bossier Parish East-West Corridor
Winfield Road Extension
WETLAND 42
Baker
0
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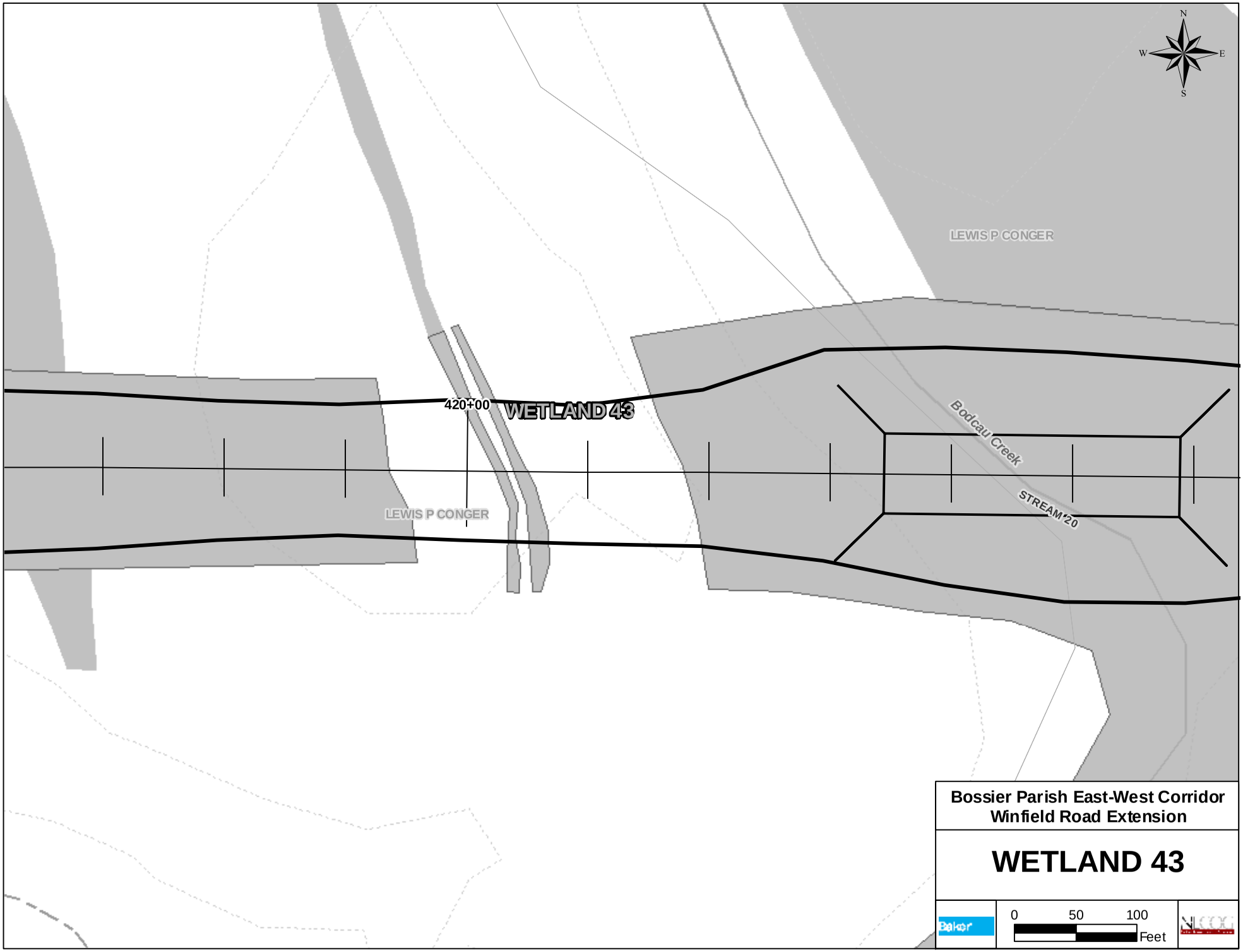
400
Feet


N
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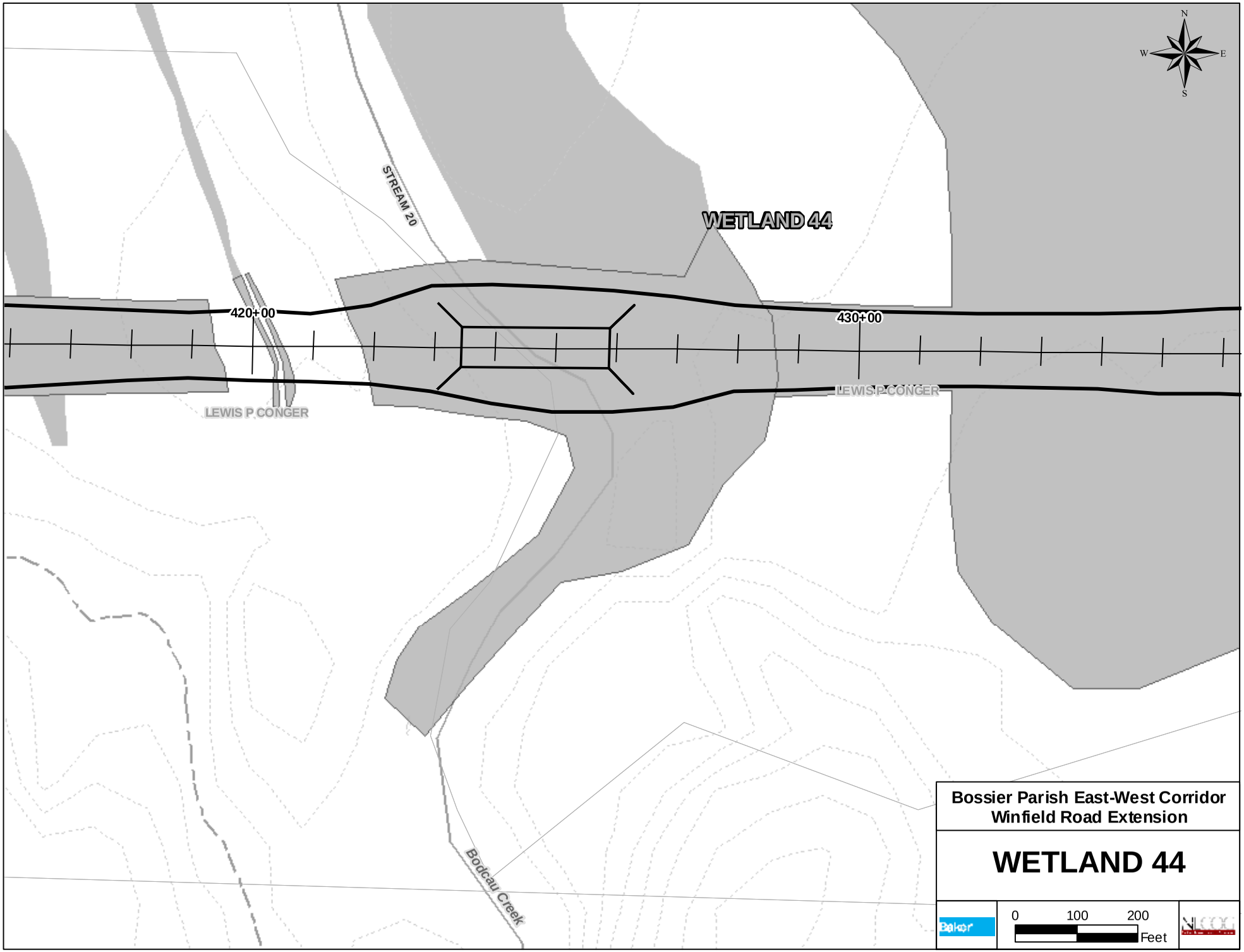
E
S
LEWIS P CONGER
420+00
WETLAND 43
Bodcau Creek
STREAM 20
LEWIS P CONGER
Bossier Parish East-West Corridor
Winfield Road Extension
WETLAND 43
Baker
0
50
100
Feet


N
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E
S
WETLAND 44
STREAM 20
420+00
430+00
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Bodcau Creek
Bossier Parish East-West Corridor
Winfield Road Extension
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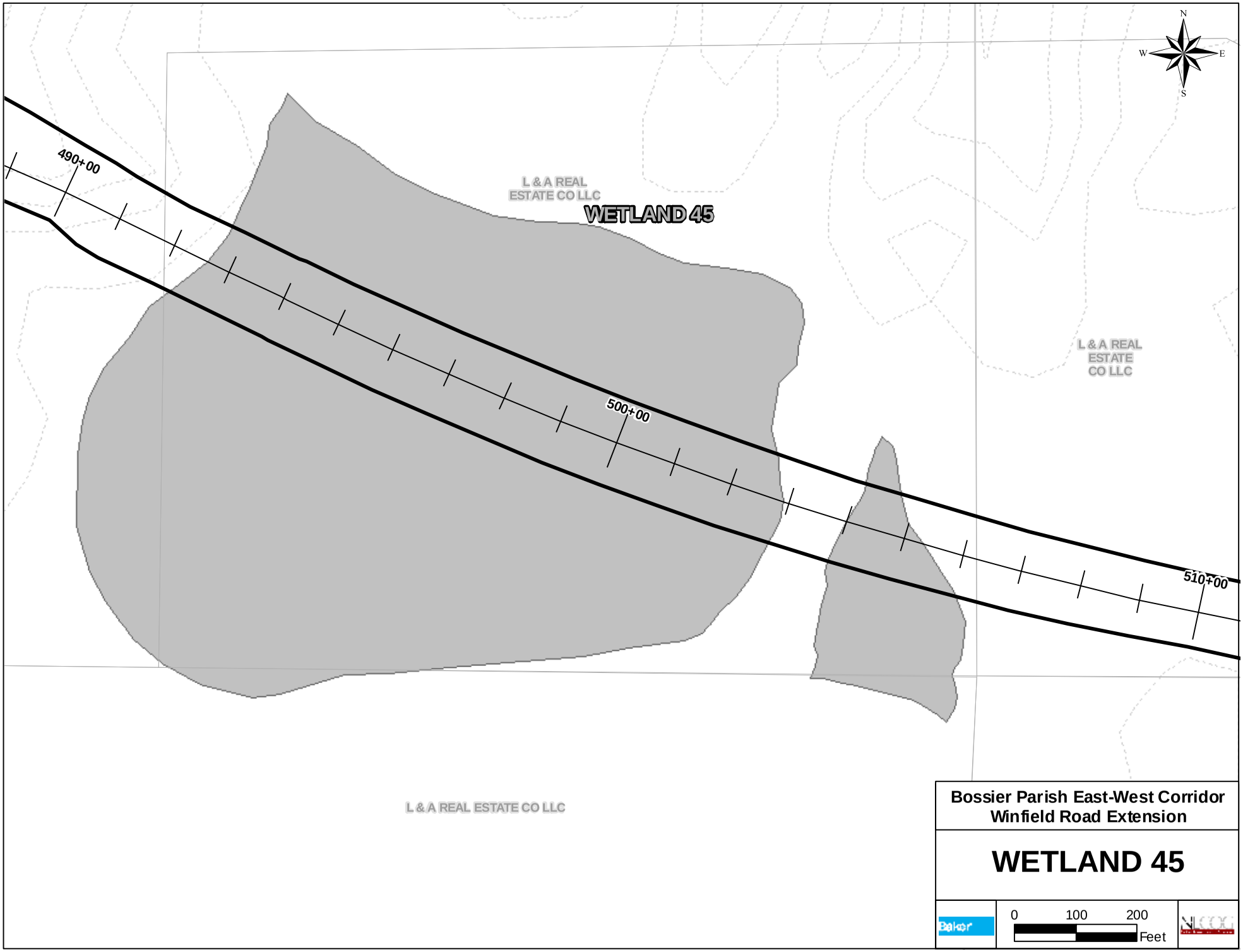
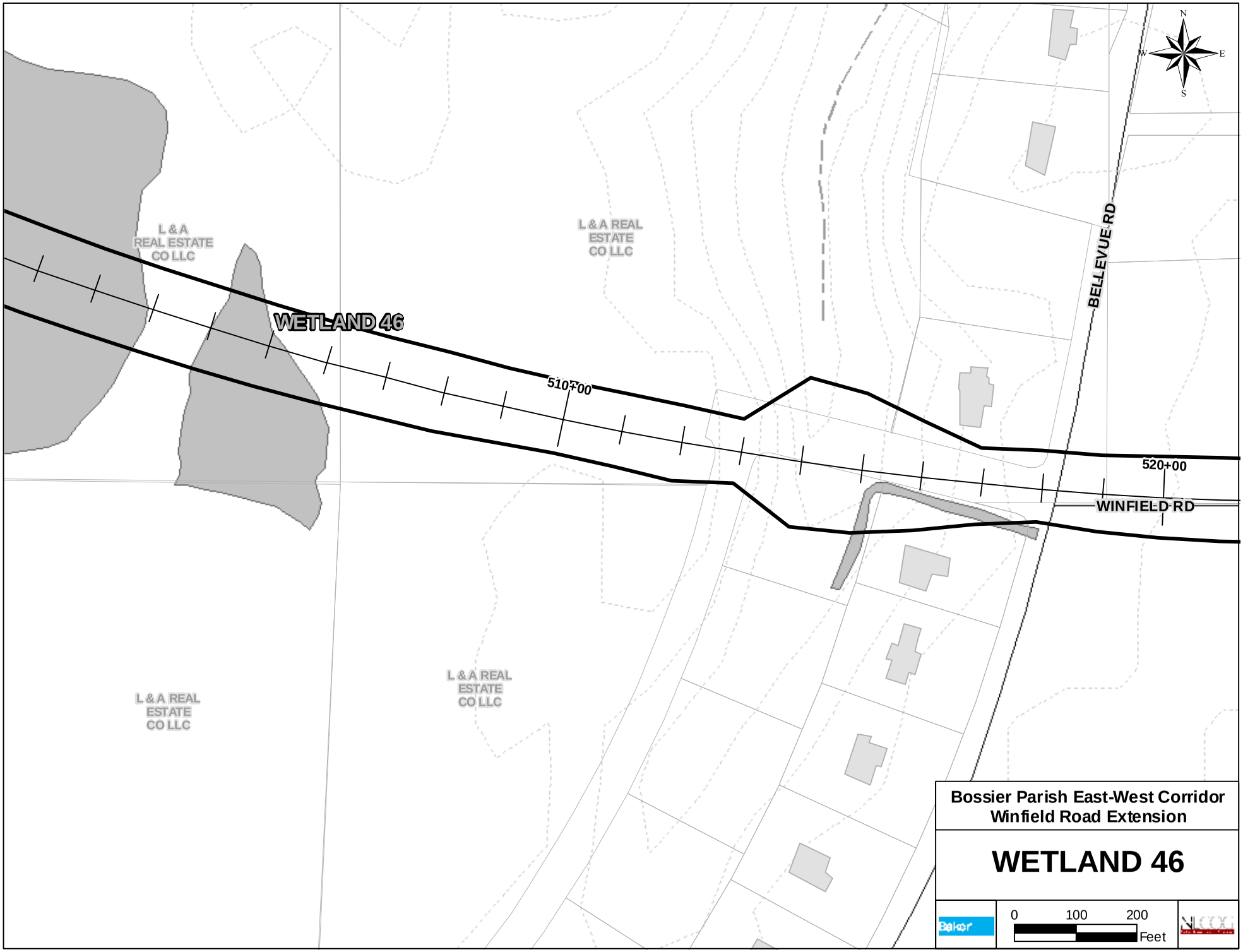
200
Feet


N
W
E
S
490+00
L & A REAL
ESTATE CO LLC
WETLAND 45
500+00
L & A REAL
ESTATE
CO LLC
510+00
L & A REAL ESTATE CO LLC
Bossier Parish East-West Corridor
Winfield Road Extension
WETLAND 45
0
100
200
Feet


N
W
E
S
L & A
REAL ESTATE
CO LLC
L & A REAL
ESTATE
CO LLC
WETLAND 46
510+00
520+00
BELLEVUE RD
WINFIELD RD
L & A REAL
ESTATE
CO LLC
L & A REAL
ESTATE
CO LLC
Bossier Parish East-West Corridor
Winfield Road Extension
WETLAND 46
Baker
0
100
200
Feet