ENVIRONMENTAL ASSESSMENT WITH FINDING OF NO SIGNIFICANT IMPACT (FONSI)

El Camino East/West Corridor,
LA 6 Widening
LA 485 to I-49
Natchitoches Parish, Louisiana
State Project No. 700-35-0140
F.A.P. No. DE-3506(512)

9 July 2010

FEDERAL HIGHWAY ADMINISTRATION

FINDING OF NO SIGNIFICANT IMPACT

FOR

STATE PROJECT NO. 700-35-0140

F.A.P. NO. DE-3506(512)

El Camino East/West Corridor,

LA 6 Widening

LA 485 to I-49

Natchitoches Parish, Louisiana

The FHWA has determined that this project will not have any significant impact on the human environment. This Finding of No Significant impact is based on the Environmental Assessment which has been independently evaluated by the FHWA and determined to adequately and accurately discuss the environmental issues and impacts of the proposed project. It provides sufficient evidence and analysis for determining that an environmental impact statement is not required.

APPROVED

CARL M. HIGHSMITH
PROJECT DELIVERY TEAM LEADER
FEDERAL HIGHWAY ADMINISTRATION
DATE 7-9-10

EXAMINED AND RECOMMENDED FOR APPROVAL
DATE 7-8-10

ENVIRONMENTAL DETERMINATION CHECKLIST

State Project No.: 700-35-0140
Federal Aid No.: DE-3506(512)
Name: El Camino East/West Corridor
Route: LA Route 6
Parish: Natchitoches

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)

To widen an 8.28-mile section of the corridor along LA 6 beginning at LA 485 near the village of Robeline in Natchitoches Parish, Louisiana, and ending at Interstate 49 (I-49) near the city of Natchitoches. The widening of LA 6 from two lanes to four lanes and all the activities associated with this action comprise the proposed project.

4. Public Involvement

(**X**) Views were solicited on July 24, 2007.
Responses are attached (See Appendix F).
( ) 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 23, 2010.
(**X**) A Public Meeting was held on January 29, 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? (Attach conceptual stage relocation plan if yes)	( )	(**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?.....	( )	( )
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?.....	(**X**)	( )
g.	Natural & Scenic Stream Permit required……..	(**X**)	( )
h.	Is project impacting a waterway?.....	(**X**)	( )
	Has navigability determination been made?.....	( )	( )
	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?.....	(**X**)	( )
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? ……..	( )	(**X**)

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?.....	(**X**)	( )
	Will a detour route be signed?.....	(**X**)	( )

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

Question 6d. Coldwater Baptist Church Cemetery.

Question 10b. Coldwater Baptist Church, Robeline Tabernacle of the Lord (closed), and Hickory Grove Congregational Methodist will be impacted by at least one of the alternatives. Mount Olive Church and Shady Grove Missionary Church are adjacent.

Question 10e. The fire district garage.

Question 10j. See Section 4.5.

Preparer: **ARCADIS U.S., Inc.**
Title: **El Camino East/West Corridor, LA 6**
Natchitoches Parish, Louisiana
Date: **July 9, 2010**

Attachments

(**X**) S.O.V. and Responses (Appendix F)
(**X**) Wetlands Finding (Sections 4.1.3.3 and 4.5.5)
(**X**) Project Description Sheet (Section 2)
(**X**) Conceptual Stage Relocation Plan Summary (Section 4.5.2 and Appendix C)
(**X**) Noise Analysis (Sections 4.1.5 and 4.5.8)
(**X**) Air Analysis (Section 4.1.3.1 and Appendix D)
(**X**) Exhibits and/or Maps (Included in Document)
( ) 4(f) Evaluation
(**X**) Form AD 1006 (Farmlands) (Appendix G)
(**X**) 106 Documentation (Section 4.1.4)
( ) Other:

Summary of Mitigation and Environmental Commitments

Permits and Certifications

The following permits and/or certifications are required for the proposed project:

- A Request for Jurisdictional Determination by the U.S. Army Corps of Engineers (USACE) and a Section 404 Permit for temporary and permanent impacts from construction of the proposed project for wetlands determined to be jurisdictional.

- As a condition of the 404 permit approval, Water Quality Certification from the Louisiana Department of Environmental Quality (LDEQ) will be required.

- Authorization under the Louisiana Pollutant Discharge Elimination System from LDEQ for Stormwater Discharge for Construction Activities over 5 Acres.

Commitments and Mitigation Measures

The following commitments and mitigation measures are required for the proposed project:

- An approved mitigation plan to offset losses of wetland acres.

- Implementation of Best Management Practices during construction to mitigate nonpoint source pollution.

- Construction sequencing plan to minimize disruption of traffic on LA 6.

- Acquisition of right-of-way and relocations will be handled in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970.

- Current LDOTD policy provides left-turn lanes only at full-access median openings that coincide with intersecting public roads. However, in order to increase safety and improve traffic flow along LA 6 in the eastern segment of the roadway, which is the more populated segment with more accessibility issues, LDOTD has agreed to incorporate left-turn lanes at all median openings.

- Any further investigation of the sites identified in Section 4.1.2.4. will be handled in accordance with Secretary's Policy and Procedure Memorandum No. 48: Underground Storage Tank (UST) and Contaminated Site Policy.

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Tables

Figures

Appendices

LIST OF ACRONYMS

ACS	American Community Survey.
ADT	Average Daily Traffic.
APE	Area of Potential Effect.
BFE	Base flood elevations.
CSS	Context sensitive solutions.
dBA	A-weighted decibels.
EA	Environmental Assessment.
EIS	Environmental Impact Statement.
ESA	Endangered Species Act.
FHWA	Federal Highway Administration.
FONSI	Finding of No Significant Impact
I-49	Interstate 49
LA 6	Louisiana Highway 6
LDEQ	Louisiana Department of Environmental Quality.
LDOTD	Louisiana Department of Transportation and Development.
LDWF	Louisiana Department of Wildlife and Fisheries.
LNHP	LDWF Natural Heritage Program.
LOS	Level of Service.
NAC	Noise Abatement Criteria.
NEPA	National Environmental Policy Act.
NHL	National Historic Landmark.
NRCS	Natural Resources Conservation Service.
NRHP	National Register of Historic Places.
NSU	Northwestern State University.
RA	Rural Arterial.
RCW	Red-cockaded woodpecker.
ROW	Right-of-Way.
SA	Suburban Arterial.
UA	Urban Arterial.
USACE	U.S. Army Corps of Engineers.
USC	United States Code.
USDOT	U.S. Department of Transportation.
USEPA	U.S. Environmental Protection Agency.
USFWS	U. S. Fish and Wildlife Service.
UST	Underground storage tank.

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1. Introduction

The El Camino East/West Corridor passes through the southeastern part of the United States, extending from near Brunswick, Georgia, to El Paso, Texas. In Louisiana, the El Camino Corridor extends from the Toledo Bend Reservoir to the town of Vidalia, covering approximately 168 miles of roadway along Louisiana Highway (LA) 6 and LA 84. The Louisiana Department of Transportation and Development (LDOTD) and the El Camino East/West Corridor Commission (El Camino Commission) propose to widen an 8.28-mile section of the corridor along LA 6 beginning at LA 485 near the village of Robeline in Natchitoches Parish, Louisiana, and ending at Interstate 49 (I-49) near the city of Natchitoches. The widening of LA 6 from two lanes to four lanes and all the activities associated with this action comprise the proposed project. Figure 1 is a Project Location Map.

This document is an Environmental Assessment (EA) prepared to evaluate the effects that the proposed project would have on the natural and human environment.

1.1 What is an Environmental Assessment?

The National Environmental Policy Act (NEPA) directs federal agencies to conduct environmental reviews to consider the potential impacts from proposed federal undertakings. The NEPA process requires coordination with local, state, and federal agencies throughout planning and project development decision-making.

The Federal Highway Administration (FHWA) and LDOTD are committed to the examination and minimization of potential impacts to the social and natural environment when considering approval of proposed transportation projects. NEPA project development considers a range of alternatives that would serve the purpose of the project while balancing the potential impacts on the human and natural environment with the public's need for safe and efficient transportation.

The NEPA process must be clearly documented to ensure transparency. Potentially affected communities and other stakeholders are offered the opportunity to ask questions and provide comments about proposals, alternatives, and environmental impacts. Public input is formalized in the document as are the responses to public concerns and the choices made about the project.

When the significance of impacts from a proposed transportation project is uncertain, an EA is prepared. Unlike an Environmental Impact Statement (EIS) that is prepared when significant impacts are known, an EA is a concise public document that presents sufficient evidence and analysis for determining whether the impacts from the proposed action warrant further analysis in an EIS, or whether a finding of no significant impact (FONSI) is appropriate.

This document records the environmental assessment process undertaken for the widening of LA 6 from I-49 to LA 485. The EA concludes with a FONSI meaning that FHWA has determined that this project will not have any significant impact on the natural or human environments. Alternative C, also known as the NEPA-derived alternative, has been selected as a result of the environmental process.

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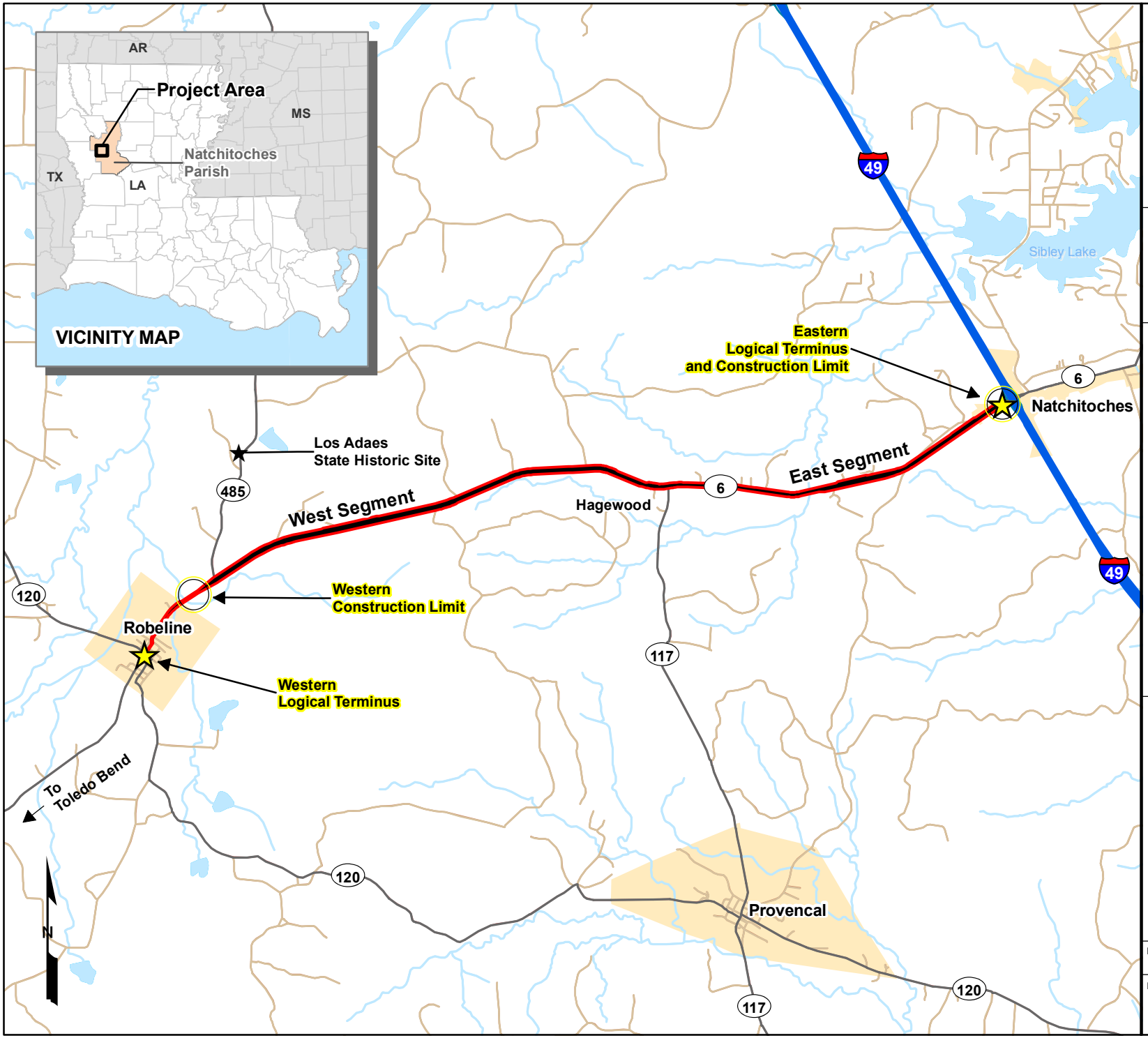

EL CAMINO
EAST/WEST CORRIDOR
LA ROUTE 6
ENVIRONMENTAL ASSESSMENT
NATCHITOCHES PARISH, LA

S.P. NO. 700-35-0140
F.A.P. NO DE-3506(512)

PROJECT LOCATION

Legend

- Limits of Construction
- Logical Terminus
- Project Corridor
- Municipal Boundaries

"Source: ESRI, ARCADIS, Sigma"

0 0.375 0.75 1.5 Miles

El Camino East / West Corridor

Date:	Project No.:
11/13/2009	LA002860.0004

Figure No.:

1

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1.2 Where is the Proposed Project in the Development Process?

The El Camino East/West Corridor Master Plan Study (LDOTD 2001) established the conceptual design and studied the feasibility for the Louisiana segment of the five-state route, which follows both U.S. Highway 84 and LA 6. In 2005, the U.S. Congress passed legislation that provided funding for the study of an 8.28-mile section of the corridor between Natchitoches and Robeline, and a matching amount from the Louisiana Capital Outlay budget was approved in 2008. This funding allowed the FHWA and LDOTD to proceed with the environmental process.

Prior to commencement of the EA, LDOTD sent out notifications to federal, state, and local agencies and officials along with other potential stakeholders requesting their views regarding the project. At the same time, FHWA designated the logical termini, i.e., the end points of the project study area, as LA 120 to the west and the point where LA 6 widens to four lanes near I-49 on the east. The limit of construction, i.e., the segment of roadway where widening is proposed, extends from LA 485 to I-49 (Figure 1).

The EA with FONSI is the last step in the environmental process. Currently, $3 million is available for plan development. Upon distribution of this document, it is anticipated that the project will proceed into partial plan development. There is currently no scheduled letting date for construction.

2. Project Purpose and Need

The El Camino Commission, a five-state effort involving Texas, Louisiana, Mississippi, Alabama, and Georgia, was formed in 1992. In recognition of the history of Spanish migration from the Atlantic coast to the present U.S.-Mexico border, each state has designated the roadways that comprise the route as the El Camino East/West Corridor in order to promote tourism and historic preservation as well as economic development and transportation enhancement. To achieve these objectives, the five states have installed signage and have undertaken projects to effect four-lane improvements along its component highways.

2.1 Why is the Project Needed?

In Louisiana, the legislature passed a resolution during the 2007 session recognizing that improvements to the corridor would yield benefits for the parishes of Catahoula, Concordia, LaSalle, Natchitoches, Sabine, and Winn and the communities along the corridor by addressing the following needs:

- Enhanced economic development;
- Improved access for tourists to the many historic sites throughout this part of the state;
- An east-west route in addition to I-10 and I-20 and a reduction of traffic flow and wear on those interstate highways;

- Improved safety; and
- Facilitation of intrastate and interstate trucking (Louisiana Senate 2007).

2.2 What is the Purpose of the Project?

The purpose of the project is to increase the capacity of the roadway and improve safety along the route. To accomplish these purposes, the project proposes to widen the roadway and upgrade the facility in accordance with current design standards.

Based on the LDOTD highway functional systems, LA 6 is classified as a rural principal arterial, LA 117 is classified as a rural minor arterial, and LA 485 and LA 120 are classified as rural minor collectors. Currently, the 8.28-mile section of LA 6 proposed for improvement is a two-way, two-lane road with two primary unsignalized intersections. The intersections of LA 6 at LA 117 and LA 6 at LA 485 are T-shaped intersections with stop control on the approaches from LA 117 and LA 485. The intersection of LA 6 with LA 120, which is outside the limits of construction, is the only signalized intersection.

A traffic study was prepared to analyze the amount of traffic in the corridor. Traffic counts measured existing average daily traffic (ADT) and a conservative uniform annual growth rate of 1.5 percent was used to project future traffic. The existing and future ADT along the project corridor is provided in Table 2-1.

Table 2-1. Existing and Future Average Daily Traffic

LA 6 Roadway Segment	Existing Year (2009)	Open Year (2015)	Design Year (2035)
From I-49 to LA 117	8,360	9,110	12,320
LA 117 to LA 485	5,860	6,390	8,630
LA 485 to LA 120	6,040	6,600	8,880

Vehicle classification counts for the project corridor reveal that trucks make up approximately 15 percent of the total daily traffic volume, with 6 percent being single unit trucks and the other 9 percent being combination unit trucks such as tractor-trailers. During the peak hour, truck traffic was reduced to 12 percent of the total traffic volume, with 5.5 percent being single unit trucks and 6.5 percent being combination unit trucks.

2.2.1 Capacity

A capacity analysis, the most commonly accepted method for evaluating the quality of service of highway and street facilities, was prepared for the project and is detailed in the traffic analysis. Level of Service (LOS) is a measure used to determine the quality of travel on a roadway based on a combination of factors such as average delay, speed, density, and traffic flow. Depending on these operational conditions, the roadway is assigned a grade of A through F. An “A” represents free flow traffic and an “F” represents operational failure. The analysis conducted for the project ascertained that peak traffic in the corridor occurs on weekdays from 7 a.m. to 9 a.m. and from 4 p.m. to 6 p.m. Focusing on these periods when traffic would

be heaviest, a grade was assigned to the two unsignalized intersections and six roadway segments, east- and westbound lanes between I-49 and LA 117, between LA 117 and LA 485, and between LA 485 to the western construction limit. The proposed project would only address capacity issues of the components within the limits of construction; therefore, the intersection at LA 120 was not included in the capacity analysis.

LOS grades for existing and future conditions for the intersections are listed in Table 2-2.

Table 2-2. Intersection Capacity Analysis: Existing and Future Conditions

Intersection			LA 117 (NB) and LA 6 (EB–WB) – Unsignalized		LA 485 (SB) and LA 6 (EB–WB) – Unsignalized	
			LOS a.m.	LOS p.m.	LOS a.m.	LOS p.m.
Without Project	Existing Year (2009)	NB	C	B	–	–
		SB	–	–	B	B
		EB	A	A	A	A
		WB	A	A	A	A
	Open Year (2015)	NB	C	B	–	–
		SB	–	–	B	B
		EB	A	A	A	A
		WB	A	A	A	A
	Design Year (2035)	NB	F	C	–	–
		SB	–	–	B	B
		EB	A	A	A	A
		WB	A	A	A	A
With Project	Open Year (2015)	NB	B	B	–	–
		SB	–	–	B	B
		EB	A	A	A	A
		WB	A	A	A	A
	Design Year (2035)	NB	C	B	–	–
		SB	–	–	B	B
		EB	A	A	A	A
		WB	A	A	A	A

– Movement is not applicable to the intersection.
a.m. Peak hours on weekdays from 7 to 9 a.m.
EB East bound.
LOS Level of service.
NB North bound.
p.m. Peak hours on weekdays from 4 to 6 p.m.
SB South bound.
WB West bound.

The intersection capacity analysis shows that all the intersections in the project corridor will operate at LOS B or above in 2035 if the project is not built, except LA 117 northbound. In the afternoon, it will operate at LOS C and will approach failure with high delays in the morning. The analysis also shows that all intersections will operate at LOS C or better in both 2015 and 2035 if the project is built. This is a result of turn bay additions at the intersections. A study, known as a signal warrant analysis, is sometimes undertaken to establish whether traffic signals are needed. Because of low traffic volumes and satisfactory LOS at the intersections, it was determined that a signal warrant analysis was unnecessary.

LOS grades for the roadway segments are listed in Table 2-3. The roadway capacity analysis shows that all roadway segments will continue to operate at LOS C or D in the future if the project is not built. In comparison, the analysis shows that the proposed improvements will result in a considerable improvement in LOS, operating at LOS A in 2015 and LOS A and B in 2035.

Table 2-3. Roadway Capacity Analysis: Existing and Future Conditions

Segment (Both Directions)		West of I-49 to LA 117		LA 117 to LA 485		LA 485 to before Robeline	
		LOS a.m.	LOS p.m.	LOS a.m.	LOS p.m.	LOS a.m.	LOS p.m.
Without Project	Existing Year (2009)	D	C	C	C	C	C
	Open Year (2015)	D	C	C	C	C	C
	Design Year (2035)	D	D	D	C	D	C
With Project	Open Year (2015)	A	A	A	A	A	A
	Design Year (2035)	B	A	A	A	A	A

a.m. Peak hours on weekdays from 7 to 9 a.m.
LOS Level of service.
p.m. Peak hours on weekdays from 4 to 6 p.m.

2.2.2 Safety

Recent crash data were collected and assessed for the 2004-2007 period along the segment of LA 6 between LA 485 and I-49 (Table 2-4). In that period, there were 133 crashes. The “single car crashes” type was the most frequent, with a total of 40, followed closely by 36 “rear-end” crashes. Non-collision crashes were predominantly run-off-the-road types of incidents.

Table 2-4. Project Corridor Crash Type and Frequency

Crash Type	2004	2005	2006	2007	Total
Turning/Angle Crash	5	7	5	10	27
Head-On	6	2	0	0	8
Single Car Crashes	13	6	8	13	40
Rear-End	2	14	10	10	36
Sideswipe – Same Direction	2	1	8	1	12
Sideswipe – Opposite Direction	0	1	0	5	6
Other	2	1	0	1	4
Total	30	32	31	40	133

Further analyses were conducted to determine if these crash types were concentrated at any particular location. Generally, the various crash types were distributed evenly over the segment. However, higher incidences of crashes were observed on sections of LA 6 close to I-49. These appear to be associated with the higher traffic volumes and turning movements rather than a specific potential defect. Higher incidences of angle, turning, and rear-end crashes involving more than one vehicle were also evident closer to the intersections with LA 117 and LA 485, which would be expected for the same reasons.

2.2.3 System Linkage

In addition to being a priority link in the El Camino East/West Corridor, this section links the popular Toledo Bend Reservoir recreation areas on the Texas border, the town of Many at LA 171, and numerous villages in western Natchitoches Parish and Sabine Parish to the interstate system at I-49. It is the direct route for the village of Robeline to Natchitoches, the largest city in the area and home to Northwestern State University (NSU). LA 117, which bisects the project corridor at the community of Hagewood, is the most direct route to the town of Provencal and a north-south link to the Kisatchie Ranger District of the Kisatchie National Forest. LA 117 to LA 6 is an alternate north-south route between I-49 and LA 171 that is used by timber trucks as well as sportsmen and tourists. The project corridor also links the southern terminus of LA 485, where the Los Adaes Commemorative Area is located, to Natchitoches and the interstate.

2.2.4 Transportation Demand

There is no regional travel demand model available for the project corridor. Based on discussions with the Directors of Planning for the City of Natchitoches and Natchitoches Parish and review of other traffic impact studies in the general area, it was ascertained that no regional projects planned would have an impact on traffic for the proposed project. In the absence of a regional travel demand model, historical traffic count data were used to estimate that the vehicular demand will grow at an annual growth rate of 1.5 percent.

2.2.5 Social Demands or Economic Development

As a major interchange on I-49 at the midpoint between Alexandria and Shreveport, the area at the eastern terminus of the project has developed at a steady pace. Land use in the vicinity of the interchange has converted from rural to commercial, and travel-based businesses, such as hotels and gas stations, have been established in this area. Improvements made 25 years ago to LA 6 left a remnant of the old highway in place to the north of its current alignment and the land around this road has been subdivided into small lots suitable for residential development. Farther to the west, a new residential subdivision is being developed south of LA 6 on Collins Avenue. This growth will increase the demand for additional highway capacity between Collins and I-49. Improvements to the LA 6 corridor will also improve the ability of tourist, recreational, and timber vehicles to move along the corridor more efficiently. Such efficiency is an important economic factor for these industries, which are the backbone of the economy in Sabine Parish and the western half of Natchitoches Parish.

2.2.6 Roadway Improvements

Analyses of crash data revealed that crash types were distributed fairly evenly over the corridor and there were no clearly discernible type-location relationships that would suggest any obvious roadway deficiency.

As-Built Construction Plans were utilized to recreate the existing horizontal roadway alignment, vertical profile, and right-of-way (ROW). No surveys were performed to verify the information gleaned from the existing plans. Horizontal and vertical alignments were analyzed to determine if they meet current LDOTD design standards. All horizontal geometry was in accordance with the design criteria.

One vertical crest curve between the western and eastern intersections of Old Highway 6 should be lengthened to improve site distance. This recommendation is based upon Suburban Arterial - 2 design criteria, which are further discussed in Section 3. In addition to this recommended upgrade, it was noted that banking used to counter the lateral force on a vehicle driving on a curve (superelevation) would need to be utilized at 11 curve locations. Once the proposed project addressed both the vertical curve site distance and the banking requirements, the horizontal and vertical alignments would meet current design standards.

3. Alternatives Considered

NEPA requires that all reasonable alternatives which could address the identified needs and purposes be considered including a “No Action” Alternative. A range of alternatives were identified and examined against the established need for the project. Some alternatives were eliminated because they did not meet the established objectives. Those that were determined to meet the project need and purpose were carried forward for further study.

3.1 Which Alternatives Were Initially Considered?

3.1.1 Traffic Management Systems and Transit

One way to deal with capacity issues is to implement systems such as traffic signals that manage the flow and movement of traffic within the existing facility. Traffic signals can provide better flow of traffic, increase capacity, create necessary gaps, and reduce certain types of accidents. However, traffic signals do not answer all traffic-related problems at intersections. In some instances, such as when a signal is not warranted, conditions can actually worsen and become a safety hazard.

Insufficient capacity can also be addressed through transit systems that provide mobility to the general public in shared vehicles, ranging from shared taxis and shuttle vans to local and intercity buses and passenger rail. Until an area reaches a size and level of traffic demand, it is unlikely that travelers will prefer transit. Transit is most cost effective when increased congestion, commercial clustering, land values, and parking problems make the use of personal automobiles unattractive.

3.1.2 Alternative Alignments

Because the purpose of the project is to increase the capacity and improve the safety of LA 6, the only reasonable engineering concept is to upgrade the existing roadway from two lanes to four or more lanes. Within that concept, two base alignments were considered: one alignment would upgrade the two existing lanes and construct a median and additional lanes to the north (**Alternative A**); the second would upgrade the two existing lanes and construct a median and additional lanes to the south (**Alternative B**). A third alignment was also proposed that would build the facility in a manner that would minimize impacts to structures and other resources along the corridor (**Alternative C**). This alternative would construct the facility by replacing the existing lanes with new ones to the north in some locations, to the south in some, and on both sides when necessary. **Alternative C** is the selected alternative.

3.1.3 Design Alternatives

In addition to these alternative alignments, a number of design elements were also considered. The existing LA 6 roadway between LA 485 and I-49 is presently classified as a principal arterial roadway in the LDOTD functional system of roadways. Therefore, the design options include Urban Arterial (UA), Suburban Arterial (SA), or Rural Arterial (RA). These designs are also known as “typical sections” and are graphically represented as the view across the full width of the roadway including outside shoulders and drainage systems. Variations within the design classifications were considered that include cross-section features as discussed below.

- **UA-2** – Two UA-2 designs were initially considered: a four-lane roadway with a raised median between 6 and 30 feet wide; and a five-lane roadway including a two-way left-turn lane in the center.

- **SA-2** – Two SA-2 designs were included in the list of preliminary alternative designs: a four-lane facility with a 30-foot raised median; and a four-lane facility with a 42-foot depressed median.

- **RA-2** – One RA-2 design was considered: a four-lane roadway with a depressed median ranging in width from 42 to 60 feet.

- **RA-3** – After further review, one RA-3 design was added to the list of preliminary alternatives: four lanes with a 60-foot depressed median. The RA-3 design was considered because LDOTD guidelines suggest that they are appropriate when the Average Daily Traffic (ADT) is greater than 6,000 vehicles per day.

- **Other Four-Lane Design** – A four-lane roadway divided by a concrete barrier was considered based upon a suggestion from a member of the El Camino Commission.

- **Five-Lane Design** – A five-lane design incorporating a continuous, bi-directional turn lane was considered at the request of the El Camino Commission and in response to comments from local residents about the need for access to driveways and businesses.

3.2 Which Preliminary Alternatives Were Eliminated from Further Consideration and Why?

3.2.1 Traffic Management Systems and Transit

A traffic signal could address the future failure of the LA 117 northbound approach to LA 6. However, signalization at that intersection would not improve the LOS on the LA 6 roadway segments, but would cause regular delays even when there was no turning traffic. The proposed project would include the addition of turn pockets to provide queuing space for vehicles outside the through lanes on both LA 6 and LA 117. This means of dealing with the capacity issue would avoid the expense of installing, operating, and maintaining a signal. Therefore, a traffic management alternative was eliminated from further consideration.

Although the number of people currently traveling within the corridor and the traffic projected in the future is sufficient to warrant action, it does not meet the minimum threshold for a transit option. The low population densities of the general area and the large proportion of commercial truck traffic in the corridor does not support the need for transit. Therefore, this alternative was dismissed from further consideration.

3.2.2 Alternative Alignments

None of the alternative alignments were eliminated from further consideration. All three are illustrated and compared on the plates in Appendix A.

3.2.3 Design Alternatives

There are two distinct sections of LA 6 within the limits of construction that were considered separately with regard to the appropriate design criteria, the east segment and the west segment (Figure 1). Because of the differences between the segments, some of the design alternatives were eliminated from further consideration on one but retained for full evaluation in the EA on the other.

3.2.3.1 West Segment

The west segment is the section of the project corridor between the western construction limit near LA 485 and LA 117. It is distinctly rural with no commercial development and many acres of timber land, pastures, and farms. The ADT volume in this segment is one and one-half times less than that of the segment to the east. Therefore, the following design alternatives were dismissed from further consideration in the EA for this segment:

- **UA-2** – Because of its distinctly rural character and relatively low ADT volumes, LDOTD determined that both UA-2 designs should be eliminated from further consideration.

- **SA-2** – Because of its distinctly rural character, both designs based on suburban criteria, SA-2 with a 30-foot raised median and SA-2 with a 42-foot depressed median, were eliminated from further consideration for this segment.

- **RA-3** – Based on the fact that the existing ADT volume only slightly exceeded the RA-2 suggested guidelines in this segment, it was determined that a 60-foot median would cause more residential impacts than would be justified by the benefits of the wider median and other design criteria of RA-3. Therefore, LDOTD approved the elimination of the RA-3 design alternative from further consideration for this segment.

- **Other Four-Lane Design** – There are no standard design criteria for the suggested four-lane design with a concrete divider barrier. Therefore, this alternative was eliminated from further consideration.

- **Five-Lane Design** – This design is an urban design and therefore, not appropriate for this segment, which is distinctly rural with very few businesses and a minimum of accessibility issues. Furthermore, even for urban areas, current LADOTD policy does not include five-lane designs. Therefore, this design was eliminated from further consideration.

3.2.3.2 East Segment

Although the east segment, which is the corridor between I-49 and LA 117, is designated as rural, it abuts the urban area of Natchitoches and has enough commercial and residential land use and traffic volumes to be considered suburban. The traffic study found that the ADT volume in this segment is one and one-half times greater than that of the segment to the west. Therefore, the following design alternatives were dismissed from further consideration in the EA for the east segment:

- **UA-2** – LDOTD determined that both UA-2 designs should be eliminated from further consideration for this segment, which can be considered suburban, but is decidedly not urban.

- **RA-2** – The RA-2 design features a minimum median width of 42 feet, which would cause more commercial and residential impacts than would be offset by the benefits of a wide median in this segment. A preliminary review of both designs determined that RA-2 offered no advantage when

compared to the SA-2 alternative. Therefore, the RA-2 design was eliminated from further consideration for this segment.

- **SA-2 with a 42-foot depressed median** – Due to the fact that this segment is relatively well-developed, it was determined that a 42-foot median would cause more commercial and residential impacts than would be justified by the benefits of a wider median. Therefore, the SA-2 design with a 42-foot depressed median was eliminated from further consideration for this segment.

- **RA-3** – It was determined that a 60-foot median would cause more residential impacts than would be justified by the benefits of the wider median and other design criteria of RA-3. Therefore, the RA-3 design was eliminated from further consideration for this segment.

- **Other Four-Lane Design** – There are no standard design criteria for the suggested four-lane design with a concrete divider barrier. Therefore, this alternative was eliminated from further consideration.

- **Five-Lane Design** – This design is an urban design and therefore, not appropriate for this segment, which can be considered suburban, but is decidedly not urban. Furthermore, even for urban areas, current LADOTD policy does not include five-lane designs. Therefore, this design was eliminated from further consideration.

3.3 Which Preliminary Alternatives Were Chosen for Detailed Study?

Three alternative alignments and a combination of alternative designs were evaluated in this EA. Two designs designated as typical sections SA-2 and RA-2 are combined and incorporated into all three alternative alignments; illustrations are provided in Appendix B. SA-2 standards with a 30-foot raised median would be applied on the east segment as illustrated for **Alternatives A** and **B** on Figure 1 and **Alternative C** on Figure 2 in Appendix B. There is also a bridge crossing in the east segment; this typical section for the three alternatives is illustrated on Figures 3 and 4 in Appendix B.

The west segment is designed using RA-2 standards with a depressed median that may vary in width between 42 and 60 feet. For this project, a 42-foot-wide median was used throughout the segment. The typical sections for the three alternatives are illustrated on Figures 5 and 6 in Appendix B.

The alternative alignments are designated as **Alternative A**, which would widen the highway on the north side, **Alternative B**, which would widen it to the south, and **Alternative C**, which would widen in the direction that would result in an overall minimization of adverse impacts to the natural and built environment to the extent practicable. These alternative alignments, described below, are illustrated on the plates in Appendix A.

Alternative A would add two new lanes and a median north of the existing two-lane highway. In this manner, the existing roadway would serve as the two eastbound lanes and the new roadway would serve as the two westbound lanes. It would also improve sight distance at the vertical curve near Old Highway 6 and incorporate roadway banking (superelevations) in any horizontal curve where needed.

Alignment B would add two new lanes and a median to the south of the existing roadway. The existing roadway would become the new westbound roadway, while the newly constructed lanes would be the eastbound roadway. It would also improve sight distance at the vertical curve near Old Highway 6 and incorporate roadway banking in horizontal curves where needed.

Alternative C would replace the existing two lanes with four new ones located to the south, north, or some combination of north and south except in sections where the impacts from retaining the existing two-lane roadway could be minimized. In this manner, the location of any new lanes and the requirement for additional ROW would avoid adverse impacts to the extent possible without compromising the safety of the facility. Adjustments to the typical design standards for the roadway that were necessary in generating **Alternative C** are listed below. Locations of these adjustments are referenced by station numbers and are illustrated on the plates in Appendix A.

- Addition of subsurface drainage
    - Subsurface drainage is proposed in most locations from Station 1312+00 through the end of the project in order to minimize impacts to commercial properties.
- Roadway adjustments to the slope between the shoulder to the bottom of the ditch (foreslope)
    - For the entire project length, a side foreslope of 6:1 was maintained for an unobstructed, relatively flat area beyond the edge of the roadway that allows a driver to stop safely or regain control of a vehicle if it leaves the road (clear zone). Beyond the clear zone, the foreslope was reduced to 4:1.
- Vertical profile (ground elevation) adjustments
    - The westbound vertical profile was raised near Stations 1070+00 and 1090+00 in order to avoid impacting four structures and three structures, respectively.
- Addition of retaining wall
    - A retaining wall was necessary near Stations 1130+00 through 1135+00 and Stations 1225+00 through 1230+00 in order to avoid excessive cuts.

In addition to **Alternatives A, B,** and **C**, the alternative of taking no action is also evaluated in detail. A **No Action Alternative** is required by NEPA to be studied for purposes of comparison and for consideration in cases where adverse impacts to the environment might outweigh the benefits derived from addressing the need and purpose. The resulting environmental effects from taking no action will be compared with the effects of permitting the proposed action. Where a choice of “no action” by the agency would result in predictable actions by others, these actions are considered to be consequences of the **No Action Alternative** and are included in the analysis. Other planned and programmed activities, such as road and ROW maintenance, and other regional improvements would be performed as scheduled under the **No Action Alternative**.

In summary, the following alternatives are fully evaluated in this EA:

- **Alternative A**: Add two lanes and a median to the north of the existing roadway using RA-2 design criteria with a 42-foot depressed median between LA 117 and LA 485 and SA-2 criteria with a 30-foot raised median between LA 117 and I-49;

- **Alternative B**: Add two lanes and a median to the south of the existing roadway using RA-2 design criteria with a 42-foot depressed median between LA 117 and LA 485 and SA-2 criteria with a 30-foot raised median between LA 117 and I-49;

- **Alternative C** (the selected alternative): Replace the existing two lanes with four new ones located to the south, north, or some combination of north and south except in sections where the impacts from retaining the existing two-lane roadway could be minimized. RA-2 design criteria with a 42-foot depressed median would be utilized between LA 117 and LA 485 and SA-2 criteria with a 30-foot raised median between LA 117 and I-49; and

- **No Action Alternative.**

4. Environmental Resources, Impacts, and Mitigation

This section presents a discussion of relevant environmental resources that have the potential to be affected by the activities related to each of the alternatives that is studied in detail in the EA. A description of resources found within the corridor and how they shape the human, built, and natural environments is provided as a baseline condition. How these resources could be changed by the proposed action is the foundation of the NEPA decision-making process. In cases where adverse effects cannot be avoided, consideration must be given to minimizing and mitigating them.

4.1 Which Environmental Resources within the Project Corridor are Relevant to the Project and How Might They Be Affected?

4.1.1 The Human Environment

The people who live, work, and travel through the corridor are very relevant to how the decisions about this project have been made. Besides direct impacts to the population from potential relocation of their homes or businesses, the project has the potential to affect land use and community character, travel patterns, lifestyles, community cohesion, and economic activities, which are also considered to be relevant human resources.

4.1.1.1 Land Use and Community Character

The eastern terminus of the study area lies within the municipal boundary of the city of Natchitoches. Encompassing a number of travel-related businesses, such as hotels, gas stations, and fast-food establishments, the city limits extend through the intersection of the eastern end of Old Highway 6 and LA 6. At Hagewood, 3 miles west of I-49 where LA 117 intersects the corridor, there is another section of

commercial development as well as the only apartment complex in the corridor. The western terminus of the project corridor lies within the village of Robeline, another area of commercial and residential development.

Surrounding these clusters of development, the character of the corridor is rural. Land use is agricultural and rural residential. The majority of acres surrounding the corridor are dedicated to pasture and woodlands. Houses are generally visible from the roadway, but are set back from it and surrounded by vast tracts of forests, fields, and undeveloped land. All the blocks that contain the corridor were designated as rural in the 2000 Census. In that year, population in the unincorporated areas of the parish averaged 15 persons per square mile compared to 829 in the city of Natchitoches, which is designated as urban, and 192 in Robeline, which is designated as rural. Population density by census blocks in the general area of the project is illustrated on Figure 2. Out of the 16 census block geographies that contain the construction limits of the project corridor, four are unpopulated. Areas of least development are between Hagewood and LA 485. Along several stretches of roadway in that segment of the corridor, only pine forests and large pastures can be seen from the roadway.

Land use and development is regulated by ordinances. The part of the corridor within the Natchitoches city limits is zoned for commercial use. From that point to the jurisdictional boundary of Robeline, the zoning district established by the Natchitoches Parish Planning and Zoning Commission is predominantly low density residential (R-1), which is composed mainly of areas containing single-family dwellings and open areas. Few two-family and multiple-family dwellings are allowed in R-1, but farming operations are permitted on a case-by-case basis. The zoning regulations are designed to protect the residential character of the areas by prohibiting all commercial activities, to encourage a suitable neighborhood environment for family life by including among the permitted uses such facilities as schools and churches, and to preserve the openness of the areas by requiring certain minimum yard and area standards (Natchitoches Parish 2007).

Within this district, the minimum building site is 7,200 square feet for residential and 10,000 square feet for any other permitted use. Building height is restricted to a maximum of 35 feet. However, according to the tax assessor data, the average size of parcels between Natchitoches and Robeline is approximately 13 acres (566,280 square feet), which would provide ample opportunity for subdivision and development within the existing codes.

The city of Natchitoches markets itself as one of the top places in the United States in which to retire (Natchitoches Area Chamber of Commerce ND), and the corridor can be characterized as consistent with that image based on the slow pace and tranquility of the lifestyle described by the residents.

Expansion of the two-lane roadway would potentially change the rural character of the corridor by inducing development, which could increase population and housing densities along the roadway. Commercial development at I-49 would be expected to expand westward along the corridor, albeit at a slow pace, and a number of properties could lose a portion of their setback from the road. The intersection of LA 6 and

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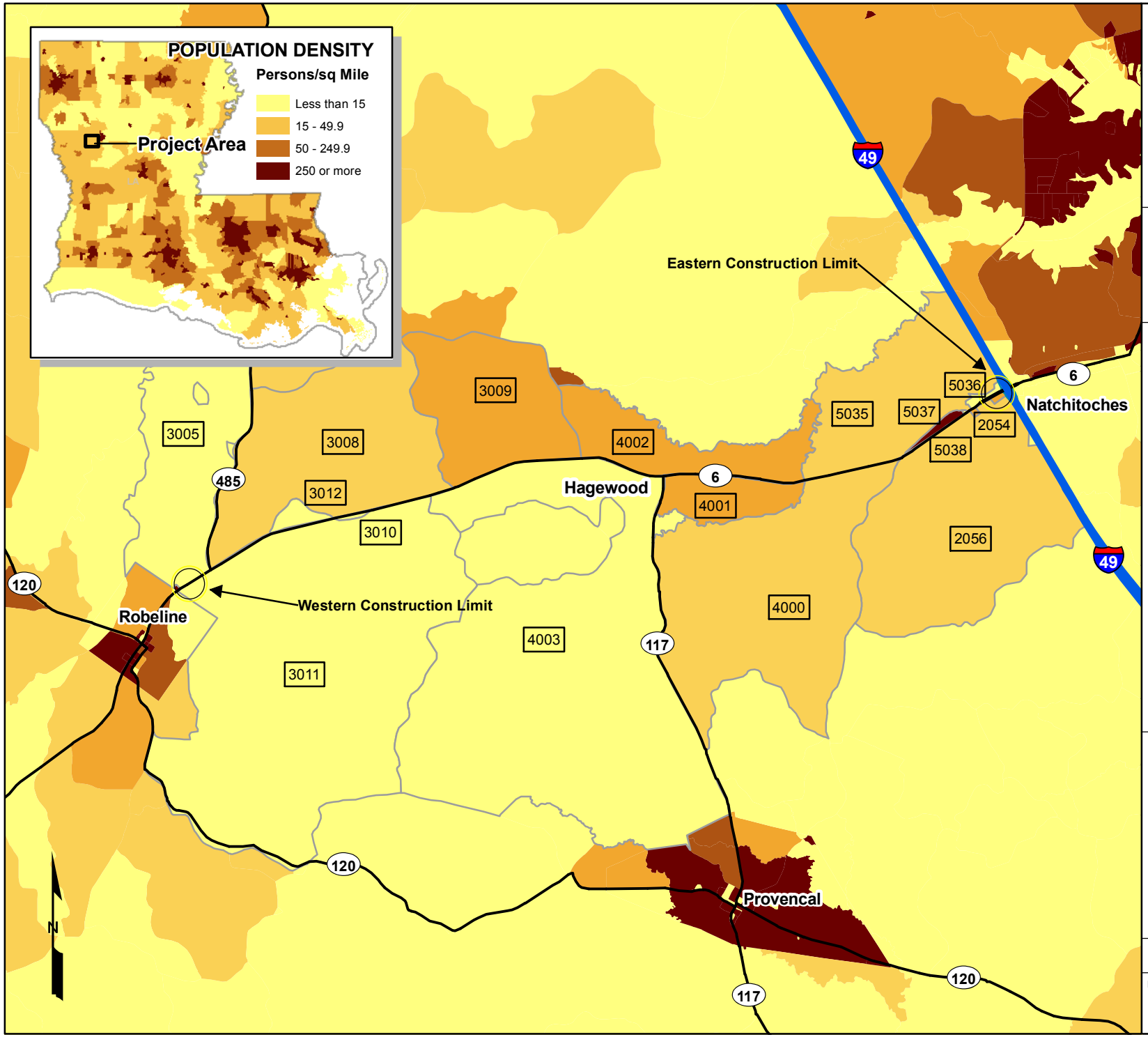

EL CAMINO
EAST/WEST CORRIDOR
LA ROUTE 6
ENVIRONMENTAL ASSESSMENT
NATCHITOCHES PARISH, LA

S.P. NO. 700-35-0140
F.A.P. NO DE-3506(512)

2000 CENSUS BLOCK DATA

Legend

Population Density
(Persons per Sq. Mile)

- Less than 15
- 15 - 49.9
- 50 - 149.9
- 150 - 249.9
- 250 or more
- 4000 Census Block
- Limits of Construction

"Source: US Census Bureau, Census 2000 SF1, ESRI"

0 0.375 0.75 1.5 Miles

El Camino East / West Corridor

Date:	Project No.:
11/13/2009	LA002860.0004

Figure No.:

2

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LA 117 would continue as a commercial center, with the potential for an increase in the number of retail locations and housing units than are currently there.

The 3-mile section between I-49 and Hagewood, where there would be a raised median and turn lanes, would impact the rural context by creating a more urban look and feel. In the stretch of roadway west of Hagewood, where the median would be wider and depressed, the context would remain rural.

4.1.1.2 Economic Activities

There are 20 businesses in the corridor, not including home-based businesses and occupations. There are two branch banks, a gas station/store, a portable building manufacturer, and a diner in the Robeline area of the corridor. Other employers are the two refuse collection sites in the parish and the Robeline government buildings on LA 6. At Hagewood, there is a steel fabricator, a land excavation site, a feed and farm supply store, a swimming pool contractor/hunting supply store, and a gas station/store. Between Collins Avenue and I-49, there is an emergency dispatch station, a recreational vehicle park, a home healthcare provider, three gas station/convenience stores, three motels, a bingo parlor, and a McDonald's. These businesses employ between 50 and 100 individuals on a full-time and part-time basis.

Acquisition of the required ROW would affect a few businesses by reducing the amount of frontage. A few businesses would lose their main buildings depending upon which alternative is selected. **Alternative A** would reduce the frontage of two vacant commercial properties, one refuse collection site, and two gas stations on the north side. A trailer used for office space would have to be moved. **Alternative B** would affect the main buildings of a home-based salon, the pool contractor, and the frontage of one gas station on the south. **Alternative C, the selected alternative,** would affect the frontage of a refuse collection site and a vacant commercial property on the north. Canopies, dispenser islands, and underground storage tanks (USTs) of the affected gas stations would be impacted; the main buildings, which operate as convenience stores, would not be affected by any of the alternatives.

The proposed project would affect access patterns. Left turns would be limited to approximately every 0.5 mile where turn lanes cross the median, which could change the ways businesses are accessed. Although this change could affect patronage, the addition of two lanes would improve traffic flow and would be expected to offset any impacts from the left turn limitations.

According to the Natchitoches Area Chamber of Commerce, there are 33 major employers in the area surrounding the project corridor that provide approximately 7,000 jobs. Local schools and NSU employ almost 2,000 people. Another 1,000 are employed by the parish and municipal governments and the regional medical center. There are four major manufacturers and several smaller ones that employ more than 2,500 workers. The rest of the jobs are spread among food sales and service companies, utility and communication providers, and financial institutions. Regional activities that use LA 6 for transportation of goods include the harvesting of raw timber and distribution of refined petroleum products. Tourism is also dependent on the road, which connects Natchitoches Parish and I-49 with Toledo Bend and parts of the Kisatchie National Forest.

Because most of the jobs are located outside the corridor, the proposed project would enhance employment opportunities for those with automobiles by improving the commute. The cost of goods shipped within the corridor would also be reduced by these improvements and regional tourists would also benefit. Potential induced development would include new businesses near I-49 and around the LA 117 intersection as well as new housing developments.

4.1.1.3 Demographics and Environmental Justice

Growth in Natchitoches Parish has been steady. From 1990 to 2000, the population grew at a rate of 6.5 percent compared to 5.9 percent for the state. The U.S. Census Bureau estimated that the parish population reached 39,576 in 2008, a 1.3 percent increase since 2000 compared to a 1.3 percent decrease in the state population for the same period. Almost half of all parish residents live in the city of Natchitoches and most of the growth from 2000-2008 is estimated to have occurred within its boundaries.

Although data specific to the project corridor are limited, the data indicate that growth along LA 6 is slow and population is sparse. According to the U.S. Census, in 2000 (the last year for which census data at the block level are available) there were 797 persons living within the 16 census blocks of Census Tract 9908 that contain the limits of construction of the project identified on Figure 2.

However, as shown on Figure 2, these census block geographies are large and bounded by more than one roadway; therefore, it can be deduced that not all of the individuals counted in the blocks in 2000 lived along the corridor within the limits of construction. Utilizing current tax assessor and 911 emergency response records, it is possible to estimate that there are 185 households in residences within or adjacent to the project corridor between the limits of construction. According to the 2005-2007 American Community Survey 3-Year Estimates (U.S. Census 2009), the average number of persons per household in Natchitoches Parish was 2.61. Therefore, a reasonable estimate of the number of persons that would be directly affected by the proposed project is 480.

Title VI of the Civil Rights Act (42 United States Code [USC] 2000) and Executive Order 12898 - Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (1994), require an environmental justice review, which entails a thorough evaluation of project effects to persons belonging to the low-income populations and the following minority groups at a minimum:

- Black;
- Asian;
- American Indian and Alaskan Native;
- Native Hawaiian or Other Pacific Islander (added by the Office of Management and Budget in its Bulletin No. 00-02, "Guidance on Aggregation and Allocation of Data on Race for Use in Civil Rights Monitoring and Enforcement," issued March 9, 2000); and
- Hispanic (of any race).

A review of the race and ethnicity data for the census blocks identified in Figure 2 was undertaken to ascertain whether any minority groups would be disproportionately affected by adverse impacts from the proposed project. Results of the review are provided in Table 4-1.

Table 4-1. Race and Ethnicity by Project Corridor Census Block

Census Geography		Number of Persons	Black	Asian	American Indian and Alaskan Native	Native Hawaiian or Other Pacific Islander	Hispanic
Census Tract 9908Blocks that Contain the Limits of Construction (2000)	Block 2054	3	0%	0%	0%	0%	0%
	Block 2056	62	0%	0%	0%	0%	0%
	Block 3005	12	0%	0%	0%	0%	0%
	Block 3008	57	47.4%	0%	0%	0%	0%
	Block 3009	115	42.6%	0%	0%	0%	0%
	Block 3010	0	NA	NA	NA	NA	NA
	Block 3011	30	0%	0%	3.3%	0%	0%
	Block 3012	0	NA	NA	NA	NA	NA
	Block 4000	117	0%	0%	6.8%	0%	0%
	Block 4001	64	15.6%	0%	9.4%	0%	1.7%
	Block 4002	131	13.0%	0%	0%	0%	6.1%
	Block 4003	104	17.3%	0%	0%	0%	2.9%
	Block 5035	90	26.7%	1.1%	2.2%	0%	0%
	Block 5036	0	NA	NA	NA	NA	NA
	Block 5037	0	NA	NA	NA	NA	NA
	Block 5038	12	0%	0%	0%	0%	0%
	All Blocks	797	18.2%	0.1%	2.1%	0%	1.5%
Natchitoches Parish (2000)		39,080	38.4%	0.4%	1.1%	0%	1.4%
Natchitoches Parish (2005-2007)[1]		39,233	39.2%	0.7%	1.1%	0%	1.7%

Source: U.S. Census Bureau, Census 2000 Summary File 1 (SF 1) 100-Percent Data and 2005-2007 American Community Survey (ACS).

[1]Because the Census is conducted only once every 10 years, the farther away from the decennial year, the more out-of-date the data become. Therefore, FHWA (2009) recommends ACS as another source for environmental justice review. ACS data are only available at the parish level.

According to the 2000 Census, most residents within the limits of construction of the corridor were not members of any minority. Blacks were represented in half of the 12 populated census blocks of the corridor. They numbered 145 persons or 18.2 percent of the corridor population. American Indians and native Alaskans represented 2.1 percent of the population and Asians 0.1 percent. There were no native Hawaiians or other Pacific islanders in the corridor. Hispanics were identified in three of the census blocks, numbering 12 persons or 1.5 percent of the resident population.

An environmental justice review is also required for persons of low income. Income data are not available for census block geographies, but are available for census block groups, which are groupings of blocks within a census tract. Four of the five block groups that comprise Census Tract 9908 include the limits of construction of the project corridor. The poverty and income data from the U.S. Census Bureau for these groups are provided in Table 4-2.

Table 4-2. Poverty and Income Data for Census Tract 9908

Census Geography		Median Household Income	Households with Income below the Poverty Level	Households with Income below $10,000
Census Tract 9908 Block Groups (1999)	2	$44,167	14.9%	6.5%
	3	$21,452	26.6%	20.3%
	4	$33,622	15.2%	15.2%
	5	$43,984	10.0%	5.0%
	All Block Groups	$34,200[1]	17.2%	12.7%
Natchitoches Parish (1999)		$25,722	26.5%	22.7%
Natchitoches Parish (2005-2007)		$27,478	30.1%	20.5%

Source: U.S. Census Bureau, Census 2000 Summary File 3 (SF 3) Sample Data and 2005-2007 American Community Survey.

[1]Calculated from Census 2000 SF 3 Data.

The small percentage of minorities and low-income persons within the corridor census blocks and block groups reduces the probability that the proposed project would cause adverse impacts to a disproportionate number of individuals in these groups. Generalized adverse impacts such as noise and the loss of some rural character would be shared equally among all residents. However, displacements from the taking of a home structure, business, or community facility could directly affect one particular group more than another.

Estimated displacements were studied in detail and data about the estimated income and minority status of the individuals who would be relocated were reviewed to determine if any minority or low-income groups would be disproportionately affected. Minority groups represent 8, 6, and 12 percent of the total relocations for **Alternative A**, **Alternative B**, and **Alternative C (the selected alternative)**, respectively. For **Alternative A**, 4 percent of the relocations would affect the low-income group and 23 percent would affect the low- to middle-income group. The relocations from **Alternative B** would be distributed across these groups as 8 percent low income and 25 percent low to middle income and from **Alternative C** as 12 percent low income and 29 percent low to middle income. As demonstrated by these numbers, none of the alternatives would cause any minority or low-income group to be disproportionately affected by adverse impacts from the proposed project.

4.1.2 The Built Environment

The homes, businesses, and farmsteads along the corridor are important physical resources that make up the built environment. A listing of relocations by alternative is provided in Appendix C.

Other resources within the built environment are community facilities and services and other social resources and public or semi-public infrastructure. Infrastructure includes transportation facilities, pipelines, and utilities. These resources were also considered to be relevant to the project.

Another consideration related to the built environment and relevant to the project is the presence of potentially hazardous waste sites that may be disturbed by construction of the project. This waste may be found in USTs or within industrial facilities or commercial sites. Regulations for facilities currently operating generally prescribe measures to prevent contamination to the built and natural environment from any waste generated. However, it is also prudent to consider the potential presence of unconfirmed waste sources such as those generated prior to the establishment of regulations or produced without authorization.

4.1.2.1 Relocations of Homes and Businesses

The ROW required for the proposed project would impact between 150 and 160 properties by taking a portion of the frontage for the new travel lanes and "clear zone," which is an unobstructed, relatively flat area beyond the edge of the roadway that allows a driver to stop safely or regain control of a vehicle that leaves the roadway. The acquisition of ROW does not necessarily constitute a relocation impact.

While most structures are set back from the roadway by a sufficient distance to put them outside the limits of the ROW required for the proposed project, there are a number of homes and businesses that are within the proposed ROW and would have to be relocated. **Alternative A** would require ROW on the north side of the existing roadway and some structures on that side to be relocated, **Alternative B** would require ROW and some structure relocations on the south, and **Alternative C**, the selected alternative, would require ROW and some structure relocations on both sides of the existing roadway.

4.1.2.2 Community Facilities, Services, and Social Resources

There are few essential services and community facilities within the corridor, but all are within driving distance of the project corridor. Most community institutions are located in the city of Natchitoches about 5 miles east of the eastern terminus. The parish hospital, an outpatient clinic, and a nursing home are located in the city as are most of the schools. Public schools in the city of Natchitoches include two elementary schools, one middle school, four elementary/middle schools, and one high school. There is also one alternative school serving grades 4 through 12. There are two church-affiliated schools. Also serving the project corridor are two schools offering pre-kindergarten through eighth grade classes, one in Provencal, 5 miles south of Hagewood, and one in Marthaville, 7.5 miles northwest of Robeline. The only publicly funded boarding school in Louisiana, the Louisiana School for Math, Science, and the Arts, is also located in Natchitoches. Higher education is provided by NSU, a 4-year institution with a number of sports teams and a theater, and the Natchitoches Campus of the Louisiana Technical College. NSU provides

library services to the public, supplementing the Natchitoches Public Library and a historical/genealogical library, both of which are downtown.

There are numerous federal government offices in Natchitoches, including the National Park Service, U.S. Department of Agriculture, the Department of the Interior, and a field office of the U.S. Army Corps of Engineers (USACE), which built Sibley Lake on the western side of the city. The local unit of the National Forest Service is located in Kisatchie National Forest in Provencal. College sports and arts events provide much of the local entertainment and culture. There is a country club, a golf course, and a regional airport in the city. Lake Sibley and NSU also provide a selection of recreational facilities. Natchitoches is a historic preservation tourism destination and the Festival of Lights, celebrated each December, attracts regional and national visitors. On the western end of the corridor at LA 120, the Robeline Heritage Festival, held each fall, is another popular attraction, along with the Los Adaes Cultural Center and State Historic Site, which is open year-round.

Besides Robeline Park, there are few venues within the corridor that provide space for community activities. There are five church facilities. Three are located within the limits of construction of the project: Coldwater Baptist in Hagewood, Hickory Grove at LA 6 and LA 485, and Robeline Tabernacle of the Lord, which is now closed. Most religious institutions are outside the project corridor in the city of Natchitoches, and a few others are in Provencal and Marthaville.

There are no bars, formal restaurants, or lodges between Robeline and I-49. There is a bingo parlor and a McDonald's restaurant in the commercial area at the interstate and the three hotels there provide complimentary breakfasts for guests. Missy's Diner and the convenience stores at the Plowhorse, Casey's Quick Stop, and Shop-A-Lott #10 prepare hot food. The Plowhorse, Casey's, and McDonald's have seating areas that allow customers to eat on site.

Because the number of community facilities and services within the corridor is limited, access to the majority of these social resources by the residents of the Project Corridor requires driving along LA 6 for 5 to 13 miles. Consequently, any improvement to the roadway would enhance community access and utilization of these resources.

4.1.2.3 Infrastructure

Electrical service in the corridor is provided by the City of Natchitoches and the Valley Electric Membership Corporation. Telephone service is provided by AT&T. Natural gas is provided to most of the residences and businesses by Atmos Energy, although a number of homes utilize private propane tanks for cooking and heating. There are two natural gas pipelines that cross the corridor.

The Natchitoches Public Works Department provides water for the corridor from I-49 to Hagewood, sewer from I-49 to Young's Bayou, and waste collection within the city limits. The parish government provides waste collection outside the incorporated areas at two collection centers, one in Hagewood and one in Robeline.

Hagewood purchases its water from the City of Natchitoches and then supplies potable water to its community. There is a community water system at the western end of the project corridor that serves both Robeline and Marthaville. Potable water outside these service areas is provided by individual private water wells.

Sanitary sewer services are provided by the City of Natchitoches up to its jurisdictional boundary near the eastern terminus and the Village of Robeline from LA 120 to LA 485. The rest of the corridor is serviced by individual septic tanks or small package plants.

There is no public transportation in the corridor. Lifestyles of corridor residents are automobile-dependent. Besides the two-lane state highways, there are a few parish roads and a number of unpaved lanes and driveways. There are no sidewalks or bicycle lanes along the roadways and, despite the rural character of the corridor, no horses or animal-propelled vehicles were noted during field surveys.

Some of the utility lines would be affected during construction. Some would require permanent relocation after the proposed project is complete.

4.1.2.4 Potential Hazardous Waste Sites

More than 30 industrial, commercial, unconfirmed, or unauthorized potential hazardous waste sites were investigated in the corridor.

Active sites used for extraction of earthen fill, trash compactor sites, a home health business, and a steel fabricator were assessed, but were not identified as being sites that would affect the proposed project. Several small, unpermitted dumpsites consisting primarily of household debris and white goods were observed within the corridor, but were also eliminated from the list of potential hazardous waste sites.

Ten of the remaining sites, illustrated on Figure 3, were identified as potential hazardous waste sites. Both sites in Robeline operate USTs, but there is no potential environmental risk from either of these because they are outside proposed ROW. Similarly, the I-49 Texaco Food Mart at the eastern end of the corridor, which operates USTs, is sufficiently removed from the proposed ROW not to cause any concern. In addition, the tanks at these three sites are up-to-date on their registrations and inspections, and there is no evidence of any leakage or compliance issues that would affect the proposed ROW.

There is evidence that Double G Farm Supply and Hunter's Paradise/Pleasure Pools in Hagewood (see Plate 8 in Appendix A) are located on properties that once contained USTs that were reportedly removed. Because there is no documentation to confirm the removal or characterize the condition of the area where the USTs were located, both sites were determined to be sites with a historical recognized environmental condition that would pose a potential environmental risk if impacted by the proposed project. However, because both sites are operated by known owners, they are considered to be a lesser risk. Double G Farm Supply is located within the proposed ROW for Alternatives A and C; Hunter's Paradise is located within the proposed ROW for Alternative B.

Records indicate that a welding operation and a paper container manufacturer once operated in the vicinity of Hagewood, but site visits determined that these activities have ceased. It is not known whether there is an owner who would be responsible for cleanup of these sites if any contamination were discovered; therefore, these sites are classified as inactive without a known owner that would pose a potential environmental risk if impacted by the proposed project. Both sites are located within the proposed ROWs for Alternatives B and C.

Three other facilities, EZ Stop/EZ Serve, Casey's Quick Stop Exxon, and Chevron Shop-A-Lott #10, were identified as having potential environmental risk. All are gasoline and diesel filling stations with convenience stores that are near or within the limits of construction and known to operate USTs. Because the USTs are registered and in compliance with all applicable regulations, and the owners of record would be responsible for any impacts to the ROW, these sites are considered a lesser risk than those out of compliance or without known owners. The USTs and dispenser island of EZ Stop station are located within the proposed ROW for Alternative A. The USTs and dispenser island of the Exxon station are located within the proposed ROW for Alternative B. The dispenser island of the Chevron station is located within the proposed ROW for Alternative A, but the USTs are not.

Five oil and gas wells identified from the LDOTD list of wells are designated as plugged and abandoned or unknown location. Site reconnaissance determined that none of the listed wells are in the proposed ROW for any alternative. Except for some severe erosion caused by the earthen fill extraction business, there are no impacts from oil/gas or mining activities in the area.

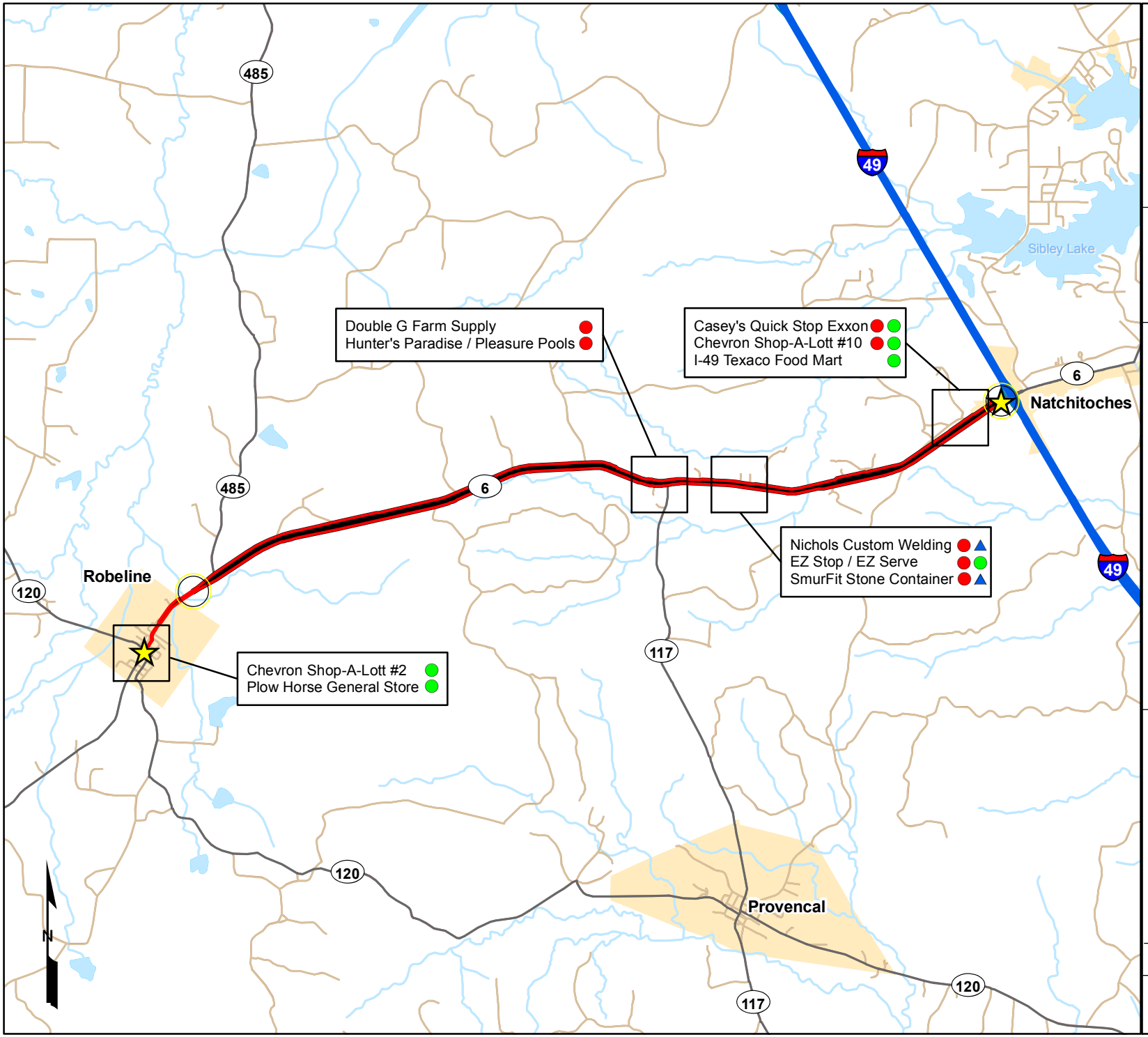
4.1.3 The Natural Environment

Within the natural environment, there are a number of relevant resources such as wetlands and other surface waters, which are protected by Section 404 of the Clean Water Act. Subsurface waters used for drinking, irrigation, and industry are another water resource that were considered in the project decision-making process. Land areas adjacent to surface waters that are subject to recurring inundation are floodplains, also a relevant natural resource that was analyzed for the EA.

Vegetation and wildlife are also relevant natural resources that were identified and considered. Additional consideration was given to those species of flora and fauna identified as warranting protection. These species may be listed for protection by the state or may be classified as threatened or endangered in accordance with the Endangered Species Act.

4.1.3.1 Air Quality

Air quality is a natural resource issue considered for the EA. The U.S. Environmental Protection Agency (USEPA) established criteria for evaluating air quality in accordance with the 1990 Clean Air Act Amendments. Air sheds that do not meet these standards are known as non-attainment areas and require special consideration. The project corridor is located within an air shed that meets air quality standards established by USEPA; however, the NEPA process includes an evaluation of air quality impacts from the proposed project. Use of past carbon monoxide analyses as a historical database may be used in lieu of



EL CAMINO
EAST/WEST CORRIDOR
LA ROUTE 6
ENVIRONMENTAL ASSESSMENT
NATCHITOCHES PARISH, LA

S.P. NO. 700-35-0140
F.A.P. NO DE-3506(512)

POTENTIAL HAZARDOUS WASTE SITES

Legend

- Sites with Potential Environmental Risk
- Sites with USTs
- Inactive Sites
- Project Corridor
- Municipal Boundaries
- Limits of Construction
- Logical Terminus

"Source: ESRI, ARCADIS, Sigma"

1 in = 1.3 miles

0 0.375 0.75 1.5 Miles

El Camino East / West Corridor

Date:	Project No.:
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Figure No.:

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modeling to determine possible impacts to air quality. That comparative study, provided in Appendix D, did not indicate that a project like the one proposed for LA 6 would violate air standards and it demonstrated that there would be no variation in the effects among the proposed alternatives. Therefore, no further consideration of this resource was required.

4.1.3.2 Scenic Rivers

None of the streams in the project corridor are designated as scenic by the National Wild and Scenic Rivers System or the Louisiana Natural and Scenic Rivers System.

4.1.3.3 Wetlands and Other Waters

Section 404 of the Clean Water Act requires that anyone interested in depositing dredged or fill material into waters of the U.S., including wetlands, must receive authorization for such activities. The USACE has been assigned responsibility for administering the Section 404 permitting process and makes the determination of whether or not wetlands fall under their jurisdiction.

A field study was undertaken to determine the presence of wetlands and other waters within the project corridor. All wetlands located in the survey were delineated using the three parameters (dominant vegetation, soil characteristics, and hydrology) and methods described within the *Corps of Engineers Wetlands Delineation Manual* (USACE 1987). The *Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region* (October 2008) was also consulted for the wetland delineation effort.

The field survey identified 17 streams, 11 palustrine wetlands, and 11 lacustrine wetlands (ponds) within or proximate to the project corridor. The wetlands found within the project corridor are identified in Appendix E: Wetlands and Other Waters. None are more than an acre in size and none are fully functional, unaltered systems. Locations of the wetlands are illustrated on the plates in Appendix A, referenced by the station number provided in Table E-1 in Appendix E. The table also notes where the wetlands are located with regard to the existing roadway.

All of the streams in the project corridor are warm-water streams. None of the project corridor streams are listed on the Louisiana Department of Environmental Quality (LDEQ) 2006 303(d) List of Impaired Waters (LDEQ 2008). None are fully functional. The streams identified in the corridor can be found in Appendix E. Their locations are illustrated on the plates in Appendix A, referenced by the station number provided in Table E-2 in Appendix E. The table also notes where the streams are located with regard to the existing roadway.

Most of the 11 lacustrine wetlands listed in Table E-3 in Appendix E are residential ponds. Only one is hydrologically connected to a stream. Several collect storm water runoff from the existing roadway. These ponds generally have wetland areas on the fringe and a few are connected to adjacent wetlands systems. Locations of the ponds are illustrated on the plates in Appendix A, referenced by the station number provided in Table E-3 in Appendix E. The table also notes where the ponds are located in regard to the existing roadway.

Because this project involves the widening of a waterway crossing by the existing LA 6 roadway, substantial impacts to the surface waters are not anticipated at a regional level. At a local level, upgrading of existing drainage elements, such as culverts and flumes, by the proposed project may help decrease or stop the degradation of various streambeds within the limits of construction of the corridor caused by failures among many of these roadway drainage elements.

4.1.3.4 Subsurface Water

The project corridor is underlain on the east by the Red River Alluvial aquifer and on the west by the Carrizo-Wilcox aquifer. The corridor also crosses the southwestern tail of the areal extent of the Sparta aquifer.

The USEPA defines a sole source aquifer as an underground water source that supplies at least 50 percent of the drinking water consumed in the area overlying the aquifer. These areas have no alternative drinking water source(s) that could physically, legally, and economically supply all those who depend upon the aquifer for drinking water. There is no sole source aquifer underlying the project corridor. Sibley Lake is the source of drinking water for the city of Natchitoches, which also supplies the community of Hagewood. Drinking water is extracted from the Wilcox aquifer for the public water supply of Robeline and Marthaville. Individual water wells located outside the limits of Robeline and Natchitoches also draw water from the Wilcox and Upper Wilcox geologic units. It appears that most of the wells in proximity to the corridor that tap the Sparta aquifer are for use by the town of Provencal (LDOTD Water Well database).

The Wilcox deposits, outcropping in northwestern Louisiana, are the oldest deposits in the state containing fresh water. These consist of complex sequences of fine sands, sandy silts, sandy to silty clays, and lignite. Well yields are restricted because the sand beds are typically thin, lens-shaped, and fine textured. Primary recharge of the Carrizo-Wilcox aquifer occurs from direct infiltration of rainfall and from movement between overlying alluvial and terrace aquifers.

Water from the Red River Alluvial aquifer is primarily used for agriculture. Groundwater within this stream-valley alluvial aquifer is partly under confined or artesian conditions. Recharge is either by infiltration of precipitation or recharge from underlying or adjacent water-yielding rocks; discharge is by seepage to streams that incise the aquifer or by evapotranspiration. In places where the floodplain is well developed for agricultural purposes, the aquifer can be recharged by downward seepage of irrigation water. Groundwater flow is, for the most part, largely downstream with a local component of movement toward the major stream channels.

There is little potential for adverse effects to the subsurface waters from the proposed project. A storm water discharge permit will be required by LDEQ for the project and best management practices will be implemented to manage runoff and prevent pollution.

4.1.3.5 Floodplains

Floodplains are areas flooded during storm events. The 100-year floodplain is defined as the area that would be inundated by a precipitation event that has a 1-in-100 chance of occurring every year. Floodplains

are protected by Executive Order 11988, Floodplain Management; 23 Code of Federal Regulations Part 650, *Location and Hydraulic Design of Encroachments on Floodplains*; and U.S. Department of Transportation (USDOT) 5650.2, Floodplain Management and Protection. These regulations require that encroachments within the 100-year floodplain are minimized and that land development inconsistent with floodplain values is avoided.

The project corridor crosses the 100-year floodplain several times. None of the waterways crossed by the proposed project has a regulated floodway. The 100-year flood is also known as the base flood and the water levels that occur within the area of the flood or floodplain are called the base flood elevations (BFE). Locations where the proposed project will cross, or encroach upon, the floodplain are illustrated on Figure 4.

Encroachments upon the floodplains would not increase the BFE to a level that would violate applicable floodplain regulations. The proposed project will incorporate appropriately designed drainage structures. Natchitoches Parish and the City of Natchitoches participate in the National Flood Insurance Program, which regulates development within the floodplain.

4.1.3.6 Vegetation

Terrain of the project area generally consists of rolling hills, level woodlands, and sections of plains. The segments of rolling hills generally are located within the middle sections of the project corridor, with mixed pine-oak-hickory woodlands and loblolly pine stands managed for the timber industry as the primary cover. Areas of flat woodland uplands and gently sloping plains are located within sections outside the rolling hills habitat.

Two natural communities found within the project corridor are described by the Louisiana Natural Heritage Program (LNHP) as special concern communities. A hardwood slope forest was determined to be of marginal community status due to a reduced slope area and a limited number of species that typically dominate this community type. The canopy was dominated by American beech (*Fagus grandifolia*), but had sparse representation of hardwood slope community species, such as sweet gum (*Liquidambar styraciflua*) and loblolly pine (*Pinus taeda*). Shrubby and midstory species were dominated by American beech and musclewood (*Carpinus caroliniana*). Herbaceous cover was limited to areas of steeper slopes and was dominated by Christmas ferns (*Polystichum acrostichoides*). Due to the marginal status of the hardwood slope community at this location, major or irreversible impacts are not anticipated as a result of the proposed project.

A bayhead seep, designated as Wetland 10, was identified on the north side of the existing roadway during the field surveys. Dominant species of the immediate habitat include sweetbay (*Magnolia virginiana*), southern magnolia (*Magnolia grandiflora*), red maple (*Acer rubrum*), sensitive fern (*Onoclea sensibilis*), and

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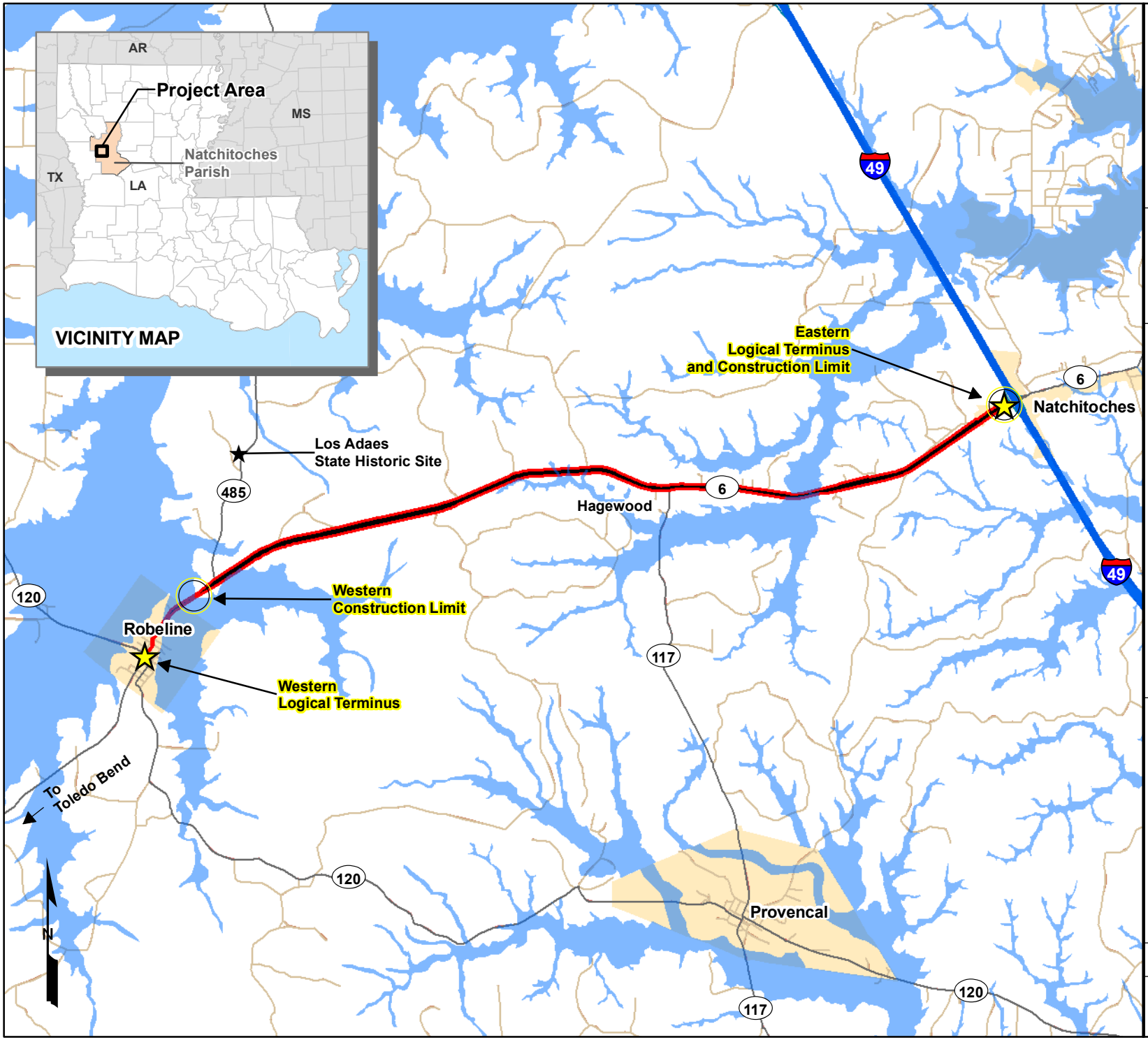

EL CAMINO
EAST/WEST CORRIDOR
LA ROUTE 6
ENVIRONMENTAL ASSESSMENT
NATCHITOCHES PARISH, LA

S.P. NO. 700-35-0140
F.A.P. NO DE-3506(512)

FEMA 100-YEAR FLOOD ZONE

Legend

- Limits of Construction
- Logical Terminus
- FEMA 100-Year Flood Zone
- Project Corridor
- Municipal Boundaries

"Source: ESRI, ARCADIS, Sigma, FEMA"

0 0.375 0.75 1.5 Miles

El Camino East / West Corridor

Date:	Project No.:
11/13/2009	LA002860.0004

Figure No.:

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lizard tail (*Saururus cernuus*). As illustrated on Plate 13 in Appendix A, the location of this seep community lies beyond the required ROW for the proposed project and would not be impacted by any of the alternatives.

An old growth American elm (*Ulmus americana*) was observed on the south side of LA 6 south of the confluence of Streams 8 and 9. The lifespan of this species is 175 to 200 years. The height of the elm was estimated to be more than 80 feet tall, and the measured breast height circumference almost 14 feet. The current Louisiana State Champion American elm is located in Concordia Parish, Louisiana. This champion tree measures 19 feet, 11 inches in circumference and is 118 feet tall. These dimensions support a conclusion that the elm found near LA 6 is old enough to be considered old growth. As shown on Plate 6 in Appendix A, the tree is located outside the required ROW for all of the alternatives and will not be impacted by the proposed project. However, to ensure its protection, it is recommended that the elm be marked and fenced off prior to commencement of clearing and construction activities.

4.1.3.7 Wildlife and Protected Species

Section 7 of the Endangered Species Act (ESA) of 1973 requires federal agency actions (e.g., project approvals, funding, other actions) to be implemented so that species listed as protected are not jeopardized in terms of their existence or habitat. The U.S. Fish and Wildlife Service (USFWS) is charged with the implementing this law and maintaining a list of protected plants and animals and their protection status. The LNHP maintains sighting records of federally protected species and species of state concern.

Federally Listed Candidate Species

A request presented to the USFWS in 2007 resulted in the identification of one candidate for listing under the ESA that may occur within and/or near the project corridor, the Louisiana pine snake (*Pituophis ruthveni*) (see correspondence in Appendix F). Because it is only a candidate for listing as threatened and endangered, this species receives no statutory protection under the ESA and consultation with the USFWS to address potential impacts from a proposed project is not required. However, the agency encourages cooperative conservation efforts because candidate species, by definition, may warrant future protection under the ESA. Therefore, potential impacts to the Louisiana pine snake by the proposed LA 6 widening improvements were evaluated during the field study to account for the possibility of this species obtaining federal protection under the ESA and/or protection via critical habitat designation within the project corridor before construction begins.

The Louisiana pine snake is an oviparous, non-venomous constrictor species that grows to 5.8 feet long. They prefer sandy, well-drained soils of open pine forests with moderate to sparse midstories and grassy herbaceous understories. Louisiana pine snakes almost exclusively use pocket gopher (*Geomys breviceps*) burrows as underground refuge and as a food source. While some pocket gopher burrows were observed, no suitable Louisiana pine snake habitat or individuals were observed within the project corridor. Therefore, this project is anticipated to have no effect on this species.

Federally Listed Threatened and Endangered Species

The red-cockaded woodpecker (RCW) (*Picoides borealis*) is listed as a threatened and endangered species. Although it was not identified in the 2007 correspondence from USFWS, it is listed by the LNHP's April 2008 *Rare, Threatened and Endangered Species and Natural Communities* publication as having occurred within Natchitoches Parish in the past. Although the RCW population is believed to be locally extinct, or extirpated, the project corridor was assessed for the existence of suitable habitats and individuals of this federally listed species.

This small, black and white woodpecker grows to 8 inches in length and prefers park-like stands of longleaf (*Pinus palustris*) or loblolly pine tree species. These woodpeckers form family groups, called colonies or clusters, which generally cover 1 to 10 acres of forest. Mites, insects, and larvae are its primary food. Its nest cavities are typically 3-inch diameter holes that are drilled through the sapwood and into the heart of living pine trees at least 60 years of age or older, which are normally at least 10 to 12 inches in diameter at breast height. RCW are sensitive to understories or brush and small trees, and are almost never found within pine tree stands with thick, or even moderately thick, understories or midstories. No individuals, active colonies, or inactive *P. borealis* colony sites were observed within or near the project corridor. Therefore, this project is anticipated to have no effect on this species.

Other Species of Federal Concern

In order to be thorough, the field surveys also assessed potential impacts to the bald eagle (*Heliaeetus leucocephalus*), as well as to the federally listed interior least tern (*Sterna antillarum athaloassos*), long-leaved wild buckwheat (*Eriogonium longifolium*), and red wolf (*Canus rufus*) species. No suitable nesting, shelter, and fishing/hunting areas of the bald eagle, which typically occur along the banks of mid- to high-order streams and rivers, ponds, or estuaries with mature conifer (occasionally hardwood) canopies, were found within the corridor during the desktop or field surveys. No suitable habitat for the interior least tern, long-leaved wild buckwheat, or the red wolf was found during the field survey. Therefore, it is anticipated that the proposed project would have no effect on these species.

State-Listed Species

The LNHP's August 2007 correspondence (Appendix F) identified three state-listed floral species that have occurrence potential within the corridor. These species included the awl-shaped scarf-pea (*Pediomelum hypogaeum* var. *subulatum*), pale umbrella wort (*Mirabilis albida*), and the southern lady's slipper (*Cyperipedium kentuckiense*). Locations within the corridor that exhibited habitat elements required to support a population of any one of these three species were identified during the windshield survey. Each of the identified locations was pedestrian surveyed for the existence of these state-listed individuals by searching for vegetative manifestations unique to each of the three species. This field study occurred during the flowering period of the pale umbrella wort, which was also used as an aid to identify this species.

The pale umbrella wort is a perennial plant with an S1 state-ranking. An S1 ranking is defined as critically imperiled within Louisiana due to its extreme rarity. This erect, branched plant grows 3 to 60 inches tall with

white, pink, or deep red-violet flowers that appear during late summer through early fall. Pale umbrella worts are normally associated with dry meadows, sandy prairies, hillsides, and rocky slopes. No individuals or suitable habitat of *M. albida* were found within the corridor; therefore, it is anticipated that the proposed project would have no effect on this species.

The southern lady's slipper is another S1-ranked species that has a known occurrence near the project corridor according to the LNHP. This herbaceous member of the orchid family prefers shaded areas of mature floodplain near streams and ravines, but can also be found within some woodland seeps. No individuals were observed during this survey, and only one area of the project corridor contains potential habitat for this species. Because the area where potential habitat exists is not affected by the project, it is anticipated that the proposed project would have no effect on this species.

The awl-shaped scarf-pea is the final species listed by the LNHP as having a known occurrence near the project corridor. It has a state rank of S2, which is described as an imperiled Louisiana species because of its rarity within the state and its vulnerability to extirpation, or local extinction. This species, also known as the Indian breadroot, is a perennial herb with an edible, carrot-like root. Flowers are typically purple and can be found in a variety of habitats. No individuals or suitable habitat of *P. h.* var. *subulatum* were found within the project corridor; therefore, it is anticipated that the proposed project would have no effect on this species.

Other Wildlife

In accordance with the Migratory Bird Treaty Act, potential migratory bird congregational and nesting areas were investigated throughout the corridor, and no considerable naturally vegetated congregational areas were located. However, the existing bridges of the project corridor were determined to have importance to migratory birds in the general area of the project. The bridges of Streams 2 and 3, which are outside the limits of construction, each had more than 10 barn swallow nests that were attached to the underside of these structures. The bridge of Stream 12 that crosses Young's Bayou (Plate 11 in Appendix A) had a fewer number of barn swallow nests. No barn swallow or other migratory birds' nests were observed within the roadway culverts of the corridor.

Barn swallows typically return to the same nesting site every year, and most re-use their nest of the previous year. This species migrates into the project corridor about mid-March and normally have two separate clutches before leaving their nesting sites again in October. Guidance from FHWA recommends that inactive migratory birds' nests not be removed before consultation with the USFWS. It is also recommended that work upon these bridges be conducted during the time period of October through early March, while the barn swallows are absent from the project corridor.

4.1.3.8 Farmland

Farmland is a natural resource that is a major factor in rural economics. The Farmland Protection Policy Act of 1981 requires federal agencies to minimize adverse effects of federal actions related to irreversible conversion of farmland to nonagricultural uses. Farmlands of concern include prime farmland, unique farmland, and land of statewide or local importance.

The project corridor predominantly consists of terrace uplands. These gently sloping to steeply sloping soils are suitable for pasture and woodlands. Therefore, most of the agricultural activities in the area are related to timber harvests and livestock. There is no cropland within the vicinity of the corridor because the soils are generally low in fertility (USDA 1990).

Three types of prime farmland soils were identified within the project corridor: Keneflick fine sandy loam, 1 to 5 percent slopes; Keithville loam, 1 to 5 percent slopes; and Sacul fine sandy loam, 1 to 5 percent slopes. A Farmland Conversion Impact Rating Form for Corridor Type Projects (Form NRCS-CPA-106) was submitted to the Natural Resources Conservation Service (NRCS) for comparison of impacts to farmlands for each of the build alternatives. Copies of the completed forms and correspondence are provided in Appendix G.

A relatively low conversion impact rating of 99 out of 260 points was assessed by the NRCS for all three of the alternatives for the proposed project. This rating indicates that the proposed project will not cause unacceptable impacts to farmland; therefore, this resource is not considered relevant to this project.

4.1.3.9 Coastal Resources and Essential Fish Habitat

The project corridor is outside the coastal zone and does not contain any marine or estuarine habitats.

4.1.4 Cultural Resources

Historical properties and archaeological sites are physical resources that also represent cultural values and human history. Special consideration must be given to the effects of the proposed project upon any district, site, building, structure, or object that is included or eligible for inclusion in the National Register of Historic Places (NRHP) as required by Section 106 of Public Law 89-665; 80 Stat. 915; 16 USC 470 as amended, also known as the National Historic Preservation Act. These properties are also afforded protection under Section 4(f) of the USDOT Act of 1966. In order to meet the requirements of these acts, a Phase I cultural resources investigation was undertaken in July 2009. The investigation was performed in accordance with guidelines provided by the Louisiana Division of Archaeology and the Louisiana Office of Historic Preservation within an Area of Potential Effect (APE), which is coincident with the project corridor.

The only archaeological site listed on the NRHP is currently designated as site number 16NA16, the Los Adaes site. Its boundaries are the same as the Los Adaes National Historic Landmark (NHL). Within its boundaries are several parcels owned by the state that comprise the Los Adaes State Historic Site and the Adai Caddo Indian Cultural Center and Museum. The eastern boundary of site 16NA16 extends to LA 485. Its southeastern corner lies approximately 1,500 feet north of LA 6 and 750 feet north of the area where the improvements to LA 485 are proposed. Because of the distance between the proposed project and 16NA16 and because no evidence of archaeological artifacts was found within the area proposed for improvements, it was determined that there would be no effect on the NRHP listed site, the Los Adaes NHL, the state lands, the cultural center, or any other archaeological or cultural resource associated with site 16NA16.

A windshield survey conducted along the corridor determined that the Keegan-Cook House and the Robeline Methodist Church are the only extant standing structures in the project corridor listed on the NRHP; however, they are outside the limits of construction and would not be impacted by the proposed project. Because no district, site, building, structure, or object that is included or eligible for inclusion in the NRHP is located within the APE, it was determined that the proposed project would have no effect on any listed archaeological or architectural cultural resources. The proposed project would have no effect on historic properties. No additional investigations are recommended.

The cultural resources investigation also included an evaluation of the Coldwater Baptist Church on the north side of LA 6 in Hagewood. The building is not eligible for nomination to the NRHP, but there is a cemetery that was established in 1949 associated with the church. Located behind the church to the northwest, the cemetery would not be impacted by any alternative. However, anecdotal evidence indicated that there was an interment in front of the church in 1936. Field surveys did not find a marker, depression, or human remains in the ROW. An interview with the cemetery caretaker determined that the burial sites were excavated by a licensed funeral company around 1999 and the remains were re-interred in the cemetery. Because the original burial site is close to the required ROW for the project, it is recommended that the area within the ROW west of the church entrance be monitored during construction. If any human remains are found, all activities will be suspended and the appropriate authorities contacted.

4.1.5 Noise

Noise by definition is an unwanted sound and would not be considered a resource, but rather a condition that potentially affects both the human and natural environment. It is emitted from many sources, including airplanes, factories, railroads, power generating plants, and highway vehicles. The dominant noise source in the LA 6 corridor is existing traffic, which is usually a composite of noises from engine exhausts, drive trains, and tire-roadway interaction. Noise increases as the source moves closer to the receiver; therefore, the widening of LA 6 could affect those areas that would be closer to the new travel lanes. A noise study was performed to establish the magnitude of the potential impact on the ambient soundscape from existing and future traffic noise.

The specific location of an outdoor area where frequent human activity occurs that might be impacted by highway traffic noise is known as a sensitive receiver, or receptor. The study identified 202 receptors in the project corridor. It determined that seven of these are currently receiving noise that approaches or exceeds a level where some form of abatement would be considered. This level is known as Noise Abatement Criteria (NAC) and is measured in hourly A-weighted decibels (dBA).

Table 4-3 lists the type of receptors by activity category, a description of the category, the NAC for each, and the number of receptors by category considered in the noise study for the proposed project.

Table 4-3. Noise Abatement Criteria by Activity Category for Noise Receptors

Activity Category	Hourly A-Weighted Decibels*	Description of Activity Category	Number of Receptors in the Project Corridor
A	56 (exterior)	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.	0
B	66 (exterior)	Picnic areas, recreation areas, playgrounds, active sports areas, parks, residences, motels, hotels, schools, churches, libraries, and hospitals.	179
C	71 (exterior)	Developed lands, properties, or activities not included in categories A or B above.	23
D	--	Undeveloped lands.	NA
E	51 (interior)	Residences, motels, hotels, public meeting rooms, schools, churches, libraries, hospitals, and auditoriums.	NA

NA – not applicable to the noise study for this project.
*A-weighted decibel (dBA) is the traditional measurement unit for environmental noise or unwanted sound that reflects what the typical human ear can hear.

The results of the noise study determined that construction of this project will result in an increase in traffic-generated noise over the No Action conditions up to a maximum of 8 dBA at certain receiver units and a slight reduction at others. Table 4-4 summarizes the results of the impact determination for the No Action and the three Build Alternatives. For No Action conditions in 2035, a detailed noise assessment has determined that 21 dwelling units (15 residential units, 4 commercial units, 2 churches) will be impacted. For Alternative A in 2035, 47 dwelling units approach or exceed the NAC (37 residential units, 8 commercial units, 2 churches). For Alternative B in 2035, 46 dwelling units approach or exceed the NAC (39 residential units, 6 commercial units, 1 church). Two of the 46 dwelling units also experience a substantial noise increase. For Alternative C (the selected alternative) in 2035, 40 dwelling units approach or exceed the NAC (29 residential units, 8 commercial units, 3 churches).

Table 4-4. Traffic Noise Levels (dBA) by Alternative

	2009 Existing Conditions	2035 Design Year No Action Alternative	2035 Design Year Alternative A	2035 Design Year Alternative B	2035 Design Year Alternative C[1]
Total Number of Receivers	202	202	202	202	202
Receivers Approaching or Exceeding the LDOTD NAC	7	21	47	46	40
Total Impacted Receivers	7	21	47	46[2]	40

[1]The selected alternative.
[2]Two receivers would experience both a substantial noise increase and approach or exceed the LDOTD NAC.
dBA A-weighted decibels.
LDOTD Louisiana Department of Transportation and Development.
NAC Noise Abatement Criteria.

As shown in Table 4-4, the existing exterior noise levels equal or exceed NAC at seven receivers, which include three residential, three commercial, and one commercial (Cold Water Baptist Church) sites.

In the context of the future year No Action and Build conditions, the corridor improvements along LA 6 will result in an increase in the number of impacted receivers. Noise abatement measures were evaluated for the impacted dwellings; however, because of factors related to, but not limited to, the isolated nature of the impacted receiver units and a series of intersecting driveways, none of the measures were found to be reasonable or feasible.

4.1.6 Visual Resources

The project corridor is rural in character, generally wooded, with rolling hills and pastures toward the western end. Human development is visually prominent near the eastern terminus, where the architecture is typical late 20th century fast-food and gas station design with tall pylon signs fronting concrete driveways and parking lots. The few commercial or community structures toward the center and western end of the corridor are generally older, low-cost buildings with little landscaping. Residential architecture ranges from brick ranch-style homes to manufactured housing distinguished by their ample yards and natural surroundings. LA 6 plays a prominent role in the visual character of the corridor as the main vantage point for most viewers and a central feature of their viewshed. The proposed project would increase the visual presence of the highway, and travelers' views of the woods and hills would be more distant. Conversely, the view of the road from some homes and businesses would be closer; however, in general the viewshed would remain unchanged.

The rural character of the corridor also signifies that the ambient lightscape is generally devoid of human-caused light. The greatest source of artificial outdoor lighting in the corridor is the existing fixed lighting along the highway and exterior lighting on commercial buildings. The proposed project does not include any changes to the lighting system.

4.1.7 Section 4(f) and Section 6(f) Resources

Some resources are grouped by legislative protections. Section 4(f) of the USDOT Act of 1966 stipulated that FHWA and other USDOT agencies mandate consideration of publicly owned parks, recreational areas, wildlife and waterfowl refuges, or public and private historic sites. Section 4(f) resources were given special consideration in the EA as a part of the recreational resource and cultural resource analyses. Within the general area of the project, there is one publicly owned park, Robeline Park, and one cultural resource site, Los Adaes Historic Site and Cultural Center. Both sites are located outside the limits of construction and would not be impacted by any of the alternatives.

Another legislative initiative requires that parks and other recreational resources funded by the Land and Water Conservation Fund established in 1965 be given special consideration. Known as Section 6(f) resources for the section of the act that established this requirement, these are a sub-group of natural and recreational resources. In the case of the El Camino East/West Corridor, there are no such parks or recreational resources.

4.1.8 Recreational Resources

Most recreation in the corridor is conducted on private property. As stated, there is one publicly owned park. Besides Young's Bayou, there are several residential ponds that are fishable. Large tracts of private land are suitable for hunting. The Los Adaes Historic Site and Cultural Center is owned by the Caddo Tribe. With the exception of the ponds, none of these recreational resources would be impacted by the project. The proposed project would have the potential to improve access to the many recreational activities outside the corridor by improving the roadway that connects them to Toledo Bend and other venues.

4.1.9 Mineral Resources

Other natural resources that can be a factor in the economy include mineral resources such as oil and gas. According to information obtained from the Louisiana Department of Natural Resources Strategic Online Natural Resources Information System, there are no active or producing oil wells in the corridor. The Robeline Oil Field/Conservation is more than 1 mile north of the corridor on the west side of LA 485. There is no evidence of any other mining or extraction activities within the corridor with the exception of one location where soil is extracted for use as fill material. The project will not affect this operation. Therefore, mineral resources are not considered relevant to the project.

4.1.10 Travel Patterns

Travel patterns along LA 6 would not be expected to change for through traffic such as timber trucks and others, but travel for residents, customers, and employees destined for homes and businesses on the proposed project corridor would be affected by the restriction on left-turns imposed by the median. Travelers would be allowed to make left-turns only at median openings that shall be spaced at least ½ mile (2,640 feet).

4.2 Constructability

Three alternatives were analyzed to determine the most appropriate sequencing of construction to minimize impacts to local traffic on LA 6.

Alternatives A and **B** are roadway widening projects, where the existing two-lane, two-way travel lanes would remain fully functional throughout the construction period while the two new adjacent lanes and depressed/raised medians were being built. Minimal traffic management at the intersections and tie-in points would be necessary.

Alternative C, the selected alternative, however, presents a more complex construction sequencing process. For areas of either north or south widening, construction would be approached in a fashion similar to **Alternatives A** and **B**. For areas where the new roadway "straddles" the existing roadway, construction phasing would be necessary. The outside travel lanes would be constructed first while traffic remained on the existing roadway. Temporary asphalt connectors would be needed to tie the newly constructed outside lanes to either the new or existing roadway. The connectors would allow traffic to cross between the useable sections on the north or south. Once the new outside travel lanes were established, the abandoned

existing roadway would be removed and the remaining inside lanes and medians constructed. The phasing for this alternative would require a slightly higher construction cost due to the need for the temporary connectors, additional traffic control measures, detour signage, and heightened safety activities in the construction zone.

4.3 Indirect Effects

The purpose of the project is to increase the capacity of the roadway and improve safety along the route. As an indirect benefit, it is also expected to enhance economic development, improve access for tourists, and facilitate intra- and interstate trucking. Meeting these goals would also encourage the conversion of agricultural and sparsely developed land to more intense uses. This change would be expected to alter the rural character of the corridor. New development would eventually cause environmental impacts from the loss of prime farmland, open space, and natural habitat. Offsetting these adverse indirect effects are the economic benefits that would be derived from new development and increased land values.

4.4 Cumulative Impacts

With the opening of I-49 between Natchitoches and I-20 at Shreveport in the 1980s and completion of the link from Alexandria to I-10 at Lafayette in the 1990s, the city was transformed from a regional historic site to a national tourist attraction. The construction of I-49 cemented the branding of the city and parish as a well-known attraction that was begun with the construction of Sibley Lake, establishment of the Louisiana School for Math, Science, and the Arts, and the filming of *Steel Magnolias*. The construction of the interchange at LA 6 as the gateway to the city of Natchitoches shifted commercial construction westward as new travel-based businesses, such as motels, fast food, and gas stations, were developed.

If the proposed project is built in any of its alternative forms, it may increase the trend of development toward the west. It may also improve connectivity to other area tourist destinations, such as Toledo Bend, thereby supporting the city's image as a major attraction for visitors. As one of the missing components of the El Camino East/West Corridor, the proposed project would add an additional four-lane segment. The 8.2 miles proposed, while small in terms of the full corridor across five states, represent a 5 percent increment of the total route in Louisiana, where only 15 percent had been completed as of February 2009 (El Camino Corridor Five State Commission 2009).

Cumulative impacts may be most pronounced on prime farmlands and natural habitat because these resources may be converted for commercial development. All of these factors may increase the impact on the rural character of the corridor over time.

4.5 What Can be Done to Mitigate Adverse Impacts?

An approach toward planning and development of road projects has evolved from the early NEPA practices of FHWA and the state transportation agencies. Called context sensitive solutions (CSS), it is a philosophy that grew out of the realization that no transportation facility can be efficiently developed without consideration of site-specific issues. Just like the NEPA process, CSS is a process that examines multiple alternatives and results in consensus (AASHTO/FHWA 2007). It responds to concerns over community

values as well as social, economic, and environmental constraints through a creative and sensitive application of design criteria guidelines and standards (TRB 2002).

LA 6 is a major physical presence in the area it traverses and the proposed project improvements must be aware of its context. From the outset, FHWA and LDOTD have approached the proposed project with CSS in mind. Although many CSS design features more appropriately come into play during the final design process, there are a number of elements that have been incorporated into the planning for the highway improvements documented by this EA. These factors include the previously discussed functional classification, design speed, LOS, and typical cross sections.

As discussed in Section 3, the identification, evaluation, and selection of the alternatives focused on mitigating impacts by consistently choosing ways to reduce the amount of ROW that will be needed for the proposed project. For example, the elimination of RA-3 as an alternative design for the west segment allowed for reduction of the median from 60 feet to a range between 42 and 60 feet. Given this flexibility, the project engineers were able to utilize a 42-foot median in the design of the entire west segment. Likewise, the selection of SA-2 instead of RA-2 design criteria for the east segment allowed for reduction of the median width to 30 feet from a range of 42 to 60 feet.

Even more critical to the minimization of ROW impacts was the decision by LDOTD to include a third alternative alignment. The objective of the development of **Alternative C** was to avoid all structures to the extent possible and to reduce the amount of ROW by adjusting design features. Instead of adding the median and two lanes in one direction only, the alignment of **Alternative C** locates the new median and lanes where they would cause the fewest impacts. This CSS strategy includes new construction on the south as shown on Plates 2 through 6 and 10 in Appendix A (see **Alternative C** between Station 920+00 and Desha Road and between Stations 1180+00 and 1210+00), new construction on the north as shown on Plates 6 through 9 (Desha Road to Station 1150+00), and building a completely new highway on both sides of the existing centerline. Because it meets the objectives of minimizing these impacts as well as others, **Alternative C** was designated the selected alternative.

This alignment, also known as the NEPA-derived alternative, illustrated on Plates 1 and 2 (**Alternative C** between the western limits of construction and Station 920+00), on Plate 9 (Station 1150+00 to Station 1180+00), and Plates 11 through 14 (Station 1230+00 to the eastern limit of construction), would require removal of the existing roadway in these areas with construction of four new lanes and a median to replace it. In addition, adjustments to the standard design of the roadway were necessary to minimize the ROW needs of **Alternative C**. These features, discussed in Section 3.1.3, include the addition of subsurface drainage and retaining walls as well as adjustments to the slopes and profiles of the highway.

As will be shown in Section 6, the design of **Alternative C**, which is the selected alternative, would not be the least expensive of those considered and the temporary disruption to traffic during the construction period would be more intense. However, the CSS approach recognizes that the benefits of a contextual solution sometimes outweigh cost considerations and that it is a proactive way to avoid adverse impacts that would otherwise have to be mitigated. For those impacts that cannot be avoided, mitigation measures, as described below, would be implemented.

4.5.1 Land Use and Community Character

Improved roads may attract both traffic and businesses that could convert rural and rural residential land use to more intense uses such as suburban residential and commercial. However, land use planning with building codes, design guidelines, and height, setback, and landscaping requirements could be adopted by the parish to maintain the rural character of the community and limit the effects from any changes in land use.

4.5.2 Relocations

The number of impacts from relocations can be mitigated by reducing the amount of required ROW and by aligning the roadway to avoid as many structures as possible. From the outset, LDOTD and FHWA understood the need to minimize the ROW requirements by considering its design elements. By eliminating RA-3 as an alternative design for the west segment and allowing SA-2 as an alternative design in the east segment, the proposed project median width was decreased and the number of affected structures reduced. By including among the alternatives to be evaluated in the EA an alignment that was specifically designed for that purpose, relocation impacts were also reduced. Because of this alignment, **Alternative C** is also described as the "NEPA-derived" alternative, meaning that it implements the NEPA directive of minimizing the number of adverse impacts to the natural and human environments. This is one of the principle factors in designating Alternative C as the selected alternative. A listing of the relocations by alternative is provided in Appendix C.

Relocation activities are governed by the federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Relocation Act). Relocation programs available through LDOTD to displaced residents can include relocation assistance, moving payments, and replacement housing payments, as well as rent supplements.

During ROW acquisition, each property with a taken structure will be assigned a relocation officer from LDOTD. The relocation officer will be the point of contact for the residents and businesses during transition from existing to new properties. No person or family will be displaced until comparable replacement housing has been offered or provided to the displaced resident within a reasonable time prior to displacement.

In some instances, only a portion of the commercial or residential property will be taken and it may be possible for the business or residential structure to be relocated to the remainder. This option is particularly attainable in rural or semi-rural areas like the project corridor, where properties are large. The number of available properties in rural areas also provides a greater opportunity for relocation in the general area of the displacement.

Coordination with a realtor in Natchitoches reveals that there are sufficient replacement mobile home lots and housing units available in the region to accommodate all the potential residential relocations. There are also several commercial sites listed for sale in the area of displacement. If comparable replacement housing is not available at the time of negotiations, or if the displaced resident cannot afford it, LDOTD may

use the Last Resort Housing program, which provides flexibility in the relocation program to ensure all displaced residents are provided decent, safe, and sanitary housing.

4.5.3 Infrastructure

During construction, utility lines carrying gas, water, electricity, and telecommunications would have to be protected. Some lines would be permanently relocated. Construction and relocation would be programmed to limit disruption of service. Individual wells and sanitary systems that would be impacted by the proposed project would be identified to determine if the impacts would qualify the owner for relocation assistance under the Relocation Act.

4.5.4 Potential Waste Sites

Any further investigation of the sites identified in Section 4.1.2.4 will be handled in accordance with Secretary's Policy and Procedure Memorandum No. 48: Underground Storage Tank (UST) and Contaminated Site Policy.

4.5.5 Wetlands and Other Waters

In order to comply with the federal policy of ensuring that there is no net loss of wetlands acres, unavoidable wetlands impacts along the corridor would be compensated according to an approved mitigation plan.

To mitigate impacts from erosion and nonpoint source pollution from runoff into surface waters from the construction activities for the proposed project, it would be required that best management practices be implemented. LDEQ monitors these practices through its Water Quality Certification program, which is integrated into the Section 404 wetlands permit.

4.5.6 Floodplains

Drainage structures included in the design for the proposed project would mitigate any impacts to the floodplain.

4.5.7 Traffic Disruptions

A construction sequencing plan will be developed and followed to minimize the traffic disruptions during construction. Congestion would be expected to increase temporarily during this period, but the plan will ensure that that traffic continues to flow.

4.5.8 Noise

The *LDOTD Highway Traffic Noise Policy* (2009) requires that if a noise impact is identified, abatement measures must be considered. Only noise abatement measures deemed reasonable and feasible will be

proposed for the project. When noise abatement measures are being considered, every effort will be made to obtain a noise reduction of at least 8 dBA. At least one receptor must receive an 8-dBA reduction for the abatement measure to be feasible.

Noise barriers or noise walls reduce the sound which enters a community from a busy highway by absorbing the sound, transmitting it, reflecting it back across the highway, or forcing it to take a longer path over and around the barrier. A noise barrier must be tall enough and long enough to block the view of a highway from the receptor location that is to be protected. To effectively reduce the noise coming around its ends, a barrier should be at least eight times as long as the distance from the receptor to the barrier (FHWA 2001). If there is more than one receptor location in a group, the barrier should be at least 4 times as long as the distance from the first receptor location on the row to the barrier plus 4 times as long as the distance from the last receptor location on the row to the barrier plus the distance between the first and last receiver. Openings in noise barriers cancel their effectiveness. In some areas, homes are scattered too far apart to permit noise barriers to be built at a reasonable cost (FHWA 2001).

The noise policy defines a benefited receptor as "a sensitive receptor, whether impacted or not, receiving 5 dBA or more reduction in the noise level as a result of the proposed abatement." To be reasonable, the noise barrier can cost no more than $25,000 per benefited receptor. Impacted receptors are dispersed along the project corridor; there are no clusters of receptors that would be benefited by one wall. Single receptors, such as the ones in the corridor, are not usually considered for noise barriers because the minimum length of a noise barrier, using the 8 times rule, is 400 feet assuming the receiver is not closer than 50 feet to the highway. Based upon a standard construction cost of $56 per square foot for noise barriers and a minimum cost of $25,000 per benefitted receiver, a 400-foot barrier could only be 1.1 feet tall, which would not break the line of sight and would not be tall enough to achieve a 5-dBA reduction.

The impacted receivers for the three alternatives were also evaluated for the feasibility of noise barriers. The impacted residential, business, and church sites have individual driveways connecting them to the highway. To maintain access, the noise barrier would have to incorporate openings, which would prevent it from achieving an 8-dBA reduction in noise. Therefore, it was determined that noise barriers would not be feasible for any receptors within the project corridor.

Non-barrier measures such as traffic management, alterations of horizontal and/or vertical alignments, and buffer zones would not be suitable for abatement of noise for the proposed project.

One of the most effective noise abatement measures is local land use planning implemented by effective zoning controls to minimize future impacts. Noise contours for undeveloped lands around the proposed project are illustrated on the figures in Appendix H. Any Category A or B receptor built inside the illustrated contours would be affected by noise in the year 2035. Any Category C receptor built inside the • 71 dBA contour would be affected by noise in the year 2035. These contours can be used by local officials and property owners in making appropriate land use decisions that would avoid traffic noise impacts in future development.

4.5.9 Travel Patterns

Current LDOTD policy allows for construction of left-turn lanes only at full access median openings, which are utilized only at locations that coincide with intersecting public roads. However, in order to increase safety and improve traffic flow along LA 6, LDOTD has agreed to incorporate left-turn lanes at all median openings.

5. Public Comments and Agency Coordination

5.1 How Was the Public Involved in the Environmental Assessment Process?

One public meeting was held on the project prior to the distribution of this EA. Held on January 29, 2009, at the Natchitoches Arts Center, this public meeting provided an opportunity to view the corridor, ask questions of the Project Team, and provide written and verbal comments for consideration.

A meeting notice was published in the *Natchitoches Times* on January 6 and 13, 2009, to announce the meeting. The public meeting time was from 5 p.m. to 7 p.m. Local officials were invited to preview the materials from 4 p.m. to 5 p.m.

The meeting was organized in an open house format with a looping slide presentation that ran during the course of the meeting. Meeting handouts included a project description and a comment form as well as an explanation of the other exhibits. The meeting was well attended, with 115 households and individuals registered on the sign-in sheets.

In addition to the comment form, a transcriber was available during the course of the meeting to record verbal comments. One written comment was received at the meeting, and nine verbal comments were recorded by the transcriber. Three additional comments were received by mail within this period. Comments received by February 9, 2009, became part of the summary of this public meeting.

A second public involvement opportunity followed the distribution of the EA. A public hearing held on Tuesday, March 23, 2010, from 3:30 to 6:30 p.m. at the Natchitoches Events Center was organized in the same type of open house format; there was no formal presentation. Two separate rooms were used during the hearing. In one room a 15-minute looping PowerPoint presentation was run during the course of the hearing. In addition to visual slides, the PowerPoint presentation included a voice-over that explained the project, the alternatives

analysis, the selection of Alternative C as the preferred alternative, and the purpose of the public hearing. The last section of the presentation provided information about relocation assistance and right-of-way acquisition with a verbatim recording of the Public Hearing Right-of-Way Script.

The public was offered two opportunities for submitting their comments regarding the project. A comment form was provided in the hearing handout and a transcriber was available during the course of the hearing to record verbal comments. There were two written comments received at the hearing and eleven verbal comments were recorded by the transcriber. One additional comment was received by e-mail. As requested by FHWA, the Project Team also took notes on verbal comments made by individuals during the course of the public hearing. These comments as well as comments received since distribution of the draft EA through April 3, 2010, which was 10 days after the open house public hearing, were made part of the hearing record.

5.2 Which Agencies Were Consulted?

Information on the proposed project was sent to federal, state, and local agencies and officials in July 2007. The Solicitation of Views information and the associated responses are included in Appendix F of this EA. A list of agencies consulted and a summary of their comments are provided in Table 5-1.

Table 5-1. Summary of Agency Responses to the Solicitation of Views

Date of Comment	Agency/Tribe	Comment Format	Comment Summary
2-Aug-07	USACE New Orleans	Letter	Not in jurisdiction.
2-Aug-07	Kisatchie National Forest	Email	No comment as project considerable distance from forest.
3-Aug-07	LDEQ	Letter	Forwarded to Joanna Gardner, Office of Secretary.
3-Aug-07	USFWS	Letter	Pine Snake is a candidate species associated with pocket gopher - No requirement for consultation under ESA needed.
6-Aug-07	El Camino Corridor Commission	Letter	Excited that project is beginning.
8-Aug-07	USACE, Vicksburg, PPPM	Letter	No activities in the area.
8-Aug-07	Planning Commission of Natchitoches Parish	Letter	Welcome project with some areas in flood zone.
9-Aug-07	LDAF	Letter	No comment.
16-Aug-07	LDWF	Letter	Pale umbrella and scarf pea, state listed; no other.
17-Aug-07	Town of Many	Letter	Important project needed for growth and economic development.
24-Aug-07	USACE Vicksburg, Regulatory Branch	Letter	May affect jurisdictional waters pursuant to Section 404 of Clean Water Act.
29-Aug-07	USDA	Letter	Soils on approximately 30 percent of site are prime/unique. No adverse effect on surrounding environment provided erosion control measures implemented.

Date of Comment	Agency/Tribe	Comment Format	Comment Summary
29-Aug-07	LDNR	Letter	No active oil, gas, injection, or water wells in and adjacent to project area.
4-Sep-07	LDOTD/NFIP	Letter	Contact the Floodplain Administrator.
11-Sep-07	Caddo Tribe of Oklahoma	Letter	Would like to be consulted because the Caddo Nation is a large part of the history of the El Camino Real.
13-Nov-07	USEPA	Letter	Acknowledgement only; USEPA funding not involved.

ESA Endangered Species Act.
LDAF Louisiana Department of Agriculture and Forestry.
LDEQ Louisiana Department of Environmental Quality.
LDNR Louisiana Department of Natural Resources.
LDOTD Louisiana Department of Transportation and Development.
LDWF Louisiana Department of Wildlife & Fisheries.
NFIP National Flood Insurance Program.
PPPM Planning, Programs, and Project Management.
USACE U.S. Army Corps of Engineers.
USDA U.S. Department of Agriculture.
USEPA U.S. Environmental Protection Agency.
USFWS U. S. Fish and Wildlife Service.

5.3 What Comments and Suggestions Were Received following the January 29, 2009, Public Meeting, and How Were They Addressed?

Two comments were clearly in support of the project and two were clearly opposed. One comment suggests support because the raised median would make the road safer. Five individuals expressed concerns about relocation, drainage, and business disruption. Two individuals were interested in the schedule and impacts to businesses, and one individual provided information about a spring that may have historical value.

The public was also invited to identify structures illustrated on the project corridor maps that they own or occupy. Approximately 50 structures were marked and information about the type of construction and use was noted on the structure forms provided in the meeting handout.

In response to comments received at the public meeting, the project team developed **Alternative C**, which is described in detail in Sections 3.3 and 4.2 of this EA. **Alternative C** was developed to minimize the number of residential and business relocations as much as practicable while still achieving the need and purpose of the proposed project and meeting the requirements of LDOTD design standards.

5.4 What Comments Were Received following Distribution of the Draft EA and the Public Hearing and How Were They Addressed?

Table 5-2 lists all comments received after the distribution of the draft EA. These comments and the responses are summarized in Table 5-2. Table 5-2 also identifies the sections in the document that address the listed comment.

Table 5-2. Comments and Responses

Comment	Response	Section(s) in this document where comment is addressed
The proposed highway will affect my privacy by cutting down the hill in front of my home, which is very steep. It will also affect its stability. They need to come see it because it is the only one like it in that position.	Adjustments to the slopes and profiles of the highway were made to minimize impacts to the existing terrain from the proposed right-of-way of Alternative C, which is the selected alternative. A more accurate survey and geotechnical analysis will be performed during plan development for the proposed highway. At that time, the specific issues related to necessary cuts in the slopes, including at 5852 Highway 6, and any potential means to minimize the impacts will be examined.	See Sections 3.3, 4.5, and 6.2.
The proposed highway will reduce or eliminate the parking area in front of Coldwater Church and property will have to be purchased to replace it. Alternative A will go right through Coldwater Church and we'd definitely be looking for property then.	The design of Alternative C, the selected alternative, has been modified to include subsurface drainage to eliminate the need for additional ROW. Therefore, there would be no reduction to the parking area in front of the church from Alternative C. There would be no change to the ROW from Alternative B. In the event that Alternative A were selected, ROW acquisition and relocations would be done in accordance with DOTD's Acquisition of Right-of-Way and Relocation Assistance Program.	See Sections 3.3, 4.1.2.1, 4.5, 4.5.2, 6.1, 6.2 and Plate 9 in Appendix A.
Alternative C appears to be the most fair and would maintain the current lifestyle.	Comment noted.	See Sections 3.1.2, 3.3, 4.5, 5.3, 6.1, and 6.2.
Can consideration be given to a new location alternative that would approximate a straight line from I-49 through Hwy 117 ending at Robeline?	Improvements to LA 6 in the project corridor originated with the five-state East-West Corridor (El Camino) Commission established in 1989. This commission proposed upgrading the existing El Camino East/West Corridor to a four-lane highway to promote economic development. The 130-mile Louisiana section of the corridor was studied by LDOTD in a 2001 Master Plan. A roadway along a new alignment was not part of the stated purpose and need for the project and was only considered when it would be necessary to by-pass community centers and avoid major impacts. Costs of developing a state roadway along a new route would be greater than upgrading the existing roadway. Additional costs related to ROW clearing and development, construction, mitigation, and maintenance costs of the existing route would need to be assumed by either the parish or local communities. A roadway along a new route between Robeline and I-49, particularly west of LA 117, would be costly to build because of the rolling terrain. Construction settings such as this require large amounts of earth work and rights of way to meet required design standards. A new route would also result in greater habitat loss, loss of active agricultural lands, and cumulative impacts to federally-protected waters. For these reasons, a roadway on new alignment was not advanced from the Master Plan as a reasonable alternative to be evaluated in the EA.	See Sections 1 and 2.

Comment	Response	Section(s) in this document where comment is addressed
Would like consideration of a way to move cattle under the road, like a bridge, to allow the cattle to access properties on both sides of the road.	Access between properties on the north and south side of the roadway will be maintained and therefore access will not be adversely impacted. A new feature that would allow cattle to cross under the roadway is not covered by the scope of the project.	See Sections 4.1.1.1 and 4.5.
Would like to keep an existing retaining wall.	During plan development, retaining walls and other design features will be evaluated, including at 5500 Highway 6, as part of the refinement of the design.	See Sections 3.3, 4.5 and the Plates in Appendix A.
There is no need for the expansion since the four-lane will drop back down to two lanes at Robeline.	The key purpose of the project is to increase the capacity of the roadway and improve safety along the 8.28-mile corridor. These benefits would be achieved within the proposed four-lane section of the project corridor.	See Section 2.
Expansion from two lanes to four lanes will increase noise and bring the roadway closer to my home.	Alternative C, the selected alternative, was developed to maximize the distance between structures and the proposed right-of-way to the extent practicable within current engineering criteria. Noise contours located in Appendix H show that the home at this location, 6874 LA 6, would not be impacted by noise from any of the alternatives. As shown on the Plates in Appendix A, the home is approximately 225 feet from the existing ROW. Alternatives A and C would bring the ROW approximately 75 feet closer. There would be no change from Alternative B.	See Sections 3.3, 4.1.5, 4.5.8, 6.2, the Plates in Appendix A, and Figures in Appendix H.
The proposed highway will require a U-turn instead of allowing for left turns at every driveway.	Alternative C, the selected alternative, has been modified to provide directional u-turns at all median openings. Left-turn lanes normally utilized at median opening that coincide with public roadways will be utilized at all median openings, and will be spaced at least ½ mile (2,640 ft) from each other. Lengths of left turn lanes at median openings will be determined during final design in accordance with anticipated traffic needs.	See Sections 4.1.10, 4.5.9, and the Summary of Mitigation and Environmental Commitments.
How much room will be left between my home and the right-of-way?	Alternative C, the selected alternative, was designed to maximize the distance between structures and the proposed right-of-way within current engineering criteria. This home at 5558 Highway 6 is approximately 150 feet from the existing ROW. This would not change under Alternative B. The proposed ROW for Alternative A would be approximately 100 feet from the home; the proposed ROW for Alternative C would be approximately 130 feet away. The exact location of the right-of-way for the proposed highway will be determined during final plan development.	See Sections 3.3, 4.5, 6.2, and the Plates in Appendix A.
Preference for Alternative C because it will impact property less. Second choice is Alternative B.	Comment noted.	

Comment	Response	Section(s) in this document where comment is addressed
Instead of moving the utilities to incorporate new ditches, use curb and gutter to keep the utilities in place and reduce the amount of my property that would be taken.	Alternative C, the selected alternative, was developed to maximize the distance between structures and the proposed right-of-way to the extent practicable within current engineering criteria. The two areas identified for subsurface drainage in Alternative C are the front of Coldwater Church and the front of Casey's Exxon, where the acquisition of ROW would otherwise require purchase of the entire property and relocation of the enterprise. Until the design phase, there is not enough information to determine whether curb and gutter would be reasonable in other areas.	See Sections 3.3, 4.5, and 6.2.
Better to go north or south to leave one roadway in place to keep congestion down [during construction] and reduce the overall cost of the project.	Although the overall cost is anticipated to be higher, Alternative C was developed to reduce the number of relocations estimated with Alternatives A and B and has been selected. A construction sequencing plan would be developed and followed to minimize the traffic disruptions during construction. Congestion would be expected to increase temporarily during this period, but the plan would ensure that that traffic continues to flow.	See Sections 3.1.2, 3.3, 4.2, 4.5, 5.3, 6.1, and 6.2.
Opposed to Alternatives B and C; expansion to the north is more desirable.	Comment noted.	
Concerned about losing the privacy and noise protection provided by the hill in front.	Adjustments to the slopes and profiles of the highway were made to minimize overall impacts to structures. During plan development, the specific issues related to necessary cuts in the slopes and any potential means to minimize the impacts will be examined. At that time, the specific issues related to the hill located in front of the home at 5852 Highway 6 will be considered. The noise model incorporated changes in elevation when calculating impacts. Noise contours located in Appendix H show that the home at this location would not be impacted by noise from any of the alternatives.	See Sections 3.3, 4.1.5, 4.5, 4.5.8, 6.2, and Figures in Appendix H.
Under Alternatives A and B, would the roadbeds be widened and the road re-surfaced, or would the road be taken out completely?	Alternatives A and B would leave the existing roadway in place as a two-lane roadway for traffic traveling in one direction paired with a new two-lane roadway for traffic traveling in the opposite direction forming a 4-lane highway. The existing pavement plus shoulder widths meet design criteria; therefore, no widening of the existing road would be required. For the section east of LA 117, the inside lane of the existing roadway would need to be repaved to create a sloped surface to move the drainage to the outside. Curbing would be added to form the median within the existing shoulder. Additional resurfacing of the existing roadway will be determined during final plan development of the project based on the condition of the pavement at the time of implementation.	See Sections 3.3 and 4.2 and the Typical Cross Sections in Appendix B

Comment	Response	Section(s) in this document where comment is addressed
Is there a document that demonstrates the width of the right-of-way at various points along the existing highway? The proposed highway?	The existing right-of-way is approximated on the plates provided in Appendix A of the EA based on archive drawings on file at the LDOTD. The plates also provide a comparison to the proposed new right-of-way for each of the alternatives. The exact location of the right-of-way for the proposed highway will be determined during final plan development.	See the Plates in Appendix A.
Has the roadbed been determined for Alternative C or might it shift from what is displayed?	During final plan development for the project, after the end of the EA process, geotechnical or other physical conditions that are currently unknown might require that the roadway alignment be shifted slightly, but it is not expected that the change would be substantial. Any changes to the alignment that would cause a substantial change in the degree of impacts described in the EA would require a supplemental review.	See Sections 3.3 and 6.2.
I spoke with someone at the meeting who indicated that other highway designs are being used in neighboring states and are being funded with federal money. Is this correct, and if so, why weren't other designs examined for this project?	Improvements or additions to the state highway system must comply with acceptable LDOTD practices. This project is proposed to comply with LDOTD established design criteria for the two roadway classifications, suburban and rural, identified for the project.	See Section 3.1.3
What about alternate routes through existing woodlands? Any effort to make this examination now, while changes can still be made, would be appreciated. With a project of this magnitude and effect all alternatives should be explored rather than discarded because such efforts in the past have proven costly.	Improvements to LA 6 in the project corridor originated with the five-state East-West Corridor (El Camino) Commission established in 1989. This commission proposed upgrading the existing El Camino East/West Corridor to a four-lane highway to promote economic development. The 130-mile Louisiana section of the corridor was studied by LDOTD in a 2001 Master Plan. A roadway along a new alignment was not part of the stated purpose and need for the project and was only considered when it would be necessary to by-pass community centers and avoid major impacts. Several alternatives were identified and examined against the established Purpose and Need for the project during the EA process. Alternatives such as traffic management and transit were eliminated because they did not meet these objectives. A roadway along a new route between Robeline and I-49, particularly west of LA 117, would be costly to build because of the rolling terrain. Construction settings such as this require large amounts of earth work and rights-of-way to meet required design standards. But cost was only one criterion. A new route through existing woodlands would also result in greater habitat loss, loss of active agricultural lands, and cumulative impacts to federally-protected waters. For these reasons, a roadway on new alignment was not advanced as a reasonable alternative to be evaluated in the EA.	See Section 3.

Comment	Response	Section(s) in this document where comment is addressed
Preference for a five-lane design	A five-lane design incorporating a continuous, bi-directional turn lane was considered at the request of the El Camino Commission and in response to comments from local residents about the need for access to driveways and businesses. This design is an urban design and, therefore, not appropriate for either segment, one being rural and the other being suburban. Furthermore, even for urban areas, current LDOTD policy does not include five-lane designs. Therefore, this design was eliminated from further consideration.	See Sections 3.1 and 3.2.
Concerns about the change to the existing rural setting.	Improved roads may attract both traffic and businesses that could convert rural and rural residential land use to more intense uses such as suburban residential and commercial. However, land use planning with building codes, design guidelines, and height, setback, and landscaping requirements could be adopted by the parish to maintain the rural character of the community and limit the effects from any changes in land use.	See Sections 4.1.1.1, 4.1.5, 4.1.6, 4.4, 4.5, 4.5.1, and 4.5.8.
Belief that the new roadway will be good for business at LA 6 and LA 117.	Comment noted.	See Sections 2.1 and 2.2.5.
The location of my structure illustrated on the Plates is not exactly correct.	Based on information provided at the public hearing, structures 123, 164, 165, and 176 were corrected and the relocation impacts modified. These changes were marked on the maps during the public hearing and subsequently field verified. No addresses were provided. Based on the corrections made, Structure 123 would no longer be relocated by Alternative B or Alternative C, the selected alternative, but Structures 164, 165, and 176 would be relocated by Alternative B. There are no changes to the relocation impacts from Alternative A.	See Section 6.1, Plates in Appendix A, and Relocations Listing in Appendix C.

6. Comparison and Selection of Alternatives

6.1 What are the Comparative Advantages and Disadvantages of Each Alternative?

A comparison of quantifiable project impacts is provided in Table 6-1, offering a basis for discussion and selection of a preferred alternative.

Table 6-1. Comparison of Impacts by Alternative

Evaluation Measure	Units	No Action	A	B	C[1]
Relocation Impacts					
Residential Relocations	Each	0	25	38	16
Commercial Relocations	Each	0	3	3	0
Community Relocations	Each	0	2	1	0
Vacant/Unused Structures	Each	0	2	0	1
Other Relocations	Each	0	2[a,b]	1[c]	3[a,b,c]
Frontage Impacts[d]					
Residential Properties	Each	0	197	193	197
Commercial Properties	Each	0	59	54	52
Community Properties	Each	0	5	5	5
Utilities					
Pipeline Crossings	Each	0	2	2	2
LDOTD-listed Water Wells	Each	0	0	0	0
Potential Environmental Risk Sites					
Underground Storage Tanks with Known Owner	Each	0	2	1	0
HREC with Known Owner	Each	0	1	1	1
Inactive without Known Owner	Each	0	0	2	2
Oil and Gas Wells	Each	0	0	0	0
Natural Environment					
Wetlands Filled	Acres	0	0.8	0.5	0.4
Scenic Streams	Each	0	0	0	0
Stream Crossings	Each	0	14	14	14
Streams Filled	Linear Feet	0	4,860	5,166	5,189
Streams Shaded	Each	0	1	1	1
Ponds Filled	Acres	0	<0.1	0.3	<0.1
Sole Source Aquifer Impacts	Acres	0	0	0	0
Floodplain Encroachment	Acres	0	5.3	8.1	4.4
Protected Species	Each	0	0	0	0

Evaluation Measure	Units	No Action	A	B	C[1]
Prime and Unique Farmland	Acres	0	74	74	61
Coastal Resources and Essential Fish Habitat	Each	NA	NA	NA	NA
Cultural Resources					
Historical Properties Eligible for or Listed on NRHP	Each	0	0	0	0
Historical Properties Not Eligible for NRHP	Each	0	0	0	0
Archaeological Sites Eligible for or Listed on NRHP	Acres	0	0	0	0
Archaeological Sites Not Eligible for NRHP	Acres	0	0	0	0
Noise					
Residential Receptors Impacted in 2035	Each	16	37	39	29
Commercial Receptors Impacted in 2035	Each	2	8	6	8
Community Receptors Impacted in 2035	Each	3	2	1	3

[1]Selected Alternative
[a]Parish Waste Collection Site
[b]Fire District Garage
[c]Farm Outbuilding
[d]Based on Natchitoches Parish 2008 Tax Roll Data.
HREC Historical Recognized Environmental Condition
NA Not Applicable
NRHP National Register of Historic Places

As shown, **Alternative C** causes the fewest impacts for most evaluation measures. Most importantly, it reduces the number of impacts from relocations by more than 40 percent compared to **Alternative A** and **Alternative B**. It is also the only alternative anticipated to completely avoid enterprises that operate USTs. **Alternative C** also minimizes impacts to wetlands, ponds, and floodplains; causes noise impacts to the fewest receptors; and requires the least number of acres of additional ROW. Due to the fact that Alternative C would cause the fewest impacts to the built and natural environments, it is the alternative that has been selected by the environmental process.

Another factor relevant to the comparison of alternatives is the estimated cost of implementation of the proposed project. An opinion of probable costs was compiled for each build alternative and the values are compared in Table 6-2. The estimates include construction, ROW acquisition, relocation, administrative, and contingency costs. A detailed opinion of probable costs that includes a breakdown of the costs by the east and west segments is provided in Appendix I.

Table 6-2. Comparison of Probable Costs by Build Alternative (in $000)

	A	B	C[1]
Roadway Construction Costs	$23,467	$23,418	$31,589
Bridge Construction Costs	$306	$306	$612
Miscellaneous Construction Costs (20%)	$4,754	$4,745	$6,440
Construction Subtotal	$28,527	$28,469	$38,641
Relocation Assistance and Other Real Estate Costs	$6,581	$8,443	$3,570
Utility Relocation Cost	$856	$854	$1,159
Legal/Administrative/Engineering Costs	$2,853	$2,847	$3,864
Contingency (8%)	$3,105	$3,249	$3,779
Total	**$41,922**	**$43,862**	**$51,013**

[1]Selected Alternative

Alternative A and **Alternative B** are estimated to cost roughly the same, but the probable cost of **Alternative C** is substantially greater than the other two. As shown in Table 6-2, most of the difference can be attributed to roadway construction, which is explained by the need, in some areas, to replace the existing two lanes with four new lanes in order to realign the corridor to avoid impacting structures and other resources. This requirement would add several million dollars to the overall cost of **Alternative C** compared to **Alternative A** and **Alternative B.** Although the estimated real estate costs such as acquisition of additional ROW and relocation payments are lower for **Alternative C**, the difference in the dollar value remains substantial.

Besides impacts and costs, there is a less easily quantified issue that bears consideration. Temporary impacts to traffic and quality of life within the corridor from construction activities would be more intense if **Alternative C** were built. The existing roadway would have to be completely replaced with new construction in some sections, which would cause temporary impacts from dust, noise, and vibrations from removal of the existing roadway. Removal of existing pavement would not be necessary for **Alternative A** or **Alternative B**. Traffic, which would be able to remain on the existing roadway throughout the construction of **Alternative A** or **Alternative B**, would have to shift over to the new set of lanes during the removal of pavement and construction required for **Alternative C**. This additional work would complicate traffic patterns and lengthen the duration of the construction period and its temporary impacts.

6.2 Which is the Selected Alternative and What is the Rationale for Its Selection?

After preliminary work on the alternatives was completed, the project engineering and design teams collaborated to improve the alternatives, with particular attention paid to **Alternative C**. Details of what was done to improve **Alternative C** are described in Sections 3.3 and 4.2 of this EA. The project team then met to discuss the preliminary effects of the alternatives. It was agreed to consider **Alternative C** as the preferred alternative based on the fact that **Alternative C** minimized impacts to the extent practicable without sacrificing the project's transportation benefits.

Specifically, **Alternative C** provides the following benefits compared to **Alternatives A** and **B**:

- Least relocation of residential, commercial, and community structures.
- Fewest acres of frontage impacts to residential and community properties.
- No gas stations operating USTs impacted.
- Fewest acres of wetlands and ponds filled.
- Least encroachment on the floodplain.
- Fewest impacts to receptors from noise in 2035.
- Fewest acres of additional ROW.

However, the cost of **Alternative C** is estimated to be greater than the other two alternatives.

The El Camino Commission concurred with the selection of **Alternative C** as the preferred alternative based on the fact that it represents the best balance between environmental impacts and costs. At the public hearing held on March 23, 2010, **Alternative C** was identified as the preferred alternative. Subsequently, it was designated the selected alternative.

7. List of Preparers

Title/Topic	Team Member
Project Manager	Scott Hoffeld, CEP – ARCADIS
Assistant Project Manager	Lynn Maloney-Mújica, AICP – ARCADIS
Biology	Jon B. Sawyer – ARCADIS
Cultural Resources	Jill-Karen Yakubik, Ph.D. – Earth Search Jason Parrish – Earth Search Aubra L. Lee, Ph.D. – Earth Search Rhonda L. Smith – Earth Search Dayna B. Lee, Ph.D. – Earth Search Eylene Parrish – Earth Search Jeanne Marquez – Earth Search

Title/Topic	Team Member
GIS	Jason Carr, GISP – ARCADIS Joshua Chatelain – ARCADIS Chris Young – ARCADIS Nick Vlahos – ARCADIS
Line and Grade Study	Robert J. Lear, Jr., P.E. – Sigma Geoffrey L. Wilson, P.E. – Sigma Catherine F. Naquin, E.I. – Sigma
Traffic and Noise	Akhil Chauhan, P.E., PTOE – ARCADIS
Report Production	ARCADIS

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Appendix A

Plates

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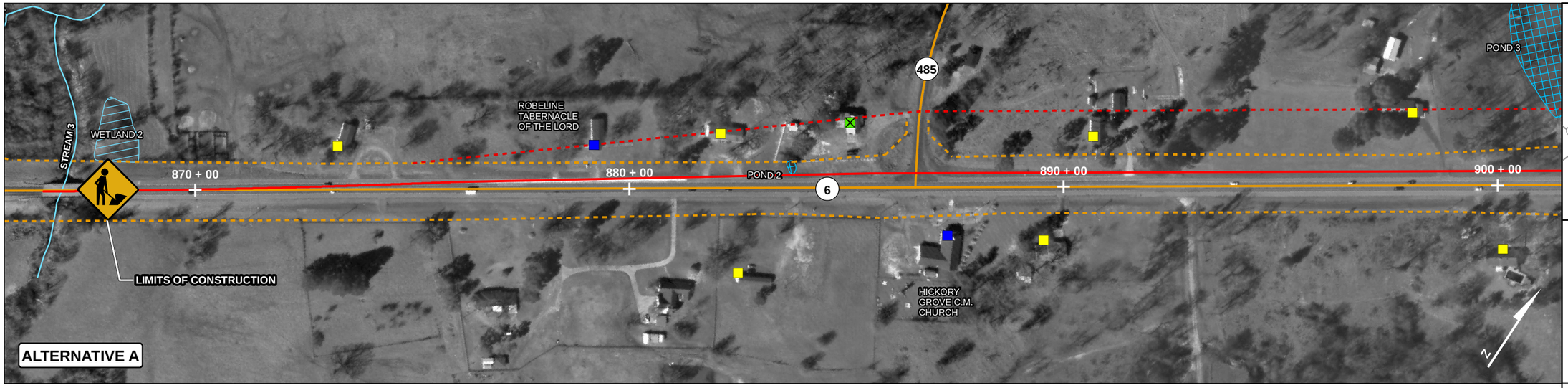
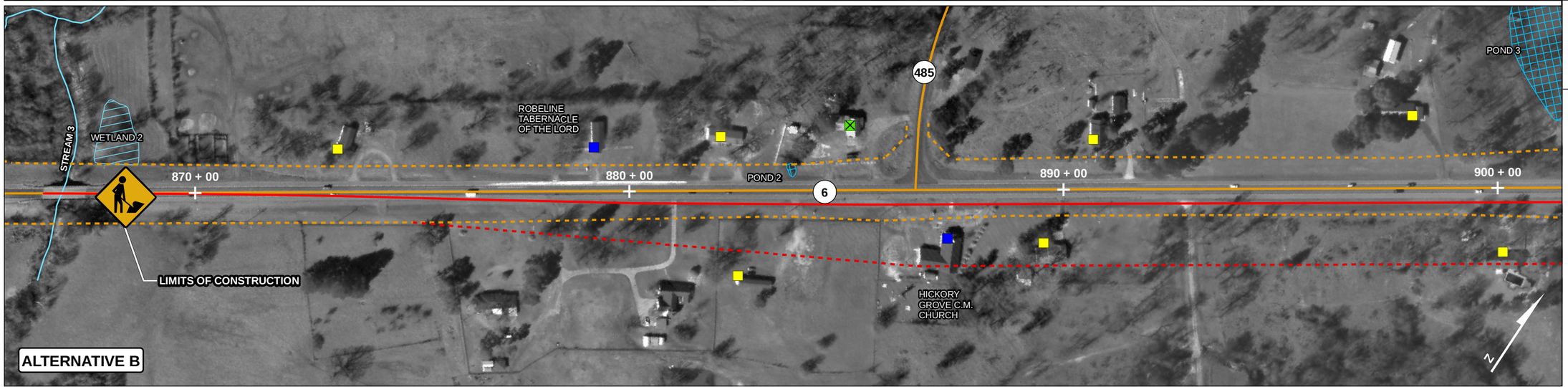
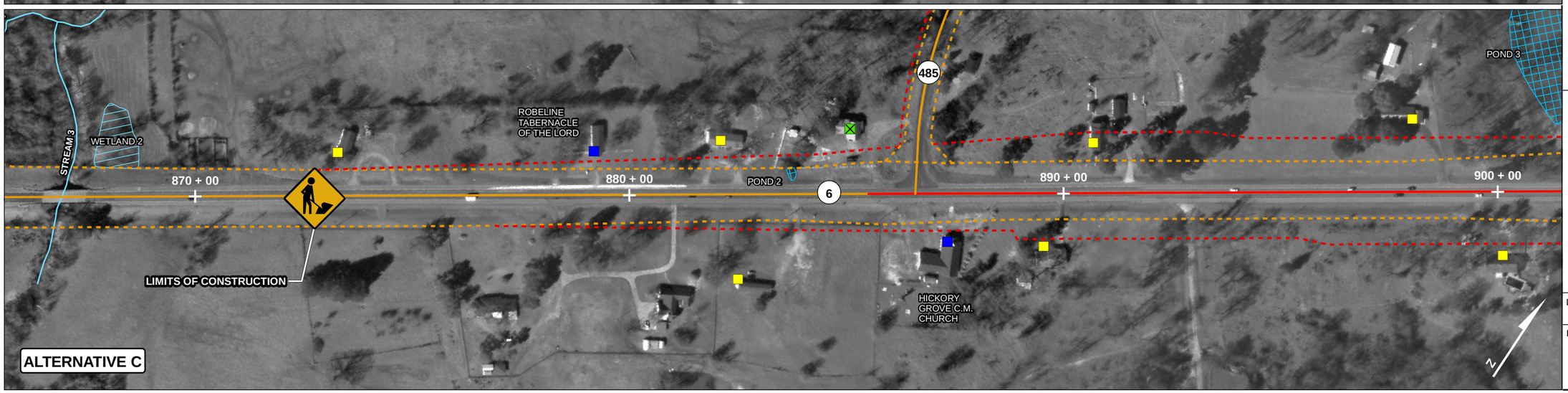
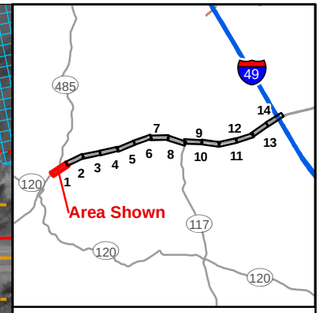








EL CAMINO
EAST/WEST CORRIDOR
LA ROUTE 6
ENVIRONMENTAL ASSESSMENT
NATCHITOCHES PARISH, LA

S.P. NO. 700-35-0140
F.A.P. NO DE-3506(512)

ALTERNATIVE PLANS

Legend

- Potential Hazardous Waste Sites
- Commercial Buildings
- Institutional or Community Facilities
- Residential Buildings
- Vacant/Derelict
- Proposed ROW
- Proposed Centerline
- Existing ROW
- Existing Centerline
- Stream
- Pond
- Wetland

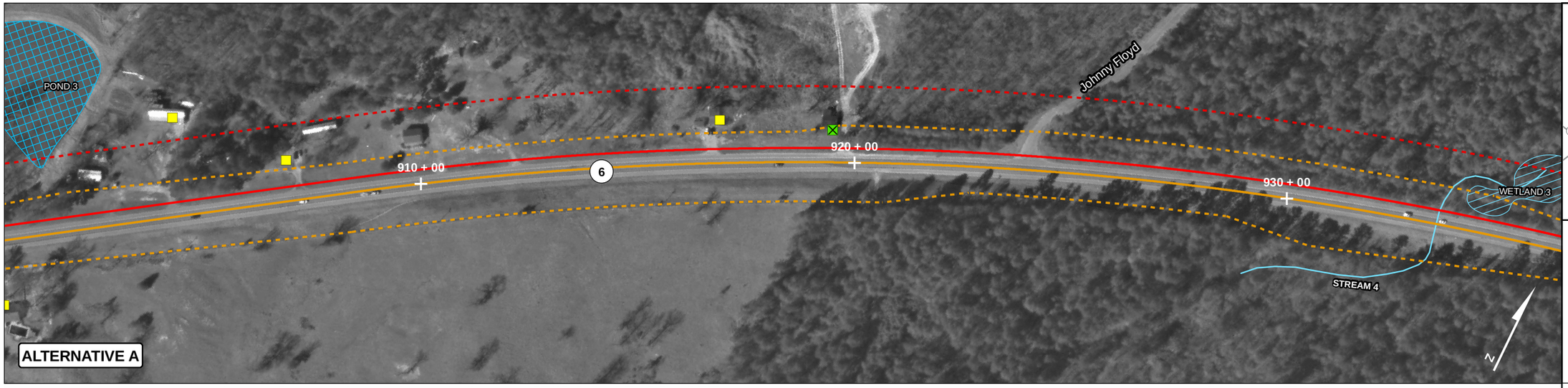
0 75 150 300 Feet

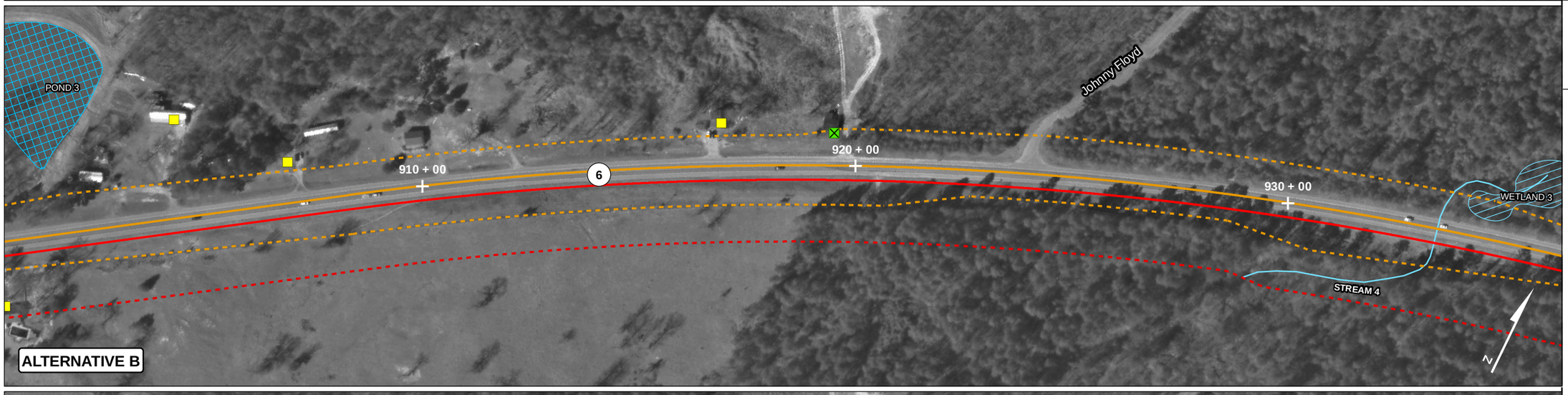
El Camino East / West Corridor

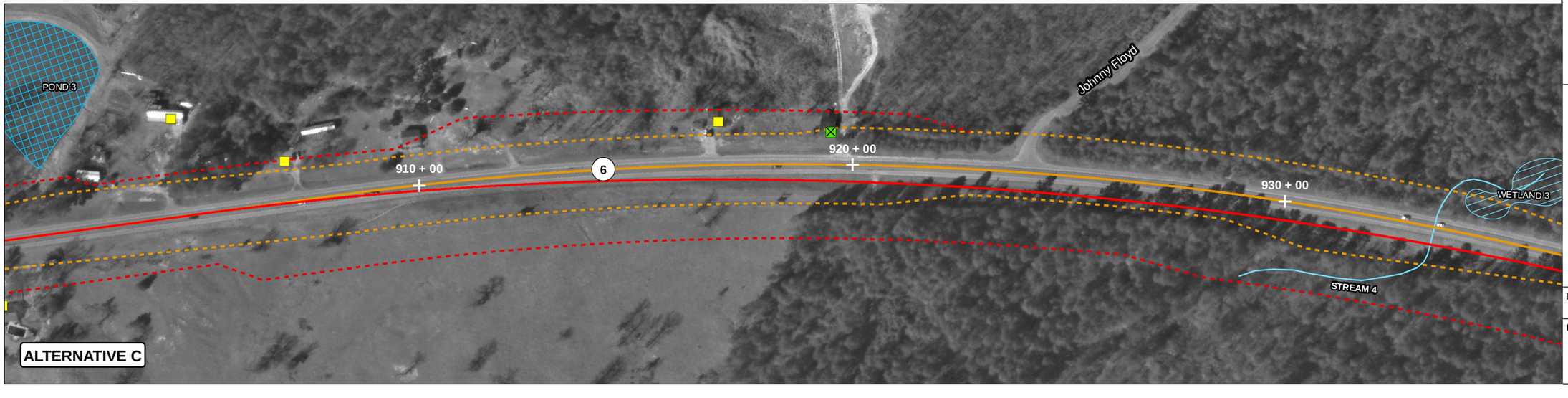
Date:	Project Number:
09/24/2009	LA002860.0004

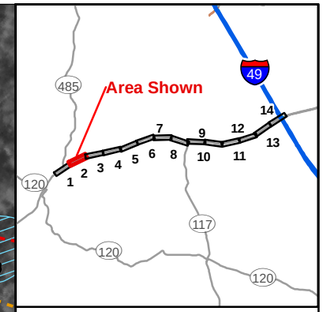
Figure No.:

PLATE 1









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0 75 150 300 Feet

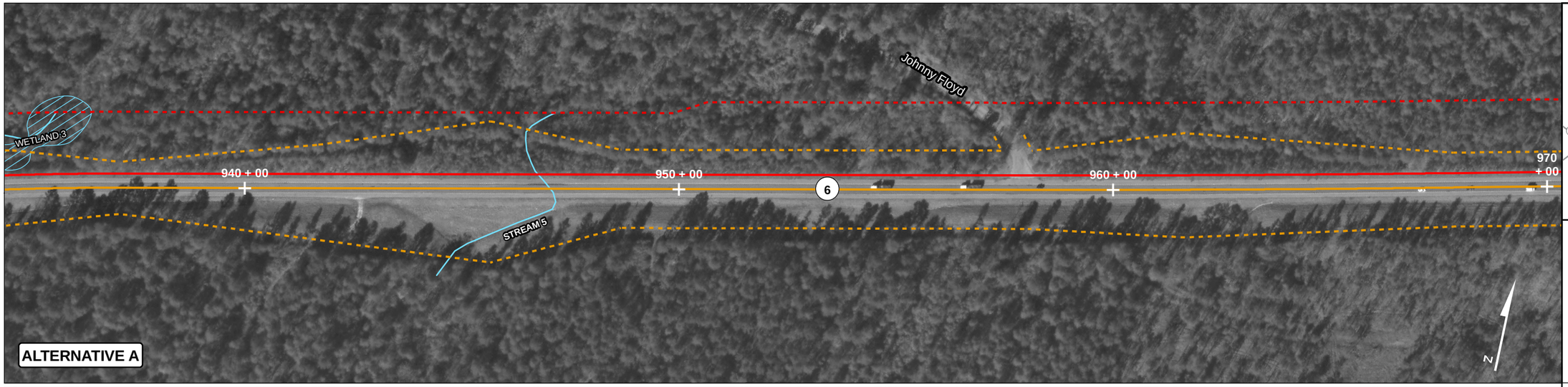
El Camino East / West Corridor

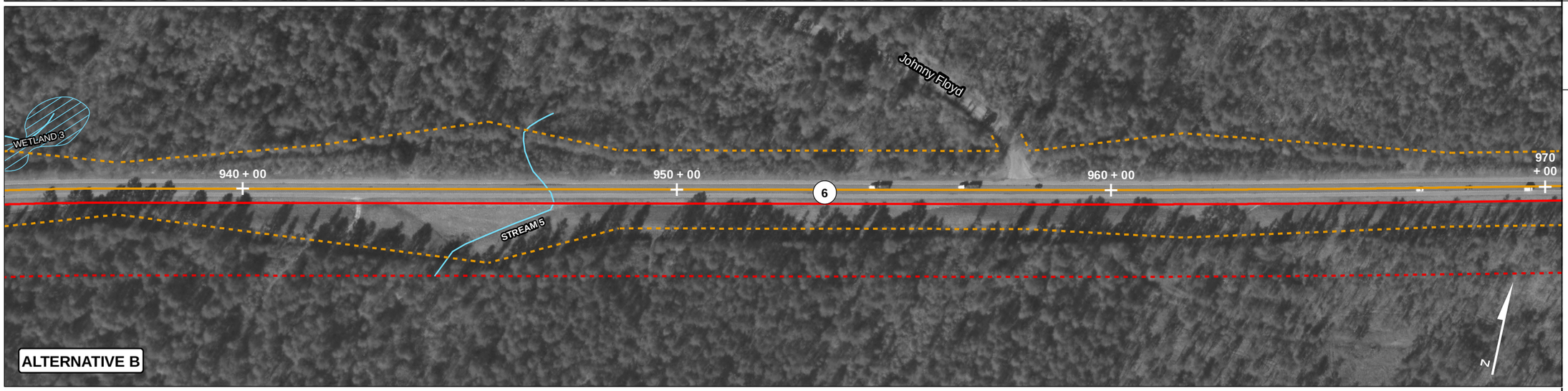
DOTD

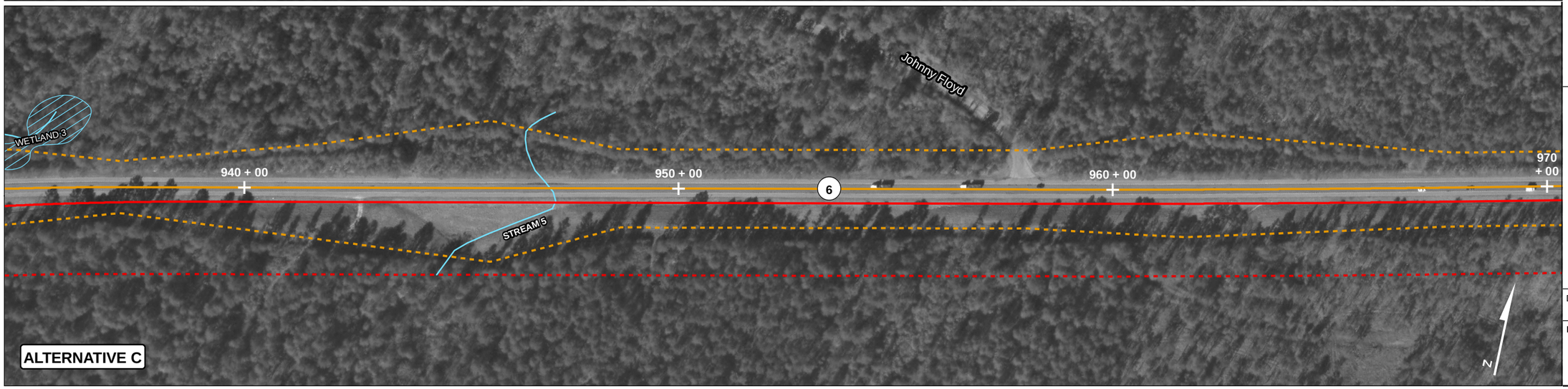
Date:	Project Number:
09/24/2009	LA002860.0004

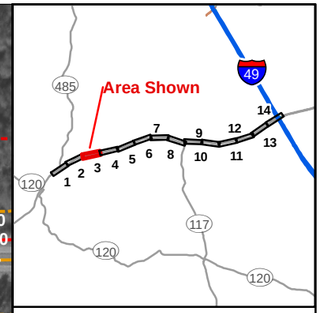
Figure No.:

PLATE 2









EL CAMINO
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LA ROUTE 6
ENVIRONMENTAL ASSESSMENT
NATCHITOCHES PARISH, LA

S.P. NO. 700-35-0140
F.A.P. NO DE-3506(512)

ALTERNATIVE PLANS

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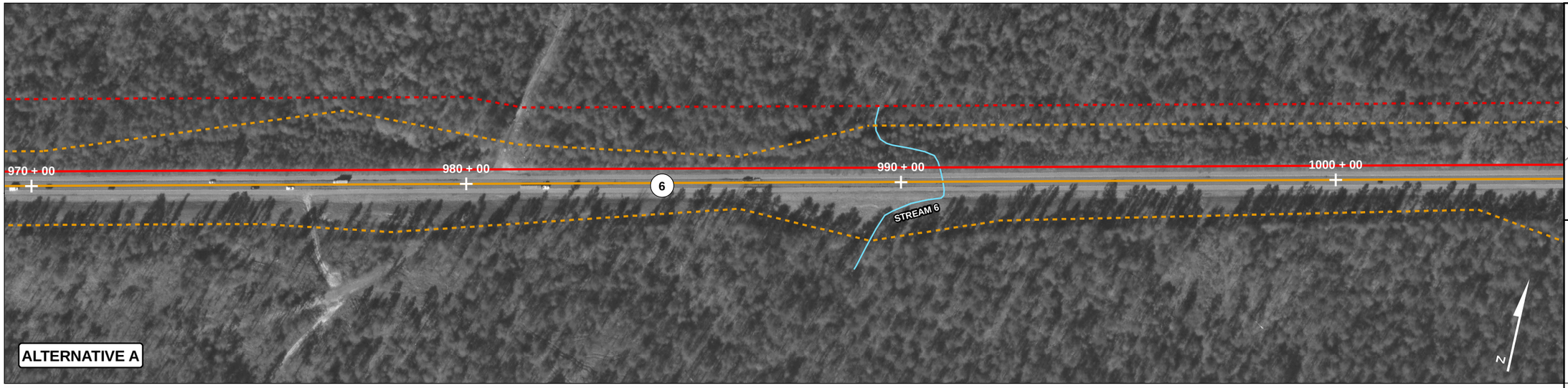
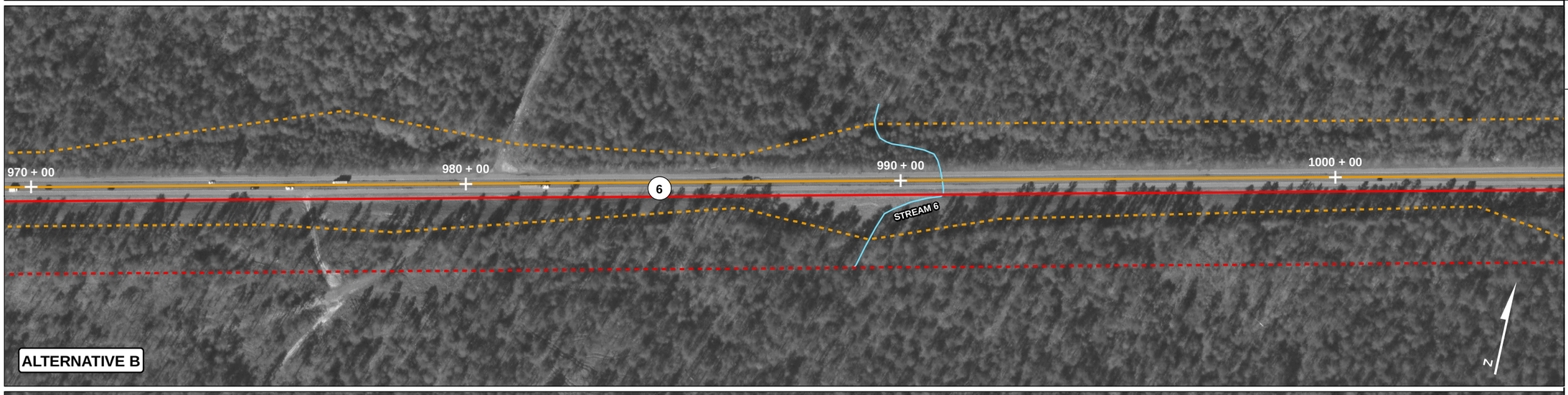
El Camino East / West Corridor

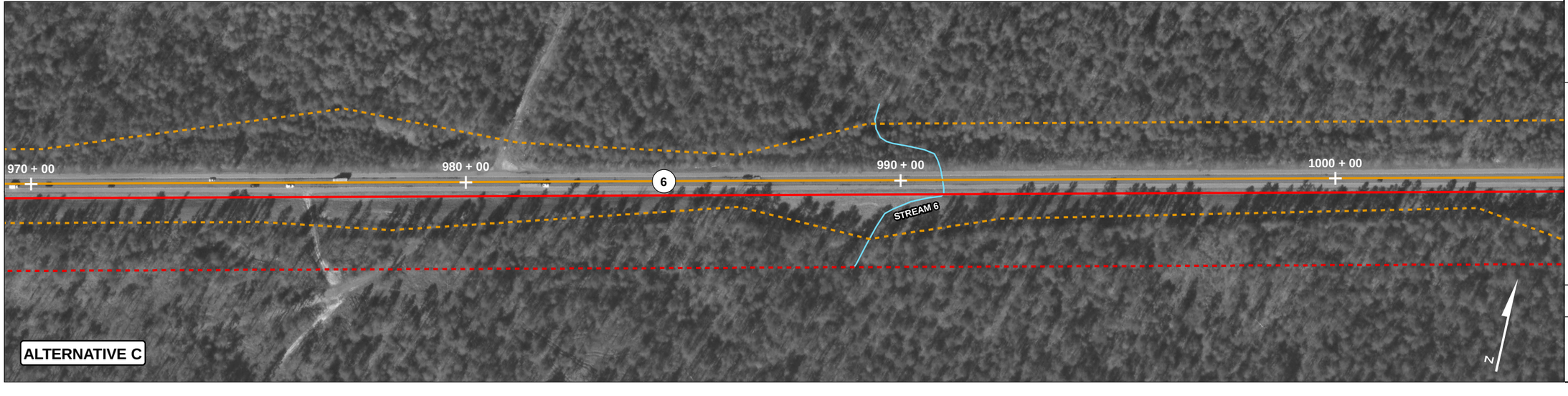
Date:	Project Number:
09/24/2009	LA002860.0004

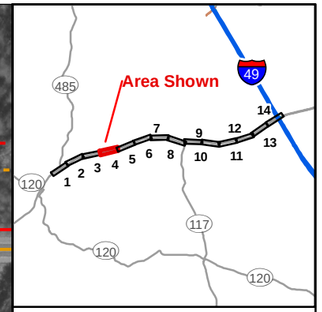
Figure No.:

PLATE 3









EL CAMINO
EAST/WEST CORRIDOR
LA ROUTE 6
ENVIRONMENTAL ASSESSMENT
NATCHITOCHES PARISH, LA

S.P. NO. 700-35-0140
F.A.P. NO DE-3506(512)

ALTERNATIVE PLANS

Legend

- Potential Hazardous Waste Sites
- Commercial Buildings
- Institutional or Community Facilities
- Residential Buildings
- Vacant/Derelict
- Proposed ROW
- Proposed Centerline
- Existing ROW
- Existing Centerline
- Stream
- Pond
- Wetland

0 75 150 300 Feet

El Camino East / West Corridor

DOTD BUILDS THE WAY

Date:	Project Number:
09/24/2009	LA002860.0004

Figure No.:

PLATE 4

EL CAMINO
EAST/WEST CORRIDOR
LA ROUTE 6
ENVIRONMENTAL ASSESSMENT
NATCHITOCHES PARISH, LA

S.P. NO. 700-35-0140
F.A.P. NO DE-3506(512)

ALTERNATIVE PLANS

Legend

- Potential Hazardous Waste Sites
- Commercial Buildings
- Institutional or Community Facilities
- Residential Buildings
- Vacant/Derelict
- Proposed ROW
- Proposed Centerline
- Existing ROW
- Existing Centerline
- Stream
- Pond
- Wetland

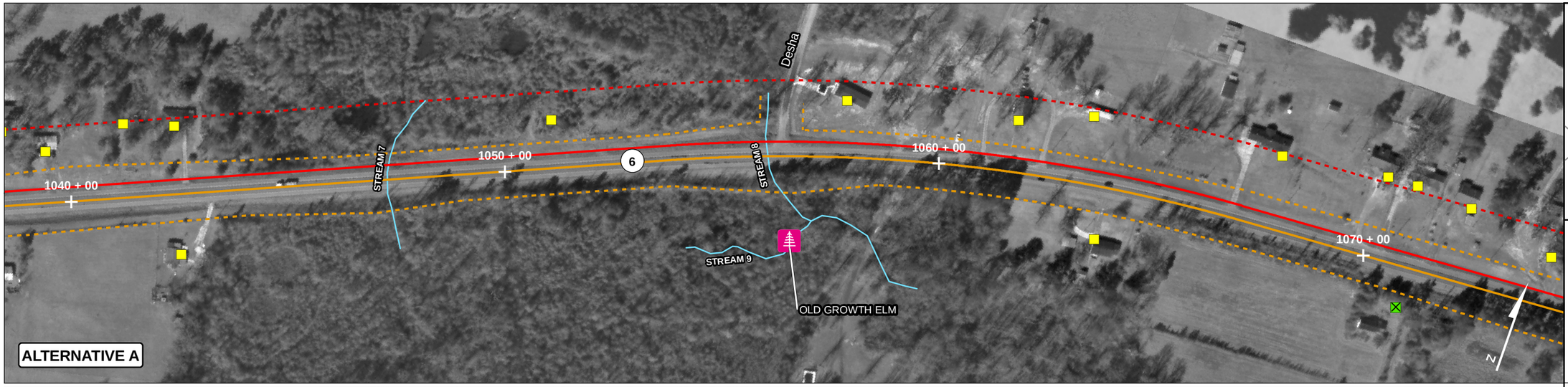
0 75 150 300 Feet

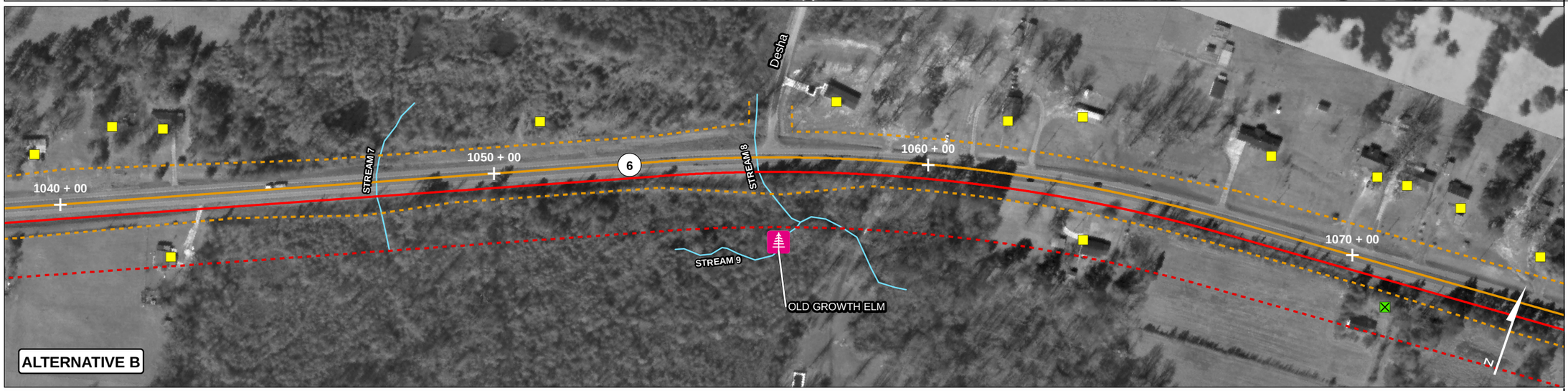
El Camino East / West Corridor

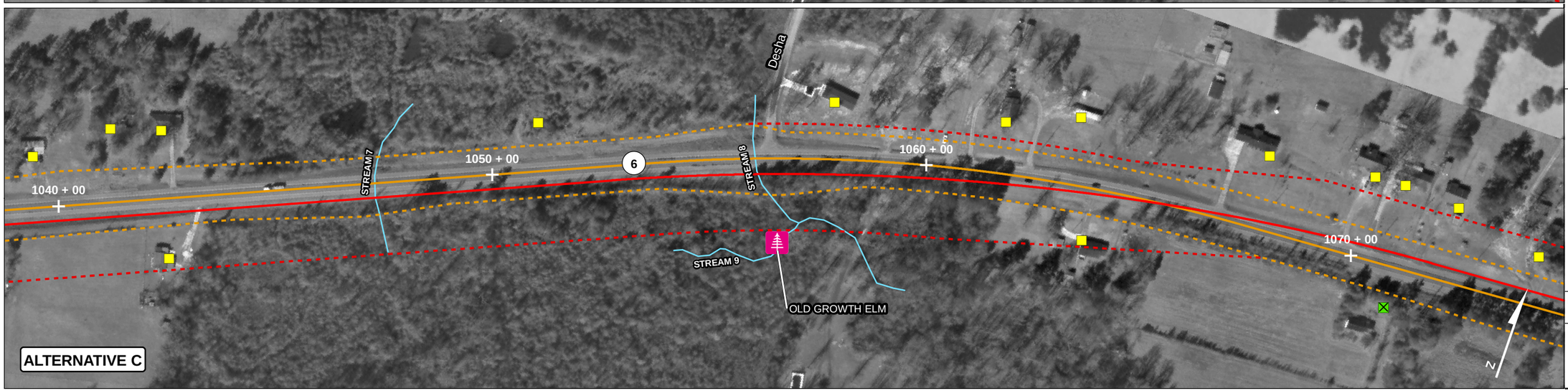
Date:	Project Number:
09/24/2009	LA002860.0004

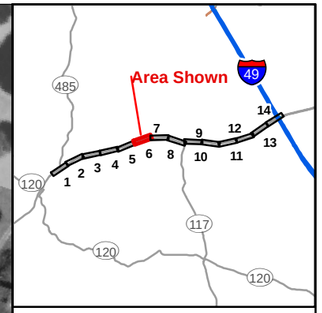
Figure No.:

PLATE 5









EL CAMINO
EAST/WEST CORRIDOR
LA ROUTE 6
ENVIRONMENTAL ASSESSMENT
NATCHITOCHES PARISH, LA

S.P. NO. 700-35-0140
F.A.P. NO DE-3506(512)

ALTERNATIVE PLANS

Legend

- Potential Hazardous Waste Sites
- Commercial Buildings
- Institutional or Community Facilities
- Residential Buildings
- Vacant/Derelict
- Proposed ROW
- Proposed Centerline
- Existing ROW
- Existing Centerline
- Stream
- Pond
- Wetland

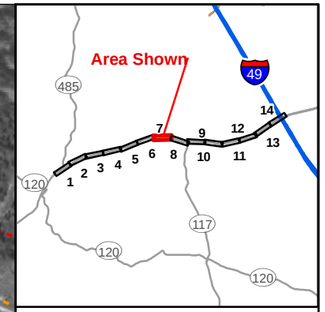
0 75 150 300 Feet

El Camino East / West Corridor

Date:	Project Number:
09/24/2009	LA002860.0004

Figure No.:

PLATE 6



EL CAMINO
EAST/WEST CORRIDOR
LA ROUTE 6
ENVIRONMENTAL ASSESSMENT
NATCHITOCHES PARISH, LA

S.P. NO. 700-35-0140
F.A.P. NO DE-3506(512)

ALTERNATIVE PLANS

Legend

- Potential Hazardous Waste Sites
- Commercial Buildings
- Institutional or Community Facilities
- Residential Buildings
- Vacant/Derelict
- Proposed ROW
- Proposed Centerline
- Existing ROW
- Existing Centerline
- Stream
- Pond
- Wetland

0 75 150 300 Feet

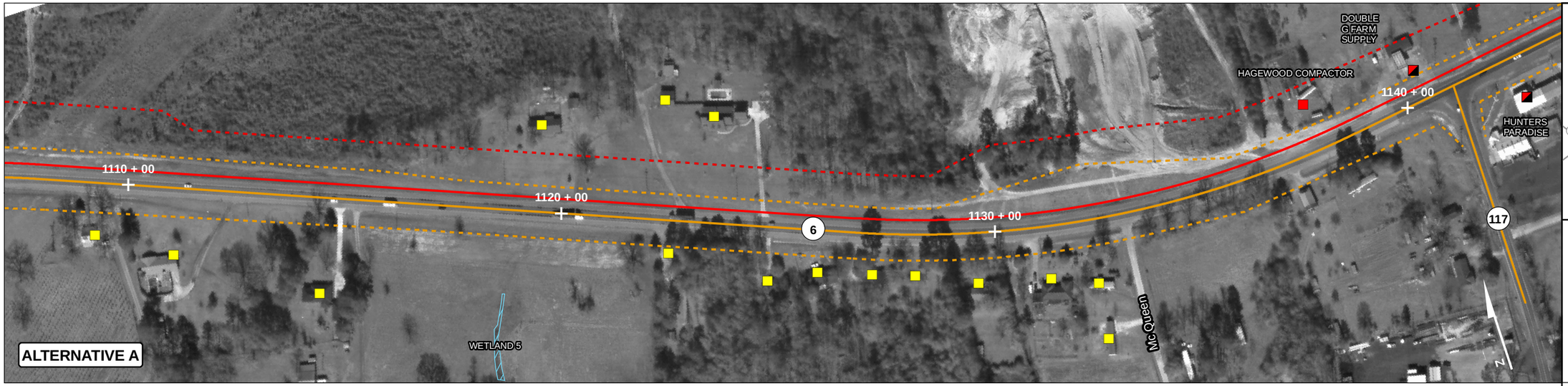
El Camino East / West Corridor

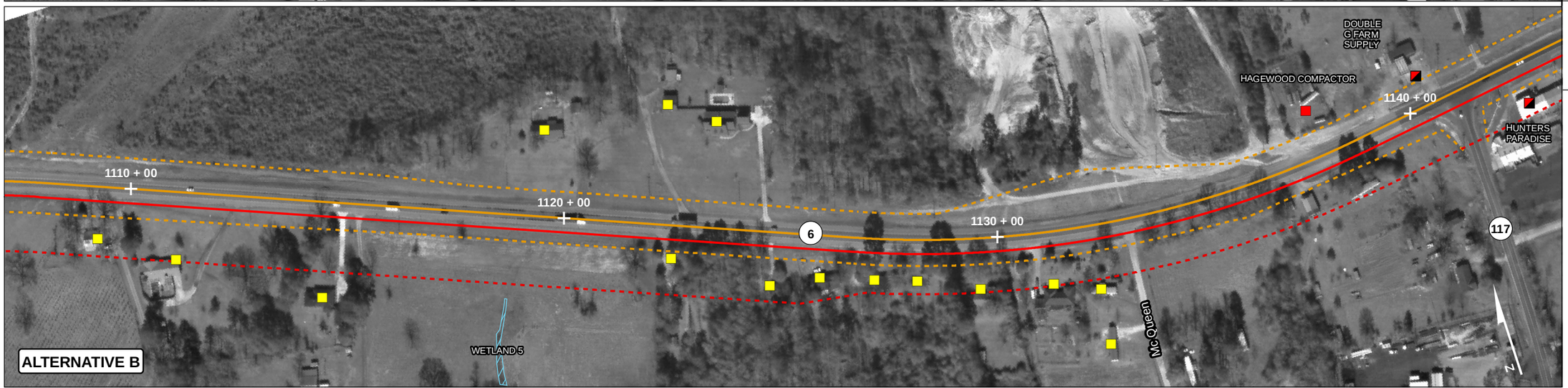
DOTD BUILDS THE WAY

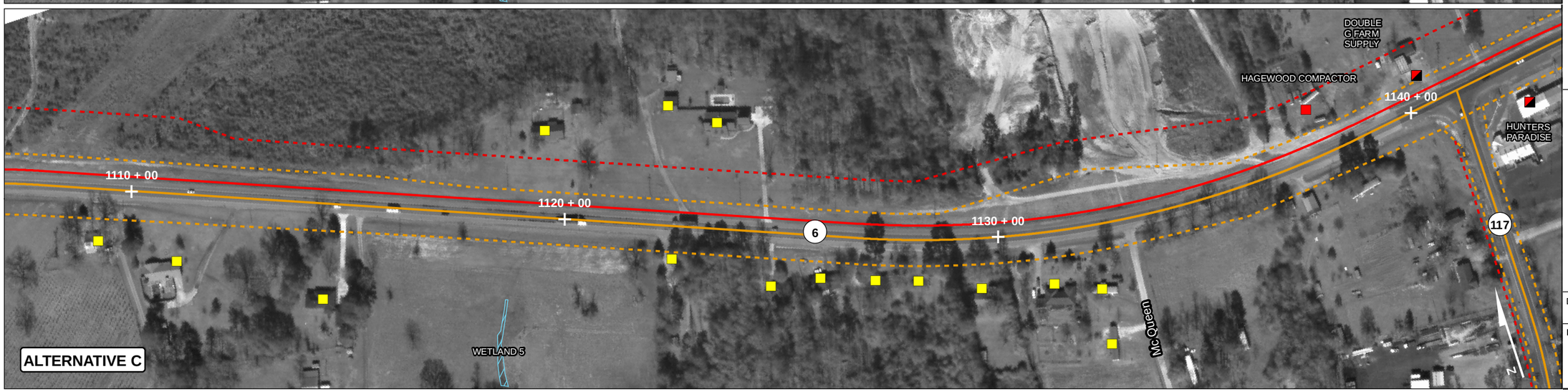
Date:	Project Number:
09/24/2009	LA002860.0004

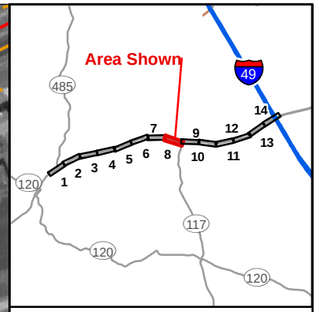
Figure No.:

PLATE 7









EL CAMINO
EAST/WEST CORRIDOR
LA ROUTE 6
ENVIRONMENTAL ASSESSMENT
NATCHITOCHES PARISH, LA

S.P. NO. 700-35-0140
F.A.P. NO DE-3506(512)

ALTERNATIVE PLANS

Legend

- Potential Hazardous Waste Sites
- Commercial Buildings
- Institutional or Community Facilities
- Residential Buildings
- Vacant/Derelict
- Proposed ROW
- Proposed Centerline
- Existing ROW
- Existing Centerline
- Stream
- Pond
- Wetland

0 75 150 300 Feet

El Camino East / West Corridor

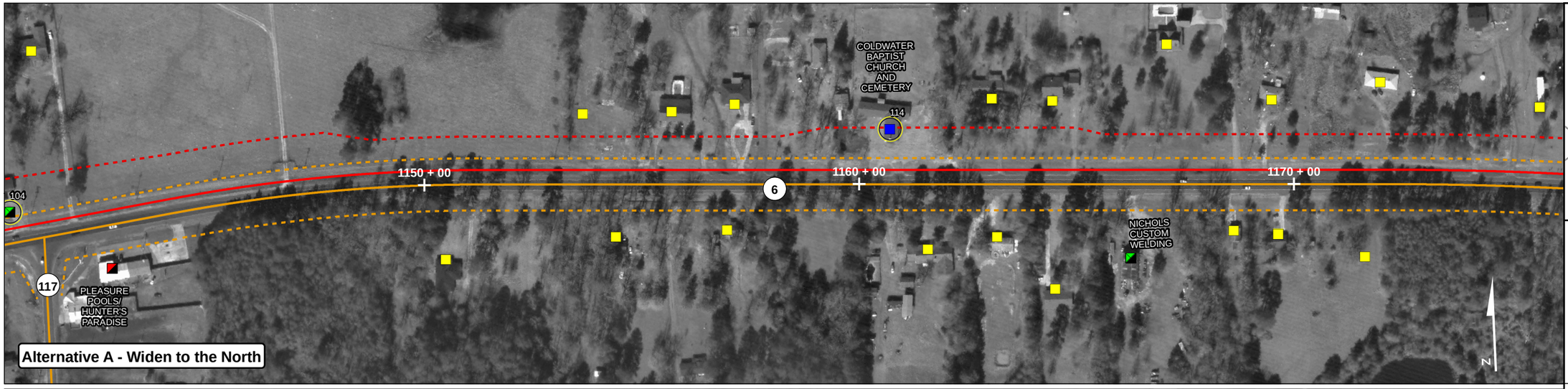
DEPARTMENT OF TRANSPORTATION UNITED STATES OF AMERICA

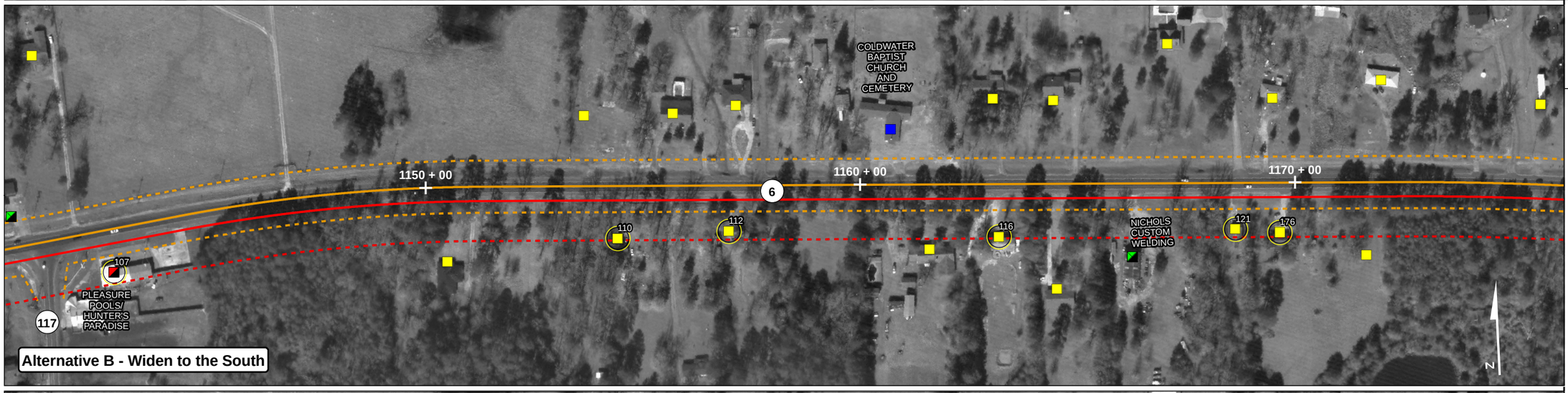
LOUISIANA'S ON THE MOVE DOTD BUILDS THE WAY

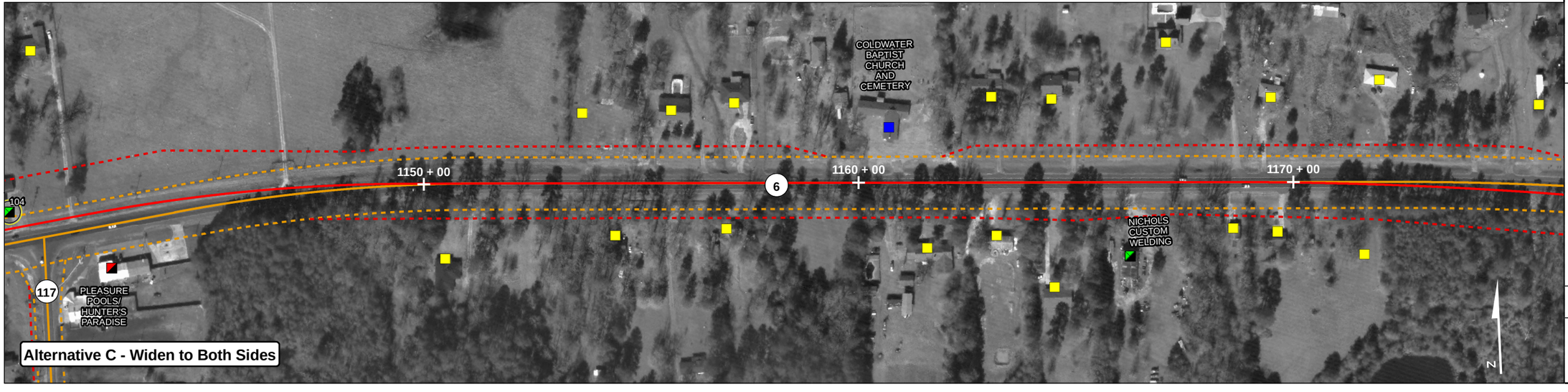
Date:	Project Number:
11/13/2009	LA002860.0004

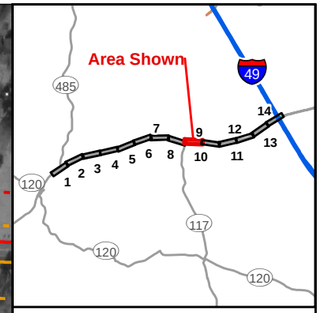
Figure No.:

PLATE 8









EL CAMINO
EAST/WEST CORRIDOR
LA ROUTE 6
ENVIRONMENTAL ASSESSMENT
NATCHITOCHES PARISH, LA

S.P. NO. 700-35-0140
F.A.P. NO DE-3506(512)

ALTERNATIVE PLANS

Legend

- Potential Relocations
- Potential Hazardous Waste Sites
- Commercial Locations
- Institutional or Community Facilities
- Residential Buildings
- Vacant Structures
- No Longer Exists
- Proposed ROW
- Proposed Centerline
- Existing ROW
- Existing Centerline
- Stream
- Pond
- Wetland

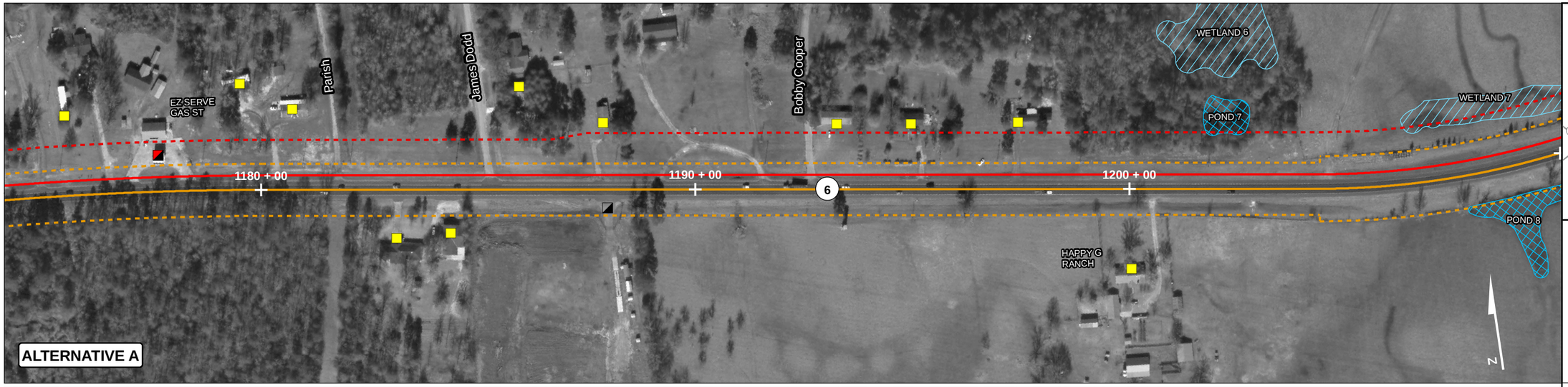
0 75 150 300 Feet

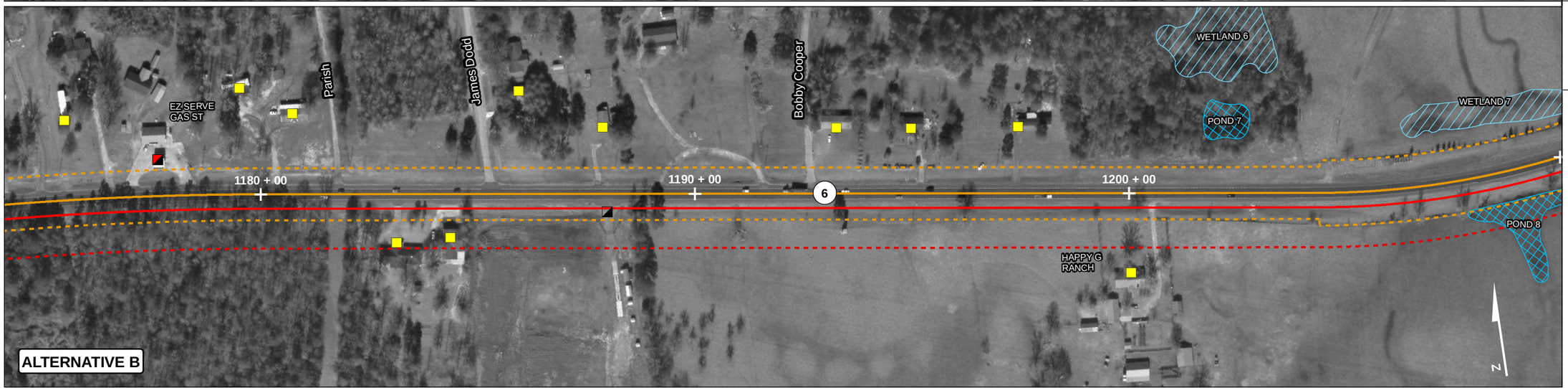
El Camino East / West Corridor

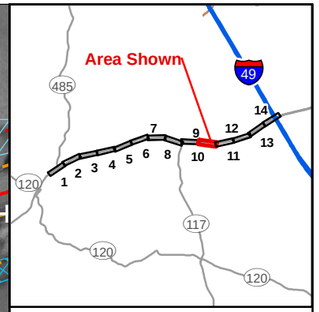
Date:	Project Number:
03/25/2010	LA002860.0004

Figure No.:

PLATE 9







EL CAMINO
EAST/WEST CORRIDOR
LA ROUTE 6
ENVIRONMENTAL ASSESSMENT
NATCHITOCHES PARISH, LA

S.P. NO. 700-35-0140
F.A.P. NO DE-3506(512)

ALTERNATIVE PLANS

Legend

- Potential Hazardous Waste Sites
- Commercial Buildings
- Institutional or Community Facilities
- Residential Buildings
- Vacant/Derelict
- Proposed ROW
- Proposed Centerline
- Existing ROW
- Existing Centerline
- Stream
- Pond
- Wetland

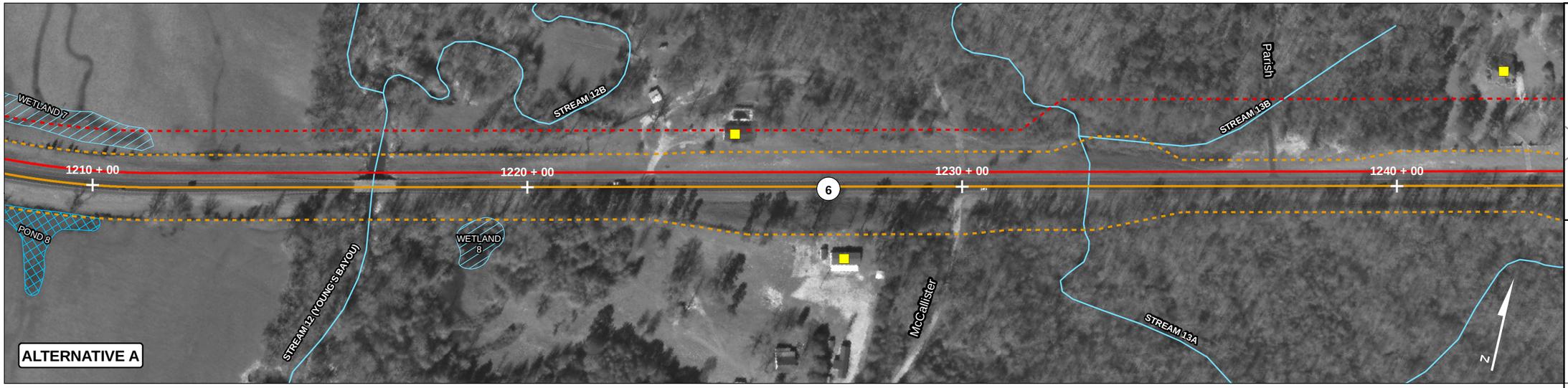
0 75 150 300 Feet

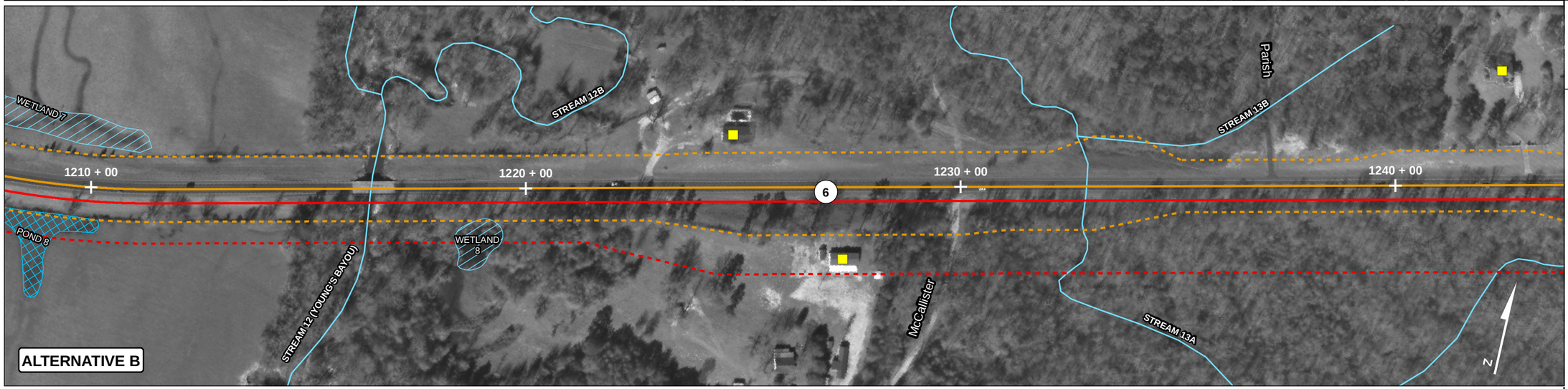
El Camino East / West Corridor

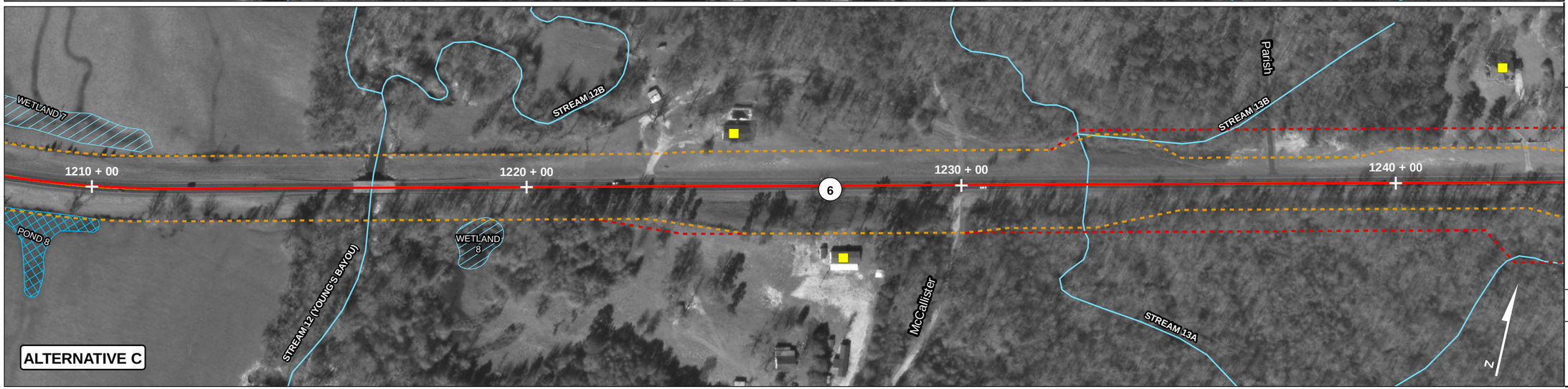
Date:	Project Number:
09/24/2009	LA002860.0004

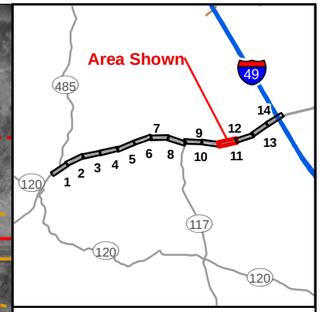
Figure No.:

PLATE 10









EL CAMINO
EAST/WEST CORRIDOR
LA ROUTE 6
ENVIRONMENTAL ASSESSMENT
NATCHITOCHES PARISH, LA

S.P. NO. 700-35-0140
F.A.P. NO DE-3506(512)

ALTERNATIVE PLANS

Legend

- Potential Hazardous Waste Sites
- Commercial Buildings
- Institutional or Community Facilities
- Residential Buildings
- Vacant/Derelict
- Proposed ROW
- Proposed Centerline
- Existing ROW
- Existing Centerline
- Stream
- Pond
- Wetland

0 75 150 300 Feet

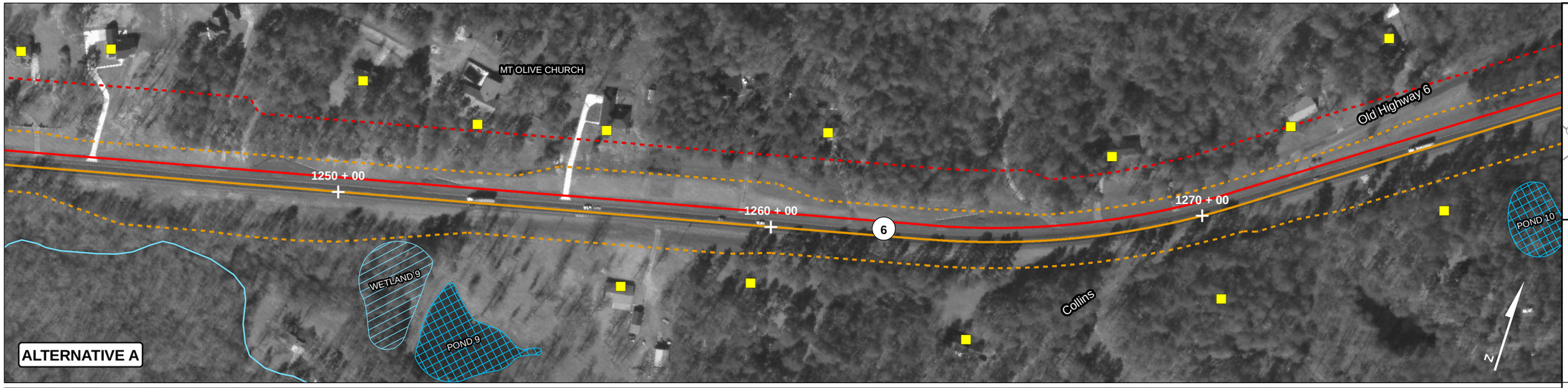
El Camino East / West Corridor

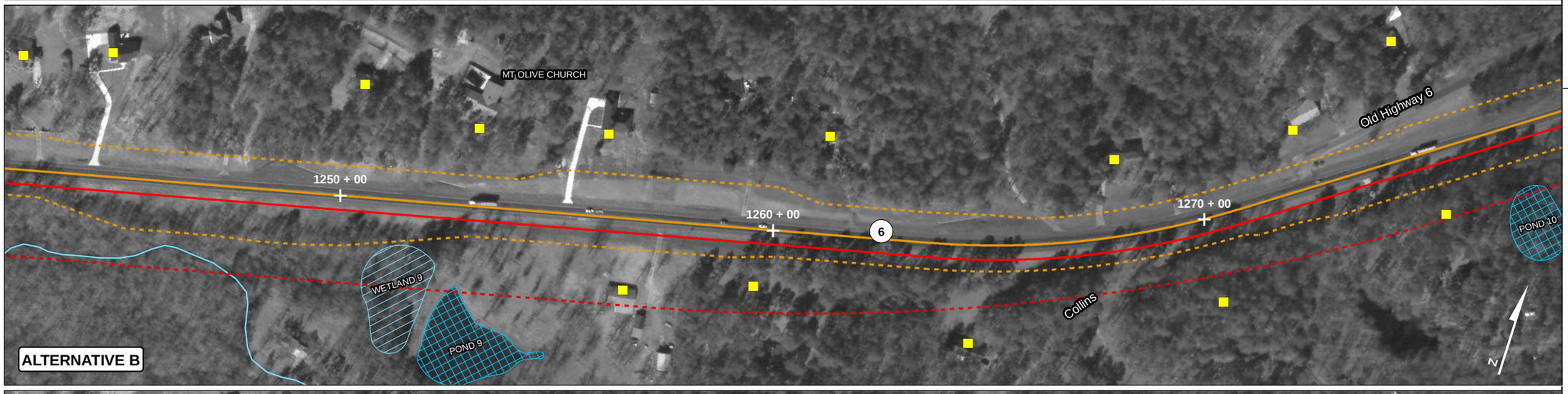
DOTD BUILDS THE WAY

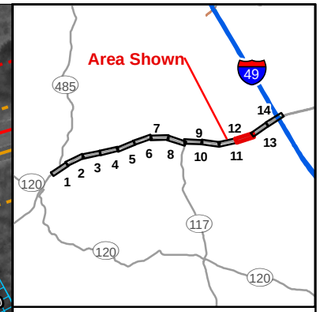
Date:	Project Number:
09/24/2009	LA002860.0004

Figure No.:

PLATE 11







EL CAMINO
EAST/WEST CORRIDOR
LA ROUTE 6
ENVIRONMENTAL ASSESSMENT
NATCHITOCHES PARISH, LA

S.P. NO. 700-35-0140
F.A.P. NO DE-3506(512)

ALTERNATIVE PLANS

Legend

- Potential Hazardous Waste Sites
- Commercial Buildings
- Institutional or Community Facilities
- Residential Buildings
- Vacant/Derelict
- Proposed ROW
- Proposed Centerline
- Existing ROW
- Existing Centerline
- Stream
- Pond
- Wetland

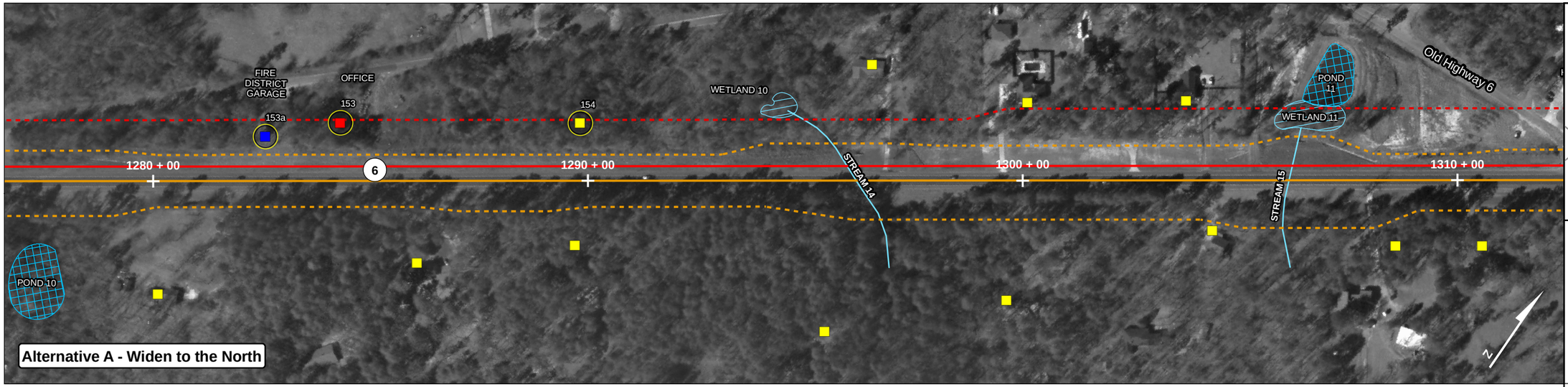
0 75 150 300 Feet

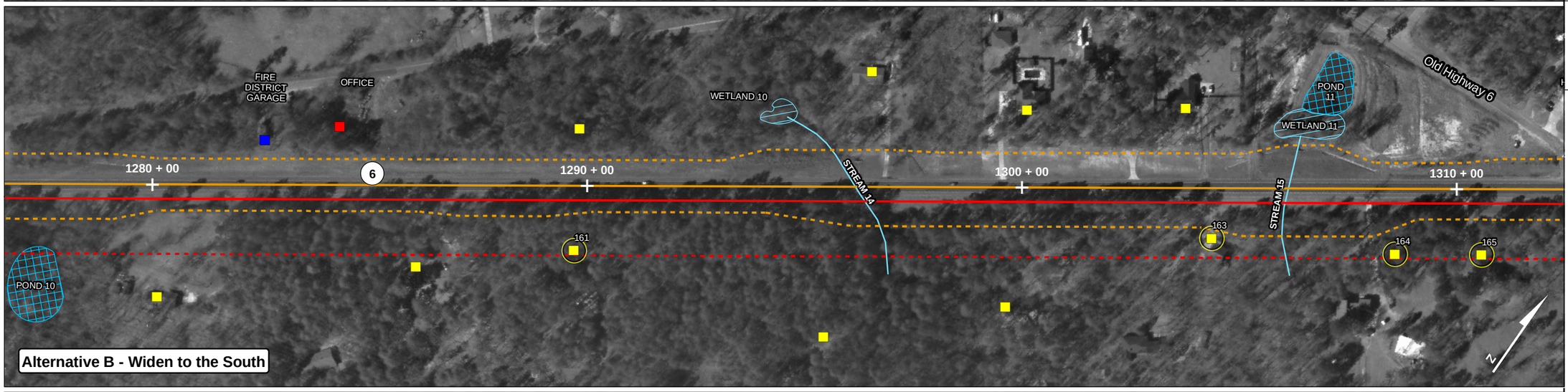
El Camino East / West Corridor

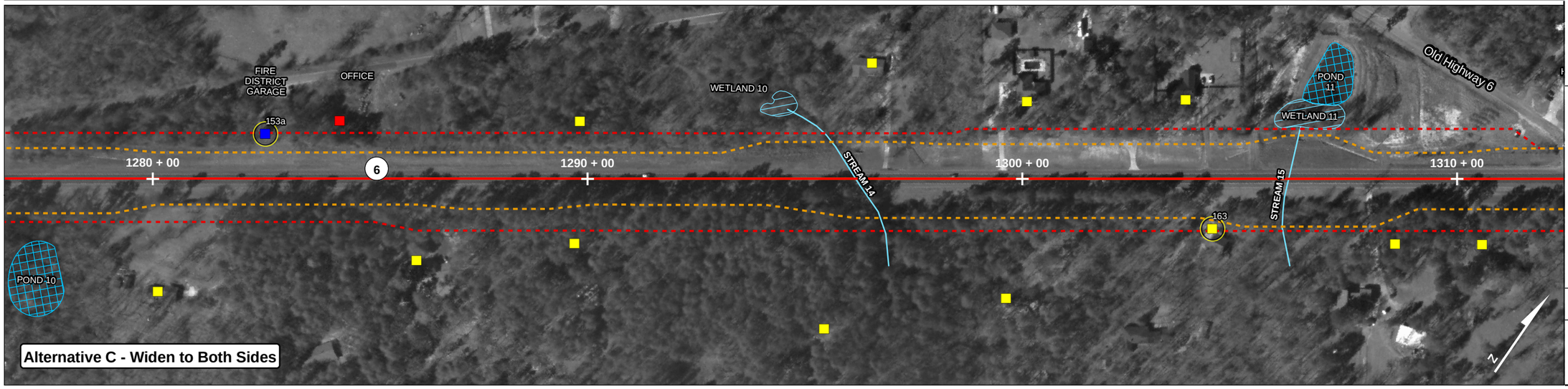
Date:	Project Number:
09/24/2009	LA002860.0004

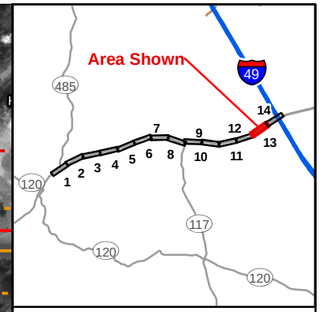
Figure No.:

PLATE 12









EL CAMINO
EAST/WEST CORRIDOR
LA ROUTE 6
ENVIRONMENTAL ASSESSMENT
NATCHITOCHES PARISH, LA

S.P. NO. 700-35-0140
F.A.P. NO DE-3506(512)

ALTERNATIVE PLANS

Legend

- Potential Relocations
- Potential Hazardous Waste Sites
- Commercial Locations
- Institutional or Community Facilities
- Residential Buildings
- Vacant Structures
- No Longer Exists
- Proposed ROW
- Proposed Centerline
- Existing ROW
- Existing Centerline
- Stream
- Pond
- Wetland

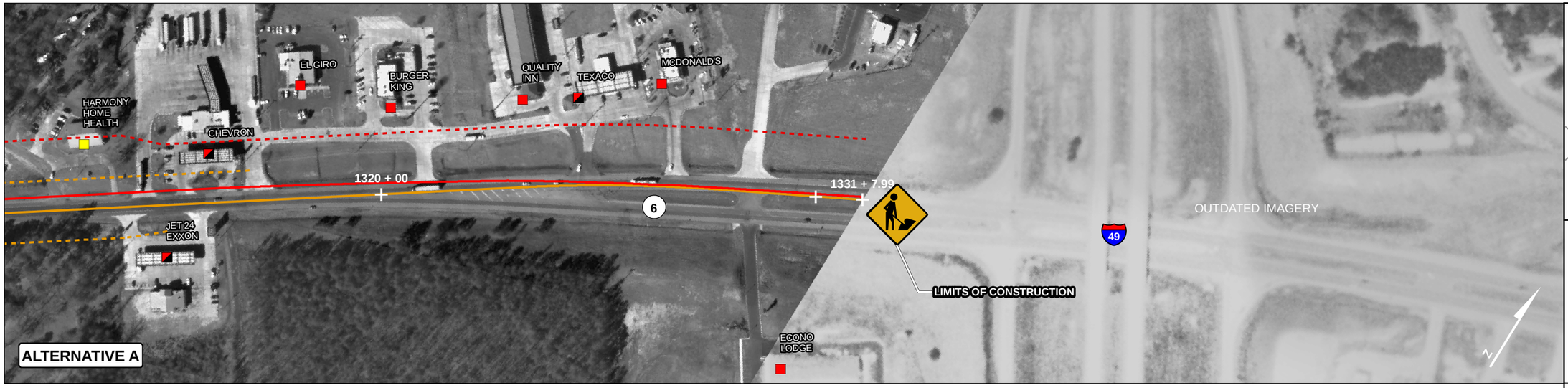
0 75 150 300 Feet

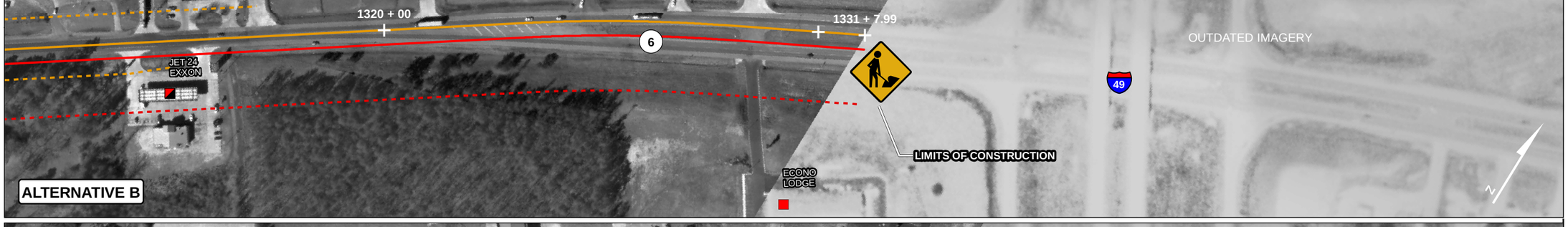
El Camino East / West Corridor

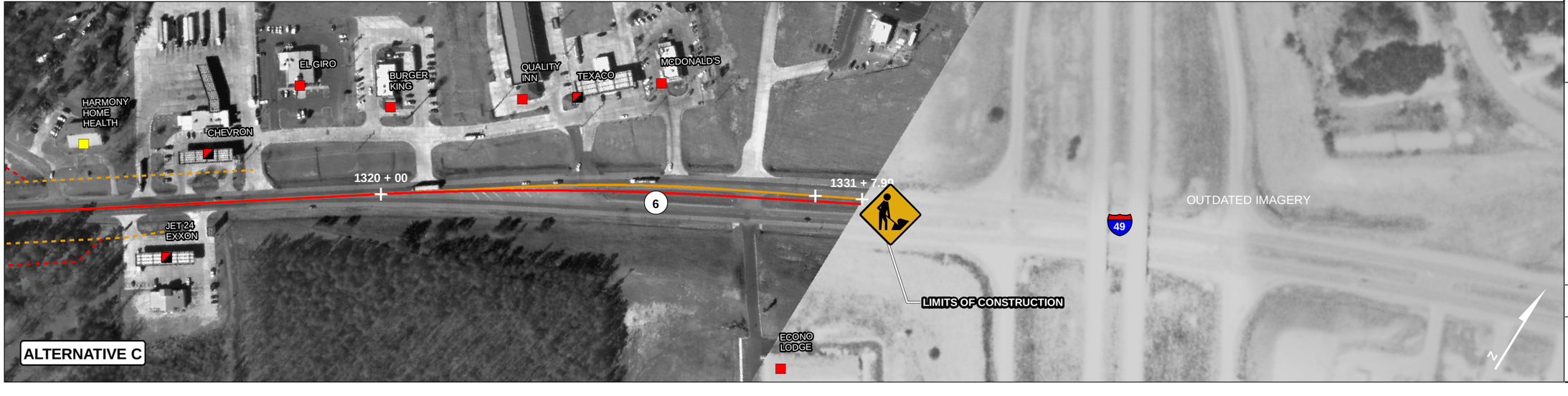
Date:	Project Number:
03/23/2010	LA002860.0004

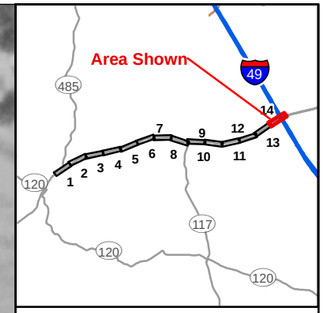
Figure No.:

PLATE 13









EL CAMINO
EAST/WEST CORRIDOR
LA ROUTE 6
ENVIRONMENTAL ASSESSMENT
NATCHITOCHES PARISH, LA

S.P. NO. 700-35-0140
F.A.P. NO DE-3506(512)

ALTERNATIVE PLANS

Legend

- Potential Hazardous Waste Sites
- Commercial Buildings
- Institutional or Community Facilities
- Residential Buildings
- Vacant/Derelict
- Proposed ROW
- Proposed Centerline
- Existing ROW
- Existing Centerline
- Stream
- Pond
- Wetland

0 75 150 300 Feet

El Camino East / West Corridor

Date:	Project Number:
09/24/2009	LA002860.0004

Figure No.:

PLATE 14

Appendix B

Typical Cross Sections

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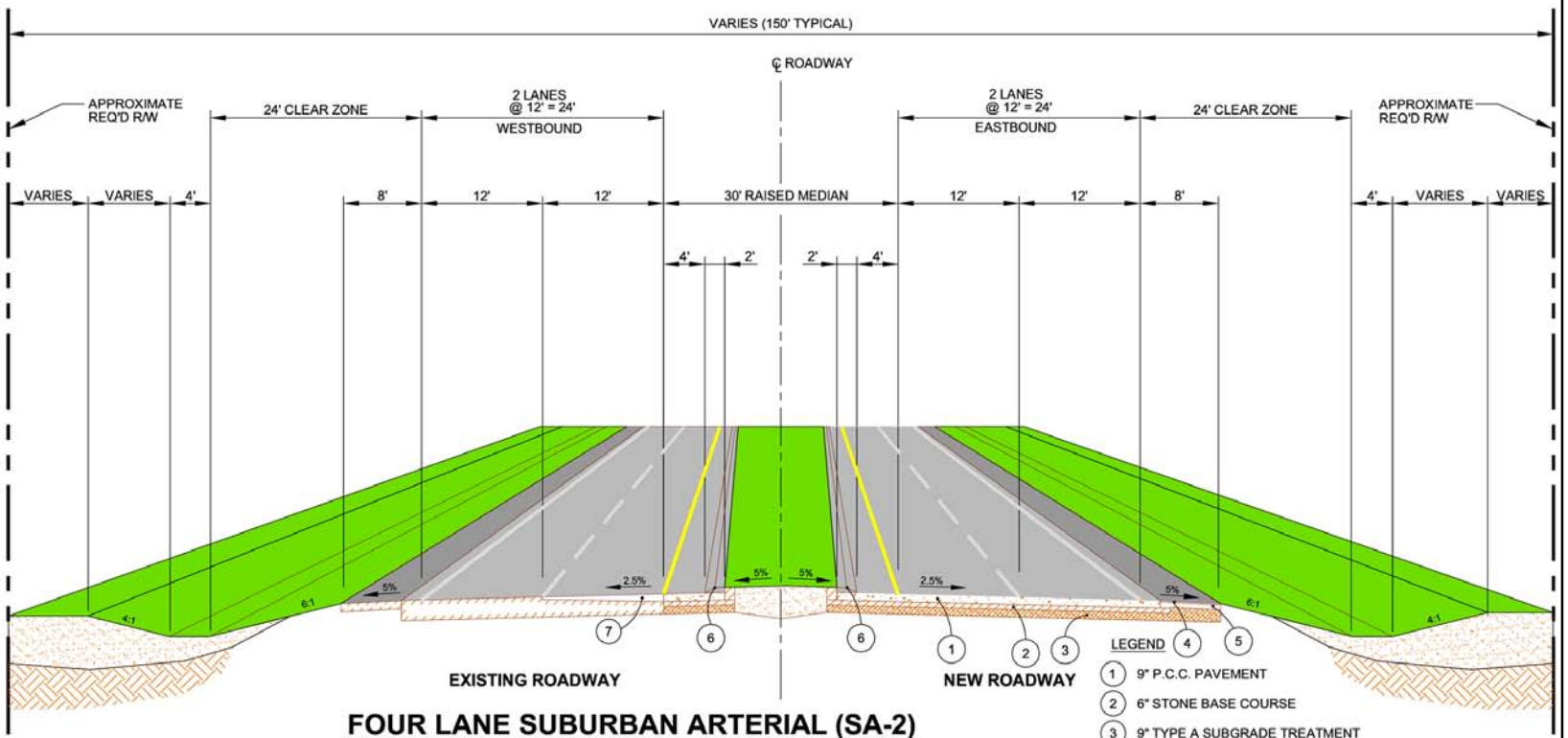
EL CAMINO
EAST/WEST CORRIDOR
LA ROUTE 6
ENVIRONMENTAL ASSESSMENT
NATCHITOCHES PARISH, LA

S.P. NO. 700-35-0140
F.A.P. NO DE-3506(512)

TYPICAL SECTION SA-2

ALTERNATIVES A & B EAST SEGMENT



FOUR LANE SUBURBAN ARTERIAL (SA-2)
TWO LANE EXPANSION OF EXISTING TWO LANE ROADWAY
(55 mph DESIGN SPEED)
ALTERNATIVES A & B (LA 117 - I-49) EAST SEGMENT

"Source: ARCADIS, Sigma"

Date:	Project No.:
12/19/09	LA002860.0004

Figure No.:

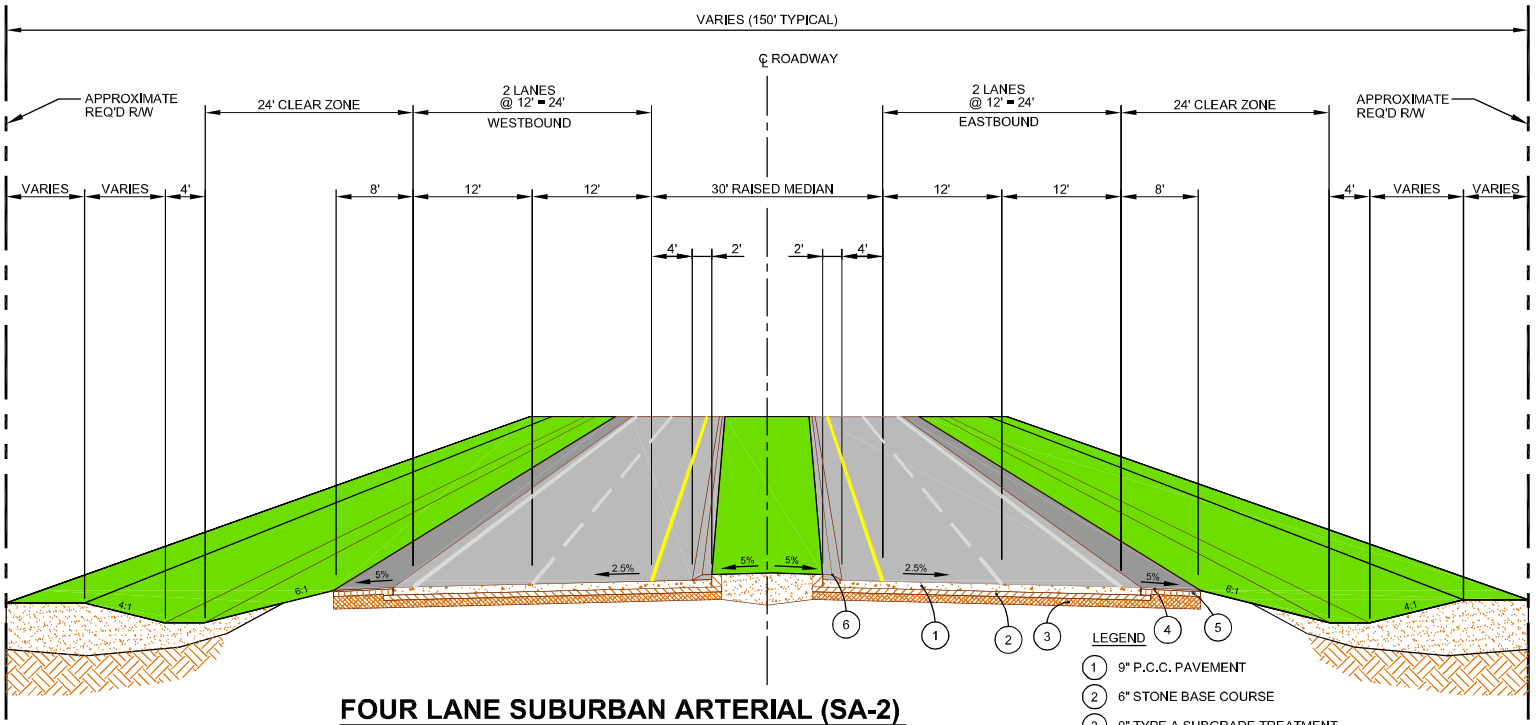
1

EL CAMINO
EAST/WEST CORRIDOR
LA ROUTE 6
ENVIRONMENTAL ASSESSMENT
NATCHITOCHES PARISH, LA

S.P. NO. 700-35-0140
F.A.P. NO DE-3506(512)

TYPICAL SECTION SA-2

ALTERNATIVE C EAST SEGMENT



LEGEND

1. 9" P.C.C. PAVEMENT
2. 6" STONE BASE COURSE
3. 9" TYPE A SUBGRADE TREATMENT
4. 2" SUPERPAVE ASPHALTIC CONCRETE PAVEMENT
5. 6" SUPERPAVE ASPHALTIC CONCRETE BINDER COURSE
6. INTEGRAL CONCRETE CURB (BARRIER)

FOUR LANE SUBURBAN ARTERIAL (SA-2)
FOUR LANE NEW CONSTRUCTION DIVIDED ROADWAY
(55 mph DESIGN SPEED)
ALTERNATIVE C (LA 117 - I-49) EAST SEGMENT

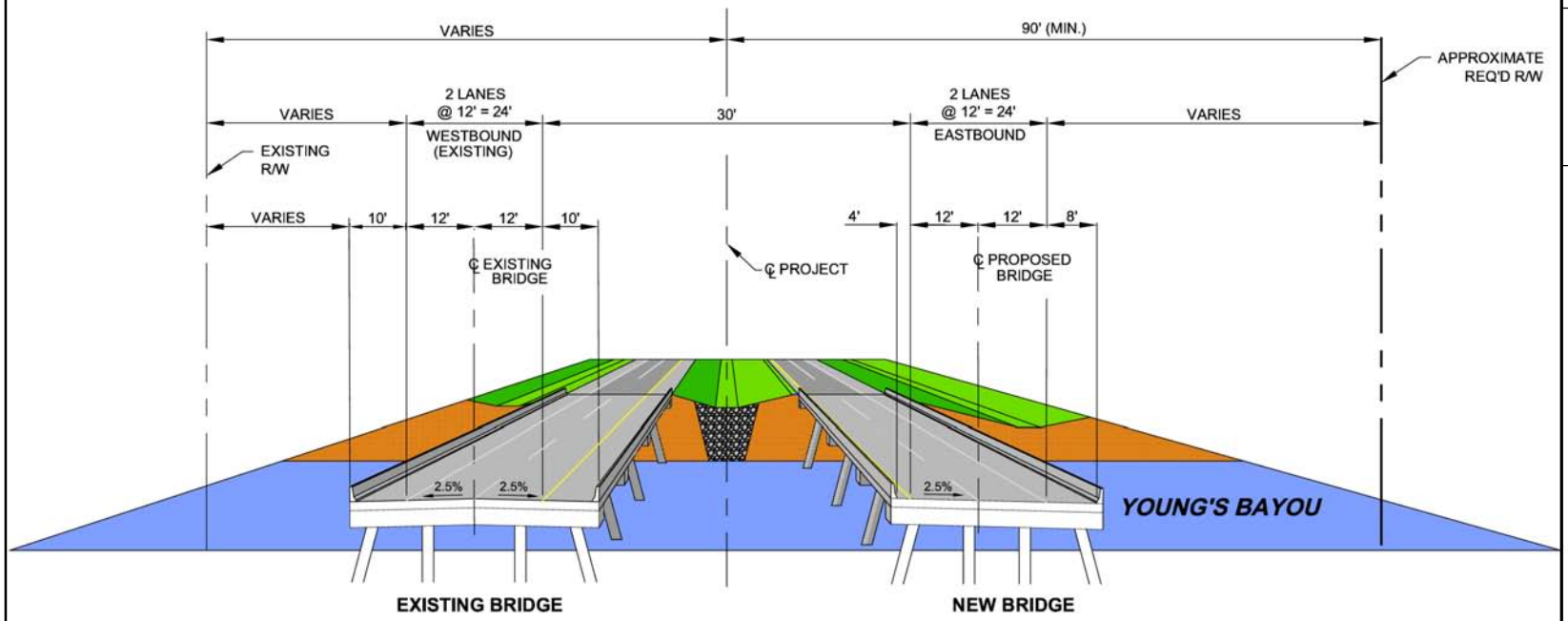
"Source: ARCADIS, Sigma"

El Camino East / West Corridor

Date:	Project No.:
06/22/10	LA002860.0004

Figure No.:

2



FOUR LANE SUBURBAN ARTERIAL (SA-2)
TWO-LANE EXPANSION OF EXISTING TWO-LANE ROADWAY
(55 mph DESIGN SPEED)
ALTERNATIVES A & B AT YOUNG'S BAYOU

NOTE: SOUTH WIDENING (ALT B) SHOWN. NORTH WIDENING (ALT A) OPPOSITE HAND.

EL CAMINO
EAST/WEST CORRIDOR
LA ROUTE 6
ENVIRONMENTAL ASSESSMENT
NATCHITOCHES PARISH, LA

S.P. NO. 700-35-0140
F.A.P. NO DE-3506(512)

TYPICAL SECTION SA-2

ALTERNATIVES A & B BRIDGE CROSSING

"Source: ARCADIS, Sigma"

El Camino East / West Corridor

Date:	Project No.:
12/19/09	LA002860.0004

Figure No.:

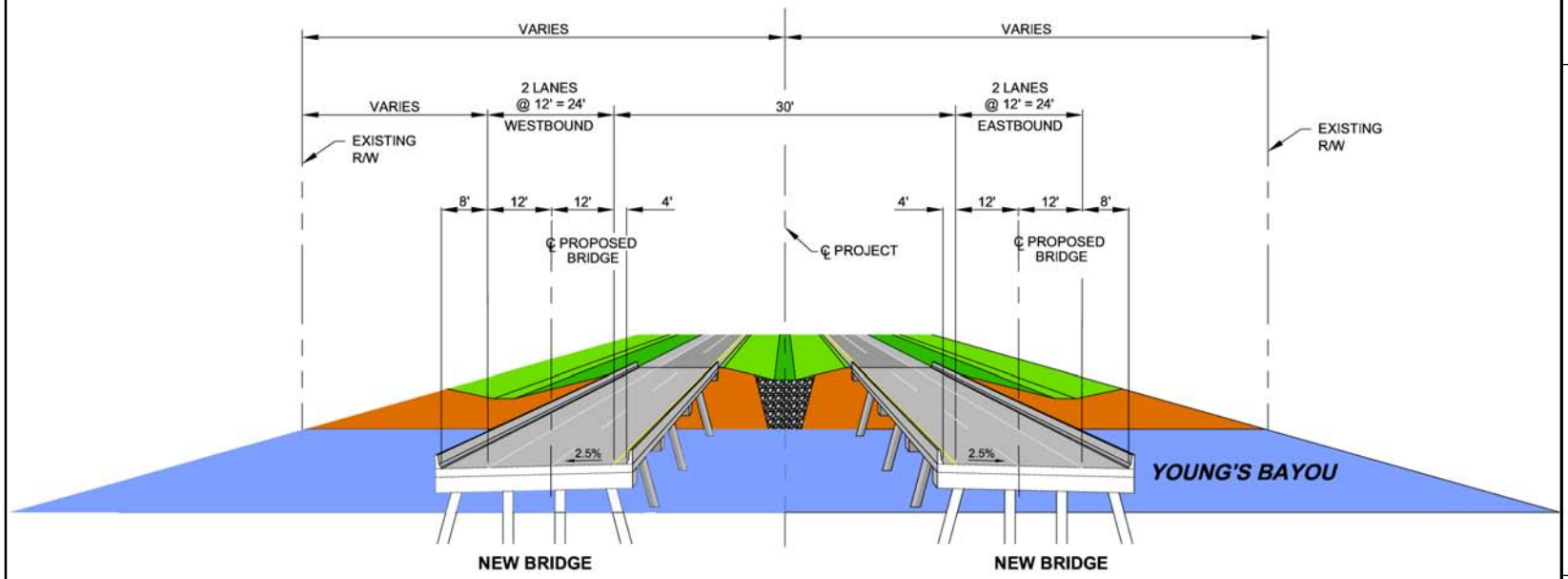
3

EL CAMINO
EAST/WEST CORRIDOR
LA ROUTE 6
ENVIRONMENTAL ASSESSMENT
NATCHITOCHES PARISH, LA

S.P. NO. 700-35-0140
F.A.P. NO DE-3506(512)

TYPICAL SECTION SA-2

ALTERNATIVE C BRIDGE CROSSING



FOUR LANE SUBURBAN ARTERIAL (SA-2)
FOUR LANE NEW CONSTRUCTION DIVIDED ROADWAY
(55 mph DESIGN SPEED)
ALTERNATIVE C AT YOUNG'S BAYOU

"Source: ARCADIS, Sigma"

El Camino East / West Corridor

Date:	Project No.:
12/19/09	LA002860.0004

Figure No.:

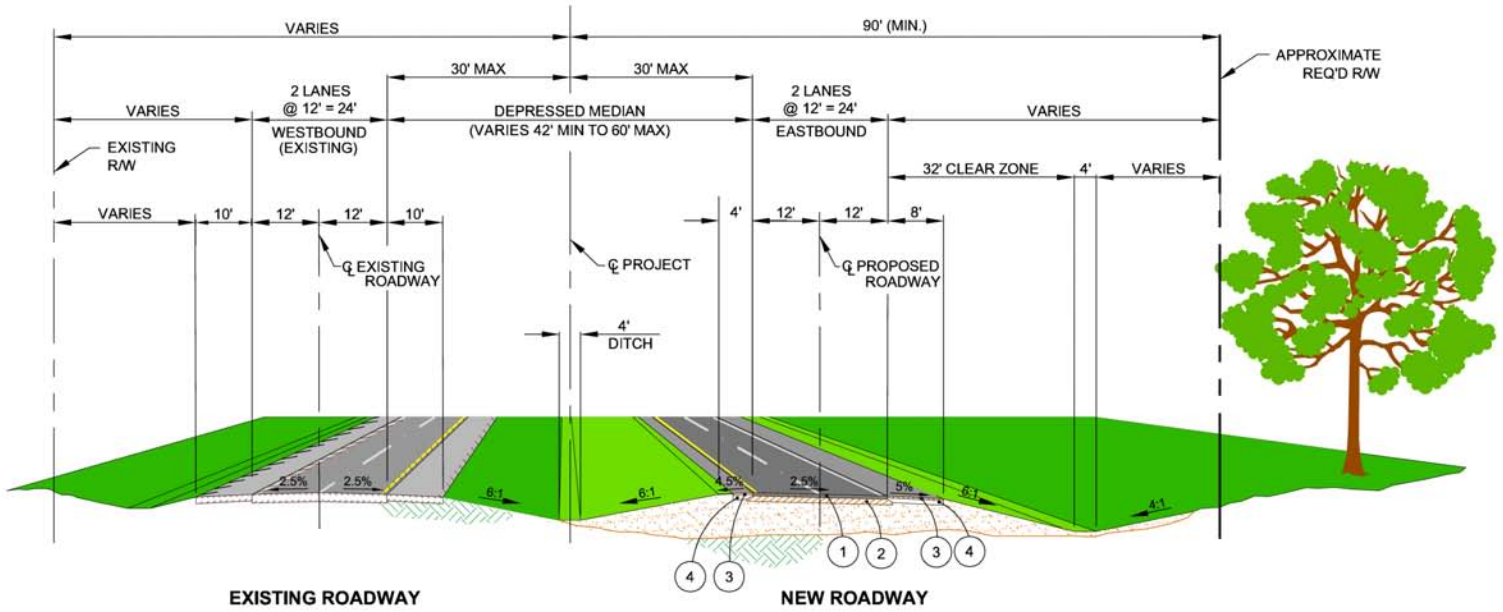
4

EL CAMINO
EAST/WEST CORRIDOR
LA ROUTE 6
ENVIRONMENTAL ASSESSMENT
NATCHITOCHES PARISH, LA

S.P. NO. 700-35-0140
F.A.P. NO DE-3506(512)

TYPICAL SECTION RA-2

ALTERNATIVES A & B WEST SEGMENT



"Source: ARCADIS, Sigma"

FOUR LANE RURAL ARTERIAL (RA-2)
TWO LANE EXPANSION OF EXISTING TWO LANE ROADWAY
(60 mph DESIGN SPEED)
ALTERNATIVES A & B (LA 485 - LA 117) WEST SEGMENT

1. 10" SUPERPAVE ASPHALTIC CONCRETE
2. 12" CLASS II BASE COURSE
3. 6" SUPERPAVE ASPHALTIC CONCRETE
4. 10" CLASS II BASE COURSE

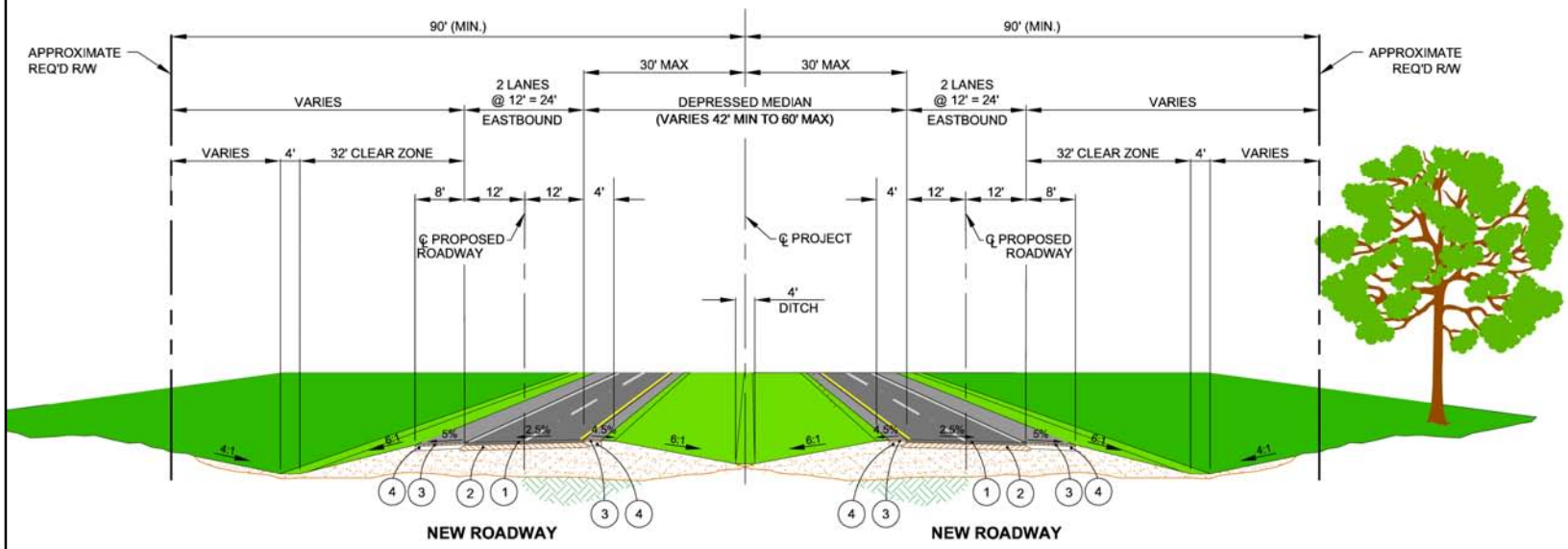
NOTE: SOUTH WIDENING (ALT B) SHOWN. NORTH WIDENING (ALT A) OPPOSITE HAND.

El Camino East / West Corridor

Date:	Project No.:
12/19/09	LA002860.0004

Figure No.:

5



FOUR LANE RURAL ARTERIAL (RA-2)
FOUR LANE NEW CONSTRUCTION DIVIDED ROADWAY
(60 mph DESIGN SPEED)
ALTERNATIVE C (LA 485 - LA 117) WEST SEGMENT

1. 10" SUPERPAVE ASPHALTIC CONCRETE
2. 12" CLASS II BASE COURSE
3. 6" SUPERPAVE ASPHALTIC CONCRETE
4. 10" CLASS II BASE COURSE

EL CAMINO
EAST/WEST CORRIDOR
LA ROUTE 6
ENVIRONMENTAL ASSESSMENT
NATCHITOCHES PARISH, LA

S.P. NO. 700-35-0140
F.A.P. NO DE-3506(512)

TYPICAL SECTION RA-2

ALTERNATIVE C WEST SEGMENT

"Source: ARCADIS, Sigma"

El Camino East / West Corridor

Date:	Project No.:
12/19/09	LA002860.0004

Figure No.:

6

Appendix C

Listing of Relocations

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Listing of Relocations
Alternative A – Two new lanes and a median north of the existing highway

ID	RESIDENTIAL	NON-RESIDENTIAL	
	Location by Station Number (See Plates in Appendix A)	**NAME**	**ADDRESS**
24		Robeline Tabernacle Church	8722 Hwy 6, Robeline, LA
25	882+00		
28	891+00		
29	898+00		
34	907+00		
36	917+00		
40	1022+00		
41	1024+00		
49	1038+00		
50	1039+00		
51	1041+00		
83	1042+00		
53	1051+00		
54	1058+00		
56	1062+00		
57	1063+00		
59	1067+00		
63	1072+00		
64	1074+00		
65	1081+00		
66	1082+00		
84	1083+00		
85	1092+00		
103		Hagewood Compactor Station (Parish Waste Collection)	Hwy 6 at Hwy 117, Hagewood, LA
104		Double G Farm Supply (No longer in business)	6756 Hwy 6, Hagewood, LA
114		Coldwater Baptist Church	6558 Hwy 6, Hagewood, LA
126		E-Z Serve/E-Z Stop Gas Station	6464 Hwy 6, Hagewood, LA
138	1224+00		
151	1272+00		
153a		Fire District Garage	5664 Hwy 6, Natchitoches, LA
153		Office	5662 Hwy 6, Natchitoches, LA
154	1290+00		
168		Vacant Office (former Forestry HQ)	106 Old Highway 6, Natchitoches, LA
169		Shop-A-Lott #10 Chevron Gas Station	5422 Hwy 6, Natchitoches, LA

Listing of Relocations
Alternative B - Two new lanes and a median south of the existing highway

ID	RESIDENTIAL	NON-RESIDENTIAL	
	Location by Station Number (See Plates in Appendix A)	NAME	ADDRESS
26		Hickory Grove C.M. Church	8673 Hwy 6, Robeline, LA
27	889+00		
30	900+00		
38	1016+00		
39	1024+00		
46	1035+00		
48	1038+00		
52	1042+00		
58	1064+00		
67	1083+00		
68	1084+00		
69	1087+00		
71	1089+00		
73	1092+00		
86	1097+00	Home Occupation (Salon)	No Address Available
87	1100+00		
88	1109+00		
89	1111+00		
92	1122+00		
95	1125+00		
96	1126+00		
97	1127+00		
98	1128+00		
99	1129+00		
100	1131+00		
107		Pleasure Pools/Hunters Paradise	6733 Hwy 6, Hagewood, LA

Listing of Relocations
Alternative B - Two new lanes and a median south of the existing highway

	RESIDENTIAL	NON-RESIDENTIAL	
ID	Location by Station Number (See Plates in Appendix A)	NAME	ADDRESS
110	1154+00		
112	1157+00		
116	1163+00		
121	1169+00		
176	1170+00		
129	1183+00		
130		Farm Outbuilding	1184+00
139	1227+00		
145	1257+00		
146	1259+00		
158	1275+00		
161	1289+00		
163	1304+00		
164	1308+00		
165	1311+00		
167		Casey's Quick Stop Exxon Gas Station	5423 Hwy 6, Natchitoches, LA

Listing of Relocations
Alternative C – NEPA-derived alternative

ID	RESIDENTIAL	NON-RESIDENTIAL	
	Location by Station Number (See Plates in Appendix A)	**NAME**	**ADDRESS**
28	891+00		
34	907+00		
36	917+00		
38	1016+00		
39	1024+00		
46	1035+00		
48	1038+00		
52	1042+00		
58	1064+00		
64	1074+00		
65	1081+00		
66	1082+00		
84	1083+00		
85	1092+00		
103		Hagewood Compactor Station (Parish Waste Collection)	Hwy 6 at Hwy 117, Hagewood, LA
104		Double G Farm Supply (No longer in business)	6756 Hwy 6, Hagewood, LA
129	1183+00		
130		Farm Outbuilding	1184+00
153a		Fire District Garage	5664 Hwy 6, Natchitoches, LA
163	1304+00		

Appendix D

Air Quality Study

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In January 2005, modeling analyses to determine air impacts for Carbon Monoxide (CO) were conducted for the I-49 South project located in Lafourche, St. Charles, and Jefferson Parishes. Two of these analyses modeled CO during the peak traffic volumes at the intersection of Westwood Drive and the I-49 Frontage Road and at US 90 and Paul Maillard Road. Peak volumes used as input for the I-49 air modeling analyses are presented in Table D-1 and compared to volumes at the intersection of LA 6 and LA 117.

Table D-1. Comparison of Peak Traffic Volumes for I-49 Locations and LA 6 at LA 117.

Location	Existing	2010		2030	
		No Build	Build	No Build	Build
I-49 Frontage Road at Westwood Drive	2930	3077	2548	3293	2714
US 90 at Paul Maillard Road	2827	3398	1143	3873	1302
LA 6 at LA 117*	560	615	615	825	825

Sources: Paul Maillard and Westwood volumes from Air Quality Analysis Technical Report dated December 4, 2006, State Project No. 700-92-0011 Federal Aid Project No. HP-9201(501) Future I-49 South Lafourche, St. Charles, and Jefferson Parishes.
LA 6 at LA 35 volumes extracted from technical report entitled Traffic Analysis El Camino East/West Corridor, LA 6, June 24, 2009.
*Future years are 2015 and 2035.

Note that in all cases, existing and projected volumes for the I-49 intersections are substantially greater than the existing and projected traffic volumes for the LA 6 at LA 117 intersection.

As shown in Table D-2, in all scenarios evaluated, results of the analysis indicated that the modeled concentrations are below the National Ambient Air Quality Standards (NAAQS) for CO, which are 9 parts per million (ppm) for the 1-hour average and 35 ppm for the 8-hour average.

Table D-2. Modeled Worst-Case 1-Hour and 8-Hour Carbon Monoxide Concentrations in 2010 and 2030 and NAAQS for I-49 Intersections.

Case	2010		2030	
	1 Hour (ppm)	8 Hour[(1)] (ppm)	1 Hour (ppm)	8 Hour[(1)] (ppm)
I-49 and Frontage Road at Westwood Drive BUILD	7.5	5.3	5.3	3.8
I-49 and Frontage Road at Westwood Drive NO BUILD	5.4	3.8	4.6	3.3
US 90 at Paul Maillard BUILD	3.7	2.6	3.3	2.4
US 90 at Paul Maillard NO BUILD	4.5	3.2	4.0	2.8
NAAQS	35	9	35	9

[1] Persistence factor used to convert 1-hour results to 8-hour results.

No violations of CO thresholds are anticipated along LA 6 based on the fact that the I-49 CO analysis with greater traffic volumes did not result in any violations of the NAAQS for CO. It is therefore reasonable to conclude that the proposed widening of LA 6 would not violate NAAQS CO standards.

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Appendix E

Wetlands and Other Waters

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Table E-1. Wetlands Within or Proximate to Project Corridor

Name	Type	Size (Acres)	Location with Reference to Existing Roadway	Location by Station	Existing Condition
Wetland 1*	Impounded Emergent	0.06	North	Outside LOC	Class 2
Wetland 2*	Emergent	0.26	North	Outside LOC	Class 2
Wetland 3	Forested	0.43	North	930+40 – 930+55	Class 3
Wetland 4	Riverine Emergent	0.02	North	1080+50 – 1080+55	Class 5
Wetland 5	Prairie Emergent	0.04	South	1110+90	Class 3
Wetland 6	Forested	0.90	North	1200+05 – 1200+35	Class 2
Wetland 7	Prairie Emergent	0.60	North	1200+65 – 1210+10	Class 4
Wetland 8	Riverine Emergent	0.21	South	1210+85 – 1220+95	Class 2
Wetland 9	Emergent	0.67	South	1250+05 – 1250+15	Class 3
Wetland 10	Forested	0.08	North	1290+40 – 1290+50	Class 2
Wetland 11	Forested	0.20	North	1300+60 – 1300+75	Class 3

Class 1 A fully functional, unaltered system with a mature canopy.
Class 2 System with minor aquatic impacts that may naturally recover; canopy is mixed and 20 to 40 years of age.
Class 3 System with minor aquatic impacts that cannot naturally recover.
Class 4 System with major aquatic impacts that will require much human assistance to recover.
Class 5 System with drastic impacts that have removed almost all aquatic functions.
LOC Limits of construction.
*Located outside the limits of construction of the proposed project. Not impacted and, therefore, not illustrated on the plates in Appendix A. Information about this feature is provided for an environmental inventory of the area between the western terminus and the western limit of construction.

Table E-2. Streams Within or Proximate to the Project Corridor

Name	Type	Location with Reference to Existing Roadway	Location by Station	Existing Condition
Stream 1*	Perennial, first-order	North	Outside LOC	Somewhat Impaired
Stream 2*	Perennial, second-order	North and South	Outside LOC	Somewhat Impaired
Stream 3*	Perennial, first-order	North and South	Outside LOC	Somewhat Impaired
Stream 4	Intermittent, first-order	North and South	930+35	Somewhat Impaired
Stream 5	Ephemeral, first-order	North and South	940+70	Somewhat Impaired
Stream 6	Intermittent, first-order	North and South	990+10	Somewhat Impaired
Stream 7	Ephemeral, first-order	North and South	1040+75	Somewhat Impaired
Stream 8	Ephemeral, first-order	North and South	1050+60	Somewhat Impaired
Stream 9	Perennial, second-order	South	1050+70 – 1050+80	Somewhat Impaired
Stream 10	Intermittent, first-order	North and South	1080+55	Impaired
Stream 11	Ephemeral, first-order	North and South	1090+60	Somewhat Impaired
Stream 12	Perennial, third-order	North and South	1210+65	Somewhat Impaired
Stream 12B	Perennial, second-order	North	1210+65 – 1220+20	Somewhat Impaired
Stream 13	Perennial, first-order	North and South	1230+30	Somewhat Impaired
Stream 13B	Intermittent, first-order	North	1230+30 – 1230+50	Somewhat Impaired
Stream 14	Perennial, first-order	North and South	1290+55 – 1290+65	Somewhat Impaired
Stream 15	Perennial, first-order	North and South	1300+60	Somewhat Impaired

LOC Limits of construction.

Somewhat Impaired – Alterations exist within or near the sampled reach, may display atypical characteristics of a natural stream, such as channelization, increases in stream flow velocity, or stream ponding.

Impaired – The functional status of the streambed is significantly altered from natural background conditions, may be due to severe channelization, piping, bank erosion by livestock, or human impacts.

*Located outside the limits of construction of the proposed project. Not impacted and, therefore, not illustrated on the plates in Appendix A. Information about this feature is provided for an environmental inventory of the area between the western terminus and the western limit of construction.

Table E-3. Ponds Within or Proximate to the Project Corridor

Name	Type	Size (Acres)	Location with Reference to the Existing Roadway	Location by Station
Pond 1*	Agricultural	0.109	North	Outside LOC
Pond 2	Residential	0.0057	North	880+35
Pond 3	Residential	1.486	North	900+10
Pond 4	Residential	0.055	South	1030+10
Pond 5	Agricultural	0.3	South	1030+60 – 1030+75
Pond 6	Residential	0.059	South	1080+00
Pond 7	Residential	0.110	North	1200+10
Pond 8	Agricultural	0.382	South	1200+90 – 1210+00
Pond 9	Residential	0.774	South	1250+30
Pond 10	Residential	0.065	South	1270+90
Pond 11	Residential	0.278	North	1300+65 – 1300+75

LOC Limits of construction.

*Located outside the limits of construction of the proposed project. Not impacted and, therefore, not illustrated on the plates in Appendix A. Information about this feature is provided for an environmental inventory of the area between the western terminus and the western limit of construction.

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Appendix F

Solicitation of Views Correspondence

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KATHLEEN BABINEAUX BLANCO
GOVERNOR

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

JOHNNY B. BRADBERRY
SECRETARY

July 24, 2007

STATE PROJECT NO. 700-35-0140
F.A.P. NO. DE-3506(512)
EL CAMINO EAST-WEST CORRIDOR
LA 6 FROM LA 485 TO INTERSTATE 49
NATCHITOCHES PARISH

Re: Solicitation of Views

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

Due to the earliness of this request for your views, very limited data concerning the proposed project area exists. We have, however, attached a map showing the general locations of the project, along with a preliminary project description.

It is requested that you review the attached information and furnish us with your views and comments by **September 04, 2007**. Replies should be addressed to LA DOTD; Environmental Engineer Administrator; P.O. Box 94245; Baton Rouge, Louisiana 70804-9245. Please reference the State Project Number in your reply.

Sincerely,

for Noel Ardoin
Environmental Engineer Administrator

NA/klb
Nick Verret (w/attachments)
Attachments

PROJECT DESCRIPTION
STATE PROJECT NO. 700-35-0140
F.A.P. NO. DE-3506(512)
EL CAMINO EAST-WEST CORRIDOR
LA 6 FROM LA 485 TO INTERSTATE 49
NATCHITOCHES PARISH

The Louisiana Department of Transportation and Development and the El Camino Commission propose to expand a portion of LA 6 between Robeline and I-49. The proposed project area is 8.28 miles in length and is a two-lane rural roadway with lane widths of 12 feet and shoulder widths varying between 8 and 12 feet. It begins at the intersection of LA 6 and LA 485 near Robeline and ends at I-49. The proposed project area is a portion of the El Camino East-West Corridor that extends from Brunswick, Georgia to El Paso, Texas. The entire Louisiana section of this corridor covers nearly 165 miles of roadway from near Vidalia to the Toledo Bend Reservoir.

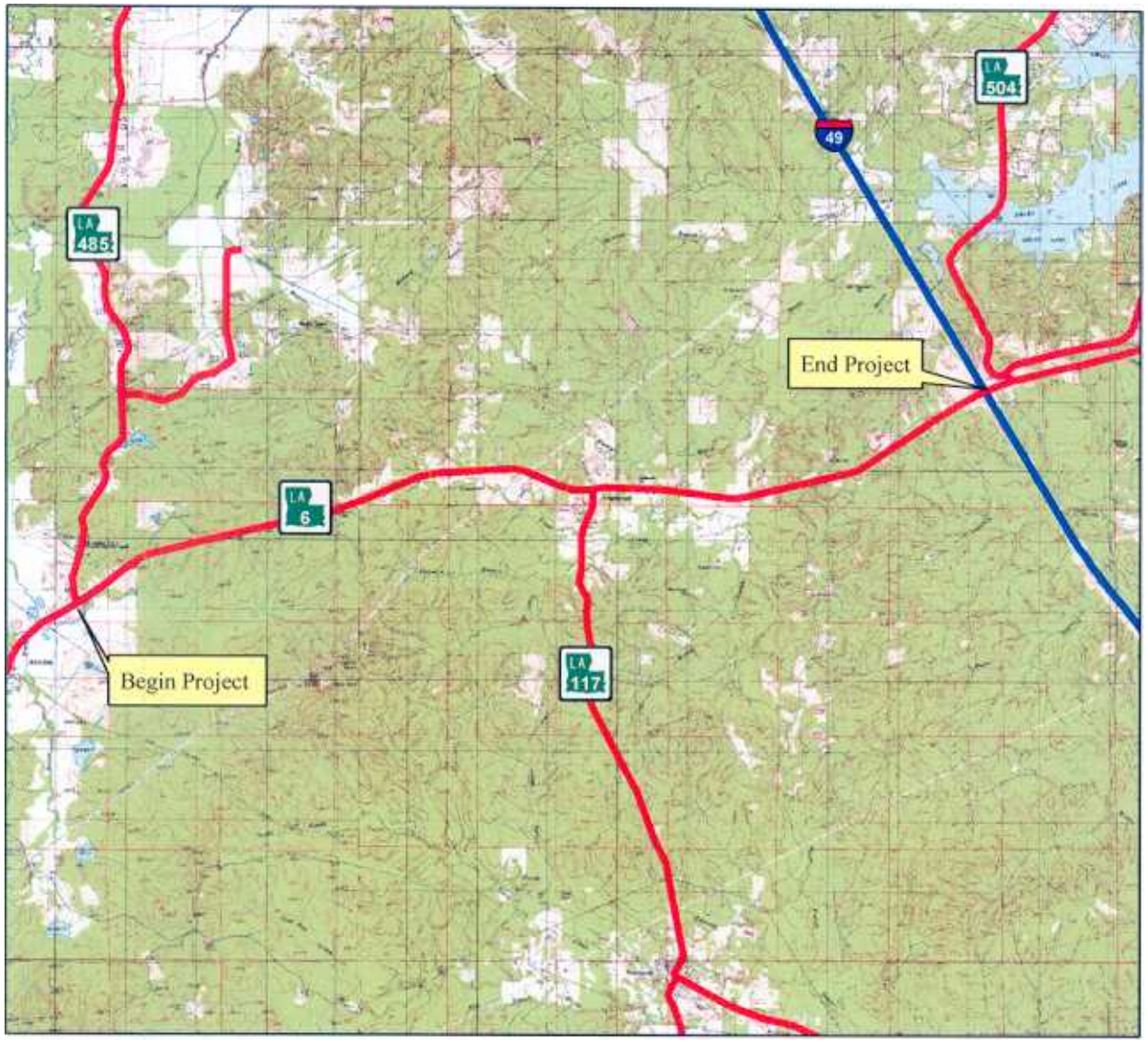
Federal Demonstration Funds (earmarked) have been identified for this project. The purpose of this project is to increase capacity and improve safety along this route. This project also proposes to bring the present facility to current design standards. LA 6 has an Average Daily Traffic (ADT) of 8,196 vehicles with an estimated increase to 12,180 vehicles per day by 2025. This portion of LA 6 was assigned a Level of Service (LOS) of D, but with the proposed improvements it is anticipated that the LOS will be improved to a grade of B.

Two alternatives are currently identified for this proposed project. These are the No-Build Alternative and the Needs Basis Alternative. The No-Build Alternative states that no action will be undertaken. Under the Needs Basis Alternative this portion of LA 6 would be expanded to four 12 foot wide travel lanes divided by a 65 foot wide median. The facility would have 6 foot wide inside shoulders and 10 foot wide outside shoulders. A portion of the roadway may be realigned.

Additional right-of-way will be required, and residential and business relocations are anticipated. It is anticipated that wetlands would be impacted. Analysis will include wetlands, threatened and endangered species, cultural resources, business and residential relocations, community, environmental justice, noise, air, and contamination concerns. Other factors will include the location of floodzones, prime farmland, and threatened and endangered species critical habitats. This study will also utilize readily available GIS information and aerial photographs, as well as on-site visits. Impacts and benefits to the above-referenced resources and communities will be identified and weighed to focus on a preferred alternative. A line and grade study will be performed.

During the environmental process for this project, a public meeting may be held. Other public involvement activities may include agency meetings, an additional public meeting and/or a public hearing. It is anticipated that the Environmental Assessment for this project would be completed in twelve months.

In addition to your comments on the project in general, we respectfully request your comments on the preliminary purpose and need, screening methodology, range of alternatives, and planned coordination efforts. This information will be helpful in the development of the Environmental Assessment for this proposed project.



STATE PROJECT NO. 700-35-0140
F.A.P. NO. DE-3506(512)
EL CAMINO EAST-WEST CORRIDOR
LA 6 FROM LA 485 TO INTERSTATE 49
NATCHITOCHES PARISH

LOUISIANA'S ON THE MOVE...
DOTD
BUILDS THE WAY

DEPARTMENT OF THE ARMY
NEW ORLEANS DISTRICT, CORPS OF ENGINEERS
P. O. BOX 60267
NEW ORLEANS, LOUISIANA 70160-0267

August 2, 2007

REPLY TO
ATTENTION OF

Operations Division
Operations Manager,
Completed Works

Mr. Noel Ardoin
Louisiana Department of Transportation and Development
Post Office Box 94245
Baton Rouge, Louisiana 70804-9245

Dear Mr. Ardoin,

We recently received your Solicitation of Views request dated July 24, 2007, concerning the expansion of a portion of LA 6 between Robeline and I-49 in Natchitoches Parish (State Project No. 700-35-0140).

Since the proposed work will be performed in Natchitoches Parish, which is outside the New Orleans District's regulatory jurisdiction, we are forwarding it to our Vicksburg District for review and comment. Please address any future inquiries in this matter to the following office:

U.S. Army Corps of Engineers, Vicksburg District
Planning, Programs, and Project Management Division
Environmental and Economic Analysis Branch
4155 Clay Street
Vicksburg, Mississippi 39183-3435

Thank you for your patience in this matter.

Sincerely,

Karen L. Oberlies

for Karen L. Oberlies
Solicitation of Views Manager

Charlie Crothers /R8/USDAFS
08/02/2007 02:13 PM

To NoelArdoin@dotd.louisiana.gov
cc Bobby Sebastian/R8/USDAFS@FSNOTES
bcc
Subject Solicitation of Views - Project 700-35-0140 FAP DE-3506(512)

Dear Mr. Ardoin,

Please be advised that the Kisatchie National Forest has no specific comments on this proposal as it traverses lands at a considerable distance from National Forest ownership.

Thank you for your consideration,

Charlie

Charles M. Crothers
Lands / Special Uses / Minerals
United States Department of Agriculture
United States Forest Service

Kisatchie National Forest
2500 Shreveport Hwy
Pineville, LA 71360

Phone: 318 473 7144
FAX: 318 473 7117
e-mail: ccrothers@fs.fed.us

DEPARTMENT OF ENVIRONMENTAL QUALITY

KATHLEEN BABINEAUX BLANCO
GOVERNOR

MIKE D. McDANIEL, Ph.D.
SECRETARY

August 3, 2007

Ms. Noel Ardoin, EEA
La. DOTD
P. O. Box 94245
Baton Rouge, LA 70804-9245

Re: Solicitation of Views (SOV)
State Project No. 700-35-0140
El Camino East-West Corridor
LA 6 From LA 485 to Interstate 49
Natchitoches Parish

Dear Ms. Ardoin:

We have received your request dated July 24, 2007 for LDEQ's comments on the above referenced project. Your request has been forwarded to Ms. Joanna Gardner in the Office of the Secretary. The Contracts & Grants section is no longer the single point of contact for these requests.

Please forward all future SOV requests to the following:

Ms. Joanna Gardner
Office of the Secretary
Louisiana Department of Environmental Quality
P. O. Box 4301
Baton Rouge, LA 70821-4301
(225) 219-3958

If you have any questions concerning this letter, feel free to contact me at (225) 219-3815.

Sincerely,

Sharon Schexnayder
Contracts/Grants Supervisor

ss/vn

cc: Joanna Gardner
Office of the Secretary

MANAGEMENT & FINANCE
: PO BOX 4303, BATON ROUGE, LA 70821-4303
P:225-219-3840 F:225-219-3846
WWW.DEQ.LOUISIANA.GOV

United States Department of the Interior

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

August 3, 2007

Ms. Noel Ardoin
Environmental Engineer Administrator
Louisiana Department of Transportation and Development
Post Office Box 94245
Baton Rouge, Louisiana 70804-9245

Dear Ms. Ardoin:

Please reference your August 2, 2007, letter, requesting our review of the El Camino East-West Corridor widening project on Louisiana Highway 6 (LA 6) from Louisiana Highway 485 to Interstate 49 (FAPN DE-3506(512), SPN 700-35-0140), in Natchitoches Parish, Louisiana. This segment of LA 6 is 8.28 miles long and has 12-foot wide travel lanes with shoulders varying between 8 and 12 feet. The proposed construction would expand the highway to four 12-foot wide travel lanes divided by a 65-foot wide median. The highway would have 6-foot wide inside shoulders and 10-foot wide outside shoulders. A portion of the highway might need to be realigned. The U.S. Fish and Wildlife Service (Service) has reviewed this information, and offers the following comments in accordance with provisions of 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 Louisiana pine snake (*Pituophis ruthveni*) is a candidate species for Federal listing as a threatened or endangered species, and historically occurred in portions of west-central Louisiana and extreme east-central Texas. Candidate species are those taxa for which the Service has on file sufficient information regarding biological vulnerability and threat(s) to support issuance of a proposal to list, but issuance of a proposed rule is currently precluded by higher priority listing actions. According to our records, in Louisiana, the pine snake is known to occur in Bienville, Sabine, Natchitoches, and Vernon Parishes. Pine snakes inhabit areas of longleaf pine with sandy, well-drained soils, substantial herbaceous ground cover, and little midstory (e.g., longleaf pine savannah). The pine snake is highly associated with the pocket gopher (*Geomys breviceps*), a major food source, which is dependent on the same habitat type. Pine snakes are most frequently found near pocket gopher burrow systems and move from one burrow system to another. Threats to this species include the sharp decline in quality and quantity of longleaf pine habitat due to logging, suppression of fire, and short-rotation silviculture, as well as vehicle-related mortality on roads and off-road trails.

Although the proposed project would be located within an area that may be inhabited by the Louisiana pine snake, there is currently no requirement under the Endangered Species Act for

consultation regarding project impacts on that species. In the interest of conserving the Louisiana pine snake, we encourage you to avoid project activities that would adversely affect that species or its habitat. Should it be federally listed as threatened or endangered in the future, however, further consultation on possible project impacts to that species could then be required.

The proposed project will likely impact wetlands. For a complete jurisdictional wetland delineation of the proposed project, please contact Mr. Ken Moseley (601/631-5289) at the Vicksburg District, U.S. Army Corps of Engineers (Corps). If the Corps determines that the proposed project is within their regulatory jurisdiction, official U.S. Fish and Wildlife Service comments will be provided in response to the corresponding Public Notice.

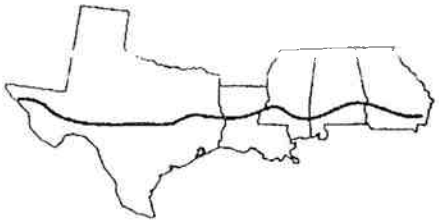
We appreciate the opportunity to provide comments regarding this proposed activity. If you need further assistance, please contact Seth Bordelon (337/291-3138) of this office.

Sincerely,

James F. Boggs
Acting Supervisor
Lafayette Field Office

cc: FHWA, Baton Rouge, LA
Corps of Engineers, Vicksburg, MS

El Camino Corridor Commission



August 6, 2007

Mr. Noel Ardoin
Environmental Engineer Administrator
Box 94245
Baton Rouge, LA 70804-9245

Dear Mr. Ardoin:

We are excited that the project is beginning to gain structure. We have sent a copy of your letter and information to commissioners and legislators whose area will be affected. Please keep us updated, and we will be glad to give you input when it is needed.

We look forward to working with you.

Respectfully,

Mike Tinnerello
Executive Director

sb

9114 Highway 84 Winnfield, LA 71483 (318) 628-2411 elcamino@kricket.net

DEPARTMENT OF THE ARMY
VICKSBURG DISTRICT, CORPS OF ENGINEERS
4155 CLAY STREET
VICKSBURG, MISSISSIPPI 39183-3435

REPLY TO
ATTENTION OF:

August 8, 2007

Planning, Programs, and
Project Management Division
Planning and Project
Management Branch

Mr. Noel Ardoin
Louisiana Department of
Transportation and Development
Environmental Section
P.O. Box 94245
Baton Rouge, Louisiana 70804-9245

Dear Mr. Ardoin:

I refer to your letter of July 24, 2007, regarding the El Camino East-West Corridor, Natchitoches Parish, Louisiana (State Project No. 700-35-0140). The U.S. Army Corps of Engineers, Vicksburg District, has no ongoing or proposed activities in the project area.

If your proposed work involves the discharge of dredged or fill material into wetlands or any other waters of the United States, you may need a Department of the Army permit prior to construction. For further information, please visit our website at http://www.mvk.usace.army.mil/offices/od/odf or contact Mr. Mike McNair (telephone (601) 631-5721).

I trust this information meets your needs. If you have any further questions, please contact Mr. Mike Warren of this office (telephone (601) 631-5008).

Sincerely,

Daniel A. Johnson, P.E.
Chief, Planning and Project
Management Branch

POLICE JURY OF NATCHITOCHES PARISH

PLANNING COMMISSION
P.O. Box 799 - 200 Church Street - Room 210
Natchitoches, Louisiana 71458-0799
Phone (318) 352-2714 • Fax (318) 357-2208

Corrine Jones-Young
Director
Jameica Bernestine
Assistant Director

August 8, 2007

LA DOTD, Environmental Engineer Administrator
P. O. Box 94245
Baton Rouge, Louisiana 70804-9245

RE: State Project NO. 700-35-0140
F.A.P.NO.DE-3506(512)
EL CAMINO EAST-WEST CORRIDOR
LA 6 FRON LA 485 TO INTERSTATE 49
NATCHITOCHES PARISH

Dear Mr. Ardoin:

This letter is in response to your solicitation of views on the references above.

Due to the high traffic volume on this major highway this is a welcomed project for our parish. After viewing the attached map showing the general locations of this project, there are some areas in this project that lie within the 100 year flood zones. With careful planning, I feel that this project will have no major adverse affects in the flood area as a result of this project.

From our prospective, the project can go forth as you have outlined.

Respectfully,

Corrine Jones-Young
Flood Zone Administrator

/CJY

LOUISIANA DEPARTMENT OF AGRICULTURE & FORESTRY
BOB ODOM, COMMISSIONER

August 9, 2007

Mr. Noel Ardoin
LA DOTD; Environmental Engineer Administrator
P.O. Box 94245
Baton Rouge, Louisiana 70804-9245

RE: Solicitation of Views

State Project No. 700-35-0140
F.A.P. NO. DE 3506(512)
El Camino East- West Corridor
LA 6 from LA 485 to Interstate 49
Natchitoches Parish

Dear Mr. Ardoin:

I have no comment at this time regarding the above referenced projects.

Sincerely,

Bradley E. Spicer
Assistant Commissioner

BES:gs

KATHLEEN BABINEAUX BLANCO
GOVERNOR

State of Louisiana
DEPARTMENT OF WILDLIFE AND FISHERIES
OFFICE OF WILDLIFE

BRYANT O. HAMMETT, JR.
SECRETARY
L. BRANDT SAVOIE
DEPUTY ASSISTANT SECRETARY

Date	August 16, 2007
Name	Noel Ardoin
Company	LA DOTD
Street Address	P.O. Box 94245
City, State, Zip	Baton Rouge, LA 70804-9245
Project	El Camion East-West Corridor; LA 6 from LA 485 to I-49 State Project # 700-35-0140 Natchitoches Parish, LA
Invoice Number	07081607

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

Our database indicates that Pale Umbrella-wort (Mirabilis albida) and Southern Lady's-slipper is known to occur near the project area. These plants have an S1 state rank and are considered critically imperiled in Louisiana because of their extreme rarity. Please use caution while working near this area to avoid impacts to this species. Contact LNHP botanist Chris Reid at (225) 765-2828 for more information on avoiding impacts to this rare plant.

Our also database indicates that Awl-shaped Scarf-pea (Pediomelum hypogaeum var. subulatum) is known to occur near the project area. This plant has an S2 state rank and is considered imperiled in Louisiana because of its rarity. Please use caution while working near this area to avoid impacts to this species. Contact LNHP botanist Chris Reid at (225) 765-2828 for more information on avoiding impacts to this rare plant.

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

MAYOR
KENNETH A. FREEMAN

CHIEF OF POLICE
RON LAMBERT

Town of Many

The Heart of Toledo Bend

P.O. Box 1330
Many, Louisiana 71449
(318) 256-3651
FAX (318) 256-4013

ALDERMAN

BARBARA PETERSON
JAMES KENNEDY
JOHN HOAGLAND
JEANETTA DEAN
J.D. BOSTIAN

August 17, 2007

Mr. Noel Ardoin
Environmental Engineer Administrator
State of Louisiana
Department of Transportation and Development
P.O. Box 94245
Baton Rouge, Louisiana 70804-9245

RE: State Project No. 700-35-0140
F.A.P. No. DE-3506(512)
El Camino East-West Corridor
LA 6 from LA 485 to Interstate 49
Natchitoches Parish

Dear Mr. Ardoin:

The El Camino East West Corridor is a five state project that was begun almost twenty years ago for the purpose of four laning the road from El Paso, Texas to Brunswick, Georgia. To date, Mississippi and Georgia are finished, with Texas and Alabama being over 60% complete. Unfortunately, Louisiana has done nothing and is the weak link in this five state chain. Recent studies show that Toledo Bend Reservoir is the second most visited tourist attraction in the state of Louisiana, second only by New Orleans. With Texas almost completing their four laning project to the border of Louisiana it is frustrating to Texas to bring a four lane highway to Louisiana, a dead end. Therefore, I strongly feel four laning at least from I-49 to Texas has earned the obvious definition of needs basis alternative. Studies indicate that to four lane from Texas to I-49 will not impact wetlands, threatened and endangered species, cultural resources, business and residential relocations, community, environmental justice, noise, air and contamination concerns.

The 2000 Census showed that Louisiana had modest population growth with the growth taking place along the I-20 corridor in North Louisiana and I-10 corridor in South Louisiana. The only area to lose significant population and economic development was through the center of the state of Louisiana along the proposed corridor of the El Camino East-West Corridor. If this four laning project is not completed there will be a decline of the way of life in Central Louisiana population and economy, another important reason to place this project in the status of needs basis alternative.

Studies also show that traffic along I-10 in South Louisiana and I-20 in North Louisiana are reaching capacity with a third east/west route (El Camino Real) and this would take the pressure off of and cut travel time for motorist who have to go north or south to get on I-20 or I-10. Yet another reason to place the El Camino Corridor four laning project in the needs basis alternative.

I hope the DOTD recognizes the legitimate importance and significance of this four laning project to the people of the State of Louisiana as well as the citizens who live from El Paso, Texas to Brunswick, Georgia.

Sincerely,

Kenneth Freeman

Kenneth A. Freeman
Board Member East West Corridor
Mayor
Town of Many

DEPARTMENT OF THE ARMY
VICKSBURG DISTRICT, CORPS OF ENGINEERS
4155 CLAY STREET
VICKSBURG, MISSISSIPPI 39183-3435

REPLY TO
ATTENTION OF:

August 24, 2007

Operations Division

SUBJECT: Comments Concerning Proposed StateProject No. 700-35-0140, El Camino East-West Corridor, Louisiana Highway 6 from Louisiana Highway 485 to Interstate 49, Natchitoches Parish, Louisiana

Ms. Noel Ardoin
Environmental Engineer Administrator
Louisiana Department of Transportation
and Development
Post Office Box 94245
Baton Rouge, Louisiana 70804-9245

Dear Ms. Ardoin:

I am writing in response to your letter dated July 24, 2007, for comments regarding the proposed state project No. 700-35-0140, El Camino East-West Corridor, Natchitoches Parish, Louisiana.

It is possible that the proposed work may affect jurisdictional waters of the United States pursuant to Section 404 of the Clean Water Act. Juridictional areas, if present, should be identified as early in the process as possible.

Please be advised that any proposed clearing or filling of wetlands will require a Department of the Army Section 404 permit prior to beginning work. Should you anticipate conducting permit requiring activities, we recommend you submit a completed application well in advance (90 to 120 days) of the proposed starting date.

If you have any questions, please contact Ms. A. Susan Jarvis, telephone (601) 631-5146, fax (601) 631-5459, or e-mail address: regulatory@mvk02.usace.army.mil. In any future correspondence, please refer to identification No. MVK-2007-959.

Sincerely,

David Lofton

Michael F. McNair, R.F.
for Acting Chief, Regulatory Branch

United States Department of Agriculture

NRCS
Natural Resources Conservation Service
2737 Government Street
Alexandria, LA 71302

August 29, 2007

Mr. Noel Ardoin
Assistant Environmental Engineer
LA Dept. of Transportation and Development
P. O. Box 94245
Baton Rouge, Louisiana 70804-9245

Dear Mr. Ardoin:

RE: **SP #700-35-0140**
FAP # DE-3506 (512)
EL CAMINO EAST-WEST CORRIDOR
LA 6 FROM LA 485 TO I-49
NATCHITOCHES PARISH

Thank you for providing our agency with the opportunity to respond to your letter wherein you requested views and comments regarding the above project.

You have stated in the project description that should the decision be made to construct the project, additional right of way will be required. Our Soil Survey indicates that the soils present on approximately 30% of the site are prime/unique farmland soil. If federal funds are involved, a determination of the "prime" farm land conversion impact, if any, will have to be made in accordance with the provisions of the Farmland Protection Policy Act of 1981.

A small portion of the project site contains soils that are considered hydric. There will be a slight alteration to wetlands during construction. Mitigation may be required. NRCS recommends that the Project Sponsor contact the Corps of Engineers for determination of any requirements.

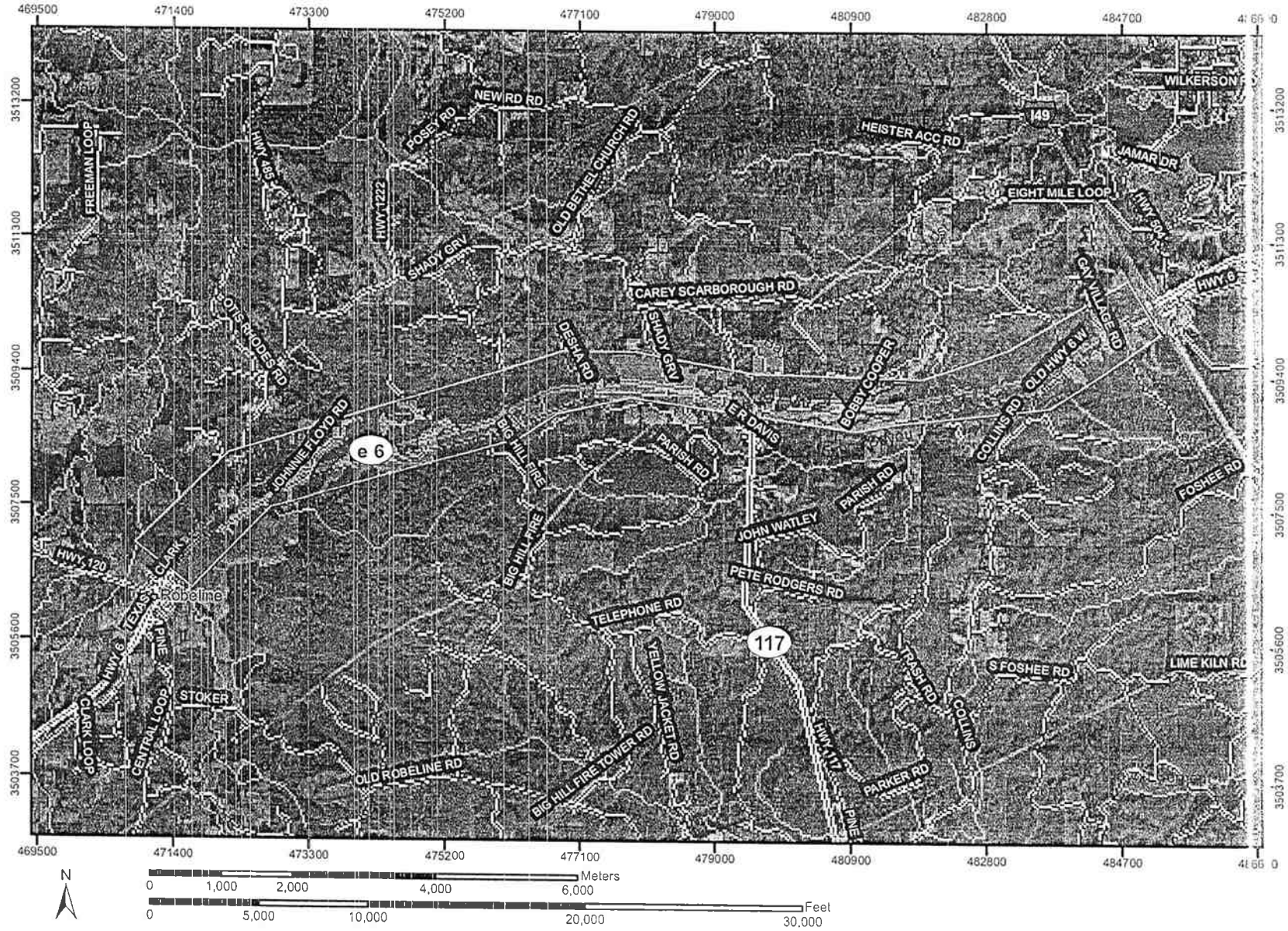
It does not appear that the proposed project will affect any NRCS activity in the immediate vicinity. Further, we do not believe there will be an adverse effect on the surrounding environment provided appropriate erosion control measures are taken during construction.

Should you have questions regarding the above comments, please feel free to contact Glenn Austin, District Conservationist in our Natchitoches Field Office, at (318) 357-8366.

Sincerely,

E. J. Giering III, P.E.
State Conservation Engineer

cc: Glenn Austin, District Conservationist, Natchitoches Field Office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WILKERSON
NEW RD RD
POSEY RD
HWY 485
HWY 1222
FREEMAN LOOP
OLD BETHEL CHURCH RD
HEISTER ACC RD
149
JAMAR DR
EIGHT MILE LOOP
HWY 6
SHADY GRV
CAREY SCARBOROUGH RD
GAY VILLAGE RD
OTIS RHODES RD
DESHA RD
BOBBY COOPER
OLD HWY 6 W
COLLINS RD
E R DAVIS
JOHNNIE FLOYD RD
e 6
BIG HILL FIRE
PARISH RD
FOSHEE RD
JOHN WATLEY
HWY 120
CLARK
Robeline
TEXAS
PINE
PETE RODGERS RD
TELEPHONE RD
117
S FOSHEE RD
LIME KILN RD
HWY 6
STOKER
CLARK LOOP
CENTRAL LOOP
YELLOW JACKET RD
TRASH RD
COLLINS
HWY 117
OLD ROBELINE RD
BIG HILL FIRE TOWER RD
PARKER RD
N
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10,000
20,000
30,000
Feet

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

- Soil Map Units

Soil Ratings

- Not prime farmland
- All areas are prime farmland
- Prime farmland if drained
- Prime farmland if protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated
- Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated and drained
- Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if subsoiled, completely removing the root inhibiting soil layer
- Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
- Prime farmland if irrigated and reclaimed of excess salts and sodium
- Farmland of statewide importance
- Farmland of local importance
- Farmland of unique importance
- Not rated or not available

Political Features

Municipalities

- Cities
- Urban Areas

Water Features

- Oceans
- Streams and Canals

Transportation

- Rails

Roads

- Interstate Highways
- US Routes
- State Highways
- Local Roads
- Other Roads

MAP INFORMATION

Original soil survey map sheets were prepared at publication scale. Viewing scale and printing scale, however, may vary from the original. Please rely on the bar scale on each map sheet for proper map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov
Coordinate System: UTM Zone 15N

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Natchitoches Parish, Louisiana
Survey Area Data: Version 6, Jun 15, 2007

Date(s) aerial images were photographed: 1998

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Farmland Classification

Farmland Classification— Summary by Map Unit — Natchitoches Parish, Louisiana				
Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
Bc	Bellwood clay, 1 to 5 percent slopes	Not prime farmland	273.9	9.0%
Bd	Bellwood clay, 5 to 12 percent slopes	Not prime farmland	78.7	2.6%
Br	Briley loamy fine sand, 1 to 5 percent slopes	Not prime farmland	146.9	4.8%
Cb	Kenefick fine sandy loam, 1 to 5 percent slopes	All areas are prime farmland	64.5	2.1%
Gy	Guyton silt loam, frequently flooded	Not prime farmland	391.2	12.8%
Ke	Keithville loam, 1 to 5 percent slopes	All areas are prime farmland	56.4	1.8%
Na	Natchitoches sandy clay loam, 1 to 5 percent slopes	Not prime farmland	220.3	7.2%
Nh	Natchitoches sandy clay loam, 5 to 12 percent slopes	Not prime farmland	72.3	2.4%
Sa	Sacul fine sandy loam, 1 to 5 percent slopes	All areas are prime farmland	883.1	28.9%
Sc	Sacul fine sandy loam, 5 to 12 percent slopes	Not prime farmland	854.6	28.0%
W	Water	Not prime farmland	13.8	0.5%
Totals for Area of Interest (AOI)			3,056.0	100.0%

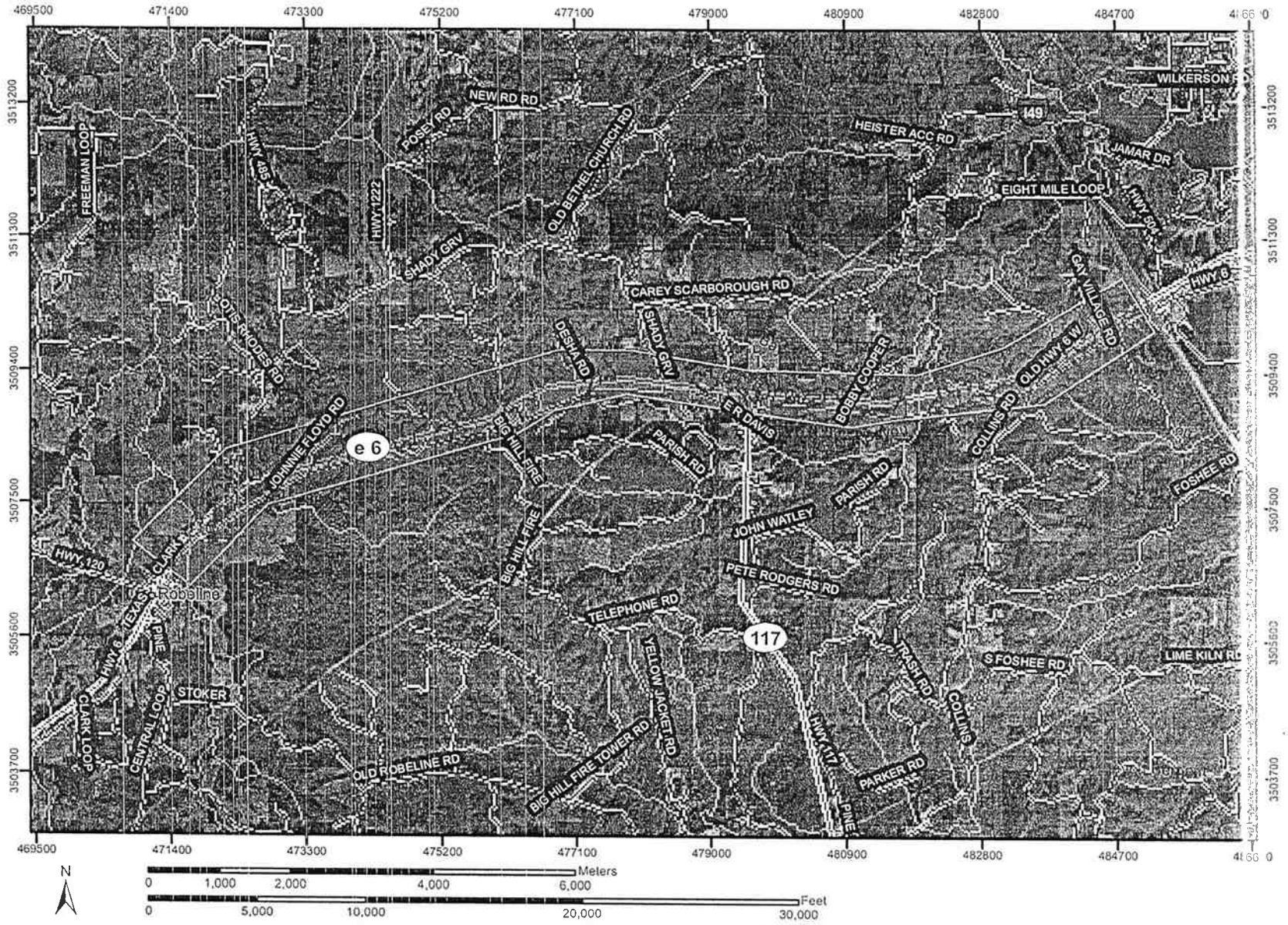
Description

Farmland classification identifies map units as prime farmland, farmland of statewide importance, farmland of local importance, or unique farmland. It identifies the location and extent of the soils that are best suited to food, feed, fiber, forage, and oilseed crops. NRCS policy and procedures on prime and unique farmlands are published in the "Federal Register," Vol. 43, No. 21, January 31, 1978.

Rating Options

Aggregation Method: No Aggregation Necessary

Tie-break Rule: Lower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3507500
3505600
3503700
FREEMAN LOOP
HWY 485
POSEY RD
NEW RD RD
HWY 1222
OLD BETHEL CHURCH RD
HEISTER ACC RD
149
WILKERSON
JAMAR DR
EIGHT MILE LOOP
HWY 6
SHADY GRV
CAREY SCARBOROUGH RD
OTIS RHODES RD
DESHM RD
GW VILLAGE RD
OLD HWY 6 W
BOBBY COOPER
JOHNNIE FLOYD RD
e 6
BIG HILL FIRE
E R DAVIS
PARISH RD
COLLINS RD
FOSHEE RD
JOHN WATLEY
HWY 120
CLARKS
Robeline
TEXAS
PETE RODGERS RD
TELEPHONE RD
117
YELLOW JACKET RD
TRASH RD
S FOSHEE RD
LIME KILN RD
HWY 6
PINE
STOKER
CLARK LOOP
CENTRAL LOOP
OLD ROBELINE RD
BIG HILL FIRE TOWER RD
HWY 117
COLLINS
PARKER RD
N
Meters
0
1,000
2,000
4,000
6,000
Feet
0
5,000
10,000
20,000
30,000

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Units

Soil Ratings
- All Hydric
- Partially Hydric
- Not Hydric
- Unknown Hydric
- Not rated or not available

Political Features

Municipalities
- Cities
- Urban Areas

Water Features
- Oceans
- Streams and Canals

Transportation
- Rails

Roads
- Interstate Highways
- US Routes
- State Highways
- Local Roads
- Other Roads

MAP INFORMATION

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Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov
Coordinate System: UTM Zone 15N

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Natchitoches Parish, Louisiana
Survey Area Data: Version 6, Jun 15, 2007

Date(s) aerial images were photographed: 1998

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydric Rating by Map Unit

Hydric Rating by Map Unit— Summary by Map Unit — Natchitoches Parish, Louisiana				
Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
Bc	Bellwood clay, 1 to 5 percent slopes	Not Hydric	273.9	9.0%
Bd	Bellwood clay, 5 to 12 percent slopes	Not Hydric	78.7	2.6%
Br	Briley loamy fine sand, 1 to 5 percent slopes	Not Hydric	146.9	4.8%
Cb	Kenefick fine sandy loam, 1 to 5 percent slopes	Not Hydric	64.5	2.1%
Gy	Guyton silt loam, frequently flooded	All Hydric	391.2	12.8%
Ke	Keithville loam, 1 to 5 percent slopes	Not Hydric	56.4	1.8%
Na	Natchitoches sandy clay loam, 1 to 5 percent slopes	Not Hydric	220.3	7.2%
Nh	Natchitoches sandy clay loam, 5 to 12 percent slopes	Not Hydric	72.3	2.4%
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W	Water	Not Hydric	13.8	0.5%
Totals for Area of Interest (AOI)			3,056.0	100.0%

State of Louisiana

KATHLEEN BABINEAUX BLANCO
GOVERNOR

SCOTT A. ANGELLE
SECRETARY

JAMES H. WELSH
COMMISSIONER OF CONSERVATION

DEPARTMENT OF NATURAL RESOURCES
OFFICE OF CONSERVATION

August 29, 2007

TO: LA DOTD
Environmental Engineer Administrator
P. O. Box 94245
Baton Rouge, LA 70804-9245
Attention: Ms. Noel Ardoin

RE: STATE PROJECT NO.: 700-35-0140
F. A. P. NO.: DE-3506(512)
EL CAMINO EAST-WEST CORRIDOR
LA 6 FROM LA 485 TO INTERSTATE 49
NATCHITOCHES PARISH

Dear Ms. Ardoin:

In response to your letter dated July 24, 2007, 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 no active oil, gas, injection or water wells in and adjacent to the project area. The project should have no adverse impact on the registered water wells in the vicinity of the project area. Due care must be taken to accurately locate any other wells that may have been 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

KATHLEEN BABINEAUX BLANCO
GOVERNOR

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

JOHNNY B. BRADBERRY
SECRETARY

September 4, 2007

STATE PROJECT NO. 700-35-0140
F.A.P. NO. DE- 3506 (512)
NAME: EL CAMINO EAST-WEST CORRIDOR
ROUTE: LA 6 FROM LA 485 TO INTERSTATE 49
PARISH: NATCHITOCHES

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

Subject: Solicitation of Views

Dear Ms. Ardoin,

Enclosed is a copy of the Flood Insurance Rate Map (FIRM) for Natchitoches Parish indicating the proposed project area.

During and after the project, consideration must be given for the occurrence of a base flood inundation. At this time, consideration should also be given to the responsibility for clearing debris and keeping the area cleared so as not to interfere with its function.

In order to assure compliance with the National Flood Insurance Program (NFIP), and ensure that appropriate permits are obtained, please contact the floodplain administrator for Natchitoches Parish. The contact person is: Ms. Corrine Jones, P.O. Box 799, Natchitoches, LA., 71457-0799 and telephone no. 318-352-2714.

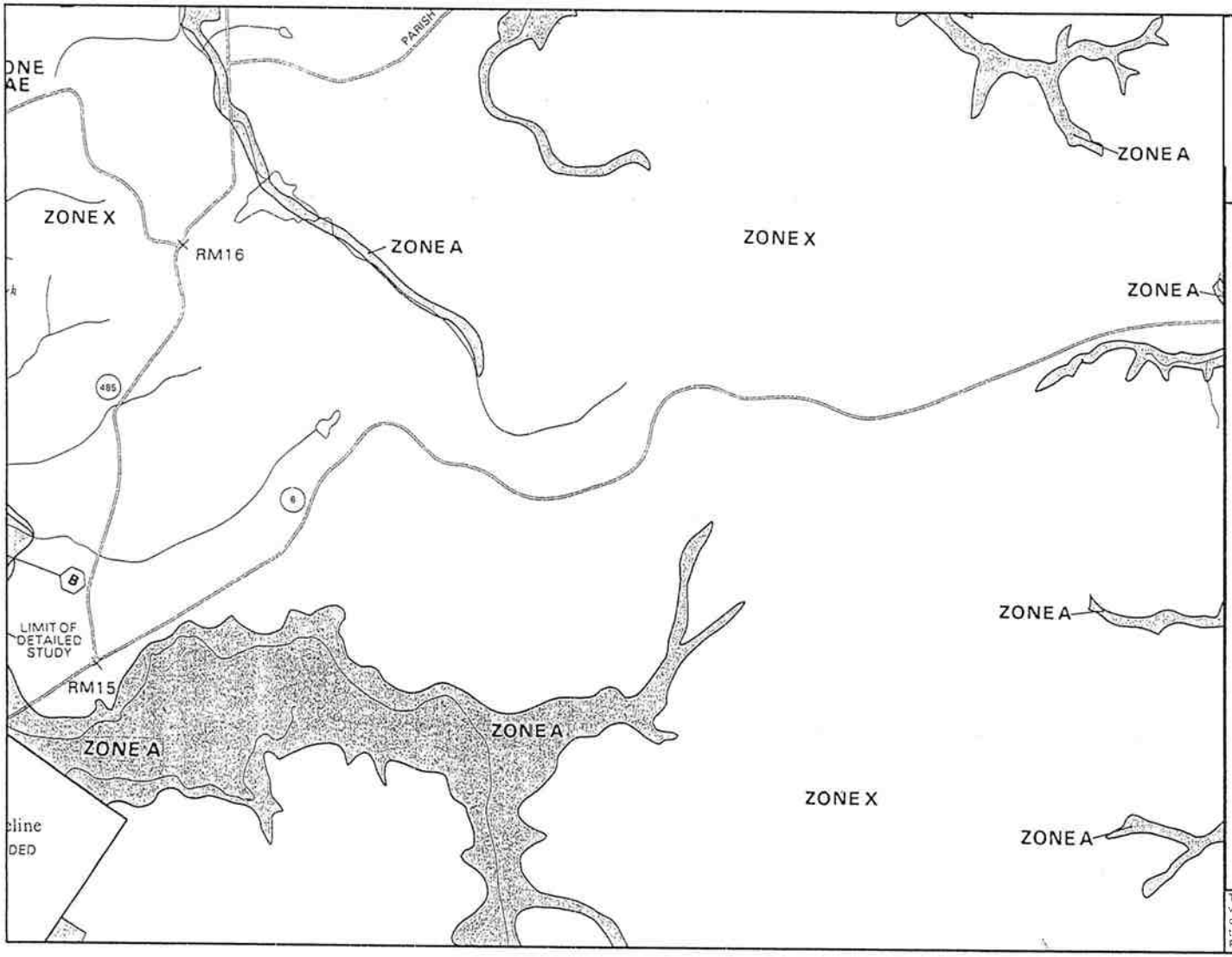
We thank you for the opportunity to comment on this project. If you need additional information, please contact our office, (225) 274-4354.

Sincerely,

Susan Veillon

Susan Veillon
Floodplain Management Program Coordinator

pc: Ms. Corrine Jones



APPROXIMATE SCALE

2000 0 2000 FEET

NATIONAL FLOOD INSURANCE PROGRAM

FIRM

FLOOD INSURANCE RATE MAP

NATCHITOCHES PARISH
LOUISIANA
UNINCORPORATED AREAS

PANEL 250 OF 425
(SEE MAP INDEX FOR PANELS NOT PRINTED)

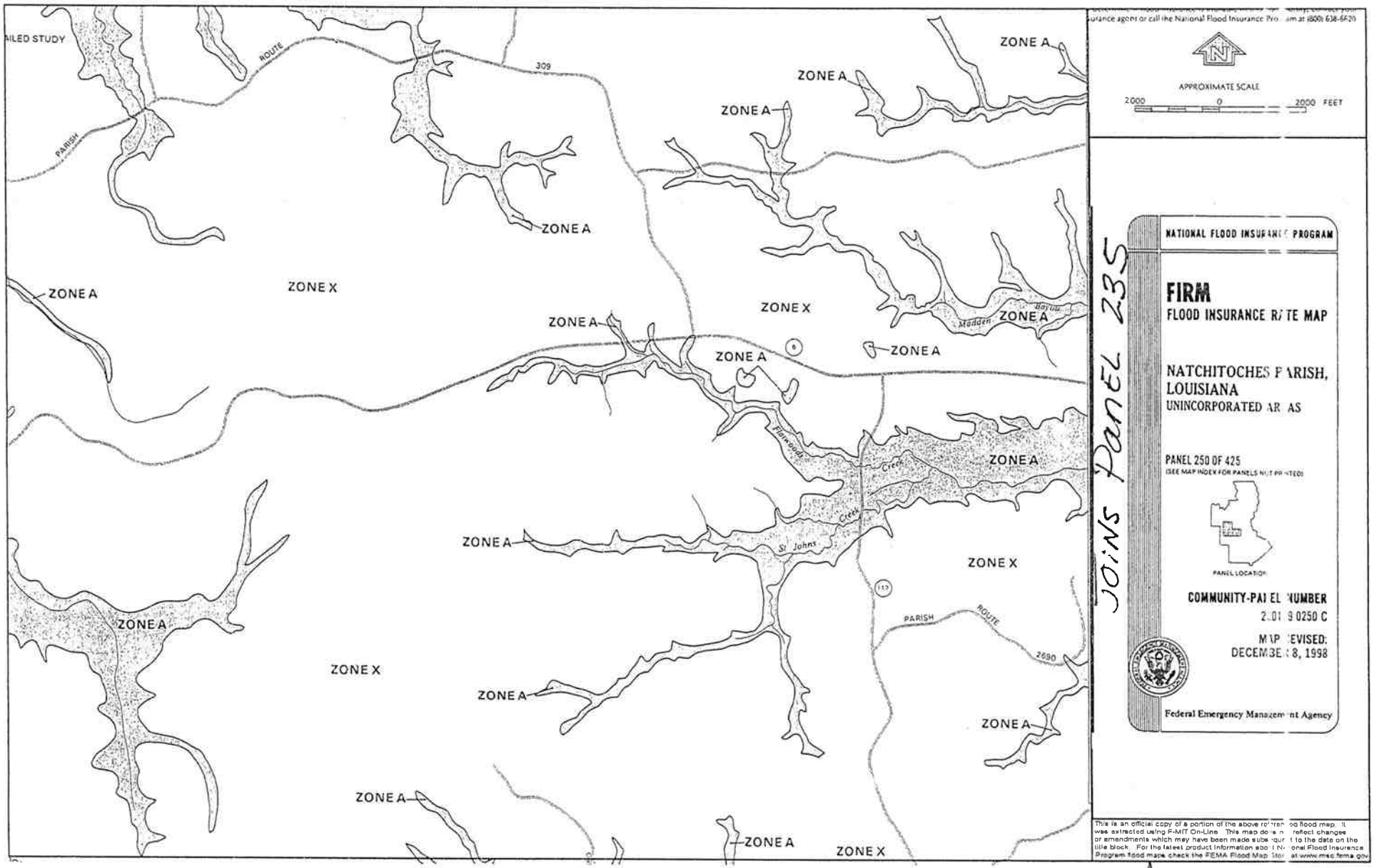
PANEL LOCATION

COMMUNITY-PANEL NUMBER
220129 0250 C

MAP REVISED
DECEMBER 8, 1998

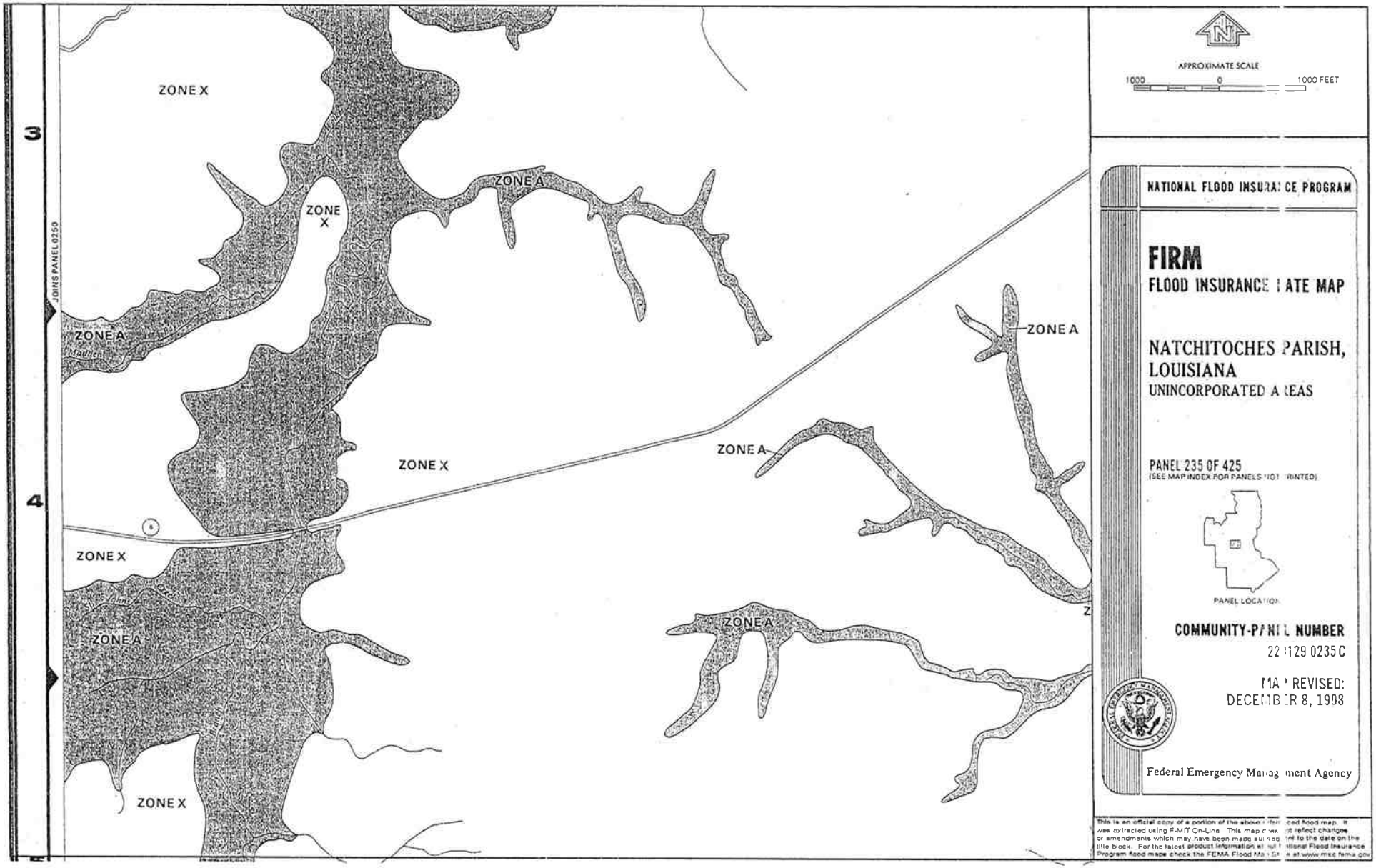
Federal Emergency Management Agency

MAP (1)



Joins Panel 235

MAP-2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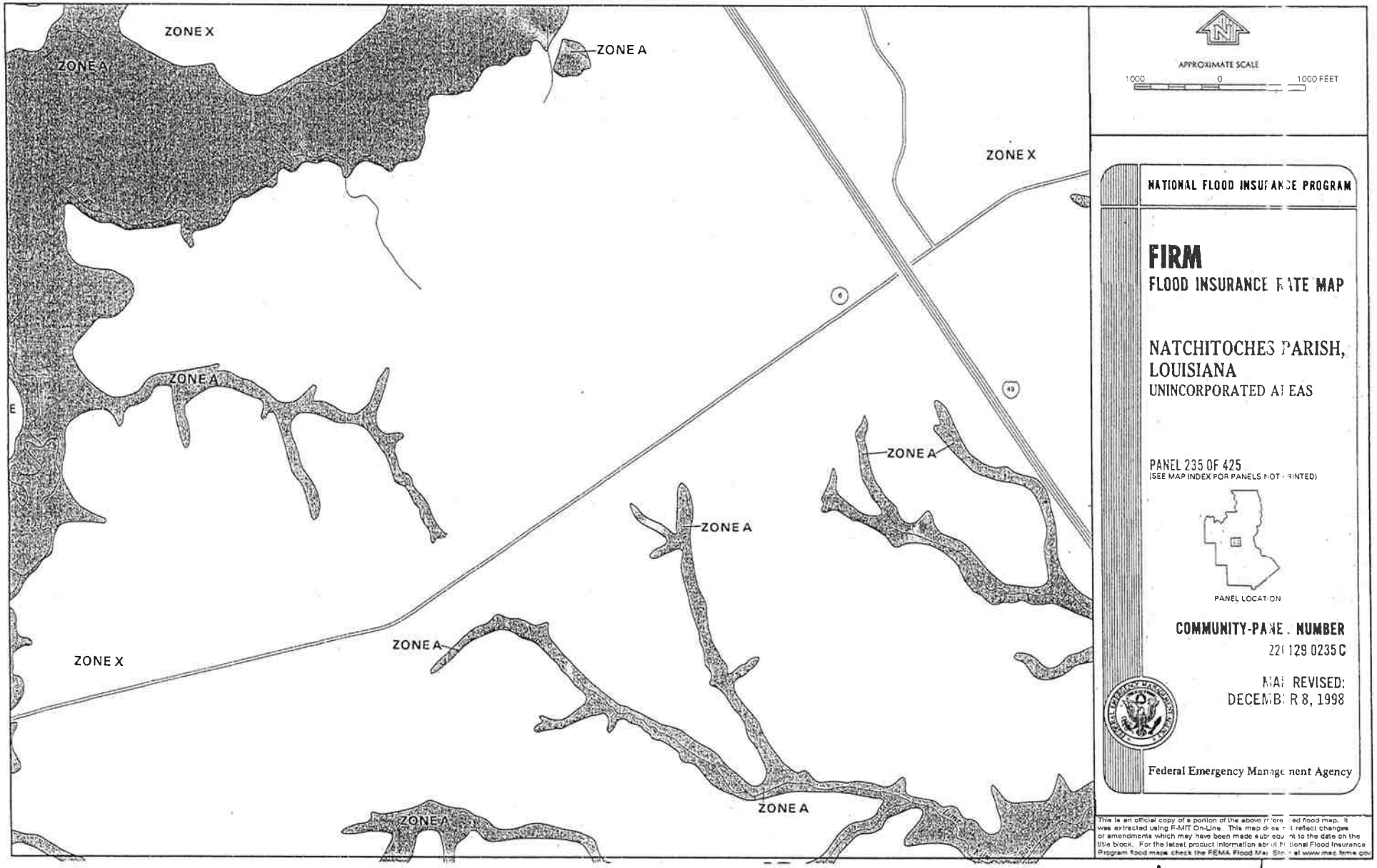
4
JOINS PANEL 0250
APPROXIMATE SCALE
1000 0 1000 FEET
NATIONAL FLOOD INSURANCE PROGRAM
FIRM
FLOOD INSURANCE RATE MAP
NATCHITOCHES PARISH, LOUISIANA
UNINCORPORATED AREAS
PANEL 235 OF 425
(SEE MAP INDEX FOR PANELS NOT PRINTED)
PANEL LOCATION
COMMUNITY-PANEL NUMBER
220129 0235 C
MAP REVISED:
DECEMBER 8, 1998
Federal Emergency Management Agency

MAP-3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APPROXIMATE SCALE
1000 0 1000 FEET
NATIONAL FLOOD INSURANCE PROGRAM
FIRM
FLOOD INSURANCE RATE MAP
NATCHITOCHES PARISH, LOUISIANA
UNINCORPORATED AREAS
PANEL 235 OF 425
(SEE MAP INDEX FOR PANELS NOT PRINTED)
PANEL LOCATION
COMMUNITY-PANEL NUMBER
220129 0235C
MAP REVISED:
DECEMBER 8, 1998
Federal Emergency Management Agency
This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

MAP-4

CADDO TRIBE OF OKLAHOMA
Cultural Preservation Department
P.O. Box 487
Binger, Oklahoma 73009
405-656-2901 405-656-2344
Fax # 405-656-2892

September 11, 2007

Mr. Noel Ardoin
Environmental Engineer Administrator
State of Louisiana
Department of Transportation
And Development
P. O. Box 94245
Baton Rouge, Louisiana 70804-9245

Re: State Project No. 700-35-01-0140, F. A. P. No., DE-3506(512), El Camino East-West Corridor LA 6 From LA 485 to Interstate 49, Natchitoches Parish

Dear Mr. Ardoin:

Please let this letter be notice that we want to be consulted with regarding the above referenced project. As you may be aware, the El Camino Real is most likely a Caddo Indian route that was used before the explorations of the Spanish. In Texas, it was known as the El Camino Real de los Tejas. The "Tejas" that was being referenced to were the "Kingdom of the Tejas" which were the Caddo Indians living in the area. The National Park Service has also recognized this as part of the National Trails Sytems.

There is a unique history relating to the "King's Highway" that should recognize that the Caddo Nation is also a large part of the history of this particular feature.

Sincerely,

Robert Cast
THPO
Caddo Nation

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TX 75202-2733

November 13, 2007

Noel Ardoin
Environmental Engineer Administrator
Louisiana Department of Transportation and Development
P.O. Box 94245
Baton Rouge, Louisiana 70804-9245

Dear Mr. Ardoin:

The Environmental Protection Agency (EPA) Region 6 has received your correspondence (copy enclosed), dated July 24, 2007, regarding State Project No. 7000-35-0140. According to the National Environmental Policy Act, EPA is not required to comment since the project does not involve EPA funding.

This letter does not represent approval or disapproval of your project, only an acknowledgment that we received your letter. Our acknowledgment does not preclude the propose project from complying with any and all applicable regulations.

Thank you for your letter. If you have questions, please don't hesitate to contact me Cathy Gilmore at 214-665-6766 or gilmore.cathy@epa.gov.

Sincerely,

Cathy Gilmore

Cathy Gilmore, Chief
Office of Planning and Coordination
Compliance Assurance and Enforcement Division

NATCHITOCHES PARISH MAILING LIST
UPDATED March 16, 2005

LOUISIANA STATE POLICE
TROOP E
1710 ODOM ST
ALEXANDRIA LA 71301-7415

NATCHITOCHES PARISH CHAMBER
OF COMMERCE
P O BOX 3
NATCHITOCHES LA 71458-0003

NATCHITOCHES PARISH PLANNING COMM
700 TRUDEAU
NATCHITOCHES LA 71458

NATCHITOCHES PARISH SCHOOL BOARD
P O BOX 16
NATCHITOCHES LA 71457

NATCHITOCHES SOIL AND WATER
CONSERVATION
DISTRICT OF LOUISIANA
6949 HWY 1 BY-PASS
NATCHITOCHES LA 71457

MS. AMY POWELL
DEPT OF THE ARMY – TECH SUPPORT
P O BOX 60267
NEW ORLEANS LA 70538

FEDERAL PROG. REV. COORD.
N. W. REGIONAL CLEARINGHOUSE
P O BOX 37005
SHREVEPORT LA 71133-7005

NATCHITOCHES PARISH CIVIL DEFENSE
DIRECTOR
P O BOX 751
NATCHITOCHES LA 71457

NATCHITOCHES PARISH POLICE JURY
P O BOX 799
NATCHITOCHES LA 71457-0799

NATCHITOCHES PARISH SHERIFF
P O BOX 266
NATCHITOCHES LA 70457

HONORABLE T TAYLOR TOWNSEND
LA HOUSE OF REPRESENTATIVES
DISTRICT 23
P O BOX 756
NATCHITOCHES LA 71458

U. S. DEPT OF AGRICULTURE KISATCHIE
NATIONAL FOREST
2500 SHREVEPORT HIGHWAY
PINEVILLE LA 71360

FLOODPLAIN ADMINISTRATOR
NATCHITOCHES PARISH POLICE JURY
P O BOX 799
NATCHITOCHES LA 71457

MR. DOUGLAS J KAMIEN PE
DEPUTY FOR PROGRAMS AND
PROJECT MANAGEMENT
VICKSBURG DISTRICT
CORPS OF ENGINEERS
4155 CLAY STREET
VICKSBURG MS 39183-3435

HONORABLE KENNETH MIKE SMITH
THE STATE SENATE
DISTRICT 31
PO BOX 1381
WINNFIELD, LA 71483

MR TOMMY BOLTON, TRIBAL CHAIR
CHOCTAW-APACHE COMMUNITY OF EBARB
PO BOX 1428
ZWOLLE, LA 71486

MISSISSIPPI BAND OF CHOCTAW INDIAN
PHILLIP MARTIN, CHAIRMAN
P O BOX 6257
PHILADELPHIA MS 39350

JENA BAND OF CHOCTAWS
MS CHRISTINE NORRIS
P O BOX 14
JENA LA 71342

CADDO NATION OF OKLAHOMA
P O BOX 487
BINGER OK 73009

CHECK WHICH CORP DISTRICT
BEFORE MAILING

Mike Tinnerello
Executive Director
El Camino Corridor Commission
9114 Highway 84
Winnfield, LA 71483

Hyram Copeland
Mayor, City of Vidalia
President, El Camino Corriodor Commission
P.O. Box 2010
Vidalia, LA 71373

Appendix G

Farmland Conversion Rating Form

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United States Department of Agriculture

NRCS

Natural Resources Conservation Service
3737 Government Street
Alexandria, LA 71302

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

April 23, 2009

Lynn A. Maloney-Mujica
Senior Planner/Scientist
ARCADIS
10352 Plaza Americana Drive
Baton Rouge, Louisiana 70816

RE: Prime Farmlands Present Within the Proposed Alternatives for El Camino East/West Corridor on LA 6 in Natchitoches Parish, Louisiana

Dear Ms. Lynn:

Per your request, we have reviewed the soils information for the project sites (alternative A, B, and C) 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. All three corridors had a relative value of 47. 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 the project areas. The office review of the soils map indicates that all three project sites do contain areas of the Gy-Guyton silt loam, frequently flooded which are hydric soils. 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: Glen Austin, Jr., District Conservationist, NRCS, Natchitoches 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 4/22/09	4. Sheet 1 of 1
1. Name of Project	El Camino East/West Corridor	5. Federal Agency Involved	Federal Highway Administration
2. Type of Project	Widening of Louisiana Hwy 6	6. County and State	Natchitoches, Louisiana
PART II *(To be completed by NRCS)*		1. Date Request Received by NRCS 4/22/09	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: N/A	Average Farm Size: 366
5. Major Crop(s): Cotton, Corn, Soybeans	6. Farmable Land in Government Jurisdiction: Acres: 500,760 % 60	7. Amount of Farmland As Defined in FPPA: Acres: 474,830	% 60
8. Name Of Land Evaluation System Used: Natchitoches Parish LESA	9. Name of Local Site Assessment System: None	10. Date Land Evaluation Returned by NRCS: 4/23/09	

PART III *(To be completed by Federal Agency)*	Alternative Corridor For Segment			
	Corridor A	Corridor B	Corridor C	Corridor D
A. Total Acres To Be Converted Directly	125	126	135	
B. Total Acres To Be Converted Indirectly, Or To Receive Services	0	0	0	
C. Total Acres In Corridor	125	126	135	0
PART IV *(To be completed by NRCS) Land Evaluation Information*				
A. Total Acres Prime And Unique Farmland	74	74	61	
B. Total Acres Statewide And Local Important Farmland	20	20	22	
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted	.02	.02	.03	
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value	72	72	72	
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)*	47	47	47	
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	15	15	15	
2. Perimeter in Nonurban Use — 10	10	10	10	
3. Percent Of Corridor Being Farmed — 20	10	10	10	
4. Protection Provided By State And Local Government — 20	0	0	0	
5. Size of Present Farm Unit Compared To Average — 10	5	5	5	
6. Creation Of Nonfarmable Farmland — 25	0	0	0	
7. Availablility Of Farm Support Services — 5	2	2	2	
8. On-Farm Investments — 20	10	10	10	
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	52	52	52	0
PART VII *(To be completed by Federal Agency)*				
Relative Value Of Farmland (From Part V) — 100				
Total Corridor Assessment (From Part VI above or a local site assessment) — 160	52	52	52	0
TOTAL POINTS *(Total of above 2 lines)* — 260	52	52	52	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

CORRIDOR - TYPE SITE ASSESSMENT CRITERIA

The following criteria are to be used for projects that have a linear or corridor - type site configuration connecting two distant points, and crossing several different tracts of land. These include utility lines, highways, railroads, stream improvements, and flood control systems. Federal agencies are to assess the suitability of each corridor - type site or design alternative for protection as farmland along with the land evaluation information.

(1) How much land is in nonurban use within a radius of 1.0 mile from where the project is intended?
More than 90 percent - 15 points
90 to 20 percent - 14 to 1 point(s)
Less than 20 percent - 0 points

(2) How much of the perimeter of the site borders on land in nonurban use?
More than 90 percent - 10 points
90 to 20 percent - 9 to 1 point(s)
Less than 20 percent - 0 points

(3) How much of the site has been farmed (managed for a scheduled harvest or timber activity) more than five of the last 10 years?
More than 90 percent - 20 points
90 to 20 percent - 19 to 1 point(s)
Less than 20 percent - 0 points

(4) Is the site subject to state or unit of local government policies or programs to protect farmland or covered by private programs to protect farmland?
Site is protected - 20 points
Site is not protected - 0 points

(5) Is the farm unit(s) containing the site (before the project) as large as the average - size farming unit in the County ? (Average farm sizes in each county are available from the NRCS field offices in each state. Data are from the latest available Census of Agriculture, Acreage or Farm Units in Operation with $1,000 or more in sales.)
As large or larger - 10 points
Below average - deduct 1 point for each 5 percent below the average, down to 0 points if 50 percent or more below average - 9 to 0 points

(6) If the site is chosen for the project, how much of the remaining land on the farm will become non-farmable because of interference with land patterns?
Acreage equal to more than 25 percent of acres directly converted by the project - 25 points
Acreage equal to between 25 and 5 percent of the acres directly converted by the project - 1 to 24 point(s)
Acreage equal to less than 5 percent of the acres directly converted by the project - 0 points

(7) Does the site have available adequate supply of farm support services and markets, i.e., farm suppliers, equipment dealers, processing and storage facilities and farmer's markets?
All required services are available - 5 points
Some required services are available - 4 to 1 point(s)
No required services are available - 0 points

(8) Does the site have substantial and well-maintained on-farm investments such as barns, other storage building, fruit trees and vines, field terraces, drainage, irrigation, waterways, or other soil and water conservation measures?
High amount of on-farm investment - 20 points
Moderate amount of on-farm investment - 19 to 1 point(s)
No on-farm investment - 0 points

(9) Would the project at this site, by converting farmland to nonagricultural use, reduce the demand for farm support services so as to jeopardize the continued existence of these support services and thus, the viability of the farms remaining in the area?
Substantial reduction in demand for support services if the site is converted - 25 points
Some reduction in demand for support services if the site is converted - 1 to 24 point(s)
No significant reduction in demand for support services if the site is converted - 0 points

(10) Is the kind and intensity of the proposed use of the site sufficiently incompatible with agriculture that it is likely to contribute to the eventual conversion of surrounding farmland to nonagricultural use?
Proposed project is incompatible to existing agricultural use of surrounding farmland - 10 points
Proposed project is tolerable to existing agricultural use of surrounding farmland - 9 to 1 point(s)
Proposed project is fully compatible with existing agricultural use of surrounding farmland - 0 points

Alternative "A"

Prime and other Important Farmlands

Natchitoches Parish, Louisiana

Map symbol	Map unit name	Farmland classification
Cb	Kenefick fine sandy loam, 1 to 5 percent slopes	All areas are prime farmland
Ke	Keithville loam, 1 to 5 percent slopes	All areas are prime farmland
Sa	Sacul fine sandy loam, 1 to 5 percent slopes	All areas are prime farmland

Acreage and Proportionate Extent of the Soils

Natchitoches Parish, Louisiana

Map symbol	Map unit name	Acres	Percent
Bc	Bellwood clay, 1 to 5 percent slopes	26,011	3.1
Bd	Bellwood clay, 5 to 12 percent slopes	19,746	2.4
Br	Briley loamy fine sand, 1 to 5 percent slopes	9,316	1.1
Cb	Kenefick fine sandy loam, 1 to 5 percent slopes	13,388	1.6
Gy	Guyton silt loam, frequently flooded	70,244	8.4
Ke	Keithville loam, 1 to 5 percent slopes	41,245	5.0
Na	Natchitoches sandy clay loam, 1 to 5 percent slopes	9,193	1.1
Nh	Natchitoches sandy clay loam, 5 to 12 percent slopes	5,898	0.7
Sa	Sacul fine sandy loam, 1 to 5 percent slopes	54,364	6.5
Sc	Sacul fine sandy loam, 5 to 12 percent slopes	77,357	9.3
Total		326,762	39.3

* Less than 0.1 percent.

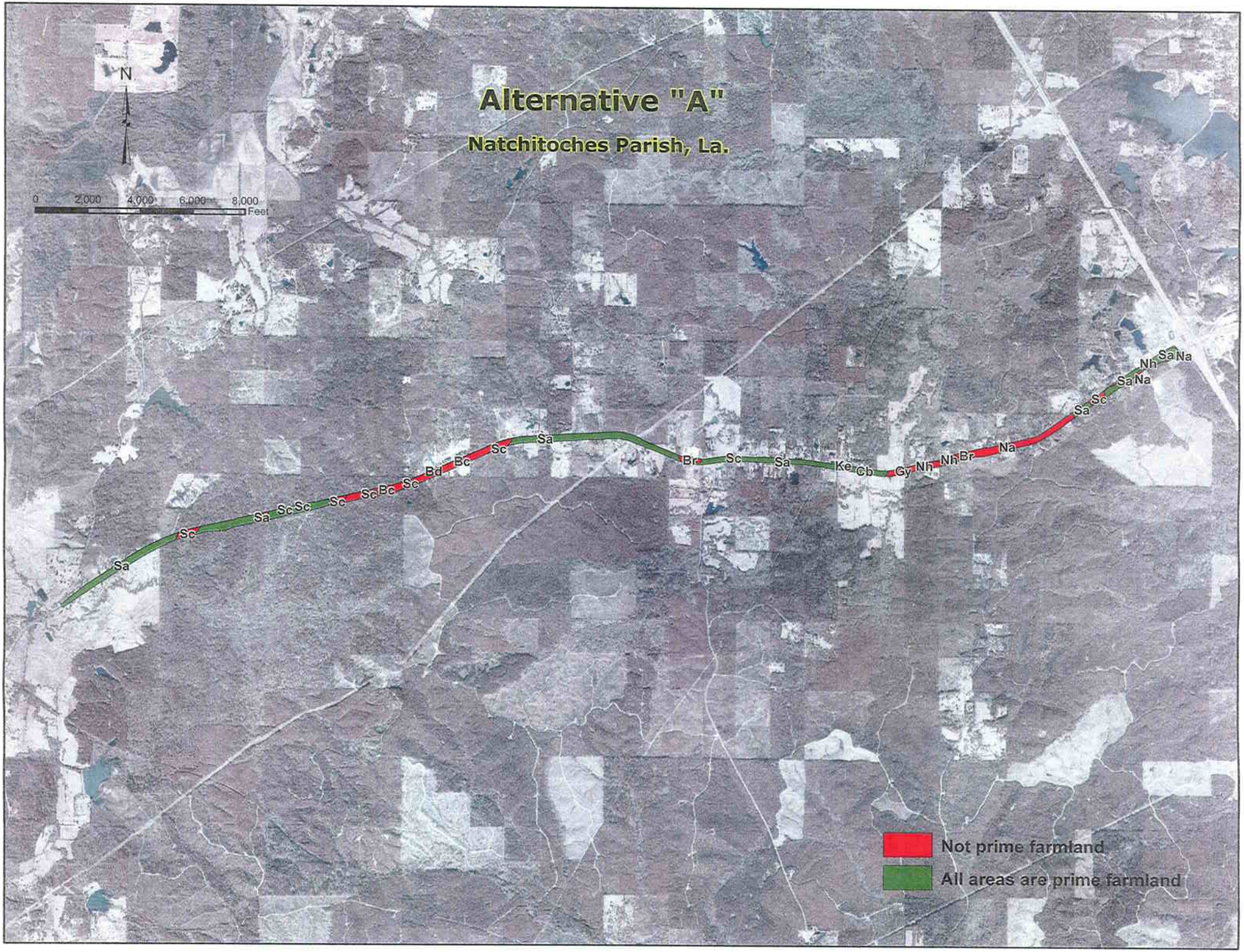
Hydric Soils

Natchitoches Parish, Louisiana

Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric rating	Hydric criteria
Gy:					
Guyton silt loam, frequently flooded	Guyton	80	Flood plains	Yes	2B3, 4

Explanation of hydric criteria codes:

1. All Histels except for Folistels, and Histosols except for Folists.
2. Soils in Aquic suborders, great groups, or subgroups, Albolls suborder, Historthels great group, Histoturbels great group, Pachic subgroups, or Cumulic subgroups that:
   A. are somewhat poorly drained and have a water table at the surface (0.0 feet) during the growing season, or
   B. are poorly drained or very poorly drained and have either:
      1.) a water table at the surface (0.0 feet) during the growing season if textures are coarse sand, sand, or fine sand in all layers within a depth of 20 inches, or
      2.) a water table at a depth of 0.5 foot or less during the growing season if permeability is equal to or greater than 6.0 in/hr in all layers within a depth of 20 inches, or
      3.) a water table at a depth of 1.0 foot or less during the growing season if permeability is less than 6.0 in/hr in any layer within a depth of 20 inches.
3. Soils that are frequently ponded for long or very long duration during the growing season.
4. Soils that are frequently flooded for long or very long duration during the growing season.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Natchitoches Parish, La.
N
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Feet
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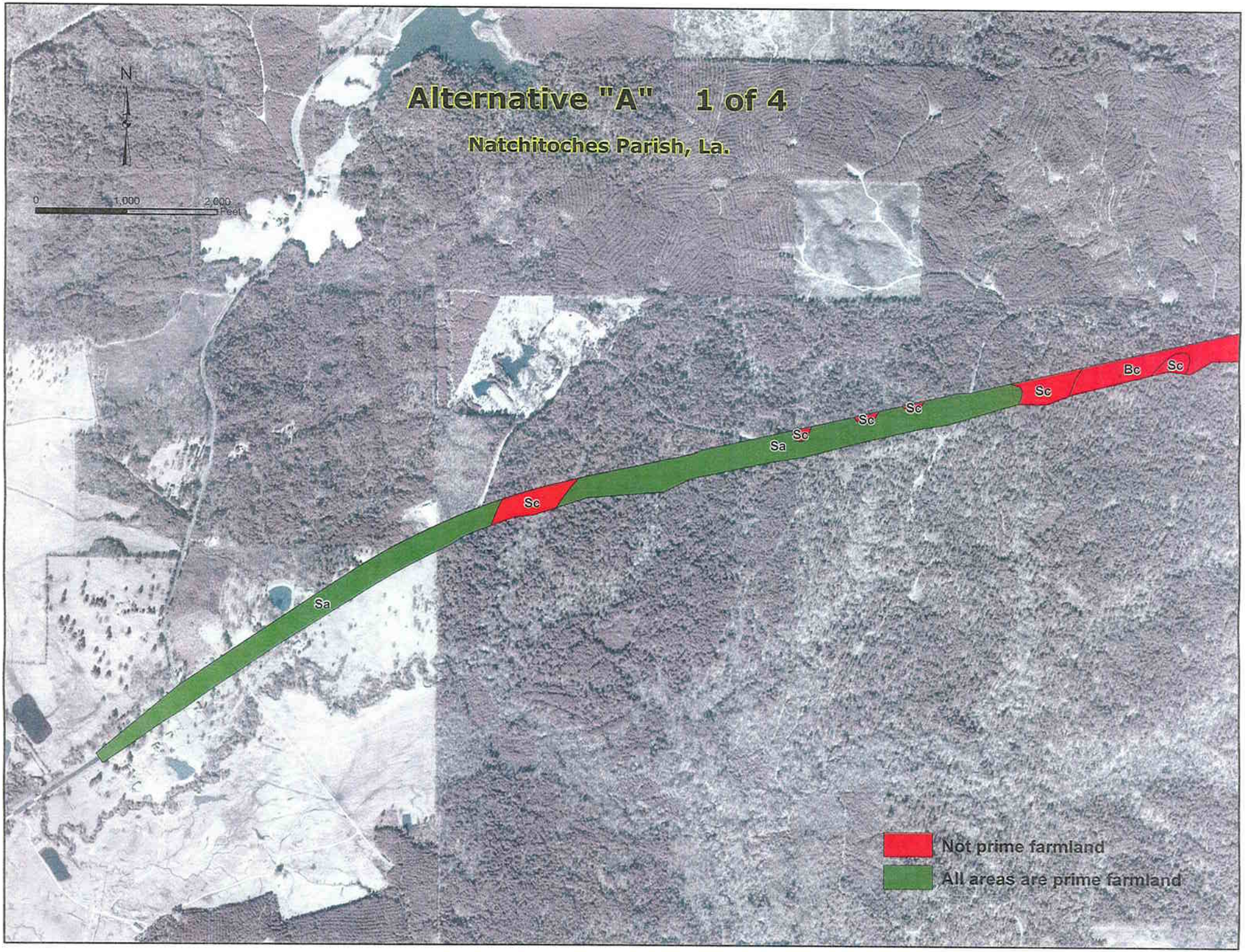
Not prime farmland
All areas are prime farmland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Natchitoches Parish, La.
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Feet
Sa
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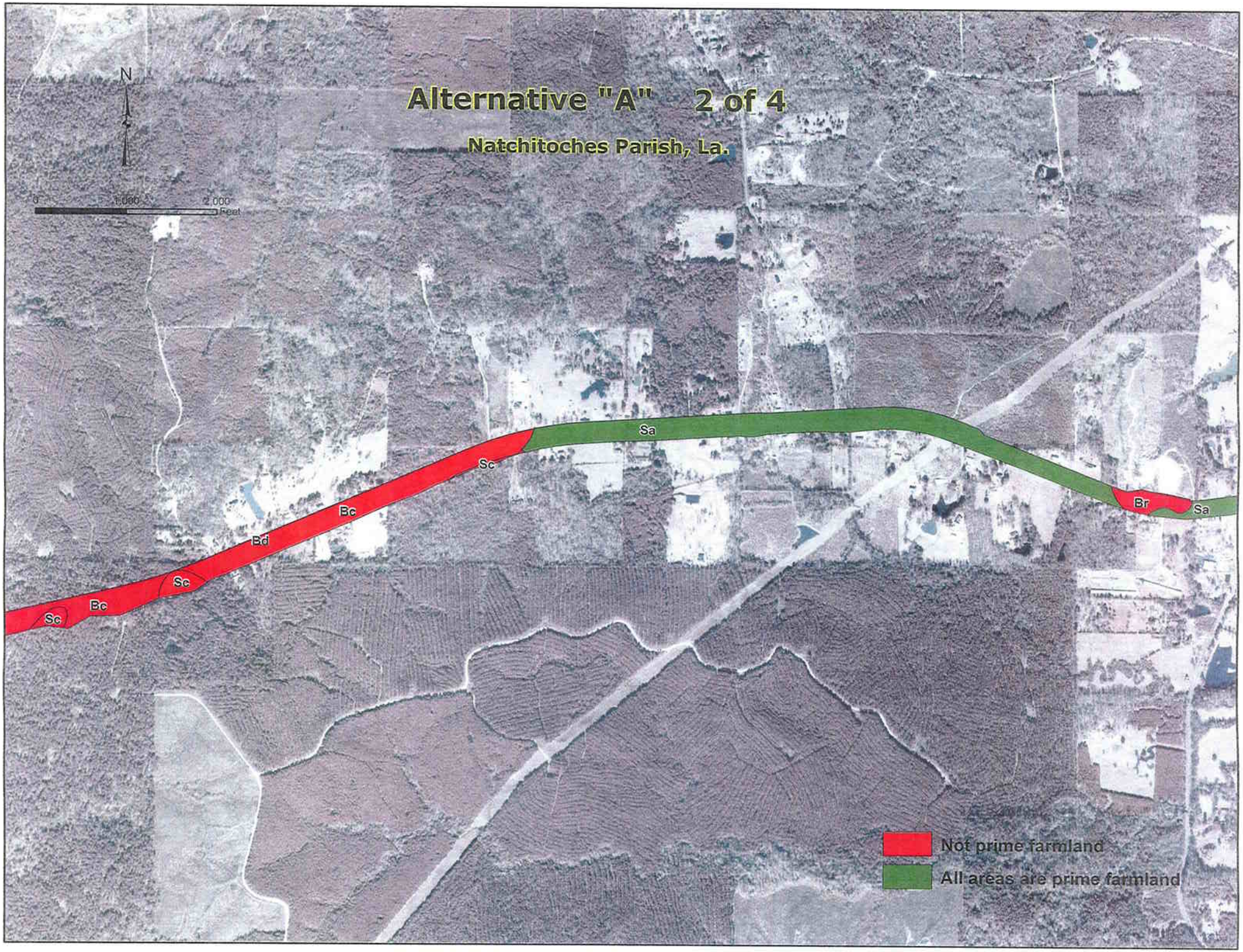
Bc
Sc
Not prime farmland
All areas are prime farmland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Natchitoches Parish, La.
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Feet
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Sc
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Bd
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Bc
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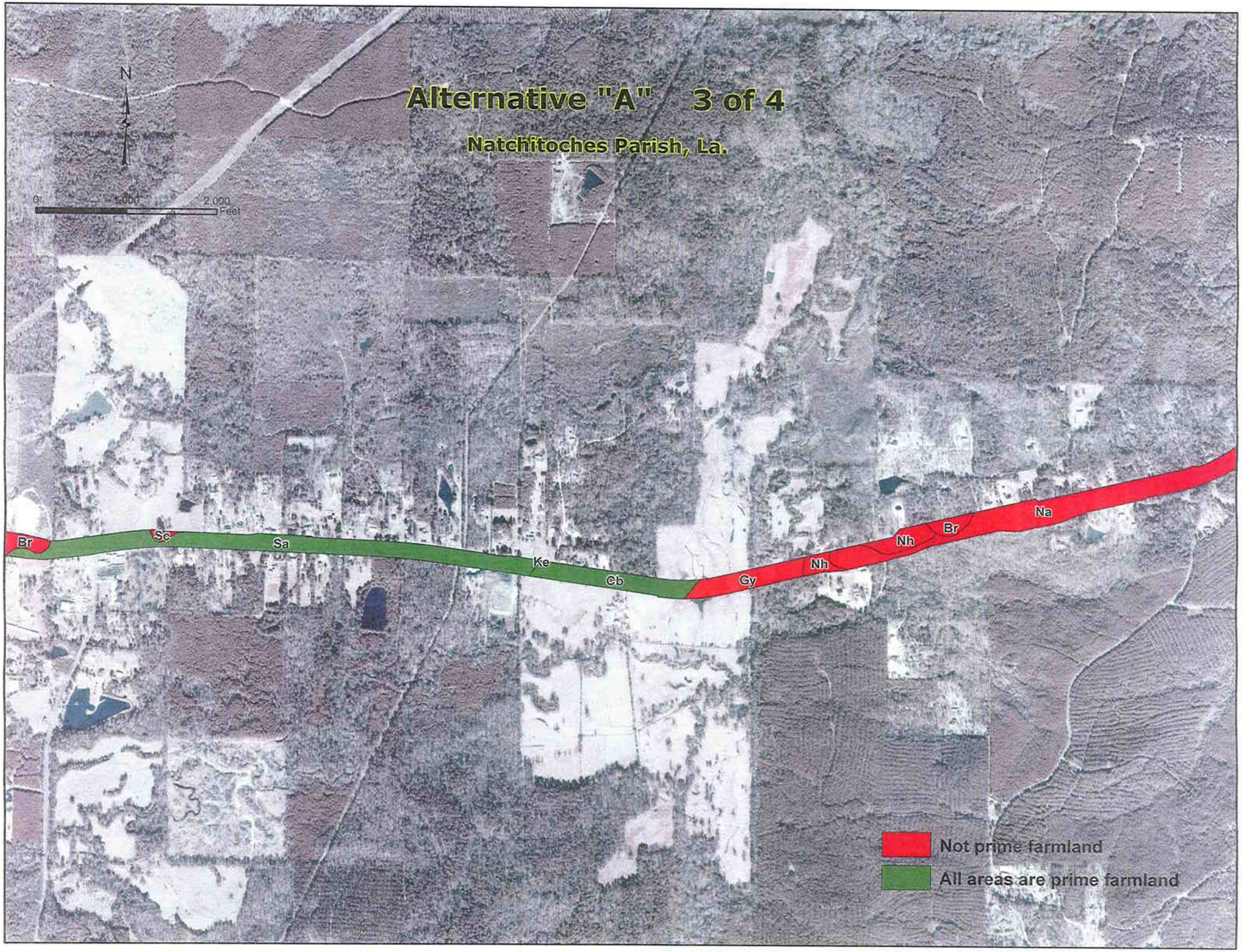
Br
Sa
Not prime farmland
All areas are prime farmland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Cb
Gy
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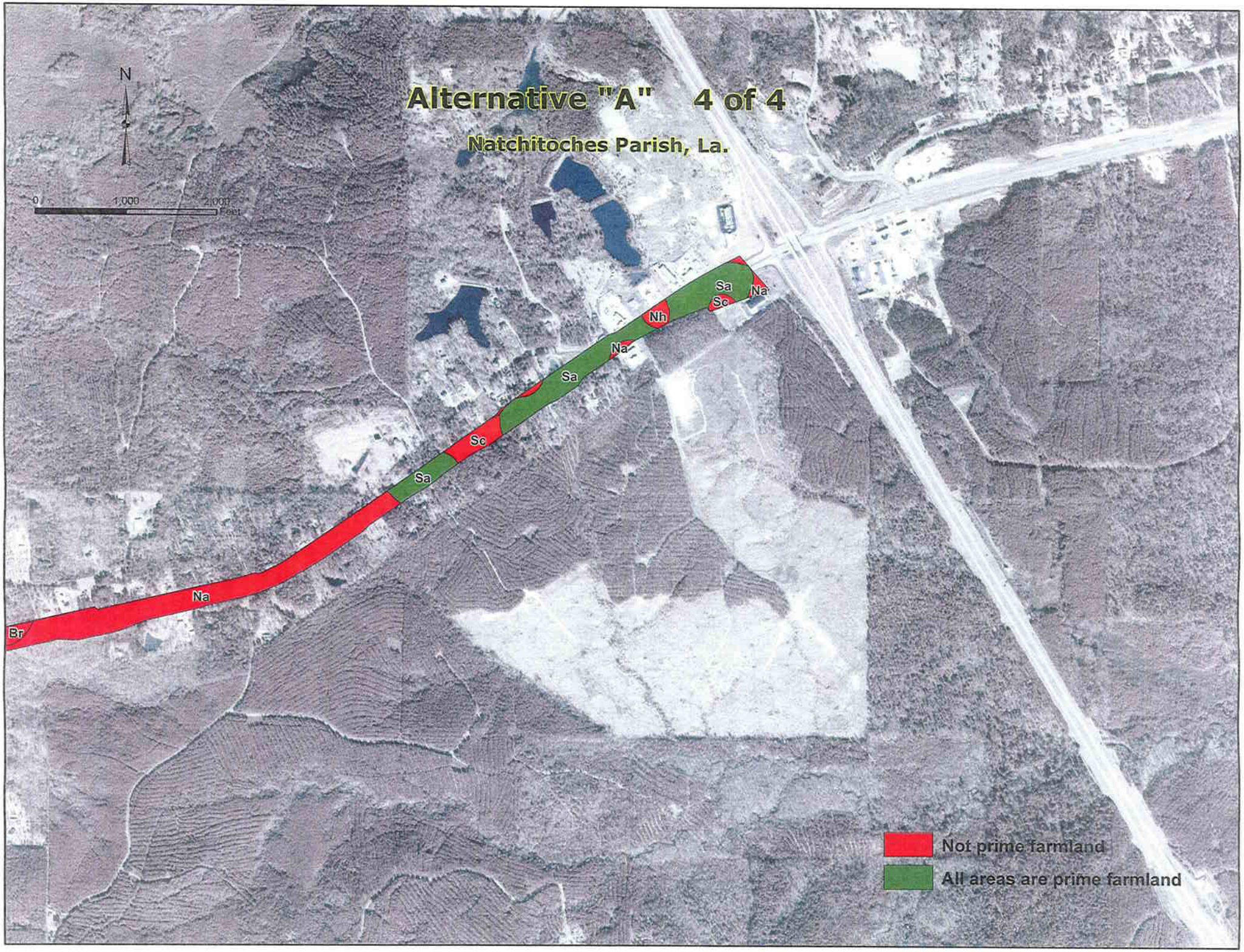
Nh
Br
Na
Not prime farmland
All areas are prime farmland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Natchitoches Parish, La.
N
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1,000
2,000
Feet
Br
Na
Sa
Sc
Sa
Na
Sa
Nh
Sc
Na
Not prime farmland
All areas are prime farmland

Alternative "B"

Prime and other Important Farmlands

Natchitoches Parish, Louisiana

Map symbol	Map unit name	Farmland classification
Cb	Kenefick fine sandy loam, 1 to 5 percent slopes	All areas are prime farmland
Sa	Sacul fine sandy loam, 1 to 5 percent slopes	All areas are prime farmland

Acreage and Proportionate Extent of the Soils

Natchitoches Parish, Louisiana

Map symbol	Map unit name	Acres	Percent
Bc	Bellwood clay, 1 to 5 percent slopes	26,011	3.1
Br	Briley loamy fine sand, 1 to 5 percent slopes	9,316	1.1
Cb	Kenefick fine sandy loam, 1 to 5 percent slopes	13,388	1.6
Gy	Guyton silt loam, frequently flooded	70,244	8.4
Na	Natchitoches sandy clay loam, 1 to 5 percent slopes	9,193	1.1
Nh	Natchitoches sandy clay loam, 5 to 12 percent slopes	5,898	0.7
Sa	Sacul fine sandy loam, 1 to 5 percent slopes	54,364	6.5
Sc	Sacul fine sandy loam, 5 to 12 percent slopes	77,357	9.3
Total		265,771	31.9

* Less than 0.1 percent.

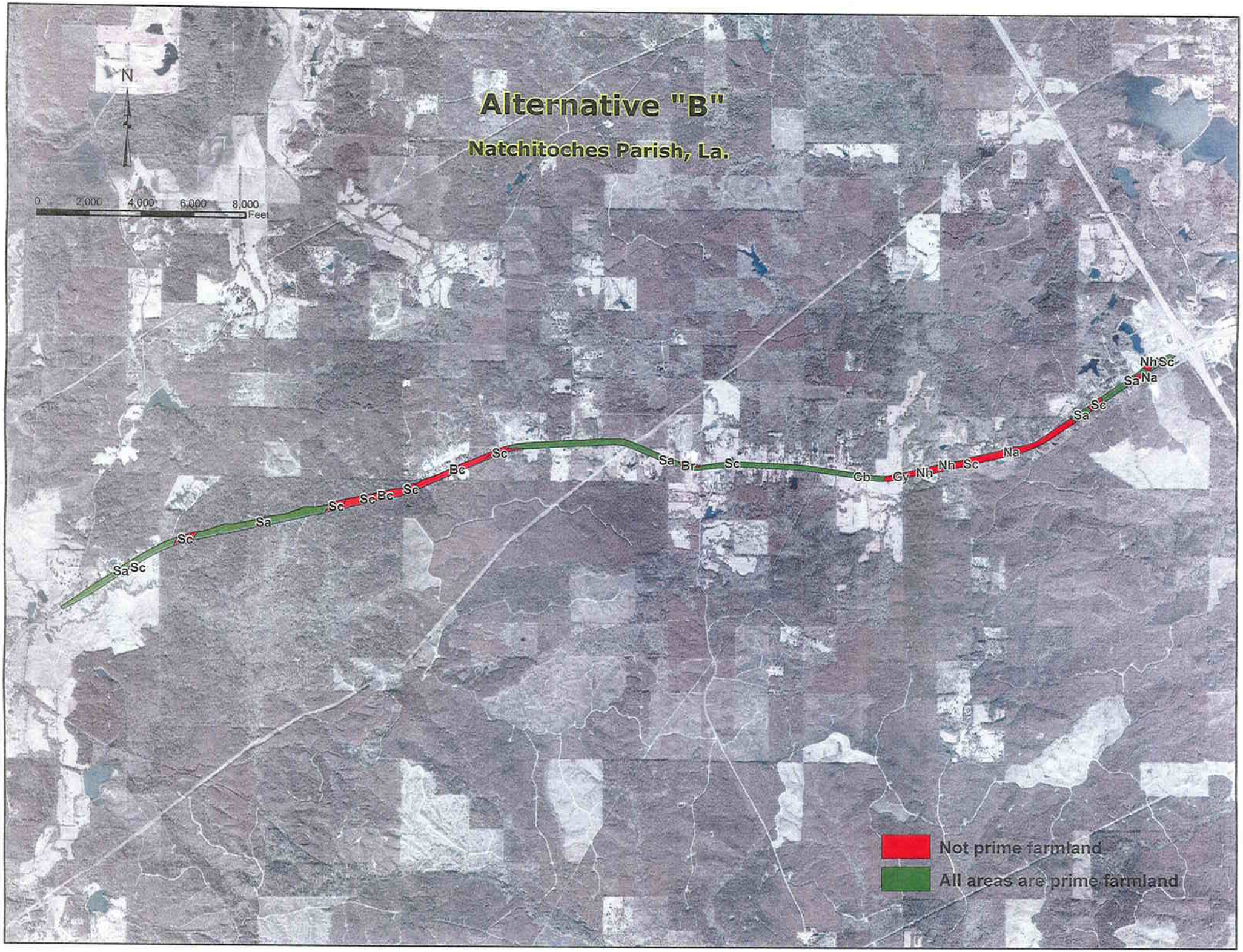
Hydric Soils

Natchitoches Parish, Louisiana

Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric rating	Hydric criteria
Gy:					
Guyton silt loam, frequently flooded	Guyton	80	Flood plains	Yes	2B3, 4

Explanation of hydric criteria codes:

1. All Histels except for Folistels, and Histosols except for Folists.
2. Soils in Aquic suborders, great groups, or subgroups, Albolls suborder, Historthels great group, Histoturbels great group, Pachic subgroups, or Cumulic subgroups that:
   A. are somewhat poorly drained and have a water table at the surface (0.0 feet) during the growing season, or
   B. are poorly drained or very poorly drained and have either:
      1.) a water table at the surface (0.0 feet) during the growing season if textures are coarse sand, sand, or fine sand in all layers within a depth of 20 inches, or
      2.) a water table at a depth of 0.5 foot or less during the growing season if permeability is equal to or greater than 6.0 in/hr in all layers within a depth of 20 inches, or
      3.) a water table at a depth of 1.0 foot or less during the growing season if permeability is less than 6.0 in/hr in any layer within a depth of 20 inches.
3. Soils that are frequently ponded for long or very long duration during the growing season.
4. Soils that are frequently flooded for long or very long duration during the growing season.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Feet
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Sa Br
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Cb Cy Nh Nh Sc
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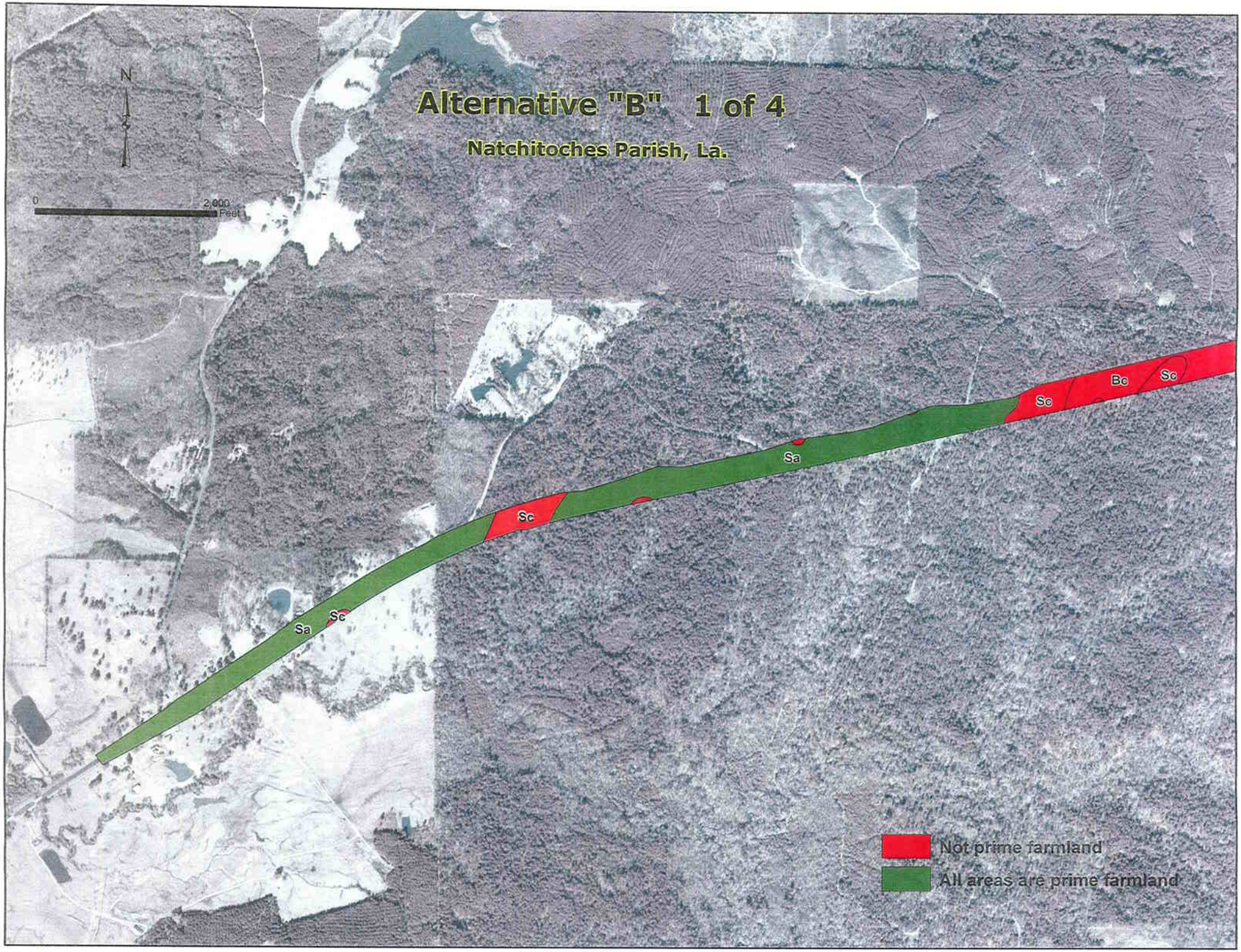
Sa Sc
Sa Na
Nh Sc
Not prime farmland
All areas are prime farmland


Alternative "B" 1 of 4
Natchitoches Parish, La.
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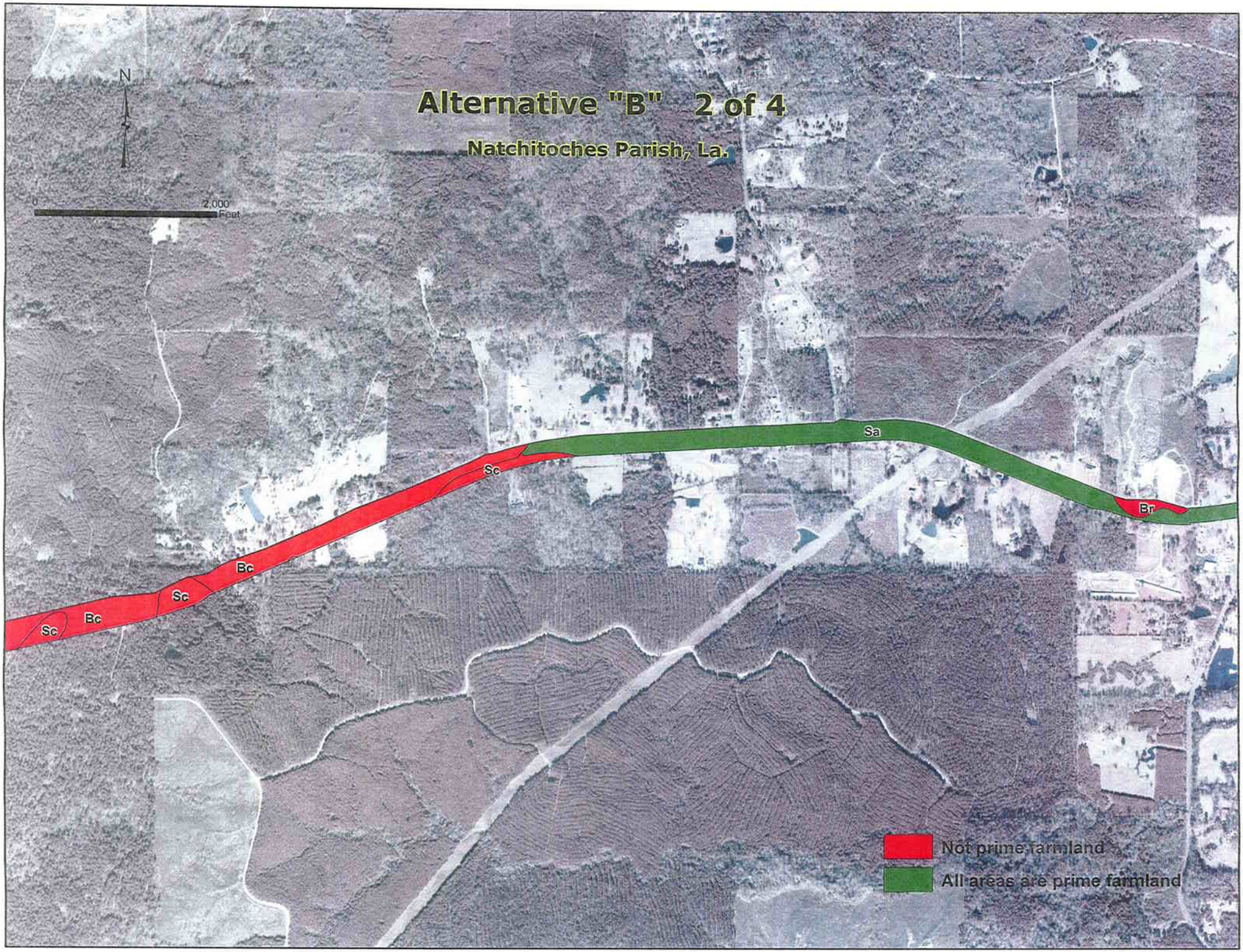
2,000
Feet
Sc
Bc
Sc
Sa
Sc
Sa
Sc
Not prime farmland
All areas are prime farmland


Alternative "B" 2 of 4
Natchitoches Parish, La.
N
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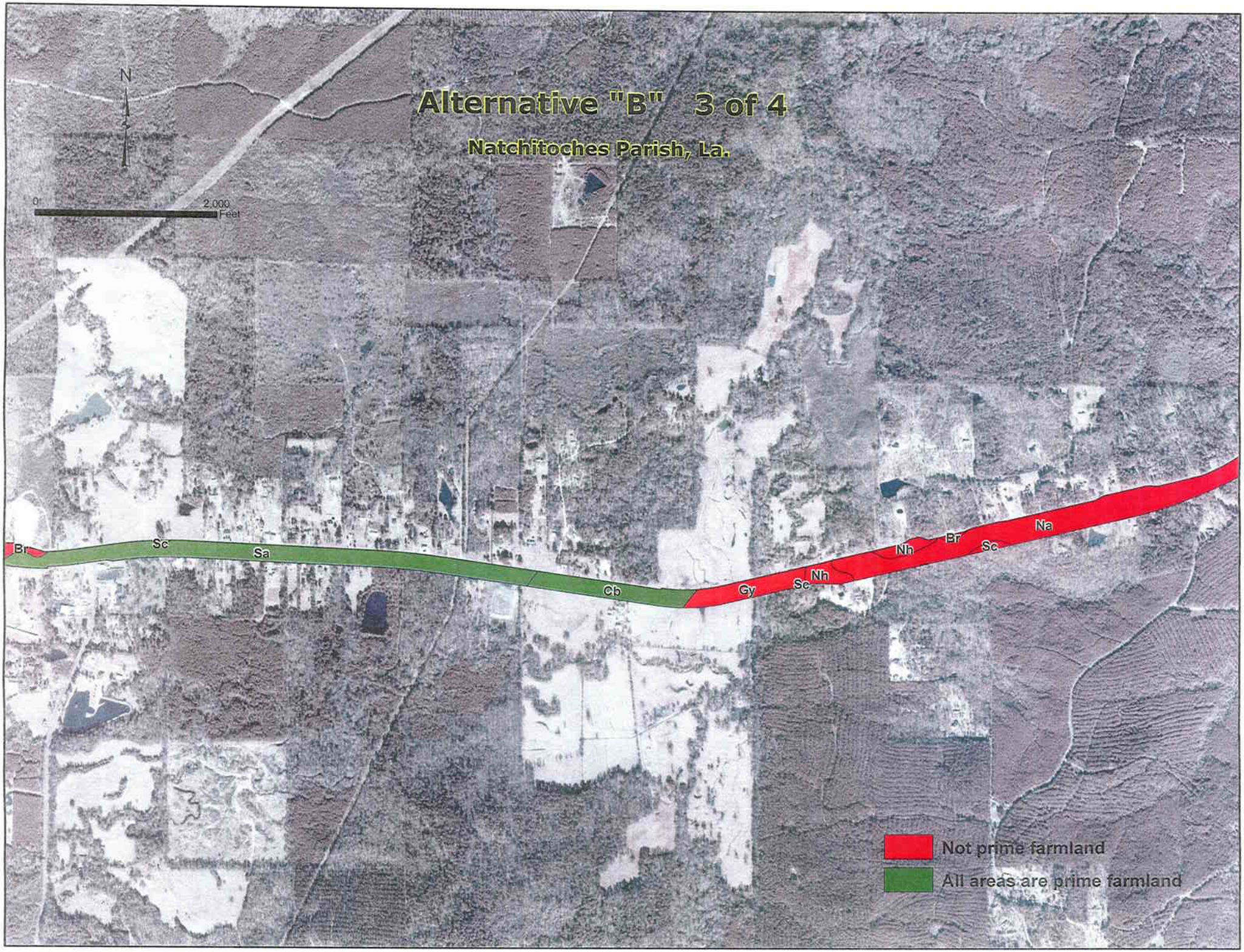
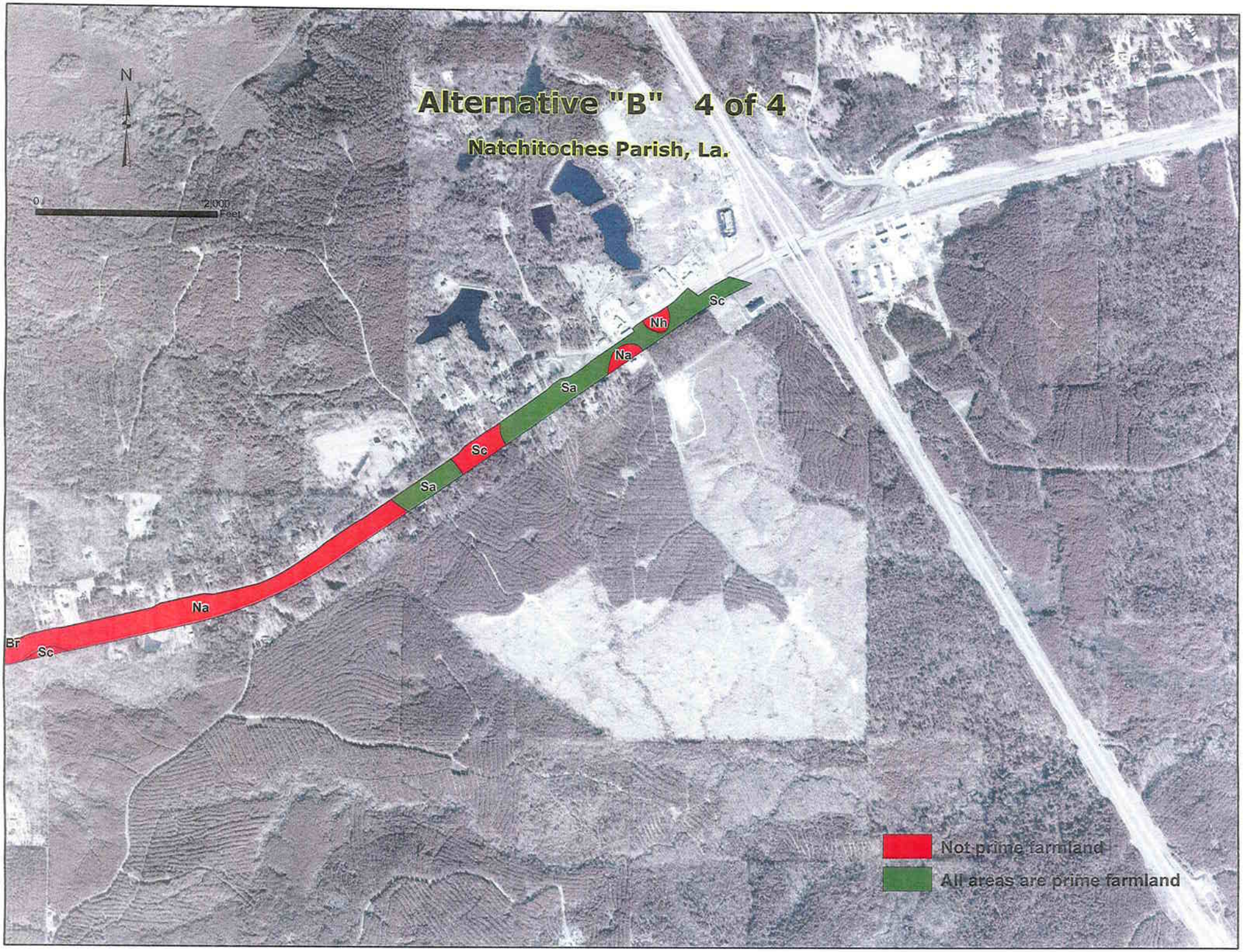
2,000
Feet
Sa
Sc
Br
Bc
Sc
Bc
Sc
Not prime farmland
All areas are prime farmland


Alternative "B" 3 of 4
Natchitoches Parish, La.
N
0
2,000
Feet
Br
Sc
Sa
Cb
Gy
Sc
Nh
Nh
Br
Sc
Na
Not prime farmland
All areas are prime farmland


Alternative "B" 4 of 4
Natchitoches Parish, La.
N
0
2,000
Feet
Sc
Nh
Na
Sa
Sc
Sa
Na
Br
Sc
Not prime farmland
All areas are prime farmland

Alternative "C"

Prime and other Important Farmlands

Natchitoches Parish, Louisiana

Map symbol	Map unit name	Farmland classification
Cb	Kenefick fine sandy loam, 1 to 5 percent slopes	All areas are prime farmland
Sa	Sacul fine sandy loam, 1 to 5 percent slopes	All areas are prime farmland

Acreage and Proportionate Extent of the Soils

Natchitoches Parish, Louisiana

Map symbol	Map unit name	Acres	Percent
Bc	Bellwood clay, 1 to 5 percent slopes	26,011	3.1
Br	Briley loamy fine sand, 1 to 5 percent slopes	9,316	1.1
Cb	Kenefick fine sandy loam, 1 to 5 percent slopes	13,388	1.6
Gy	Guyton silt loam, frequently flooded	70,244	8.4
Na	Natchitoches sandy clay loam, 1 to 5 percent slopes	9,193	1.1
Nh	Natchitoches sandy clay loam, 5 to 12 percent slopes	5,898	0.7
Sa	Sacul fine sandy loam, 1 to 5 percent slopes	54,364	6.5
Sc	Sacul fine sandy loam, 5 to 12 percent slopes	77,357	9.3
Total		265,771	31.9

* Less than 0.1 percent.

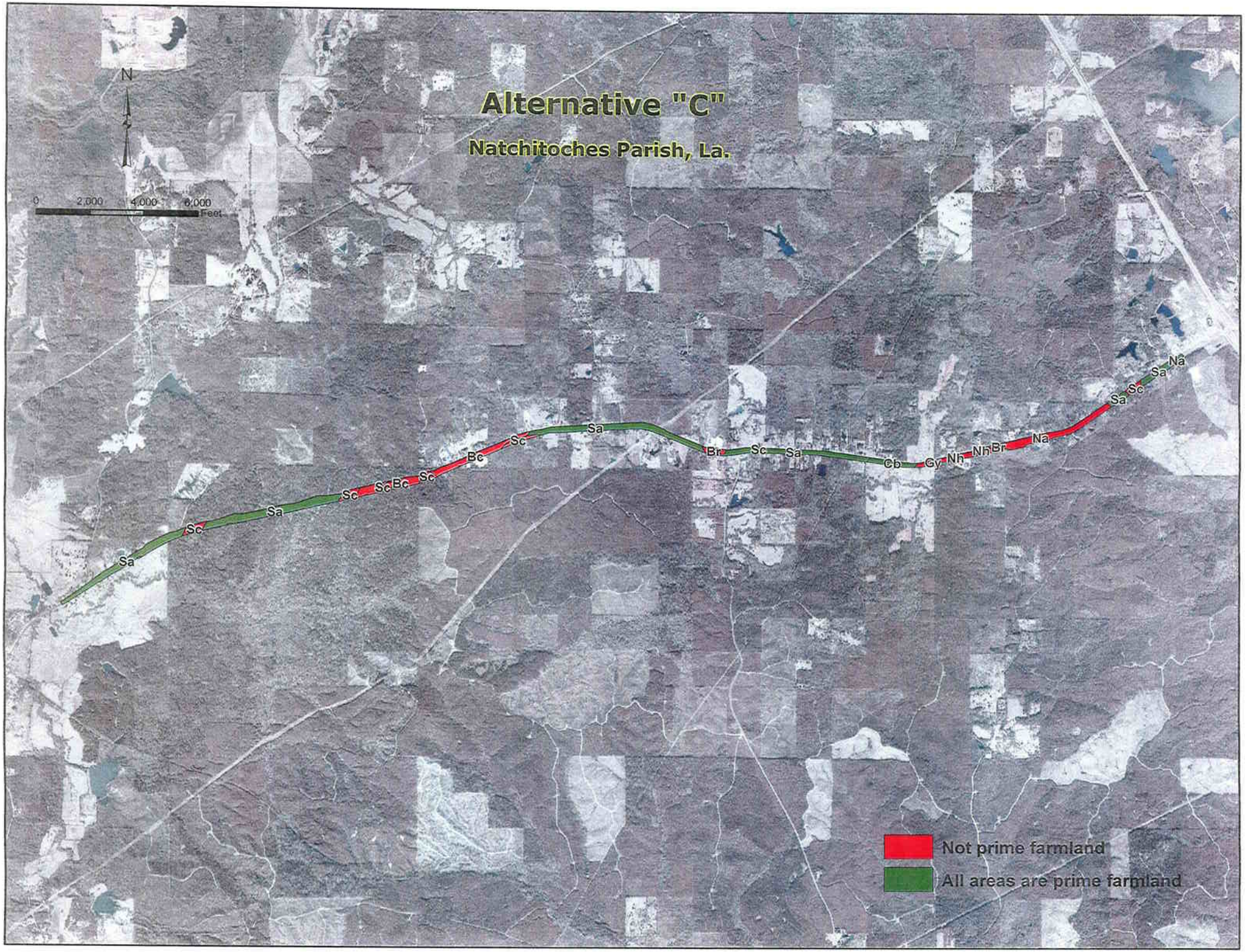
Hydric Soils

Natchitoches Parish, Louisiana

Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric rating	Hydric criteria
Gy:					
Guyton silt loam, frequently flooded	Guyton	80	Flood plains	Yes	2B3, 4

Explanation of hydric criteria codes:

1. All Histels except for Folistels, and Histosols except for Folists.
2. Soils in Aquic suborders, great groups, or subgroups, Albolls suborder, Historthels great group, Histoturbels great group, Pachic subgroups, or Cumulic subgroups that:
   A. are somewhat poorly drained and have a water table at the surface (0.0 feet) during the growing season, or
   B. are poorly drained or very poorly drained and have either:
      1.) a water table at the surface (0.0 feet) during the growing season if textures are coarse sand, sand, or fine sand in all layers within a depth of 20 inches, or
      2.) a water table at a depth of 0.5 foot or less during the growing season if permeability is equal to or greater than 6.0 in/hr in all layers within a depth of 20 inches, or
      3.) a water table at a depth of 1.0 foot or less during the growing season if permeability is less than 6.0 in/hr in any layer within a depth of 20 inches.
3. Soils that are frequently ponded for long or very long duration during the growing season.
4. Soils that are frequently flooded for long or very long duration during the growing season.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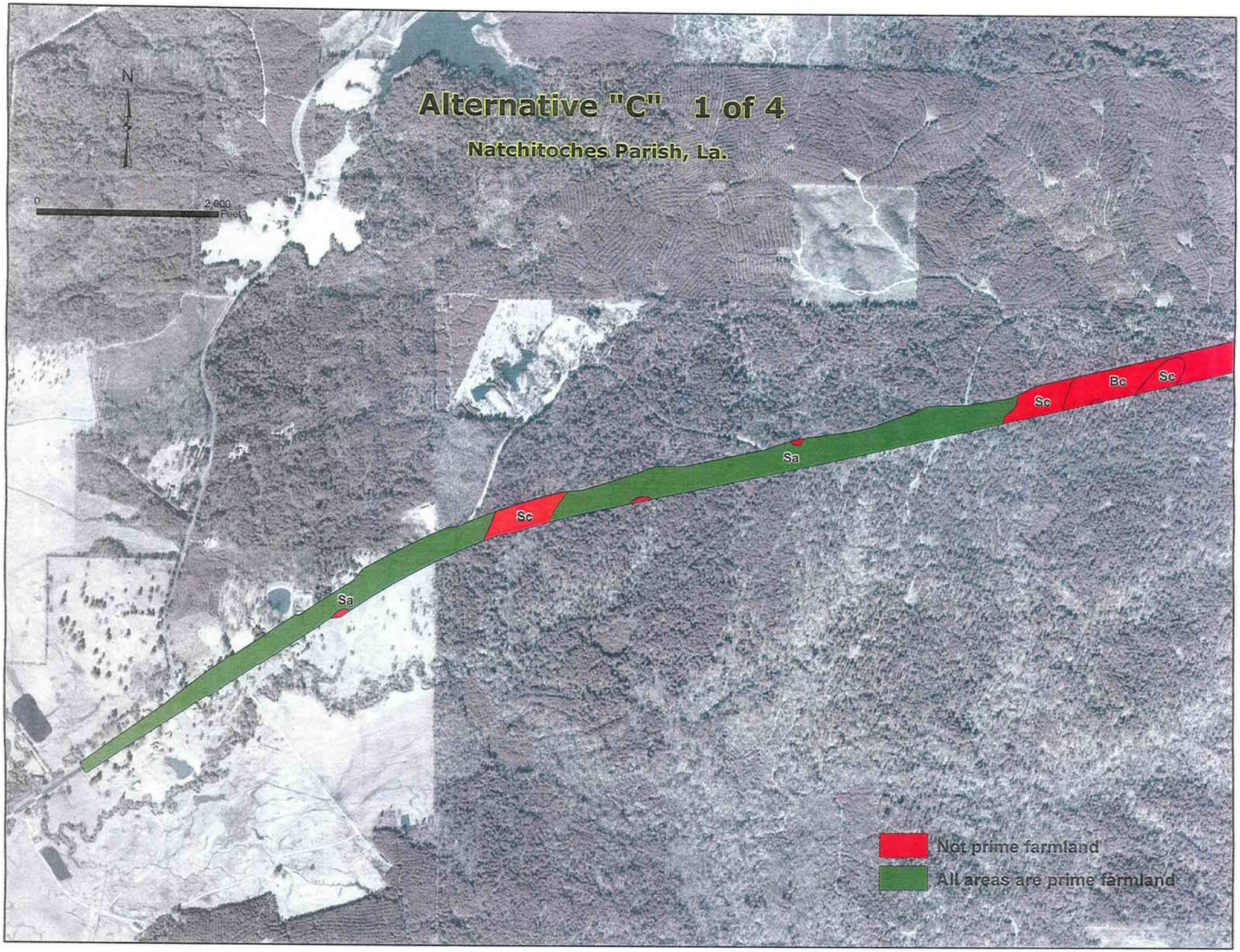
Natchitoches Parish, La.
N
0
2,000
4,000
6,000
Feet
Sa
Sc
Sa
Sc
Sc
Bc
Sc
Bc
Sc
Sa
Br
Sc
Sa
Cb
Gy
Nh
Nh
Br
Na
Sa
Sc
Sa
Na
Not prime farmland
All areas are prime farmland


Alternative "C" 1 of 4
Natchitoches Parish, La.
N
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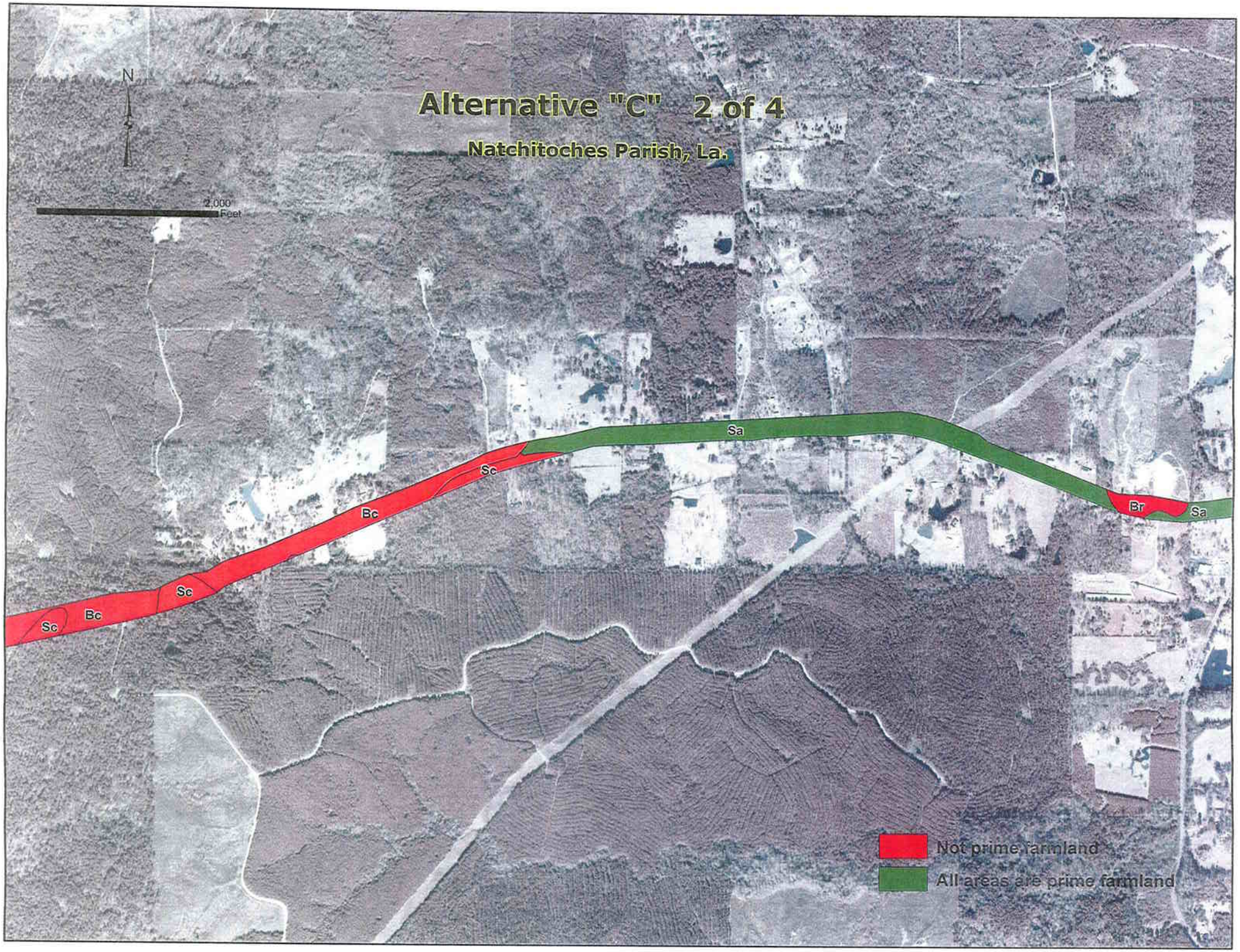
2,000
Feet
Sc
Bc
Sc
Sa
Sc
Sa
Not prime farmland
All areas are prime farmland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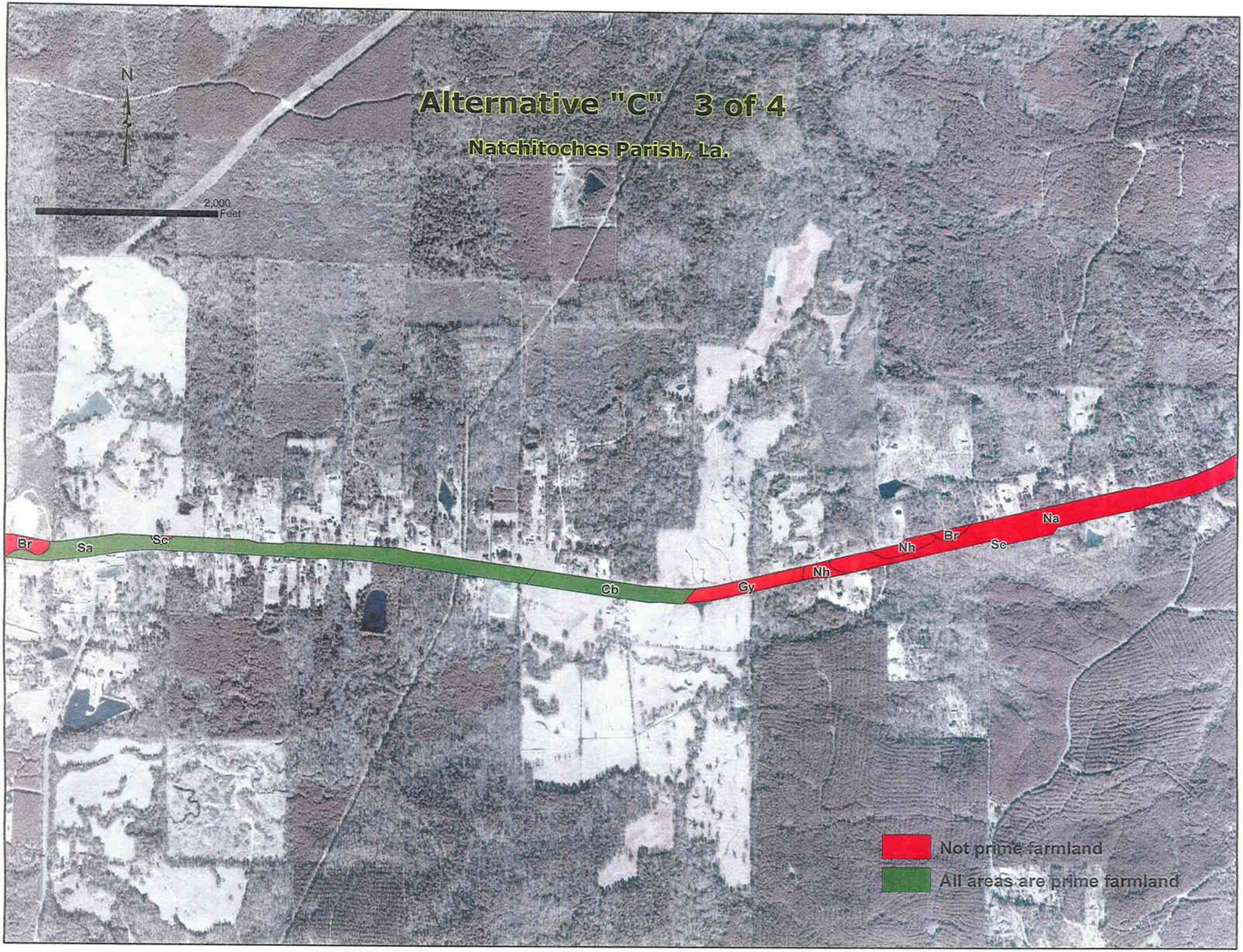
Alternative "C" 2 of 4
Natchitoches Parish, La.
0
2,000
Feet
Sa
Sc
Bc
Sc
Bc
Sc
Br
Sa
Not prime farmland
All areas are prime farmland


N
Alternative "C" 3 of 4
Natchitoches Parish, La.
0
2,000
Feet
Br
Sa
Sc
Cb
Cy
Nh
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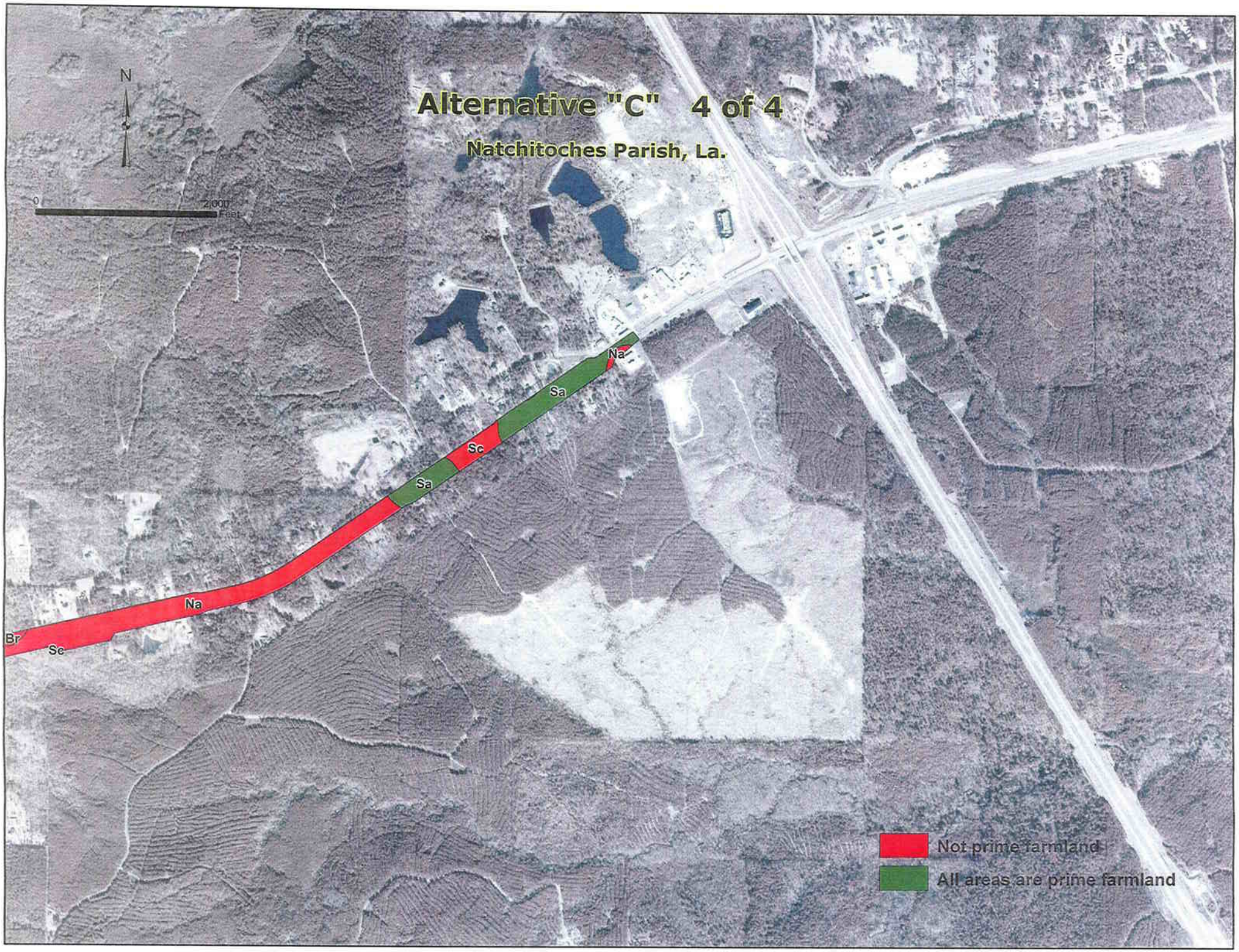
Br
Sc
Na
Not prime farmland
All areas are prime farmland


Alternative "C" 4 of 4
Natchitoches Parish, La.
N
0
2,000
Feet
Na
Sa
Sc
Sa
Na
Br
Sc
Not prime farmland
All areas are prime farmland

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Appendix H

Noise Contours

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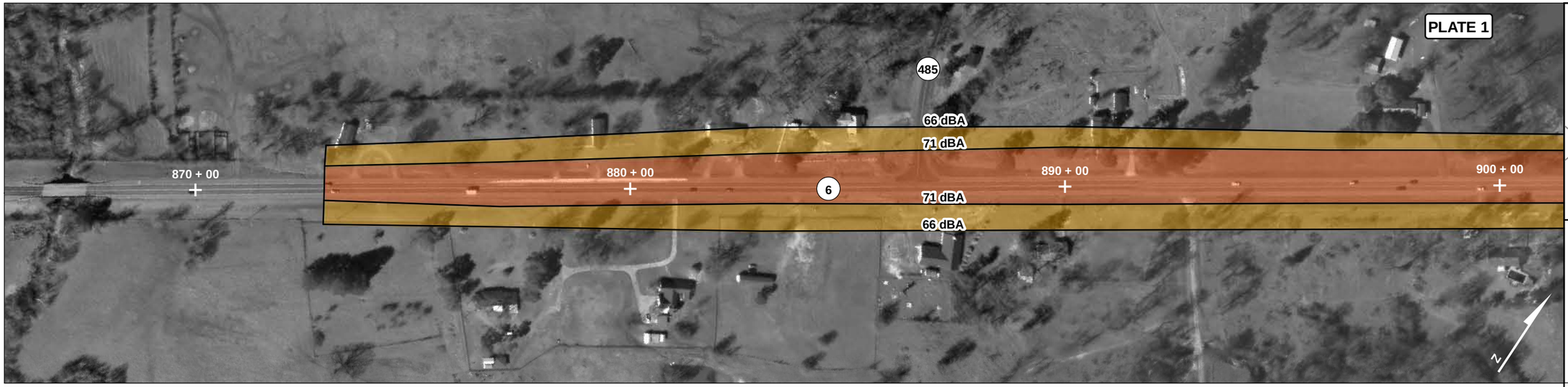
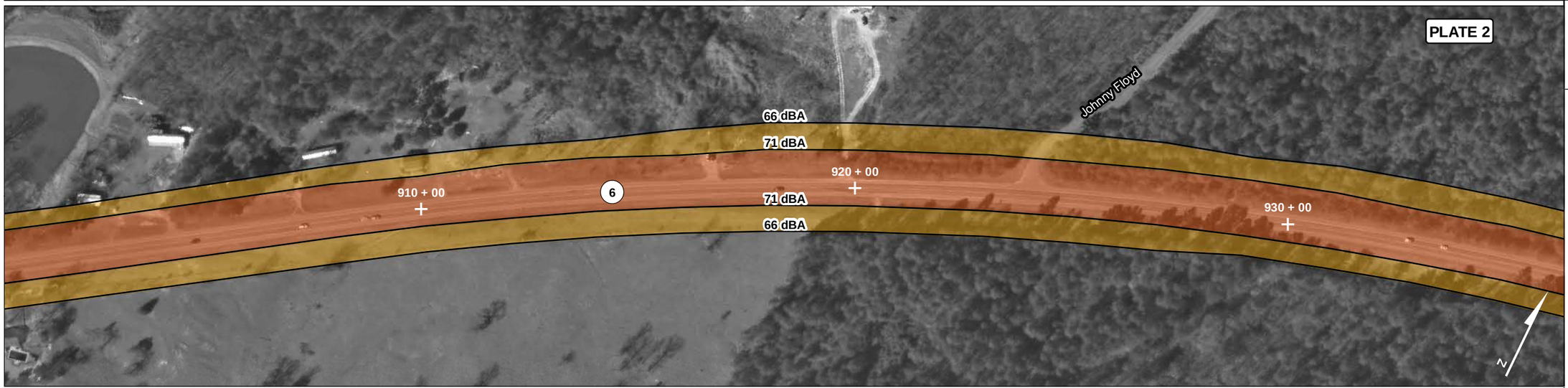
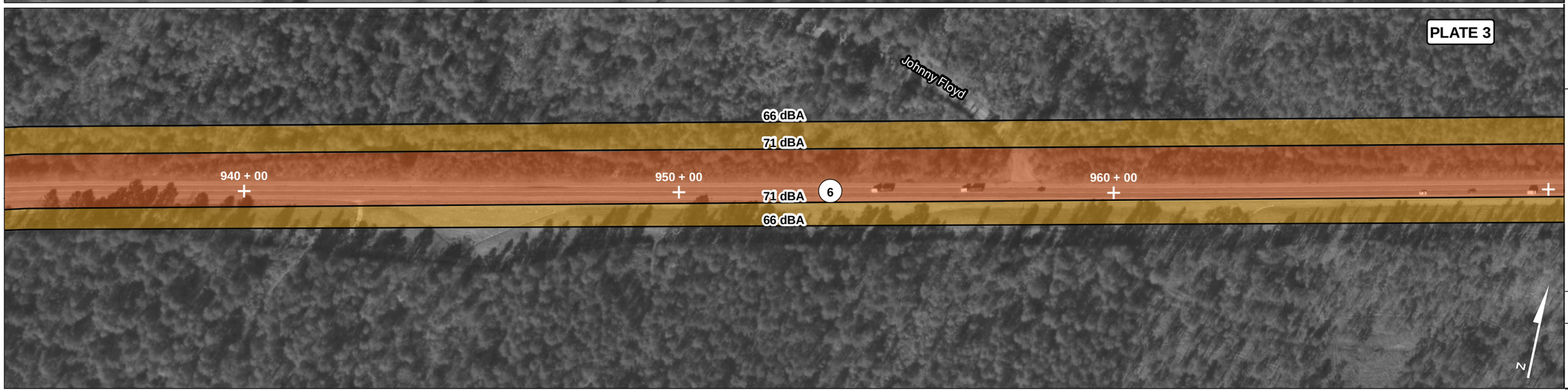
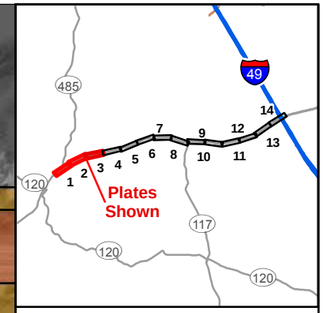








EL CAMINO
EAST/WEST CORRIDOR
LA ROUTE 6
ENVIRONMENTAL ASSESSMENT
NATCHITOCHES PARISH, LA

S.P. NO. 700-35-0140
F.A.P. NO DE-3506(512)

2035 ALTERNATIVE A NOISE CONTOUR MAP

Legend

NOISE CONTOURS

66-70.9 dBA

≥ 71 dBA

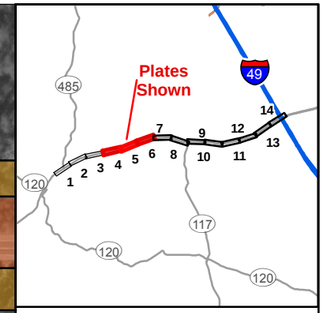
0 75 150 300 Feet

El Camino East / West Corridor

Date:	Project Number:
11/13/2009	LA002860.0004

Figure No.:

A-1



EL CAMINO
EAST/WEST CORRIDOR
LA ROUTE 6
ENVIRONMENTAL ASSESSMENT
NATCHITOCHES PARISH, LA

S.P. NO. 700-35-0140
F.A.P. NO DE-3506(512)

2035 ALTERNATIVE A NOISE CONTOUR MAP

Legend

NOISE CONTOURS

66-70.9 dBA

≥ 71 dBA

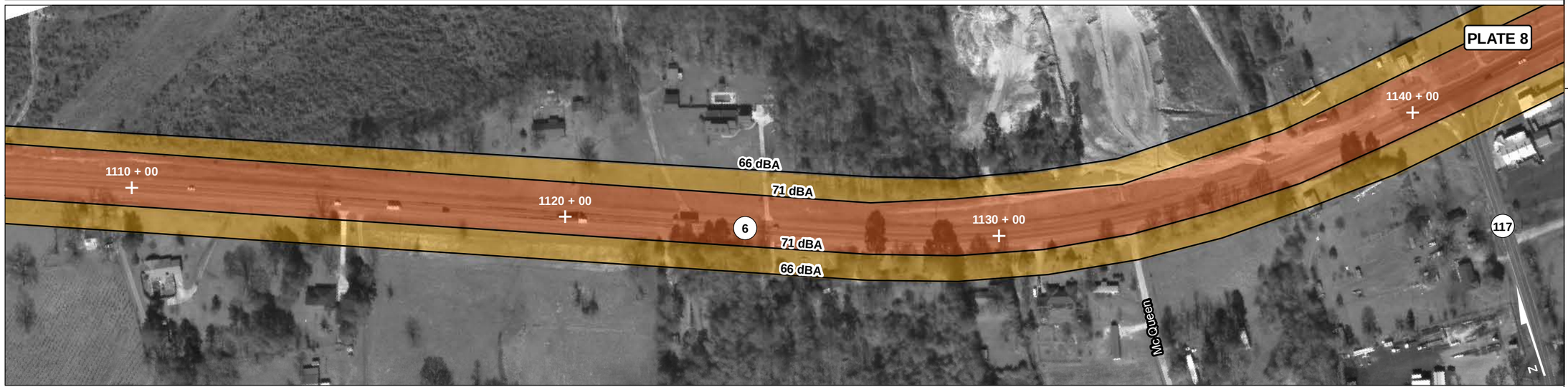
0 75 150 300 Feet

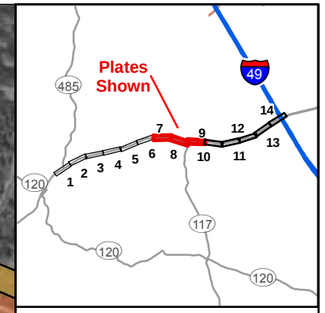
El Camino East / West Corridor

Date:	Project Number:
11/13/2009	LA002860.0004

Figure No.:

A-2





EL CAMINO
EAST/WEST CORRIDOR
LA ROUTE 6
ENVIRONMENTAL ASSESSMENT
NATCHITOCHES PARISH, LA

S.P. NO. 700-35-0140
F.A.P. NO DE-3506(512)

2035 ALTERNATIVE A NOISE CONTOUR MAP

Legend

NOISE CONTOURS

- 66-70.9 dBA
- ≥ 71 dBA

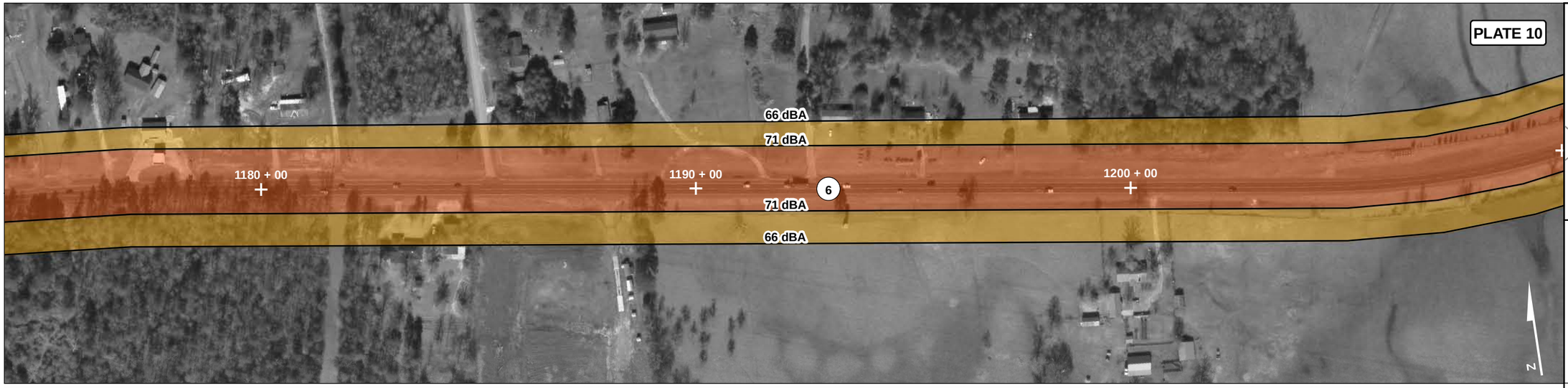
0 75 150 300 Feet

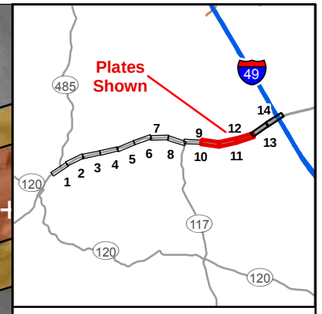
El Camino East / West Corridor

Date:	Project Number:
11/13/2009	LA002860.0004

Figure No.:

A-3





EL CAMINO
EAST/WEST CORRIDOR
LA ROUTE 6
ENVIRONMENTAL ASSESSMENT
NATCHITOCHES PARISH, LA

S.P. NO. 700-35-0140
F.A.P. NO DE-3506(512)

2035 ALTERNATIVE A NOISE CONTOUR MAP

Legend

NOISE CONTOURS

66-70.9 dBA

≥ 71 dBA

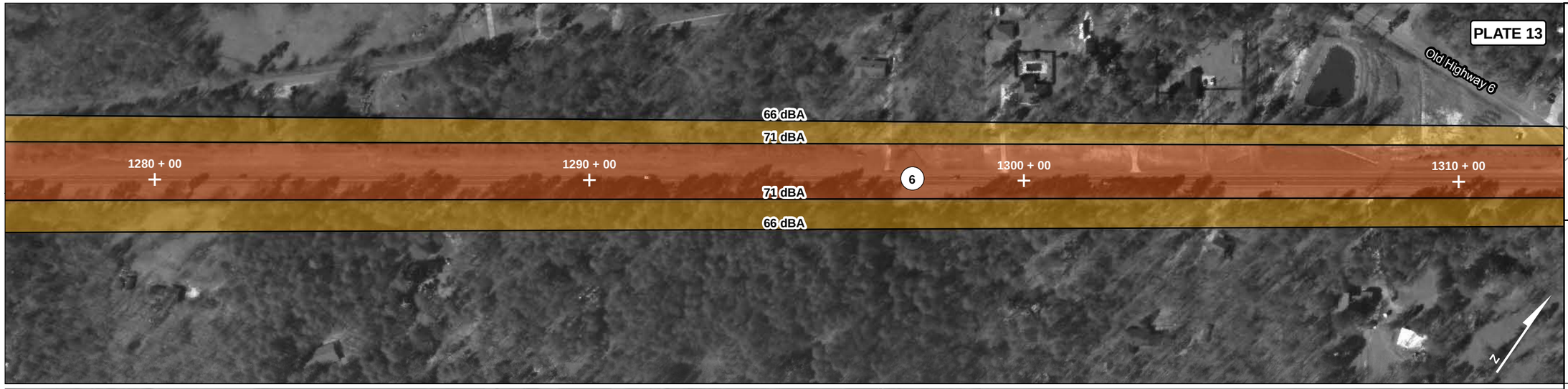
0 75 150 300 Feet

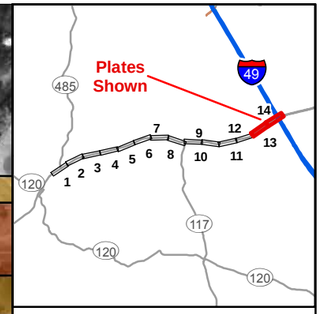
El Camino East / West Corridor

Date:	Project Number:
11/13/2009	LA002860.0004

Figure No.:

A-4





EL CAMINO
EAST/WEST CORRIDOR
LA ROUTE 6
ENVIRONMENTAL ASSESSMENT
NATCHITOCHES PARISH, LA

S.P. NO. 700-35-0140
F.A.P. NO DE-3506(512)

2035 ALTERNATIVE A NOISE CONTOUR MAP

Legend

NOISE CONTOURS

- 66-70.9 dBA
- ≥ 71 dBA

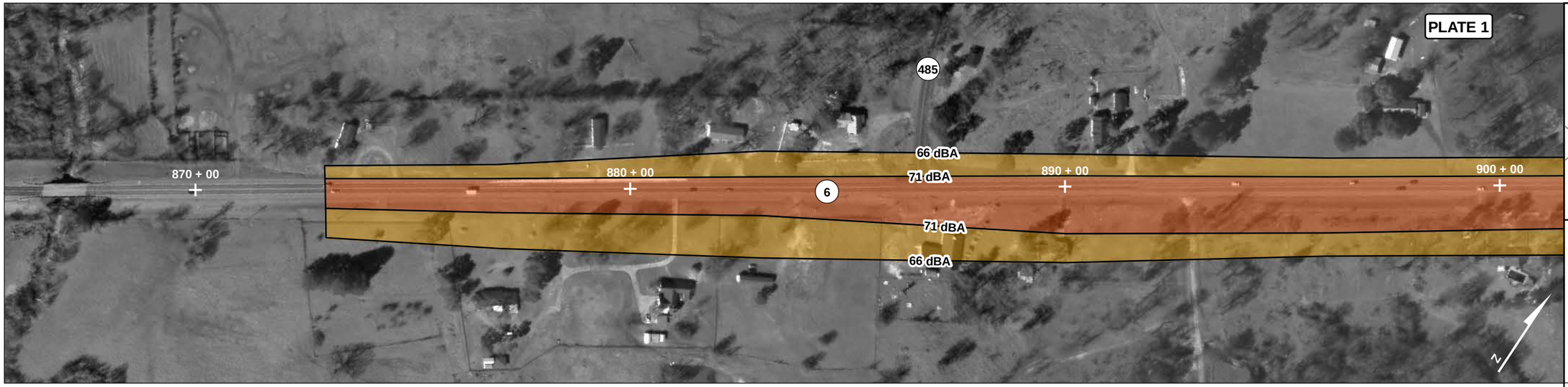
0 75 150 300 Feet

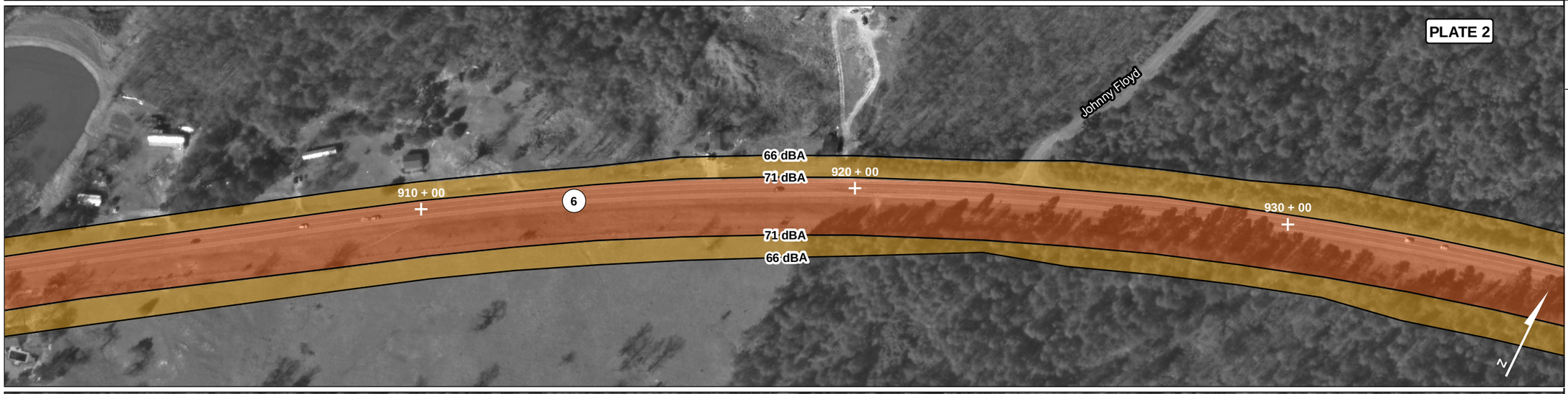
El Camino East / West Corridor

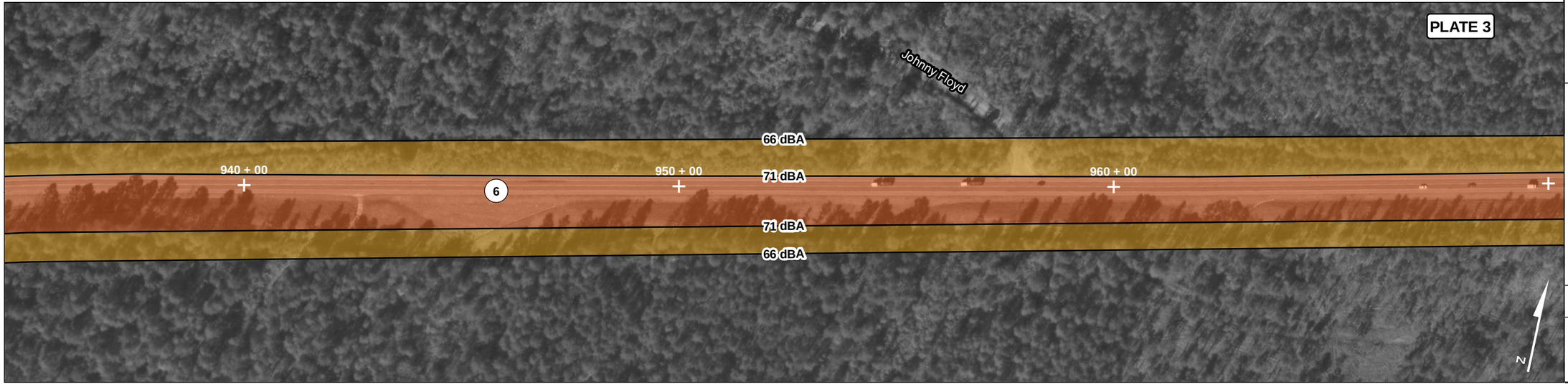
Date:	Project Number:
11/13/2009	LA002860.0004

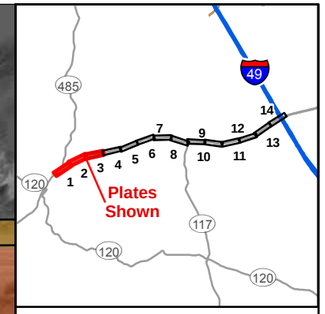
Figure No.:

A-5









EL CAMINO
EAST/WEST CORRIDOR
LA ROUTE 6
ENVIRONMENTAL ASSESSMENT
NATCHITOCHES PARISH, LA

S.P. NO. 700-35-0140
F.A.P. NO DE-3506(512)

2035 ALTERNATIVE B NOISE CONTOUR MAP

Legend

NOISE CONTOURS

- 66-70.9 dBA
- ≥ 71 dBA

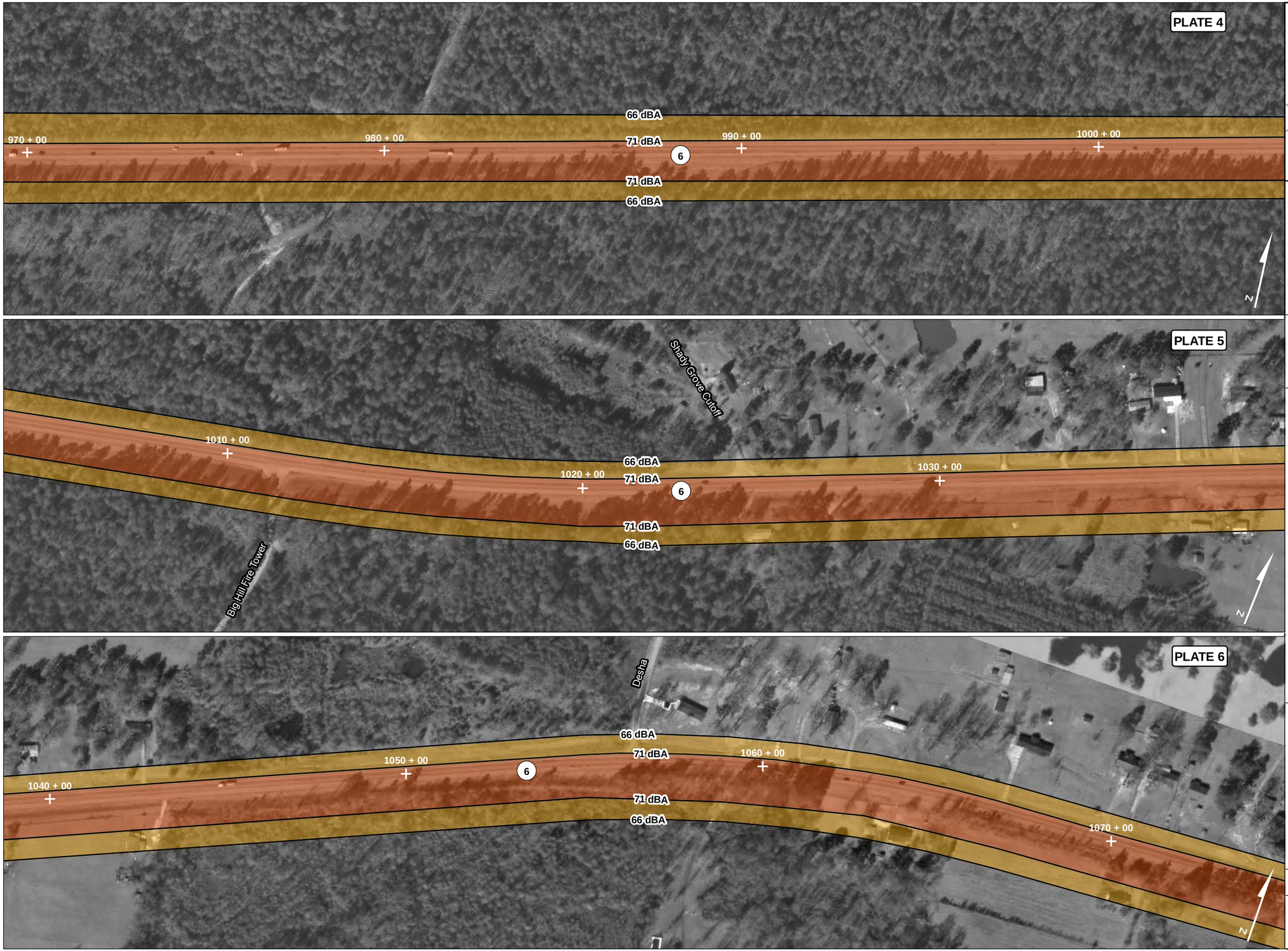
0 75 150 300 Feet

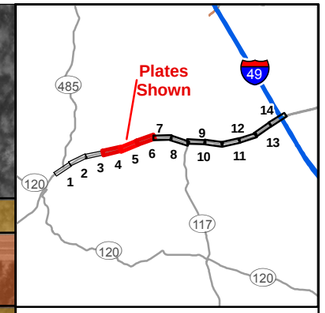
El Camino East / West Corridor

Date:	Project Number:
11/16/2009	LA002860.0004

Figure No.:

B-1





EL CAMINO
EAST/WEST CORRIDOR
LA ROUTE 6
ENVIRONMENTAL ASSESSMENT
NATCHITOCHES PARISH, LA

S.P. NO. 700-35-0140
F.A.P. NO DE-3506(512)

2035 ALTERNATIVE B NOISE CONTOUR MAP

Legend

NOISE CONTOURS

- 66-70.9 dBA
- ≥ 71 dBA

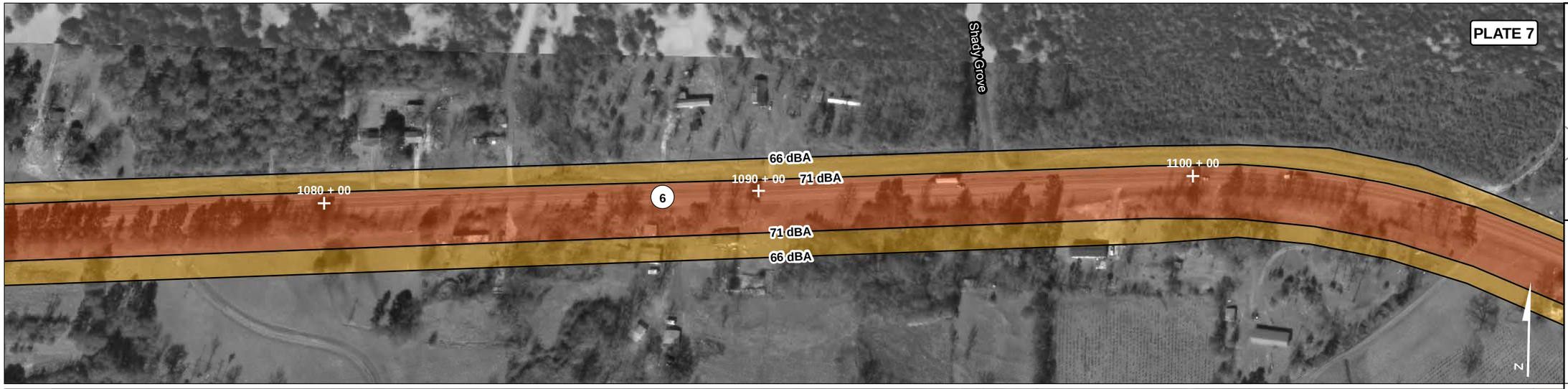
0 75 150 300 Feet

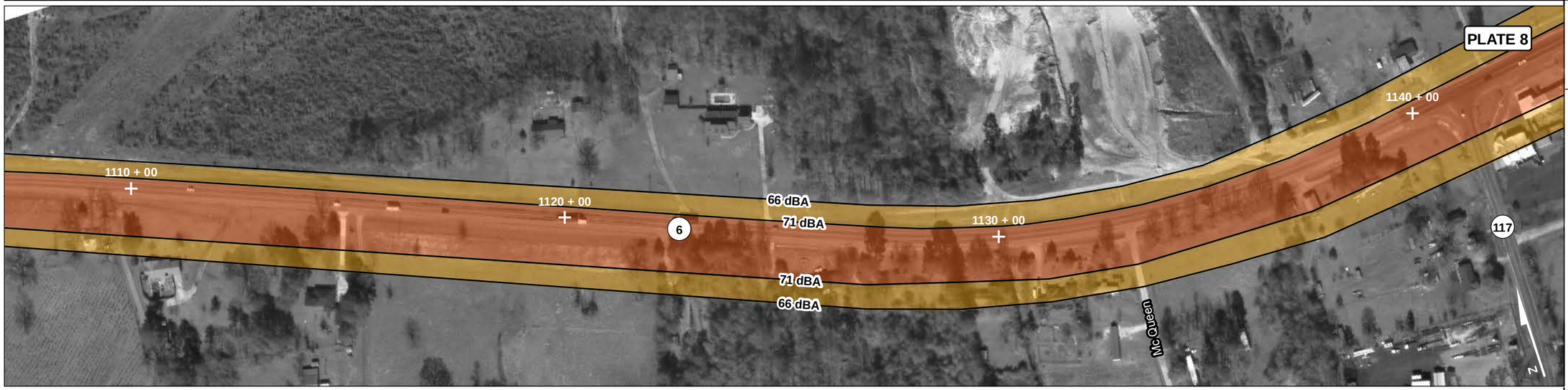
El Camino East / West Corridor

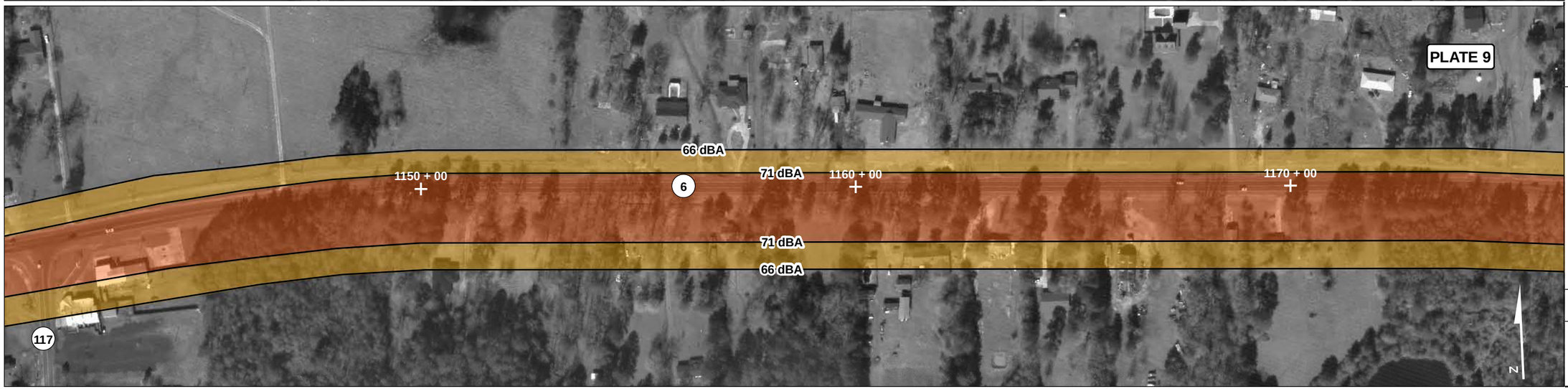
Date:	Project Number:
11/16/2009	LA002860.0004

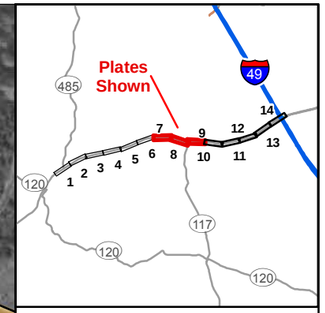
Figure No.:

B-2









EL CAMINO
EAST/WEST CORRIDOR
LA ROUTE 6
ENVIRONMENTAL ASSESSMENT
NATCHITOCHES PARISH, LA

S.P. NO. 700-35-0140
F.A.P. NO DE-3506(512)

2035 ALTERNATIVE B NOISE CONTOUR MAP

Legend

NOISE CONTOURS

- 66-70.9 dBA
- ≥ 71 dBA

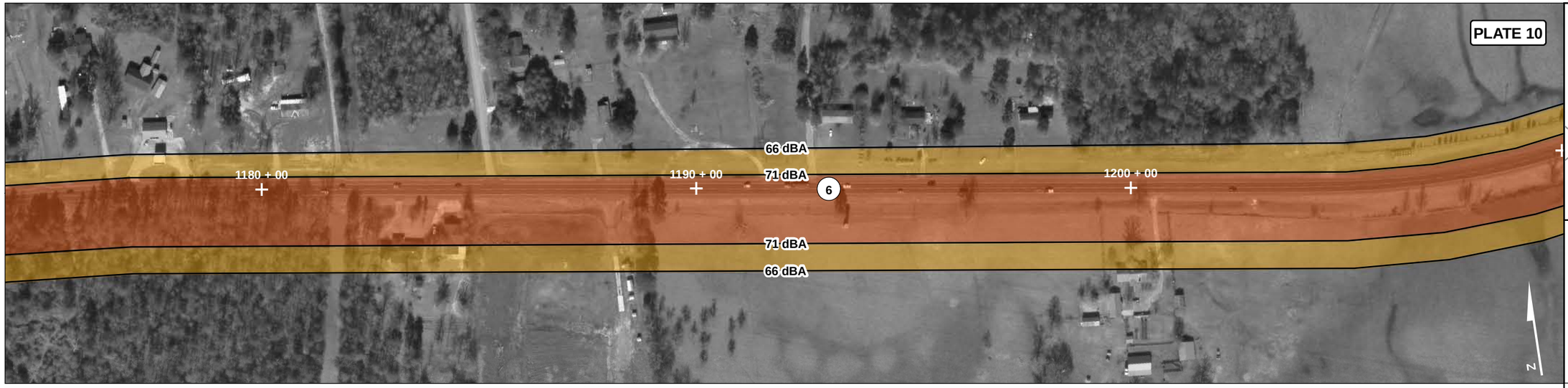
0 75 150 300 Feet

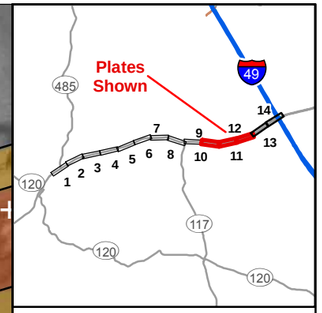
El Camino East / West Corridor

Date:	Project Number:
11/16/2009	LA002860.0004

Figure No.:

B-3





EL CAMINO
EAST/WEST CORRIDOR
LA ROUTE 6
ENVIRONMENTAL ASSESSMENT
NATCHITOCHES PARISH, LA

S.P. NO. 700-35-0140
F.A.P. NO DE-3506(512)

2035 ALTERNATIVE B NOISE CONTOUR MAP

Legend

NOISE CONTOURS

66-70.9 dBA

≥ 71 dBA

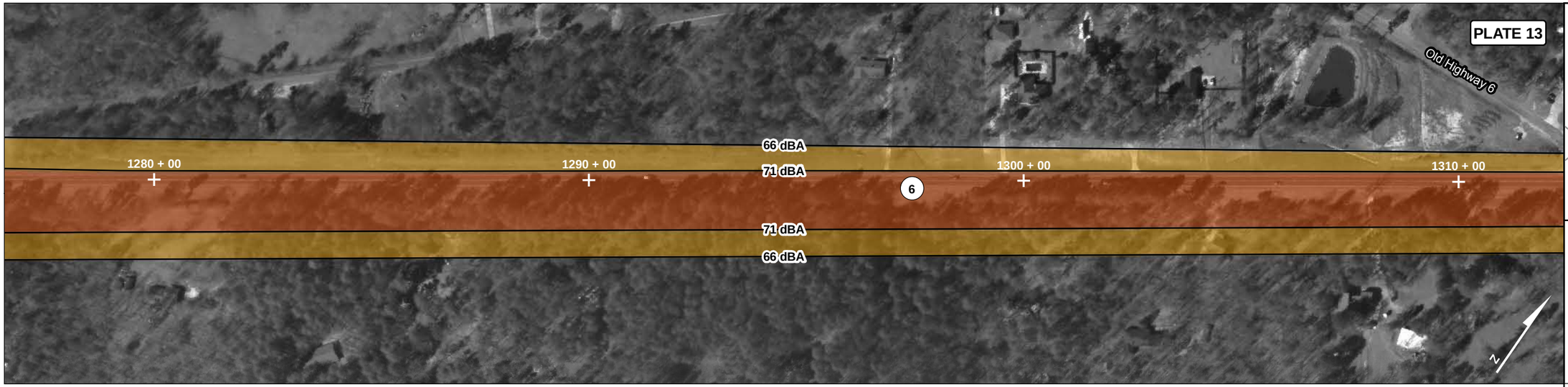
0 75 150 300 Feet

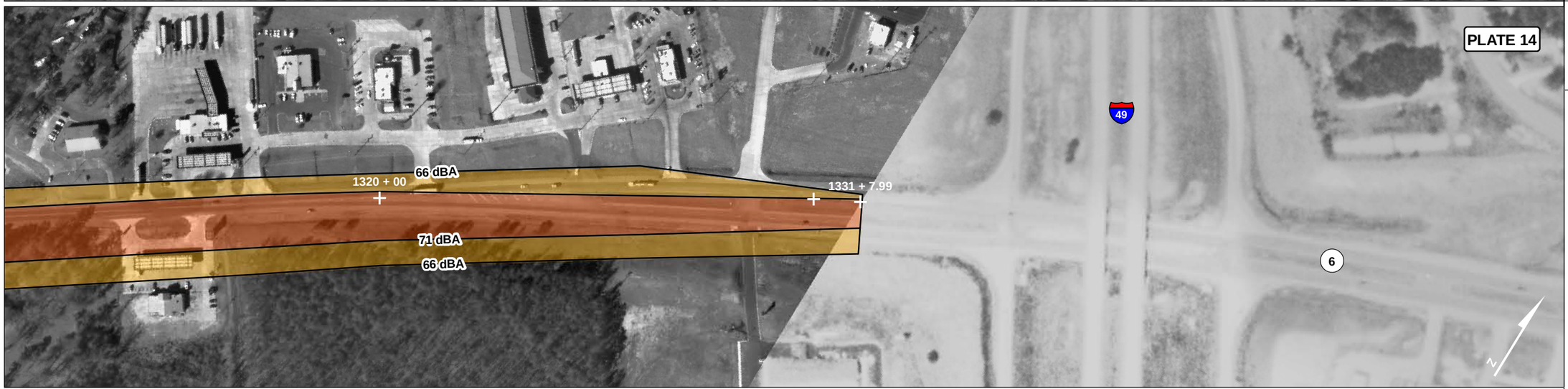
El Camino East / West Corridor

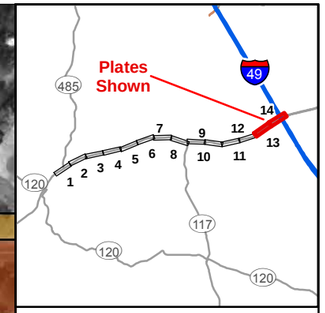
Date:	Project Number:
11/16/2009	LA002860.0004

Figure No.:

B-4







EL CAMINO
EAST/WEST CORRIDOR
LA ROUTE 6
ENVIRONMENTAL ASSESSMENT
NATCHITOCHES PARISH, LA

S.P. NO. 700-35-0140
F.A.P. NO DE-3506(512)

2035 ALTERNATIVE B NOISE CONTOUR MAP

Legend

NOISE CONTOURS

66-70.9 dBA

≥ 71 dBA

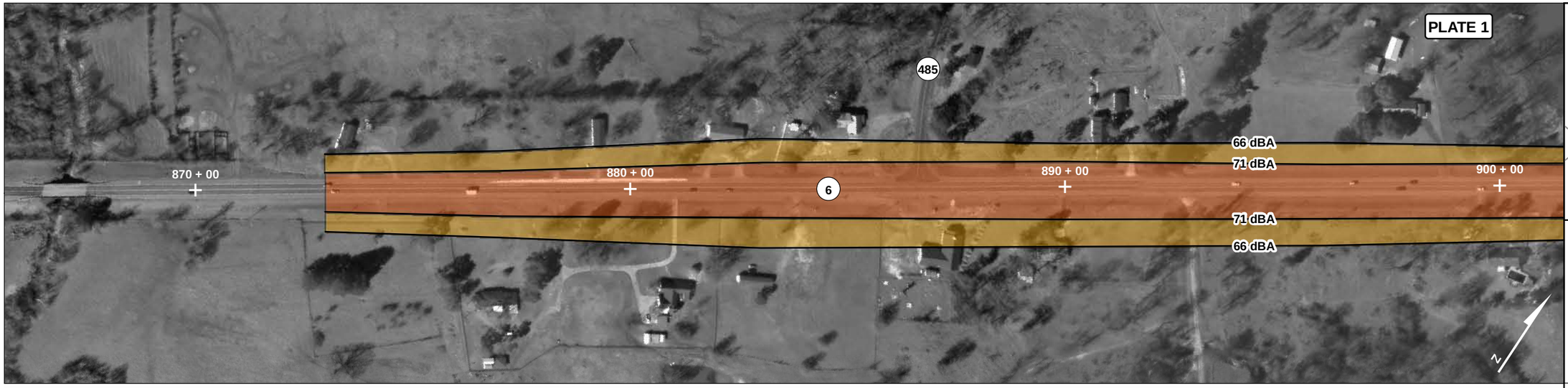
0 75 150 300 Feet

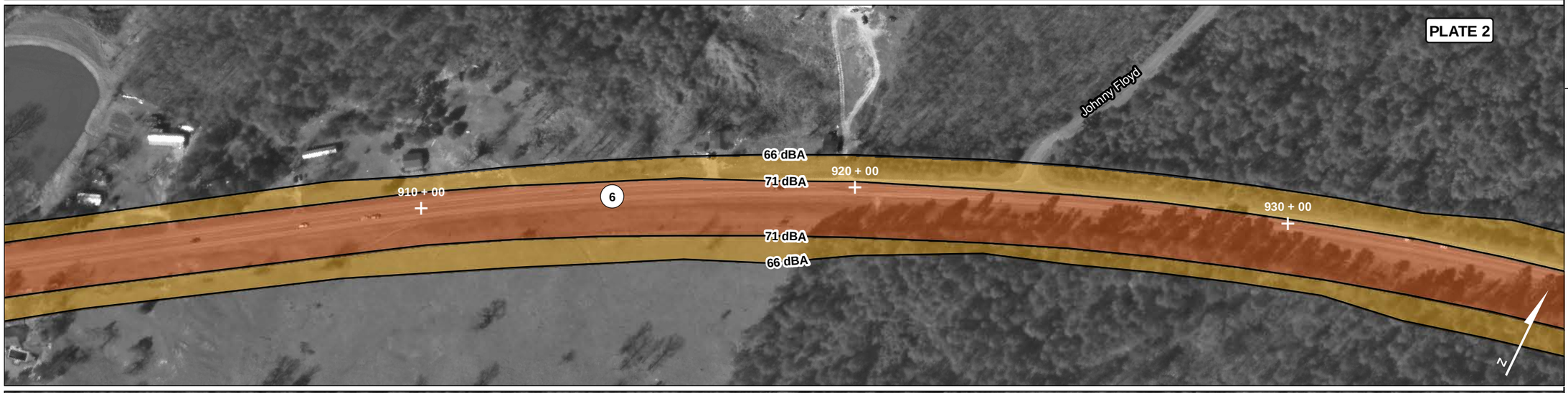
El Camino East / West Corridor

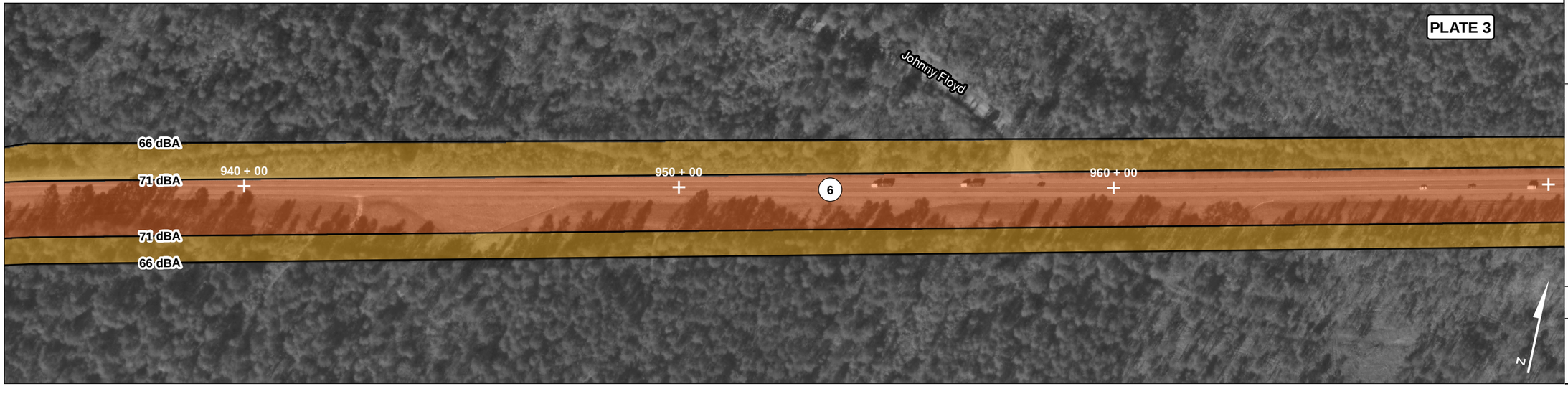
Date:	Project Number:
11/16/2009	LA002860.0004

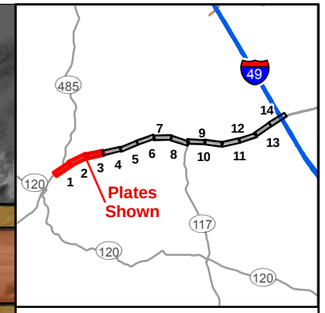
Figure No.:

B-5









EL CAMINO
EAST/WEST CORRIDOR
LA ROUTE 6
ENVIRONMENTAL ASSESSMENT
NATCHITOCHES PARISH, LA

S.P. NO. 700-35-0140
F.A.P. NO DE-3506(512)

2035 ALTERNATIVE C NOISE CONTOUR MAP

Legend

NOISE CONTOURS

- 66-70.9 dBA
- ≥ 71 dBA

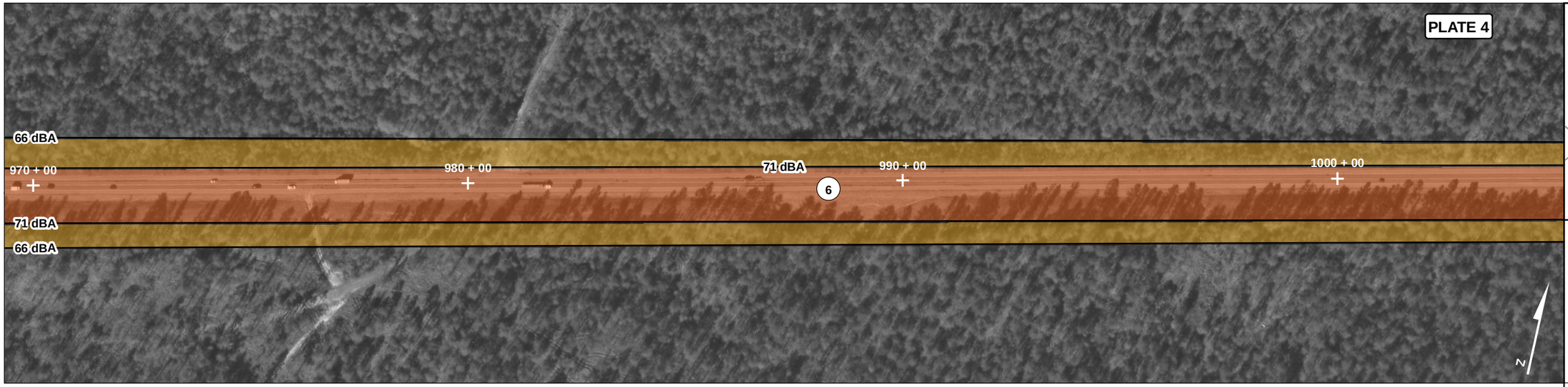
0 75 150 300 Feet

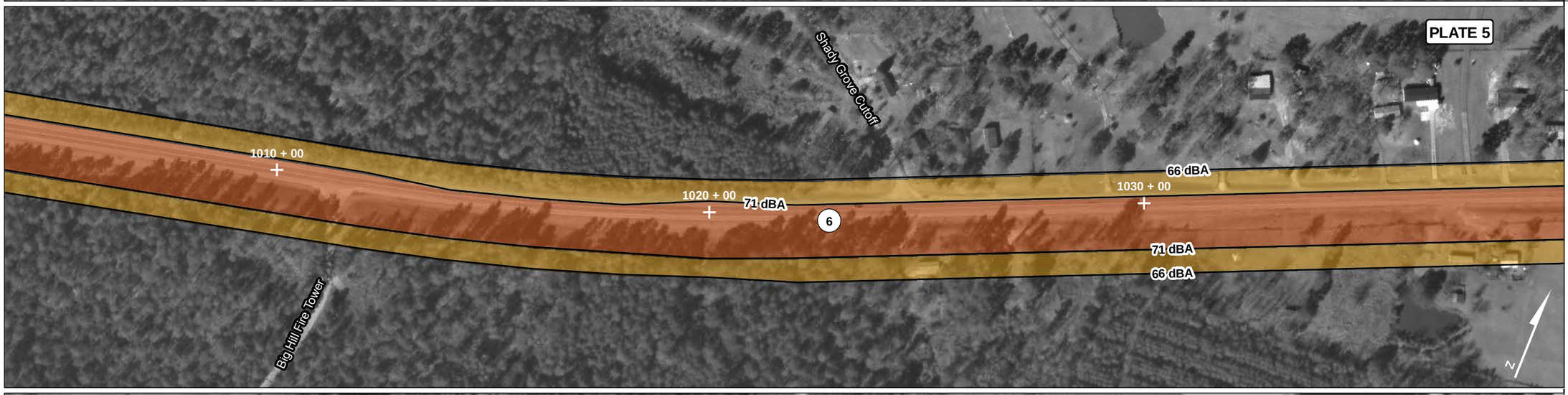
El Camino East / West Corridor

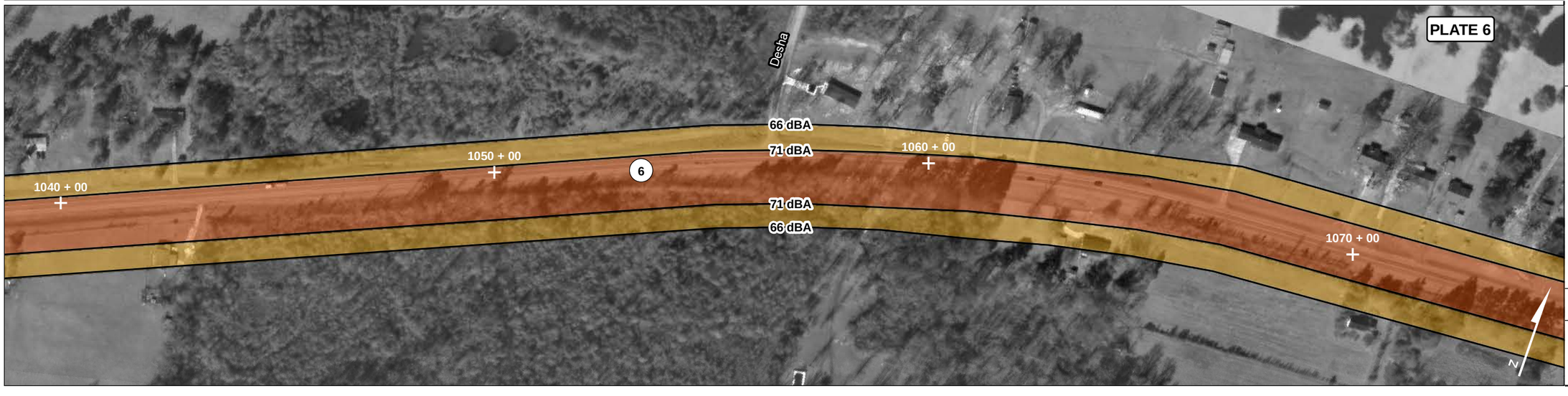
Date:	Project Number:
11/16/2009	LA002860.0004

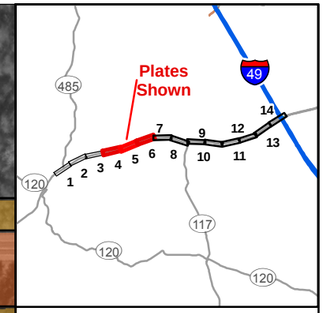
Figure No.:

C-1









EL CAMINO
EAST/WEST CORRIDOR
LA ROUTE 6
ENVIRONMENTAL ASSESSMENT
NATCHITOCHES PARISH, LA

S.P. NO. 700-35-0140
F.A.P. NO DE-3506(512)

2035 ALTERNATIVE C NOISE CONTOUR MAP

Legend

NOISE CONTOURS

- 66-70.9 dBA
- ≥ 71 dBA

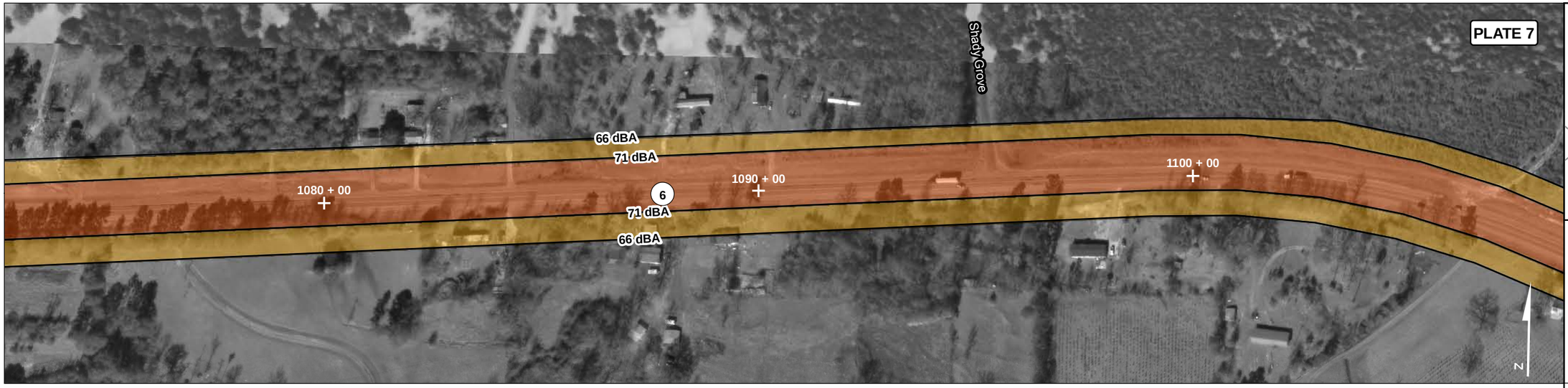
0 75 150 300 Feet

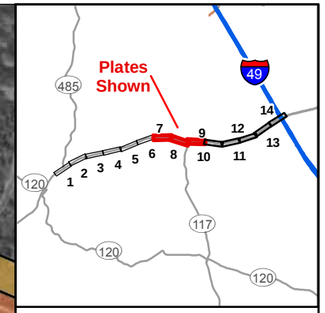
El Camino East / West Corridor

Date:	Project Number:
11/16/2009	LA002860.0004

Figure No.:

C-2





EL CAMINO
EAST/WEST CORRIDOR
LA ROUTE 6
ENVIRONMENTAL ASSESSMENT
NATCHITOCHES PARISH, LA

S.P. NO. 700-35-0140
F.A.P. NO DE-3506(512)

2035 ALTERNATIVE C NOISE CONTOUR MAP

Legend

NOISE CONTOURS

66-70.9 dBA

≥ 71 dBA

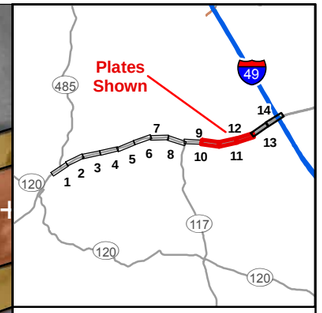
0 75 150 300 Feet

El Camino East / West Corridor

Date:	Project Number:
11/16/2009	LA002860.0004

Figure No.:

C-3



EL CAMINO
EAST/WEST CORRIDOR
LA ROUTE 6
ENVIRONMENTAL ASSESSMENT
NATCHITOCHES PARISH, LA

S.P. NO. 700-35-0140
F.A.P. NO DE-3506(512)

2035 ALTERNATIVE C NOISE CONTOUR MAP

Legend

NOISE CONTOURS

- 66-70.9 dBA
- ≥ 71 dBA

0 75 150 300 Feet

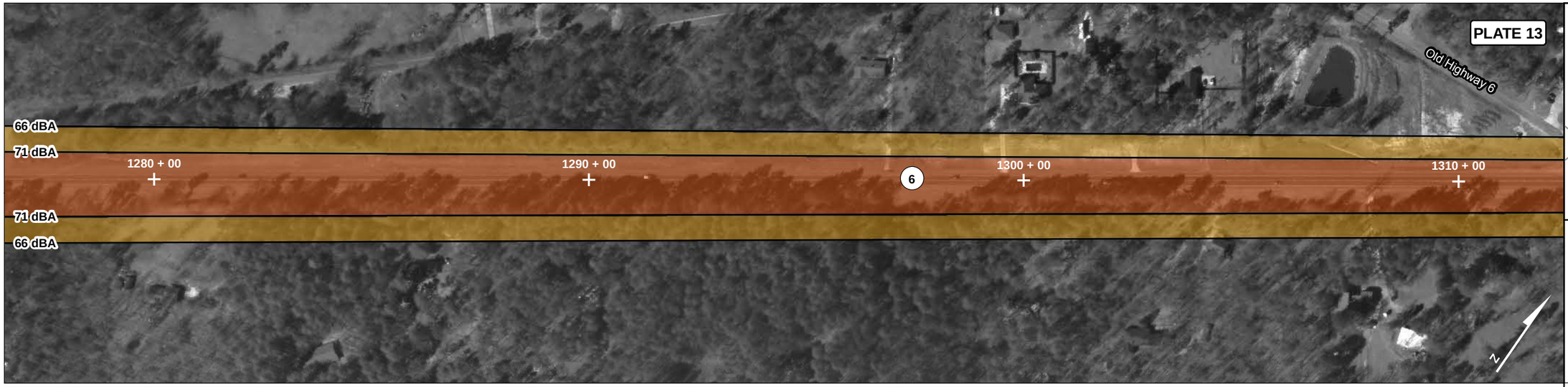
El Camino East / West Corridor

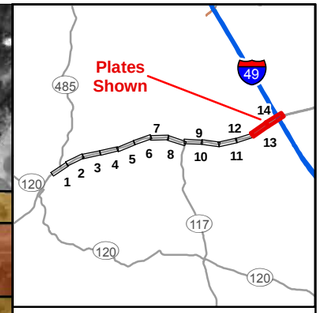
DOTD BUILDS THE WAY

Date:	Project Number:
11/16/2009	LA002860.0004

Figure No.:

C-4





EL CAMINO
EAST/WEST CORRIDOR
LA ROUTE 6
ENVIRONMENTAL ASSESSMENT
NATCHITOCHES PARISH, LA

S.P. NO. 700-35-0140
F.A.P. NO DE-3506(512)

2035 ALTERNATIVE C NOISE CONTOUR MAP

Legend

NOISE CONTOURS

- 66-70.9 dBA
- ≥ 71 dBA

0 75 150 300 Feet

El Camino East / West Corridor

Date:	Project Number:
11/16/2009	LA002860.0004

Figure No.:

C-5

Appendix I

Opinion of Probable Costs

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El Camino East/West Corridor, LA Route 6
Natchitoches Parish, Louisiana
State Project No. 700-35-0140
F.A.P. No. DE-3506(512)

Opinion of Probable Cost

ALTERNATIVE A

Item No.	Description	Width (ft)	Quantity	Unit	Unit Price	Cost in $000 Total	West Segment	East Segment
201-01-00100	Clearing & Grubbing	100	105	acre	$5,000	$526	$286	$240
203-01-00100	General Excavation	---	615,616	cubic yard	$6	$3,694	$2,241	$1,453
203-03-00100	Embankment	---	317,288	cubic yard	$9	$2,856	$1,633	$1,222
302-02-02000	Class II Base Course [6” Thick]	29	67,344	square yard	$24	$1,616	$0	$1,616
302-02-05000	Class II Base Course [10” Thick]	12	33,200	square yard	$28	$913	$913	$0
302-02-06000	Class II Base Course [12” Thick]	24	66,400	square yard	$33	$2,191	$2,191	$0
304-04-00300	Lime Treatment (Type D)[9" Thick]	36	83,600	square yard	$1	$105	$0	$105
304-04-00400	Lime Treatment (Type D)[12" Thick]	36	99,600	square yard	$2	$149	$149	$0
502-01-00100	Superpave Asphaltic Concrete	24	55,650	ton	$100	$5,565	$4,747	$818
601-01-00300	Portland Cement Concrete (9" Thick)	28	65,022	square yard	$90	$5,852	$0	$5,852
	Bridge Construction Cost	---	---	lump sum	$306,000	$306	$0	$306
	Miscellaneous (20%)	---	---	---		$4,754	$2,432	$2,322
					Construction Cost	$28,527	$14,593	$13,933
					Relocation Assistance and Other Real Estate Costs	$6,581	$3,489	$3,092
					Utility Relocation Cost	$856	$438	$418
					Legal/Admin/Engineering Costs	$2,853	$1,459	$1,393
					Subtotal	$38,816	$19,980	$18,837
					8% Contingency	$3,105	$1,598	$1,507
					Total	$41,922	$21,578	$20,344
					*Cost per Mile	$4,835	$4,581	$5,137

Note: Due to rounding errors, the breakdown of segment costs may not appear to be exact.

*Cost per Mile calculated based on Total Project Length = 8.67 miles consisting of 8.28 miles of full width (4 lanes) + 0.39 mile of transition back to existing width (2 lanes); Western Segment length = 4.71 miles; and Eastern Segment Length = 3.96 miles.

El Camino East/West Corridor, LA Route 6
Natchitoches Parish, Louisiana
State Project No. 700-35-0140
F.A.P. No. DE-3506(512)

Opinion of Probable Cost

ALTERNATIVE B

Item No.	Description	Width (ft)	Quantity	Unit	Unit Price	Cost in $000 Total	West Segment	East Segment
201-01-00100	Clearing & Grubbing	100	105	acre	$5,000	$526	$286	$240
203-01-00100	General Excavation	---	403,333	cubic yard	$6	$2,420	$1,447	$973
203-03-00100	Embankment	---	453,458	cubic yard	$9	$4,081	$2,252	$1,829
302-02-02000	Class II Base Course [6” Thick]	29	67,344	square yard	$24	$1,616	$0	$1,616
302-02-05000	Class II Base Course [10” Thick]	12	33,200	square yard	$28	$913	$913	$0
302-02-06000	Class II Base Course [12” Thick]	24	66,400	square yard	$33	$2,191	$2,191	$0
304-04-00300	Lime Treatment (Type D)[9" Thick]	36	83,600	square yard	$1	$105	$0	$105
304-04-00400	Lime Treatment (Type D)[12" Thick]	36	99,600	square yard	$2	$149	$149	$0
502-01-00100	Superpave Asphaltic Concrete	24	55,650	ton	$100	$5,565	$4,748	$818
601-01-00300	Portland Cement Concrete (9" Thick)	28	65,022	square yard	$90	$5,852	$0	$5,852
	Bridge Construction Cost	---	---	lump sum	$306,000	$306	$0	$306
	Miscellaneous (20%)	---	---	---		$4,745	$2,397	$2,348
					Construction Cost	$28,469	$14,383	$14,087
					Relocation Assistance and Other Real Estate Costs	$8,443	$4,535	$3,908
					Utility Relocation Cost	$854	$432	$423
					Legal/Admin/Engineering Costs	$2,847	$1,438	$1,409
					Subtotal	$40,613	$20,788	$19,826
					8% Contingency	$3,249	$1,663	$1,586
					Total	$43,862	$22,451	$21,412
					*Cost per Mile	$5,059	$4,767	$5,407

Note: Due to rounding errors, the breakdown of segment costs may not appear to be exact.

*Cost per Mile calculated based on Total Project Length = 8.67 miles consisting of 8.28 miles of full width (4 lanes) + 0.39 mile of transition back to existing width (2 lanes); Western Segment length = 4.71 miles; and Eastern Segment Length = 3.96 miles.

El Camino East/West Corridor, LA Route 6
Natchitoches Parish, Louisiana
State Project No. 700-35-0140
F.A.P. No. DE-3506(512)

Opinion of Probable Cost

ALTERNATIVE C

Item No.	Description	Width (ft)	Quantity	Unit	Unit Price	Total	Cost in $000 West Segment	East Segment
201-01-00100	Clearing & Grubbing	180	189	acre	$5,000	$946	$515	$432
203-01-00100	General Excavation	---	538,815	cubic yard	$6	$3,233	$2,023	$1,210
203-03-00100	Embankment	---	241,533	cubic yard	$9	$2,174	$1,573	$601
302-02-02000	Class II Base Course [6” Thick]	29	120,028	square yard	$24	$2,881	$0	$2,881
302-02-05000	Class II Base Course [10” Thick]	12	42,667	square yard	$28	$1,173	$1,173	$0
302-02-06000	Class II Base Course [12” Thick]	24	85,333	square yard	$33	$2,816	$2,816	$0
304-04-00300	Lime Treatment (Type D)[9" Thick]	36	149,000	square yard	$1	$186	$0	$186
304-04-00400	Lime Treatment (Type D)[12" Thick]	36	128,000	square yard	$2	$192	$192	$0
502-01-00100	Superpave Asphaltic Concrete	24	75,582	ton	$100	$7,558	$6,101	$1,457
601-01-00300	Portland Cement Concrete (9" Thick)	28	115,889	square yard	$90	$10,430	$0	$10,430
	Bridge Construction Cost	---	---	lump sum		$612	$0	$612
	Miscellaneous (20%)	---	---	---		$6,440	$2,879	$3,562
					Construction Cost	$38,641	$17,272	$21,371
					Relocation Assistance and Other Real Estate Costs	$3,570	$2,472	$1,098
					Utility Relocation Cost	$1,159	$518	$641
					Legal/Admin/Engineering Costs	$3,864	$1,727	$2,137
					Subtotal	$47,234	$21,990	$25,247
					8% Contingency	$3,779	$1,759	$2,020
					Total	$51,013	$23,749	$27,267
					*Cost per Mile	$5,884	$5,042	$6,886

Note: Due to rounding errors, the breakdown of segment costs may not appear to be exact.

*Cost per Mile calculated based on Total Project Length = 8.67 miles consisting of 8.28 miles of full width (4 lanes) + 0.39 mile of transition back to existing width (2 lanes);

Western Segment length = 4.71 miles; and Eastern Segment Length = 3.96 miles.

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