ATTACHMENT 1

LA 70 DETOUR ROUTE STAGE 0 FEASIBILITY STUDY
FINAL REPORT - FEBRUARY 2014
STATE PROJECT NO. H.010571.1

LA 70 Bypass (Detour Route) Stage 0 Feasibility

Final Report

S.P. No. H.010571.1

February 2014

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Prepared for:

Louisiana Department of Transportation and Development

Prepared by:

CB&I

Table of Contents

Description **Page**

1.0 Introduction....1
2.0 Purpose and Need....1
3.0 Background....2
3.1 Past Highway Closures....2
3.2 Bayou Corne Sinkhole....2
3.3 Potential Future Closures....2
4.0 Existing Facility Description....3
5.0 Proposed Concepts....4
6.0 Solicitation of Views....4
7.0 Environmental Documentation....5
8.0 Meetings and Coordination....7
9.0 Public Involvement....7
10.0 Design Criteria....8
11.0 Existing Utilities....9
11.1 Utility Relocation Cost Estimate....11
11.2 Detour Route 2....11
12.0 Traffic Analysis....12
12.1 Existing Traffic Conditions....12
12.2 Volume Forecasting....12
12.3 Turn Lane Warrant Analyses....12
12.4 Intersection Analyses....13
12.5 Traffic Analysis Results....14
13.0 Well Avoidance Study....15
13.1 Approach....15
13.2 Correction of Results....15
13.3 Results of Well Avoidance Study....16
14.0 Preliminary Construction Cost Estimates....17
14.1 Detour Routes 1 and 2 Cost Estimates....17
14.2 Turn Lanes Cost Estimate....18
15.0 Conclusions....20

Preliminary Scope & Budget Checklist....6 pages

Stage 0 Environmental Checklist....3 pages

List of Exhibits

Exhibit 1 – Maps

- Vicinity Map
- 2013 Assumption Tax Parcels (11 X 17)
- Wells and Environmental Avoidance (11 X 17)
- Detour Route 1 Wetlands (11 X 17)
- Detour Route 2 Wetlands (11 X 17)

Exhibit 2 – Typical Sections and Plan Sheets

2.1 Detour Route Typical Section (11 X 17)
2.2 Detour Route Plan Sheet (11 X 17)
2.3 Detour Route Utilities (11 X 17)
2.4 Detour Route Wells (11 X 17)

List of Tables

Table 1 – Coordination Meetings

Table 2 – Existing Utilities

Table 3 – Turn Lane Warrant Analyses

Table 4 – Summary of SIDRA Analyses

Table 5 – Preliminary Conceptual Cost Estimate Detour Routes

Table 6 – Preliminary Conceptual Cost Estimate Turn Lanes at LA 69 and LA 70

Table 7 – Alternatives Comparison Matrix

Appendices

Appendix A – Existing Site Photos for Detour Routes 1 & 2

Appendix B – Traffic Study Report (Appendices included as Digital Copy on Compact Disc)

Appendix C – Environmental Inventory Backup Documentation

- Wetland Reserve Program Correspondence - NRCS
- Base Flood Elevation Correspondence from Assumption OEP and FIRMs
- Navigable Waterway Correspondence & Section 10 Waters - USACE
- Wetland Mitigation Quotes from RES and Supple's Wetlands
- 2013 Tax Parcel Maps and NRCS land classifications – Assumption Tax Assessor
- EDR Radius Map Report (Digital Copy on Compact Disc)

Appendix D – Meetings and Coordination (Agendas/Meeting Minutes/Sign-In Sheets)

Appendix E – Public Involvement Meeting

Appendix F – Interested Parties List

Appendix G – Stage 1 Documentation and Coordination – Providence Engineering

Appendix H – Rural Arterial Design Guidelines

Appendix I – Well Avoidance Study (Appendices included as Digital Copy on Compact Disc)

Appendix J – Utility Location Survey & Relocation Cost Estimate

List of Acronyms

ADT	Average Daily Traffic
AEGL	Acute Exposure Guideline Levels
ALOHA	Areal Locations of Hazardous Atmospheres
CAMEO	Computer-Aided Management of Emergency Operations
CB&I	Chicago Bridge & Iron
CH4	Methane Gas
EDSM	Engineering Directives and Standards Manual
EPA	Environmental Protection Agency
H2S	Hydrogen Sulfide
HCM	Highway Capacity Manual
LA DOTD	Louisiana Department of Transportation and Development
LDEQ	Louisiana Department of Environmental Quality
LDNR	Louisiana Department of Natural Resources
LOC	Level of Concern
LOS	Level of Service
NCHRP	National Cooperative Highway Research Program
NOAA	National Oceanic and Atmospheric Administration
NSI	Neel-Schaffer, Inc.
ORW	Observation Relief Well
PPM	Parts per Million
Providence	Providence Engineering and Environmental Group, LLC
ROW	Right of Way

SHPO	State Historic Preservation Office
T-Baker	T Baker Smith, LLC
USACE	United States Army Corps of Engineers

1.0 Introduction:

The Louisiana Department of Transportation and Development (LA DOTD) is conducting a Stage 0 Feasibility Study/Environmental Inventory and a Stage 1 Environmental Assessment for a detour route on Louisiana Highway 70 (LA 70). The proposed project will provide an alternative route for commuters traveling along the highway in light of an emergency situation resulting in closure of the roadway associated with the Napoleonville Salt Dome, in particular with activities related to the sinkhole that emerged after the underground failure of a salt dome cavern. This report covers the tasks completed as part of the Stage 0 Feasibility Study/Environmental Inventory. ***Exhibit 1*** shows the project vicinity.

As a separate part of this study, three (3) bypass routes for LA 70 are considered, as well as, the required improvements to bring two Traffic Contingency Plan routes which are located on existing roadways up to current design criteria. This report provides information related to the construction of the detour route only.

As part of this study two (2) alternatives were considered for the Detour Route concept and both are shown in ***Exhibit 2***. Each route is approximately 1 mile long and is located over 700 ft. north of the existing LA 70. The Detour Route commences close to the intersection of LA 70 and Gumbo St. and terminates north of the intersection of LA 70 and Louisiana Highway 69 (LA 69).

While the Detour Route is intended to provide a solution for an emergency closure of LA 70, there is a potential that it could also serve as a permanent alternative should it fall outside of the long-term subsidence maximum extent boundary, which is currently unknown. This study was completed with consideration that the route could potentially become a permanent corridor.

2.0 Purpose and Need:

The purpose and need of this project is to protect human welfare and provide system linkage in the event that the integrity of LA 70 is compromised and the roadway is closed to local responders and residents due to activities associated with the large sinkhole that first formed in August 2012. LA 70 is also currently listed as a state emergency evacuation route. Traffic counts taken in early April 2013 determined that the average daily traffic (ADT) totaled 7,517 on LA 70 (immediately west of the intersection of LA 69 and LA 70).

3.0 Background:

3.1 Past Highway Closures

LA 70 serves as a major connector for the southern portions of Louisiana and is listed as a Louisiana State Emergency Evacuation Route. It is frequently utilized by motorists and school buses traveling between Pierre Part and Napoleonville. Due to public safety concerns related to activities with the Napoleonville Salt Dome, LA 70 has been closed three (3) times since 2003. Past closures have been required because of oil and gas well blowouts but the potential exists that future closures may be required due to subsidence associated with the nearby sinkhole.

3.2 Bayou Corne Sinkhole

The sinkhole was discovered on August 3, 2012 over two months after bubbles were seen rising up from Bayou Corne. As of July 2013, it is located approximately 1100 ft. south of the existing LA 70 highway. The sinkhole resulted from a collapsed brine cavern near the Napoleonville Salt Dome in Bayou Corne, LA. Since the formation of the sinkhole, there has been a statewide emergency declaration issued by the Governor as a result of subsidence and subsurface instability of the area. There are other caverns of concern near the initial salt dome cavern failure that are even closer to LA 70. LA DOTD has been actively monitoring LA 70 in the vicinity of the sinkhole to ensure the public's safety and as part of the detection and motorist warning system.

3.3 Potential Future Closures

Although at this time LA DOTD has no concerns related to the integrity of LA 70, this study is being conducted out of an abundance of caution to determine the feasibility of constructing a detour route in the vicinity should an emergency closure of LA 70 be required due to subsidence related to the sinkhole. Currently when the highway is closed, motorists are forced to utilize existing detour routes, which add an extra hour on to their commute.

Should such a closure be required, this project could provide access for motorists without the significant increase in commute time. Motorists utilizing this corridor as an emergency evacuation route, traveling from Morgan City to northern portions of our state and local commuters traveling between Pierre Part and Napoleonville, will maintain linkage within the general vicinity of the existing roadway corridor but outside of the immediate area of concern.

In addition, the traffic analysis shows that this project will improve the intersection operations for LA 70 at LA 69.

4.0 Existing Facility Description:

LA 70 begins as an undivided two (2) lane roadway at US Highway 90 in Morgan City and runs north along the Atchafalaya River before passing through Pierre Part. LA 70 takes an eastern turn near its crossing with Bayou Pierre Part before passing through the Bayou Corne community. Near LA 1 and Paincourtville, LA 70 continues back in a more northern direction. It becomes a four (4) lane divided roadway with median near its intersection with Louisiana Highway 3089 (LA 3089). After crossing the Mississippi River by way of the Sunshine Bridge it narrows back to an undivided two (2) lane roadway. LA 70 ends where it intersects LA 22 near the Interstate 10 interchange in Ascension Parish.

This project will focus on the section of LA 70 near its intersection with LA 69. This segment runs east-west and is an existing two (2)-way undivided highway with ditches. It has 12 ft. travel lanes and shoulder widths which vary between 6 and 10 ft. The posted speed for LA 70 is 45 miles per hour (mph) west of the intersection of LA 69 and 55 mph east of LA 69. LA 69 is an existing two (2) lane undivided highway with a posted speed of 55 mph.

Additional highways within the project area include Louisiana Highway 996 (LA 996) and Louisiana Highway 1000 (LA 1000). LA 996 is an existing two (2) lane undivided highway with posted speeds of 45 mph and 55 mph which runs north-south at its intersection with LA 70. LA 996 changes to an east-west alignment north of LA 1000 before intersecting with LA 69. LA 1000 is an existing two (2) lane undivided highway which runs east-west with a posted speed of 50 mph.

There are four (4) unsignalized intersections located within the project study area. They each are stop controlled and are listed below:

- LA 70 at LA 69 – stop control on LA 69
- LA 70 at LA 996 – stop control on LA 996
- LA 996 at LA 1000 – stop control on LA 1000
- LA 996 at La 69 – stop control on LA 996

5.0 Proposed Concepts:

This report evaluates two (2) alternative routes for a detour route: Detour Route 1 and Detour Route 2. Both routes are shown in aerial view in ***Exhibit 2***. Detour Route 1 was developed based on stakeholder input and was located close to an existing ridge. Detour Route 2 was developed as an alternative which would require less utility relocation and potential delays due to permitting associated with utility relocations. A third alternative, Detour Route 3 was considered but subsequently eliminated. A brief summary of Detour Route 3 is provided in the following paragraph.

Detour Route 3 was developed to prevent the required removal of an AT&T cell tower located within close proximity of each of the Detour Routes. This route was intended to address concerns expressed by a stakeholder regarding the negative impacts removing the tower would have on communications. This route would disturb more wetland area than any of the Detour Routes considered in this study. During the July 19, 2013 permit coordination meeting, it was suggested that a mobile tower be used to mitigate the impacts of the cell tower's removal. Consequently, Detour Route 3 was eliminated.

Detour Routes 1 and 2 both begin close to LA 70 at Gumbo St. and end north of the intersection of LA 70 and LA 69. Detour Route 1 is located over 700 ft. north of the existing LA 70 and Detour Route 2 is located over 900 ft. north of LA 70. Each route is approximately one (1) mile in length and are compared as part of this study. LA DOTD will determine which Detour Route should proceed into Stage 1.

6.0 Solicitation of Views:

Providence Engineering and Environmental Group, LLC (Providence) has been retained by LA DOTD to complete Stage 1 for this project. As mentioned, Stage 1 is running concurrently with Stage 0 and as part of Stage 1, and the Solicitation of Views was completed for the Detour Route corridor. The Solicitation of Views, as well as other Stage 1 coordination and documentation provided by Providence to Chicago Bridge & Iron (CB&I) can be found in ***Appendix G***. Several comments were obtained in response to the Solicitation of Views, one of which led to a revision of the turnout geometry for the original Detour Route 1. The original turnout for Detour Route 1 included a curve immediately before connecting to a tangent segment of the existing LA 69. The revised turnout geometry removes the curve from the turnout for Detour Route 1 and connects to an existing curve on LA 69. This revision was completed in order to reduce the impacts to the Gator Gold Casino and Truck Stop located in the northwest quadrant of the LA 70 and

LA 69 intersection. The Gator Gold Casino and Truck Stop requires a minimum of 5 acres to operate as a casino. The possibility of property transfer from adjacent landowners could also potentially satisfy and maintain acreage requirements.

7.0 Environmental Documentation:

The Stage 0 Environmental Inventory includes a preliminary environmental review of the project to identify any and all project-stopping issues or constraints that could potentially influence early determination of the project's feasibility, timing and cost. This includes researching and addressing each item on the enclosed Stage 0 Environmental Checklist. This project is very sensitive to the Bayou Corne community and has been highly publicized due to the residents being displaced because of the sinkhole for over a year. No environmental, socioeconomic or cultural resource constraints, or context sensitive issues that would be considered as "show stopping" constraints for the progression of this project were identified. However, a few items to be noted are described below. A more detailed evaluation of these issues is being conducted in the Stage 1 process. All environmental documentation can be found in ***Appendix C***.

Wetlands: One item of concern is the potential impact to various wetland areas. Both detour routes will potentially impact high quality wetland areas. Detour Route 1 will potentially impact approximately 16 acres and Detour Route 2 will potentially impact approximately 22 acres of wetlands.

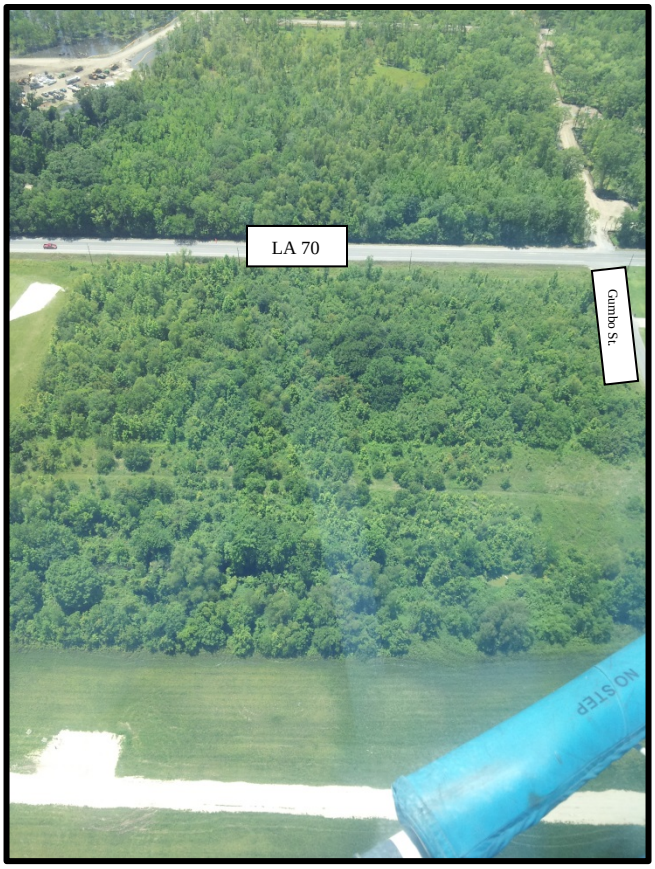
Significant Trees: There were potential Significant Trees, as defined by Engineering Directives and Standards Manual (EDSM) No. I.1.1.21 dated 9/3/2004, identified in several areas of the proposed right-of-way (ROW) for both detour routes. One documented live oak lies directly behind the rear parking lot of the Gator Gold Casino and Truck Stop. This particular tree was also mentioned by several members of the public at the public involvement meeting. A more detailed field verification will need to be conducted during Stage 1 due to limited access to some of the heavily wooded areas.

Wells: There are numerous water wells and oil and gas wells within the immediate vicinity of both Detour Routes. Another item of concern to be taken into consideration is the presence of Observation Relief Wells (ORWs) associated with sinkhole activities. Maps for all of these wells can be found in ***Exhibit 1***.

Historic Sites: There is a potential historical site located within the wooded area directly to the east of the intersection of LA 70 and Gumbo St. From records and information received from the Louisiana State Historic Preservation Office (SHPO) and local residents, the structure is an abandoned dwelling which may or may not still be standing. From a 1985 photograph, the structure was a wood-framed house beneath several large live oak trees and situated on sugar cane fields. Since then, the land has been overgrown and is heavily wooded. A field verification to determine whether or not the structure is still standing was unsuccessful due to access issues.

Photograph taken on 12/6/85 by M.K. Shuman –

State of Louisiana Site Record Form State Survey No. 16AS45



Aerial Photograph taken on 6/4/13 by K.Moree of

overgrown area where potential historic dwelling is located.

8.0 Meetings and Coordination:

There were several meetings conducted as part of this study. Collectively these meetings helped to ensure that input was obtained from the public, stakeholders and agencies. They also assisted with coordination between agencies which would ultimately have to approve the required permits for the Detour Route's construction. A synopsis of the meetings can also be found in the Scope & Budget Checklist. Please refer to ***Appendices D and E*** for all backup documentation regarding meetings held for the Detour Routes. ***Table 1*** provides a brief description of all coordination meetings on record.

Table 1

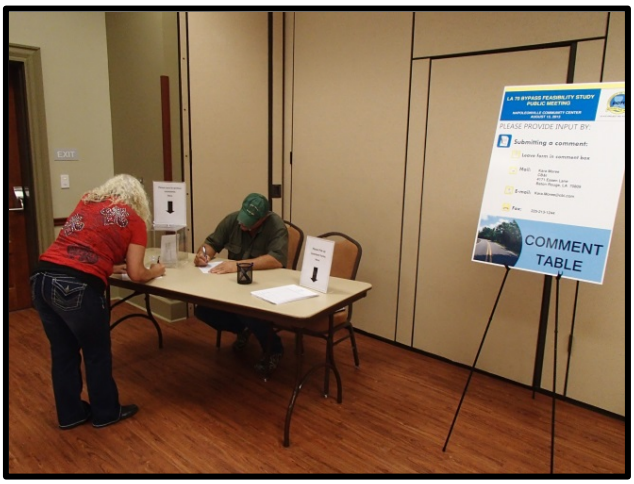
Coordination Meetings

Type of Meeting:	**Date Meeting Held:**	**Location of Meeting:**
Project Initiation Meeting	March 27, 2013	LA DOTD
Stakeholder Meeting #1	April 11, 2013	Assumption Parish OEP Office
Well Avoidance Meeting	April 25, 2013	LA DOTD
Progress Meeting	July 9, 2013	LA DOTD
Permit Coordination Meeting	July 19, 2013	LDNR
Stakeholder Meeting #2	July 31, 2013	LA DOTD Auditorium
Public Involvement Meeting	August 13, 2013	Napoleonville Community Center

9.0 Public Involvement:

A public involvement meeting was held on August 13, 2013 at the Napoleonville Community Center from 6 – 8 pm. This meeting was advertised in three (3) newspapers in the immediate area. Such newspapers were *The Advocate*, *The Assumption Pioneer*, and *The Bayou Journal*. An announcement was also posted on the Assumption Parish Blog, Bayou Corne Facebook pages related to the sinkhole, and on LA DOTD's website.

The meeting was conducted in an open-house format in which a brief PowerPoint presentation ran continuously on a "loop" and exhibits were set up around the room for attendees to view at their discretion. Team members were positioned around the room to answer any questions. A comment table was positioned near the entrance for written comments and at a second table, verbal comments were recorded by a court reporter. A total of 33 residents attended the meeting as well as 22 additional attendees which were representative of team members and various agencies.



The public had ten (10) days following the meeting to send comments in which would become part of the official record. Several comments were received and one potential new bypass alignment was discussed by several participants at the meeting. This alignment is documented in ***Appendix E*** with the backup documentation for the Public Meeting and should possibly be considered in Stage 1. A Public Hearing will be held as part of the Stage 1 process in regards to the Detour Routes. A complete list of interested parties to date can be found in ***Appendix F***.

10.0 Design Criteria:

All concepts developed for this project are based on the appropriate LA DOTD Design Criteria. Both Detour Routes are designed as Rural Arterial (RA-1) roadways with a design speed of 50 mph. Each Detour Route consists of a two (2) lane roadway with 12 ft. lanes and 8 ft. shoulders. Superelevation is likely required for the Detour Routes. Therefore, the appropriate tangent lengths are provided within the horizontal alignment to allow for transitions with an e_{max} = 10% under the assumption that the 80/20 rule applies.

Detour Route 1 encroaches onto an existing ditch. It has been assumed that the required capacity of this ditch can be obtained within a relocated section between the proposed route and the existing utilities located south of the ditch.

The LA DOTD Minimum Design Guidelines for Rural Arterial Roads indicates that if design volumes are greater than 6,000 vehicles per day, consideration should be given to increasing to a four (4) lane facility. The volumes along this corridor exceed this amount but the traffic study did not indicate a capacity issue. Consequently, the typical section for this study consists of a two (2) lane roadway but the required ROW width used in the construction cost estimate allows for future widening of the roadway. A copy of the LA DOTD Minimum Design Guidelines for Rural Arterial Roads is provided in ***Appendix H***.

It may be worth considering the realignment of the existing LA 69 Highway as part of the turn lane improvements should the Detour Route become permanent. This realignment would improve the intersection sight distances where the existing LA 69 intersects the Detour Routes as well as improve the angle of intersection between the Detour Route and existing LA 69.

It has been determined that Detour Route 1 would be constructed in phases in the event that the existing LA 70 is closed before utilities can be relocated. The first phase for this construction would consist of a single-two-way 12 ft. travel lane with 4 ft. shoulders. Temporary traffic signals would be located at the beginning and end of the detour route and trucks would be restricted. There are two (2) private driveways which would be impacted but these owners would be notified prior to the implementation. The estimated construction cost for the first phase of this construction is approximately $8.2 million with a 20% contingency. This cost excludes the cost for engineering, mitigation, ROW acquisition and utility relocation.

The concepts shown in this report are in accordance with the current applicable design criteria; however, final approvals and acceptance of any design will rest with LA DOTD. The information presented in this study is solid for a feasibility study but it should not be treated as anything more than a conservative conceptual concept.

11.0 Existing Utilities:

As part of this study, T Baker Smith, LLC (T-Baker) completed a utility location survey and estimated the required utility relocation costs associated with each Detour Route. This survey was necessary due to the

numerous pipeline facilities in the project area and the significant utility relocation costs associated with potential conflicts with the proposed Detour Routes. These services included a Utility Quality Level B service for utilities which cross the proposed route and a Utility Quality Level D service for utilities which are located along the route.

The following utilities shown in ***Table 2*** were identified in close proximity of the Detour Routes.

Table 2

Existing Utilities

Detour Route 1	
Utility Owner	**Utility Description**
Acadian Gas Pipeline System	2-20” natural gas pipelines
Acadian Gas Pipeline System	12” natural gas pipeline
Allen's Cable	aerial lines
American Tower	Cell Tower
Assumption Water	6" waterline
Assumption Water	14" waterline
AT&T	aerial and buried lines
Bridgeline Holdings L.P.	4-24” natural gas pipelines
Bridgeline Holdings L.P.	2-12" water pipelines
Crosstex Energy Inc.	36” natural gas pipeline
Crosstex Energy Inc.	10” pipeline with highly volatile liquid
Crosstex Energy Inc.	6” pipeline with highly volatile liquid
Entergy	aerial lines
Texas Brine Company, LLC	2-12” brine pipeline
Detour Route 2	
AT&T	aerial and buried lines
Acadian Gas	2-20" Natural Gas Pipelines (Abandoned)
Acadian Gas	12" Natural Gas Pipeline
Allen's Cable	aerial lines
American Tower	Cell Tower
Bridgeline Holdings, L.P.	2-24" Natural Gas Pipelines
Crosstex Energy Inc.	36" Natural Gas Pipeline (Abandoned)
Crosstex Energy Inc.	10" highly Volatile Liquid
Crosstex Energy Inc.	6" Highly Volatile Liquid
Entergy	aerial lines
Texas Brine Company, LLC	2-12" Brine Pipelines

11.1 Utility Relocation Cost Estimate

The estimated utility relocation cost for Detour Route 1 was determined to be a total of approximately $7.33 million. This cost reflects the data provided by T-Baker in a report dated October 2013. Some of the more expensive relocation costs were associated with two (2) 24" natural gas pipelines owned by Bridgeline Holdings, L.P. These pipelines were located parallel to Detour Route 1 and a few feet north of the westbound shoulder. They collectively accounted for approximately $4,507,000 of the total utility relocation cost estimate.

Even more of a concern than construction cost, the two (2) natural gas pipelines presented an issue which could make Detour Route 1 an ineffective immediate alternative. The relocation of these lines would require that permits be obtained from agencies such as the U.S. Army Corps of Engineers (USACE), the Louisiana Department of Natural Resources (LDNR) and the Louisiana Department of Environmental Quality (LDEQ). The potential delay associated with this permitting process could negatively impact the construction timeline of Detour Route 1.

The discussions about potential permitting delays led to the suggestion that they might qualify for emergency permitting. If Detour Route 1 could be constructed and the pipelines relocated under an emergency permit, the delays to construction would be negligible but this would require that the construction meet the USACE's and LDNR's definitions of an emergency. A permit coordination meeting was held on July 19, 2013 to determine if this project would qualify for an emergency permit. It was determined that LDNR would permit the roadway and the utility relocations under an emergency permit and on August 1, 2013, the USACE confirmed via email that the construction of the Detour Routes and relocation of the existing pipelines would qualify under the Emergency Permit NOD-20. A copy of the email from the USACE is provided in ***Appendix D***.

11.2 Detour Route 2

Detour Route 2 was developed as an alternative which avoids the two (2) natural gas pipeline conflicts and the delays their relocation might cause. The estimated utility relocation cost for Detour Route 2 was determined to be a total of approximately $2.57 million. This cost reflects the data provided by T-Baker in a report dated October 2013. ***Exhibit 2*** shows the Detour Routes and the existing utilities. T-Baker's utility report is provided in its entirety as ***Appendix J***.

12.0 Traffic Analysis:

A traffic study was completed by Neel-Schaffer, Inc. (NSI) as part of this project to determine the existing traffic conditions, as well as to assess the future transportation impacts associated with both the No Build scenario and the proposed LA 70 Detour Routes. The traffic analysis assumed that the LA 70 Detour Route would be completed and operational by the year 2018. The design year of 2038 was assumed to account for the potential of the route becoming a permanent alternative.

Four (4) existing intersections and one (1) proposed intersection were analyzed as part of the traffic study. The four (4) existing intersections considered in the traffic study were mentioned in prior sections of this report: LA 70 at LA 69, LA 70 at LA 996, LA 996 at LA 1000 and LA 996 at LA 69. The one (1) proposed intersection considered in the traffic study was valid for both Detour Route 1 and Detour Route 2. This section will summarize the existing traffic data obtained as part of the traffic study. The traffic report is provided in ***Appendix B*** and the traffic counts, traffic projections and associated calculations are provided in their entirety in electronic form.

12.1 Existing Traffic Conditions

The existing traffic data was collected in March and April 2013 to identify travel demand and travel patterns within the project vicinity. Seven (7) day, 24-hour and 48-hour machine counts were collected at various locations within the study area. The ADT and count locations within the project limits are shown in Figure 3 of the traffic report and the existing AM and PM counts are provided in Figure 4 of the traffic report in ***Appendix B***.

12.2 Volume Forecasting

A growth rate of two (2) percent was used to estimate the 2018 and 2038 volumes for both the Build and No Build scenarios. The projected volumes reflect the existing roadway for the No Build condition and the proposed LA 70 Detour Route for the Build condition in each of the future years considered. The AM and PM peak hours for 2018 and 2038 are shown in Figures 5 through 8 of the traffic report for both the No Build and Build scenarios.

12.3 Turn Lane Warrant Analyses

A turn lane warrant analysis was performed using the methods outlined in the National Cooperative Highway Research Program (NCHRP) Report Number 457 entitled "*Evaluating Intersection*

Improvements." The build volumes were used to complete this analysis for the northbound left, southbound right and the minor street for the 2018 and 2038 AM and PM peaks.

A summary of the analyses results from the Traffic Study are presented in ***Table 3***. The detailed turn-lane analyses are provided in electronic form.

Table 3

Turn Lane Warrant Analyses*

Movements		**2018 Build**		**2038 Build**	
		AM	*PM*	*AM*	*PM*
LA 69	NBL	Not Warranted	Not Warranted	Not Warranted	Warranted
	SBR	Not Warranted	Warranted	Not Warranted	Warranted
LA 70 Detour Route	EB	Single Lane	Single Lane	Single Lane	Single Lane

*Table provided by NSI

12.4 Intersection Analyses

In order to evaluate the existing conditions, identify operational deficiencies and define future facility requirements, an intersection analysis was completed for the four (4) existing and one (1) proposed intersection utilizing the 2013, 2018 and 2038 No Build and Build conditions. This analysis was completed using the level of service (LOS) concepts which are outlined in the 2010 Highway Capacity Manual (HCM). The HCM defines LOS as a "quantitative stratification of a performance measure or measures that represent quality of service." This concept presents the results of how well a facility operates based on a scale which ranges from A to F. A LOS of A represents the best operating conditions and a LOS of F the worst. The results of this analysis are summarized in ***Table 4*** which also appears in the traffic study completed by NSI.

Table 4
Summary of SIDRA Analyses*
Delay (sec) & LOS

Intersection			LA 70 at LA 69	LA 70 at LA 996	LA 996 at LA 1000	LA 69 at LA 996	LA 69 at LA 70 Detour Route		LA 69 at LA 70 Detour Route with recommended turn lanes	
Stop Controlled Approach			***SB***	***SB***	***WB***	***WB***	***NBL***	***EB***	***NBL***	***EB***
2013 Existing	AM	*Delay*	15.9	12.9	7.4	7.8	-	-	-	-
		LOS	C	B	A	A	-	-	-	-
	PM	*Delay*	21.0	19.0	7.5	7.7	-	-	-	-
		LOS	C	C	A	A	-	-	-	-
2018 No Build	AM	*Delay*	17.7	13.8	7.5	7.8	-	-	-	-
		LOS	C	B	A	A	-	-	-	-
	PM	*Delay*	26.0	21.8	7.5	7.7	-	-	-	-
		LOS	D	C	A	A	-	-	-	-
2018 Build	AM	*Delay*	15.4	13.8	7.5	7.8	3.6	13.2	3.7	11.7
		LOS	C	B	A	A	A	B	A	B
	PM	*Delay*	15.1	21.8	7.5	7.7	5.1	12.7	5.0	11.3
		LOS	C	C	A	A	A	B	A	B
2038 No Build	AM	*Delay*	31.1	17.8	7.5	8.0	-	-	-	-
		LOS	D	C	A	A	-	-	-	-
	PM	*Delay*	111.4	46.0	7.6	7.9	-	-	-	-
		LOS	F	E	A	A	-	-	-	-
2038 Build	AM	*Delay*	26.7	17.8	7.5	8.0	4.1	19.1	4.3	13.4
		LOS	D	C	A	A	A	C	A	B
	PM	*Delay*	23.8	46.0	7.6	7.9	7.5	17.4	7.3	13.2
		LOS	C	E	A	A	A	C	A	B

*Table provided by NSI

12.5 Traffic Analysis Results

The results of the Traffic Analyses reveal that the LA 70 Detour Route will have a positive impact on the existing transportation facilities within the project vicinity. The 2018 and 2038 volumes result in acceptable LOS and delays for the intersection of LA 69 and LA 70 but it is recommended that the following turn lanes be considered should the detour route become a permanent alternative:

- LA 69 northbound left turn lane (400 ft. storage length)
- LA 69 southbound right turn lane (270 ft. storage length)
- LA 70 detour route eastbound right turn lane (380 ft. storage length)

The storage lengths reflected in the above list are based on the LA DOTD's *Traffic Impact Policy for New Access Requests*. Each of the turn lanes above are recommended to have a taper length of 165 ft. The detailed calculations associated with these results are provided in digital form.

13.0 Well Avoidance Study:

As part of this project, CB&I completed a well avoidance alignment evaluation which identified the gas vent and monitoring wells along the proposed alignment that should be plugged and abandoned. This study analyzes several Observation Relief Wells (ORWs) utilizing Computer-Aided Management of Emergency Operations (CAMEO) software. CAMEO suite is a system of software applications which was developed by the Environmental Protection Agency's (EPA) Office of Emergency Management and the National Oceanic and Atmospheric Administration (NOAA) Office of Response and Restoration to assist front-line chemical emergency planners and responders. It is often used to plan for and respond to chemical emergencies.

13.1 Approach

Utilizing CAMEO, several ORWs in the vicinity of the Detour Routes were analyzed for methane gas (CH_4) and hydrogen sulfide (H_2S). These gases are present, or could be feasibly present in sufficient quantities to cause concern for human health and safety for the wells addressed in the report. The ORWs considered in this study are shown in ***Exhibit 2***. Historical data was obtained for each of the ORWs and scenarios were constructed and modeled which assumed 100% CH_4 or H_2S for each of the wind directions (north, south, west and east).

13.2 Correction of Results

Areal Locations of Hazardous Atmospheres (ALOHA) is a software application within CAMEO which displays estimates as threat zones. Threat zones are areas where a hazard (such as toxicity, flammability, thermal radiation or damaging overpressure) has exceeded a user specified Level of Concern (LOC). The LOCs are based on the impacts due to the associated exposure levels. A description of each LOC is provided below:

1. Toxicity – Toxic Area of Vapor Clouds consist of three (3) Acute Exposure Guideline Levels (AEGLs) whose LOCs are determined by the site/situation specific data and chemical of concern information. These levels are defined as follows:

a. For CH_4
    i. Red Threat Zone: 17000 ppm
    ii. Orange Threat Zone: 2900 ppm
    iii. Yellow Threat Zone: 2900 ppm
b. For H_2S
    i. Red for 60 minutes at 50 ppm
    ii. Orange for 60 minutes at 27 ppm
    iii. Yellow for 60 minutes at 0.51 ppm

2. Flammability and Thermal Radiation - The Flammable Area of Vapor Cloud is broken down into two threat zones and they are listed below:
    a. Red at 60% Lower Explosive Limit
    b. Yellow at 10% Lower Explosive Limit

3. Damaging Overpressure - Blast zones within ALOHA are separated into three (3) different categories with corresponding overpressure and destructive capability and they are as follows:
    a. Red Threat Zone - 8.0 psi whereby destruction of buildings is likely
    b. Orange Threat Zone - 3.5 psi whereby serious injury is likely
    c. Yellow Threat Zone - 1.0 psi which can shatter glass

ALOHA has no input function for gases that are mixtures as it is designed primarily for pure gas releases; however, it is highly unlikely that pure gas would be present in the wells. The gases in the ORWs must first travel through water which screens the gases. The highest possible concentration of H_2S in water is less than the concentrations the ALOHA model would reflect. ALOHA can only display pure gas release so a corrective multiplier was applied to the concentration of H_2S to reflect the concentration which would more likely exist in the wells.

13.3 Results of Well Avoidance Study

The results for the CH_4 and H_2S analysis indicate that there is no danger of either an explosive release or toxic gas plume. The threat zone analysis of H_2S for explosive gas cloud showed that the LOC was never exceeded.

The potential toxic area of vapor cloud release for H_2S resulted in both Red and Orange Threat Zones. These threat zones were not impacted by the wind direction and are represented in ***Exhibit 2***.

As previously mentioned, the user specified LOC for H_2S was represented by two classifications: the Red Threat Zone and the Orange Threat Zone which are defined in more detail below:

> The *Red Threat Zone* represents an area where anyone would experience a minimum H_2S gas exposure of 50 parts per million (ppm) during a gas release from the well. This area is approximately 51 ft. from the well. Concentrations of 100 ppm or higher can cause loss of consciousness and possibly death.
>
> The *Orange Threat Zone* represents an area where anyone would be exposed to concentrations between 49 ppm and 27 ppm of H_2S gas. This area is between approximately 52 and 160 ft. from the well. Concentrations less than 50 ppm can potentially cause headaches; eye, ear, and throat irritations; poor attention span and motor function; and bad memory.

Based on the results of the models there is enough risk to justify plugging all wells within 160 ft. of the ROW. A cost has been included in the construction cost estimate to plug and abandon the wells as required. A copy of the Well Avoidance Report is provided in ***Appendix I***. The Appendices for the Well Avoidance Report are provided in digital form.

14.0 Preliminary Construction Cost Estimates:

Preliminary construction cost for light weight fill material, geogrid, geotextile fabric, and base course were provided by LA DOTD. The costs for the remaining items were based on the LA DOTD Unit Cost Bid Summaries for the 3rd quarter of 2013 and LA DOTD bid tabs.

14.1 Detour Routes 1 and 2 Cost Estimates

The preliminary conceptual cost estimate for Detour Routes 1 and 2 are provided in ***Table 5***. These conceptual cost estimates were based on the assumptions stated throughout this report. As a more detailed design is completed, these costs should be refined and revised.

Table 5

Preliminary Conceptual Cost Estimate Detour Routes

Cost Category	Detour Route 1 Estimated Cost	Detour Route 2 Estimated Cost
Engineering Design (8% of Construction)	$1,009,000	$1,019,000
Mitigation	$1,608,000	$2,483,000
ROW Acquisition [1]	$30,000	$27,000
Utility Relocations[2]	$7,331,000	$2,575,000
Construction	$12,605,000	$12,733,000
Subtotal	$22,583,000	$18,837,000
Contingency (20%)	$4,517,000	$3,768,000
Total Project Cost	**$27,100,000**	**$22,605,000**

Notes:

1. ROW costs were assumed to be $1000 per acre based on local sales and the assessed property values.
2. Utility Relocation costs do not include approximately $424,000 for the utility relocation cost associated with each of the turn lane improvements.

14.2 Turn Lanes Cost Estimate

CB&I created turn lane conceptual cost estimates based on the recommended geometry from the traffic analysis. These cost estimates assume that the turn lane section will hold the existing east LA 69 edge of pavement to prevent impacts to Grand Bayou. Consequently, the asymmetrical widening results in a long transition from the widened three (3) lane roadway (2-travel lanes and 1-left turn lane) to the existing two (2) lane roadway. It is assumed that the full three (3) lane section will be constructed at the intersection of LA 69 and LA 70 and the only pavement transition associated with the left turn lane on LA 69 will be north of the Detour Routes. The geometry for both Detour Route 1 and Detour Route 2 turn lanes are similar.

It should be noted that the construction of these turn lanes for either alternative would have a substantial impact to the Gator Gold Casino and Truck Stop because the turn lane widening will be located entirely along this property. However, if Detour Route 2 is chosen as the preferred alternative, the total impacts will be less than Detour Route 1. Detour Route 1 encroaches on the northern boundary of the Casino property and Detour Route 2 is located north of the Casino's property line.

The construction cost estimate for the turn lane improvements are provided in ***Table 6***. This cost estimate assumes that the existing roadway could be utilized at the existing cross-slopes and superelevation transition rates. The costs for Detour Route 1 and Detour Route 2 turn lane improvements are relatively equal due to similar geometry. The environmental impacts associated with the turn-lanes are negligible and have not been assigned a cost.

Table 6

Preliminary Conceptual Cost Estimate Turn Lanes at LA 69 and LA 70

Cost Category	Estimated Cost[1]
Engineering Design (8% of Construction)	$71,000
Mitigation	N/A
ROW Acquisition [2]	$2,000
Utility Relocations[3]	$424,000
Construction	$886,000
Subtotal	$1,383,000
Contingency (20%)	$277,000
Total Project Cost	**$1,660,000**

Notes:

1. The cost for both Detour Routes 1 and 2 are relatively equal due to similar geometry. It was assumed that both concepts will have a full turn lane pavement width section along LA 69, beginning at LA 70 and ending at Detour Route 2.
2. ROW costs were assumed to be $1000 per acre based on local sales and the assessed property values.
3. Utility relocation costs are based on estimates provided by T-Baker (see Appendix J).

ATTACHMENT 1
(ON CD)

LA 70 DETOUR ROUTE STAGE 0 FEASIBILITY STUDY
FINAL REPORT - FEBRUARY 2014
STATE PROJECT NO. H.010571.1

15.0 Conclusions:

As previously mentioned, LA DOTD will determine the preferred alternative between Detour Route 1 and Detour Route 2. The analysis of benefits in the Traffic Study for each route is identical; however, in other aspects notable differences exist. An Alternatives Comparison Matrix is provided in ***Table 7***, which summarizes several items which might be considered in determining the preferred alternative.

Table 7

Alternatives Comparison Matrix

Evaluation Criteria	**Detour Route 1**	**Detour Route 2**
Impact to Observation Relief Well(s)	yes	yes
Impact to Business(es)	yes	no
Impact to Wetlands	16 acres	22 acres
Impact to Significant Tree(s)	yes	no
Impact to Historical Site(s)	yes	yes
Utility Relocation Cost	$7,331,000	$2,575,000
Construction Cost	$ 12,605,000	$12,733,000
Right-of-Way	$ 30,000	$27,000
Total Project Cost	$27,100,000	$22,605,000

Preliminary Scope & Budget Checklist

STAGE 0
Preliminary Scope and Budget Checklist

Please note that the information presented on this checklist applies only to the LA 70 Detour Routes. There are three Bypass Routes which are also being considered as part of this contract but these routes are covered in a separate report.

A. Project Background

District 61 Parish Assumption

Route LA 70 and LA 69 Control Section 232-01 and 406-01

Begin Log Mile Log Mile 5.8 (LA 70) End Log Mile Log Mile 0.229 (LA 69)

Project Category (Safety, Capacity, etc.): Capacity

Date Study Completed: September 2013

Describe the existing facility (number and width of lanes, shoulder width and type, posted speed:

Functional classification: The Louisiana Department of Transportation & Development (LA DOTD) Statewide Rural Functional Systems Classification Map classifies LA 70 as a minor arterial and LA 69 as a major collector. They are both two-lane undivided roadways. LA 70 has 12 ft. wide travel lanes with paved shoulders which vary from 6ft to 10ft in width. LA 69 has 11 ft. wide travel lanes with no shoulders. There are open ditches on both sides of each roadway. LA 70 has a posted speed of 45 mph and LA 69 is posted at 55 mph.

LADOTD Historical Traffic Count Data (ADT)*

Year	LA 70	LA 69
2012	6891	2295
2009	6011	2407
2006	6013	2588
2003	6048	2434
2000	6780	2783
1995	4556	1957
1992	3847	1939

*LA 70 (2013 ADT = 7517) and LA 69 (2013 ADT = 2515) as collected by Neel-Schaffer, Inc.

Describe any existing pedestrian facilities (ADA compliance should be considered for all improvements that include pedestrian facilities): There are no existing pedestrian facilities within the project area.

Describe the adjacent land use: Residential, Industrial, Commercial, Timber, and Wetlands

Who is the sponsor of the study? LA DOTD

List study team members: CB&I (Dishili Young & Kara Moree); Neel-Schaffer - Traffic (Nick Ferlito); T. Baker Smith - Utilities (Dennis Hymel, Jr.)

Will this project be adding miles to the state highway system (new alignment, new facility)? If yes, has a transfer of ownership been initiated with the appropriate entity? Yes, not to date

Are there recent, current or near future planning studies or projects in the vicinity? Yes, LA 70 Detour Stage 1 Environmental Assessment (EA) which is currently being completed by Providence Engineering and Environmental Group, LLC. A permanent Bypass route Stage 0 Feasibility (CB&I) and Stage 1 EA (Providence) are being conducted as well. Anticipated completion date for the Detour Route EA is Spring 2014 and the EA for the Bypass Route is scheduled to be completed by Summer 2014.

If yes, please describe the relationship of this project to those studies/projects. The Stage 1 Detour EA project will be the next stage in this projects project delivery process. Stage 1 will include the completion of the detailed planning and environmental analysis for the concepts presented in this project. This Detour Stage 0 project is ultimately for construction of a route if an emergency closure of the highway happens due to activities associated with the Sinkhole. The Bypass Stage 0 and Stage 1 are for a more permanent bypass solution associated with the Napoleonville Salt Dome.

Provide a brief chronology of these planning study activities: The activities included in the Stage 1 EA will follow this Stage 0 within as close proximity as possible. It is anticipated that the activities associated with the Detour Route will progress ahead of the Bypass Route Alternates 1-3.

B. Purpose and Need

State the Purpose (reason for proposing the project) and Need (problem or issue)/Corridor Vision and a brief scope of the project. Also, identify any additional goals and objectives for the project.

The purpose and need of this project is to protect human welfare and provide system linkage in the event that the integrity of LA 70 is compromised and the roadway is closed to local responders and residents due to activities associated with the large sinkhole that first formed in August 2012.

C. Agency Coordination

Provide a brief synopsis of coordination with federal, tribal, state and local environmental, regulatory and resource agencies.

Two stakeholder meetings and a well avoidance meeting were held in which agencies such as the United States Army Corps of Engineers (USACE), Louisiana Department of Natural Resources (LDNR), Louisiana Department of Environmental Quality (LDEQ), United States Fish & Wildlife Service (USFWS), Louisiana Department of Wildlife & Fisheries (LDWF), Environmental Protection Agency (EPA), Governor's Office of Homeland Security & Emergency Preparedness (GOHSEP), Federal Highway Administration (FHWA), State Historic Preservation Office (SHPO), Tribes, Assumption Parish Government, and state legislators were invited to attend and participate in discussions regarding alternatives and avoidance wells in the immediate vicinity of the project. Please refer to Appendix D for copies of sign-in sheets and attendance records.

What transportation agencies were included in the agency coordination effort?

Federal Highway Administration (FHWA) and LA DOTD

Describe the level of participation of other agencies and how the coordination effort was implemented.

Two stakeholder meetings and a project initiation meeting were held where elected officials, local federal and state organizations and agencies were invited and allowed to provide input on their preferred corridors. In addition, these agencies were allowed to provide comments regarding the proposed alternatives.

What steps will need to be taken with each agency during NEPA scoping?

NEPA scoping will occur as part of Stage 1 (Environmental & Planning), currently being conducted by Providence.

D. Public Coordination

Provide a synopsis of the coordination effort with the public and stakeholders; include specific timelines, meeting details, agendas, sign-in sheets, etc. (if applicable).
A project initiation meeting was held at LA DOTD on March 27, 2013 in which state and parish officials were in attendance (ex: Parish Police Jurors, State Senators and Representatives of the area). A stakeholder meeting was then held in Napoleonville on April 11, 2013 in which the local Police Jurors and agencies such as LDNR, FHWA, and the USACE were in attendance to discuss possible alternative alignments and issues regarding permitting. Agencies such as EPA, USFWS, LDWF, and GOHSEP were invited but did not attend. Another meeting was then held on April 25, 2013 to discuss the issue of observation relief wells in the immediate vicinity of the project and representatives from Assumption OEP, LDNR, LDEQ, and FHWA were in attendance. On 7/19/13, a meeting was held at LDNR with the USACE also in attendance to discuss timelines for permitting in the event of an emergency situation. A second stakeholder meeting was then held in the LA DOTD Auditorium on 7/31/13 where the alternatives were presented. Representatives from LA DOTD, LDNR, USFWS, FHWA, and a State Representative were in attendance and comments were received. Agencies such as the USACE, LDEQ, SHPO, EPA, LDWF, Tribes, Assumption Parish, and GOHSEP were invited but did not attend. Finally, a public meeting was held on 8/13/13 at the Napoleonville Community Center to present the two detour alignments. Several verbal and written comments were received. More information regarding these meetings can be found in Appendices D and E.

E. Range of Alternatives – Evaluation and Screening

Give a description of the project concept for each alternative studied. What are the major design features of the proposed facility (attach aerial photo with concept layout, if applicable).
This study evaluates two (2) alternative routes for the detour route concept: Detour Route 1 and Detour Route 2. Both routes are shown in aerial view on Exhibit 2. These routes consists of a two (2) lane roadways with 12 ft. travel lanes, 8 ft. shoulders and roadside ditches. Each route has a design speed of 50 MPH which is above the posted speed for most of the segment of LA 70 it bypasses. Both routes begin close to LA 70 at Gumbo St. and end north of the intersection of LA 70 and LA 69. Detour Route 1 is located over 700ft north of the existing LA 70 and Detour Route 2 is located over 900 ft north of existing LA 70. Please refer to the Proposed Concepts section of the report for additional information.

Will design exceptions be required? No

What impact would this project have on freight movements? This project will require that freight movement utilize the detour route instead of the existing LA 70 roadway should the existing roadway be closed. In addition, if the detour route is constructed in phases, truck traffic will be restricted during the phased construction.

Does this project cross or is it near a railroad crossing? No

DOTD's "Complete Streets" policy should be taken into consideration. Per the policy, any exception for not accommodating bicyclists, pedestrians and transit users will require the approval of the DOTD chief engineer. For exceptions on Federal-aid highway projects, concurrence from FHWA must also be obtained. In addition any exception in an urbanized area, concurrence from the MPO must also be obtained.

- **Describe how the project will implement the policy or include a brief explanation of why implementing the policy would not be feasible.** According to the LA DOTD complete streets policy there are conditions where it is generally inappropriate to provide bicycle and pedestrian facilities. This concept may qualify for an exception under one of the conditions: this project is located in a rural area where future development is not anticipated. However, final approval for this exception will need to be

obtained by the LA DOTD Chief Engineer with concurrence from FHWA should federal aid be provided for this project.

How are Context Sensitive Solutions being incorporated into the project? Context Sensitive Solutions were incorporated into this project by involving the federal, state and local agencies, organizations and individuals early in the phase of the concepts development and often as alternatives were refined. The needs of the community were expressed by way of the Assumption Parish OEP, Assumption Parish Police Jury and elected state officials. A collaborative and interdisciplinary approach was taken by involving agencies such as the USACE, LDNR, GOHSEP, FHWA and various sections within the LA DOTD. This approach provided a collaborative approach to analyzing the needs of the community and determining solutions which address the unique issues that the Bayou Corne community faces.

Was the DOTD's "Access Management" policy taken into consideration? If so, describe how. N/A

Were any safety analyses performed? If so describe results. No

Are there any abnormal crash locations or overrepresented crashes within the project limits? No

What future traffic analyses are anticipated? A traffic study was conducted on existing and future traffic conditions as part of this study. No additional analyses are anticipated.

Will fiber optics be required? If so, are there existing lines to tie into? No

A**re there any future ITS/traffic considerations?** No

What is the required Transportation Management Plan (TMP) level as defined by EDSM No. VI.1.1.8? Level 2 although the existing LA 70 will be impacted, construction of the detour route will only be completed should LA 70 be closed. This will require that the documentation in the form of TTC details during the Stage 3 process and basic public information release which was started during this process with the public meeting and will be completed by the public information officer prior to PDD per EDSM No. VI.1.1.8.

Please attach documentation required for Stage 0 for this level TMP.

Was Construction Transportation Management/Property Access taken into consideration? Yes; during the public meeting, discussion ensued with the owner of the Gator Gold Casino and Truck Stop regarding his comments on the alignment of the Detour Routes, in particular where they tie into LA 69. It was explained to him that driveway access to his facility could possibly be included as part of the Detour Route design.

Were alternative construction methods considered to mitigate work zone impacts? It is not anticipated that the construction of this roadway will cause motorist delays because it will only be constructed should LA 70 be closed. Motorists will already be redirected to the local and primary detour routes as outlined in the LA DOTD Traffic Contingency Plan.

Describe screening criteria used to compare alternatives and from what agency the criteria were defined. Originally this project only considered one alternative for the detour route. As additional utility data was obtained and community concerns were expressed, two additional alternatives were created for consideration by the stakeholders and agencies. The major criteria for determining the desired alternatives were the time required to construct the route and the environmental impacts. Consideration was also given towards the potential impact to mobile communication within the community.

Give an explanation for any alternative that was eliminated based on the screening criteria.
The corridor for the initial detour route, Detour Route 1, was identified by the stakeholders at the project initiation meeting as well as the first stakeholders meeting. The route was chosen because it was located along an elevated ridge and within an area which would require less clearing and had less wetland impacts.

It was later determined that Detour Route 1 would require the relocation of two natural gas pipelines which run parallel to the roadway. The relocation of these lines would prevent the timely construction of Detour Route 1 and prevent it from being a viable alternative because of the importance that immediate emergency access be provided should LA 70 be closed. In response to this concern, an additional route, Detour Route 2, was created which would reduce the number of required utility relocations, reduce the construction time and save construction cost.

Additional concerns were expressed by a State Representative and others about the impact that losing the cell tower would have on the community which led to the creation of Detour Route 3. Detour Route 3 would not impact the cell tower but would have the largest impact to wetlands when compared to the other Detour Routes. In addition, the construction would be more intense due to the potential for a required bridge crossing and the large number of tress which would need to be cleared.

Each Detour Route was presented for comment/review at the permit coordination meeting held on July 19, 2013 at LDNR. During this meeting it was determined that the pipeline relocations for Detour Route 1 might qualify for emergency relocation which would prevent the impact to the construction timeline. It was also suggested that the cell tower be replaced by a mobile tower should the road be constructed. Taking this into consideration, it was agreed by the attendees at the meeting that Detour Routes 1 and 2 would be more favorable and Detour Route 3 was discarded.

Which alternatives should be brought forward into NEPA and why? Detour Routes 1 and 2

Did the public, stakeholders and agencies have an opportunity to comment during the alternative screening process? Yes

Describe any unresolved issues with the public, stakeholders and/or agencies. There were concerns expressed at the public meeting about the close vicinity of the Detour Routes to the actual sinkhole area.

F. Planning Assumptions and Analytical Methods

What is the forecast year used in the study? 2018 & 2038

What method was used for forecasting traffic volumes? The volumes were forecasted utilizing a 2% growth rate which was determined based on historical data. The turn lane warrant analyses were performed using the National Cooperative Highway Research Program (NCHRP) Report Number 457 entitled "Evaluating Intersection Improvements". The intersection analyses were completed utilizing SIDRA Software Version 5.1.13.

Are the planning assumptions and the corridor vision/purpose and need statement consistent with the long range transportation plan? N/A

What future year policy and/or data assumptions were used in the transportation planning process as they are related to land use, economic development, transportation costs and network expansion? Reference the Traffic Study for future growth assumptions.

G. Potential Environmental Impacts

See the attached Stage 0 Environmental Checklist

H. Cost Estimate

Provide a cost estimate for each feasible alternative:

	DETOUR ROUTE 1	DETOUR ROUTE 2
• Engineering Design[1]:	$1,009,000	$1,019,000
• Additional Traffic Analyses:	N/A	N/A
• Mitigation:	$1,608,000	$2,483,000
• R/W Acquisition: (C of A if applicable)	$30,000	$27,000
• Utility Relocations:	$7,331,000	$2,575,000
• Construction (including const. traffic management):	$12,605,000	$12,733,000
• **Subtotal**	**$22,583,000**	**$18,837,000**
• Contingency (20%):	$4,517,000	$3,768,000
TOTAL PROJECT COST	**$27,100,000**	**$22,605,000**

Notes:

1. Engineering Design Calculated as 8% of Construction Cost.

I. Expected Funding Source(s) (Highway Priority Program, CMAQ, Urban Systems, Fed/State earmarks, etc.) Unidentified

ATTACH ANY ADDITIONAL DOCUMENTATION

Disposition (circle one): (1) Advance to Stage 1 (2) Hold for Reconsideration (3) Shelve

Environmental Checklist

STAGE 0
Environmental Checklist

Route LA 70 Detour 1 & 2 Parish: Assumption
C.S. 232-01 and 406-01 Begin Log mile 5.8 (232-01) End Log mile 0.229 (406-01)

ADJACENT LAND USE: Residential, Industrial, Commercial, Wetlands

Any property owned by a Native American Tribe?
(Y or N or Unknown) If so, which Tribe? No

Any property enrolled into the Wetland Reserve Program?
(Y or N or Unknown) If so, give the location No, per coordination email and map received from NRCS on July 29, 2013. The closest WRP easement is over 5 miles away from the project area.

Are there any other known wetlands in the area?
(Y or N) If so, give the location Yes - see Environmental Avoidance Map; Detour Route 1 Area of Impact contains approximately 16 acres of wetlands and Detour Route 2 Area of Impact contains approximately 22 acres of wetlands. A more detailed wetland assessment will be conducted in Stage 1 to produce exact acreage totals.

Community Elements: Is the project impacting or adjacent to any (if the answer is yes, list names and locations):
(Y or N) Cemeteries No (verified per field review and la-cemeteries.com)

(Y or N) Churches No (verified per field review and database search)

(Y or N) Schools No (verified per field review and database search)

(Y or N) Public Facilities (i.e., fire station, library, etc.) No; the closest public facility is the Paincourtville Volunteer Fire Department located near the intersection of LA 70 and LA 996 (approximately 1.7 miles east of intersection of LA 69 and LA 70).

(Y or N) Community water well/supply Yes - Please see Environmental Avoidance Map; Per the LDNR SONRIS database, there is an active industrial well south of Detour Route 1 Area of Impact (30.016, -91.133) owned by Crosstex; There is a Plugged & Abandoned Monitor well within the Area of Impact of Detour Route 2 (30.018, -91.133) owned by El Paso Fld. Svc.; There are 2 wells located just north of the Area of Impact of Detour Route 2, one is a Plugged & Abandoned Monitor well (30.018, -91.136) owned by El Paso Fld. Svc. and the other is a Plugged & Abandoned Industrial well (30.019, -91.135) owned by Gulf South Pipe.

Section 4(f) issue: Is the project impacting or adjacent to any (if the answer is yes, list names and locations):
(Y or N) Public recreation areas No

(Y or N) Public parks No

(Y or N) Wildlife Refuges No; per LDWF response to SOV dated 6/13/13

(Y or N) Historic Sites Yes; there is an abandoned dwelling that was documented by SHPO in 1985 in a heavily wooded area east of Gumbo St. which is adjacent to both detour routes. The location was inaccessible at the time of the field visit to verify if the structure is still standing. Approximate coordinates are 30.016, -91.146 and the Louisiana State Survey Number is 16AS45. Per information received from several local residents at the public meeting on 8/13/13, there is most likely not much left of the structure standing, if anything at all.

Is the project impacting, or adjacent to, a property listed on the National Register of Historic Places? (Y or N) **Is the project within a historic district or a national landmark district?** (Y or N) If the answer is yes to either question, list names and locations below:
No to both questions.

Do <u>you know</u> of any threatened or endangered species in the area? (Y or N)
If so, list species and location. No; per USFWS Coordination letter and SOV response letter, both dated 6/20/13, Assumption Parish is not inhabited by federally listed threatened or endangered species; nor is there proposed or designated critical habitat present within the Parish. A SOV response letter received on 6/13/13 from LDWF's Natural Heritage Program also confirmed that no impacts to rare, threatened, or endangered species or critical habitats are anticipated for the proposed project. However, bird nesting

colonies have been identified in the past within the project area. If any work was to be done within the nesting season, a field visit, no later than 2 weeks before the beginning of the project, would be necessary to identify any evidence of active nesting colonies within 400 meters (700 meters for brown pelicans) of project activities.

Does the project impact or adjacent to a stream protected by the Louisiana Scenic Rivers Act? (Y or N) If yes, name the stream. No; per the LDWF Scenic Rivers System Map, there are none shown in Assumption Parish. This was also verified via a response to the Solicitation of Views from the LDWF, dated 6/13/13.

Are there any Significant Trees as defined by EDSM I.1.1.21 within proposed ROW? (Y or N) If so, where? Yes, there is a large live oak that lies within the proposed ROW of Detour Route 1 directly behind the parking lot of Gator Gold Casino (30.017, -91.133) and there are also several other live oaks as well as cypress trees near the AT&T cell tower area; both alignments pass through several other heavily wooded areas so a more detailed field verification will need to be performed in Stage 1.

What year was the existing bridge built? N/A

Are any waterways impacted by the project considered navigable? (Y or N) If unknown, state so, list the waterways: Yes; A correspondence letter was submitted to the USACE on June 21, 2013 and a response was received on 9/17/13; email correspondence was also received (dated 8/19/13) from the USACE verifying that parts of Grand Bayou and Bayou Corne would fall under jurisdiction of Section 10 of the Rivers & Harbors Act. In addition, both routes impact several drainage features which are unnamed and tie into LA 69 (about 700' north of LA 70) which is adjacent to Grand Bayou.

Hazardous Material: Have you checked the following DEQ and EPA databases for potential problems? (If the answer is yes, list names and locations.)

(Y or N) Leaking Underground Storage Tanks No LUST's reported within 2.5 miles of site per EDR Radius Map Report.

(Y or N) CERCLIS Per the EDR Radius Map Report and EPA EnviroMapper, nothing of concern was found.

(Y or N) ERNS Yes per the EDR Radius Map Report, there are 6 ERNS sites within approx. 2 miles of the detour routes; 1282 Hwy 70 S, Belle Rose (1997 and 2007); 1432 Jambalaya St., Belle Rose (2012); 1443 Hwy 70 S, Belle Rose (2012); 875 Hwy 70, Belle Rose (1994); 1912 Hwy 70, Pierre Part (1999)

(Y or N) Enforcement and Compliance History ECHO database was checked. Nothing of concern was found. However, there have been several documented incidents concerning DOW Chemical releases over the past several years which have caused the closure of LA 70 multiple times.

Underground Storage Tanks (UST): Are there any Gasoline Stations or other facilities that may have UST on or adjacent to the project? (Y or N) Yes; in addition please refer to EDR Radius Map Report for entire information.

If so, give the name and location: Gator Super Stop Truck Stop (1230 Hwy 70, Belle Rose); A la Carte Foods (1177 Hwy 70 S, Belle Rose); possibly DOW Chemical (875 Hwy 70, Belle Rose), Bayou Cajun Engine Repair (113 Edmond Ln., Belle Rose), and K/D/S Promix (6225 Hwy 996, Belle Rose); There are also several facilities listed as Historical Auto Stations on the EDR Radius Map Report and may have or still might contain UST's - Chevron Gas Storage Facility (1282 Hwy 70 S, Bell Rose, LA), Chevron (1265 Hwy 70 S, Belle Rose), Vedros Motors (6220 Hwy 69, Belle Rose), Automotive Remodeling Service (1130 Hwy 70 S, Belle Rose) and Acadian Gas Pipeline (6326 Hwy 996, Belle Rose).

Any chemical plants, refineries or landfills adjacent to the project? (Y or N) **Any large manufacturing facilities adjacent to the project?** (Y or N) **Dry Cleaners?** (Y or N) If yes to any, give names and locations: Yes; there are several chemical plants/refineries/manufacturing facilities adjacent to the project. Chevron Gas Storage Facility (or also called Bridgeline Holdings) (1282 Hwy 70 S, Belle Rose), Crosstex Storage (1285 Hwy 70 S, Belle Rose), DOW Chemical (875 Hwy 70, Belle Rose),

STAGE 0
Environmental Checklist

Shell Pipeline Co. (158 Shell Pipe Line Rd., Belle Rose), Occidental Chemical-Grand Bayou/Texas Brine Co. (165 Grand Bayou, Belle Rose); Georgia Gulf Corp. – Mixing Tank Facility (1159 Hwy 70, Belle Rose) is listed as a Solid Waste Facility/Landfill (SWF/LF) on the EDR Radius Map Report; There are no Dry Cleaner facilities (current or historical) listed on the EDR Radius Map Report.

Oil/Gas wells: Have you checked DNR database for registered oil and gas wells? (Y or N) List the type and location of wells being impacted by the project. Yes; there is 1 Plugged & Abandoned Oil Producing well within the Area of Impact of Detour Route 1 (30.017, -91.14); The Area of Impact for Detour Route 2 contains 1 Plugged & Abandoned Oil Producing well (30.015, -91.146), 1 Plugged & Abandoned Dry Hole (30.018, -91.14), and 1 Plugged & Abandoned Producer well (30.018, -91.137); there are also 3 Plugged & Abandoned Dry Holes immediately north of Area of Impact of Detour Route 2 (30.017, -91.144; 30.019, -91.134; and 30.019, -91.133)

Are there any possible residential or commercial relocations/displacements? (Y or N)
How many? No; however a small portion of the Gator Gold Casino & Truck Stop's rear parking lot may be affected. The owner of the establishment has expressed concerns over his property being affected and his acreage going below 5 acres. He requires a minimum of 5 acres due to the classification of the business as a casino. A property transfer with the adjacent landowner could be a possibility as the project progresses.

Do you know of any sensitive community or cultural issues related to the project? (Y or N)
If so, explain Yes; A sinkhole formed in August 2012 due to issues associated with the Napoleonville Salt Dome approximately 1,100 feet south of LA 70. The sinkhole has evolved over the past year and has daily activities which cause concern due to the close proximity of the highway and public welfare of travelling vehicular traffic.

Is the project area population minority or low income? (Y or N) No; according to EPA EJView and Demographic information from the 2010 ACS, 0-10% of the area is minority and 10-20% is below poverty level.

What type of detour/closures could be used on the job? Standard LA DOTD detours will be utilized.

Did you notice anything of environmental concern during your site/windshield survey of the area? If so, explain below.
There are several observation relief wells and pipelines in the immediate vicinity of the detour routes.

Kara K. Moree, Project Manager – CB&I
Point of Contact

(225) 932-5803
Phone Number

September 23, 2013
Date

Exhibit 1

Maps

- Vicinity Map
- 2013 Assumption Tax Parcels (11 X 17)
- Wells and Environmental Avoidance (11 X 17)
- Detour Route 1 Wetlands (11 X 17)
- Detour Route 2 Wetlands (11 X 17)

Legend

Detour Route Alignments

N

3 1.5 0 3

Miles

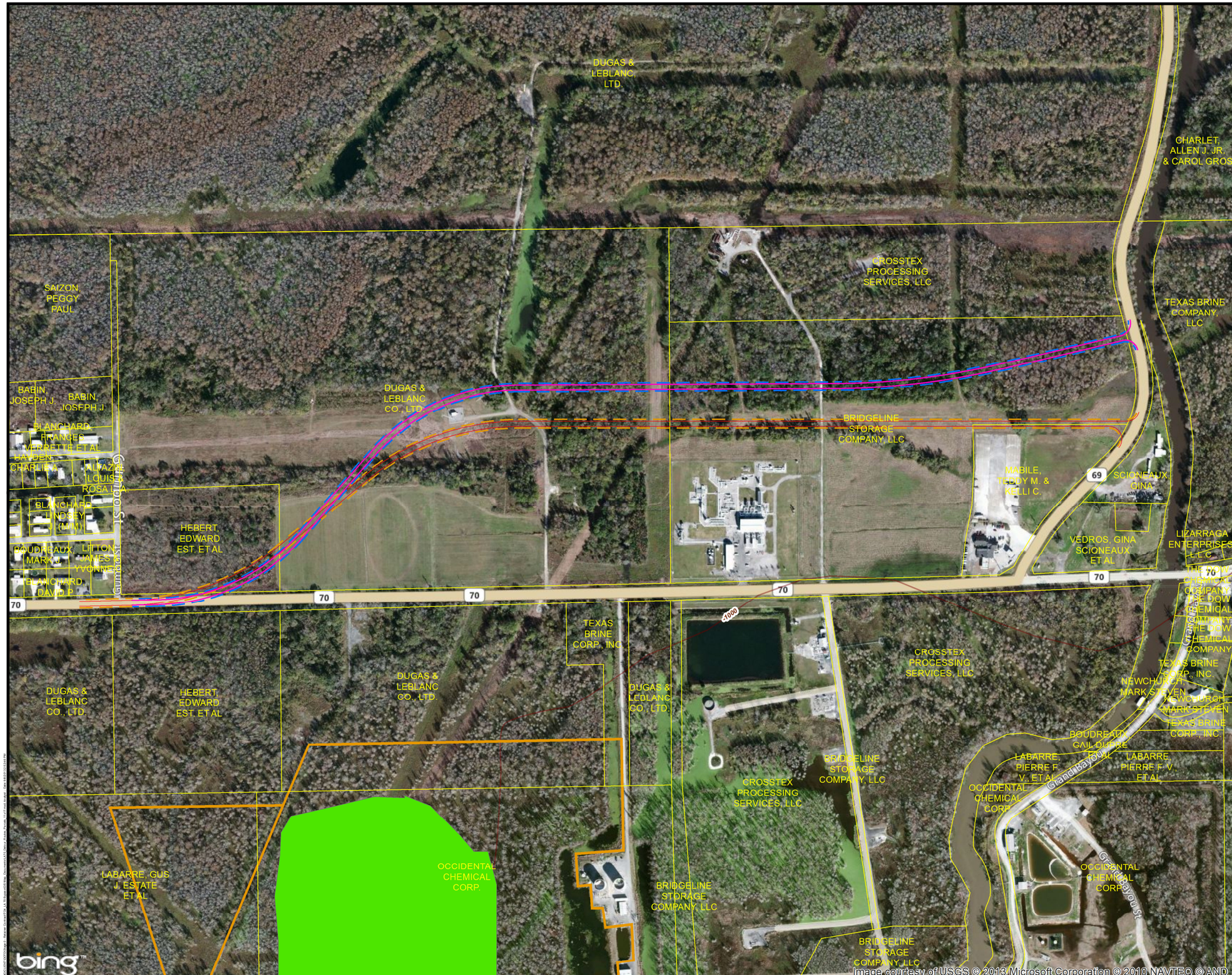
LA DOTD
S.P. No. H.010571.1

Stage 0 Feasibility Study

LA 70 Detour Routes
Vicinity Map

Shaw Environmental & Infrastructure, Inc.
(A CB&I Company)
4171 Essen Lane
Baton Rouge, LA 70809

P:\ENG\CLIENT\DOTD\Stage 0 - Retainer Contract\TO4_LA 70 Bypass\GIS\Map_Documents\Report\LA_70_Detour Vicinity.mxd; Analyst: ; Date: 9/8/2013 3:15:09 PM



Legend

- 2013 Parcel Boundary
- Detour 1 Pavement
- Detour 1 Shoulder
- Detour 2 Pavement
- Detour 2 Shoulder
- Sinkhole
- Boundary of Containment

N

0 225 450 900 Feet

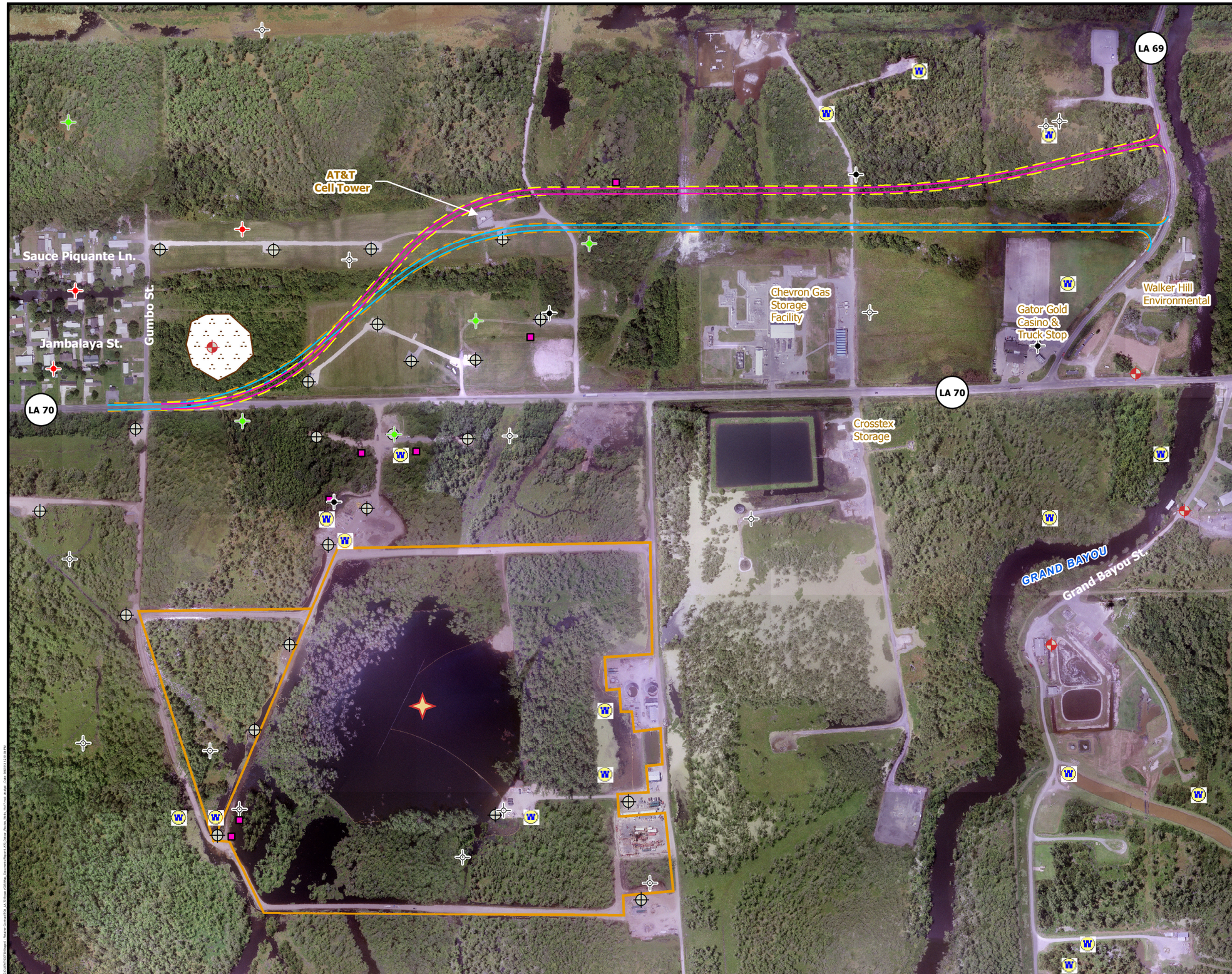
1 inch = 450 feet

LA DOTD
S.P. No. H.010571.1

Stage 0 Feasibility Study

LA 70 Detour Routes
2013 Assumption Tax Parcels
Assumption Parish, LA

Shaw Environmental & Infrastructure, Inc.
(A CB&I Company)
4171 Essen Lane
Baton Rouge, LA 70809



Legend

- Detour 1 Pavement
- Detour 1 Shoulder
- Detour 2 Pavement
- Detour 2 Shoulder
- Sinkhole
- Boundary of Containment
- Potential Historical/Archaeological
- Water Well

Oil & Gas Wells

TYPE

- Plugged & Abandoned (Various)
- Plugged & Abandoned Dry Hole
- Plugged & Abandoned Producer
- Plugged & Abandoned Oil Producer
- Plugged & Abandoned Gas & Condensate Producer

Observation Relief Wells (as of 7/2/13)

- Installed Well
- Proposed Well

N

0 225 450 900 Feet

1 inch = 450 feet

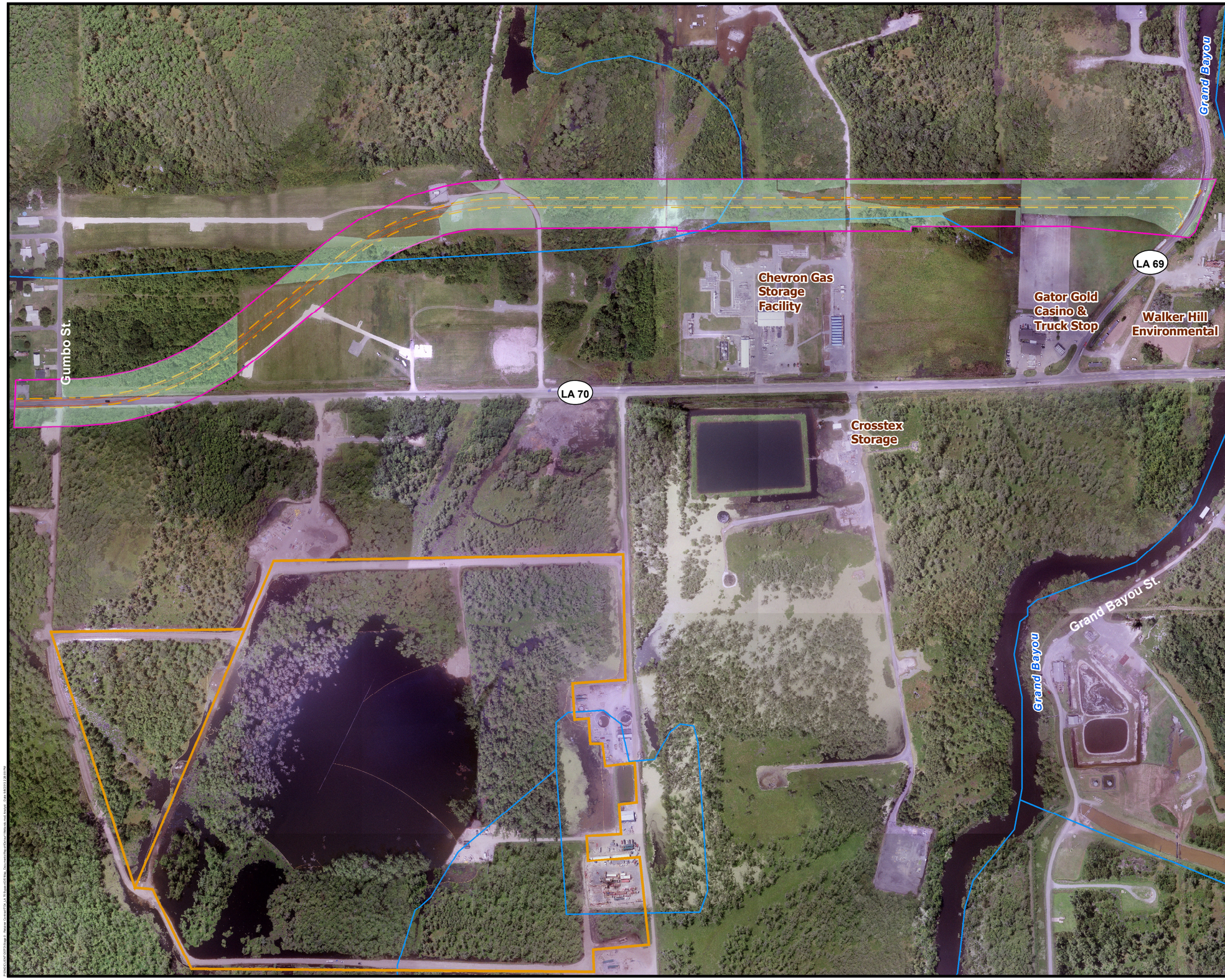
REFERENCE: Aerial Photography dated 6/11/13

LA DOTD
S.P. No. H.010571.1

Stage 0 Feasibility Study

LA 70 Detour Routes
Wells and Environmental Avoidance
Assumption Parish, LA

Shaw Environmental & Infrastructure, Inc.
(A CB&I Company)
4171 Essen Lane
Baton Rouge, LA 70809



Legend

- Detour 1 Area of Impact
- Detour 1 Pavement
- Detour 1 Shoulder
- Detour 1 Wetland Areas
- Boundary of Containment
- Waterways

Detour Route 1 =
approx.16 acres of wetlands

N

0 200 400 800 Feet

1 inch = 400 feet

REFERNECE: Aerial Photography dated 6/11/2013

LA DOTD
S.P. No. H.010571.1

Stage 0 Feasibility Study

LA 70 Detour Route 1
Wetlands
Assumption Parish, LA

Shaw Environmental & Infrastructure, Inc.
(A CB&I Company)
4171 Essen Lane
Baton Rouge, LA 70809

Legend

- Detour 2 Area of Impact
- Detour 2 Pavement
- Detour 2 Shoulder
- Detour 2 Wetland Areas
- Boundary of Containment
- Waterways

Detour Route 2 =
Approx. 22 acres of Wetlands

N

0 200 400 800 Feet

1 inch = 400 feet

REFERNECE: Aerial Photography dated 6/11/2013

LA DOTD
S.P. No. H.010571.1

Stage 0 Feasibility Study

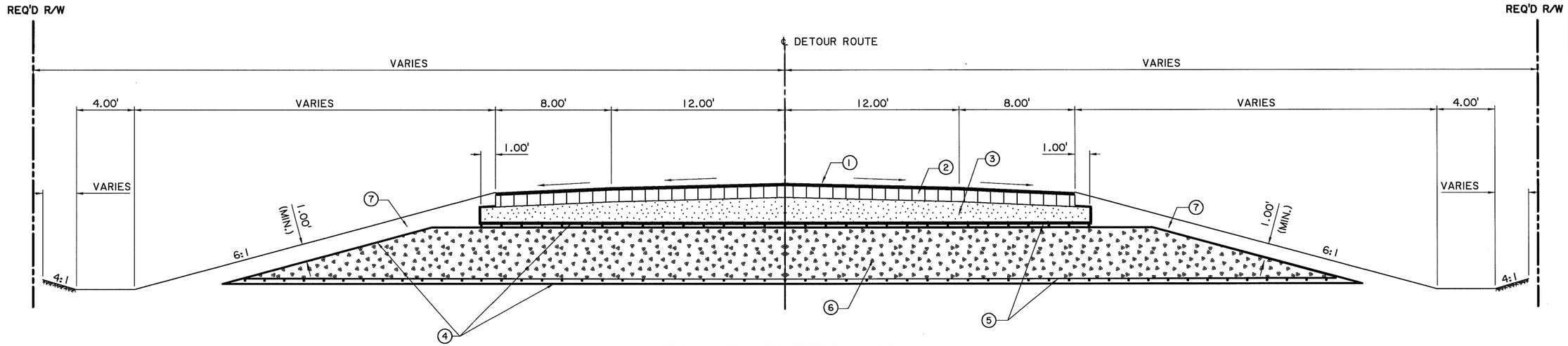
LA 70 Detour Route 2
Wetlands
Assumption Parish, LA

Shaw Environmental & Infrastructure, Inc.
(A CB&I Company)
4171 Essen Lane
Baton Rouge, LA 70809

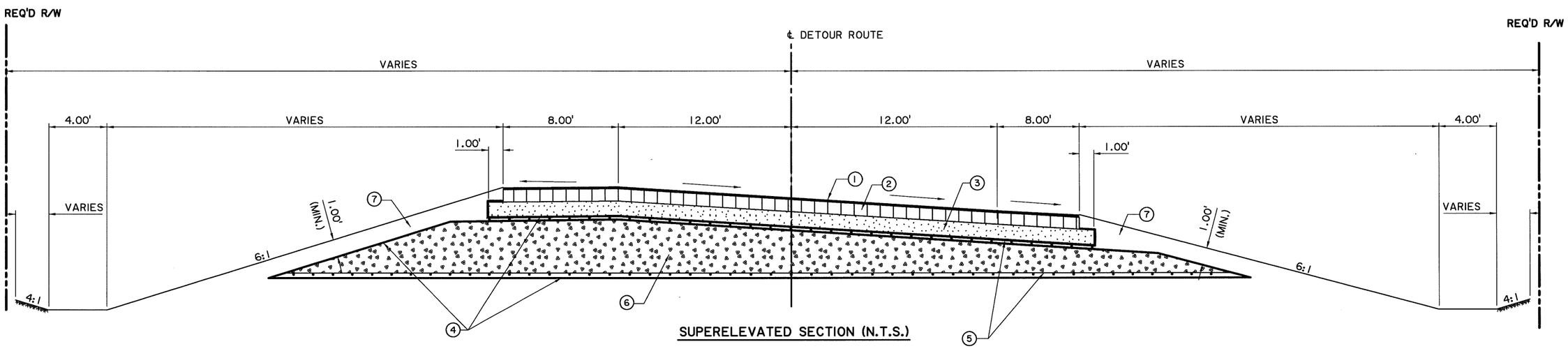
Exhibit 2

Typical Sections and Plan Sheets

2.1 Detour Route Typical Section (11 X 17)
2.2 Detour Route Plan Sheet (11 X 17)
2.3 Detour Route Utilities (11 X 17)
2.4 Detour Route Wells (11 X 17)



TYPICAL FINISHED SECTION (N.T.S.)



SUPERELEVATED SECTION (N.T.S.)

LEGEND

1. 2" SUPERPAVE ASPHALTIC CONCRETE WEARING COURSE, LEVEL 2F
2. 8" SUPERPAVE ASPHALTIC CONCRETE BINDER COURSE, LEVEL 2
3. 10" CLASS II BASE COURSE
4. GEOTEXTILE FABRIC
5. GEOGRID
6. EMBANKMENT (MATERIAL TO BE DETERMINED)
7. EMBANKMENT (CLAY BLANKET)

NOTE:

SEE DESIGN CRITERIA FOR CROSS SLOPE REQUIREMENTS

PRELIMINARY	Louisiana Department of Transportation and Development
NOT TO BE USED FOR CONSTRUCTION, BIDDING, RECORDATION, CONVEYANCE, SALES OR AS THE BASIS FOR THE ISSUANCE OF A PERMIT.	ENGINEER: DISHILI YOUNG LICENSE #: 33723 DATE: 12/09/13

SHEET NUMBER 2.1

PARISH: ASSUMPTION
CONTROL SECTION
STATE PROJECT: H.010571

DESIGNED / CHECKED
DETAILED / CHECKED
SERIES NUMBER

NO.	DATE	REVISION OR CHANGE ORDER DESCRIPTION	BY

STATE OF LOUISIANA

TYPICAL SECTION

LA 70 BYPASS STAGE 0 FEASABILITY STUDY

SHAW E & I, INC.

P:\ENG\CLIENT\DOTD\Stage 0 - Retainer Contract\T04_LA 70 Bypass\DGN\14816604 Detour Route Typical SectionWltag.dgn 12/9/2013 15:3

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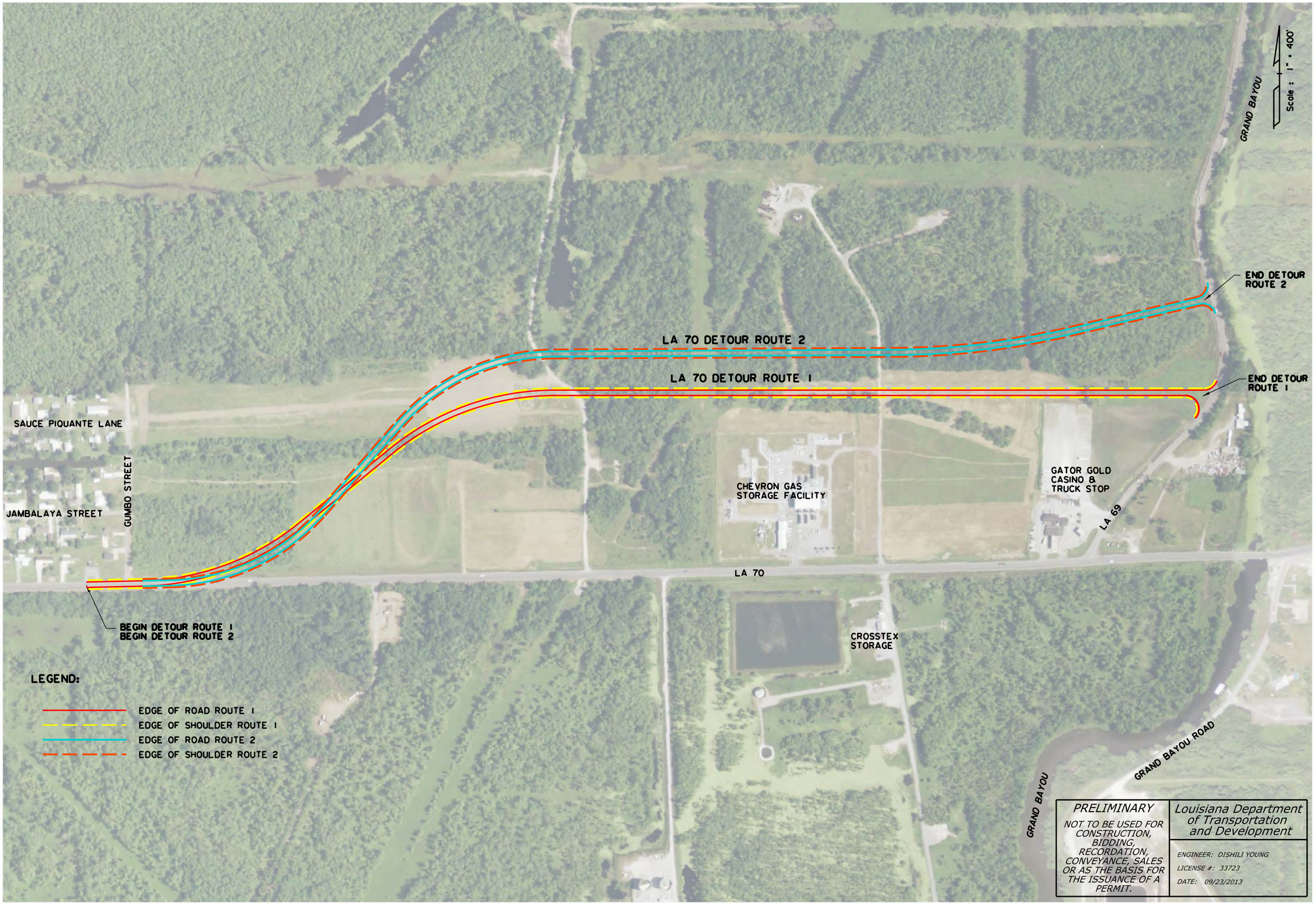

PRELIMINARY

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Louisiana Department of Transportation and Development

ENGINEER: DISHILI YOUNG

LICENSE #: 33723

DATE: 09/23/2013

SHEET NUMBER 2.2

PARISH: ASSUMPTION

CONTROL SECTION

STATE PROJECT: H.010571

DESIGNED / CHECKED

DETAILED / CHECKED

SERIES NUMBER

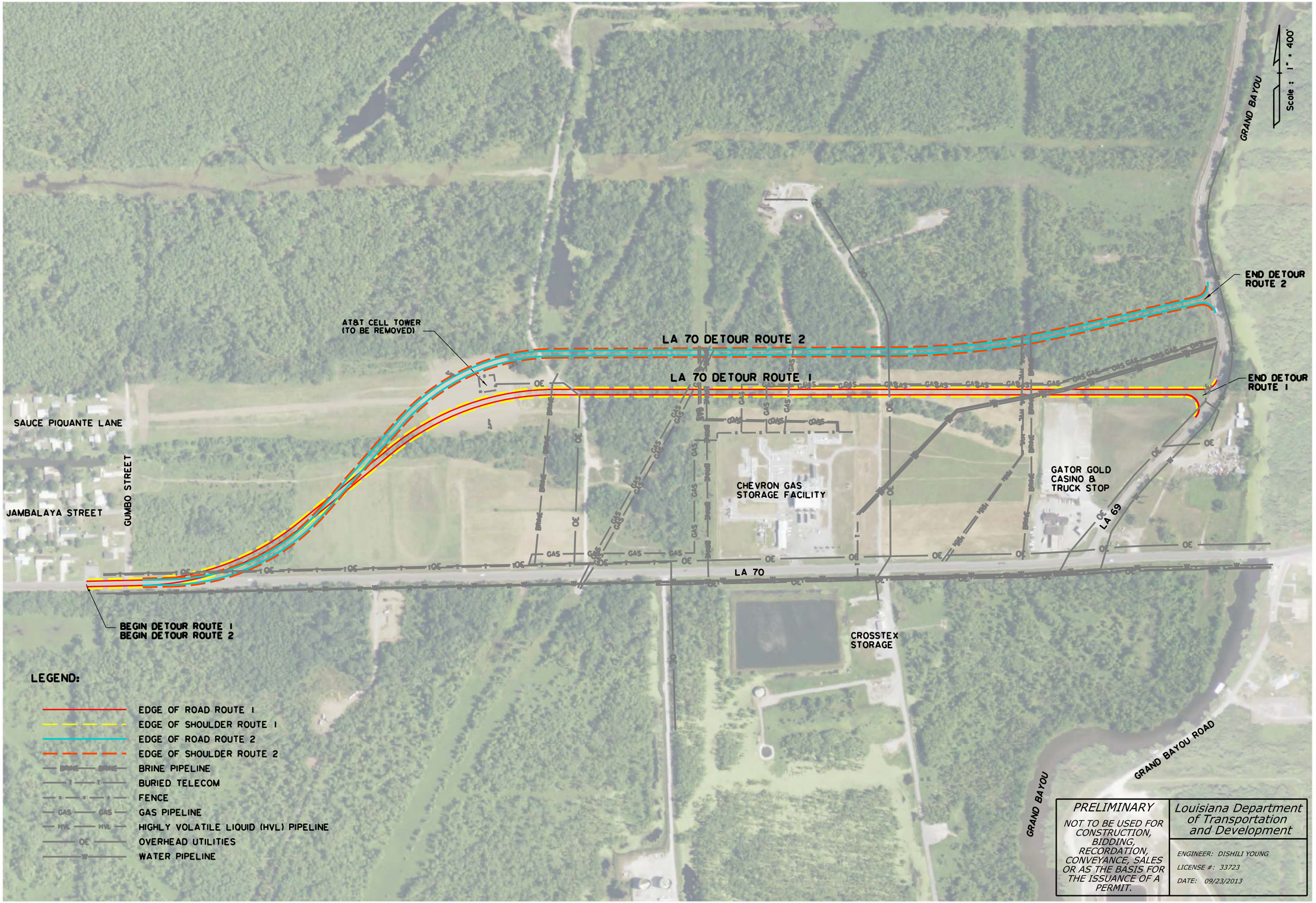
NO.	DATE	REVISION OR CHANGE ORDER DESCRIPTION	BY

LA 70 DETOUR ROUTE

LA 70 BYPASS STAGE 0 FEASABILITY STUDY

SHAW E & I, INC.

09/26/13



PRELIMINARY

NOT TO BE USED FOR CONSTRUCTION, BIDDING, RECORDATION, CONVEYANCE, SALES OR AS THE BASIS FOR THE ISSUANCE OF A PERMIT.

Louisiana Department of Transportation and Development

ENGINEER: DISHILI YOUNG

LICENSE #: 33723

DATE: 09/23/2013

SHEET NUMBER 2.3

PARISH: ASSUMPTION

CONTROL SECTION

STATE PROJECT: H.010571

DESIGNED / CHECKED

DETAILED / CHECKED

SERIES NUMBER

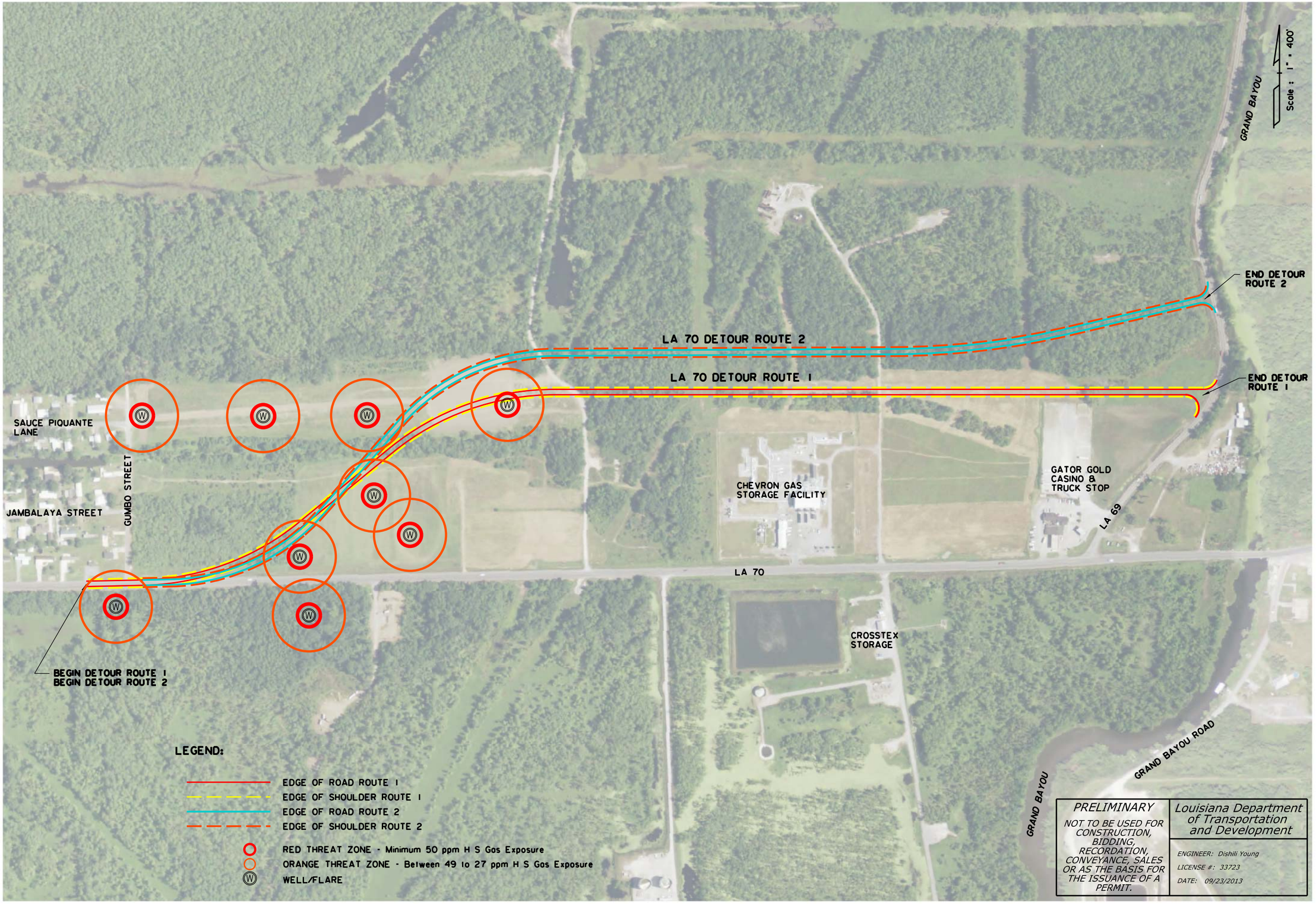
NO.	DATE	REVISION OR CHANGE ORDER DESCRIPTION	BY

LA 70 DETOUR ROUTE

LA 70 BYPASS STAGE 0 FEASABILITY STUDY

SHAW E & I, INC.

09/24/13



PRELIMINARY

NOT TO BE USED FOR CONSTRUCTION, BIDDING, RECORDATION, CONVEYANCE, SALES OR AS THE BASIS FOR THE ISSUANCE OF A PERMIT.

Louisiana Department of Transportation and Development

ENGINEER: Dishili Young

LICENSE #: 33723

DATE: 09/23/2013

SHEET NUMBER 2.4

PARISH: ASSUMPTION

CONTROL SECTION

STATE PROJECT: H.010571

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DETAILED / CHECKED

SERIES NUMBER

NO.	DATE	REVISION OR CHANGE ORDER DESCRIPTION	BY

LA 70 DETOUR ROUTE

LA 70 BYPASS STAGE 0 FEASABILITY STUDY

SHAW E & I, INC.

Appendix A

Existing Site Photos for Detour Routes 1 & 2

Client: LA DOTD

Location: Assumption Parish

Prepared by: Shaw E&I (A CB&I Company)
Photograph Dates: April - August 2013
Project No: 14816604

Photograph No. 1 **Direction:** West	
Description: Aerial view of LA 70 with the sinkhole to the left.	
Photograph No. 2 **Direction:** West	
Description: View of existing utilities located along “ridge” where Detour Route 1 would be	

Client: LA DOTD

Location: Assumption Parish

Prepared by: Shaw E&I (A CB&I Company)
Photograph Dates: April - August 2013
Project No: 14816604

Photograph No. 3 **Direction:** South	
Description: View of LA 69 looking towards LA 70 (standing near point where Detour Routes 1 and 2 would tie into LA 69)	
Photograph No. 4 **Direction:** North	
Description: LA 69 (standing near point where Detour Routes 1 and 2 would tie into LA 69)	

Client: LA DOTD

Location: Assumption Parish

Prepared by: Shaw E&I (A CB&I Company)
Photograph Dates: April - August 2013
Project No: 14816604

Photograph No. 5 **Direction:** East	
Description: LA 70 at Gumbo St.	
Photograph No. 6 **Direction:** West	
Description: LA 70 at Gumbo St.	

Client: LA DOTD

Location: Assumption Parish

Prepared by: Shaw E&I (A CB&I Company)
Photograph Dates: April - August 2013
Project No: 14816604

Photograph No. 7 **Direction:** North **Description:** View of intersection of LA 70 and Gumbo St.	
Photograph No. 8 **Direction:** Northwest **Description:** View of "ridge" that Detour Route 1 would follow (standing in the northwest corner of rear parking lot of Gator Gold Truck Stop & Casino)	

Client: LA DOTD

Location: Assumption Parish

Prepared by: Shaw E&I (A CB&I Company)
Photograph Dates: April - August 2013
Project No: 14816604

Photograph No. 9 **Direction:** East **Description:** View of Significant Tree (Live Oak) which lies in ROW of Detour Route 1 immediately north of rear parking lot of Gator Gold Truck Stop & Casino	
Photograph No. 10 **Direction:** East **Description:** View of "ridge" that Detour Route 1 would follow (looking towards LA 69)	

Client: LA DOTD

Location: Assumption Parish

Prepared by: Shaw E&I (A CB&I Company)
Photograph Dates: April - August 2013
Project No: 14816604

Photograph No. 11 **Direction:** West	
Description: Standing on LA 69 looking towards "ridge" – Approximate location where Detour Route 1 would tie into existing LA 69	
Photograph No. 12 **Direction:** East	
Description: View of wetland area looking towards LA 69 (directly behind Gator Gold Truck Stop & Casino's rear parking lot	

Client: LA DOTD

Location: Assumption Parish

Prepared by: Shaw E&I (A CB&I Company)
Photograph Dates: April - August 2013
Project No: 14816604

Photograph No. 13 **Direction:** East	
Description: View of one of the Observation Relief Wells near the AT&T Cell tower	
Photograph No. 14 **Direction:** East	
Description: View from above of LA 70 and Gumbo St.	

Appendix B

Traffic Study Report

(Pages 1 – 15)

Appendices to Traffic Study Report included on CD

LA 70 Detour Route
Assumption Parish, Louisiana

Traffic Study Report

State Project No. H.010571
F.A.P. No. H010571

For

STATE OF LOUISIANA
NICK JOSEPH FERLITO, JR.
REG. No. 28981
REGISTERED
PROFESSIONAL
ENGINEER
IN
CIVIL ENGINEERING

9/24/13

DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
DOTD

September 2013

Table of Contents

1.1 Introduction/Overview....1

1.2 Facility Conditions....6

1.3 Traffic Volumes....6

1.4 Analyses....13

1.5 Conclusions....15

Appendix....16

List of Figures

Figure 1 Project Limits....3

Figure 2 Proposed LA 70 Detour Route Geometry....4

Figure 3 Average Daily Traffic, Count Locations & Heavy Vehicle Percentages....7

Figure 4 2013 Existing Volumes....8

Figure 5 2018 No Build Volumes....9

Figure 6 2018 Build Volumes....10

Figure 7 2038 No Build Volumes....11

Figure 8 2038 Build Volumes....12

List of Tables

Table 1 Turn Lane Warrant Analyses....13

Table 2 Summary of SIDRA Analyses
Delay (sec) & LOS....14

1.1 Introduction/Overview

1.1.1 Project Purpose

The Louisiana Department of Transportation and Development (LA DOTD) is conducting a Stage 0 Feasibility Study/Environmental Inventory and a Stage 1 Environmental Assessment for a detour route on Louisiana Highway 70 (LA 70). The proposed project will provide an alternative route for commuters traveling along the highway in light of an emergency situation resulting in closure of the roadway associated with the Napoleonville Salt Dome, in particular with activities related to the sinkhole that emerged after the underground failure of a salt dome cavern. This report covers the tasks completed as part of the Stage 0 Feasibility Study/Environmental Inventory. Exhibit 1 shows the project vicinity.

As a separate part of this study, the construction of three (3) bypass routes for LA 70 are considered, as well as, the required improvements to bring two Traffic Contingency Plan routes which are located on existing roadways up to current design criteria. This report provides information related to the construction of the detour route only.

As part of this study two (2) alternatives were considered for the Detour Route concept and both are shown in Exhibit 2. Each route is approximately 1 mile long and is located over 700 ft. north of the existing LA 70. The Detour Route commences close to the intersection of LA 70 and Gumbo St. and terminates north of the intersection of LA 70 and Louisiana Highway 69 (LA 69). While the Detour Route is intended to provide a solution for an emergency closure of LA 70, there is a potential that it could also serve as a permanent alternative should it fall outside of the long-term subsidence maximum extent boundary, which is currently unknown. This study was completed with consideration that the route could potentially become a permanent corridor.

The purpose and need of this project is to protect human welfare and provide system linkage in the event that the integrity of LA 70 is compromised and the roadway is closed to local responders and residents due to activities associated with the large sinkhole that first formed in August 2012. LA 70 is also currently listed as a state emergency evacuation route. Traffic counts taken in early April 2013 determined that the average daily traffic (ADT) totaled 7,517 on LA 70 (immediately west of the intersection of LA 69 and LA 70).

1.1.2 Project Background

LA 70 serves as a major connector for the southern portions of Louisiana and is listed as a Louisiana State Emergency Evacuation Route. It is frequently utilized by motorists and school buses traveling between Pierre Part and Napoleonville. Due to public safety concerns related to activities with the Napoleonville Salt Dome, LA 70 has been closed three (3) times since 2003. Past closures have been required because of oil and gas well blowouts but the potential exists that future closures may be required due to subsidence associated with the nearby sinkhole.

The sinkhole was discovered on August 3, 2012 over two months after bubbles were seen rising up from Bayou Corne. As of July 2013, it is located approximately 1100 ft. south of the existing LA 70 highway. The sinkhole resulted from a collapsed brine cavern near the Napoleonville Salt Dome in Bayou Corne, LA. Since the formation of the sinkhole, there has been a statewide

emergency declaration issued by the Governor as a result of subsidence and subsurface instability of the area. There are other caverns of concern near the initial salt dome cavern failure that are even closer to LA 70. LA DOTD has been actively monitoring LA 70 in the vicinity of the sinkhole to ensure the public's safety and as part of the detection and motorist warning system.

Although at this time LA DOTD has no concerns related to the integrity of LA 70, this study is being conducted out of an abundance of caution to determine the feasibility of constructing a detour route in the vicinity should an emergency closure of LA 70 be required due to subsidence related to the sinkhole. Currently when the highway is closed, motorists are forced to utilize existing detour routes, which add an extra hour on to their commute.

Should such a closure be required, this project could provide access for motorists without the significant increase in commute time. Motorists utilizing this corridor as an emergency evacuation route, traveling from Morgan City to northern portions of our state and local commuters traveling between Pierre Part and Napoleonville, will maintain linkage within the general vicinity of the existing roadway corridor but outside of the immediate area of concern.

1.1.3 Study Purpose

The purpose of this *Traffic Study* is to document existing traffic conditions and to assess future transportation impacts associated with and without the construction of the LA 70 detour route in Assumption Parish, Louisiana. This report analyzes four (4) existing intersections and one (1) proposed intersection located within the study area as shown in **Figure 1**. The geometry and alignment for the proposed LA 70 detour route is presented in **Figure 2**. It should be noted that although two (2) different alignments are shown for the LA 70 detour route in **Figure 2**, this does not have an impact on the analyses presented in this study.

R:\LA\Assumption\11499 LA 70 Bypass\FIGURES\Project Limits.dwg

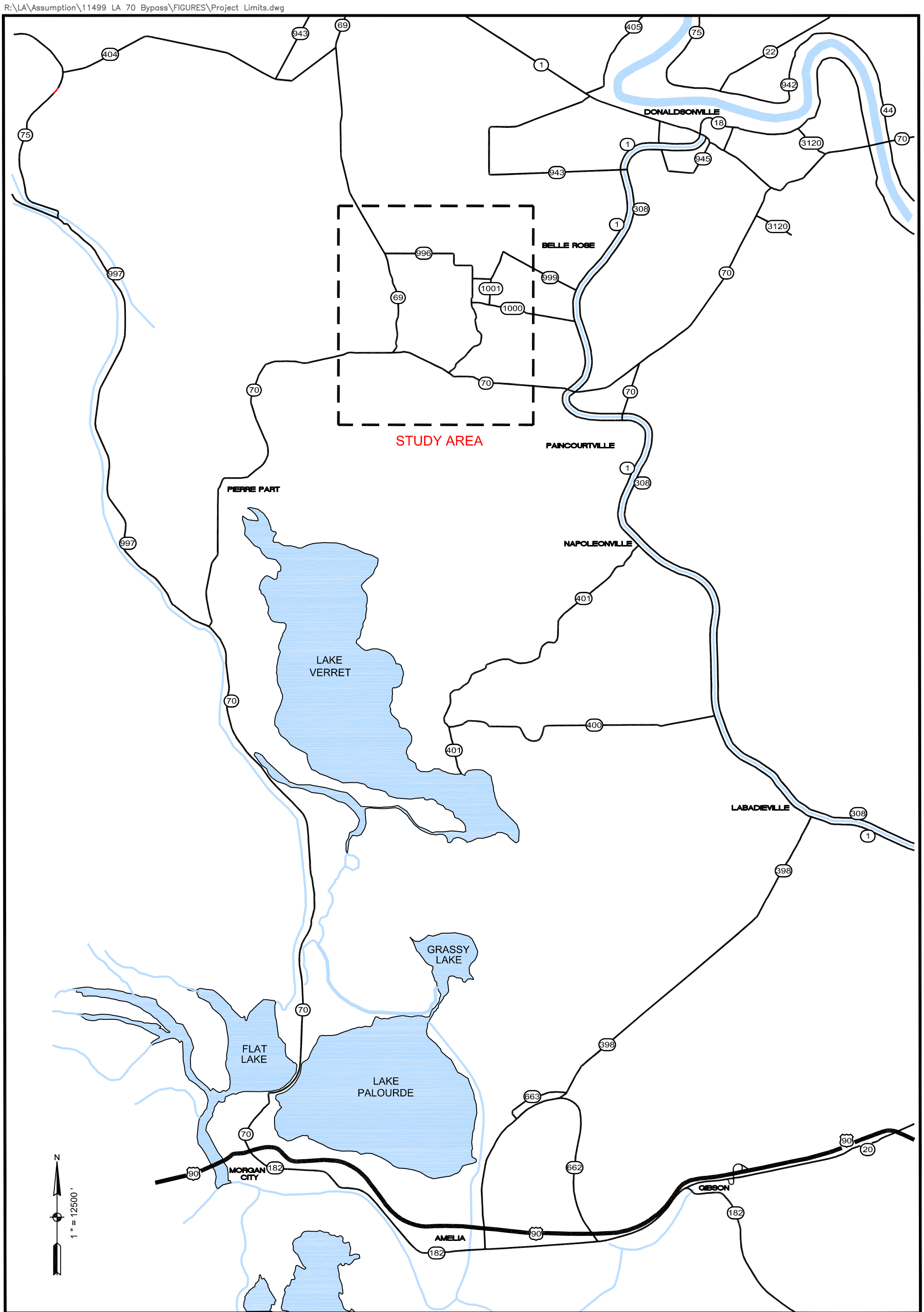


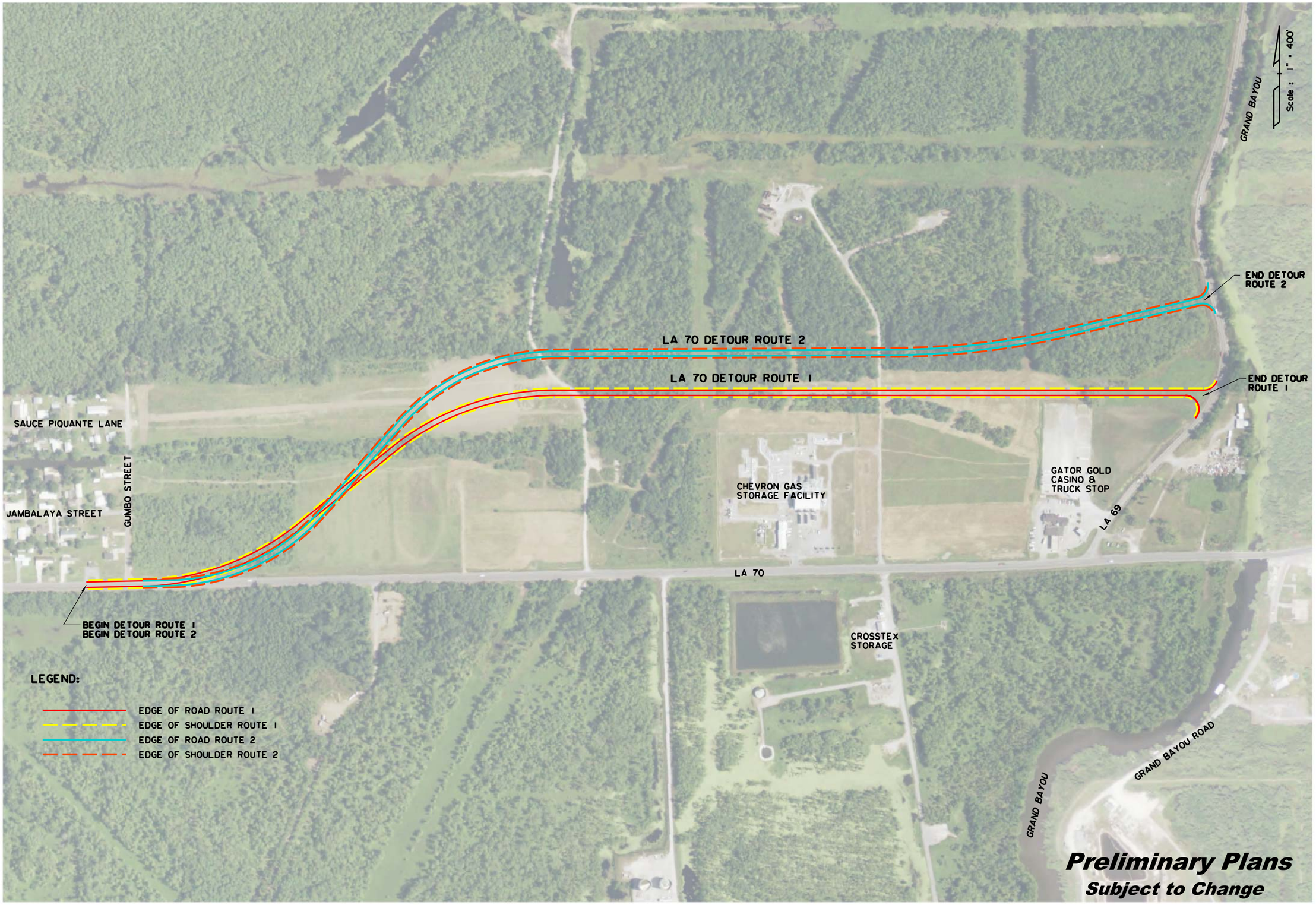
FIGURE 1

PROJECT LIMITS

PIERRE PART, LA
ASSUMPTION PARISH

NEEL-SCHAFFER
Solutions you can build upon

08/01/13



SHEET NUMBER

PARISH: ASSUMPTION

CONTROL SECTION

STATE PROJECT: H.010571

DESIGNED / CHECKED

DETAILED / CHECKED

SERIES NUMBER

NO.	DATE	REVISION OR CHANGE ORDER DESCRIPTION	BY

LA 70
DETOUR ROUTE

LA 70 BYPASS STAGE 0 FEASABILITY STUDY

SHAW E & I, INC.

1.1.4 Study Area

The roadways within the study area include LA 70, LA 69, LA 996, LA 1000, LA 997, US 90, LA 662, LA 398, LA 1, LA 75 and LA 404 located in Assumption Parish, Louisiana. The intersections within the study area:

1. LA70 at LA 69	Existing/Unsignalized
2. LA 70 at LA 996	Existing / Unsignalized
3. LA 996 at LA 1000	Existing / Unsignalized
4. LA 69 at LA 996	Existing / Unsignalized
5. LA 69 at LA 70 Detour Route	Proposed / Unsignalized

1.1.5 Scope of Work

The scope of work conducted as part of this study included data acquisition, traffic assignments and forecasting and intersection analyses. Initially, traffic assignments and forecasting were completed for the base year (2013), implementation year (2018) and design year (2038) for both AM and PM peak hours. Subsequently, delay and level of service (LOS) determinations were performed for the intersections within the project limits using *SIDRA Software Version 5.1.13*. The following 2013 traffic counts were collected by Neel-Schaffer, Inc. in March and April 2013 to successfully perform these tasks:

1) Seven (7) Day 24-Hour Machine Counts (directional), at the following locations:
    a) LA 70 west of LA 69
    b) LA 69 between LA 996 and LA 70
    c) LA 69 north of LA 996
    d) LA 70 between LA 69 and LA 996
    e) LA 996 between LA 69 and LA 1000
    f) LA 996 between LA 1000 and LA 70
    g) LA 1000 east of LA 996
    h) LA 70 east of LA 996
2) Existing AM/PM peak hour Turning Movement Counts (TMC), at the following locations:
    a) LA 69 at LA 996
    b) LA 70 at LA 69
    c) LA 70 at LA 996
    d) LA 996 at LA 1000
3) 48-Hour Machine Counts (directional):
    a) LA 70 between LA 997 and US 90
    b) US 90 between LA 70 and LA 662
    c) LA 662 between US 90 and LA 398
    d) LA 398 between LA 662 and LA 1
    e) LA 997 between LA 70 and LA 75
    f) LA 75 between LA 997 and LA 404
    g) LA 404 between LA 75 and LA 69

1.1.6 Study Analysis Period

For planning purposes, it is anticipated that construction of the LA 70 detour route will be completed and operational by the year 2018. In addition, design year (2038) analyses were performed in the event that the detour route becomes permanent. All delay and level of service (LOS) analyses presented in this report are based on the AM and PM peak hours determined from the evaluation of existing and forecasted traffic data.

1.2 Facility Conditions

1.2.1 Existing Conditions

1.2.1.1 Physical Features

LA 70 is an existing two (2) lane undivided highway aligned east-west with a posted speed of 45 mph west of LA 69 and 55 mph east of LA 996. LA 69 is an existing two (2) lane undivided highway aligned north-south with a posted speed of 55 mph. LA 996 is an existing two (2) lane undivided highway with a posted speed of 45 mph. LA 1000 is an existing two (2) lane undivided highway aligned east-west with a posted speed of 50 mph.

Additionally, within the study area, there are four (4) existing unsignalized intersections. LA 70 at LA 69 is an existing unsignalized intersection with a stop control on LA 69. LA 70 at LA 996 is an existing unsignalized intersection with a stop control on LA 996. LA 996 at LA 1000 is an existing unsignalized intersection with a stop control on LA 1000. LA 996 at LA 69 is an existing unsignalized intersection with a stop control on LA 996. The AM and PM peak hour times, peak hour factors and heavy vehicle percentages at these intersections are shown in **Figure 3**.

1.3 Traffic Volumes

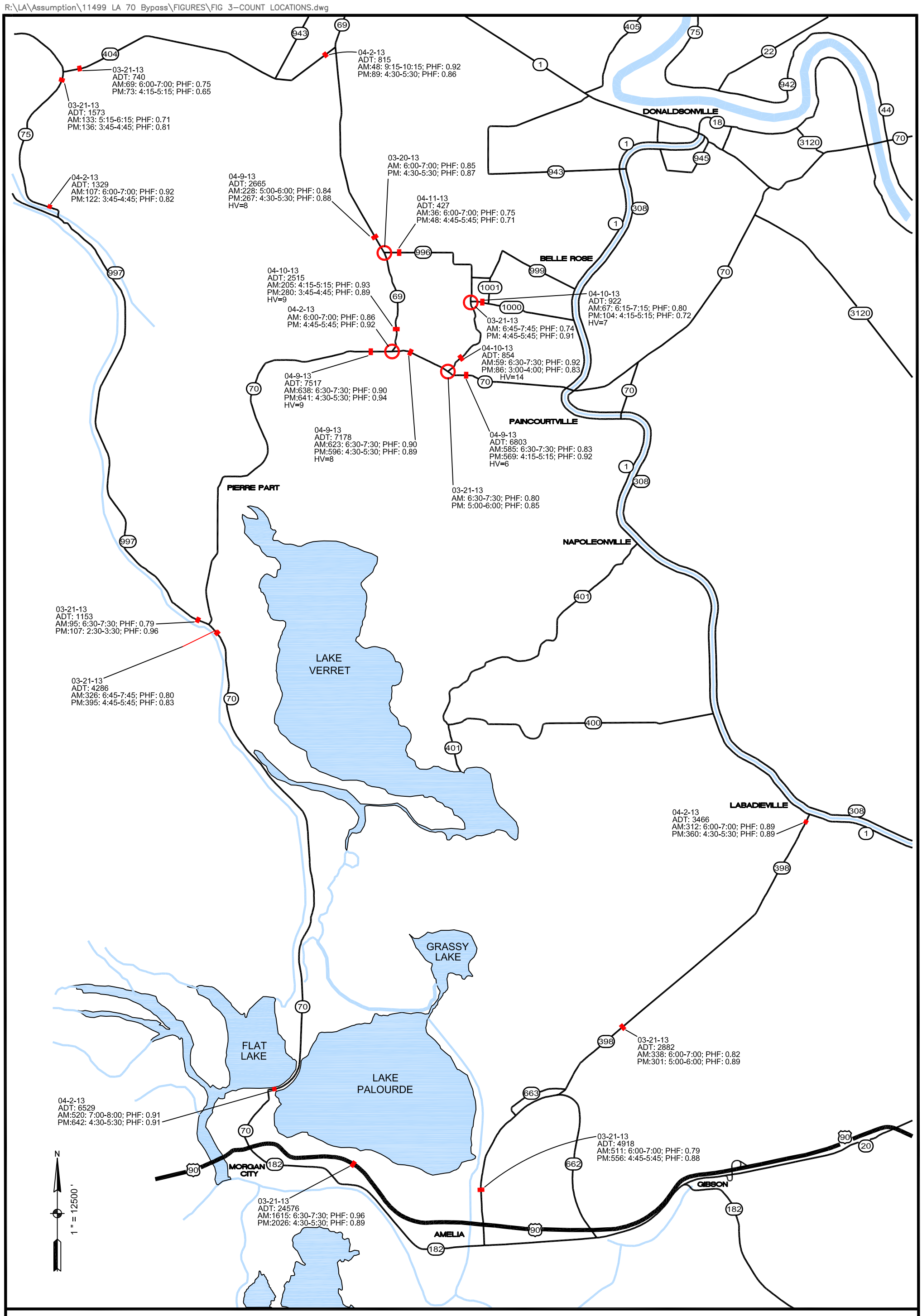
1.3.1 Existing Volumes

Traffic data was collected by Neel-Schaffer, Inc. in March and April 2013. These counts were obtained to identify travel demand and travel patterns within the project limits. Seven (7) day, 24-hour and 48-hour machine counts were collected at various locations within the study area. The average daily traffic (ADT) and count locations within the project limits are shown in **Figure 3**. Intersection turning movement counts were collected at the four (4) existing intersections over a three (3) hour period during the AM and PM peak periods. From this data, AM and PM peak hour traffic volumes were derived for the existing conditions. The existing 2013 AM and PM peak hour volumes are shown in **Figure 4**.

1.3.2 Volume Forecasting (Projection)

Based on historical data, a growth rate of two (2) percent was used in order to estimate the 2018 and 2038 volumes. A copy of the historical data calculations is included in the **Appendix**. For comparison purposes, No Build and Build volumes were determined. The No Build volumes reflect the volumes with the existing geometry. The Build volumes reflect the volumes with the LA 70 detour route. The No Build and Build volumes for the AM and PM peak hours for 2018 and 2038 are shown in **Figures 5-8**.

R:\LA\Assumption\11499 LA 70 Bypass\FIGURES\FIG 3-COUNT LOCATIONS.dwg



LEGEND

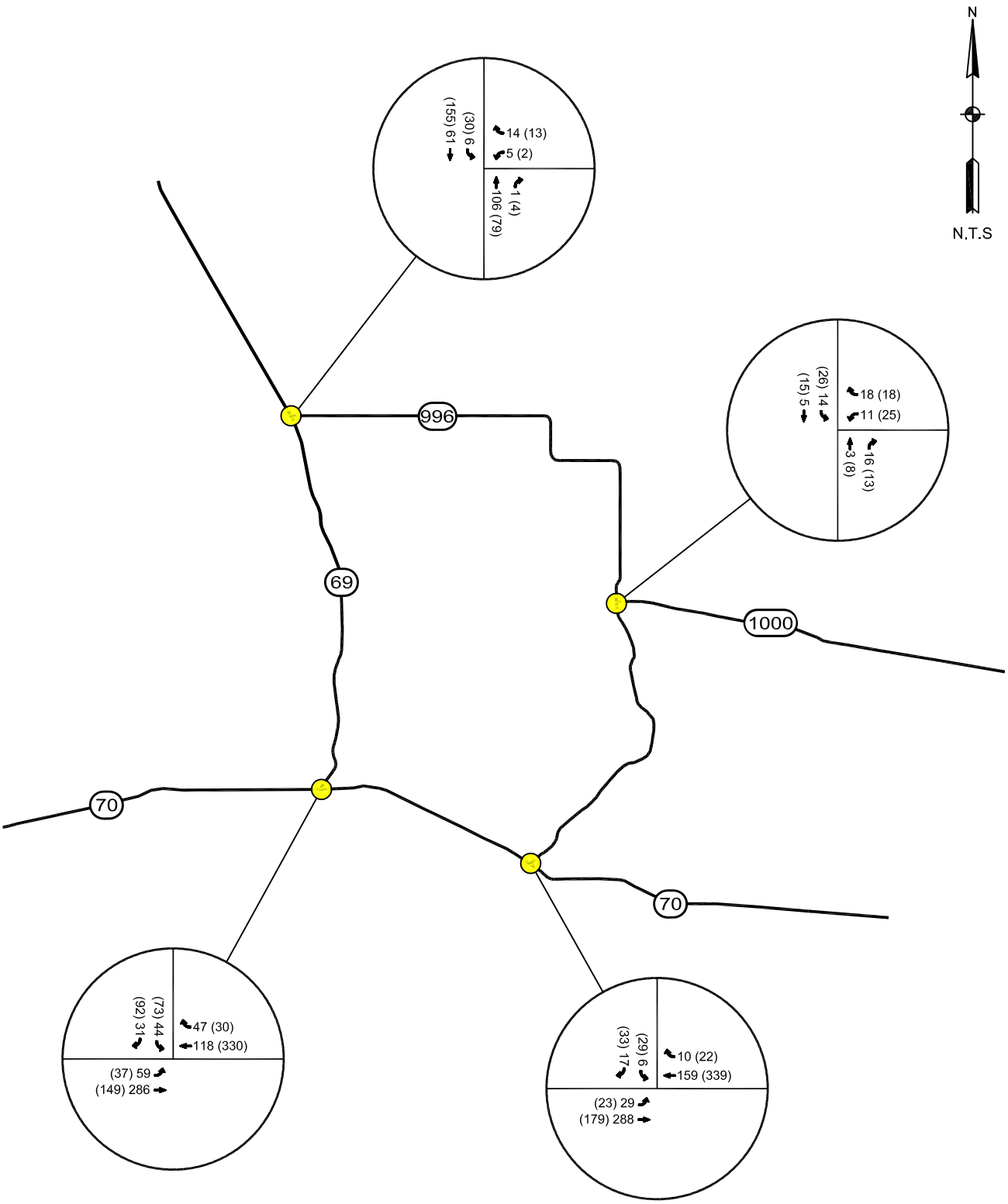
- TUBE COUNT LOCATION
- TURNING MOVEMENT LOCATION
- HV HEAVY VEHICLE PERCENTAGE

FIGURE 3

AVERAGE DAILY TRAFFIC, COUNT LOCATIONS & HEAVY VEHICLE PERCENTAGES

PIERRE PART, LA
ASSUMPTION PARISH

NEEL-SCHAFFER
Solutions you can build upon



LEGEND

STUDY INTERSECTION

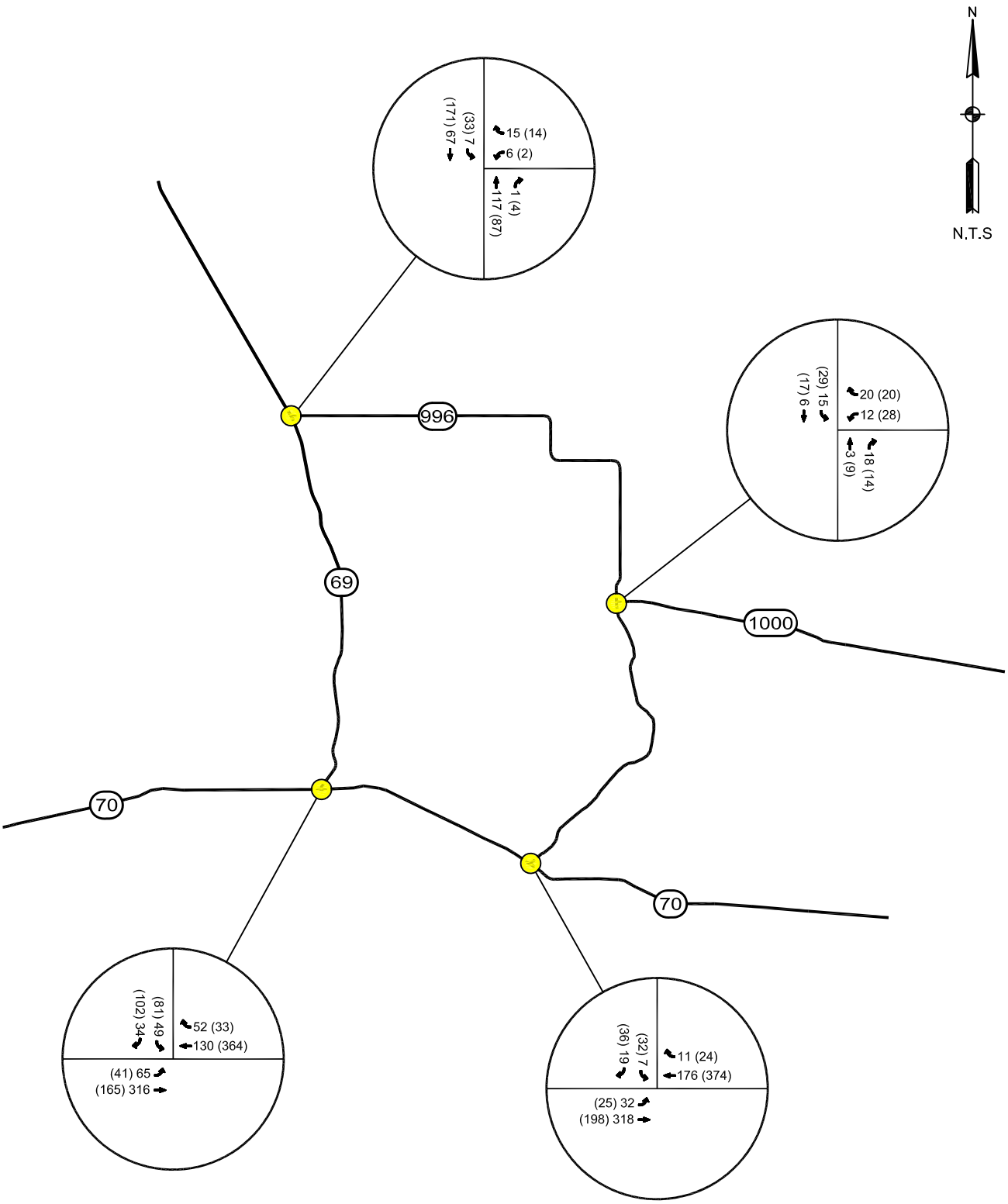
10 (22) AM (PM) VOLUMES

FIGURE 4
2013 EXISTING VOLUMES

PIERRE PART, LA
ASSUMPTION PARISH

NEEL-SCHAFFER
Solutions you can build upon

R:\LA\Assumption\11499 LA 70 Bypass\FIGURES\TMC-FIG 11499.dwg



LEGEND

STUDY INTERSECTION

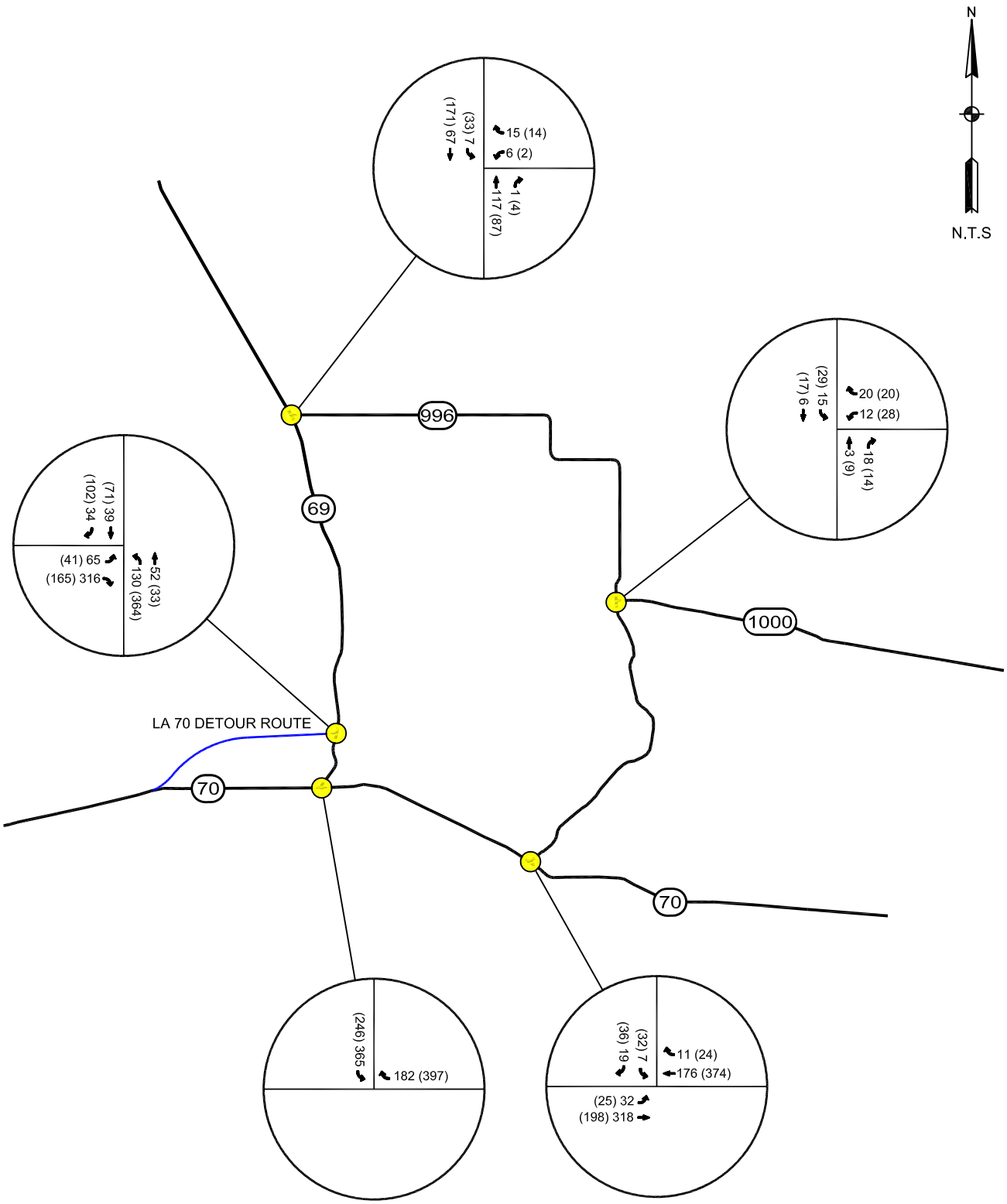
10 (22) AM (PM) VOLUMES

FIGURE 5
2018 NO BUILD VOLUMES

PIERRE PART, LA
ASSUMPTION PARISH

NEEL-SCHAFFER
Solutions you can build upon

R:\LA\Assumption\11499 LA 70 Bypass\FIGURES\TMC-FIG 11499.dwg



LEGEND

LA 70 DETOUR ROUTE

STUDY INTERSECTION

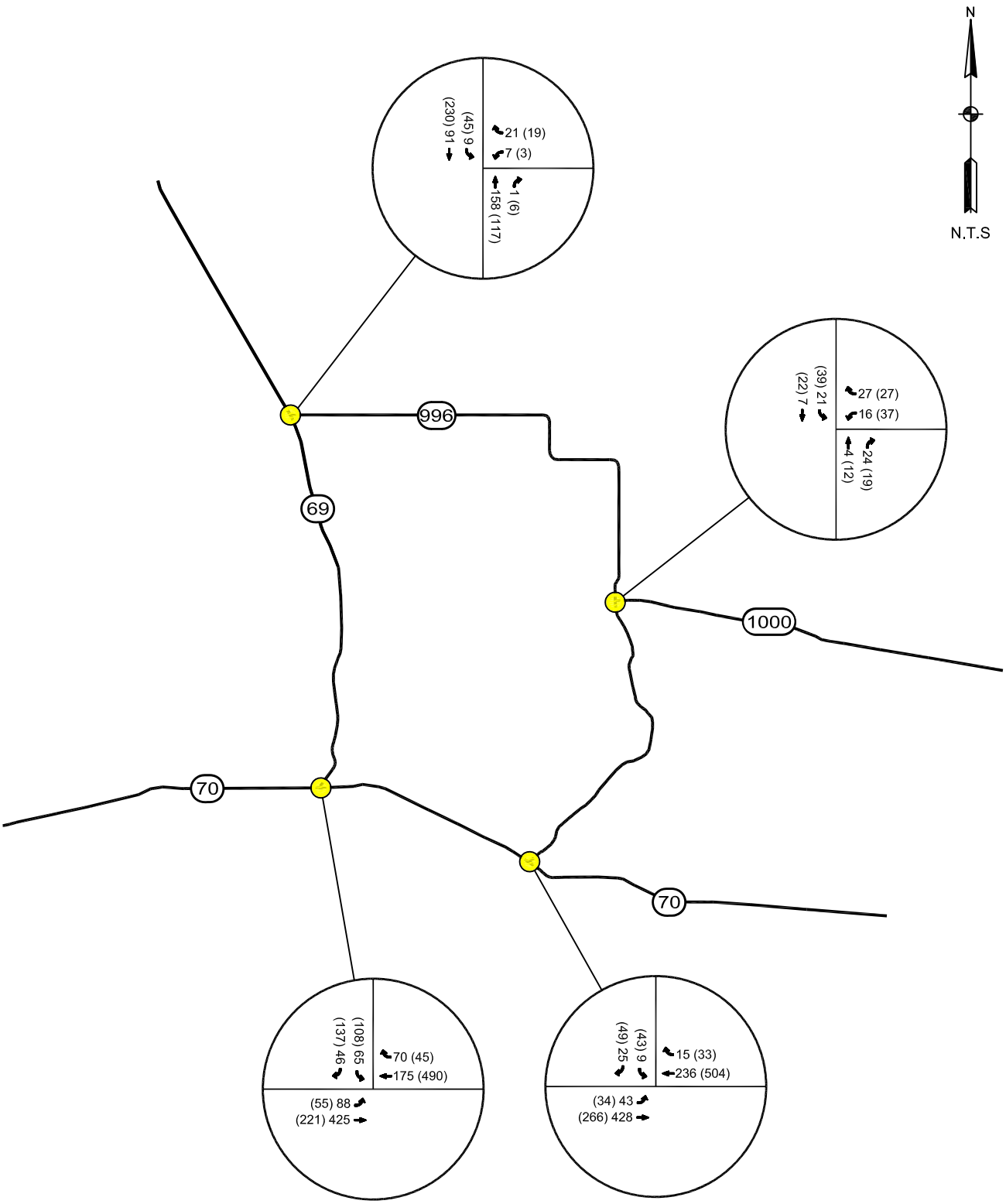
10 (22) AM (PM) VOLUMES

FIGURE 6
2018 BUILD VOLUMES

PIERRE PART, LA
ASSUMPTION PARISH

NEEL-SCHAFFER
Solutions you can build upon

R:\LA\Assumption\11499 LA 70 Bypass\FIGURES\TMC-FIG 11499.dwg



LEGEND

STUDY INTERSECTION

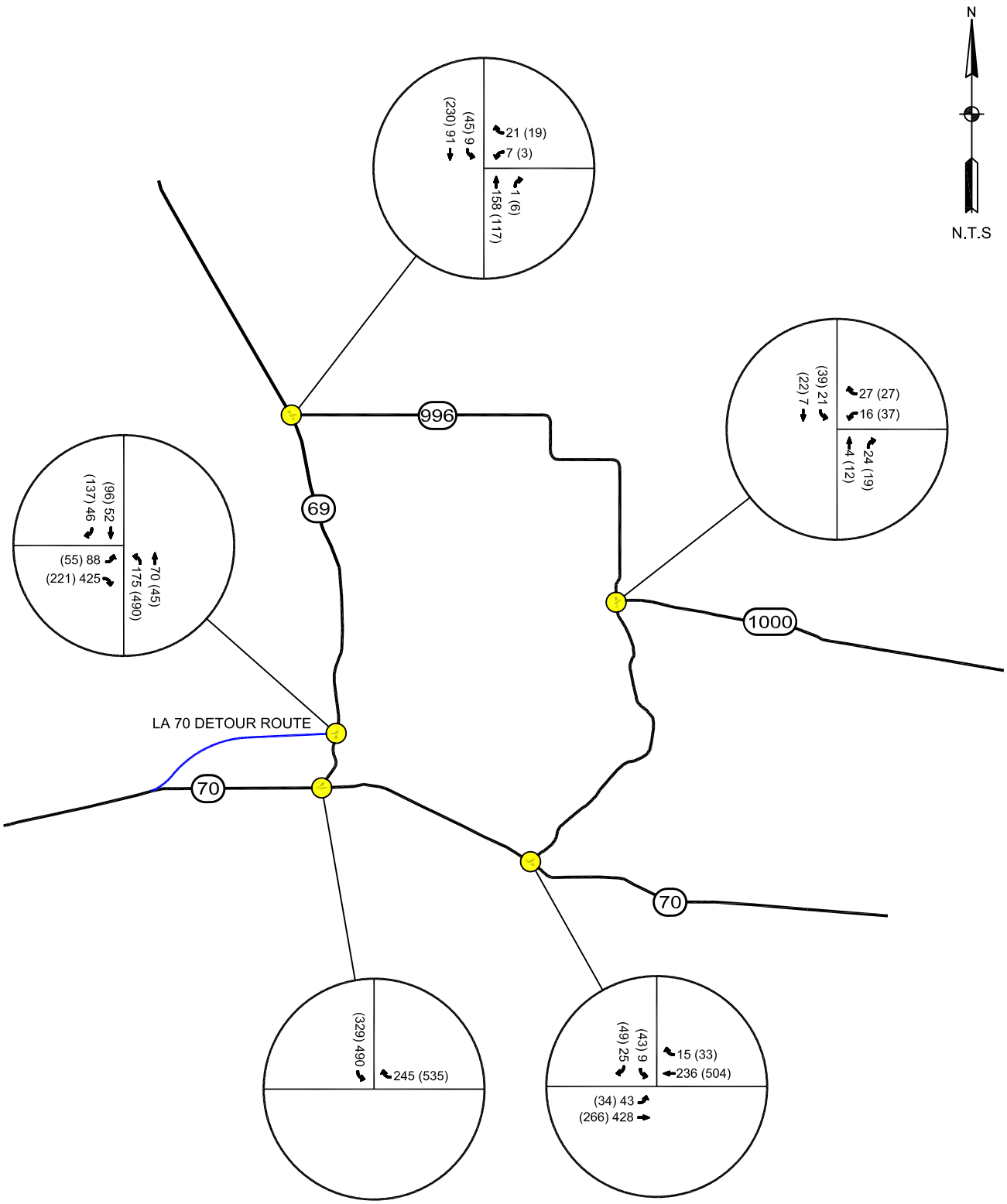
10 (22) AM (PM) VOLUMES

FIGURE 7
2038 NO BUILD VOLUMES

PIERRE PART, LA
ASSUMPTION PARISH

NEEL-SCHAFFER
Solutions you can build upon

R:\LA\Assumption\11499 LA 70 Bypass\FIGURES\TMC-FIG 11499.dwg



LEGEND

LA 70 DETOUR ROUTE

STUDY INTERSECTION

10 (22) AM (PM) VOLUMES

FIGURE 8
2038 BUILD VOLUMES

PIERRE PART, LA
ASSUMPTION PARISH

NEEL-SCHAFFER
Solutions you can build upon

R:\LA\Assumption\11499 LA 70 Bypass\FIGURES\TMC-FIG 11499.dwg

1.4 Analyses

1.4.1 Turn Lane Warrant Analyses

By using the build volumes for the detour route, turn-lane warrant analyses were performed for the intersection of LA 69 at LA 70 detour route. The turn-lane warrant analyses were performed using the National Cooperative Highway Research Program (NCHRP) Report Number 457 entitled "*Evaluating Intersection Improvements*." The analyses were performed for the northbound left, southbound right and the minor street for the 2018 and 2038 AM and PM peaks. The analyses indicate that the northbound approach on LA 69 warrants a left turn lane for the 2038 design year. Additionally, the analyses indicate that the southbound approach on LA 69 warrants a right turn lane for the 2018 implementation year and 2038 design year. The turn lane warrant analyses performed on the LA 70 detour route approach indicate that the approach does not warrant an additional lane. A summary of the analyses results are presented in **Table 1**. The detailed turn-lane analyses are provided in the **Appendix**.

Table 1
Turn Lane Warrant Analyses

Movements		2018 Build		2038 Build	
		AM	*PM*	*AM*	*PM*
LA 69	NBL	Not Warranted	Not Warranted	Not Warranted	Warranted
	SBR	Not Warranted	Warranted	Not Warranted	Warranted
LA 70 Detour Route	EB	Single Lane	Single Lane	Single Lane	Single Lane

1.4.2 Intersection Analyses

As described within the *2010 Highway Capacity Manual*, "vehicle capacity represents the maximum number of vehicles that can pass a given point during a specified period under prevailing roadway, traffic and control conditions," for a given facility. "Levels of service identify ranges of operation conditions. The concept of levels of service is defined "as a qualitative measure of the operational conditions include such factors and travel time, freedom to maneuver, traffic interruption, comfort and convenience, and safety." "Six levels of service are defined for each type of facility. They are given letter designations, from A to F, with level-of-service A (LOS A) representing the best operating conditions and level-of-service F (LOS F), the worst."

Intersection analyses were conducted to evaluate existing conditions, identify operational deficiencies, and to define future facility requirements. These analyses include the identification of design AM and PM peak hour traffic volumes, capacity, delay, and intersection level of service. The four (4) existing intersections and one (1) proposed intersection were evaluated for the existing 2013, 2018 and 2038 No Build and Build conditions. All of the analyses were evaluated using *SIDRA Software Version 5.1.13*.

A summary of the resulting delay and LOS for the existing and proposed intersections within the study area are presented in **Table 2**. These analyses are included in the **Appendix**.

Table 2
Summary of SIDRA Analyses
Delay (sec) & LOS

Intersection			LA 70 at LA 69	LA 70 at LA 996	LA 996 at LA 1000	LA 69 at LA 996	LA 69 at LA 70 Detour Route		LA 69 at LA 70 Detour Route with recommended turn lanes	
Stop Controlled Approach			***SB***	***SB***	***WB***	***WB***	***NBL***	***EB***	***NBL***	***EB***
2013 Existing	AM	*Delay*	15.9	12.9	7.4	7.8	-	-	-	-
		LOS	C	B	A	A	-	-	-	-
	PM	*Delay*	21.0	19.0	7.5	7.7	-	-	-	-
		LOS	C	C	A	A	-	-	-	-
2018 No Build	AM	*Delay*	17.7	13.8	7.5	7.8	-	-	-	-
		LOS	C	B	A	A	-	-	-	-
	PM	*Delay*	26.0	21.8	7.5	7.7	-	-	-	-
		LOS	D	C	A	A	-	-	-	-
2018 Build	AM	*Delay*	15.4	13.8	7.5	7.8	3.6	13.2	3.7	11.7
		LOS	C	B	A	A	A	B	A	B
	PM	*Delay*	15.1	21.8	7.5	7.7	5.1	12.7	5.0	11.3
		LOS	C	C	A	A	A	B	A	B
2038 No Build	AM	*Delay*	31.1	17.8	7.5	8.0	-	-	-	-
		LOS	D	C	A	A	-	-	-	-
	PM	*Delay*	111.4	46.0	7.6	7.9	-	-	-	-
		LOS	F	E	A	A	-	-	-	-
2038 Build	AM	*Delay*	26.7	17.8	7.5	8.0	4.1	19.1	4.3	13.4
		LOS	D	C	A	A	A	C	A	B
	PM	*Delay*	23.8	46.0	7.6	7.9	7.5	17.4	7.3	13.2
		LOS	C	E	A	A	A	C	A	B

1.5 Conclusions

The analyses performed for this study indicate that the LA 70 detour route will have a positive impact on the transportation network within the project limits. For 2018 and 2038, the intersection of LA 69 at LA 70 detour route will operate at acceptable LOS and delays. While this intersection operates at acceptable LOS without any turn lanes during the 2018 and 2038 build conditions, the following turn lanes should be considered in the event the detour route becomes permanent:

- LA 69 northbound left turn lane (400 ft. storage length)
- LA 69 southbound right turn lane (270 ft. storage length)
- LA 70 detour route eastbound right turn lane (380 ft. storage length)

The storage lengths were calculated based on LADOTD's *Traffic Impact Policy for New Access Requests*. The storage lengths include both the queue length (obtained from the SIDRA analyses) and the deceleration length (obtained from the above mentioned policy.) Additionally, the recommended taper length is 165 feet. Detailed calculations have been provided in the **Appendix**.

In addition, it should be noted that the southbound approach of LA 996 at LA 70 is projected to operate at a poor LOS for 2038 volumes. However, these 2038 volumes are less than one hundred (100) vehicles during the peak hours.

Appendix C

Environmental Inventory Backup Documentation

- Wetland Reserve Program Correspondence - NRCS
- Base Flood Elevation Correspondence from Assumption OEP and FIRMs
- Navigable Waterway Correspondence & Section 10 Waters - USACE
- Wetland Mitigation Quotes from RES and Supple's Wetlands
- 2013 Tax Parcel Maps and NRCS land classifications – Assumption Tax Assessor
- EDR Radius Map Report (Digital Copy on CD)

From:	Farmer, Dustin - NRCS, Alexandria, LA
To:	Moree, Kara
Cc:	Cruse, Steve - NRCS, Alexandria, LA
Subject:	RE: LA 70 Bypass Feasibility Study - WRP properties
Date:	Monday, July 29, 2013 8:23:56 AM
Attachments:	image001.jpg LA-90_bypass_map.pdf

Kara,

Attached is a copy of the project area showing no WRP easements in the area. The closest easement is 5 miles away as shown on the attached map.

Thanks

Dustin Farmer
Easement Program Specialist
USDA-NRCS
(318) 473-7773

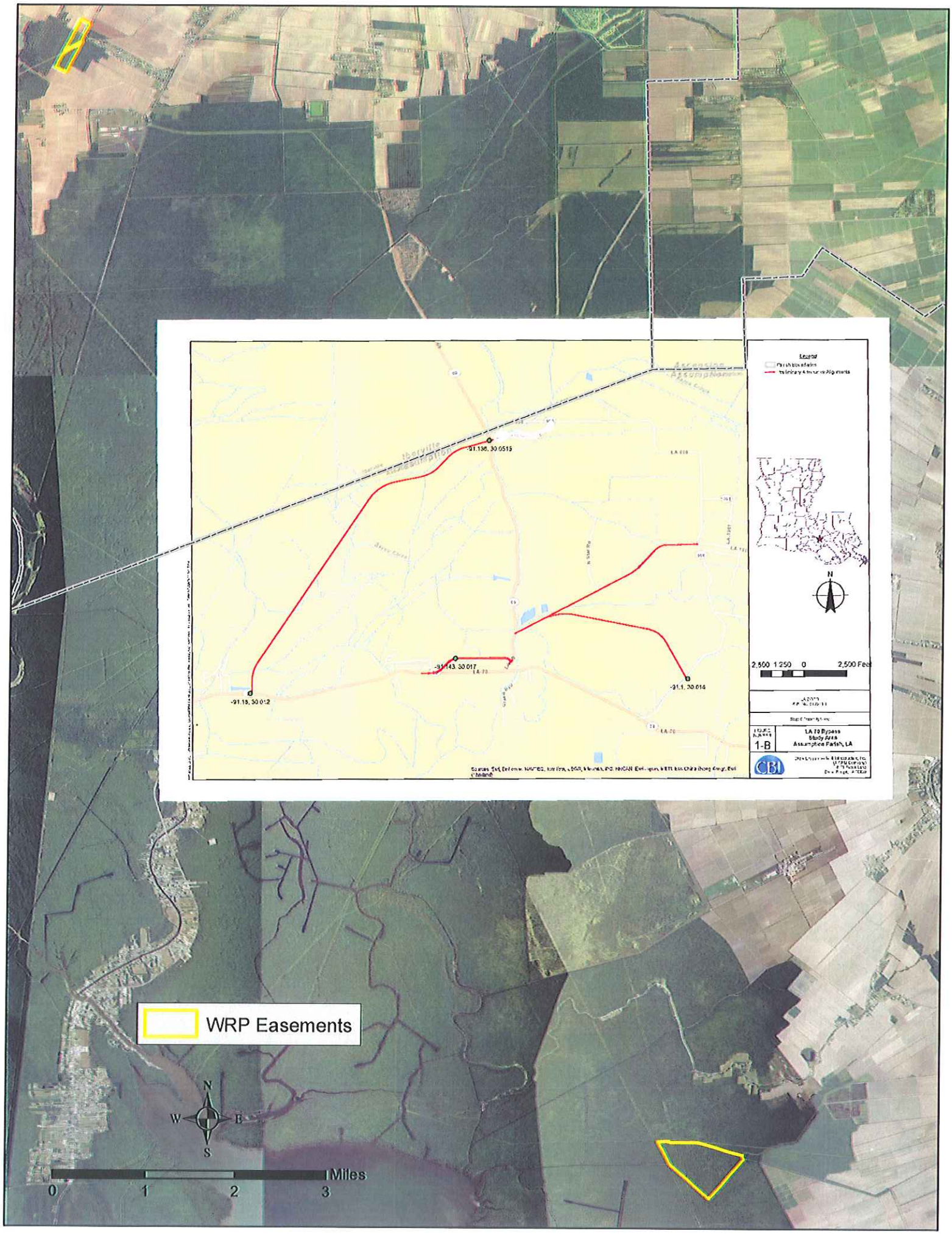
From: Moree, Kara [mailto:kara.moree@cbi.com]
Sent: Thursday, July 25, 2013 4:22 PM
To: Farmer, Dustin - NRCS, Alexandria, LA; Cruse, Steve - NRCS, Alexandria, LA; Millicks, Jackie - NRCS, Alexandria, LA
Subject: RE: LA 70 Bypass Feasibility Study - WRP properties

Perfect.
Thanks!

Kara K. Moree, CFM
Project Manager
Environmental & Infrastructure Group
Tel: +1 225 932 5803
Cell: +1 337 501 8211
Fax: +1 225 213 1244 fax
kara.moree@CBI.com

CB&I
4171 Essen Lane
Baton Rouge, LA 70809
www.CBI.com

From: Farmer, Dustin - NRCS, Alexandria, LA [mailto:dustin.farmer@la.usda.gov]
Sent: Thursday, July 25, 2013 4:13 PM
To: Moree, Kara; Cruse, Steve - NRCS, Alexandria, LA; Millicks, Jackie - NRCS, Alexandria, LA
Subject: RE: LA 70 Bypass Feasibility Study - WRP properties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-91.136, 30.0515
-91.143, 30.017
-91.19, 30.012
-91.1, 30.014
N
2,500 1,250 0 2,500 Feet
1-B
LA 70 Bypass
Study Area
Assumption Parish, LA
CBI
WRP Easements
N
W
E
S
Miles
0
1
2
3

From: John Boudreaux
To: Moree, Kara
Cc: Young, Dishili S.
Subject: Re: LA 70 Bypass Study - Base Flood Elevation needed
Date: Wednesday, September 04, 2013 2:35:24 PM

Sent from my iPad

On Sep 4, 2013, at 12:04 PM, "John Boudreaux" <johnboudreaux@assumptionoep.com> wrote:

Kara,

I'll have to give you two different determinations.

Areas near Hwy 70 have been determined to be a BFE of 6.0, however the area on Hwy 69 near Parish line has a BFE of 6.5.

Hope this helps...

Thanks.
John Boudreaux, LEM
Assumption Parish OHSEP

From: Moree, Kara
Sent: Wed 9/4/2013 11:45 AM
To: johnboudreaux@assumptionoep.com
Cc: Young, Dishili S.
Subject: LA 70 Bypass Study - Base Flood Elevation needed

Hey John,

Hope you are doing well! Could you provide me with the BFE for the areas around all 3 bypass alignments and the 2 emergency detour routes?? I took a look at the Preliminary Flood maps dated 2009 and it looks like the entire area is a Zone A where all of our alignments fall. I attached a map which has the alignments on it. Let me know if you need any more information.

Thanks!

<image001.jpg>
Kara K. Moree, CFM
Project Manager
Environmental & Infrastructure Group
Tel: +1 225 932 5803
Cell: +1 337 501 8211
Fax: +1 225 213 1244 fax
kara.moree@CBI.com

NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The community map repository should be consulted for possible updated or additional flood hazard information.

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Boundaries of the floodways were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by flood control structures. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures for this jurisdiction.

The projection used in the preparation of this map was Louisiana State Plane south zone (FIPSZONE 1702). The horizontal datum was NAD83, GRS1980 spheroid. Differences in datum, spheroid, projection or State Plane zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of the FIRM.

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NGS Information Services
NOAA, N/NGS12
National Geodetic Survey
SSMC-3, #9202
1315 East-West Highway
Silver Spring, MD 20910- 3282

To obtain current elevation, description, and/or location information for bench marks shown on this map, please contact the Information Services Branch of the National Geodetic Survey at (301) 713-3242, or visit its website at http://www.ngs.noaa.gov/.

Base map information for this study was provided in digital format by the Atlas: Louisiana Statewide GIS (atlas.lsu.edu). This data was created in State Plane NAD 83 Coordinates, U.S. Survey Feet and was produced at scales 1:1,200 (1"=100'), 1:4,800 (1"=400'). Aerial photography of the area was captured during 2005.

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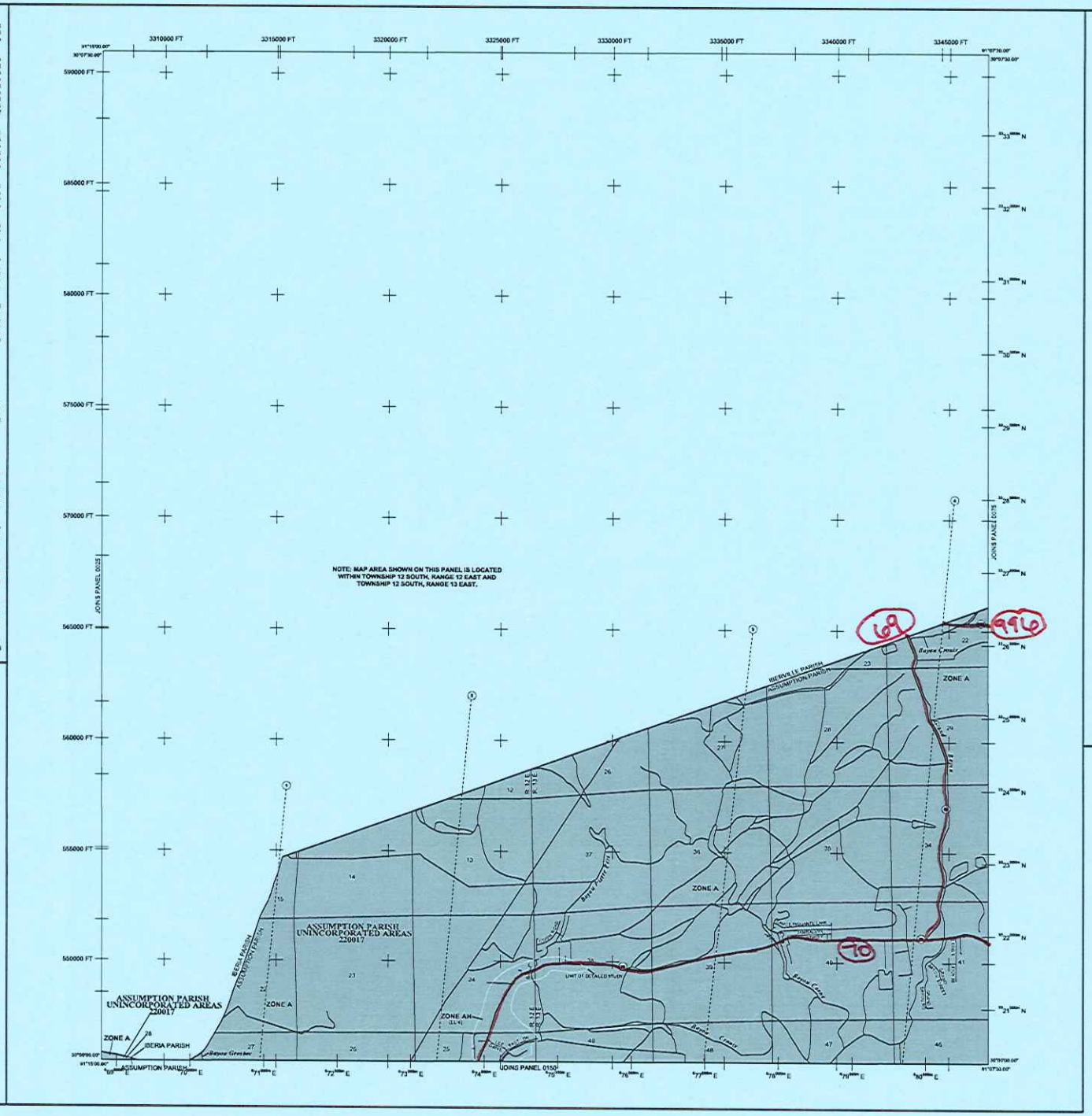
Contact the FEMA Map Service Center at 1-800-358-9616 for information on available products associated with this FIRM. Available products may include previously issued Letters of Map Change, a Flood Insurance Study report, and/or digital versions of this map. The FEMA Map Service Center may also be reached by Fax at 1-800-358-9620 and its website at http://www.msc.fema.gov/.

If you have questions about this map or questions concerning the National Flood Insurance Program in general, please call 1-877-FEMA MAP (1-877-336-2627) or visit the FEMA website at http://www.fema.gov/.



LEGEND

SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

ZONE A — No Base Flood Elevations determined.

ZONE AE — Base Flood Elevations determined.

ZONE AH — Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.

ZONE AO — Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.

ZONE AR — Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.

ZONE A99 — Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.

ZONE V — Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.

ZONE VE — Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

ZONE X — Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

ZONE X — Areas determined to be outside the 0.2% annual chance floodplain.

ZONE D — Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

Floodplain boundary

Floodway boundary

Zone D boundary

CBRS and OPA boundary

Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.

(EL 987) — Base Flood Elevation line and value; elevation in feet*

(EL 987) — Base Flood Elevation value where uniform within zone; elevation in feet*

* Referenced to the North American Vertical Datum of 1988 (NAVD 88)

(A)—(A) — Cross section line

(23)- - - -(23) — Transect line

97°07'30", 32°22'30" — Geographic coordinates referenced to the North American Datum of 1983 (NAD 83)

4275000mN — 1000-meter Universal Transverse Mercator grid values, zone 15

6000000 FT — 5000-foot grid ticks: Louisiana State Plane coordinate system, south zone (FIPSZONE 1702), Lambert Conformal Conic

DX5510 × — Bench mark (see explanation in Notes to Users section of this FIRM panel)

• M1.5 — River Mile

MAP REPOSITORIES
Refer to Map Repositories list on Map Index

EFFECTIVE DATE OF COUNTYWIDE
FLOOD INSURANCE RATE MAP

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

MAP SCALE 1" = 2000'

1000 0 2000 4000 FEET

300 0 600 1200 METERS

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0050D

FIRM
FLOOD INSURANCE RATE MAP
ASSUMPTION PARISH, LOUISIANA
AND INCORPORATED AREAS

PANEL 50 OF 325
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS: COMMUNITY	NUMBER	PANEL	SUFFIX
ASSUMPTION PARISH	220017	0050	D

PRELIMINARY
JULY 28, 2009

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.

MAP NUMBER
22007C0050D

EFFECTIVE DATE

Federal Emergency Management Agency

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1315 East-West Highway
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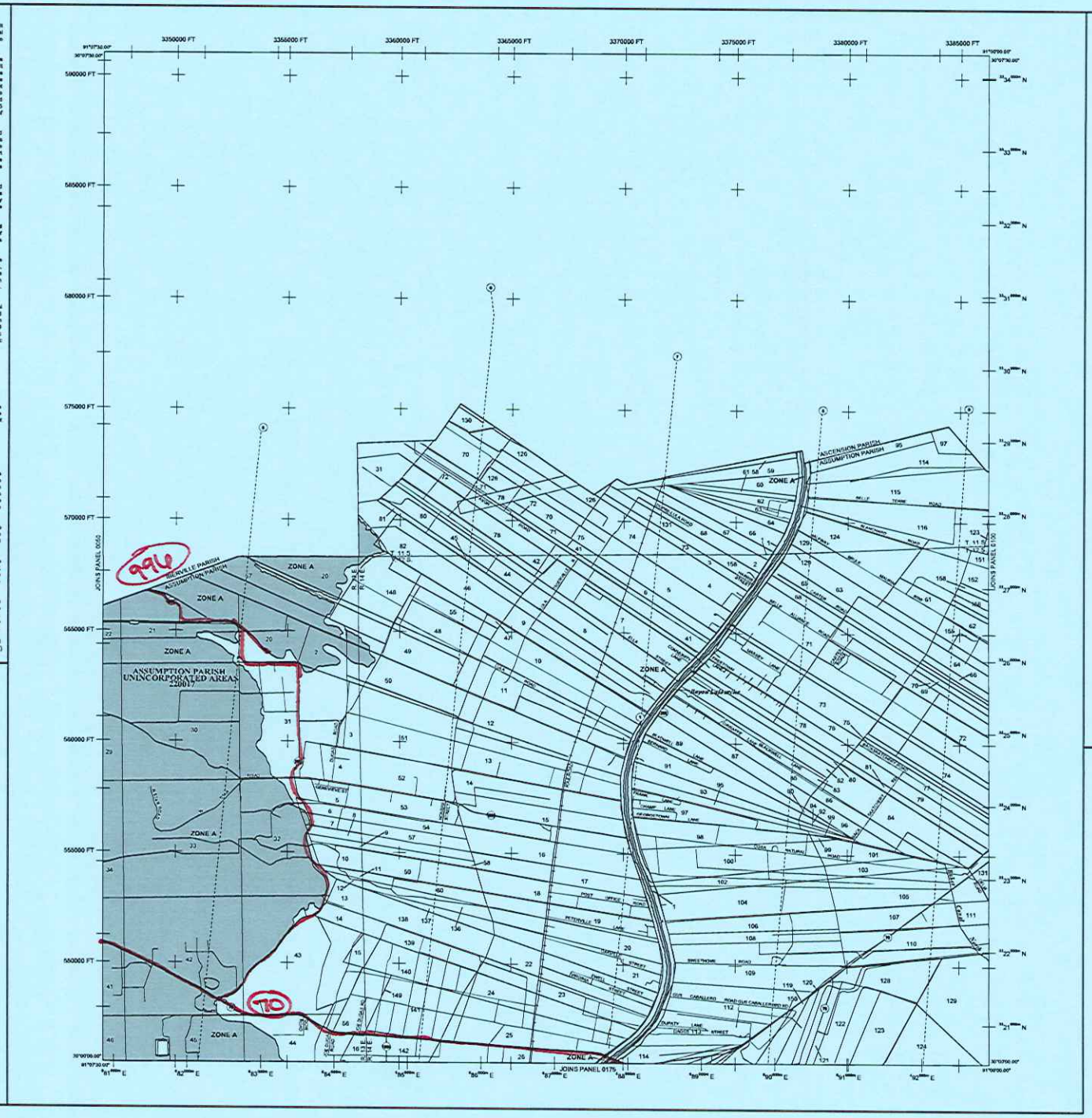
Corporate limits shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

Please refer to the separately printed Map Index for an overview map of the county showing the layout of map panels; community map repository addresses; and a Listing of Communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

Contact the FEMA Map Service Center at 1-800-358-9616 for information on available products associated with this FIRM. Available products may include previously issued Letters of Map Change, a Flood Insurance Study report, and/or digital versions of this map. The FEMA Map Service Center may also be reached by Fax at 1-800-358-9620 and its website at http://www.msc.fema.gov/.

If you have questions about this map or questions concerning the National Flood Insurance Program in general, please call 1-877-FEMA MAP (1-877-336-2627) or visit the FEMA website at http://www.fema.gov/.



LEGEND

SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

ZONE A	No Base Flood Elevations determined.
ZONE AE	Base Flood Elevations determined.
ZONE AH	Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
ZONE AO	Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
ZONE AR	Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
ZONE A99	Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
ZONE V	Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
ZONE VE	Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

ZONE X	Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

ZONE X	Areas determined to be outside the 0.2% annual chance floodplain.
ZONE D	Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

	Floodplain boundary
	Floodway boundary
	Zone D boundary
	CBRS and OPA boundary
	Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
513	Base Flood Elevation line and value; elevation in feet*
(EL 987)	Base Flood Elevation value where uniform within zone; elevation in feet*

* Referenced to the North American Vertical Datum of 1988 (NAVD 88)

A — A	Cross section line
23 - - - - - 23	Transect line
97°07'30", 32°12'30"	Geographic coordinates referenced to the North American Datum of 1983 (NAD 83)
4275000 m N	1000-meter Universal Transverse Mercator grid ticks, zone 15
6000000 FT	5000-foot grid ticks: Louisiana State Plane coordinate system, south zone (FIPSZONE 1702), Lambert Conformal Conic
DX5510 X	Bench mark (see explanation in Notes to Users section of this FIRM panel)
• M1.5	River Mile

MAP REPOSITORIES
Refer to Map Repositories list on Map Index

EFFECTIVE DATE OF COUNTYWIDE
FLOOD INSURANCE RATE MAP

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To obtain more detailed information in areas where Base Flood Elevations and/or floodways have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations table should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

MAP SCALE 1" = 2000'

1000 0 2000 4000 FEET

600 0 600 1200 METERS

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0075D

FIRM
FLOOD INSURANCE RATE MAP
ASSUMPTION PARISH, LOUISIANA
AND INCORPORATED AREAS

PANEL 75 OF 325
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
ASSUMPTION PARISH	220017	0075	D

PRELIMINARY

JULY 28, 2009

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.

MAP NUMBER
22007C0075D

EFFECTIVE DATE

Federal Emergency Management Agency

CB&I
4171 Essen Lane
Baton Rouge, LA 70809
Tel: +1 225 932 2500
Fax: +1 225 987 7300
www.CBI.com

June 21, 2013

Project No. 14816604

Karen L. Clement
Solicitation of Views Manager
U.S. Army Corps of Engineers
P. O. Box 60267
New Orleans, LA 70160-0267

State Project No. H.010571.1
Stage 0 Feasibility Study &
Environmental Inventory for
LA 70 Bypass
Assumption Parish, Louisiana

Re: Navigable Waterway & Flood Control Levee System Information Request

Dear Ms. Clement:

This letter is to request a determination as to whether or not any waterways that cross or come within 500 feet of the above referenced project are considered "navigable" as well as if there are any flood control levee systems within the project area. The preliminary project alternatives are to investigate the addition of an emergency bypass route as well as a permanent bypass route on Louisiana Highway 70 in Assumption Parish around the Napoleonville Salt Dome. The purpose of a Stage 0 Feasibility Study/Environmental Inventory is to identify any potential "project showstoppers" and to reach a "go/no-go" decision as to whether or not the project proceeds to Stage 1, Planning and Environmental. CB&I will be accomplishing the Study under contract to LA DOTD.

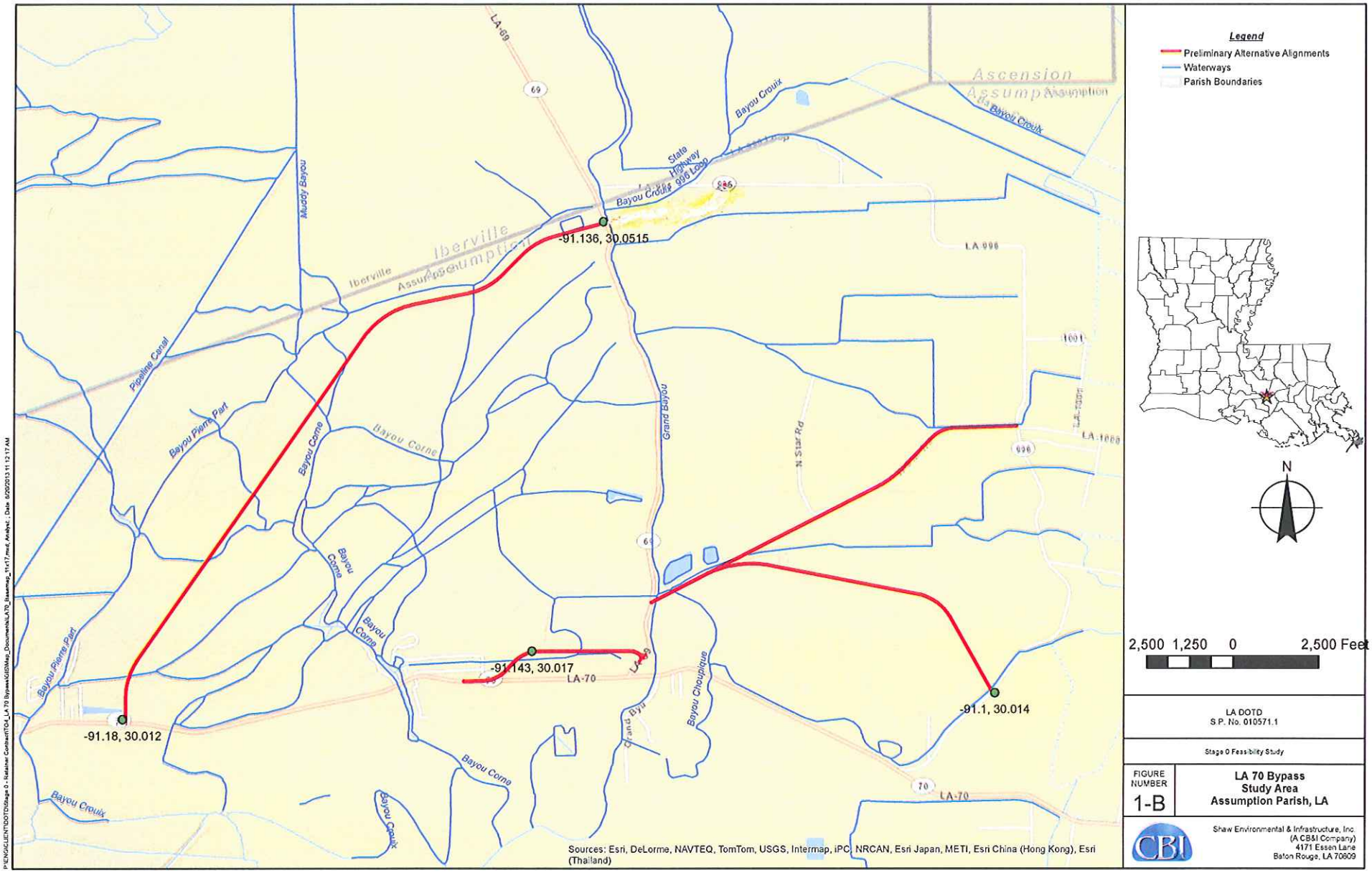
The project is located in northern Assumption Parish near the Iberville and Ascension Parish lines and a total of four (4) preliminary alternative alignments have been identified. Potential waterway crossings within the study area consist of *Bayou Corne, Grand Bayou, Bayou Choupique, Bayou Pierre Part, Bayou Crouix, Muddy Bayou,* and several unnamed tributaries that snake throughout the area. I have attached a map which includes the preliminary alignments and coordinates in various places to help with location orientation. In order to maintain our contract schedule, your help in responding by July 12, 2013 would be greatly appreciated. Should you have any questions or require any additional information please do not hesitate to contact me at (225) 932-5803 or via email at kara.moree@cbi.com.

Sincerely,

Kara Moree

Kara K. Moree, CFM
Project Manager
CB&I

Attachment



LA DOTD
S.P. No. 010571.1

Stage 0 Feasibility Study

FIGURE NUMBER 1-B

LA 70 Bypass
Study Area
Assumption Parish, LA

Shaw Environmental & Infrastructure, Inc.
(A CB&I Company)
4171 Essen Lane
Baton Rouge, LA 70809

H:\ENGINCLIENT\DOTD\Stage 0 - Retainer Contract\TO4_LA 70 Bypass\GIS\Map_Documents\LA70_Basemap_11x17.mxd, Analyst: , Date 6/20/2013 11:12:17 AM

From: Nethery, William R MVN
To: Moree, Kara
Subject: RE: LA 70 Bypass Stage 0 Study (UNCLASSIFIED)
Date: Monday, August 19, 2013 12:36:40 PM

Classification: UNCLASSIFIED
Caveats: NONE

All is well, thanks. FYI, looks like there will definitely be some Section 10 jurisdiction in Grand Bayou, etc., especially in the project areas closer to Hwy 70

William R. Nethery
US Army Corps of Engineers, N.O. District
Regulatory Branch,
Surveillance and Enforcement Section

(504) 862-1267

In order to assist us in improving our service to you, please complete the survey found at http://per2.nwp.usace.army.mil/survey.html

-----Original Message-----
From: Moree, Kara [mailto:kara.moree@cbi.com]
Sent: Monday, August 19, 2013 11:53 AM
To: Nethery, William R MVN
Subject: [EXTERNAL] RE: LA 70 Bypass Stage 0 Study (UNCLASSIFIED)

Ok. Great news. Thanks so much for your help with this. I know you guys have been slammed lately. Our due date is coming up fast for this study and I was starting to get a little worried when I didn't get anything back.

Hope everything is going well!

Kara K. Moree, CFM
Project Manager
Environmental & Infrastructure Group
Tel: +1 225 932 5803
Cell: +1 337 501 8211
Fax: +1 225 213 1244 fax
kara.moree@CBI.com

CB&I
4171 Essen Lane
Baton Rouge, LA 70809
www.CBI.com

-----Original Message-----
From: Nethery, William R MVN [mailto:William.R.Nethery@usace.army.mil]
Sent: Monday, August 19, 2013 6:59 AM
To: Moree, Kara
Subject: LA 70 Bypass Stage 0 Study (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Hi Kara, James Little asked me to try to assist you tracking this request down. I know that Karen Oberlies' group has a large stack of SOV requests they are about to push. I expect your request is in that stack and we'll be addressing it shortly. I'll root around and see if we've logged it in our shop yet.

I'll also look at this request to see if there will be any Section 10 jurisdiction.

Thanks, Bill

William R. Nethery
US Army Corps of Engineers, N.O. District Regulatory Branch, Surveillance and Enforcement Section

(504) 862-1267

In order to assist us in improving our service to you, please complete the survey found at http://per2.nwp.usace.army.mil/survey.html

Classification: UNCLASSIFIED
Caveats: NONE

This e-mail and any attached files may contain CB&I (or its affiliates) confidential and privileged information. This information is protected by law and/or agreements between CB&I (or its affiliates) and either you, your employer or any contract provider with which you or your employer are associated. If you are not an intended recipient, please contact the sender by reply e-mail and delete all copies of this e-mail; further, you are notified that disclosing, copying, distributing or taking any action in reliance on the contents of this information is strictly prohibited.

Classification: UNCLASSIFIED
Caveats: NONE

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

SEP 17 2013

REPLY TO
ATTENTION OF

Operations Division
Operations Manager,
Completed Works

Ms. Kara Moree
CB&I
4171 Essen Lane
Baton Rouge, Louisiana 70809

Dear Ms. Moree:

This is in response to your Solicitation of Views request dated June 21, 2013, concerning the Stage 0 Feasibility Study and Environmental Inventory for LA 70 Bypass in Assumption Parish, Louisiana.

We have reviewed your request for potential Department of the Army regulatory requirements and impacts on any Department of the Army projects.

We do not anticipate any adverse impacts to any Corps of Engineers projects.

Based on review of recent maps, aerial photography, and soils data, we have determined that waters of the US, including navigable waters and wetland areas subject to Corps' jurisdiction occur in this project area. However, these waters of the US, including wetlands, cannot be accurately delineated without a field investigation. If an accurate delineation is needed, please furnish us with the field data concerning vegetation, soils, and hydrology that we require for all jurisdictional decisions. A Department of the Army (DA) permit under Section 10 Rivers and Harbors Act and/or Section 404 of the Clean Water Act will be required prior to the deposition or redistribution of dredged or fill material into these waters of the US.

You are advised that this approved jurisdictional determination is valid for a period of 5 years from the date of this letter unless new information warrants revision prior to the expiration date or the District Commander has identified, after public notice and comment, that specific geographic areas with rapidly changing environmental conditions merit re-verification on a more frequent basis.

Off-site locations of activities such as borrow, disposals, haul-and detour-roads and work mobilization site developments may be subject to Department of the Army regulatory requirements and may have an impact on a Department of the Army project.

You should apply for said permit well in advance of the work to be performed. The application should include sufficiently detailed maps, drawings, photographs, and descriptive text for accurate evaluation of the proposal.

Please contact Mr. Robert Heffner, of our Regulatory Branch by telephone at (504) 862-1288, or by e-mail at Robert.A.Heffner@usace.army.mil for questions concerning wetlands determinations or need for on-site evaluations. Questions concerning regulatory permit requirements may be addressed to Mr. Darrell Barbara by telephone at (504) 862-2260 or by email at Darrell.Barbara@usace.army.mil.

Future correspondence concerning this matter should reference our account number MVN-2013-02117-SQ. This will allow us to more easily locate records of previous correspondence, and thus provide a quicker response.

We apologize for missing the target date of July 12, 2013 listed in your request. Thank you for your patience in this matter.

Sincerely,

Karen L. Clement

Karen L. Clement
Solicitation of Views Manager

Copy Furnished:

Ms. Christine Charrier
Coastal Zone Management
Department of Natural Resources
Post Office Box 44487
Baton Rouge, Louisiana 70804-4487

Wetlands – Detour Routes

RIBITS

[Fixed] [Help on This Page] [Hide Google Map]

Navigation

- Home
- Mitigation Concepts
- Banks & ILF Sites
- ILF Programs
- Reporting
- Bank & ILF Establishment
- Assessment Tools
- Credit Classifications
- Related Sites
- Find Credits
- Help

Filter View & Login

[Login] [Feedback]

- USACE District
- State
- FWS Field Office
- NOAA Fisheries Region

ALL DISTRICTS

Search Criteria -Sources of Credits for Impact Location

[Search]

Roads | Borders | USACE Districts | HUC 8 | FWS Field Offices | NOAA Regions

Note

The filtered drop down will determine whether you have the option to search by habitat or species and will set the default setting to the center of the District/State/Field Office/NOAA Fisheries Region selected. If you do not specify species or habitats, the resulting list of banks will the service areas overlapping the latitude/longitude selected. Page lists of which District/State/Field Office/NOAA Fisheries Region the bank is assigned to.

The results are based on service areas entered in RIBITS and may not represent all available sources of credits from Bank and ILF project sites in the area. The habitat selection is an additional filter to the service area filter and is subject to the same limitations.

Information on ILF ADVANCE credits (credits not associated with ILF project sites) can be found under the ILF Programs Button.

The credit totals shown on the ledger do NOT reflect any credit reservations or pending transactions. It is the responsibility of potential purchasers to contact the Sponsor and obtain written confirmation of credit availability.

This report includes only approved banks that have available credits.

ATL 18.00

Permit No

- Latitude 30.017365304693434
- Longitude -91.135948345658175

Single Client Yes

Service Area Rank Primary, Secondary, Tertiary

Terms of Use

Sources of Credits for Impact Location

Mitigation Banks Suitable for Permit No. Including single clients with Lat/Long (30.017365304693434, -91.135948345658175) using service areas of rank Primary, Secondary, Tertiary

Impact County:	Assumption Parish
Impact State:	Louisiana
Impact HUC:	8090302
Impact Field Office:	Lafayette
Impact District:	New Orleans
Impact NOAA Fisheries:	Southeast

Bank Name: **Bayou Choctaw:**

Bank States: Louisiana Mississippi

Bank Sponsor: Bayou Choctaw Wetlands Mitigation Area, LLC
LA

Bank POC: Mr John W. Barton Jr.
One American Place 23rd Floor
Post Office Box 3197
Baton Rouge, LA 70821-3197
Email: jwb@sbvlp.com
Phone: (225) 381-9044
Fax: (225) 378-5619

Credit Classifications Available Credits

Bottomland Hardwoods	3.00

Notes

Bank Name: **Bayou Terrebonne Coastal:**

Comments: Primary Service Area is 08090302. Secondary Service Area is HUCs 08090301 and 08070300.

Bank States: Louisiana

Bank Sponsor: Coastal Louisiana Resource LLC
412 North Fourth Street, Suite 300
Baton Rouge, LA 70802
Email: info@REmitigation.com
Phone: (225) 372-6161
Fax: (225) 372-6162

Bank POC: Frank Savoy
412 North Fourth Street
Suite 300
Baton Rouge, LA 70802
Email: fsavoy@remitigation.com
Phone: (225) 372-6161

Credit Classifications Available Credits

Cypress/Tupelo Gum Swamp	8.30
Fresh Marsh	23.10

Notes

-Kara Moree received a more detailed quote from Mr. Savoy via email 9/6/13.

Bank Name: **Lake Long Coastal:**

Comments: Primary Service Area is HUC 08090302. Secondary Service Area is HUCs 08090301 and 08070300. re-establish and or rehabilitate, maintain and protect a Freshwater marsh, bottomland hardwood and bald cypress-tupelo swamp wetland.

Bank States: Louisiana

Bank Sponsor: Resource Environmental Solutions LLC
128 Third St.
Baton Rouge, LA 70801

Bank POC: Frank Savoy
412 North Fourth Street
Suite 300
Baton Rouge, LA 70802
Email: fsavoy@remitigation.com
Phone: (225) 372-6161

Credit Classifications Available Credits

Cypress/Tupelo Gum Swamp	0.20
Fresh Marsh	43.30

Notes

Bank Name: **Supple's Wetlands:**

Bank States: Louisiana

Bank Sponsor: J. Supple Sons Planting Company, LLC
Bayou Goula, LA

Bank POC: Jimmy Ewing
28300 Highway 405
Bayou Goula, LA 70716
Email: supple.manager@mindspring.com
Phone: (225) 645-3417
Fax: (225) 645-3410

Credit Classifications Available Credits

Bottomland Hardwoods	68.40

Notes

-will only have ~30 credits left due to a large pipeline project.

Kara Moree spoke to Mr. Ewing on 9/3/13. He estimated ~ $60,000 an acre. For every acre taken/destroyed, you would need about 0.6 credits.

Bank Name: **Texada Mitigation Bank:**

Comments: HUC = 08070300

Bank States: Louisiana

Bank Sponsor: Texada Properties Inc.
5790 New Erwin Dr.
Plaquemine, LA 70764
Email: casey@plaquemineoaking.broomail.com
Phone: (225) 687-2203

Bank POC: Harry Case
5790 New Erwin Drive
Plaquemine, LA 70764
Phone: (225) 687-2203

Credit Classifications Available Credits

Cypress/Tupelo Gum Swamp	4.75

Notes

Fetched 5 rows in 13.87 seconds

USACE

From:	Frankie Savoy
To:	Moree, Kara
Cc:	Will Donaldson
Subject:	Re: Quote for Mitigation for 2 Detour Routes on LA 70 in Assumption Parish
Date:	Friday, September 06, 2013 5:09:58 PM

Kara,

This is a more high-level look than I intended to provide, but I've been really crunched for time since I've been back - please call my cell over the weekend if you need any questions answered about this information.

The following estimates are based upon how the MCM has been run recently for projects in very close vicinity to the sinkhole, or similar habitat types to those on your two routes. I would said that these could be considered realistic, but close to worst case scenarios, as the areas from which these MCM examples are pulled were very wet, and pretty mature. Any significant variance to these figures would likely be in the lower direction.

For Route 1 (16.542 acres of impact) -- estimated MCM credit (not acre) requirement -- 201.0 credits
For Route 2 (22.877 acres of impact) -- estimated MCM credit (not acre) requirement -- 310.4 credits

The following pricing range is also derived from what mitigation has been provided for both via mitigation bank and PRM in this watershed in the last 12 months.

MCM Credit = $6,000 - $8,000

Note that this takes into account projects with which RES has been involved, and does not account for pricing ranges other providers may offer. Also note that if RES were to be involved with this mitigation solution, we would make every effort to decrease pricing as much as possible. While this range is realistic, there could be opportunity for improvement.

Route 1 estimated price range: $1,206,000 - $1,608,000
Route 2 estimated price range: $1,862,400 - $2,483,200

All things considered, with the MCM run nearly as high as possible, and the price range given at a realistic but preliminary level, I wouldn't think total mitigation costs for these scenarios would exceed the ranges above, and there are a few different avenues through which total cost could be reduced.

Again, call with any questions.

Thanks Kara!

Frankie

Frankie Savoy
Regional Program Manager
Resource Environmental Solutions, LLC

Detour Route 1 Wetlands

	# Acres	Habitat Type
	2.5	Estuarine Emergent
	0.329	CT
	0.346	CT
	0.933	CT
	0.297	CT
	2.865	CT
	2.727	CT
	1.495	BLH
	0.083	CT
	1.191	Wet Pasture
	2.537	BLH
	1.102	CT
	0.137	CT
Total Acres:	16.542	

Detour Route 2 Wetlands

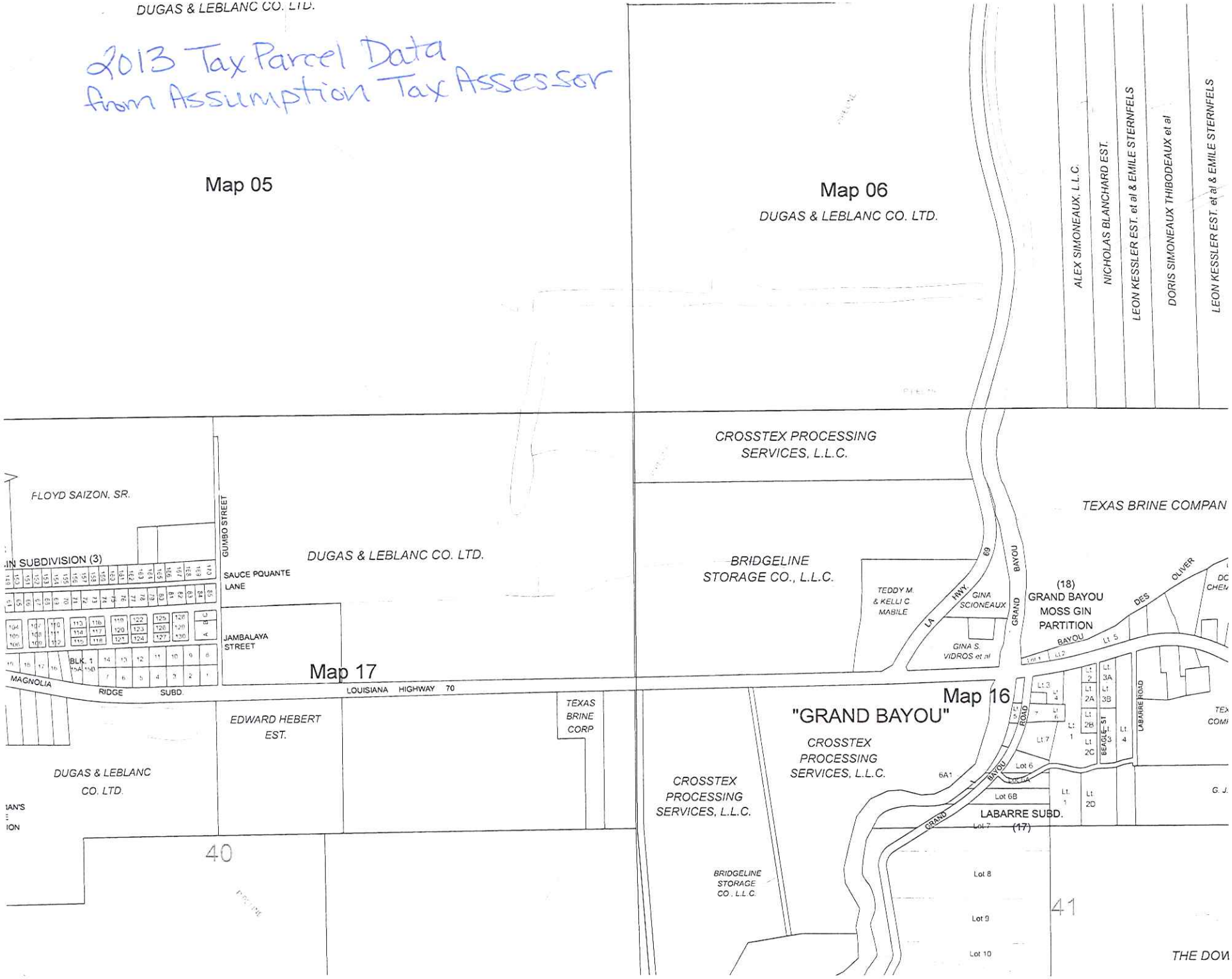
	# Acres	Habitat Type
	0.039	CT
	4.846	CT
	3.203	CT
	4.135	CT
	4.041	CT
	1.625	CT
	1.403	BLH
	2.52	BLH
	1.065	CT
Total Acres:	22.877	

CT = Cypress Tupelo
BLH = Bottomland Hardwood

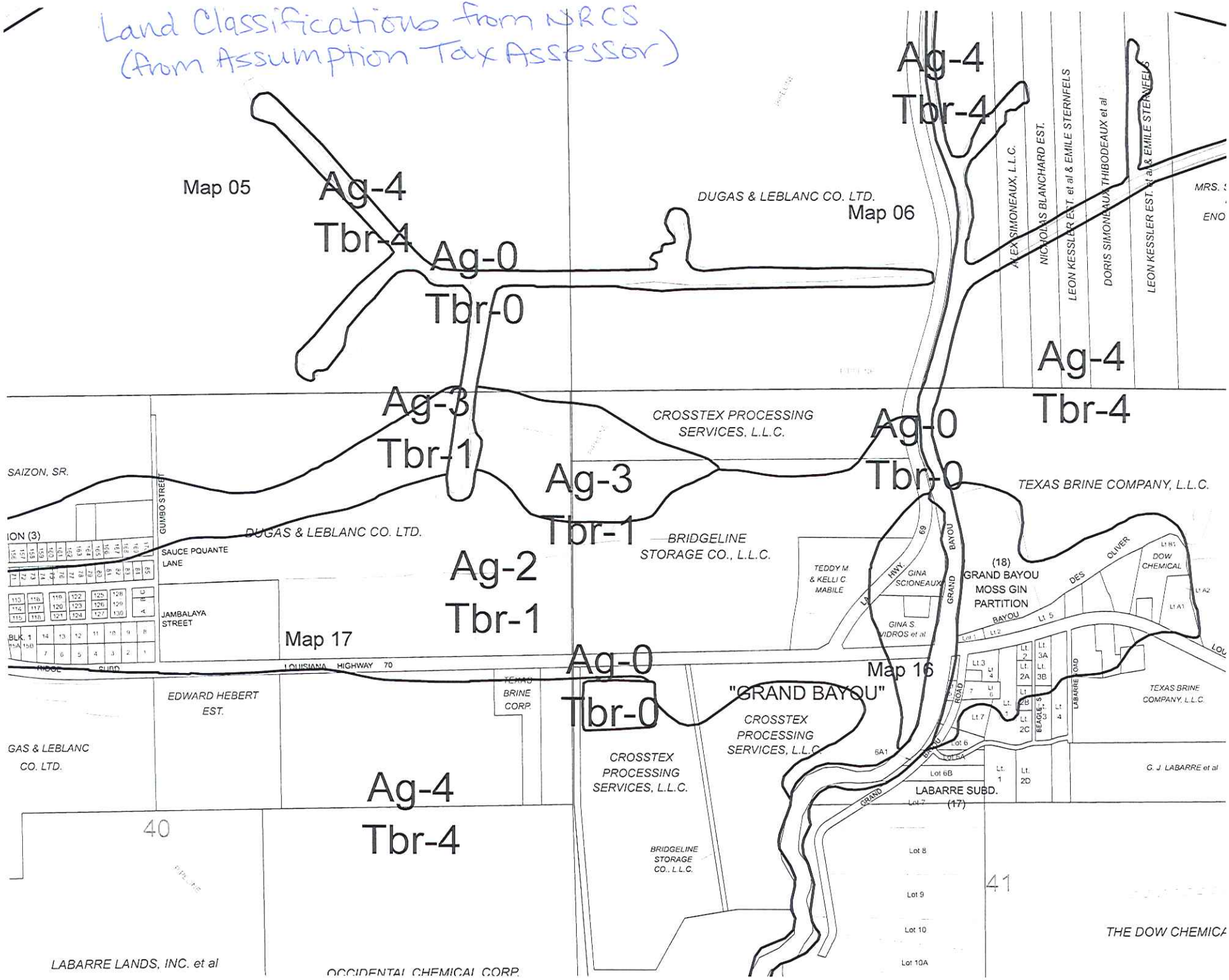
Detour Route 1

Detour Route 2

2013 Tax Parcel Data
from Assumption Tax Assessor



Land Classifications from NRCS
(from Assumption Tax Assessor)



Appendix D

Meetings and Coordination

Agendas/Meeting Minutes/Sign-In Sheets

From: Moree, Kara

To: connie.porter@la.gov; rhett.desselle@la.gov; kevin.szatmary@la.gov; cheryl.duvieilh@la.gov; chad.winchester@la.gov; mike.vosburg@la.gov; jeffrey.burst@la.gov; ann.wills@la.gov; noel.ardoin@la.gov; edward.wedge@la.gov; paul.fossier@la.gov; chris.knotts@la.gov; robin.romeo@la.gov; dennis.decker@la.gov; steve.meunier@la.gov; joey.tureau@la.gov; roy.schmidt@la.gov; ronnie.l.robinson@la.gov; bert.moore@la.gov; karenholden@providenceeng.com; kerryoriol@providenceeng.com; paulgriggs@providenceeng.com; leewomack@providenceeng.com; johnboudreaux@assumptionoep.com; martin@trichelaw.com; henrydupre@charter.net; myronmatherne@yahoo.com; boosterbreaux@yahoo.com; bobbynaquin@assumptionla.com; bjfrancis@apwwla.com; harrisoj@legis.la.gov; larep060@legis.la.gov; wardr@legis.la.gov; LeBas, Luke E; Young, Dishili S.; james.ballow@la.gov; jkent4@lsu.edu; robert.mahoney@dot.gov; scott.nelson@dot.gov; brownte@legis.la.gov

Cc: sherri.lebas@la.gov; eric.kalivoda@la.gov

Subject: State Project No. H.010571.1 LA 70 Bypass (Stage 0 Feasibility Study) Project Initiation Meeting

---

You are invited to the Project Initiation Meeting for the following project:

State Project No. H.010571.1
LA 70 Bypass
Stage 0 Feasibility Study
Assumption Parish, LA

Project Overview:
This study will examine the feasibility of creating a temporary emergency bypass and a new permanent alternative route for traffic along LA 70 (Pierre Part Rd.) near its intersection with LA 69 in Assumption Parish, LA. This study will consider the relocation of existing utilities along the impacted portion of LA 70. In addition, this study will analyze and compare the benefits of completing enhancement for two Traffic Contingency Plan detour routes in lieu of the new permanent corridor construction. The required improvements to bring existing corridors up to current design standards will be analyzed if they are utilized as part of an alternative route.

SAP Contract No. 4400001862

State Project No. H.010571.1

LA 70 Bypass

Stage 0 Feasibility Study

Assumption Parish, LA

Project Initiation Meeting

Agenda

March 27, 2013 - 3:00 PM

LA DOTD Executive Classroom 302-AA

I. Introductions

II. Purpose of Meeting

a. Current update on Sinkhole Activities
b. Immediate needs and challenges

III. Scope and Alternatives

IV. Purpose and Need

a. History of project/area
b. Previous studies
c. Public Meeting

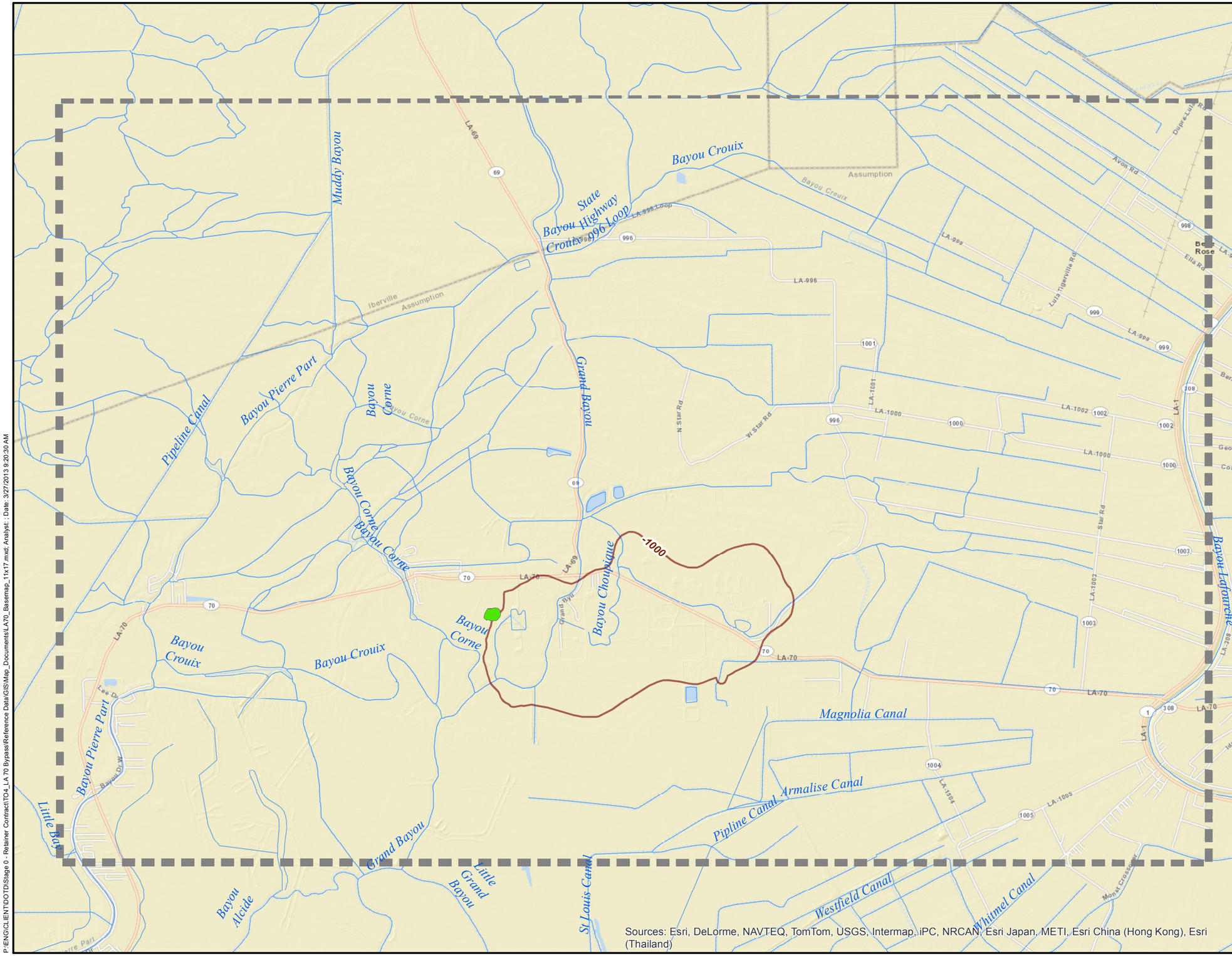
V. Stage 0 Feasibility Process

a. Role of Providence – Environmental Assessment (EA) – Stage 1

VI. Schedule

VII. Questions and Comments

Note: Input from all meeting attendees is strongly encouraged and welcomed at any point during the discussion.



Legend

- Approx. Study Area for Potential New Corridors
- Sinkhole
- Outer Edge of Salt Dome
- Waterways

N

4,000 2,000 0 4,000

Feet

LA DOTD
S.P. No. 010571.1

Stage 0 Feasibility Study

FIGURE NUMBER
1-A

LA 70 Bypass
Waterways
Assumption Parish, LA

Shaw Environmental & Infrastructure, Inc.
(A CB&I Company)
4171 Essen Lane
Baton Rouge, LA 70809

P:\ENG\CLIENT\DOTD\Stage 0 - Retainer Contract\TO4_LA 70 Bypass\Reference Data\GIS\Map_Documents\LA70_Basemap_11x17.mxd; Analyst: ; Date: 3/27/2013 9:20:30 AM

SAP Contract No. 4400001862
State Project No. H.010571.1
LA 70 Bypass
Stage 0 Feasibility Study
Assumption Parish, LA

Project Initiation Meeting
Wednesday March 27, 2013

LA DOTD Headquarters Executive Classroom (Room 302-AA)
3:00 PM

SIGN-IN SHEET

NAME	ORGANIZATION	PHONE	E-MAIL
Kara Moree	CB+I - Env.	225 932-5803	kara.moree@cbi.com
Steve Meunier	DOTD	225.379.1345	Steve.Meunier@LA.GOV
Chris Knotts	DOTD	225-379-3010	chris.Knotts@la.gov
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Karl St Germain	Rep (State)	985-252-9017	KStgerma@bellsouth.net
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Robin Romeo	DOTD	225-379-1208	Robin.Romeo@LA.GOV
Joey Tureau	DOTD-Dist. 61	225 474-2022	joey.tureau@la.gov
Troy Brown	Senator		brownte@legis.la.gov
Paul Fossier	DOTD-Bridge Design		paul.fossier@la.gov
Rhett Desselle	DOTD		rhett.desselle@la.gov

SAP Contract No. 4400001862
State Project No. H.010571.1
LA 70 Bypass
Stage 0 Feasibility Study
Assumption Parish, LA

Project Initiation Meeting
Wednesday March 27, 2013

LA DOTD Headquarters Executive Classroom (Room 302-AA)
3:00 PM

SIGN-IN SHEET

NAME	ORGANIZATION	PHONE	E-MAIL
Bert Moore	LA DOTD D61	389-2141	bert.moore@la.gov
Nick Ferlito	Neel Schaffer, Inc.	924-0235	nick.ferlito@neel-schaffer.com
Dishili Young	CB&I	932-5887	dishili.young@cbi.com
Luke LeBas	CB&I	987-7529	luke.lebas@cbi.com
Monica Herrera	Providence	225-766-7400	monicaherrera@providenceeng.com
PAUL GRIGGS	PROVIDENCE	766-7400	paulgriggs@providenceeng.com
ROB WILLIAMS	PROVIDENCE	766-7400	robertwilliams@providenceeng.com
JEFF BURST	DOTD / Proj. Mgmt	225-7394	jeffrey.burst@la.gov
Ed Wedge	DOTD / Proj. Mgmt	225-379-1325	edward.wedge@la.gov
[redacted] KEVIN SZATMARY	DOTD / ROW	225-242-4579	KEVIN.SZATMARY@LA.GOV

SAP Contract No. 4400001862
State Project No. H.010571.1
LA 70 Bypass
Stage 0 Feasibility Study
Assumption Parish, LA
Project Initiation Meeting

Meeting Date: Wednesday, March 27, 2013
Meeting Time: 3:00 p.m.
Location: Louisiana DOTD Headquarters – Executive Classroom Room 302-AA

RESUME OF MEETING

Attendees:

- ☒ Sherri LeBas, LA DOTD Secretary
- ☒ Ed Wedge, LA DOTD Project Management
- ☒ Robin Romeo, LA DOTD Planning
- ☒ Connie Porter Betts, LA DOTD Planning
- ☒ Joey Tureau, LA DOTD Dist. 61
- ☒ Roy Schmidt, LA DOTD
- ☒ Bert Moore, LA DOTD Dist. 61
- ☒ Jeff Burst, LA DOTD Project Management
- ☒ Noel Ardoin, LA DOTD Environmental
- ☒ Paul Fossier, LA DOTD Bridge Design
- ☒ Kevin Szatmary, LA DOTD ROW
- ☒ Rhett Desselle, LA DOTD
- ☒ Steve Meunier, LA DOTD
- ☒ Chris Knotts, LA DOTD Public Works
- ☒ Karen St. Germain, State Representative
- ☒ Troy Brown, Senator
- ☒ Henry Dupre, APPJ
- ☒ Booster Breaux, APPJ
- ☒ John Boudreaux, Assumption Parish OHSEP
- ☒ Luke LeBas, CB&I
- ☒ Dishili Young, CB&I
- ☒ Kara Moree, CB&I
- ☒ Nick Ferlito, Neel-Schaffer
- ☒ Paul Griggs, Providence
- ☒ Monica Herrera, Providence
- ☒ Rob Williams, Providence

Ms. Dishili Young started off the meeting by introducing the CB&I team and allowing everyone else in attendance to introduce themselves. Ms. Young gave a brief description of the project and explained the extent and scope of the project. She explained the complexities involving this particular Stage 0 due to the emergency nature of the project associated with the sinkhole in Assumption Parish. Mr. Luke LeBas then explained that CB&I is supporting the LDNR in a science and advisory role related to ongoing sinkhole activities. He provided a brief update on recent activities that have occurred and explained that it is evolving daily. Mr. John Boudreaux stated that the 3-D seismic modeling was completed over the weekend and more land has sloughed off. The Oxy-1 cavern is closer to the edge of the salt dome than previously thought and this cavern is also closer to LA 70 than Oxy-3. Oxy-1 is currently stabilized and he made the point LA 70 is not in jeopardy at this time but if something were to happen to Oxy-1 causing LA 70 to be closed, that it would be a major problem for area users to travel to and from the area.

Mr. LeBas reiterated the fact that LA 70 is an important artery and we will be identifying some immediate needs regarding how far away a bypass would need to be. There may also be subsidence and settlement issues associated with this area and these would need to be factored in when considering a long-term solution as well. Mr. Henry Dupre also wanted to remind everyone that LA 70 is also an evacuation route for all of the people who live south of the area in question.

Ms. Young explained that LA 70 has been closed 3 times in the past 8 years due to issues associated with the Napoleonville Salt Dome. When this happens, it adds almost an hour commute time for residents to be re-routed, including school buses, etc.

She then presented a list of the Scope of Work items and mentioned that CB&I is currently in the Project Research and Data Collection phase. A more detailed site investigation will be conducted for this study due to the unusual circumstances. Concept Development and Alternatives will include 3 permanent alternatives as well as an emergency bypass. The two current detour routes will also be evaluated and considered in this study. Traffic Analysis will be completed by Neel-Schaffer. Mr. Nick Ferlito asked if there were any lane closures involved in some of the sinkhole tests that were performed last week. He explained that Neel-Schaffer started their data collection last week including turning movement counts at LA 70 and LA 69 and surrounding intersections that could be impacted by a new alignment or bypass. The Assumption Parish attendees at the meeting responded that the lane closure was very late Sunday evening (between 9 pm and 2 am). Mr. Ferlito then stated that they are also looking at detour routes from a volume standpoint and those counts were started last week as well on both the commercial and local detour traffic routes. These counts were suspended this week due to the schools being out for spring break. The counts will resume next week. They will also be completing the 7-day week long counts in that area. The counts will be used to project and/or predict future volumes and based on the alternatives that are developed; they will evaluate roadway segments and intersections for Level of Service and make sure they operate acceptably. Mr. Breaux also mentioned that all utilities (water, gas, electricity) follow LA 70 and if there were any type of catastrophic failure of the highway, it would affect all residents in the communities of Pierre Part and Belle River. Ms. Young then mentioned that relocation of all utilities around the salt dome is part of the scope for this study. There will be one public meeting held in Assumption Parish as well as an Environmental Inventory which will include preliminary mitigation costs for wetlands.

Ms. Young referenced the maps that were brought to the meeting and asked that the Assumption Parish attendees feel free to draw any ideas for alternatives on the maps that they may have and let CB&I know.

Ms. Moree then gave a brief description of purpose and need. She stated that capacity is usually a major issue when crafting a purpose and need. For this study, there will be many more issues that we can include such as the emergency situation of the sinkhole and the fact that LA 70 is a hurricane evacuation route. Representative St. Germain stated that the last closure that happened (Gulf South/DOW) was fortunately in an area where traffic could be re-routed a little easier around another community (LA 69 and LA 1000 and on back to LA 1). She said this option by itself would not be a good alternative because these roads are very rural (curvy and not lighted). There were many accidents during that time and LA DOTD did repave these roads at that time. In 2003, the highway was closed Christmas Day and not reopened until February 2004 and there was also a well blowout which caused a closure in 2010. LA 69 has been troublesome with tanker truck crashes. There have been at least 6 tanker trucks that have rolled over recently on LA 69 by the Assumption/Iberville Parish line and shut the road completely down. LA 69 has a very curvy alignment (follows the bayou) in this area near the parish line and there is no shoulder so there is very little room for error when traveling. Also on LA 70 (past DOW heading towards Pierre Part), the road was raised a few years ago due to water creeping up and now water is again approaching up to the side due to subsidence in the area. Subsidence could be another reason to include in the purpose and need. Representative St. Germain stated that the road was originally put in its current alignment because of the higher elevation of the land due to the salt dome (between Napoleonville and Pierre Part). The subsidence could actually be because of the salt dome and associated factors and activities such as drilling.

There will be one public meeting in Assumption Parish and CB&I has received price quotes from the Assumption Parish Community Center in Napoleonville. The original public meetings regarding the sinkhole were held at St. Joseph's Church hall until the community center was opened. It was decided that the community center is the best option to hold the public meeting.

Senator Troy Brown asked if the local representatives and Police Jury be allowed to comment on the permanent alignment before it is presented to the public. It was decided that we

will plan to have a “Stakeholder Meeting” to include the affected Police Jurors, local officials, and resource agencies such as USACE and LDNR to discuss the project and possible routes within the next two weeks if possible.

Mr. Breaux stated that a possible route would be to come off of the intersection of LA 996 and LA 69 and go to LA 70 on southwest side. It was also reiterated that the routes are pretty limited to where they can be placed. Ms. Moree stated that we would not pick a preferred alternative at the public meeting – we would just present 3 permanent alternatives, 1 emergency, and detour routes. Providence would then hold a second public meeting because this project is going straight to Stage 1.

Questions about project timeline were then posed. Secretary LeBas explained that the Feasibility Study is scheduled to be completed in 6 months and the Environmental Assessment (Stage 1) within 1 year after that. For the permanent alternative, choices will then have to be made about how the project will be handled (for example Design-Build [DB] or Design-Bid-Build [DBB]). DB would take approximately 4 – 4 ½ years for completion (which includes buying the Right-of-Way during the DB process) and DBB has a completion timeline of about 7 years. The emergency bypass route is anticipated to have a shorter completion time. DBB model allows you to separate your cash flow over a longer period of time and project can be broken into segments to build.

Mr. Dupre asked about commitment to the project being done and the future of the project with upcoming administration changes. LA DOTD responded by saying at this moment, LA DOTD is committed and moving full speed ahead with this project. However, more monitoring and testing will need to be done on the sinkhole as this project evolves.

Senator Brown then asked if an emergency were to happen, whether or not a mechanism is in place to move the project along expeditiously. Secretary LeBas mentioned that she has had conversations with the USACE and has received confirmation that things would be done as expeditiously as possible in the event of an emergency. It was also asked if we could possibly, at this point, try to get this project done under an emergency authorization. LA DOTD response was that justification and backup data from expert sources would need to be provided to pursue this avenue from an environmental permitting standpoint. Ms. Ardoin stated that this project is in the Louisiana Coastal Zone and that she would have to show that there is an “imminent danger” that the road is in jeopardy and all agencies involved would have to agree. In addition, all permits and mitigation would still have to be done, but would be allowed to be done after the fact. Secretary LeBas reiterated the fact that in this Stage 0 Feasibility study, the emergency bypass route will be the main priority to focus on so that in the event that an actual emergency does occur, we have the information readily available and can proceed with making informed decisions on what needs to be built, where it could be built, and how much that might cost. The long term bypass alternative will also be studied concurrently. Mr. Breaux stated that we need to be proactive rather than reactive. LA DOTD responded by explaining that part of the Stage 0 Feasibility study consists of coordination with agencies and these concerns can be expressed during this process. Extensive monitoring is currently taking place on LA 70. The monitoring will also give us a timeframe and an early indication (could be as many as several weeks) if there might be an emergency situation in regards to the roadway and the sinkhole and subsidence. The monitoring system will help with tracking movements and give us an idea as to whether or not this project needs to be moved at a quicker pace. Representative St. Germain asked how long it would take to actually get the emergency bypass route done. LA DOTD responded that it is early in this process to project a completion date. Data is needed on how much material to bring and where it would come from in addition to alignment options and terrain issues that currently exist. The Assumption Parish attendees expressed concerns with public frustration over more studies and planning and for LA DOTD to expect this at the public meeting because the anniversary date of the sinkhole is rapidly approaching.

Mr. Breaux stated that we should not wait until an emergency happens and that this project is something that is necessary. The Assumption Parish attendees were again encouraged to share their ideas with CB&I.

CB&I reiterated the fact that the emergency bypass is the main focus for now and everything will be done as expeditiously as possible. The Advanced Notice-to-Proceed was issued on March 7, 2013 and Providence will be working with CB&I to get started on the Environmental Assessment as soon as possible. It was stated again that Stage 0 Feasibility studies normally take from 1 – 2 years and this one is anticipated to be completed within 6 months (September/October 2013). Mr. Dupre then asked about how Right-of-Way is handled and purchased. Mr. Szatmary explained that properties are appraised and evaluated at current market value and there are legal instruments in place to purchase property in a timely manner. Mitigation of wetland areas will be handled as a separate cost. Discussion then ensued regarding mineral rights of purchased land because there is a lot of activity in this area. Mineral rights stay with the grantor (seller). Meeting Adjourned.

From: Moree, Kara

To: brownte@legis.la.gov; wardr@legis.la.gov; larep060@legis.la.gov; harrisoj@legis.la.gov; martin@trichelaw.com; henrydupre@charter.net; myronmatherne@yahoo.com; boosterbreaux@yahoo.com; plawlessw1@charter.net; johnboudreaux@assumptionoep.com; sherri.lebas@la.gov; eric.kalivoda@la.gov; rhett.desselle@la.gov; ann.wills@la.gov; dennis.decker@la.gov; robin.romeo@la.gov; PE Connie Porter-Betts (Connie.Porter@la.gov); kevin.szatmary@la.gov; stacie.palmer@la.gov; chad.winchester@la.gov; mike.vosburg@la.gov; peter.allain@la.gov; jeffrey.burst@la.gov; Noel Ardoin (noel.ardoin@la.gov); edward.wedge@la.gov; paul.fossier@la.gov; chris.knotts@la.gov; steve.meunier@la.gov; joey.tureau@la.gov; roy.schmidt@la.gov; ronnie.l.robinson@la.gov; bert.moore@la.gov; robert.mahoney@dot.gov; scott.nelson@dot.gov; robert.a.heffner@usace.army.mil; Darrell S. Barbara (Darrell.Barbara@usace.army.mil); Karl Morgan (karl.morgan@la.gov); Patti Holland (patti_holland@fws.gov); Kyle Balkum (kbalkum@wlf.la.gov); ettinger.john@epa.gov; james.ballow@la.gov; LeBas, Luke E; Young, Dishili S.; PE PTOE Nick J. Ferlito Jr. (nick.ferlito@neel-schaffer.com); Dennis M. Hymel; paulgriggs@providenceeng.com

Subject: State Project No. H.010571.1 LA 70 Bypass (Stage 0 Feasibility Study) Stakeholder Meeting

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You are invited to a Stakeholder Meeting for the following project:

State Project No. H.010571.1
LA 70 Bypass
Stage 0 Feasibility Study
Assumption Parish, LA

Date: Thursday April 11, 2013
Time: 2:30 p.m.
Location: Assumption Parish OEP Office – Police Jury Meeting Room
4813 LA 1
Napoleonville, LA 70390

Project Overview:
This Stage 0 Study will examine the feasibility of creating a temporary emergency bypass and a new permanent alternative route for traffic along LA 70 (Pierre Part Rd.) near its intersection with LA 69 in Assumption Parish, LA. This study will consider the relocation of existing utilities along the impacted portion of LA 70 which is in the vicinity of the Napoleonville Salt Dome. In addition, this study will analyze and compare the benefits of completing enhancement for two Traffic Contingency Plan detour routes in lieu of the new permanent corridor construction. The required improvements to bring existing corridors up to current design standards will be analyzed if they are utilized as part of an alternative route.

SAP Contract No. 4400001862
State Project No. H.010571.1
LA 70 Bypass
Stage 0 Feasibility Study
Assumption Parish, LA

Stakeholder Meeting
Thursday April 11, 2013

Assumption Parish OEP Office - Police Jury Meeting Room
2:30 PM

SIGN-IN SHEET

NAME	ORGANIZATION	PHONE	E-MAIL
Kara Moree	CB+I - Env.	225 932-5803	kara.moree@cbi.com
Boots Breaux	APPJ	985-518-3002	boostbreaux@yahoo.com
Ricky Boyett	Corps of Eng	(504) 862-1524	ricky.d.boyett@usace.army.mil
Roy Schmidt	LA DOTD	225 231-4101	
Connie Betts	LA DOTD	225.379.1297	connie.porter@la.gov
PAUL GRIGGS	PROVIDENCE	225-766-7400	paulgriggs@providenceeng.com
Nick Ferlito	Neel Schaffer	225-929-0235	nick.ferlito@neel-schaffer.com
BOB MAHONEY	FHWA	225-757-7624	robert.mahoney@dot.gov
Joey Tureau	DOTD	225-474-2022	joey.tureau@la.gov
Dennis Hymel Jr.	T. Baker Smith, LLC	985-227-6289	dennis.hymel@tbsmith.com
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Noel Ardoin	DOTD	225 242 4501	noel.ardoin@la.gov
Karl Morgan	DNR/OCM	225-342-6470	Karl.Morgan@la.gov
Ed Wedge	LA DOTD - Proj. Mgmt	225-379-1325	edward.wedge@la.gov
Dishili Young	CB+I	225 932 5887	dishili.young@cbi.com
Henry Dupre	APPJ	985 513 2880	HenryDupre@charter.net

Legend

- Cavern Well
- Boundary of Containment
- Maximum Area of Instability
- Sinkhole Location
- Other Caverns
- Oxy #3

N

1,000 500 0 1,000 2,000
Feet

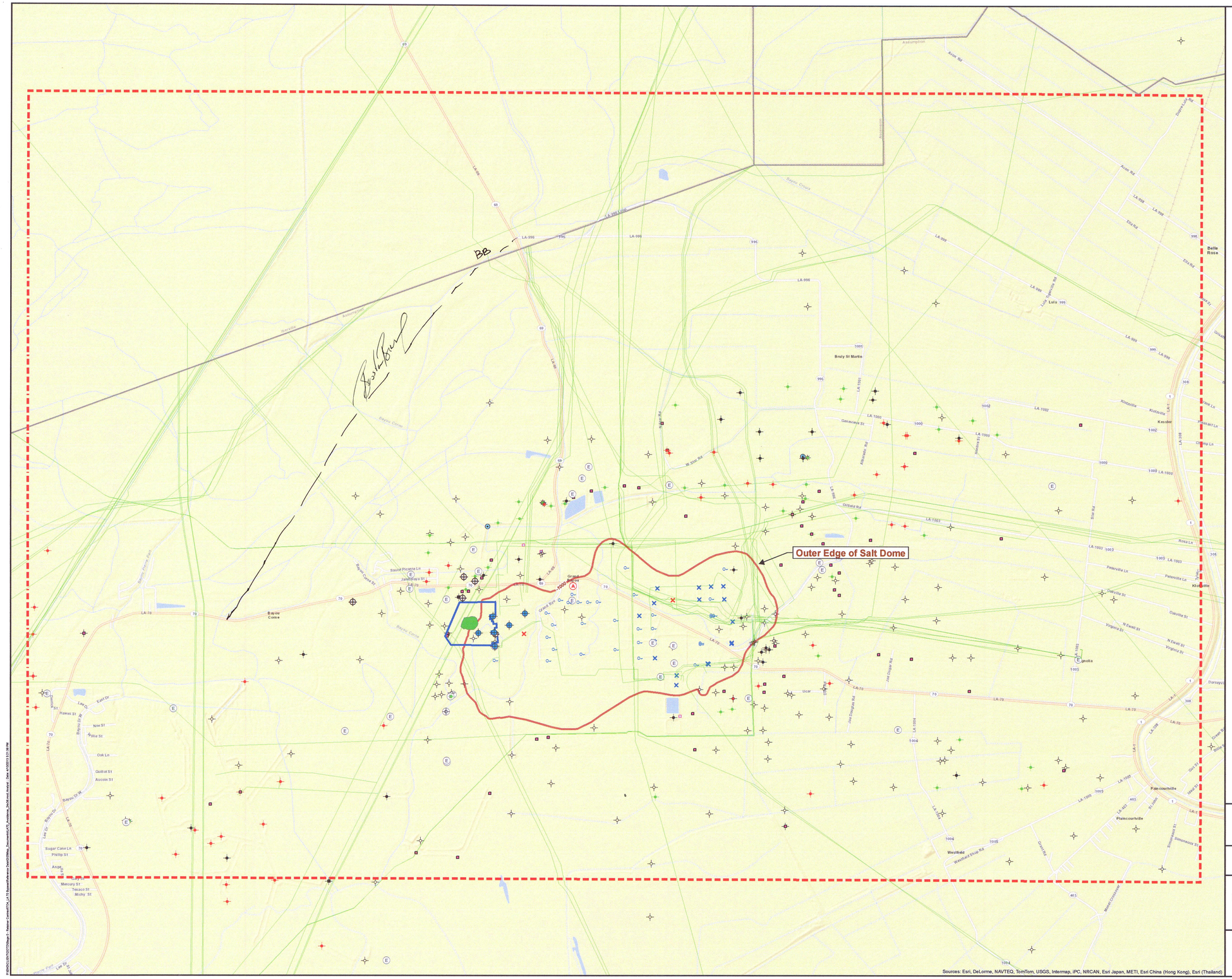
LOUISIANA DEPARTMENT OF NATURAL RESOURCES

BAYOU CORNE/NAPOLEONVILLE SALT DOME EMERGENCY RESPONSE

FIGURE NUMBER 2

HIGHWAY 70 AND HIGHWAY 69

Shaw Environmental & Infrastructure, Inc.
(A CB&I Company)
4171 Essen Lane
Baton Rouge, Louisiana 70809



Legend

- Approximate Study Area for Potential New Corridors
- Sinkhole
- BoundaryOfContainment
- Cavern Well Location
- Relief Well Location
- Pipeline

Oil & Gas Wells

TYPE

- P&A (Various)
- Approval to Construct Injection Well
- Permit Expired/No Product Code
- Storage Cavity Wells--LPG
- Storage Cavity Wells--Gas
- Salt Water Disposal Wells--Conventional
- 09II5-SC (No Description)
- Brine Supply Wells
- Producing Well(Oil)
- Producing Well(Gas&Condensate)
- P&A Dry Hole
- P&A Producer
- P&A Oil Producer
- P&A Gas & Condensate Producer
- Shut-in Productive Wells--Future Utility (Oil)

N

0 1,000 2,000 4,000 Feet

1 inch = 2,000 feet

LA DOTD
S.P. No. H.010571.1

Stage 0 Feasibility Study

FIGURE NUMBER 2

LA 70 Bypass Study Area
Pipelines & Wells
Assumption Parish, LA

Shaw Environmental & Infrastructure, Inc.
(A CB&I Company)
4171 Essen Lane
Baton Rouge, LA 70809

Legend

- BoundaryOfContainment
- Cavern Well Location
- Relief Well Location

N

0 400 800 1,600 Feet

1 inch = 800 feet

* Gary Snowgrove
Geologist DNR
Relief well Question

REFERENCE:
Aerial Photography dated 2010 and 11/15/12

LA DOTD
S.P. No. H.010571.1

Stage 0 Feasibility Study

FIGURE NUMBER	LA 70 Bypass Study Area Aerial Photo Assumption Parish, LA
3	

Shaw Environmental & Infrastructure, Inc.
(A CB&I Company)
4171 Essen Lane
Baton Rouge, LA 70809

Young, Dishili S.

Subject:	LA 70 Stage 0 Well Avoidance Meeting
Location:	LA DOTD Headquarters Building - (Room No. 203A)
Start:	Thu 4/25/2013 4:00 PM
End:	Thu 4/25/2013 5:00 PM
Show Time As:	Tentative
Recurrence:	(none)
Meeting Status:	Not yet responded
Organizer:	Young, Dishili S.
Required Attendees:	Connie Porter (Connie.Porter@LA.GOV); rhett.desselle@la.gov; noel.ardoin@la.gov; edward.wedge@la.gov; chris.knotts@la.gov; joann.kurts@la.gov; robin.romeo@la.gov; steve.meunier@la.gov; joey.tureau@la.gov; roy.schmidt@la.gov; robert.mahoney@dot.gov; johnboudreaux@assumptionoep.com; gary.snellgrove@la.gov; karl.morgan@la.gov; tegan.treadaway@la.gov; james.ballow@la.gov; LeBas, Luke E; Saxton, Deborah; Moree, Kara; paulgriggs@providenceeng.com; kerryoriol@providenceeng.onmicrosoft.com
Optional Attendees:	sherri.lebas@la.gov; Nick Ferlito (nick.ferlito@neel-schaffer.com); Dennis M. Hymel (Dennis.Hymel@tbsmith.com); Tom Killeen; Paul Griggs; Robert Williams

Please feel free to forward this invite to others who I may have missed.

You are invited to a Meeting for the following project:

State Project No. H.010571.1
LA 70 Bypass
Stage 0 Feasibility Study
Assumption Parish, LA

Date: Thursday April 25, 2013
Time: 4:00 p.m.
Location: LA DOTD Headquarters Building - (Room No. **203A**)
1201 Capitol Access Road, Baton Rouge, LA, 70802

Purpose:
To discuss the area of avoidance for multiple wells located along the potential route for the LA 70 temporary evacuation route associated with the LA 70 Stage 0 Feasibility Study.

Project Overview:
This Stage 0 Study will examine the feasibility of creating a temporary emergency bypass and a new permanent alternative route for traffic along LA 70 (Pierre Part Rd.) near its intersection with LA 69 in Assumption Parish, LA. This study will consider the relocation of existing utilities along the impacted portion of LA 70 which is in the vicinity of the Napoleonville Salt Dome. In addition, this study will analyze and compare the benefits of completing enhancement for two Traffic Contingency Plan detour routes in lieu of the new permanent corridor construction. The required improvements to bring existing corridors up to current design standards will be analyzed if they are utilized as part of an alternative route.

List of Invitees to LA 70 Well Avoidance Meeting		
Name	**Email**	**Affiliation**
Sherri Lebas	sherri.lebas@la.gov	LADOTD - Secretary
Connie Porter Betts	connie.porter@la.gov	LADOTD - Project Manager
Rhett Desselle	rhett.desselle@la.gov	LADOTD
Noel Ardoin	noel.ardoin@la.gov	LADOTD - Environmental
Ed Wedge	edward.wedge@la.gov	LADOTD - Project Management Administrator
Chris Knotts	chris.knotts@la.gov	LADOTD - Public Works
Joann Kurts	joann.kurts@la.gov	LADOTD - Utilities
Robin Romeo	robin.romeo@la.gov	LADOTD - Planning & Programming
Steve Meunier	steve.meunier@la.gov	LADOTD - Geotech
Joey Tureau	joey.tureau@la.gov	LADOTD - Dist. 61
Roy Schmidt	roy.schmidt@la.gov	LADOTD - District Engineer Administrator
Bob Mahoney	robert.mahoney@dot.gov	FHWA
John Boudreaux	johnboudreaux@assumptionoep.com	Assumption Parish OEP
Gary Snellgrove	gary.snellgrove@la.gov	LDNR
Karl Morgan	karl.morgan@la.gov	LDNR
Tegan Treadaway	tegan.treadaway@la.gov	LDEQ
Jim Ballow	james.ballow@la.gov	GOHSEP
Luke LeBas	luke.lebas@cbi.com	CB&I
Deborah Saxton	Deborah.Saxton@cbi.com	CB&I
Dishili Young	dishili.young@cbi.com	CB&I
Kara Moree	kara.moree@cbi.com	CB&I
Nick Ferlito	nick.ferlito@neel-schaffer.com	Neel-Schaffer - Traffic
Dennis Hymel	dennis.hymel@tbsmith.com	T. Baker Smith - Utilities
Paul Griggs	paulgriggs@providenceeng.com	Providence
Kerry Oriol	kerryoriol@providenceeng.com	Providence
Additional People:		
Tom Killeen	tom.killeen@LA.Gov	
Robert Williams	robertwilliams@providenceeng.com	Providence
Monica Herrera	monicaherrera@providenceeng.com	Providence
Gretchen Leblanc	Gretchen.Leblanc@LA.Gov	LADOTD
Jesse Rauser	Jesse.Rauser@LA.GOV	
Benjamin Fernandez	Benjamin.Fernandez@LA.GOV	

SAP Contract No. 4400001862
State Project No. H.010571.1
LA 70 Bypass
Stage 0 Feasibility Study
Assumption Parish, LA

Well Avoidance Meeting
Thursday April 25, 2013

LA DOTD Headquarters - Room 203A
4:00 PM

SIGN-IN SHEET

NAME	ORGANIZATION	PHONE	E-MAIL
Kara Moree	CB&I - Env.	225 932 5803	kara.moree@cbi.com
Nick Ferlito	NSI	225 924 0235	nick.ferlito@neel-schaffer.com
Connie Betts	DOTD	225.379.1297	connie.porter@la.gov
Robin Romeo	DOTD	225-379-1208	Robin. Romeo @ LA. GOV
John Boudreaux	Assumption OHSEP	985-369-7386	johnboudreaux@assumptionoep.com
Tegan Treadaway	LDEQ/OES/Air Permits	225.219.3408	tegan.treadaway@la.gov
PAUL GRIGGS	PROVIDENCE	225-766-7400	paulgriggs@providenceeng.com
BOB MAHONEY	FHWA	225-757-7624	robert.mahoney@dot.gov
Noel Ardoin	DOTD	225-242-4501	noel.ardoin@la.gov
Ed Wedge	DOTD - Pro. Mgmt	225-379-1325	edward.wedge@la.gov
Joey Tureau	DOTD - District 61	225-474-2022	joey.tureau@la.gov
Gary Spellgue	DNR OC	" 342 7222	gary.spellgue@la.gov
Deborah Saxton	CB&I	225 987 7325	deborah.saxton@cbi.com
Karl Morgan	DNR/OCM	225-342-6470	Karl.Morgan@la.gov
DON HAYDEL	DNR	225 342 8953	DON.HAYDEL@LA.GOV
Dishili Young	CB&I	225-932-5887	dishili.young@cbi.com
Steve Meunier	DOTD	225 379 1345	Steve.meunier@la.gov

From: Gary Snellgrove
To: Young, Dishili S.; Moree, Kara; Blake Canfield
Cc: Connie Porter; Gary Ross
Subject: FW: dotd request for b c hwy 70 alt route feasibility study
Date: Friday, April 26, 2013 8:56:07 AM
Attachments: WellLocationPolicy.pdf

Dishili and Kara, attached and below are details requested during the meeting yesterday regarding distance from roads for oil and gas wells. In a separate email, I will send information on distance requirements for water wells from Title 56. Thank you. Gary

---

From: Jeff Wells
Sent: Friday, April 26, 2013 8:48 AM
To: Gary Snellgrove
Cc: Todd Keating; Carrie Heffron; Gary Ross; Brent Campbell; Russell McGee
Subject: RE: dotd request for b c hwy 70 alt route feasibility study

Title 30, Section 4, Paragraph C(3)
http://www.legis.la.gov/lss/lss.asp?doc=87560&showback=Y

This sentence charges the commissioner to insure the prevention of injury.
The policy upheld by this office under that is no drilling rig can fall on a roadway.
There is nothing that says how close an actual well can be to a roadway.

The only other thing is a memorandum policy about interstates that cross waterways. See attached.

Jeff Wells
Office of Conservation

BOBBY JINDAL
GOVERNOR

State of Louisiana

DEPARTMENT OF NATURAL RESOURCES
OFFICE OF CONSERVATION

SCOTT A. ANGELLE
SECRETARY

JAMES H. WELSH
COMMISSIONER OF CONSERVATION

MEMORANDUM

January 12, 2009

TO: **All Concerned**

FROM: **James H. Welsh**
Commissioner of Conservation

SUBJECT: **Well Location Policy for Interstate Highway Crossings of Major Waterways**

In order to reduce the potential for damage to Interstate highways that cross major waterways and the risks to public safety and commerce caused by the loss of well control near such portions of Interstate highways, it shall be the policy of the Office of Conservation to require a minimum distance of 1,000 feet from the surface location of any newly proposed oil or gas well to the nearest shoulder of any Interstate highway crossing of a major waterway.

This policy shall also apply to the re-entry of existing plugged and abandoned wells which require the issuance of a new drilling permit.

The following list identifies specific crossings that are the subject of this Policy.

I-10
- Sabine River (State Line)
- Calcasieu River
- Atchafalaya Basin (entire elevated span)
- Mississippi River (Baton Rouge)
- Bonne Carre Spillway/Lake Pontchartrain (entire elevated span)
- Lake Pontchartrain (New Orleans East to Slidell)
- Pearl River (State Line)

I-12
- Amite River

I-20
- Red River
- Ouachita
- Tensas River
- Mississippi River (State Line)

I-55
- Pass Manchac Area

I-59
Pearl River (State Line)
I-210
Calcasieu River/Prien Lake
I-220
Red River
Cross Lake
I-310
Mississippi River (Luling)

The Office of Conservation's District Offices will provide specific location information to applicants for drilling permits.

The policy is effective immediately.

OFFICE OF CONSERVATION
OF THE STATE OF LOUISIANA

JAMES H. WELSH
COMMISSIONER OF CONSERVATION

JHW:CS

§309. Registration Requirements

A. Every water well or hole drilled in the state of Louisiana shall be registered with the department in accordance with the requirements of LAC 56:I.Chapter 1.

AUTHORITY NOTE: Promulgated in accordance with R.S. 38:3091-R.S. 38:309.8.

HISTORICAL NOTE: Promulgated by the Department of Transportation and Development, Office of Public Works, LR 1:249 (May 1975), amended LR 11:953 (October 1985), repromulgated by the Department of Transportation and Development, Office of Public Works, LR 31:942 (April 2005).

§311. Variance Requests

A. Requests to vary from the rules, regulations and standards for constructing water wells and holes shall be addressed to the department as follows:

Louisiana Department of Natural Resources
Office of Conservation
P.O. Box 94275
Baton Rouge, LA 70804-9275
Phone: (225) 342-8244

B. The request must demonstrate that compliance is impractical and must outline a satisfactory alternative. The department may prescribe, in writing, alternate requirements that are equivalent to the regulations and standards stated herein relating to the protection of aquifer and prevention of ground water contamination.

C. Requests to vary from the provisions of the State Sanitary Code (LAC 51) relating to the sanitary features of the public supply water systems, and for questions related to the quality of water as it pertains to human health, shall be addressed to the following:

Department of Health and Hospitals
Office of Public Health
P. O. Box 4489
Baton Rouge, LA 70821-4489
Phone: (225) 342-7499

AUTHORITY NOTE: Promulgated in accordance with R.S. 38:3091-R.S. 38:3098.

HISTORICAL NOTE: Promulgated by the Department of Transportation and Development, Office of Public Works, LR 1:249 (May 1975), amended LR 11:953 (October 1985), repromulgated by the Department of Transportation and Development, Office of Public Works, LR 31:942 (April 2005), amended by the Department of Natural Resources, Office of Conservation, LR 37:910 (March 2011).

§313. Minimum Distance Requirements for Locating a Water Well

A. Provided that all other applicable rules and regulations are complied with, the minimum distance requirements for locating a water well shall be in accordance with the following Sections.

AUTHORITY NOTE: Promulgated in accordance with R.S. 38:3091-R.S. 38:309.8.

HISTORICAL NOTE: Promulgated by the Department of Transportation and Development, Office of Public Works, LR 1:249 (May 1975), amended LR 11:953 (October 1985), repromulgated by the Department of Transportation and Development, Office of Public Works, LR 31:942 (April 2005), amended by the Department of Natural Resources, Office of Conservation, LR 37:3528 (December 2011).

§315. Location in Relation to Possible Sources of Contamination

A. The horizontal distance between any water well and any possible sources of contamination shall be as great as possible but in no case less than the following minimum distances.

Possible Sources of Contamination	Minimum Distance (in feet)
Septic Tanks	50
Storm or Sanitary Sewer	50[1]
Cesspools, outdoor privies, oxidation ponds, subsurface absorption fields, pits, etc.	100[2]
Sanitary landfills, feed lots, manure piles, solid-waste dumps and similar installations	100
Another water well	25[3]
Drainage canal, ditch, stream, pond or lake	50[4]

[1]This distance may be reduced to 30 feet if the sewer is of cast iron with leaded joints or schedule 40 plastic pipe with water-tight joints.
[2]For domestic water wells, this distance may be reduced to 50 feet.
[3]This minimum distance requirement does not take into consideration the effects of interference from pumping nearby wells in the same aquifer.
[4]Horizontally measured from the water edge to the well at the highest water level which may have occurred in a 10 year period.

AUTHORITY NOTE: Promulgated in accordance with R.S. 38:3091-R.S. 38:309.8.

HISTORICAL NOTE: Promulgated by the Department of Transportation and Development, Office of Public Works, LR 1:249 (May 1975), amended LR 11:953 (October 1985), repromulgated by the Department of Transportation and Development, Office of Public Works, LR 31:942 (April 2005), amended by the Department of Natural Resources, Office of Conservation, LR 37:3528 (December 2011).

§317. Location in Relation to Levees

A. Wells or holes as defined in Part I, except relief wells, shall not be drilled within 250 feet of the levees [R.S. 38:225(6)]. The department interprets this statute to mean that the well or wells shall be at least 250 feet from the land side toe of the levee. For this agency to consider any exception to the above, written approval from the appropriate local authorities such as levee boards or the Corps of Engineers is necessary and should be submitted with the variance request.

B. When wells are to be drilled within 1,500 feet of any state or federal flood control levee or structure, the owner or driller must first obtain permission from the appropriate levee board. The Corps of Engineers requires that drilling commence and casing be set and cemented in place to a specified depth while the stage of the Mississippi River is below 11.0 feet National Geodetic Vertical Datum (NGVD) on the Carrollton Gage, New Orleans, Louisiana, unless a waiver to this restriction is granted. Requests to vary from their requirements must be sent to the appropriate levee board and the Corps of Engineers. For specific information concerning river stages and drilling wells near levees, the owner, engineer or water well contractor should contact the following:

U.S. Army, Corps of Engineers
New Orleans District
Box 60267
New Orleans, LA 70160

Phone: (504) 862-2204

U.S. Army, Corps of Engineers
Vicksburg District
Box 60
Vicksburg, MS 39180-0060
Phone: (601) 634-5000

C. Requirements for relief wells located within 250 feet from the land side toe of the levee include:

1. Written approval from the Corps of Engineers and the local levee authority, if applicable, and;

2. Minimum construction standards for grouting down to at least 10 feet from the ground surface and a one-way check valve.

AUTHORITY NOTE: Promulgated in accordance with R.S. 38:3091-R.S. 38:309.8.

HISTORICAL NOTE: Promulgated by the Department of Transportation and Development, Office of Public Works, LR 1:249 (May 1975), amended LR 11:953 (October 1985), repromulgated by the Department of Transportation and Development, Office of Public Works, LR 31:942 (April 2005), amended by the Department of Natural Resources, Office of Conservation, LR 37:3528 (December 2011).

§319. Location in Relation to Flood Water

A. Locations subject to flooding should be avoided, if possible. If a reasonable alternate site does not exist, the well may be constructed in flood-prone areas provided the top of the casing is at least 2 feet above the highest flood level which may have occurred in a 10-year period but in no case less than 2 feet above the ground surface, except when located in coastal areas along the Gulf of Mexico prone to direct impact of storm surge events. Wells with a casing size of 4 inches or less located in coastal areas prone to direct impact of storm surge events shall be constructed with:

1. well casing material strength of S/40 PVC or greater and a maximum casing height of 24 inches above ground surface;

2. protective casing material strength of S/80 PVC or greater with a diameter size providing a minimum 3 inch space between the well casing outer diameter and the outer diameter of the protective casing;

3. protective casing height of 20 to 22 inches above ground surface and a minimum depth below ground surface to 38 inches or greater;

4. spacing between the protective casing and the well casing filled with Portland cement; and

5. grouting down to a depth of at least 50 feet below ground surface.

B. Well piping shall be constructed with a check valve or other appropriate apparatus to prevent introduction of surface water into the casing in the event of damage to the external piping or pressure tanks.

C. All rig-supply water wells must be properly capped between the time the well is completed and the time the well is put into water production at the site. The cap shall be watertight and securely attached to prevent easy entry by other than the owner and to prevent the introduction of flood waters or contaminants into the well.

D. Flood information may be obtained from the U.S. Geological Survey or the administering agency of the Federal Insurance Program (i.e., municipality, police jury, regional planning authorities or the Department of Urban and Community Affairs).

AUTHORITY NOTE: Promulgated in accordance with R.S. 38:3091-R.S. 38:3098.

HISTORICAL NOTE: Promulgated by the Department of Transportation and Development, Office of Public Works, LR 1:249 (May 1975), amended LR 11:953 (October 1985), repromulgated by the Department of Transportation and Development, Office of Public Works, LR 31:942 (April 2005), amended by the Department of Natural Resources, Office of Conservation, LR 37:910 (March 2011), LR 37:3528 (December 2011).

§321. Location in Relation to Buildings and Other Structures

A. A well shall be located far enough from a building to allow reworking or rehabilitation with a drilling rig. A well shall not be located below ground surface, such as in pits and basements, and shall not be located within the foundation of a building, except a building constructed solely to house pumping and water system equipment.

B. For drilling rig supply wells, if the well is located on the constructed work pad for drilling operations or within the ring levee system, it must be surrounded with four protective corner posts. If the well is located outside the ring levee system and will be transferred for some other future use or will not be plugged and abandoned within six months of completion of associated oil and gas well drilling activity, it must be surrounded by four protective corner posts. The corner posts shall be constructed of four inch diameter metal pipe not less than schedule 40 and shall be concreted below the ground surface not less than four feet and shall extend above the ground surface not less than three feet.

AUTHORITY NOTE: Promulgated in accordance with R.S. 38:3091-R.S. 38:3098.

HISTORICAL NOTE: Promulgated by the Department of Transportation and Development, Office of Public Works, LR 1:249 (May 1975), amended LR 11:954 (October 1985), repromulgated by the Department of Transportation and Development, Office of Public Works, LR 31:942 (April 2005), amended LR 37:3526 (December 2011).

§323. Drilling and Construction

A. Geologic conditions in Louisiana permit the use of two methods of drilling: the rotary method and reverse circulation method. Regardless of the method used, every precaution should be taken to prevent ground water contamination during drilling operations.

B. Water used in drilling operations shall be potable or chlorinated to prevent contamination of water-bearing formations.

C. When drilling a hole the contractor shall:

SAP Contract No. 4400001862
State Project No. H.010571.1
LA 70 Bypass
Stage 0 Feasibility Study
Assumption Parish, LA

Progress Meeting
Tuesday July 9, 2013

LA DOTD Headquarters (Room 200-N)
9:00 AM

SIGN-IN SHEET

NAME	ORGANIZATION	PHONE	E-MAIL
Kara Moree	CB+I	225 932 5803	kara.moree@cbi.com
Connie Betts	DOTD	225.379.1297	connie.porter@la.gov
Nick Ferlito	NSI	225-924-0235	nick.ferlito@neel-schaffer.com
Noel Ardoin	DOTD	225-242-4501	noel.ardoin@la.gov
Dennis Hymel Jr.	T. Baker Smith	985-227-6289	dennis.hymel@tbsmith.com
Luke E LeBas	CB+I	225 987 7529	luke.lebas@cbi.com
Karen St Germain	State Rep	225-776-7611	KStgerma@bellsouth.net
Dishili Young	CB+I	225-987-5887	dishili.young@cbi.com

LA 70 Bypass/LA 70 Detour Route
State Project No. H.010571.2
Route LA 70
Assumption Parish

MONTHLY PROGRESS MEETING AGENDA
July 9, 2013
DOTD HQ Building

1. Introductions

2. Status

    a. Work Plan (6/14/13)
    b. SOVs –Detour Route (6/10/13)
    c. Request for Logical Termini – Detour Route (6/7/13)
    d. Study Area
    e. Engineering
        1. Design Criteria - Detour Route (6/11/13)
        2. Typical Section - Detour Route (6/19/13)
        3. Geotechnical Information

3. Schedule

4. Comments from Assumption Parish Sinkhole Blog

5. CBI Stage 0 Updates

    a. Traffic
    b. Utilities
    c. Other Items

6. Questions/Comments

LA 70 Bypass/LA 70 Detour Route
State Project No. H.010571.2
Route LA 70
Assumption Parish

Monthly Progress Meeting
DOTD HQ Building
July 9, 2013

	NAME	COMPANY/SECTION	E-MAIL	PHONE
1	PAUL GRIGGS	PROVIDENCE	paulgriggs@providenceeng.com	766-7400
2	Monica Herrera	Providence (environmental)	monicaherrera@providenceeng.com	766-7400
3	Kerry Oriol	Providence	kerryoriol@providenceeng.com	" "
4	R. ADAM DAVIS	PROVIDENCE	adamdavis@providenceeng.com	766-7400
5	Bob Mahoney	FHWA	robert.mahoney@dot.gov	225-757-7624
6	Chad Vosburg	DOTD - Dist 61	chad.vosburg@la.gov	225-638-7286
7	Chad Winchester	DOTD Road Design		379-1048
8	Ed Wedge	DOTD - Proj Mgmt		379-1325
9	Noel Ardoin	DOTD - 28		3-4501
10	Jody Colvin	DOTD - 77	jody.colvin@la.gov	3-4635
11	Stacie Palmer	DOTD	stacie.palmer@la.gov	3-4517
12	Joey Tureau	DOTD	joey.tureau@la.gov	225.474-2022
13	Connie Betts	DOTD	connie.porter@la.gov	225.379.1297
14	Kara Moree	CB+I	kara.moree@cbi.com	2259325803
15	Dishili Young	CB+I		

July 2013 Monthly Progress Meeting Summary

Project:	LA 70 Bypass/LA 70 Emergency Runaround EAs State Project No. H.010571.2 Assumption Parish, Louisiana
Meeting Date:	July 9, 2013
Attendees:	LA House of Representatives: Karen St. Germain DOTD HQ: Noel Ardoin, Ed Wedge, Chad Winchester, Joey Tureau, Jody Colvin, Stacie Palmer, Connie Porter Betts DOTD District 61: Chad Vosburg FHWA: Robert Mahoney Providence: Paul Griggs, Kerry Oriol, Monica Herrera, Adam Davis CB&I: Kara Moree, Dishili Young
By:	Kerry Oriol
Date:	July 16, 2013

The first monthly progress meeting for State Project H.010571.2, LA 70 Bypass/LA 70 Emergency Runaround was held on July 9, 2013 at DOTD's Headquarters in Baton Rouge, Louisiana. The sign-in sheet for this meeting is attached. This summary is organized in the format of the meeting agenda.

1. **Introductions**

Mr. Griggs started with the meeting with introductions.

2. **Status**

Ms. Oriol provided a quick overview of the dates deliverables were sent (work plan, Detour Route SOVs, Detour Route logical termini, Detour Route corridor study area). Mr. Griggs discussed design criteria and Detour Route typical sections sent to DOTD for comment in June. There have been comments back and forth about paved versus unpaved shoulders for the roadway. Mr. Winchester related that if we don't meet the standards, we need to provide justification; the standard is paved. We need to define the "temporary" time-frame that is the life of the proposed road.

Mr. Griggs passed out a map of boring locations whereby Texas Brine conducted geotechnical testing for sinkhole related purposes. The data in closest proximity to the proposed Detour Route roadway corridor (CPT-12) indicates that there may be more stability in the soils than previously thought.

3. **Schedule**

Ms. Herrera briefly discussed the revised schedules, indicating that we are not on schedule to complete both projects within the current contract time and that we are behind schedule

on the Detour Route. We are off schedule due to not receiving the Detour Route corridor until early-June. In addition, the scheduled receipt of the Detour Route alignment has been postponed until the end of July and the Bypass corridors and draft alignments are not expected until mid to late August.

4. Comments from Assumption Parish Sinkhole Blog

Mr. Griggs brought up the fact that the parish has posted the SOV letter on the sinkhole blog and now he is receiving emailed comments from the public. Providence is presently saving the emails for the public record, but feels that the commenter's need to be advised that their comments have been received. A draft general comment response was sent to Ms. Ardoin for comment. Ms. Ardoin felt that since emails are coming directly to Providence, a general response should be considered. Any requests for comments from media should be forwarded to Jody Conachen with the Department.

5. CB&I Stage 0 Updates

- Traffic

  Ms. Moree stated that CB&I received the draft traffic study for the Detour Route last week. While the study is undergoing some revisions prior to DOTD review, she did indicate that preliminary projected LOS did not appear to be an issue and that left and right turn lanes onto the Detour Route from LA 69 were suggested for the 2038 design year.

- Utilities

  Ms. Moree and Ms. Young discussed the draft utilities report. This report indicates that approximately eight million dollars will be required for utility relocations based on the current Detour Route alignment CB&I is considering; approximately three to four million of that total consists of two high pressure gas lines operated by Chevron. They are looking at moving a bit to the north to see if those lines can be avoided (they are parallel to the proposed corridor/alignment). Moving to the north, approximately 140 feet, would result in more wetland impacts.

  The discussion continued relative to the lack of participation by the USACE and LDNR relative to the wetland issues and how important that information is to the utility avoidance/relocation plan. Ms. Ardoin advised CB&I to make sure they account for mitigation costs associated with utility relocations. Rep. St. Germain suggested determining the time-frame for construction of the Detour Route with and without the relocation to aid in discussions with the agencies. It was also suggested to try to get the agencies to meet in advance of the next stakeholder meeting to get a true understanding of what they believe is an "emergency", versus what is an emergency to DOTD and the parish.

- Other

  - CB&I is scheduling a stakeholder meeting for the end of July (30/31) and looking to schedule a public meeting mid-August, around the 13th. They will also attempt to schedule a meeting with the USACE and LDNR in advance of the stakeholder meeting.

- CB&I would like a copy of the SOV mailing list.
- Providence will provide a summary of responses received to date and the draft logical termini letter sent to DOTD for forwarding to FHWA.

- Providence will provide a copy of the emailed comments precipitated by the Parish's blog so that CB&I can email those residents about the upcoming public meeting.

- Ms. Moree asked for input on the Purpose and Need. Mr. Mahoney stated that the Purpose and Need should be short and concise. Generally, the group agreed that it is system linkage/emergency. Again, there is a need to discuss the term "emergency" with LDNR and the USACE because the roadway would be needed if LA 70 were shutdown indefinitely due to integrity issues associated with the sinkhole prior to the approval, design, and construction of a permanent bypass route.

6. Questions/Comments

Having no questions or further comments, the meeting was closed with Providence to conduct the below follow-up action:

a. Providence to provide CB&I the SOV recipients, responses, and logical termini draft letter
b. When a meeting is scheduled, Providence will also provide the emailed comments to CB&I so that the residents that emailed will be informed of the meetings
c. CB&I will confirm with Providence when the meetings have been scheduled
d. Providence will resend the draft general email comment response to Ms. Ardoin so that she can forward to Ms. Conachen for comments.

From: Moree, Kara
To: kerryoriol@providenceeng.com; PE Connie Porter-Betts (Connie.Porter@la.gov); Paul Griggs; Noel Ardoin (noel.ardoin@la.gov); monicaherrera@providenceeng.com; edward.wedge@la.gov; keith.lovell@la.gov; Karl Morgan (karl.morgan@la.gov); james.little@usace.army.mil; Karen St. Germain (kstgerma@bellsouth.net); PE PTOE Nick J. Ferlito Jr. (nick.ferlito@neel-schaffer.com); Dennis M. Hymel; Young, Dishili S.; LeBas, Luke E; Phyllis Ortego (Phyllis.Ortego@LA.GOV); kgermain@legis.la.gov
Subject: FW: Assumption Parish - LA 70 Bypass Preliminary Alternatives

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-----Original Appointment-----
From: Moree, Kara
Sent: Tuesday, July 09, 2013 4:32 PM
To: PE Connie Porter-Betts (Connie.Porter@la.gov); Noel Ardoin (noel.ardoin@la.gov); edward.wedge@la.gov; keith.lovell@la.gov; Karl Morgan (karl.morgan@la.gov); james.little@usace.army.mil; Karen St. Germain (kstgerma@bellsouth.net); PE PTOE Nick J. Ferlito Jr. (nick.ferlito@neel-schaffer.com); Dennis M. Hymel; Young, Dishili S.; LeBas, Luke E; PE Connie Porter-Betts (Connie.Porter@la.gov); Noel Ardoin (noel.ardoin@la.gov); edward.wedge@la.gov; 'keith.lovell@la.gov'; Karl Morgan (karl.morgan@la.gov); 'james.little@usace.army.mil'; Karen St. Germain (kstgerma@bellsouth.net); PE PTOE Nick J. Ferlito Jr. (nick.ferlito@neel-schaffer.com); 'Dennis M. Hymel'; Phyllis Ortego (Phyllis.Ortego@LA.GOV); kgermain@legis.la.gov
Subject: Assumption Parish - LA 70 Bypass Preliminary Alternatives
When: Friday, July 19, 2013 10:00 AM-11:00 AM (UTC-06:00) Central Time (US & Canada).
Where: LDNR Office of Coastal Management Assistant Secretary's Conference Room - 10th floor of the LaSalle Building

You are invited to a meeting to discuss the potential permitting issues regarding timing for the LA 70 Bypass Stage 0 Feasibility Study (State Project No. H.010571.1).

Meeting will be held on the 10th floor of the LaSalle Building downtown in the Office of Coastal Management's Assistant Secretary's Conference Room at 10:00am on Friday July 19th, 2013.

(For the LaSalle Building downtown) - Parking is available at the State Welcome Center Parking Garage located at the corner of North and Lafayette Streets. The receptionist on the 10th floor can validate parking for people who park in the garage. They will have to fill out a parking validation form and the receptionist will stamp and sign the form as well as the parking garage ticket.

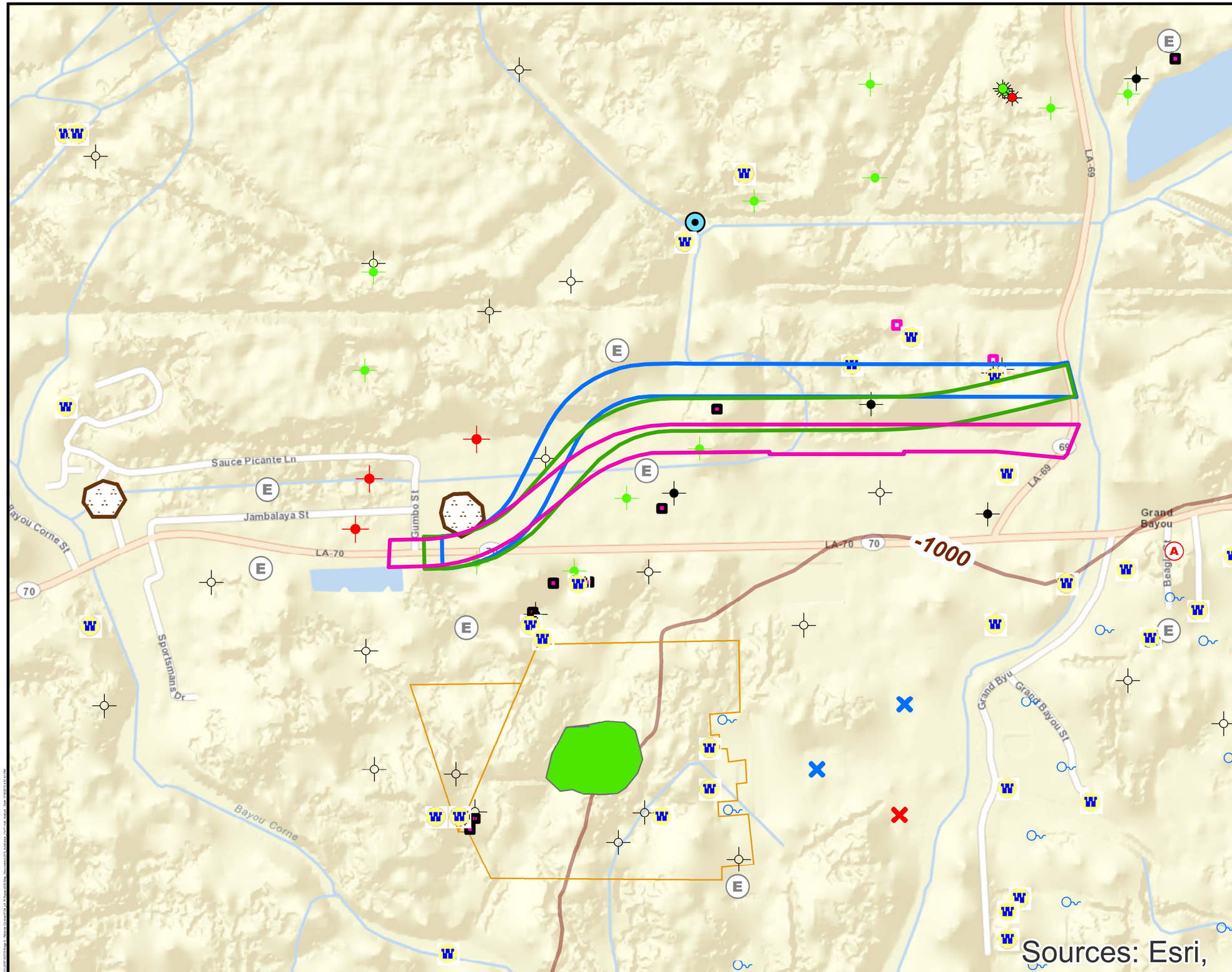
SAP Contract No. 4400001862
State Project No. H.010571.1
LA 70 Bypass
Stage 0 Feasibility Study
Assumption Parish, LA

Permitting Coordination Meeting
Friday July 19, 2013

LA DNR LaSalle Building - Office of Coastal management Assistant Secretary's Conference Room
10:00 AM

SIGN-IN SHEET

NAME	ORGANIZATION	PHONE	E-MAIL
Kara Moree	CB+I	2259325803	kara.moree@cbi.com
Dishili Young	CB+I	932-5887	dishili.young@cbi.com
KAREN St Germain	State Rep	225-776-7611	Kstgerma@bellsouth.net
Nick Forlito	NSI	225-924-0235	nick.forlito@neel-schaffer.com
Keith Lovell	DNR/OCM	225-342-9591	keith.lovell@la.gov
PAUL GRIGGS	PROVIDENCE	225-766-7400	paulgriggs@providenceeng.com
Ed Wedge	LA DOTD / Proj. Mgmt	225-379-1325	edward.wedge@la.gov
JAMES W. LITTLE, JR.	USACE, NEW ORLEANS	225-342-3099	JAMES.LITTLE@USACE.ARMY.MIL
Karl Morgan	OCM / DNR	225-342-6470	Karl.Morgan@la.gov
Monica Herrera	Providence	225-766-7400	monicaherrera@providenceeng.com
Noel Ardoin	DOTD	225 242-4501	noel.ardoin@la.gov
Dennis Hymel Jr.	T. Baker Smith	985-227-6289	dennis.hymel@tbsmith.com



Legend

- Sinkhole
- Boundary of Containment
- Detour Area of Impact 1
- Detour Area of Impact 2
- Detour Area of Impact 3
- Potential Historical/Archaeological

Oil & Gas Wells

TYPE

- P&A (Various)
- Approval to Construct Injection Well
- Permit Expired/No Product Code
- Storage Cavity Wells--LPG
- Storage Cavity Wells--Gas
- Salt Water Disposal Wells--Conventional
- 09II5-SC (No Description)
- Brine Supply Wells
- Producing Well(Oil)
- Producing Well(Gas&Condensate)
- P&A Dry Hole
- P&A Producer
- P&A Oil Producer
- P&A Gas & Condensate Producer
- Shut-in Productive Wells--Future Utility (Oil)
- Water Well

N

0 350 700 1,400 Feet

1 inch = 700 feet

LA DOTD
S.P. No. H.010571.1

Stage 0 Feasibility Study

FIGURE NUMBER 1

LA 70 Detour Routes
Environmental Avoidance
Assumption Parish, LA

Shaw Environmental & Infrastructure, Inc.
(A CB&I Company)
4171 Essen Lane
Baton Rouge, LA 70809

From: Young, Dishili S.
To: Connie Porter
Cc: Moree, Kara
Subject: Permitting Coordination Meeting and Site Visit Summary
Date: Monday, July 22, 2013 9:23:38 AM

Connie,

Below is a summary of the permit coordination meeting held yesterday at 10AM:

The timeline required for utility relocations associated with each alternative and the reason for considering each route was outlined. LDNR confirmed that they would consider the closing of LA 70 to be an emergency. The USACE has indicated that they believe that it would be an emergency but they would confirm this and contact CB&I with the answer. During the discussions TBS asked if the pipelines could also be relocated as part of the emergency. This would prevent them from having an impact on the roadway construction. The USACE indicated that the berm construction for the sinkhole was completed as part of the emergency but the relocation of the pipelines was not. The USACE stated that they would also provide an answer to CB&I regarding the pipelines along the detour route.

It was mentioned that each of the routes will impact wetlands for most of the route lengths. LDNR indicated that a small amount of wetland difference would not stop the permitting of a route and that the route would likely be selected based on the time required to construct and relocate utilities.

There was a brief discussion about the construction of a single lane with signals on each end. Rep. St. Germain expressed concerns about safety.

It was agreed by both CB&I and Providence that the detour route should be reduced to one alternate to allow Providence to move on with their portion of the Stage 1. CB&I indicated that once confirmation is received by the USACE that they would move forward with the appropriate alternative based on the response. It was agreed by many that minus the utility relocation issues, detour route 1 would be the preferred alternative. It was also noted that Detour Route 3 would be outside of Providence's SOV. CB&I indicated that they would summarize the two detour routes and they will be eliminated in the report.

Question:
----We would like to use a section already included as part of the scope and budge checklist to summarize the routes and the elimination process. If you have any issue with this please advise.

Summary of Site Visit with Rep St. Germain:

After the LDNR meeting Kara and I met with Rep St. Germain in Assumption parish to discuss suggestions from a resident regarding the bypass route 1. He had suggestions about a good place to connect to LA 69. After viewing the location it was confirmed that it matches our current route.

We also discussed the past closures of LA 70 and she provided additional information about which sections of LA 70 were closed in the past. We reviewed the news article which stated it was closed from LA 69 to LA 1 but she indicated that in the past, the entire stretch has not been closed before. Apparently, LA 70 has been closed between LA 69 and LA 996 and between LA 996 and LA 1 but at different times. This morning I was able to locate a couple of news articles about the 2010 incident which supports Rep St. Germain's claims. We are planning to make appropriate changes to the Traffic Analysis to reflect this.

Dishili S. Young, PE
Civil Engineer
Government Solutions
Environmental & Infrastructure
4171 Essen Lane
Baton Rouge, LA 70809
Tel: +1 225 932 5887
Fax: +1 225 987 3723
dishili.young@cbi.com

CB&I
4171 Essen Lane
Baton Rouge, LA 70809-2157
United States of America
www.CBI.com

From: Little, James MVN
To: Moree, Kara; Young, Dishili S.; paulgriggs@providenceeng.com; monicaherrera@providenceeng.com; dennis.hymel@tbsmith.com; nick.ferlito@neel-schaffer.com; kstgerma@bellsouth.net; Keith Lovell; Karl Morgan; edward.wedge@la.gov; noel.ardoin@la.gov
Subject: LA Highway 70 Bypass (UNCLASSIFIED)
Date: Thursday, August 01, 2013 5:45:15 PM

Classification: UNCLASSIFIED
Caveats: NONE

To all,

Sorry for the delay, things have been very busy. Question #1 that came out of the meeting was would the Corps qualify this work under Emergency Permit NOD-20. Yes we would. If the sinkhole moves to a point that it compromises the existing highway, DOTD can request the emergency permit. They need to provide supporting information and we will get expedited (1-3 day) review by the other state and federal resource agencies. This is how we handled the sinkhole emergency permits. Question #2 was if existing pipelines and other utilities needed to be removed, would they qualify for NOD-20. Yes they would qualify for their own emergency permit to re-locate pipelines or other utilities because the highway re-location would require them to be moved. Certain utilities, i.e. the cell tower that was discussed at the meeting may not even require a Corps permit to be removed. Wetland delineations should be done of the alternative routes to see what would be jurisdictional to the Corps. If anyone has any further questions, call or email me.

James W. Little, Jr.
Senior Project Manager
U.S. Army Corps of Engineers
New Orleans District (OD-S)
P. O. Box 44487
Baton Rouge, LA 70804-4487
(225)342-3099 Office
(225)342-9439 FAX
(504)432-3735 Cell

Classification: UNCLASSIFIED
Caveats: NONE

From: Moree, Kara

To: kgermain@legis.la.gov; brownte@legis.la.gov; wardr@legis.la.gov; martin@trichelaw.com; henrydupre@charter.net; myronmatherne@yahoo.com; boosterbreaux@yahoo.com; plawlessw1@charter.net; harrisoj@legis.la.gov; johnboudreaux@assumptionoep.com; martin.s.mayer@usace.army.mil; robert.a.heffner@usace.army.mil; james.little@usace.army.mil; Darrell S. Barbara (Darrell.Barbara@usace.army.mil); Karl Morgan (karl.morgan@la.gov); keith.lovell@la.gov; jay.pecot@la.gov; Gary Snellgrove (Gary.Snellgrove@LA.GOV); Don Haydel (don.haydel@la.gov); tegan.treadaway@la.gov; beth.dixon@la.gov; Patti Holland (patti_holland@fws.gov); joshua_marceaux@fws.gov; Kyle Balkum (kbalkum@wlf.la.gov); ettinger.john@epa.gov; Rachel Watson (rwatson@crt.la.gov); james.ballow@la.gov; PE Connie Porter-Betts (Connie.Porter@la.gov); hubert.graves@la.gov; stacie.palmer@la.gov; chad.winchester@la.gov; mike.vosburg@la.gov; peter.allain@la.gov; jeffrey.burst@la.gov; Noel Ardoin (noel.ardoin@la.gov); edward.wedge@la.gov; paul.fossier@la.gov; chris.knotts@la.gov; joann.kurts@la.gov; robin.romeo@la.gov; dennis.decker@la.gov; steve.meunier@la.gov; joey.tureau@la.gov; chad.vosburg@la.gov; richard.swan@la.gov; ronnie.l.robinson@la.gov; bert.moore@la.gov; robert.mahoney@dot.gov; scott.nelson@dot.gov; LeBas, Luke E; Young, Dishili S.; Saxton, Deborah; gary.hecox@la.gov; Pultz, Lisa; PE PTOE Nick J. Ferlito Jr. (nick.ferlito@neel-schaffer.com); Gaby Tassin; Dennis M. Hymel; kerryoriol@providenceeng.com; Paul Griggs; monicaherrera@providenceeng.com; kswalden@chitimacha.gov; ithompson@choctawnation.com; llangley@mcneese.edu; danammasters@aol.com; kcarleton@choctaw.org; earlii@tunica.org

Cc: sherri.lebas@la.gov; eric.kalivoda@la.gov; rhett.desselle@la.gov; ann.wills@la.gov

Subject: State Project No. H.010571.1 - LA 70 Bypass (Stage 0 Feasibility Study) Stakeholder Meeting

---

You are invited to a Stakeholder Meeting for the following project:

State Project No. H.010571.1
LA 70 Bypass
Stage 0 Feasibility Study
Assumption Parish, LA

Date: Wednesday July 31, 2013
Time: 3:30 p.m.
Location: LA DOTD Headquarters - Auditorium
1201 Capitol Access Rd.
Baton Rouge, LA 70802

Project Overview:
This Stage 0 Study will examine the feasibility of creating a temporary detour route and a new permanent alternative bypass route for traffic along LA 70 (Pierre Part Rd.) near its intersection with LA 69 in Assumption Parish, LA. This study will consider the relocation of existing utilities along the impacted portion of LA 70 which is in the vicinity of the Napoleonville Salt Dome. In addition, this study will analyze and compare the benefits of completing enhancement for two Traffic Contingency Plan detour routes in lieu of the new permanent corridor construction. The required improvements to bring existing corridors up to current design standards will be analyzed if they are utilized as part of an alternative route.

The purpose of this meeting is to review alternative concepts of both the detour route and bypass routes.

SAP Contract No. 4400001862
State Project No. H.010571.1
LA 70 Bypass
Stage 0 Feasibility Study
Assumption Parish, LA

Stakeholder Meeting #2
Wednesday - July 31, 2013

LA DOTD Headquarters - Auditorium
3:30 PM

SIGN-IN SHEET

NAME	ORGANIZATION	PHONE	E-MAIL
Kara Moree	CB+I	2259325803	kara.moree@cbi.com
Dishili Young	CB+I	225.932.5887	dishili.young@cbi.com
Dennis Hymel Jr.	T. Baker Smith	985-227-6289	dennis.hymel@tbsmith.com
David Soileau, Jr.	US FWS	337-291-3109	david_soileau@fws.gov
DAUL GRIGGS	PROVIDENCE	766-7400	paulgriggs@providenceeng.com
Luke E LeBas	CB+I	225 987-7529	luke.lebas@cbi.com
Monica Herrera	Providence	225 766 7400	monicaherrera@providenceeng.com
Connie Betts	DOTD Planning	225.379.1297	connie.porter@la.gov
LEE Womack	Providence	225-766-7400	lee.womack@providenceeng.com
[illegible]	State Rep #60	—	—
Bonnie Robinson	DAYS	225 231 4103	—
Joey Turean	DOTD	225-474-2022	—
Bob Mahoney	FHWA	225-757-7624	robert.mahoney@dot.gov
Reno Johnson	DOTD	225-379-1040	Reno.Johnson@la.gov
JEFF LAMBERT	DOTD	225-379-1937	jeff.lambert@la.gov
RICHARD SWAN	DOTD	225-379-1283	richard.swan@la.gov
Robin Romero	DOTD	225-379-1208	Robin.Romero@La.Gov
Steve Meunier	DOTD	225-379-1345	Steve.Meunier@la.gov
Chris Nickel	DOTD	225-379-1616	chris.nickel@la.gov
Ed Wedge	DOTD - 34	225-379-1325	edward.wedge@la.gov
HUBERT GRAVES	DOTD - 23	225.242.4577	hubert.graves@la.gov
Noel Ardon	DOTD - 28	2252424501	noel.ardon@la.gov
Bert Moore	DOTD 61	389-2141	bert.moore@la.gov

SAP Contract No. 4400001862
State Project No. H.010571.1
LA 70 Bypass
Stage 0 Feasibility Study
Assumption Parish, LA

Stakeholder Meeting #2
Wednesday - July 31, 2013

LA DOTD Headquarters - Auditorium
3:30 PM

SIGN-IN SHEET

NAME	ORGANIZATION	PHONE	E-MAIL
BEN FERNANDEZ	LADOTD	225 248 4125	BENJAMIN.FERNANDEZ@LA.GOV
GABY TASSIN	NEEL-SCHAFFER	225-924 0235	gaby.tassin@neel-schaffer.com
NICK FERLITO	" "	" "	nick.ferlito@neel-schaffer.com
Karl Morgan	LA DNR/OCM	225-342-6470	Karl.Morgan@la.gov
Heather Corsentino	LADOTD	225-242-4533	heather.Corsentino@la.gov

SAP Contract No. 4400001862

State Project No. H.010571.1

LA 70 Bypass

Stage 0 Feasibility Study

Assumption Parish, LA

Stakeholders Meeting # 2

Agenda

July 31, 2013 - 3:30 PM

LA DOTD Headquarters- Auditorium

I. Introductions

II. Project Overview

III. Purpose of Meeting

IV. Purpose and Need

V. Alternatives Overview

VI. Small Group Activity

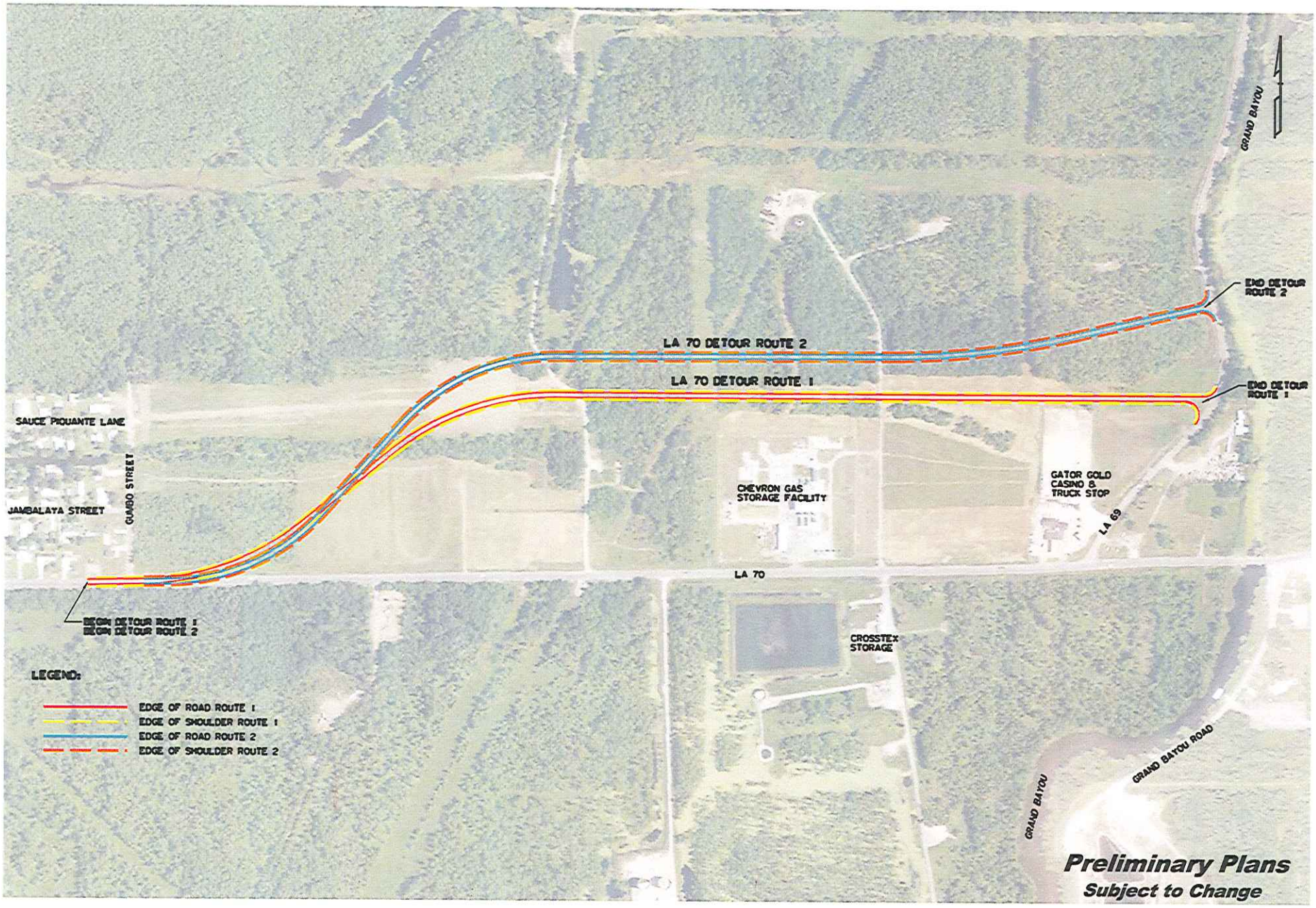
   a. Create Groups for Discussion of Key Issues
   b. Present Group Results

VII. Project Status and Schedule

VIII. Other Project Outreach Activities

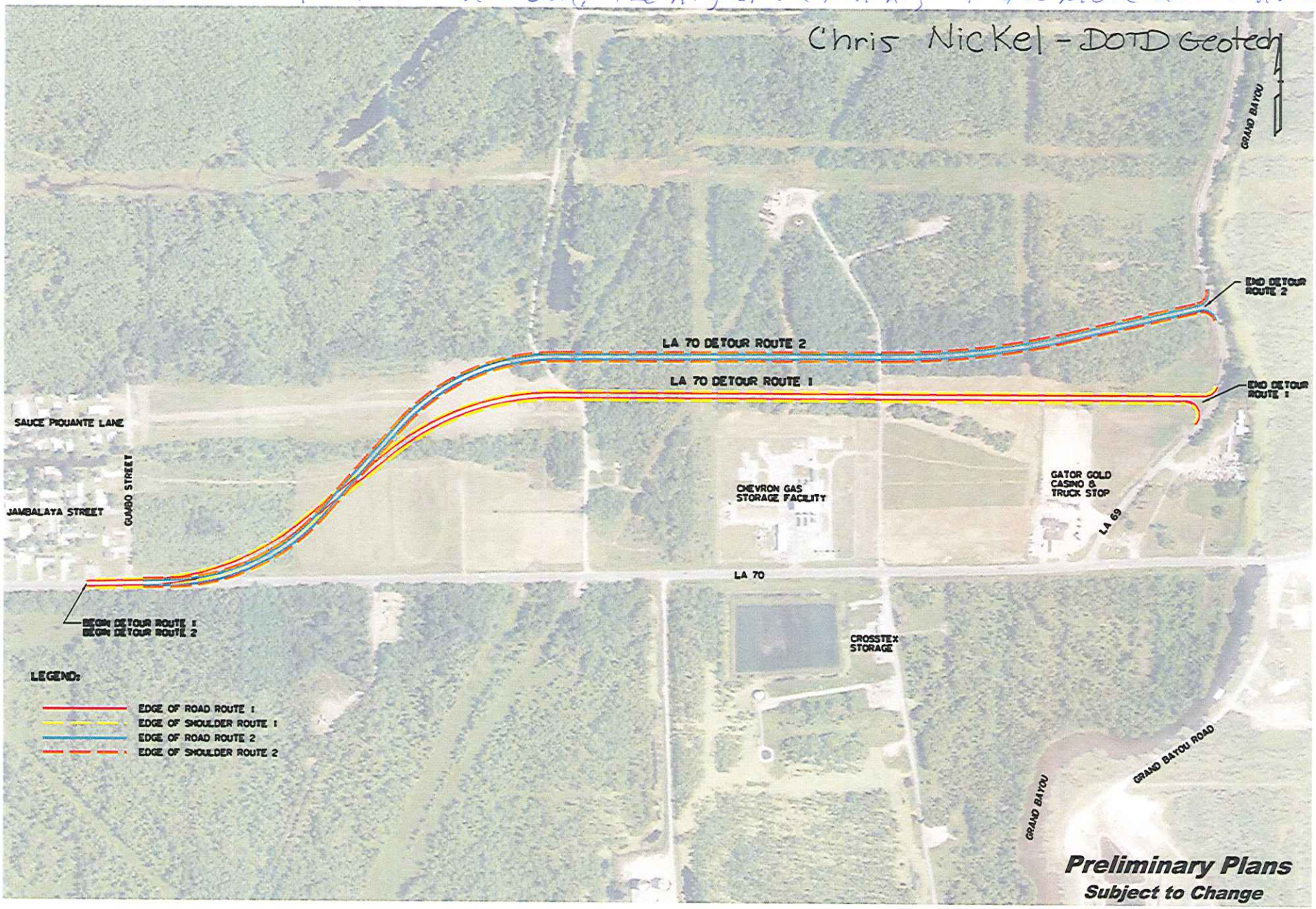
IX. Questions and Comments

Note: Input from all meeting attendees is strongly encouraged and welcomed at any point during the discussion.


LA 70 DETOUR ROUTE 2
LA 70 DETOUR ROUTE 1
END DETOUR ROUTE 2
END DETOUR ROUTE 1
SAUCE PIQUANTE LANE
GUMBO STREET
JAMBALAYA STREET
CHEVRON GAS STORAGE FACILITY
GATOR GOLD CASINO & TRUCK STOP
LA 69
LA 70
BEGIN DETOUR ROUTE 1
BEGIN DETOUR ROUTE 2
CROSSTEX STORAGE
GRAND BAYOU
GRAND BAYOU ROAD
LEGEND:
EDGE OF ROAD ROUTE 1
EDGE OF SHOULDER ROUTE 1
EDGE OF ROAD ROUTE 2
EDGE OF SHOULDER ROUTE 2
Preliminary Plans
Subject to Change

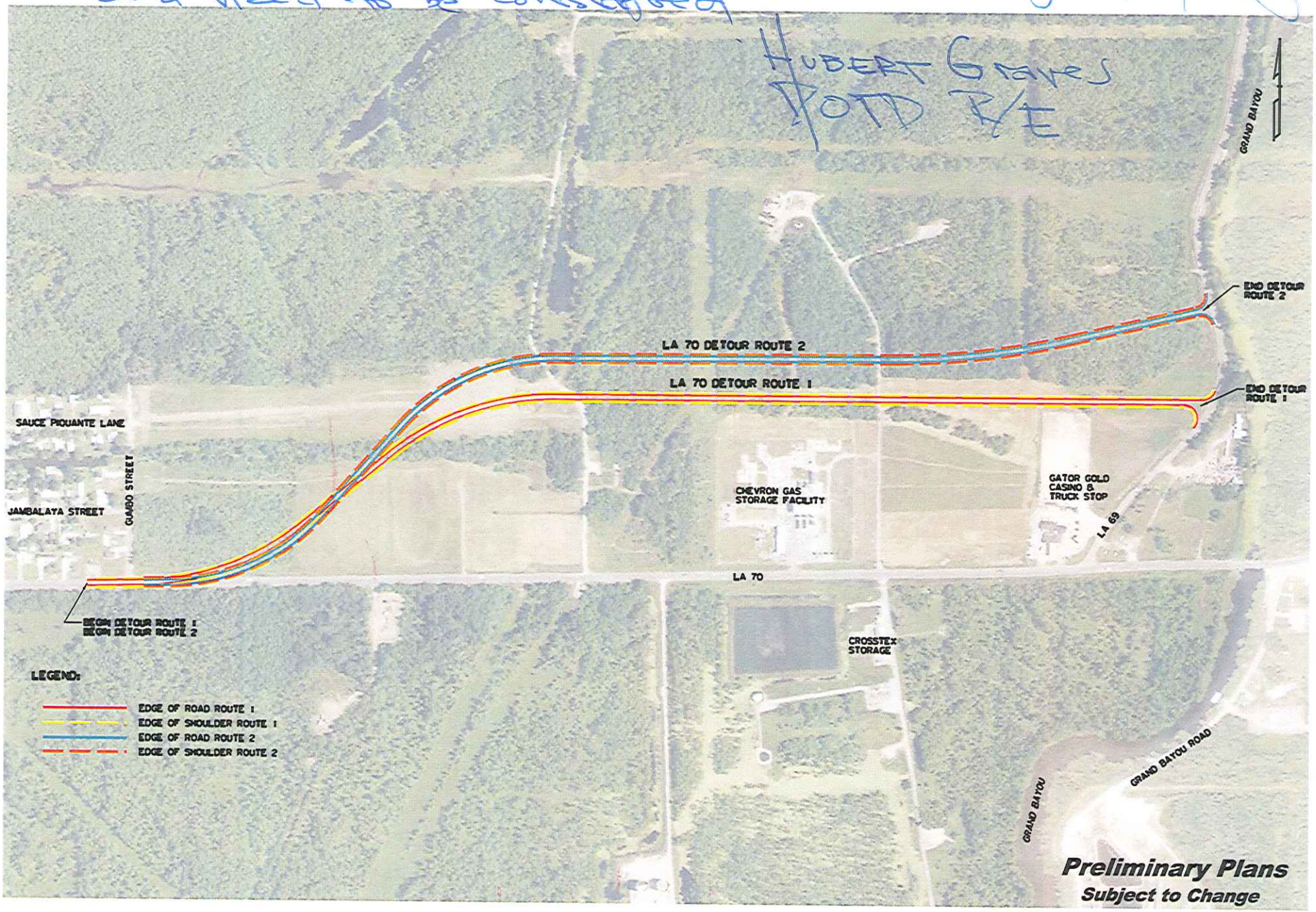
1) * Lack of adequate soil data to provide an accurate design.
2) * Soft soils will result in large amounts of settlement in the embankment.
3) * Embankment footprint is unknown. The higher the fill height the more settlement will have

Chris Nickel - DOTD Geotech

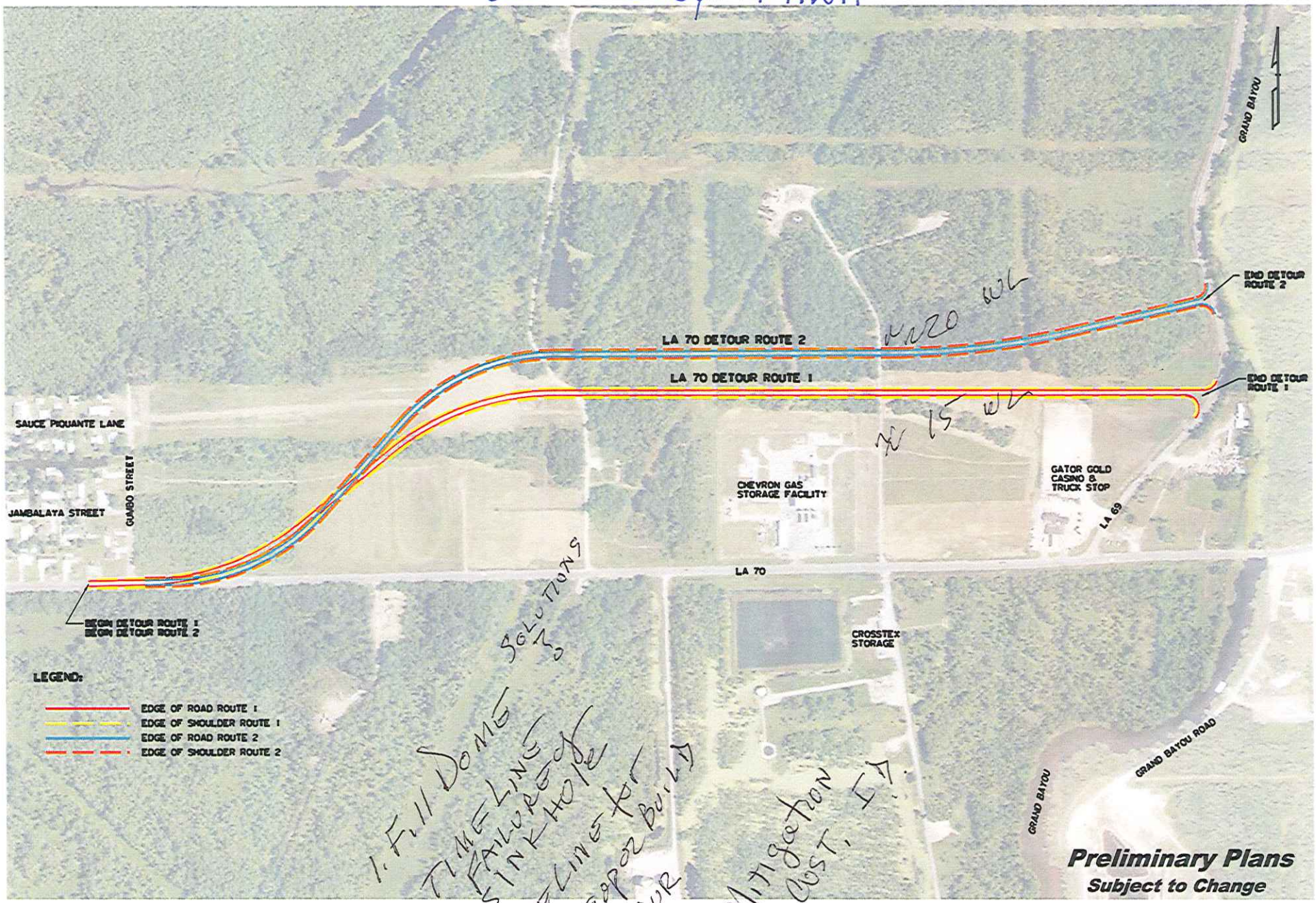


The costs and time involved for acquisition of property rights needed to build any of the alternatives will be substantial and need to be considered

Hubert Graves
Pott R/E



Bob Mahoney - FHWA



SOLUTIONS

1. FILL DOME
2. TIMELINE FAILURE OF SINKHOLE
3. TIMELINE FOR DEVELOP OR BUILD DETOUR
4. MITIGATION COST, ETC.

(3) - Consider time for ROW may need to - Bob Mahoney FHWA
aquire ahead of construction

LA 70 Bypass/Detour Route
State Project No. H.010571.2
Route LA 70
Assumption Parish

Monthly Progress Meeting
DOTD HQ Building
September 10, 2013

	NAME (Initial if Preprinted)	COMPANY/SECTION	E-MAIL	PHONE
1	Paul Griggs PG	Providence	paulgriggs@providenceeng.com	225-766-7400
2	~~Rob Williams~~	~~Providence~~	~~robwilliams@providenceeng.com~~	~~225-766-7400~~
3	Monica Herrera MH.	Providence	monicaherrera@providenceeng.com	225-766-7400
4	Ronnie Robinson	DOTD		231-4103
5	Paul Fossier	DOTD - Bridge Design	paul.fossier@la.gov	225-379-1302
6	Noel Ardoin	DOTD - 28	noel.ardoin@la.gov	225242-4501
7	BOB MAHONEY	FHWA	robert.mahoney@dot.gov	225-757-7624
8	Dishili Young	CB&I	dishili.young@cbi.com	(225) 932-5887
9	Connie Betts	DOTD Planning	connie.porter@la.gov	225.379.1297
10	Kara Moree	CB&I	kara.moree@cbi.com	(225) 932 5803
11	Chad Winchester	DOTD Road Design	chad.winchester@la.gov	225 379 1048
12	Stacie Palmer	DOTD	stacie.palmer@la.gov	342-4517
13	Kerry Oriol (via phone)	Providence	kerryoriol@providenceeng.com	228-304-0690
14				

LA 70 Bypass/Detour Route
State Project No. H.010571.2
Route LA 70
Assumption Parish

MONTHLY PROGRESS MEETING AGENDA
September 10, 2013
DOTD HQ Building

1. Introductions
2. Status

    a. Schedule
        i. Detour Route EA
        ii. Bypass EA
    b. Stage 0 Detour Route
        i. Public Comments on Build Alternatives
        ii. Detour Route Build Alternatives and DOTD Approval Status
        iii. Selection of One Build Alternative for the Stage 1 EA
        iv. Comments on Stage 0 Draft Report (assumes received on 9/9/13)
    c. Stage 0 Bypass Route
        i. Design Criteria Basis: RA-2
        ii. Consideration of Comments from Public Meeting

3. Action Items
4. Questions/Comments

September 2013 Monthly Progress Meeting Summary

Project: LA 70 Bypass/Detour Route EAs
State Project No. H.010571.2
Assumption Parish, Louisiana
Meeting Date: September 10, 2013
Attendees: DOTD HQ: Noel Ardoin, Chad Winchester, Paul Fossier, Stacie Palmer, Connie Porter Betts
DOTD District 61: Ronnie Robinson
FHWA: Robert Mahoney
CBI: Kara Moree, Dishili Young
Consultant Team: Paul Griggs, Monica Herrera, Kerry Oriol (via phone)
By: Kerry Oriol/Monica Herrera
Date: September 12, 2013

The second monthly progress meeting for State Project H.010571.2, LA 70 Bypass/Detour Route was held on September 10, 2013, at DOTD's Headquarters in Baton Rouge, Louisiana. A meeting was not held in August, 2013; the Stage 0 had not progressed to the point in alignment development that the Stage 1 could proceed. The sign-in sheet for this meeting is attached. This summary is organized in the format of the meeting agenda.

1. **Introductions**

   Mr. Griggs did not conduct introductions because everyone in the room had previously met.

2. **Status**

   a. **Schedule**

      Mr. Griggs provided a quick overview of the schedule indicating that the Detour Route EA schedule is approximately three and one-half months behind schedule and the Bypass Route EA is approximately three months behind schedule. The schedule delay is a result of the lack of routes being approved from the Stage 0 process and Providence will continue to do our best to act on project material as quickly as it is received. No further discussion was held regarding project schedules.

   b. **Stage 0 Detour Route**

      Public comments were received on the Detour Route during the Stage 0 public meeting held in August, 2013. Ms. Oriol asked if the comments would receive any responses during the Stage 0 process, as Providence is keeping a log of comments for the Stage 1 because during Stage 1 there will only be a public hearing. Per Ms. Betts and Ms. Moree, all comments would be included in the Stage 0 summary, but no individual responses would be provided. Ms. Moree stated that it has been difficult to deal with public comments because the Stage 0 meetings have covered

both the Detour Route and the Bypass (meaning the public is commenting on both in the same comment with the same solution or concern). Ms. Oriol was concerned that the lack of response to comment could result in public concern at the Stage 1 Public Hearing that personal comments weren't considered. Ms. Young and Ms. Moree explained most comments related to the Detour Route dealt with the Gator Stop business and land requirement to stay open as a casino. Providence will continue to maintain a log of comments, but will only be responding to comments addressed to Providence and received during the Stage 1 process. Ms. Oriol also offered some comments on the Executive Summary section of the draft Stage 0 report. She suggested breaking out the two projects in the write up to make the outreach efforts more project specific to be clearer once it moves into Stage 1.

Mr. Griggs inquired as to the status of the review of the two Detour Route build alternatives by DOTD and, based on the draft Stage 0 summary provided by CB&I, when would one route be selected to move forward into the Stage 1 and who would be making the decision as to which route would move forward. Ms. Ardoin related that DOTD just received the Stage 0 summary and would need to review it. The DOTD project team will decide which of the two build alternatives would be carried forward into the Stage 1 EA as FHWA has stated that they will not officially recommend a route at this time. Ms. Ardoin continued to state that the project team will meet and forward a decision as soon as possible. The draft Stage 0 summary was received late afternoon yesterday (September 9, 2013). Ms. Ardoin asked when comments are requested back on the Stage 0 draft report and Ms. Betts responded September 18, 2013.

Since the draft Stage 0 report had just been submitted, Mr. Griggs asked CB&I if there were some high points that they would like to share with the group. Ms. Moree wanted to confirm that it was okay that they were including Stage 1 documentation (meeting minutes, comment logs, etc.) in the Stage 0 report. Ms. Ardoin confirmed this was fine. Ms. Moree requested a copy of the final monthly progress meeting summary from July to replace the draft version currently included in the report. Providence will supply this after the meeting.

c. Stage 0 Bypass

Mr. Griggs stated the Bypass would be designed to an RA-2 classification per comments provided by DOTD. Ms. Betts mentioned that the roadway typical sections have already been prepared and approved for the Bypass Route. Mr. Griggs requested a copy and asked if the bridge sections were prepared as well. Ms. Betts said they have not. Mr. Griggs said Huval (Stage 1 Consultant Team) is in the process of completing the bridge sections.

Relative to comments received from the public on the Bypass, Ms. Oriol asked if any consideration would be given to the public input provided as a result of the meeting held in August, as several members of the public provided alternative alignments to those presented during the meeting. Ms. Oriol was concerned that without an approved study area, Providence would have a hard time addressing why the comments were not considered when the first public meeting is held specifically for the Stage 1 Bypass EA. Additionally, Ms. Oriol was concerned that the SOVs had not been sent prior to showing routes to the public. Responses from Ms. Betts, Ms. Moree, and Ms. Young indicated that comments from the stakeholders framed the routes that were shown and that DOTD along with the other stakeholders decided it would be

appropriate to show routes to the public during the Detour Route public meeting (the stakeholder meeting attendees included the project team, an elected official, the Louisiana Department of Natural Resources, U.S. Fish and Wildlife Service, FHWA, and DOTD). No study area was shown, but they believe the area shown by Secretary LeBas during the early stages of the project would be sufficient. Ms. Oriol indicated that during the kickoff meeting, that general study area was not accepted. Ms. Ardoin stated that she did not think the study area could be sufficiently defined at this time for the Stage 1. The preliminary study area they are working with is only for the Stage 0 and Ms. Ardoin would like to wait for more information before establishing an approved Stage 1 study area.

Mr. Griggs mentioned Providence submitted comments regarding Bypass alternatives and an intermediate option to Bypass Route 1. Ms. Betts said it was too late in their process to consider other options but it would be something we could consider as part of Stage 1.

3. Action Items

- Providence to provide final version of July Monthly Progress Meeting Summary
- Ms. Betts to provide Providence with Bypass Typical Sections
- Mr. Robinson to provide cost of oak matting

4. Questions/Comments

Mr. Fossier started a discussion on whether the embankment of the Detour Route was going to be considered. This was followed by a brief discussion on existing substrate and different ways to strengthen and support the road. Mr. Robinson suggested oak matting similar to what is used on pipeline projects. He is currently using this in another area for paving over some box culverts and could provide the costs. Ms. Ardoin suggested the Stage 0 team add the oak mats into the cost option for additional support under geotextile.

Mr. Mahoney suggested planning ahead and developing a timeline of construction, ROW acquisition, utility relocation, etc., so if the decision is made to move forward with the Detour Route everything is ready and a plan is in place. Ms. Ardoin added this is part of Providence's scope in the Stage 1.

Mr. Griggs asked about the relief and flare wells impacted by the Detour Routes shown on the draft figures. Ms. Moree indicated that if these were to be impacted by the selected route they would have to be relocated. Texas Brine is currently drilling more wells so there may be some additional wells in the future.

Having no questions or further comments, the meeting was closed.

Appendix E

Public Involvement Meeting

CAPITAL CITY PRESS

Publisher of
THE ADVOCATE

PROOF OF PUBLICATION

The hereto attached notice was published in THE ADVOCATE, a daily newspaper of general circulation published in Baton Rouge, Louisiana, and the Official Journal of the State of Louisiana, City of Baton Rouge, and Parish of East Baton Rouge, in the following issues:

08/02/13, 08/09/13

Shelley Calloni, Public Notice Clerk

Sworn and subscribed before me by the person whose signature appears above

August 9, 2013

M. Monic McChristian,
Notary Public ID# 88293
State of Louisiana
My Commission Expires: Indefinite

M. MONIC McCHRISTIAN NOTARY PUBLIC NOTARY NO. 88293 STATE OF LOUISIANA

NOTICE

PUBLIC INFORMATIONAL MEETING
LA 70 Bypass and Detour Routes
Stage 0 Feasibility Study
State Project No. H.010571.1
Assumption Parish

The Louisiana Department of Transportation and Development (LADOTD) authorized a Stage 0 Feasibility Study and Stage 1 Environmental Assessment for the LA 70 Bypass and Detour Routes. This project will investigate several alternative routes for LA 70 should it be closed due to subsidence associated with the collapsed cavern near the Napoleonville Salt Dome.

The purpose of this Public Meeting is to provide an overview of the proposed project and obtain input from the public regarding possible alternatives. Representatives of LADOTD and the consultant team for the Stage 0 Study will be present to receive comments and answer questions related to the proposed project. All interested parties are invited and encouraged to attend the meeting. The Public Meeting is scheduled for the time, date, and location below.

August 13, 2013
Assumption Parish Community Center
6:00 pm -8:00 pm
4910 Highway 308
Napoleonville, Louisiana

Interested persons may attend the meeting at any time between 6:00 pm and 8:00 pm. Comments may be submitted at the meeting by recording verbal statements or by submitting written statements. Written statements can also be mailed to the address shown below and must be postmarked within 10 calendar days following the meeting.

Shaw Environmental & Infrastructure, Inc., a CB&I company,
Attention: Kara Moree
4171 Essen Lane
Baton Rouge, LA 70809

Should anyone require special assistance due to a disability to participate in this meeting, please contact the Shaw Environmental & Infrastructure, Inc. (a CB&I company) at the address shown above, or by telephone at (225) 932-5803, at least five working days prior to the meeting.

4853484-aug 2-9-2t

SHAW E&I ***4853484***
DISHILI YOUNG
4171 ESSEN LANE
BATON ROUGE LA 70809

THE ENTERPRISE / NEWS EXAMINER and THE ASSUMPTION PIONEER

PUBLISHED BY RUHR VALLEY PUBLISHING, INC.

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THE ASSUMPTION PIONEER
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FAX: 985-369-7157

AFFIDAVIT OF PUBLICATION

BE IT KNOWN that the attached legal notice was published in:

"The Enterprise" (a newspaper of general circulation at Vacherie, Louisiana 70090)

on _____, and/or

"The News Examiner" (a newspaper of general circulation at Lutcher, Louisiana 70071)

on _____, and/or

"The Assumption Pioneer" (a newspaper of general circulation at Napoleonville, Louisiana 70390) on August 1 & 8, 2013.

/s/ Carla Hanley

print Carla Hanley

Legal Advertising Manager

Sworn to and subscribed before me, Notary, on this 22nd day of August, 2013.

Wilbur Woods Reynaud
Attorney/Notary Public
Bar Roll No. 11198
My Commission expires at death.

Public Notices

ts Notice

abouts of **ARTHUR MUR-**
L CALDWELL MURRAY,
bier, Attorney at Law, 200
0, Napoleonville, Louisiana

Publish: 08-08-13
08-15-13

ts Notice

abouts of **LOUIS J. MYLES,**
LES OR THEIR HEIRS,
bier, Attorney at Law, 200
0, Napoleonville, Louisiana

Publish: 08-08-13
08-15-13

Notice

ARTMENT OF
QUALITY (LDEQ)
REISSUED WATER
NERAL PERMIT
SMALL MUNICIPAL
R SYSTEMS (LAR041039)

nmental Services, is accepting
ing Notice of Intent (NOI) sub-
e reissued LPDES General
all Municipal Separate Storm
Parish Police Jury, P. O.
70390, Assumption Parish.
l permit is available to facilities
an activity that results in a dis-
ate. Discharges covered under
m water from regulated small
r systems. This Department
ertain categories of facilities or
its are not necessary in order to
ent or the public health.
e under this general permit, a
4-G must be submitted to this
. Notification forms may be
fice at (225) 219-9371 or (225)
and will be available on the
deq.louisiana.gov/portal/DIVI-
ermits.aspx.
AR040000, any NOI and Storm
nitted for authorization under
ed on public notice on LDEQ's
l circulation. After a review of
m 30 day public comment peri-
en notification to those appli-
rage under the general permit.
and surveillance fee will be

Public Informational Meeting

LA 70 Bypass and Detour Routes
Stage 0 Feasibility Study
State Project No. H.010571.1
Assumption Parish

The Louisiana Department of Transportation and Development (LADOTD) authorized a Stage 0 Feasibility Study and Stage 1 Environmental Assessment for the LA 70 Bypass and Detour Routes. This project will investigate several alternative routes for LA 70 should it be closed due to subsidence associated with the collapsed cavern near the Napoleonville Salt Dome.

The purpose of this Public Meeting is to provide an overview of the proposed project and obtain input from the public regarding possible alternatives. Representatives of LADOTD and the consultant team for the Stage 0 Study will be present to receive comments and answer questions related to the proposed project. All interested parties are invited and encouraged to attend the meeting. The Public Meeting is scheduled for the time, date, and location below.

August 13, 2013
Assumption Parish Community Center
6:00 pm -8:00 pm
4910 Highway 308
Napoleonville, Louisiana

Interested persons may attend the meeting at any time between 6:00 pm and 8:00 pm. Comments may be submitted at the meeting by recording verbal statements or by submitting written statements. Written statements can also be mailed to the address shown below and must be postmarked within 10 calendar days following the meeting.

Shaw Environmental & Infrastructure, Inc.,
a CB&I company,
Attention: Kara Moree
4171 Essen Lane
Baton Rouge, LA 70809

Should anyone require special assistance due to a disability to participate in this meeting, please contact the Shaw Environmental & Infrastructure, Inc. (a CB&I company) at the address shown above, or by telephone at (225) 932-5803, at least five working days prior to the meeting.

Publish: 08-01-13
08-08-13

Village of Napoleonville Official Proceedings

Special Council Meeting - July 15, 2013

The Village of Napoleonville held a Special Council Meeting on Monday, July 15, 2013, at the Administration Building Meeting Chamber. The session was called to order at 6:00 p.m. by Mayor Ron Animashaun, the Clerk being present.

The Bayou Journal
P.O. Box 695
Pierre Part, LA 70339
985-252-0501

STATE OF LOUISIANA
PARISH OF ASSUMPTION

Before me, the undersigned Notary Public, duly commissioned and qualified in and for the Parish and State aforesaid; personally came and appeared, Tracy Hebert who, after being duly sworn, deposed and said:

That he is the co-owner of The Bayou Journal published in Pierre Part, Louisiana and having a general circulation in the Parish of Assumption.

That the attached is a true and correct copy of an advertisement which appeared in the Tuesday, July 30, August 6 & 13, 2013 issue of the Bayou Journal.

Tracy Hebert
Publisher

Sworn to and subscribed
Before me this 14th
Day of August, 2013

Notary Public #51493

HUDSON
PUBLIC
NOTARY #051493
STATE OF LOUISIANA
My Commission is for Life

Legals

ASSUMPTION PARISH SCHOOL BOARD
NATIONAL SCHOOL LUNCH AND/OR SCHOOL BREAKFAST PROGRAM

Assumption Parish School Board today announced its policy for free and reduced price meals served
Local School Food Authority
under the National School Lunch and/or School Breakfast Program(s). All schools and the central office have a copy of the policy, which may be reviewed by any interested party.

The following family size and annual income criteria will be used for determining eligibility:

	REDUCED PRICE MEALS – 185%					FREE MEALS – 130%				
Household Size	Annual	Monthly	Twice / Month	Every 2 Weeks	Weekly	Annual	Monthly	Twice / Month	Every 2 Weeks	Weekly
1	$21,257	$1,772	$886	$818	$409	$14,937	$1,245	$623	$575	$288
2	$28,694	$2,392	$1,196	$1,104	$552	$20,163	$1,681	$841	$776	$388
3	$36,131	$3,011	$1,506	$1,390	$695	$25,389	$2,116	$1,058	$977	$489
4	$43,568	$3,631	$1,816	$1,676	$838	$30,615	$2,552	$1,276	$1,178	$589
5	$51,005	$4,251	$2,126	$1,962	$981	$35,841	$2,987	$1,494	$1,379	$690
6	$58,442	$4,871	$2,436	$2,248	$1,124	$41,067	$3,423	$1,712	$1,580	$790
7	$65,879	$5,490	$2,745	$2,534	$1,267	$46,293	$3,858	$1,929	$1,781	$891
8	$73,316	$6,110	$3,055	$2,820	$1,410	$51,519	$4,294	$2,147	$1,982	$991
For each additional family member add:	+ $7,437	+ $620	+ $310	+ $287	+ $144	+ $5,226	+ $436	+ $218	+ $201	+ $101

Application forms are being sent to all homes, along with a letter to households. To apply for free or reduced price meals, households should fill out one application for the household and return it to the school. Additional copies are available at each school. Applications may be submitted at any time during the year. The information provided by the household is confidential; it will be used for the purpose of determining eligibility. Information may be verified at any time during the school year by school or other program officials.

All children in households with any household member receiving benefits under Assistance Programs (Supplemental Nutrition Assistance Program (SNAP), Family Independence Temporary Assistance Program (FITAP) or Food Distribution Programs on Indian Reservations (FDPIR)) are eligible for free meals. For school officials to determine eligibility, each household that is now receiving benefits from Assistance Programs must provide the case number of a household member as well as the signature of an adult household member.

All other households must provide the following information on the application: names of all household members; the amount of income (before deductions for taxes, Social Security, etc.) each household member receives; how often the person receives the income; where it is from, such as wages, retirement, or welfare; the signature of an adult household member certifying that the information provided is correct; and the last four digits of the social security number of the adult household member who signed the application, or a statement that the household member does not possess one.

Children categorized as foster, homeless, runaway, migrant, or enrolled in state-funded Head Start or Even Start programs, **if known**, are automatically eligible for free meals. School officials will determine eligibility for free meals based on documentation obtained directly from the program office and notify the household of their eligibility for benefits. The household must notify the school if it chooses to decline benefits. The household **should complete an application if they are not notified of free meal eligibility by: September 20, 2013.**
DATE

If a household member becomes unemployed or if the household size increases, the household should contact the school. Such changes may make the children of the household eligible for meal benefits.

Under the provisions of the free and reduced price policy, Child Nutrition Program Staff (Determining Official) will review applications and determine eligibility. If a parent or guardian is dissatisfied with the ruling of the official, he may wish to discuss the decision with the determining official on an informal basis. If the parent wishes to make a formal appeal, he may make either an oral or written response to the following:

Name: Mr. Earl T. Martinez, Superintendent, Assumption Parish School Board

Address: 4901 Highway 308, Napoleonville, LA 70390

Phone Number: **(985) 369-7251**

The policy contains an outline of the hearing procedures.

Non-Discrimination Statement: This explains what to do if you believe you have been treated unfairly. The U.S. Department of Agriculture prohibits discrimination against its customers, employees, and applicants for employment on the bases of race, color, national origin, age, disability, sex, gender identity, religion, reprisal, and where applicable, political beliefs, marital status,

LANA OURSO CHANEY, ATTORNEY AT LAW
NOTICE

Anyone knowing the whereabouts of Daniel Reidt or anyone who has an interest in Boatreidt Shipworks, LLC, please contact Lana Ourso Chancy, Attorney at Law, at 112 N. Curtis Street, P.O. Box 580, Pierre Part, Louisiana, 70339 or phone at (985)252-1336.

ASSUMPTION PARISH SHERIFF'S OFFICE
NOTICE OF SHERIFF'S SALE

BANK OF AMERICA, N.A. — 23RD JUDICIAL DISTRICT COURT

VS NO. 33920

JACOB J. BREAUX A/K/A JACOB BREAUX AND JOANIE METREJEAN BREAUX A/K/A JOANIE M. BREAUX A/K/A JOANIE BREAUX — PARISH OF ASSUMPTION

STATE OF LOUISIANA

NOTICE OF SHERIFF'S SALE

Acting under and by virtue of Writ of Seizure and Sale dated October 30, 2012, issued in the above entitled and numbered cause, to me directed, I did seize and will begin at 10:00 a.m. on Wednesday, the 4th day of September, 2013 in front of the Courthouse door at Napoleonville, Louisiana, offer for sale at public auction, WITH benefit of appraisement, the following described immovable property, to-wit:

A certain Lot of ground situated in the Parish of Assumption, State of Louisiana, in the community commonly known as Pierre Part in Section 25, T12S, R13E, said lot is due West of a lot purchased by Joseph A. Mabile Jr. from Joseph A. Mabile Sr., Entry No. 101902 of the conveyance records of the Parish of Assumption, State of Louisiana, the lot herein purchased is 126.95 feet in length on its eastern side, approximately 116.98 feet on the southern side, and on the western and northern side said lot is bounded by Right of Way of Derrick Street and since the lot is curved the exact length of said side is undetermined. Said lot is bounded East by property of Stacey Leonard, North and West by Right of Way of Derrick Street and South by property of Joseph A. Mabile, Sr. Said lot herein conveyed borders a Parish road on the West and North and said right of way of the road is herein conveyed to vendee as part of the lot herein.

The municipal address of the above described property is declared to be 115 Derrick Street, Pierre Part, Louisiana 70339.

A Declaration of Immobilization of a 1996 Crimson Mobile home – Serial #CALS5900A and CALS5900B dated December 19, 2008 and recorded in COB 288 Folio 249 Entry Number 234528 of the records of the Parish of Assumption, Louisiana.

TERMS OF SALE: CASH, to the last and highest bidder, to satisfy this Writ in the amount of $99,803.95 together with interest, Attorney's fees and all costs of these proceedings.

Publication date(s):
The Bayou Journal
7/30/13
8/27/13

/s/ SHERIFF MICHAEL J. WAGUESPACK
PARISH OF ASSUMPTION

ATTORNEY FOR PLAINTIFF:
Herschel C. Adcock, Jr.
Attorney at Law
P. O. Box 87379
Baton Rouge, LA 70879

ASSUMPTION PARISH SCHOOL BOARD
APPLICANTS FOR EDUCATIONAL DIAGNOSTICIAN

hearing or have speech disabilities may contact USDA through the Federal Relay Service at (800) 877-8339; or (800) 845-6136 (Spanish). USDA is an equal opportunity provider and employer.

PROCEEDINGS OF THE BOARD OF COMMISSIONERS OF WATERWORKS DISTRICT NO. 1 OF THE PARISH OF ASSUMPTION, STATE OF LOUISIANA, TAKEN AT THE REGULAR BOARD MEETING HELD ON JUNE 17, 2013 AT 6:30PM

President Bryan Dugas called the meeting to order.

Board Members Present: Bryan Dugas, Scott Sternfels, Donna Robertson, Glen Comeaux, Dennis Cavalier, Paul Lewis, Vincent Nelson, Jim Boudreaux, Charles Brown, Jr. and Calvin Steward. Absent: Kevin Peterson.

Also present: Linda Cook representing the Bayou Journal; Joseph Savoie representing CJ Savoie Consulting Engineers, Inc.; and Assumption Parish Waterworks District employees: B.J. Francis, Lucille Guillot, Ginger Rushing and Amy Daigle.

A motion was made by Dennis Cavalier, seconded by Glenn Comeaux, and unanimously carried, to approve the minutes of the May 20, 2013 Regular Board Meeting.

A motion was made by Dennis Cavalier, seconded by Glenn Comeaux, and unanimously carried, to approve the minutes of the June 10, 2013 Special Board Meeting to Discuss Water Rates.

B.J. Francis reported for Joseph Savoie on the New Raw Water Pumps, Bayou Bulkhead and Bayou Dredging Project. Mr. Savoie will receive new prices this week and it will be rebidded so after.

B.J. Francis reported for Joseph Savoie on the Bayou Crossing Project. Locations have been selected at the Plattenville Bridge and the Supreme Bridge.

B.J. Francis reported for Joseph Savoie on the LA Recovery Grant. This project is complete and the contractor is currently completing punch list items.

B.J. Francis reported for Joseph Savoie on the LA Recovery Grant that will allow water line improvements on Belle Rose Lane/Hwy. 998 and Ewell Street/Virginia Street. These projects were approved by the state and Mr. Savoie is preparing the bid packages to send off for approval.

B B.J. Francis reported for Joseph Savoie on the Hwy. 1016-2 Project. This project was just approved by the state and Mr. Savoie will be completing the design shortly.

B.J. Francis reported for Joseph Savoie on the 2013 Bond Projects. Design work has begun on all of these projects.

A motion was made by Dennis Cavalier, seconded by Vincent Nelson, and unanimously carried, to pay C.J. Savoie for 10% ($3,300.00) Engineering Completion of 2013 Series Bond Projects.

Lucille Guillot reported on the Monthly Financial Report for May 31, 2013. The financials were in line for the month (10 Months – 83.33%).

The Board discussed Water Rates and Plant Project Commitments.

A motion was made by Dennis Cavalier, seconded by Vincent Nelson, and unanimously carried, to table discussion on Water Rates until the July 22, 2013 Regular Board Meeting.

A motion was made by Glenn Comeaux, seconded by Dennis Cavalier, 8 yeas and 1 abstained, to authorize a not to exceed of $10,000.00 to extend the water line at Joseph Street. Motion Passed. Paul Lewis abstained and Kevin Peterson absent.

A motion was made by Dennis Cavalier, seconded by Glenn Comeaux, and unanimously carried to adjourn.

President Bryan Dugas adjourned the board meeting.

Donna Robertson, Secretary Bryan Dugas, President

GOVERNMENT SOLUTIONS, ENVIRONMENTAL & INFRASTRUCTURE PUBLIC INFORMATION MEETING

LA 70 Bypass and Detour Routes
Stage 0 Feasibility Study
State Project No. H.010571.1
Assumption Parish

The Louisiana Department of Transportation and Development (LADOTD) authorized a Stage 0 Feasibility Study and Stage 1 Environmental Assessment for the LA 70 Bypass and Detour Routes. This project will investigate several alternative routes for LA 70 should it be closed due to subsidence associated with the collapsed cavern near the Napoleonville Salt Dome.

The purpose of this Public Meeting is to provide an overview of the proposed project and obtain input from the public regarding possible alternatives. Representatives of LADOTD and the consultant team for the Stage 0 Study will be present to receive comments and answer questions related to the proposed project. All interested parties are invited and encouraged to attend the meeting. The Public Meeting is scheduled for the time, date, and location below.

August 13, 2013
Assumption Parish Community Center
6:00 pm -8:00 pm
4910 Highway 308
Napoleonville, Louisiana

Interested persons may attend the meeting at any time between 6:00 pm and 8:00 pm. Comments may be submitted at the meeting by recording verbal statements or by submitting written statements. Written statements can also be mailed to the address shown below and must be postmarked within 10 calendar days following the meeting.

Shaw Environmental & Infrastructure, Inc., a CB&I company,
Attention: Kara Moree
4171 Essen Lane
Baton Rouge, LA 70809

Should anyone require special assistance due to a disability to participate in this meeting, please contact the Shaw Environmental & Infrastructure, Inc. (a CB&I company) at the address shown above, or by telephone at (225) 932-5803, at least five working days prior to the meeting.

Publish: July 30, August 6 & 13, 2013

Government Solutions, Environmental Infrastructure

LANA OURSO CHANEY, ATTORNEY AT LAW NOTICE

Anyone knowing the whereabouts of the heirs of The Unopened Succession of R.H. Dossat a/k/a Rodolph K. Dosat, please contact Lana Ourso Chaney, Attorney at Law, at 112 N. Curtis Street, P.O. Box 580, Pierre Part, Louisiana, 70339 or phone at (985)252-1336.

ASSUMPTION PARISH POLICE JURY NOTICE TO BIDDERS

Seal Bids to be received by the Police Jury of Assumption, Louisiana in the Police Jury main office, 4813 Hwy 1, Napoleonville, LA until **2:00 p.m., Tuesday, August 6, 2013** for the following service.

THE DEMOLITION AND REMOVAL OF DEBRIS AND DERELICT STRUCTURE(S) ON PREDETERMINED SITE(S)

LOCATED AT LOT 117 FELICIA ST. IN THE BAYOU L'OURSE COMMUNITY (W3)

LOCATED AT LOT 2 OF BUGGAGE SUBDIVISION IN THE PLATTENVILLE COMMUNITY (W1)

LOCATED AT 318 MAPLE ST. IN THE LABADIEVILLE COMMUNITY (W2)

Bids to be opened at 2:00 p.m. on the same day at the Assumption Parish Police Jury temporary Office. **Specifications** and **Contract** for the above are available and can be picked up at the Police Jury Main Office at 4813 Hwy 1, Napoleonville, LA.

Signed: Martin S. Triche, President

3T: 7/17/13,7/24/13,7/31/13

Applicants for the above position must possess the qualifications stipulated by the State Department of Education and Bulletin 746 (Louisiana Standards for State Certification in School Personnel).

Send Resume' to:
Assumption Parish School Board
F. Tootie Hock, H. R. Director
4901 Hwy 308
Napoleonville, LA 70390
Or
at thock@assumptionschools.com

DEADLINE: 12:00 pm Thursday, Thursday, August 15, 2013.

The Assumption Parish School does not discriminate on the basis of race, color, national origin, sex, age, or disability in any of its programs, activities, admission, or employment practices as required by Title VI, Title IX, Section 504, and Title II. Inquires concerning this policy may be referred to Mrs. Marsha Medine. (985-369-7251).

Publish week of: July 28, 2013
August 4, 2013
August 11, 2013

ASSUMPTION PARISH SCHOOL BOARD MINUTES OF THE FINANCE COMMITTEE MEETING

PROCEEDINGS OF THE ASSUMPTION PARISH SCHOOL BOARD
Finance Committee Meeting
Assumption Parish School Board Media Center
Napoleonville, Louisiana
July 17, 2013

The Assumption Parish School Board met for the purpose of reviewing the 2013-2014 General Fund and Special Revenue Budgets on Wednesday, July 17, 2013, at 6:00 p.m. in the Assumption Parish School Board Media Center, Napoleonville, Louisiana with President Andrea Barras, presiding.

PRESENT: Honoray Lewis, Ward 1, Lee Meyer, Sr., Ward 2, Andrea Barras, Ward 3, John Beck, Ward 7, Jessica Ourso, Ward 8

ABSENT: Electa Fletcher Mickens Ward, 4, Larry Howell, Ward 5, Daniel Washington, Ward 6, Doris Dugas, Ward 9.

Anya Randle, Director of Business Services, presented the report on the 2013-2014 General Fund and Special Revenue Budgets. The development and calculation of the figures was based on decisions made by and collaboration between various stakeholders of the district, namely the superintendent, directors, supervisors, and principals.

GENERAL FUND

The proposed revenues for the 2013-2014 fiscal year are $37,401,226. Proposed expenditures are $39,153,464.

Special revenue funds were given to the board.
Ms. Fletcher Mickens entered the meeting at 6:05
Mr. Washington entered the meeting at 6:40
Mr. Howell entered the meeting at 6:45

The Board received revisions made to the 2012-2013 Fiscal Year Budget. Instead of a $2,268,384 deficit there will only be a $212,966 deficit.

The Board discussed a one-time supplement proposal.

Non 12 month employees will begin receiving their first paycheck August 25th rather than September 25th.

Adjournment
The meeting adjourned at 7:00 p.m.

Andrea Barras , President Earl T. Martinez, Superintendent
Secretary-Treasurer

From: Moree, Kara

To: "anniefh@bellsouth.net"; "danacavalier@att.net"; "kensimoneaux@aol.com"; "mike_templet@att.net"; "normanmaible@msn.com"; "slrivero79@atvci.net"; johnboudreaux@assumptionoep.com; martin@trichelaw.com; henrydupre@charter.net; myronmatherne@yahoo.com; boosterbreaux@yahoo.com; "plawlessw1@charter.net"; harrisoj@legis.la.gov; kgermain@legis.la.gov; brownte@legis.la.gov; wardr@legis.la.gov; martin.s.mayer@usace.army.mil; robert.a.heffner@usace.army.mil; james.little@usace.army.mil; Darrell S. Barbara (Darrell.Barbara@usace.army.mil); Karl Morgan (karl.morgan@la.gov); Keith Lovell (keith.lovell@la.gov); Gary Snellgrove (Gary.Snellgrove@LA.GOV); Don Haydel (don.haydel@la.gov); tegan.treadaway@la.gov; beth.dixon@la.gov; Patti Holland (patti_holland@fws.gov); joshua_marceaux@fws.gov; david_soileau@fws.gov; Kyle Balkum (kbalkum@wlf.la.gov); ettinger.john@epa.gov; Rachel Watson (rwatson@crt.la.gov); "james.ballow@la.gov"; PE Connie Porter-Betts (Connie.Porter@la.gov); hubert.graves@la.gov; stacie.palmer@la.gov; chad.winchester@la.gov; mike.vosburg@la.gov; peter.allain@la.gov; jeffrey.burst@la.gov; Noel Ardoin (noel.ardoin@la.gov); edward.wedge@la.gov; paul.fossier@la.gov; chris.knotts@la.gov; joann.kurts@la.gov; robin.romeo@la.gov; dennis.decker@la.gov; steve.meunier@la.gov; joey.tureau@la.gov; chad.vosburg@la.gov; richard.swan@la.gov; ronnie.l.robinson@la.gov; bert.moore@la.gov; robert.mahoney@dot.gov; scott.nelson@dot.gov; LeBas, Luke E; Young, Dishili S.; Taylor, Meredith; Wood, Jacqueline K; Saxton, Deborah; gary.hecox@la.gov; Pultz, Lisa; PE PTOE Nick J. Ferlito Jr. (nick.ferlito@neel-schaffer.com); Gaby Tassin; "Dennis M. Hymel"; kerryoriol@providenceeng.com; monicaherrera@providenceeng.com; Paul Griggs; leewomack@providenceeng.com; robertwilliams@providenceeng.com

Cc: "sherri.lebas@la.gov"; "eric.kalivoda@la.gov"; "rhett.desselle@la.gov"; "ann.wills@la.gov"

Subject: Public Informational Meeting - LA 70 Bypass & Detour Routes (State Project No. H.010571.1)

PUBLIC INFORMATIONAL MEETING
LA 70 Bypass and Detour Routes
Stage 0 Feasibility Study
State Project No. H.010571.1
Assumption Parish
The Louisiana Department of Transportation and Development (LADOTD) authorized a Stage 0 Feasibility Study and Stage 1 Environmental Assessment for the LA 70 Bypass and Detour Routes. This project will investigate several alternative routes for LA 70 should it be closed due to subsidence associated with the collapsed cavern near the Napoleonville Salt Dome.

The purpose of this Public Meeting is to provide an overview of the proposed project and obtain input from the public regarding possible alternatives. Representatives of LADOTD and the consultant team for the Stage 0 Study will be present to receive comments and answer questions related to the proposed project. All interested parties are invited and encouraged to attend the meeting. The Public Meeting is scheduled for the time, date, and location below.

August 13, 2013
Assumption Parish Community Center
6:00 pm -8:00 pm
4910 Highway 308
Napoleonville, Louisiana
Interested persons may attend the meeting at any time between 6:00 pm and 8:00 pm. Comments may be submitted at the meeting by recording verbal statements or by submitting written statements. Written statements can also be mailed to the address shown below and must be postmarked within 10 calendar days following the meeting.
Shaw Environmental & Infrastructure, Inc., a CB&I company,
Attention: Kara Moree
4171 Essen Lane
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Should anyone require special assistance due to a disability to participate in this meeting, please contact the Shaw Environmental & Infrastructure, Inc. (a CB&I company) at the address shown above, or by telephone at (225) 932-5803, at least five working days prior to the meeting.

Please feel free to forward this information to any interested parties.

Welcome

to the

LA 70 Bypass Stage 0 Public Meeting

August 13, 2013

Purpose of Meeting

- To Provide a Project Overview and Receive Public Input
- To Display Potential Roadway Corridors
  - Two Separate Studies (Detour Routes and Bypass Routes)
  - Today will focus more on the Detour Routes which could provide a solution should an emergency closure be required.
- To Identify Key Issues and Concerns

Project Overview

Preliminary Purpose

- To protect public welfare
- System Linkage
- Hurricane Evacuation Route

Project Objective

This project will determine the feasibility of constructing detour and bypass routes for LA 70 should the roadway be closed due to activity associated with the Napoleonville Salt Dome.

The photo on the right shows the point of beginning for the proposed detour routes at LA 70 and Gumbo St.

Project Location – Detour Route

- The detour routes end north of the intersection of LA 70 and LA 69

Proposed Roadway Corridors

Project Alternatives

- **Detour Routes**
  - Two Routes which are being considered to provide relief should an emergency closure of LA 70 be required
  - These Detour Routes will be the focus of today's meeting
- **Bypass Routes**
  - Three Routes which are being considered to provide *long-term solutions* should LA 70 be closed

Alternative Development

- Each route was developed based on stakeholder input
  - Stakeholders included elected officials, local, federal and state organizations and agencies
- The **Detour Routes** were refined as additional information became available
- The **Bypass Routes** are preliminary and will be refined as required based on additional information which may be available in the near future

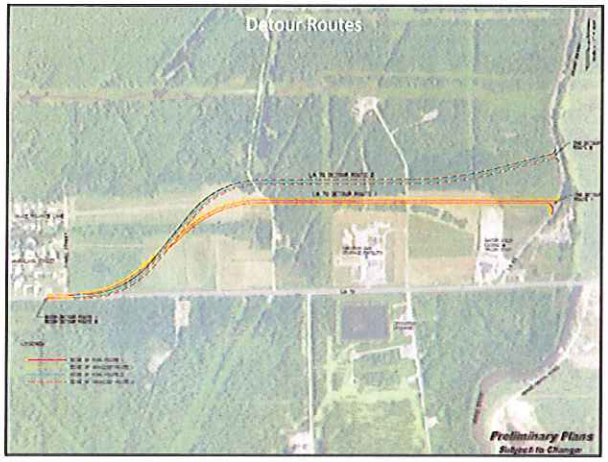
Utility Information

- Pipelines EVERYWHERE!!!
- Observation Relief Wells
- AT&T Cell Tower
- Etc....

Environmental Concerns

- Wetlands
- Archaeological/Historic Areas of Concern
- Hazardous Materials
- Significant Trees

Detour Routes



Detour Routes

- Today's Meeting will Focus on the Detour Routes
- They are both located north of LA 70 between Gumbo St. and LA 69
- This photo shows where the Detour Routes will connect to the existing LA 70 roadway

Detour Routes

- The Detour Routes are located over 700 ft. north of the existing LA 70 roadway
- This photo shows where the most southern Detour Route would connect to the existing LA 69 roadway

Bypass Routes

- The Bypass Routes will be the focus of a future public meeting
- The Bypass Routes shown today are *preliminary* and may be revised as additional data is obtained.

Key Issues and Concerns

Today's Meeting

- You are encouraged to view our exhibits and provide your ideas and opinions
  - There are representatives from the project team here to provide information about the proposed roadways
- Comments will be documented at the Comment Table

Public Involvement is key to the successful development of the proposed roadways.

Comments

Verbal Comments

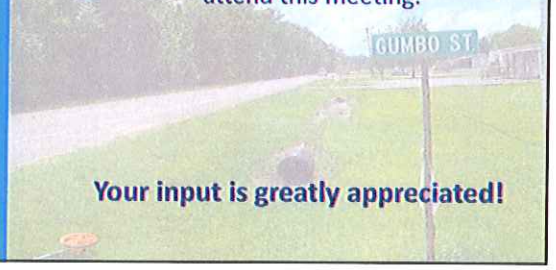
-Will be documented by a court reporter at the comment table

Comment Forms

-Written comments can be turned in today at the comment table or post marked and mailed before August 23

Thank you so very much

for taking the time out of your day to attend this meeting.



Your input is greatly appreciated!

CONTACT PERSON

XARA MOREE, CFM
(225) 932-5803
CB&I
4171 Essen Lane
Baton Rouge, LA 70809
kara.moree@cbi.com

SAP Contract No. 4400001862
State Project No. H.010571.1
LA 70 Bypass
Stage 0 Feasibility Study
Assumption Parish, LA

Public Meeting
Tuesday - August 13, 2013

Napoleonville Community Center
6:00 PM - 8:00 PM

SIGN-IN SHEET

NAME	ADDRESS / ORGANIZATION	PHONE	E-MAIL
Monica Hernich	[illegible]/Providence	225-456-4943	monicahernich@providenceeng.com
Betty, Ronnie Thibodaux	1428 Sauce Piquante Loop	985-688-2075	
Teresa Donachricha	resident	225 936 1916	TDonachricha@yahoo.com
Henry Wellch	resident Right of Way	225 202 4637	
Scott Brady	DOTD - Real Estate	(225) 242-4584	scott.brady@la.gov
~~August Lizanaga~~	~~Lizanaga Enterprises~~	~~225 264 0003~~	~~AUGUSTSR@HOTMAIL.COM~~
Ed Wedge	LA DOTD - Proj. Mgmt	225-379-1325	edward.wedge@la.gov
Sara Piazza	Court Reporters of LA	225-772-6108	saraleannpiazza@gmail.com
August Lizanaga	Lizanaga Enterprises	225 264 0003	AUGUSTSR@HOTMAIL.COM
Shauna Rivero	1408 Hwy 70 S Belle Rose	985 518 2484	
David Blanchard	1408 Hwy 70 S Belle Rose	985 513 2303	
Randy Rosser	1130 Hwy 70 Belle Rose	985 513 1080	
Teddy Marbin	324 Bayou Dr Pierre Part	985.513.0881	teddymarbin@yahoo.com
Roy J. Trosclair	1433 Sauce Picante	225-257-0065	
Connie Betts	LA DOTD	225.379.1297	
Dennis Hymel Jr.	T. Baker Smith	985-227-6289	dennis.hymel@tbsmith.com
Bob Deaton	132 Sportsman's Dr.	225-329-4911	deaton5@bellsouth.net
Joey Tureau	DOTD	225-474-2022	joey.tureau@la.gov
John Mahile	1444 Sauce Piquante	985-515-1042	Johnny_mahile@yahoo.com
Chad Vosburg	8160 Airline Hwy/LADOTD	225-231-4101	chad.vosburg@la.gov
Herbert Adams	112 Muncy St	985-519 0729	
Don Breaux	106 ST Peter	985-209-6302	dbchrist@hotmail.com
Claudette Charlet	7421 Hwy 996	225-717-6847	
Danielle Blanchard	6604 Hwy 996	985-513-1884	danielle.t.blanchard@gmail.com
Jacob Albers	6214 Hwy 996	225-368-5877	
Ramsey Madere	6788 Hwy 996	985-513-1313	
LEROY BLANCHARD	6604 Hwy 996	985 513 1347	leroy_blanchard@hotmail.com

SAP Contract No. 4400001862
State Project No. H.010571.1
LA 70 Bypass
Stage 0 Feasibility Study
Assumption Parish, LA

Public Meeting
Tuesday - August 13, 2013

Napoleonville Community Center
6:00 PM - 8:00 PM

SIGN-IN SHEET

NAME	ADDRESS / ORGANIZATION	PHONE	E-MAIL
Lee Womack	1201 Main St. BR, LA 70802	225-766-7400	leewomack@providenceeng.com
Wallace Cavalier	1434 Sauce Piquante	985-513-2553	—
Kara Moree	CB&I 4171 Essen BR	2259325803	kara.moree@cbi.com
Meredith Taylor	CB+I "	225-987-7469	meredith.taylor@cbi.com
Noel Ardoin	DOTD	2252424501	noel.ardoin@la.gov
Viki & Richard Arnold	6933 Hwy 1 Belle Rose	225-268-2933	vrgrouche@yahoo.com
Henry Dupre	APPJ.	985 513 2880	Henry Dupre @ Charter.Net
Cheryl B. Hebert	Assumption Pioneer	985-369-7839	cherylhebert @ att.net
Samuel S Hood	135 Crawfish Stew St	225-323-0901	SSHOOD2013@GMAIL.COM
Norman Mabile	320 Bayou Drive	985-519-2660	normanmabile@msn.com
Melissa Pirner	149 S Bay Rd Pierre Part	985-474-4277	spirnar@aol.com
Donnie Alvarado Sr	1436 Sauce Piquante	985 518 6321	
Dennis P. Landry	120 Sportsmans BR	985-252-8700	Dennis P. Landry dplandry1951@yahoo.com
Lonnie P. Mabile	109 Rue Verte Pierre Part, LA	985-252-9924	lonniemabile@yahoo.com
RICHARD E. SWAN	1212 E. HWY DR, B.R.	225-379-1783	richard.swan@la.gov
BOB MAHONEY	5304 FLANDERS BR LA	225-757-7624	robert.mahoney@dot.gov
Gaby Tassin	16021 Bricksome Ave.	225-924-0235	gaby.tassin@neel-schaffer.com
Debbie Dupre	127 Verda St.	985-252-0360	debbiedupre59@yahoo.com.
Jimmy Charlot	7421 Hwy 996	225-716-0441	Timmy@comtexas.com
PAUL GRIGGS	1201 MAIN BR	225-766-7400	pgriggs7766@gmail.com
Deborah Saxton	4171 ESSEN LANE BTR	225 987 7325	~~dsaxton~~ deborah.saxton@cbi.com
Gary Hegan			
CONRAD GAUTREAUX	2629 LEE DR. PIERRE PART	985 252-3879	
Luke E LeBas	4171 ESSEN BR, LA CB+I	(225) 932 2500	luke.lebas@cbi.com
Tony Landry	715 St. Vincent Rd Napoleonville	985-665-5454	tita715@charter.net
Jacquelyn Wood	4530 Union Dr. BR LA	225-987-7360	Jacquelyn.wood@cbi.com
Dishili Young	1637 Salisbury Dr. BR LA	(225)-932-5887	dishili.young@cbi.com

SAP Contract No. 4400001862
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LA 70 Bypass
Stage 0 Feasibility Study
Assumption Parish, LA

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Tuesday - August 13, 2013

Napoleonville Community Center
6:00 PM - 8:00 PM

SIGN-IN SHEET

NAME	ADDRESS / ORGANIZATION	PHONE	E-MAIL
C.J Berthelot	2325 Lee Dr. P.P	985-252-6188	CJberth@yahoo.com
Moham Menon	CH2.F	225-281-1149	Moham.menon@ch2i.com

Project Information Handout

LA 70 Bypass
Stage 0 Feasibility Study

State Project No. H.010571.1

Public Meeting

Napoleonville Community Center

August 13, 2013

6:00 PM - 8:00 PM

OPEN HOUSE MEETING FORMAT:

PowerPoint
- A PowerPoint presentation will play on a constant "loop" during the meeting. Feel free to watch it at any time during your visit.

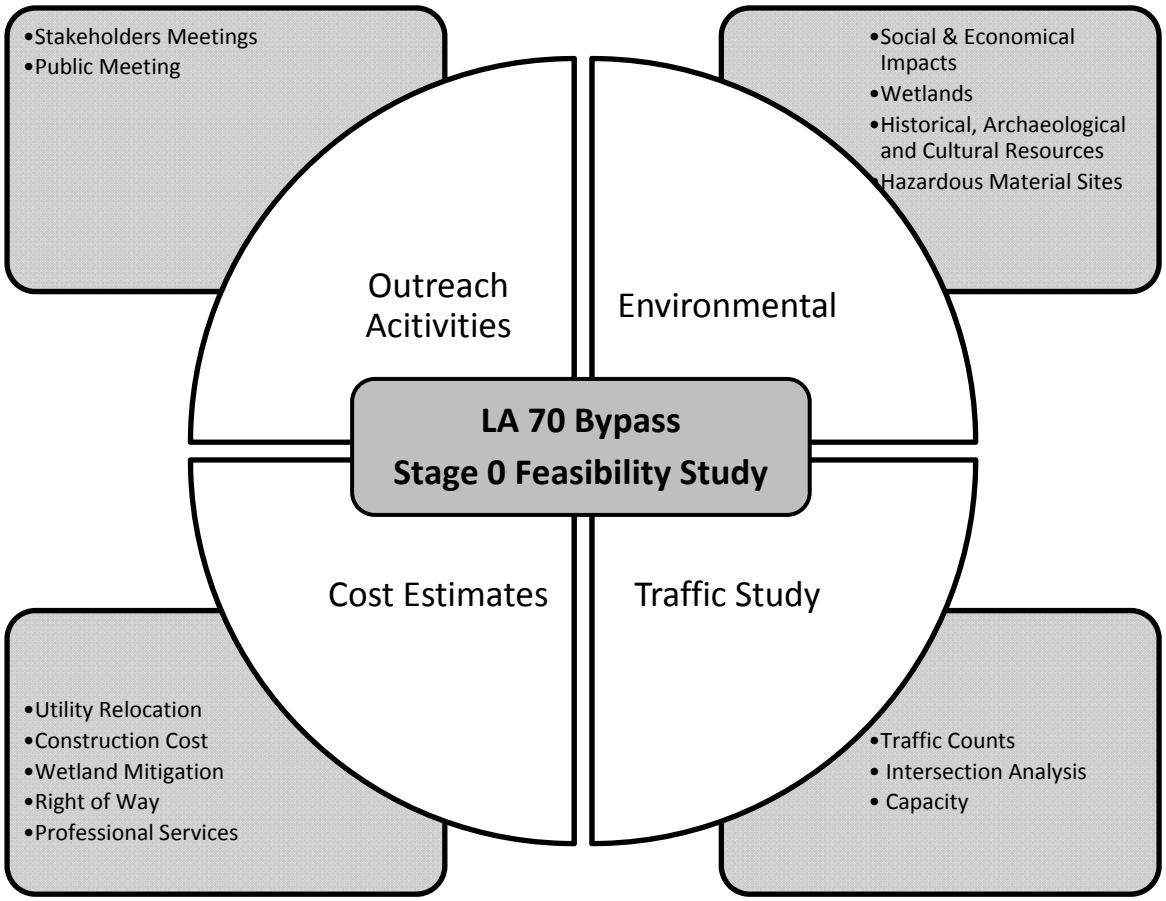
Exhibits
- Project staff members are situated at the exhibits in the meeting room with CB&I name tags. Feel free to ask them questions as you view the exhibits.

Verbal Comments
- A court reporter is available to take your verbal comments. Please make sure to state your name and address for the record.

Written Comments
- You may also make a written comment for the record via the Comment Forms which are located at the Comment Table.

PROJECT OVERVIEW:

This project will determine the feasibility of constructing Detour and Bypass Routes for LA 70 should it be closed due to the activities associated with the Napoleonville Salt Dome. There are two Detour Routes being considered to provide immediate relief should LA 70 be closed due to an emergency. These two Detour Routes are the focus of this meeting and are located north of LA 70 between Gumbo St. and LA 69. The three Bypass Routes which will provide a more permanent solution will be discussed in detail at a future public meeting.



There are many task associated with the completion of the LA 70 Bypass Stage 0 Feasibility Study. Collectively they provide the necessary data to determine what minor changes could be made to reduce the impacts of the project and ensure the proposed solutions are a best fit for the unique problems the Bayou Corne Community faces. The above figure details some of the tasks considered in this study. Should you have questions, our team members would be more than happy to discuss in detail any of the associated activities of the LA 70 Bypass Stage 0 Study.

Thank you for your attendance!

Please do not forget to provide input at our comment table.

****

LA 70 BYPASS STAGE 0 FEASIBILITY STUDY

STATE PROJECT NO. H.010571.1

****

OPEN HOUSE MEETING

PUBLIC COMMENTS

Taken on August 13, 2013

At the Napoleonville Community Center

4910 Highway 308

Napoleonville, Louisiana 70390

REPORTED BY: Sara Piazza, CCR

****

COURT REPORTERS OF LOUISIANA, LLC

9614 BROOKLINE AVENUE, SUITE A-1

BATON ROUGE, LOUISIANA 70809

PHONE: (225) 201-9650 * FAX: (225) 201-9651

E-MAIL: depos@courtreportersla.com

1 I N D E X

2 Caption 1
3 Proceedings 3
4 Reporter's Certificate 7

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1 PUBLIC COMMENTS
2 1. Henry Welch, 1433 Jambalaya Street, Belle
3 Rose, Louisiana. The ZIP code -- I don't know what
4 that is. My phone number is 225-202-4637.
5 The reroute thing they got on the maps and
6 stuff, I disagree on some of it -- not all of it,
7 but a lot of it. I think if we hit Highway 70 it's
8 a big pond right on Highway 70, and I don't think
9 that would be a good point to come out right there
10 to bypass for school buses and stuff. I think they
11 ought to go straight on to -- what is that, Sauce
12 Piquante Road -- and cut back across the canal and
13 put it back out on Highway 70 by the Sportsman
14 Paradise or whatever you call it down there.
15 I think it would be the most feasible route. I
16 don't know if it would be the cheapest route. But
17 that's basically what I got is the pond is right
18 where they're coming out. I think if the sinkhole
19 goes to the road, I think it's going to go there.
20 My point is the safety for the kids and the school
21 buses. The older people, they can take care of
22 themselves. That's about it, I guess.
23 2. John Mabile, 1444 Sauce Picante Lane,
24 Belle Rose, Louisiana 70341, M-A-B-I-L-E. Coming
25 from the north, they go from LA 1000, make one

1 gradual loop coming down to Lee Drive off of LA 70.
2 Simple. If they're talking about routing traffic
3 through 996, that's going to kill a lot of people.
4 That road is not -- it just can't handle the amount
5 of traffic that's going to come through in the
6 morning and in the afternoon. They got a lot of --
7 like 6,000 cars going through there in the morning
8 and evening. And if they catch 996, they're going
9 to be running through a lot of residential area.
10 That's not good.
11 3. Randy Rousseau, R-O-U-S-S-E-A-U. The
12 address -- my address is 1130 Highway 70, Belle
13 Rose. That's not where I'm living anymore. Okay.
14 First of all, this should have been done a long time
15 ago. We're a year into this, okay? There's
16 busloads of kids that go through there every day.
17 It's a mandatory evacuation zone for a reason. It's
18 not just because they felt like doing that. These
19 kids are exposed to something every day when they
20 pass through there. The State is putting those
21 kids' lives in danger, in jeopardy, and we don't
22 know the long-term effects of this. This bypass
23 road should have been studied and done a long time
24 ago. This should be under construction as we speak.
25 The little bypass road behind the gator farm and

1 stuff like that is just a complete waste of time and
2 money. You're not putting them out of the danger
3 zone. And if that's going to be a gravel road, it's
4 putting those kids even in more danger when there's
5 wet weather and all the traffic and all the big
6 trucks that pass on there. It's not safe at all.
7 This is an emergency situation. It's a
8 sinkhole. It's not going to get better, whether
9 they want to realize it or not. It's not getting
10 any better. That bypass needs to be done. It needs
11 to be put on a priority list, not a five-year deal.
12 Not a six-year deal. It needs to be done now.
13 There's just too many lives, too many kids that pass
14 through there. And it's not only the air
15 contaminants and it's not only the road possibility
16 of sinking, but there's a lot of traffic in and out
17 of the construction area. They have big trucks
18 coming in and out of there. It's just a completely
19 hazardous situation that these kids have no choice.
20 They ride a bus. They have no choice. They have to
21 go to school. People that drive on there can take
22 another route if they so elect. But these kids have
23 no choice. And if one of these kids gets hurt, the
24 State should be held fully responsible for it. It's
25 just a crazy situation to drive kids through a

1 mandatory evacuation zone. Do you think they would
2 have drove kids through New Orleans in Katrina?
3 That was mandatory evacuation. They didn't do that.
4 They need to think and think long and hard about
5 their future, the future of these children, the
6 health concerns. You don't know what they're
7 exposed to. This should be put on a priority list.
8 I say it again. And it should be done now.
9 4. Samuel Hood, H-O-O-D. My address is 135
10 Crawfish Stew Street. The alternative route, one,
11 should have a bypass coming out by Lee Drive in
12 Pierre Part and come around and make a loop all the
13 way and junction in to LA 1000. And I think that
14 would be your better alternative route.
15 (End of comments.)
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1 R E P O R T E R ' S C E R T I F I C A T E
2 I, Sara Piazza, Certified Court Reporter
3 (#29026), for the State of Louisiana, as the officer
4 before whom this testimony was taken, do hereby
5 certify that public comments were taken by me upon
6 authority of R.S. 37:2554 and set forth in the
7 foregoing 6 pages;
8 That the proceedings were reported by me
9 in stenomask reporting method, was prepared and
10 transcribed by me or under my personal direction and
11 supervision, and is a true and correct transcript to
12 the best of my ability and understanding;
13 That the transcript has been prepared in
14 compliance with transcript format guidelines
15 required by the statue or by the rules of the board;
16 That I have acted in compliance with the
17 prohibition on contractual relationships, as defined
18 by Louisiana Code of Civil Procedure Article 1434
19 and in rules and advisory opinions of the board;
20 That I am not related to counsel or to the
21 parties herein, nor am I otherwise interested in the
22 outcome of this matter.
23 This certification is valid only for a
24 transcript accompanied by my handwritten or digital
25 signature and the image of my State authorized seal

1 on this page
2 SIGNED THIS AUGUST 15, 2013
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4 SARA PIAZZA, CCR
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August 13, 2013

Attn: Mr. Paul Griggs;

Subject: La. 70 Detour Route

Thank you very much for providing me an opportunity to comment on the proposed La. 70 alternate or detour route. In my email to Mr. Paul Griggs on July 8, I offered a new route as an alternate or detour route of Highway 70.

The new proposed route, rather than the proposed corridor, would be to re-enter La. Highway 70 just west of the Gator Super Stop. It would have less environmental impact, affect less business operation, shorten the construction time, reduce construction cost, and eliminate several 90 degree angle turns.

It also eliminates the need to remove a historical large oak tree and the relocation of an existing pipeline in the proposed corridor. This will be a large cost to the state.

And finally it will eliminate the need to use land owned by a family business that is needed in order for this business to meet state requirements to operate a truck stop casino operation. It will basically shut down this family owned business that has been operating at this location for over 40 years dating back to the late sixties or early seventies and would have an economic impact for the family, parish, and the state.

I would also like to point out that the entrance to the alternate or detour route at Gumbo Street appears to be as close to the sink hole than the recommended re-entry to La. Highway 70 west of the Gator Super Stop.

Please take my recommendation into consideration as it is important not only to the Gator Super Stop Operation, to maintain a parish and state revenue, less costly to the state, and faster, safer service to the community, especially the children traveling this road to and from Napoleonville on a daily basis.

A map of my recommendation is attached for your review. Also you can reach me at:

normanmabile@msn.com or 985-519-2660 or 985-252-6252.

Norman J. Mabile

Norman J. Mabile
320 Bayou Drive
Pierre Part, La. 70339

Legend

Corridor Area

Reference

Base map comprised of 2013 aerials provided by Louisiana Department of Transportation and Development.

DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

800 400 0 800 Feet

Soliciation of Views

LA 70 Detour Route
State Project No. H.010571.2
Pierre Part, Assumption Parish, Louisiana

Louisiana Department of Transporation and Development

PROVIDENCE

Drawn By	LMM	08/06/13
Checked By	LMH	08/06/13
Approved By	JPB	08/08/13
Project Number 040-014		
Drawing Number 040-014-A002		1 Figure

Providence Engineering and Environmental Group LLC

Norman J. Mabile
320 Bayou Drive
Pierre Part, La. 70339

Shaw Environmental & Infrastructure
attn: Karen Moree
4171 Essen Lane
Baton Rouge, La. 70809

Comment Form

LA 70 Bypass

Stage 0 Feasibility Study

State Project No. H.010571.1

Public Meeting

Napoleonville Community Center

August 13, 2013

6:00 PM - 8:00 PM

Your comments are greatly appreciated. Please write your thoughts below and bring to the comment table. In addition, you can mail or email this completed form to the address shown at the bottom of this page or fax to (225) 213-1244. Thanks for your input.

Comments:

We have lived on highway 996 peacefully for 32 years. My son and his young family has just completed their home next to us. With that said we would certainly be upset if our highway would become any type of major detour. The light traffic and quietness is one of the reasons we decided to buy the home we have now. I realize there needs to be a solution to this problem. But I pray we are taken into consideration. Thank you.

SEND COMMENTS TO:

Kara K. Moree, CFM

CB&I

4171 Essen Lane

Baton Rouge, LA 70809

kara.moree@CBI.com

Please provide your contact information:

Name: Claudette Taebet Charlet

Address: 7421 Hwy 996

City/State/Zip: Belle Rose, LA 70341

Email: tcharlet5@gmail.com

To ensure that your comments become part of the official meeting record, they should be post marked within ten calendar days following this meeting (by 8/23/13).

Comment Form

LA 70 Bypass

Stage 0 Feasibility Study

State Project No. H.010571.1

Public Meeting

Napoleonville Community Center

August 13, 2013

6:00 PM - 8:00 PM

Your comments are greatly appreciated. Please write your thoughts below and bring to the comment table. In addition, you can mail or email this completed form to the address shown at the bottom of this page or fax to (225) 213-1244. Thanks for your input.

Comments:

Alternate #1 is good Except when it hits LA 70 at Passum DR. Needs To go ½ mile further & Go To Derrick Lane toward Pierre Part - this will Give A true Bypass of LA 70 with Alternate Route all the way The Existing Route Leaves ½ of 2 Lane Highway Between Passum & Derrick Lane one Accident shuts 70 Down.

Second it need To Hit 69 even with LA 1000 & Do not use Hwy 996 - Hwy 996 will be A nightmare for Accidents CAR truck & 18 wheelers using this Route

SEND COMMENTS TO:

Kara K. Moree, CFM

CB&I

4171 Essen Lane

Baton Rouge, LA 70809

kara.moree@CBI.com

Please provide your contact information: Pierre Part Fire Chief

Name: Don Breaux

Address: 106 St. Peter

City/State/Zip: Pierre Part

Email: dbchief@Hotmail.com

To ensure that your comments become part of the official meeting record, they should be post marked within ten calendar days following this meeting (by 8/23/13).

Comment Form

LA 70 Bypass

Stage 0 Feasibility Study

State Project No. H.010571.1

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Comments: Thank ya'll - Anything would be a help.

SEND COMMENTS TO:

Kara K. Moree, CFM

CB&I

4171 Essen Lane

Baton Rouge, LA 70809

kara.moree@CBI.com

Please provide your contact information:

Name: Henry Dupré

Address:

City/State/Zip:

Email:

To ensure that your comments become part of the official meeting record, they should be post marked within ten calendar days following this meeting (by 8/23/13).

Comment Form

LA 70 Bypass

Stage 0 Feasibility Study

State Project No. H.010571.1

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Comments:

I live right off of 69 on 996 in a small peaceful community thats in Jeopardy of Becoming a major Highway, bieng there for 32 years I'm very worried what would be taken away from my community I really don't think I could call it "home" any more if this would become reallity. I thinks there alot more options to consider and hope some one considers what the people will face with the extra traffic, Accidents speeding, our children, grandchildren and our whole way off life will be changed.

SEND COMMENTS TO:

Kara K. Moree, CFM

CB&I

4171 Essen Lane

Baton Rouge, LA 70809

kara.moree@CBI.com

Please provide your contact information:

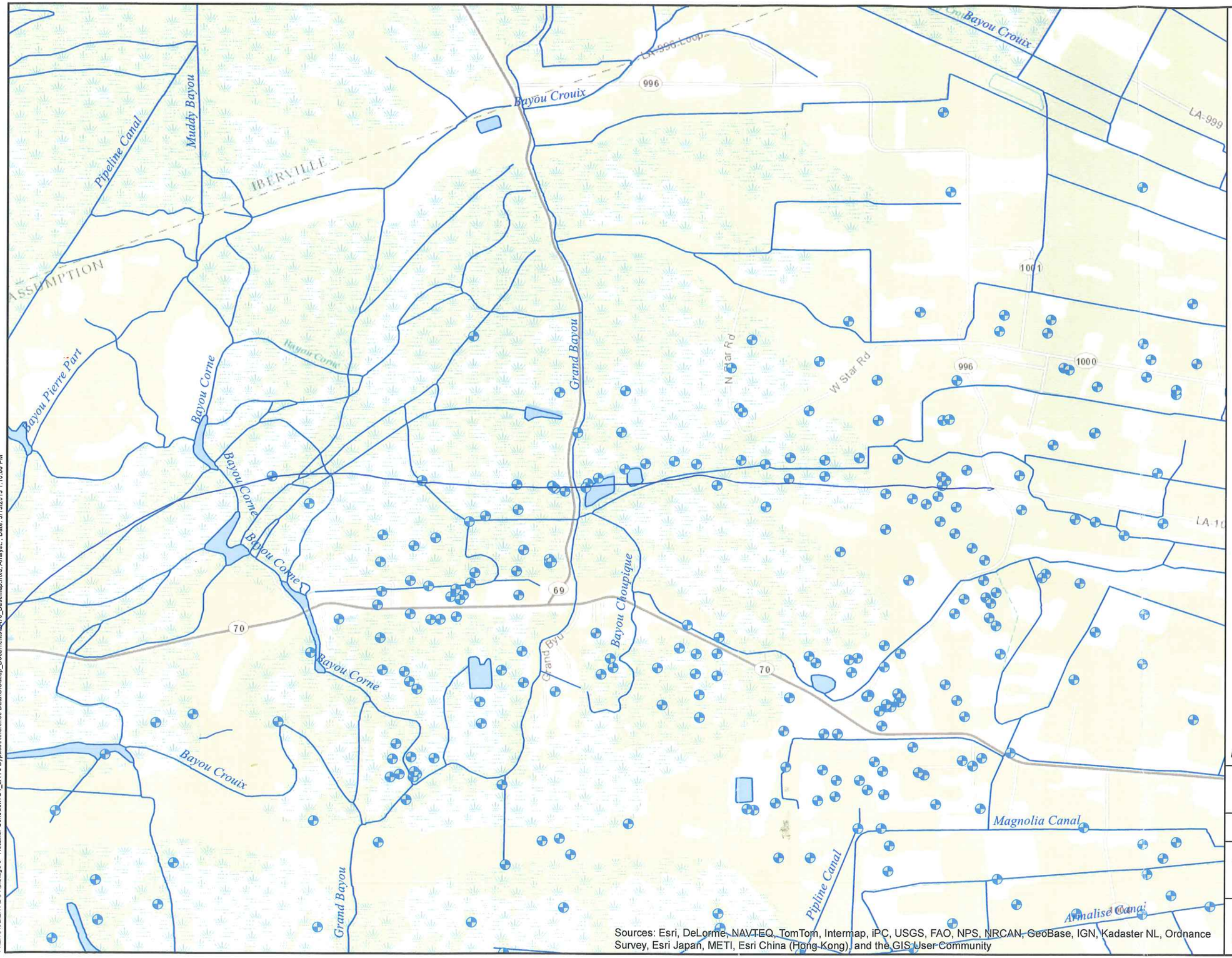
Name: Jimmy Charlet

Address: 7421 J Hwy 966

City/State/Zip: Belle Rose LA.

Email: Timmy@cox Texas.com

To ensure that your comments become part of the official meeting record, they should be post marked within ten calendar days following this meeting (by 8/23/13).



Sources: Esri, DeLorme, NAVTEQ, TomTom, Intermap, iPC, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong-Kong), and the GIS User Community

Legend

Waterways

Oil & Gas Wells

N

3,000 1,500 0 3,000

Feet

John Mabile
1444 Sauce Piquante Ln
Belle Rose, LA
70341

To Lee Dere @ LA 70

P:\ENG\CLIENTS\... \...Stage 0 - Retainer Contract\T04_LA 70 Bypass\Reference Data\GIS\Map_Documents\LA70_Basemap.mxd; Analyst: ; Date: 3/13/2013 1:10:00 PM

REFERENCE:

LA DOTD
State Project No. H.010571.1
LA 70 Bypass

Stage 0 Feasibility Study
& Environmental Inventory

FIGURE NUMBER 1

Waterways and Wells

Shaw Environmental & Infrastructure, Inc.
(A CB&I Company)
4171 Essen Lane
Baton Rouge, LA 70809

Comment Form

LA 70 Bypass

Stage 0 Feasibility Study

State Project No. H.010571.1

Public Meeting

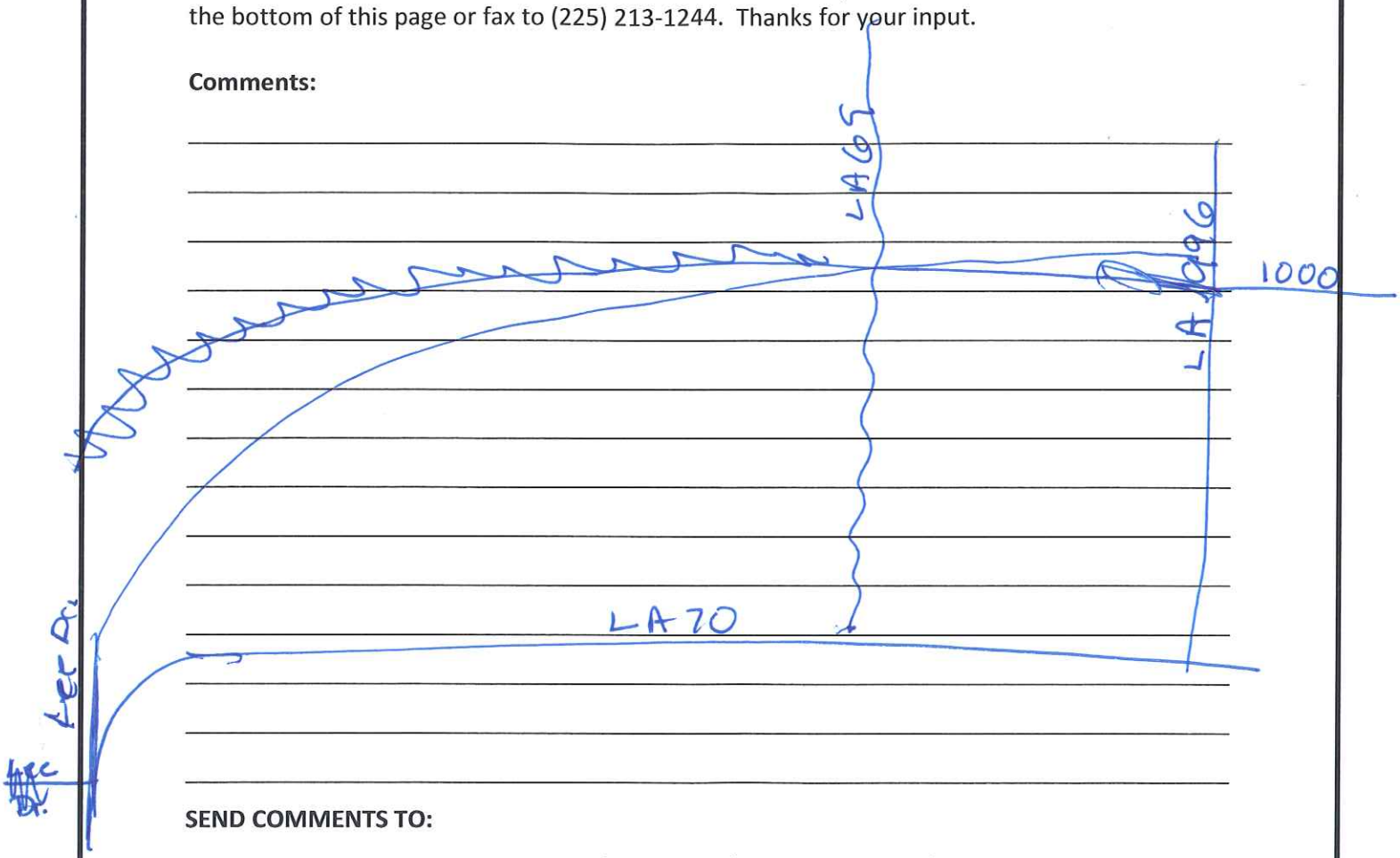
Napoleonville Community Center

August 13, 2013

6:00 PM - 8:00 PM

Your comments are greatly appreciated. Please write your thoughts below and bring to the comment table. In addition, you can mail or email this completed form to the address shown at the bottom of this page or fax to (225) 213-1244. Thanks for your input.

Comments:



SEND COMMENTS TO:

Kara K. Moree, CFM

CB&I

4171 Essen Lane

Baton Rouge, LA 70809

kara.moree@CBI.com

Please provide your contact information:

Name: _____

Address: _____

City/State/Zip: _____

Email: _____

To ensure that your comments become part of the official meeting record, they should be post marked within ten calendar days following this meeting (by 8/23/13).

Comment Form

LA 70 Bypass

Stage 0 Feasibility Study

State Project No. H.010571.1

Public Meeting

Napoleonville Community Center

August 13, 2013

6:00 PM - 8:00 PM

Your comments are greatly appreciated. Please write your thoughts below and bring to the comment table. In addition, you can mail or email this completed form to the address shown at the bottom of this page or fax to (225) 213-1244. Thanks for your input.

Comments:

Concern from a lot of residents is detour route being left with only aggregate on top. Not a surface for a highly traveled road as this would be.

SEND COMMENTS TO:

Kara K. Moree, CFM

CB&I

4171 Essen Lane

Baton Rouge, LA 70809

kara.moree@CBI.com

Please provide your contact information:

Name: Karen St Germain

Address: 3413 Hwy 70

City/State/Zip: [illegible]

Email:

To ensure that your comments become part of the official meeting record, they should be post marked within ten calendar days following this meeting (by 8/23/13).

Comments relevant to the hwy 70 bypass:

Please find attached a subsidence report that I obtained from the Department of Natural Resources website. This report identifies the significant subsidence in the area of the dome. In my opinion, this report should be included and referenced from the Phase 0 study.

The objectives for this bypass need to be thoroughly understood and made clear. There is more than just avoiding the Salt dome/sinkhole. There are some benefits to rerouting the roads that have not been mentioned such as reducing traffic count on dangerous roads.

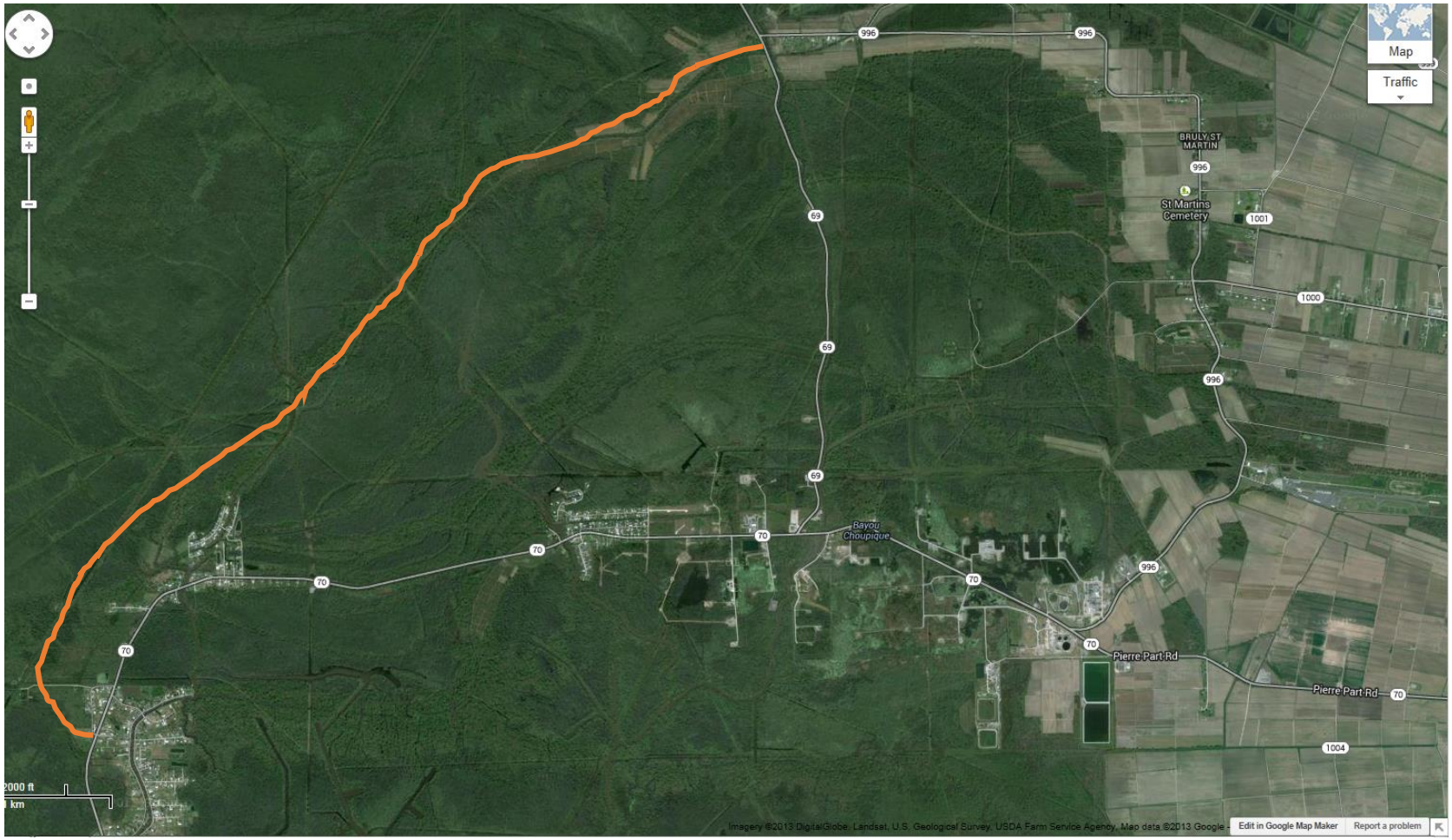
If additional information or clarification is needed, please contact me at your convenience.

Leroy Blanchard, PE

Assistant Chief/President of the Board of Directors of the Paincourtville Fire Department (PVFD)

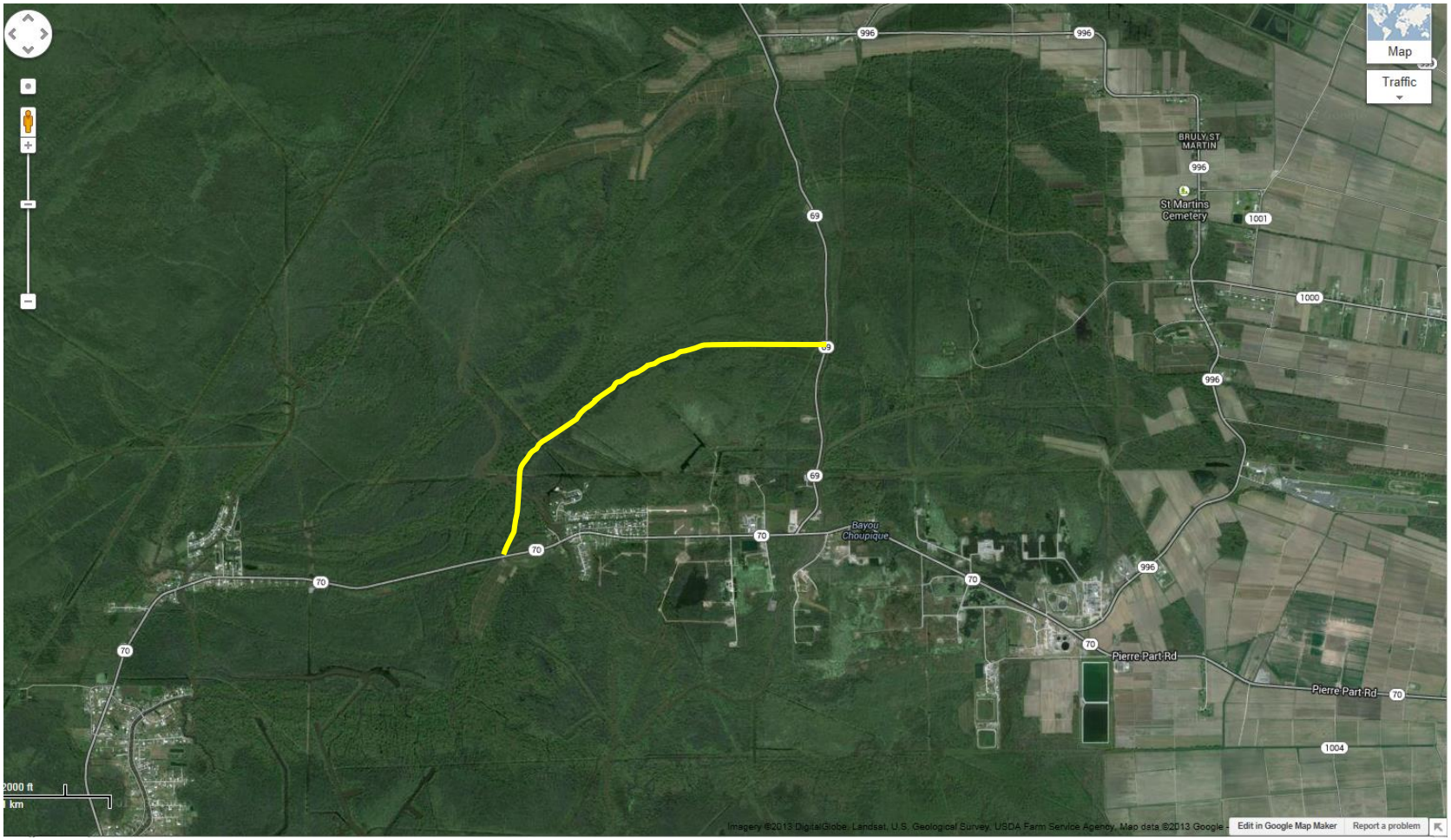
Cell: 985-513-1347

Leroy_blanchard@hotmail.com



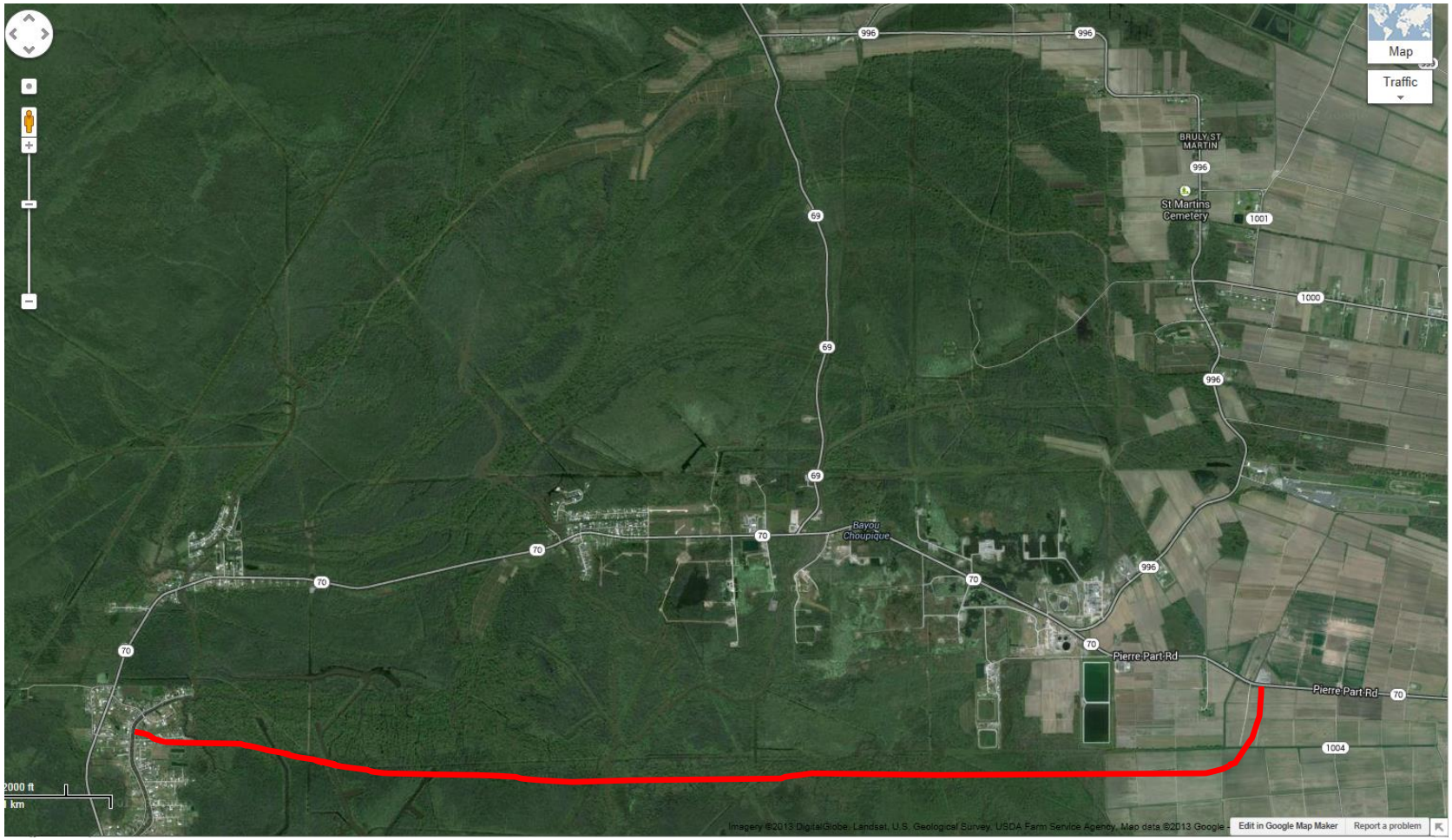
Orange route – This route would be the preferred route for a few reasons. (my choice number 2)

- Creates alternative route into and out of Pierre Part at all times. With this route, no portion of highway 70 remains the single artery into Pierre Part.
- Keeps approximately a 2 mile buffer to the salt dome perimeter.
- Reduces traffic count on highway 69 between highway 996 and 70. Accident count in this area is abnormally high due to road conditions.
- Hwy 996 would need to be upgraded to standards for higher traffic count



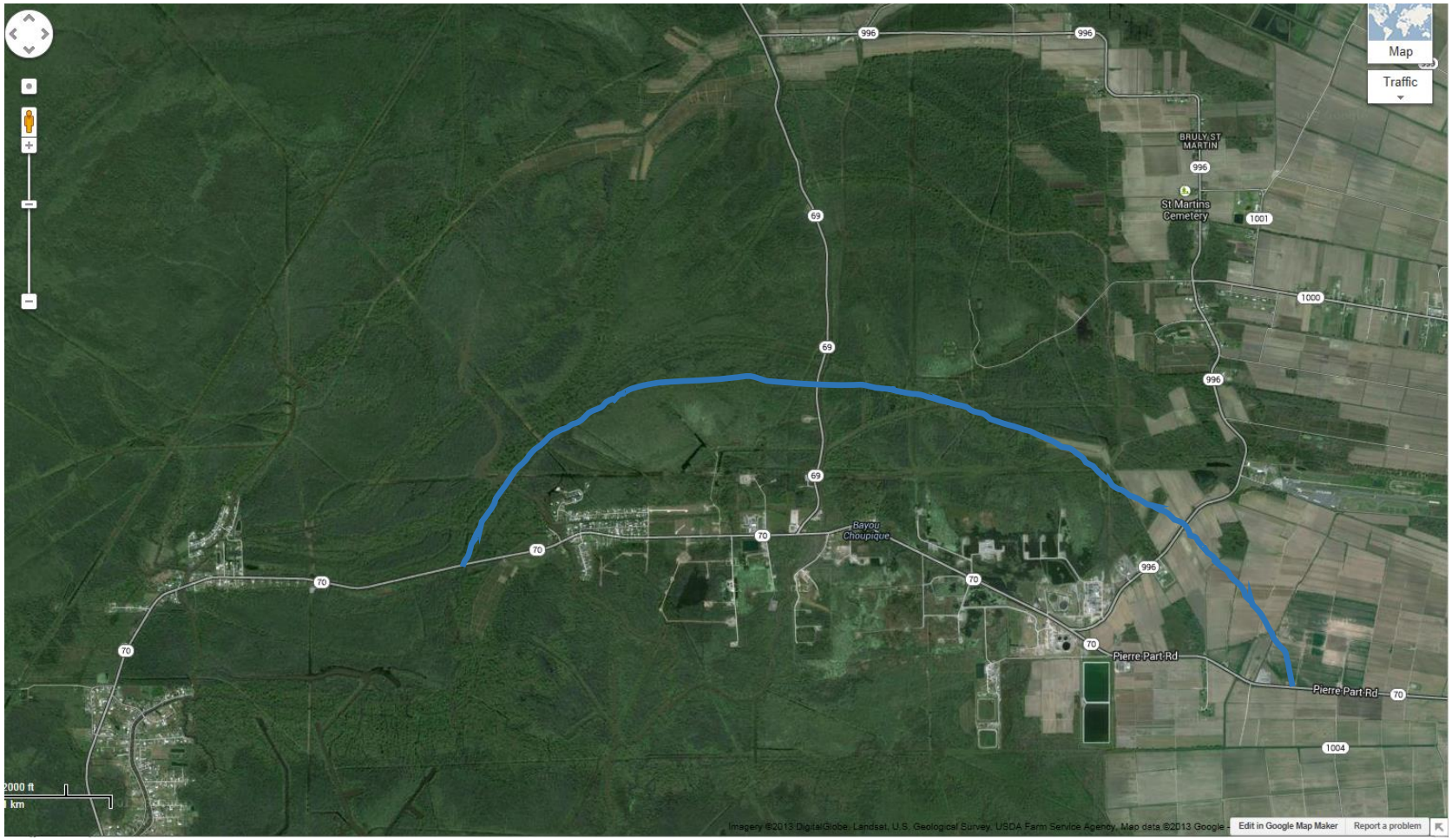
Yellow route - Shortest route possible maintaining the determine safe buffer zone.

- I have included a subsidence report conducted by Napoleonville salt dome operators. The areas of abnormally high subsidence should be avoided regardless of the distance to the sinkhole.
- Environmental impact for this routing is less than “orange” routing above.



Red route – A southern loop should not be eliminate too soon.

- There is a significant ridge in this area that can be used as a road foundation.
- Larger bridges would be needed since the dome operators do accept barge traffic.



Blue route – Dome by-pass (My choice number 1)

- This route would be a by-pass of the dome industry.
- This alternative maintains the peace and tranquility of the Brusly St. Martin community.
- This route does not affect private residences.

LEROY BLANCHARD
985 513 1347

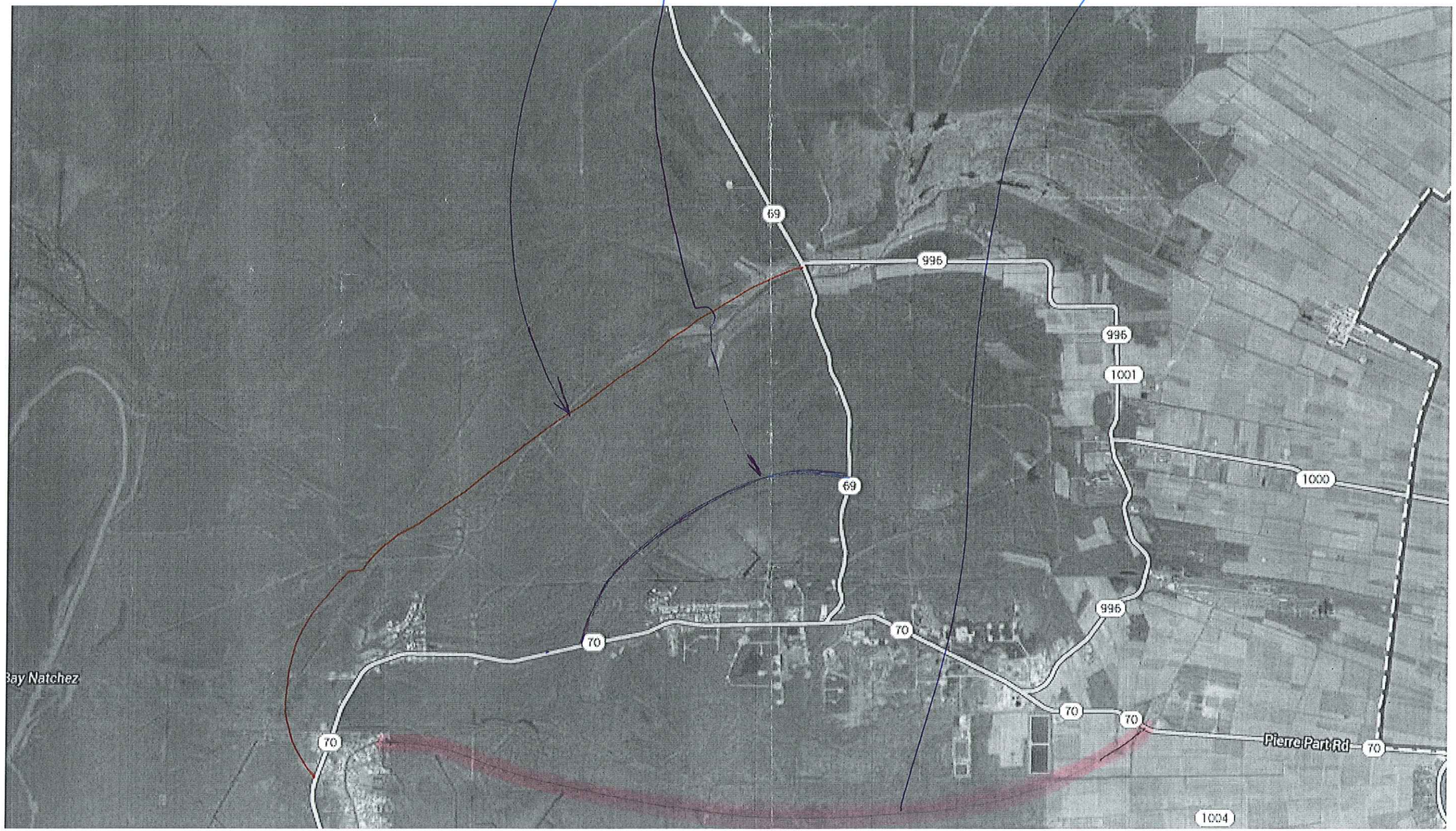
Don't forget the Big Picture

LEROY BLANCHARD
985 513 1347
leroy_blanchard@hotmail.com

why go to red

when blue will achieve objective

South By-pass should not be taken off table too early



Appendix F

Interested Parties List

List of Interested Parties who were Invited to LA 70 Public Meeting held on 8/13/13			
Name	**Email**	**Affiliation**	**Phone #**
Ann Wills	ann.wills@la.gov	LADOTD	
Annie	anniefh@bellsouth.net	Resident	
August Lizarraga	augustr@hotmail.com	Lizarraga Enterprises	
Bert Moore	bert.moore@la.gov	LADOTD - Dist. 61	
Betty & Ronnie Thibodaux	N/A	Resident	985-688-2075
Beth Altazan-Dixon	beth.dixon@la.gov	LDEQ - no longer with SOV section	
Bob Deaton	deaton5@bellsouth.net	Resident	
Bob Mahoney	robert.mahoney@dot.gov	FHWA	
Booster Breaux	boosterbreaux@yahoo.com	Assumption Parish Police Jury - Ward 8	985-518-3002 cell
Chad Vosburg	chad.vosburg@la.gov	LADOTD - Dist. 61 Administrator	
Chad Winchester	chad.winchester@la.gov	LADOTD - Road Design	
Cheryl Hebert	cherylhebert@att.net	Assumption Pioneer	985-369-7839
Chris Knotts	chris.knotts@la.gov	LADOTD - Public Works	
CJ Berthelot	cjberth@yahoo.com	Resident	985-252-6188
Claudette Charlet	N/A	Resident	225-717-6847
Connie Porter Betts	connie.porter@la.gov	LADOTD - Project Manager	
Conrad Gautreaux	N/A	Resident	985-252-3879
Dana Cavalier	danacavalier@att.net		
Danielle Blanchard	danielle.t.blanchard@gmail.com	Resident	
Darrell Barbara	Darrell.Barbara@usace.army.mil	USACE - Chief Western Branch	
David Blanchard	N/A		
David Soileau	david_soileau@fws.gov	USFWS	
Debbie Dupre	debbiedupre59@yahoo.com	Resident	985-252-0360
Deborah Saxton	deborah.saxton@cbi.com	CB&I	
Dennis Decker	dennis.decker@la.gov	LADOTD - Assistant Secretary	
Dennis Hymel	dennis.hymel@tbsmith.com	T. Baker Smith - Utilities	985-493-2963
Dennis Landry	dplandry1951@yahoo.com	Resident	985-252-8700
Dishili Young	dishili.young@cbi.com	CB&I	225-932-5887
Donnie Albarado	N/A	Resident	985-518-6321
Don Breaux	N/A	Resident	985-209-6302
Don Haydel	don.haydel@la.gov	LDNR	225-342-8953
Ed Wedge	edward.wedge@la.gov	LADOTD - Project Management Administrator	
Eric Kalivoda	eric.kalivoda@la.gov	LADOTD - Deputy Secretary	
Gaby Tassin	gaby.tassin@neel-schaffer.com	Neel-Schaffer - Traffic	
Gary Hecox	gary.hecox@cbi.com	CB&I	
Gary Snellgrove	gary.snellgrove@la.gov	LDNR	225-342-7222
Heather Corsentino	heather.corsentino@la.gov		

Henry Dupre	henrydupre@charter.net	Assumption Parish Police Jury - Ward 7 - Vice President	985-513-2880
Henry Welch	N/A	Resident	225-202-4637
Hubert Aucoin	N/A	Resident	985-519-0729
Hubert Graves	hubert.graves@la.gov	LA DOTD - Real Estate - will send someone from RE	
Jackie Wood	jacqueline.wood@cbi.com	CB&I	
Jacob Albers	N/A	Resident	225-368-5877
James "Jay" Pecot	jay.pecot@la.gov	LDNR	
James Little	james.little@usace.army.mil	USACE	
Jeff Burst	jeffrey.burst@la.gov	LADOTD - Planning & Programming	
Jim Ballow	james.ballow@la.gov	GOHSEP	225-358-5462
Jim Yates	jimyates3@gmail.com	Assistant Environmental Engineer Administrator; retired	
Joann Kurts	joann.kurts@la.gov	LADOTD - Utilities	
Joe Harrison	harrisoj@legis.la.gov	Representative	
Joey Tureau	joey.tureau@la.gov	LADOTD - Dist. 61	
John Boudreaux	johnboudreaux@assumptionoep.com	Assumption Parish OEP	985-637-8918 cell
John Ettinger	ettinger.john@epa.gov	EPA (in USACE office)	504-862-1119
John Mabile	Johnny_mabile@yahoo.com	Resident	985-513-1042
Josh Marceaux	joshua_marceaux@fws.gov	USFWS - Transportation Projects	337-291-3110
Kara Moree	kara.moree@cbi.com	CB&I	225-932-5803
Karen St. Germain	larep060@legis.la.gov; kgermain@legis.la.go	Representative	225-776-7611 cell
Karl Morgan	karl.morgan@la.gov	LDNR	225-342-6470
Keith Lovell	keith.lovell@la.gov	LDNR - Asst. Secretary - OCM	
Ken Simoneaux	kensimoneaux@aol.com		
Kerry Oriol	kerryoriol@providenceeng.com	Providence - Env. Project Manager	
Kyle Balkum	kbalkum@wlf.la.gov	LDWF - Biologist/Program Manager	225-765-2819
Lee Womack	leewomack@providenceeng.com	Providence - Wetlands	
Leroy Blanchard	leroy.blanchard@hotmail.com	Resident	985-513-1347
Linda Hardy	linda.hardy@la.gov	LDEQ - Technical Asst. to Deputy Secretary	225-219-3954
Lisa Pultz	lisa.pultz@cbi.com	CB&I	
Lonnie Mabile	lonniemabile@yahoo.com	Resident	985-252-9724
Luke LeBas	luke.lebas@cbi.com	CB&I	
Martin Mayer	martin.s.mayer@usace.army.mil	USACE - Chief Regulatory Branch	
Martin Triche	martin@trichelaw.com	Assumption Parish Police Jury - Ward 5 - President	
Meredith Taylor	meredith.taylor@cbi.com	CB&I	
Mike Templet	mike_templet@att.net		
Mike Vosburg	mike.vosburg@la.gov	LADOTD - Geotech	
Milissa Pirnar	spirnar@aol.com	Resident	985-474-4277
Mohan Menon	mohan.menon@cbi.com	CB&I	225-281-1149
Monica Herrera	monicaherrera@providenceeng.com	Providence - NEPA - Environmental Scientist	
Myron Matherne	myronmatherne@yahoo.com	Assumption Parish Police Jury - Ward 9	

Nick Ferlito	nick.ferlito@neel-schaffer.com	Neel-Schaffer - Traffic	225-924-0235
Noel Ardoin	noel.ardoin@la.gov	LADOTD - Environmental	
Norman Mabile	normanmabile@msn.com	Gator Gold Casino & Truck Stop	
Patrick Courreges	patrick.courreges@la.gov		
Patrick Lawless	plawlessw1@charter.net	Assumption Parish Police Jury - Ward 1	985-513-9154
Patti Holland	patti_holland@fws.gov	USFWS - Wetlands Permit Coordinator	337-291-3121
Paul Fossier	paul.fossier@la.gov	LADOTD - Bridge Design	
Paul Griggs	paulgriggs@providenceeng.com	Providence	
Peter Allain	peter.allain@la.gov	LADOTD	
Rachel Watson	rwatson@crt.la.gov	Office of Cultural Development (SHPO)	225-342-8165
Ramsey Madere	N/A	Resident	985-513-1313
Rawdy Russeau	N/A	Resident	
Reno Johnson	reno.johnson@la.gov	LADOTD	
Rhett Desselle	rhett.desselle@la.gov	LADOTD	
Richard Swan	richard.swan@la.gov	LADOTD	
Rick Ward, III	wardr@legis.la.gov	Senator	
Rob Heffner	Robert.A.Heffner@usace.army.mil	USACE - New Orleans District	504-862-2099
Robert Williams	robertwilliams@providenceeng.com	Providence	
Robin Romeo	robin.romeo@la.gov	LADOTD - Planning & Programming	
Ronnie Robinson	ronnie.l.robinson@la.gov	LADOTD - Dist. 61	
Roy Giroir	N/A	Resident	
Samuel Hood	sshood2013@gmail.com	Resident	225-323-0901
Scott Brady	scott.brady@la.gov	LADOTD - Real Estate	
Scott Nelson	scott.nelson@dot.gov	FHWA	
Shauna Rivero	slrivero79@atvci.net	Resident	
Sherri Lebas	sherri.lebas@la.gov	LADOTD - Secretary	
Stacie Palmer	stacie.palmer@la.gov	LADOTD - Environmental	
Steve Meunier	steve.meunier@la.gov	LADOTD - Geotech	
Teddy Mabile	teddymabile@yahoo.com	Resident - Gator Gold Casino & Truck Stop	
Tegan Treadaway	tegan.treadaway@la.gov	LDEQ - Air Permits	
Teleca Donachricha	Tdonachricha@yahoo.com	Resident	225-936-1916
Timmy Charlet	Timmy@coratexas.com	Resident	225-716-0441
Tony Landry	tita715@charter.net	Resident	985-665-5454
Troy E. Brown	brownte@legis.la.gov	Senator	
Viki and Richard Arnold	vrgrouche@yahoo.com	Resident	225-268-2933
Wallace Cavalier	N/A	Resident	985-513-2553

Appendix G

Stage 1 Documentation and Coordination

Providence

Environmental Section
PO Box 94245 | Baton Rouge, LA 70804-9245
Phone: 225-242-4502

Bobby Jindal, Governor
Sherri H. LeBas, P.E., Secretary

June 10, 2013

STATE PROJECT NO.: H010571.2
FEDERAL AID PROJECT NO.: H010571
LA 70 DETOUR ROUTE
ROUTE LA 70
ASSUMPTION PARISH

SUBJECT: 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 the Louisiana Department of Transportation and Development (DOTD) with the early identification of potentially economic, social, or environmental effects associated with project development. Your assistance in this effort is appreciated.

Under contract to DOTD, Providence is preparing two Environmental Assessments (EAs) to provide a detour route and a bypass for LA 70 in the vicinity of LA 69 (see the attached project description). One of the projects is for a detour route that could be constructed in the event of imminent threat to the integrity of LA 70 associated with failures of the Napoleonville Salt Dome. The other is a permanent bypass. The Feasibility Study and Environmental Inventory for the proposed projects are ongoing. Due to the time frame requested for the completion of the LA 70 Detour Route EA, this Solicitation of Views (SOV) addresses only the LA 70 Detour Route. A second SOV will be transmitted upon development of the LA 70 Bypass alternatives in the near future.

To assist in your review and comment, a project description and a map identifying the corridor area for the LA 70 Detour Route are attached. We request that you review the attached information and provide us with your views and comments within 30 days. All comments should be addressed to:

Mr. Paul Griggs
LA70 Detour Route c/o Providence
1201 Main Street
Baton Rouge, LA 70802
Fax: 225.766.7440
e-mail: paulgriggs@providenceeng.com

Please refer to State Project No. H.010571.2 in your reply.

Thank you for your input regarding the proposed project. Should you have any questions regarding this request, please contact Mr. Paul Griggs, the consultant project manager at Providence, at (225) 766-7400.

Sincerely,

Noel Ardoin
Environmental Engineer Administrator

Attachments

PROJECT DESCRIPTION
STATE PROJECT NO.: H010571.2
FEDERAL AID PROJECT NO.: H010571
LA 70 DETOUR ROUTE
ROUTE LA 70
ASSUMPTION PARISH

The Louisiana Department of Transportation and Development (DOTD) proposes a detour route of LA 70 near its intersection with LA 69 in Assumption Parish.

The LA 70 Detour Route is proposed due to concerns for the integrity of LA 70 associated with failures of the Napoleonville Salt Dome, which in the past year have caused surface instability. During the summer of 2012, a large sinkhole developed south of LA 70 near Bayou Corne. In August 2012, an emergency proclamation was issued by the Governor declaring a statewide emergency as a result of the subsidence and subsurface instability. On March 8, 2013, it was announced that a second cavern is closer to the edge of the Napoleonville Salt Dome than previously thought. This cavern is approximately 500 feet closer to LA 70 than the cavern that failed forming the sinkhole. The Assumption Parish public officials expressed concern for the integrity of LA 70. DOTD is actively monitoring LA 70 in the vicinity of the sinkhole. DOTD is preparing a Stage 1 Environmental Assessment (EA) to determine if a detour route could be built in the affected area in the event LA 70 is compromised. The LA 70 Detour Route would allow emergency access around the roadway should it be closed for local responders and residents.

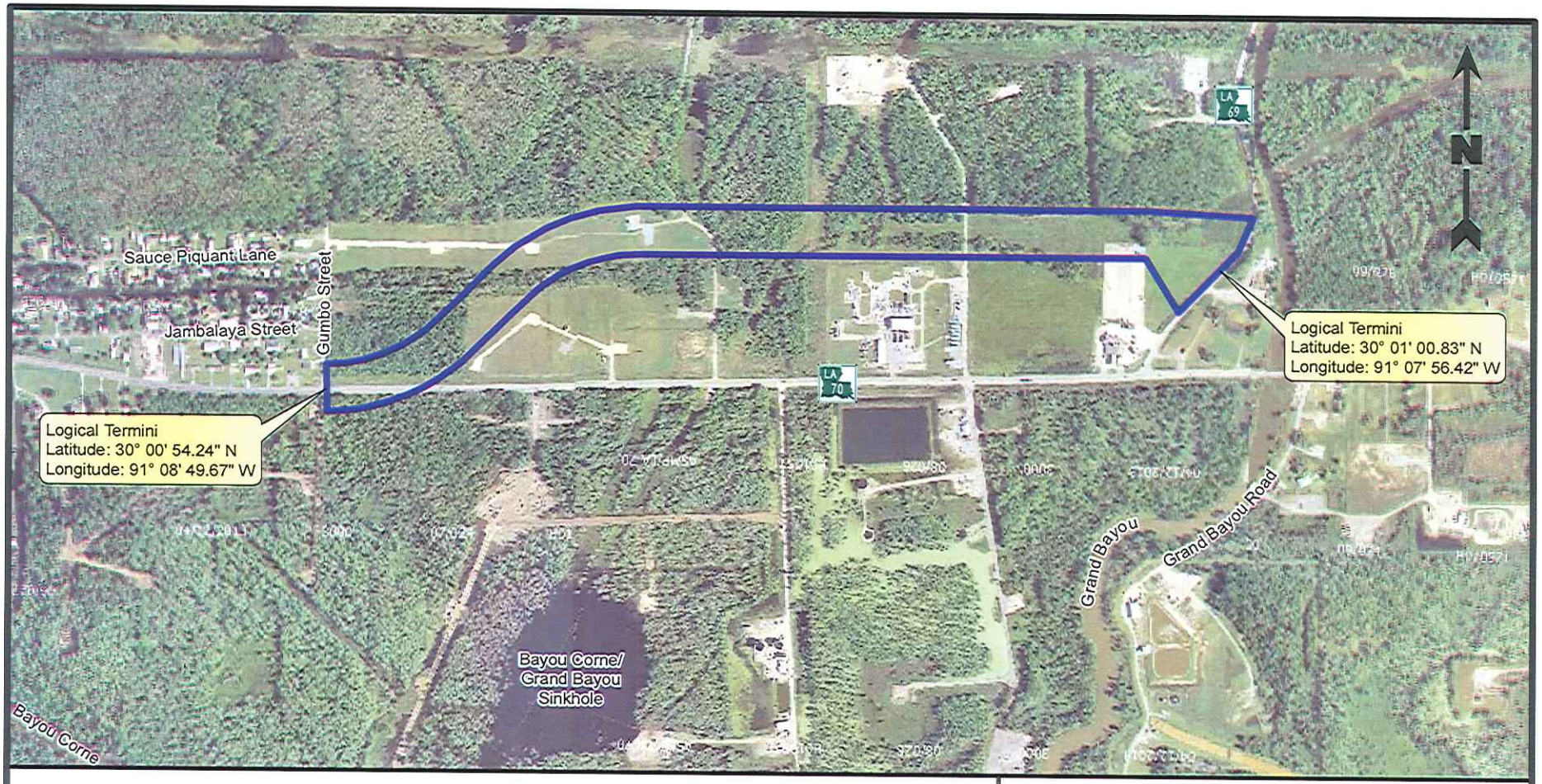
While a long-term solution is being developed, further subsidence or subsurface instability could result in an immediate need to close LA 70. The closing of LA 70 would result in the re-routing of Assumption Parish school buses on an hour long existing roadway detour for high school students traveling from Pierre Part to Assumption High School. The LA 70 Detour Route would allow traffic to resume on this important roadway until a more permanent solution is approved and constructed. The LA 70 Detour Route is envisioned as a temporary solution. In addition to proposing the detour route, the DOTD is also proposing the implementation of a permanent bypass route. A separate EA will be prepared for the LA 70 Bypass.

The Stage 0 (Feasibility Study) for the LA 70 Detour Route and the LA 70 Bypass and was initiated in March 2013 and is anticipated to be completed by September 2013. Due to the potential need for the LA 70 Detour Route, the Stage 1 (Planning/Environmental) process will begin prior to the completion of Stage 0. One LA 70 Detour Route build alternative will be developed during Stage 0 and advance directly into the Stage 1 process after DOTD's approval. This build alternative will fall within the corridor area boundary on the attached map.

Additional right-of-way may be required and residential and business relocations may occur. The EA for the LA 70 Detour Route will include analysis of possible impacts to 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 flood zones, 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.

One public meeting will be held under the Stage 0 scope and one public hearing will be held under the Stage 1 scope for the LA 70 Detour Route. Additionally, one public meeting and one public hearing will be held for the LA 70 Bypass. There will also be an agency and local stakeholder review meeting held for each project prior to the public meetings. It is anticipated that the EA for the LA 70 Detour Route would be completed in six months, and the EA for the LA 70 Bypass would be completed in twelve months.

In addition to your comments on the LA 70 Detour Route corridor area, we respectfully request your input on the project's preliminary purpose and need, screening methodology, range of alternatives, and planned coordination efforts. This information will be helpful in the development of the EA for this proposed project. As mentioned in the cover letter, we will solicit comments regarding the LA 70 Bypass in the near future.



Legend

Corridor Area

Reference

Base map comprised of 2013 aerials provided by Louisiana Department of Transportation and Development.

800 400 0 800 Feet

DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

Soliciation of Views

LA 70 Detour Route
State Project No. H.010571.2
Pierre Part, Assumption Parish, Louisiana

Louisiana Department of Transporation and Development

PROVIDENCE

Drawn By	LMM	06/06/13
Checked By	LMH	06/06/13
Approved By	JPS	06/06/13
Project Number 040-014		1
Drawing Number 040-014-A002		Figure

Providence Engineering and Environmental Group LLC

SOV Response Log

COMPANY NAME	CONTACT	ADDRESS	CITY	STATE	ZIP	RESPONSE
8th Coast Guard District	District Commander	Hale Boggs Federal Building 500 Poydras Street	New Orleans	LA	70130	
Assumption Parish Office of Emergency Preparedness	John Boudreaux, Director and Floodplain Administrator	PO Box 520	Napoleonville	LA	70390	
Assumption Parish Police Jury		PO Box 520	Napoleonville	LA	70390	Reviewed project at regular meeting held on 06/26/13, "the jury has no objection to the imminent threat detour route. We do, however, request that DOTD consider a right to reserve a right of access to the detour route's right-of-way in the event that the parish waterlines have to also be relocated" from Kim M. Torres (Secretary-Treasurer).
Assumption Parish Police Jury	Patrick Lawless, Ward 1 Juror	139 Ideal Street	Belle Rose	LA	70341	
Assumption Parish Police Jury	Jeff Naquin, Ward 2 Juror	319 Brule Road	Labadieville	LA	70372	
Assumption Parish Police Jury	Irving Comeaux, Ward 3 Juror	159 Pond Drive	Morgan City	LA	70380	
Assumption Parish Police Jury	Patrick Johnson, Ward 4 Juror	PO Box 587	Labadieville	LA	70372	
Assumption Parish Police Jury	Calvin James, Ward 6 Juror	128 Jacobs Street	Napoleonville	LA	70390	
Assumption Parish Police Jury	Booster Breaux, Ward 8 Juror	3631 Lee Drive	Pierre Part	LA	70339	
Assumption Parish Police Jury	Myron Matherne, Ward 9 Juror	129 Timothy Street	Pierre Part	LA	70339	
Assumption Parish Police Jury (Ward 5)	Martin Triche, President	4554 Highway 1	Napoleonville	LA	70390	
Assumption Parish Police Jury (Ward 7)	Henry Dupre, Vice President	PO Box 512	Belle Rose	LA	70341	
Assumption Parish School Board	Earl T. Martinez, Superintendent	Po Drawer B	Napoleonville	LA	70390	Assumption Parish School System is not expected to be adversely affected by the proposed detour route, dated 6/25/13, from superintendent.
Assumption Parish Sheriff		112 Franklin Street	Napoleonville	LA	70390	
Bayou Lafourche Fresh Water District		1016 St Mary Street	Thibodaux	LA	70301	
Chitimacha Tribe		155 Chitimacha Loop Road	Charenton	LA	70523	
Choctaw Nation of Oklahoma	Ian Thompson PhD, RPA	PO Box 1210	Durant	OK	74702-1210	
Coalition to Restore Coastal Louisiana	Steven Peyronnin, Executive Director	6160 Perkins Road, Suite 225	Baton Rouge	LA	70808	
Coushatta Tribe of Louisiana		PO Box 818	Elton	LA	70532	
Department of Agriculture and Forestry	Office of Forestry	PO Box 1628	Baton Rouge	LA	70821	
Department of Agriculture and Forestry	Office of Soil/Water Conservation	PO Box 3554	Baton Rouge	LA	70821	
Department of Economic Development	Office of Business Development	PO Box 94185	Baton Rouge	LA	70804	
Department of Health and Hospitals, Division of Environmental Health	Steven Davis, PE	PO Box 4489	Baton Rouge	LA	70821	
Department of Public Safety	Highway Safety Commission	PO Box 66336	Baton Rouge	LA	70896	
Department of Wildlife & Fisheries	Louisiana Natural Heritage Program	PO Box 98000	Baton Rouge	LA	70898	
Department of Culture Recreation & Tourism	Division of Archaeology	PO Box 44247, Capital Annex 3rd	Baton Rouge	LA	70804	
Department of Culture Recreation & Tourism	Office of State Parks	PO Box 44426	Baton Rouge	LA	70804	
Department of Health and Hospitals	Tenney Sibley, Chief Sanitarian	628 North 4th Street	Baton Rouge	LA	70802	
District of Louisiana	Lower Delta Soil & Water Conservation	2274 Highway 70, Suite C	Donaldsonville	LA	70346	Returned to sender on 06/12/13. Noted forwarding time has expired.
Federal Transit Administration, Region 6		819 Taylor Street, Rm 8A36	Fort Worth	TX	76102	
FEMA Region VI		800 North Loop 288	Denton	TX	76209	Requested that the parish floodplain administrator be contacted, John Boudreaux, for the review and if project is federally funded that project is in compliance with EO 11988 and EO 11990, from Mayra G. Diaz dated 06/13/13.

SOV Response Log

COMPANY NAME	CONTACT	ADDRESS	CITY	STATE	ZIP	RESPONSE
Governor's Office of Homeland Security & Emergency Preparedness	James Ballow, Special Operations Officer	7667 Independence Boulevard	Baton Rouge	LA	70806	
Greater Gonzales Chamber of Commerce		PO Box 1204	Gonzales	LA	70737	
Inter-Tribal Council of Louisiana Inc.	Kevin Billiot, Director	8281 Goodwood Boulevard, Suite I-2	Baton Rouge	LA	70808	
Jena Band of Choctaw Indians		PO Box 14	Jena	LA	71342	
Louisiana Department of Environmental Quality	Beth Altazan-Dixon, Office of the Secretary	Via Email	Baton Rouge	LA	70821	No objections based on submittal, dated 7/1/13, from Linda Hardy (Technical Assistant to the Deputy Secretary). Assumption Parish classified as attainment with the NAAQS and has no general conformity determination obligations. General comments provided regarding LPDES, wastewater, stormwater, etc.
Louisiana Department of Natural Resources	Office of Conservation	617 North 3rd Street	Baton Rouge	LA	70802	
Louisiana Department of Natural Resources	Office of Mineral Resources	PO Box 2827	Baton Rouge	LA	70821	
Louisiana Department of Natural Resources, Interagency Affairs, Compliance, & Field Services	Don Haydel, Acting Administrator	Sent Via Email	Baton Rouge	LA	70804-4487	
Louisiana Department of Transportation & Development, Floodplain Management Program, Section 64	Susan Veillon, Flood Insurance Program Coordinator	PO Box 94245	Baton Rouge	LA	70804-9245	
Louisiana Department of Wildlife and Fisheries	Dave Butler, Permits Coordinator	PO Box 98000	Baton Rouge	LA	70898-9000	No impacts to rare, threatened, or endangered species or critical habitats are anticipated. No state or federal parks, wildlife refuges, scenic streams, or wildlife management areas are known at the specified site within Louisiana's boundaries. Presence of bird nesting colonies are within
Louisiana Forestry Association	Executive Director	PO Box 5067	Alexandria	LA	71301	
Louisiana Good Roads Assoc		PO Box 3713	Baton Rouge	LA	70821	
Louisiana House of Representatives, District 51	Representative Joe Harrison	3239 Highway 308	Napoleonville	LA	70390	
Louisiana House of Representatives, District 60	Representative Karen St Germain	3413 Highway 70	Pierre Part	LA	70339	
Louisiana State Police	Troop C	4047 West Park Avenue	Gray	LA	70359	
Louisiana State University	James G Wilkins	227B Sea Grant Building	Baton Rouge	LA	70803	
Mississippi Band of Choctaw Indians		101 Industrial Road	Choctaw	MS	39350	
Mr Randy Thigpen		3247 Emily Drive	Port Allen	LA	70767	
Natural Resources Conservation Service	Kevin D Norton	3737 Government Street	Alexandria	LA	71302	The corridor area includes approximately 29.7 acres of prime or unique farmland soils, including Cancienne silt loam, Cancienne silty clay loam, and Shriever clay (RV=99). No impacts to NRCS work in the vicinity predicted. Response received from Sarah Haymaker (State Conservationist), dated 6/13/13.
Nicholls State University	Programs Manager	PO Box 2048 - NSU	Thibodaux	LA	70310	
Office of Indian Affairs	Director	PO Box 94004	Baton Rouge	LA	70804	
Sea Grant Legal Advisory Service				LA		
South Central Planning & Development Commission		PO Box 1870	Gray	LA	70359	Project will not add an undue burden upon the existing transportation system, dated 6/28/13, from Leonard P. Marretta (SCPDC Transportation Division Director and HTMPO Administrator).
State Land Office	Division of Administration	PO Box 44124	Baton Rouge	LA	70804	
State Planning Office	Division of Administration	PO Box 94095	Baton Rouge	LA	70804	
The State Senate, District 17	Senator "Rick" Ward, III	79005 Musson Lane	Maringouin	LA	70757	

SOV Response Log

COMPANY NAME	CONTACT	ADDRESS	CITY	STATE	ZIP	RESPONSE
The State Senate, District 2	Senator Troy E Brown	PO Box 198	Plattenville	LA	70393	
Tunica-Biloxi Tribe of Louisiana		Po Bo X1589	Marksville	LA	71351	
United States Senate	Senator David Vitter	2800 Veterans Memorial Boulevard, Suite 201	Metairie	LA	70002	
United States Senate	Senator Mary Landrieu	Hale Boggs Federal Building 500 Poydras, Suite 1005	New Orleans	LA	70130	
US Army Corps of Engineers - Tech Support	Ms Karen Oberlies	PO Box 60267	New Orleans	LA	70538	
US Environmental Protection Agency	Federal Activities BR (6E-F)	1445 Ross Avenue	Dallas	TX	75202-2733	
US Environmental Protection Agency	Source Water Protection (6WQ-S)	1445 Ross Avenue	Dallas	TX	75202-2733	Project does not lie within the boundaries of a designated sole source aquifer and is not eligible for review under the SSA program, dated 6/18/13, from Michael Bechdol (SSA Program Coordinator).
US Environmental Protection Agency Region 6, C/O US Army Corps of Engineers PM-C	John Ettinger, Program Manager	PO Box 60267	New Orleans	LA	70160	
US Fish & Wildlife Service	Josh Marceaux, Transportation Projects Biologist	646 Cajun Dome Boulevard, Suite 400	Lafayette	LA	70506	Stamped "no effect on those resources" dated 6/20/13, from Deborah Fuller.
US Fish & Wildlife Service	Patti Holland, Wetlands Permit Coordinator	646 Cajun Dome Boulevard, Suite 400	Lafayette	LA	70506	
US Geological Survey		3535 South Sherwood Forest, Suite 120	Baton Rouge	LA	70806	
US House of Representatives, District 1	Honorable Steve Scalise	201 South Cate Street, Suite E	Hammond	LA	70403	
US House of Representatives, District 2	Honorable Richmond Cedric	2021 Lakeshore Drive, Suite 309	New Orleans	LA	70122	
US House of Representatives, District 3	Honorable Charles Boustany, Jr. MD	800 Lafayette Street, Suite 1400	Lafayette	LA	70501	
US House of Representatives, District 4	Honorable John Fleming	6425 Youree Drive, Suite 350	Shreveport	LA	71105	
US House of Representatives, District 5	Honorable Rodney Alexander	1900 Stubbs Avenue, Suite B	Monroe	LA	71201	
US House of Representatives, District 6	Honorable Bill Cassidy	5555 Hilton Avenue, Suite 100	Baton Rouge	LA	70808	
US National Park Service	Southeast Region	100 Alabama Street, SW 1924 Building	Atlanta	GA	30303	

LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

Environmental Section
P.O. Box 94245 | Baton Rouge, LA 70804-9245
phone: 225-242-4502 | fax: 225-242-4500

Bobby Jindal, Governor
Sherri H. LeBas, P.E., Secretary

June 7, 2013

State No. H.010571.2
F.A.P. No. H010571
LA 70 Bypass & Detour Route
LA 70
Assumption Parish

Mr. Charles Bollinger
Division Administrator
Federal Highway Administration (FHWA)
5304 Flanders Drive, Suite A
Baton Rouge, LA 70808

Subject: Logical Termini for LA 70 Detour Route

Dear Mr. Bollinger:

Two Environmental Assessments (EA) will be prepared for the captioned project. One for a detour route and one for a bypass route. In order that the study area can be agreed upon, we have enclosed a map indicating our recommendation for the logical termini for one of the EAs, the LA 70 Detour Route.

We are proposing that the junction of the proposed detour route and LA 70/Gumbo Street and the junction of the proposed detour route and LA 69 be established as logical termini for the environmental study area. The contract time for the captioned project is one year. The notice to proceed date was May 6, 2013. We appreciate your concurrence or comments. If you have any questions, I can be reached by phone at 225-242-4501 or by email at noel.ardoin@la.gov.

Sincerely,

N. Ardoin

Noel Ardoin
Environmental Engineer Administrator

na
Attachment
pc: Mr. Ed Wedge

RECEIVED
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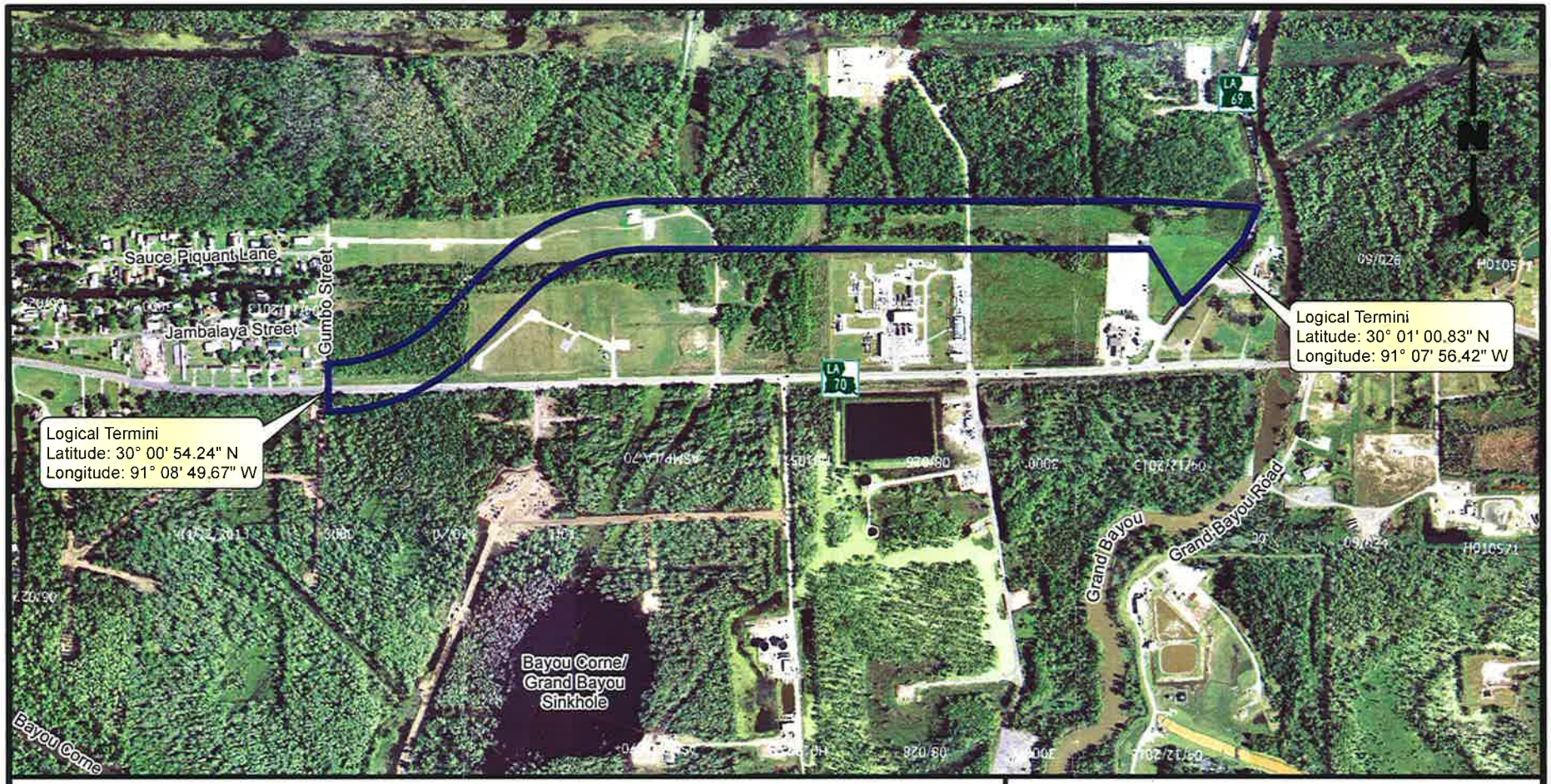


Legend

Corridor Area

Reference

Base map comprised of 2013 aerials provided by Louisiana Department of Transportation and Development.

800 400 0 800 Feet

DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

Logical Termini Map

LA 70 Detour Route
State Project No. H.010571.2
Pierre Part, Assumption Parish, Louisiana

Louisiana Department of Transporation and Development

PROVIDENCE

Drawn By	LMM	06/06/13
Checked By	LMH	06/06/13
Approved By	JPS	06/06/13
Project Number 040-014		1 Figure
Drawing Number 040-014-A003		

Providence Engineering and Environmental Group LLC

Public Mailing List and Comment Log

NAME	AFFILIATION	ADDRESS	CITY	STATE	ZIP	EMAIL	PHONE	ROUTE	COMMENT RECEIVED	COMMENT DATE	RESPONSE	RESPONSE DATE
Anniefh	Resident					anniefh@bellsouth.net		Detour	It's not far enough away from the sinkhole (the comment is in reference to the SOV letter received by Assumption Parish and posted on their sinkhole blog, the figure shows the detour route corridor study area)	06/26/13	There are two studies being done. The first, a Detour Route as referenced and shown, is a route that could be constructed quickly if existing LA 70 is threatened. Immediately following this first study is another study that will determine a permanent Bypass Route that will probably involve bridge construction and a longer route. That will take longer to construct. Routes which are farther to the north will be evaluated for the Bypass Route. I hope this clarifies the process.	06/27/13
Kenneth Simoneaux	Resident (Evacuee)	14374 Jambalaya Street	Belle Rose	LA	70341	kensimoneaux@aol.com	985-513-2885	Detour	Concerned that the detour route appears to be too close to the sinkhole (methane vent zone)	06/28/13	Generic public response sent.	07/17/13
Norman J. Mabile	Resident	320 Bayou Drive	Pierre Part	LA	70339	normanmabile@msn.com	985-519-2660 985-252-6252	Detour	Provided letter in response to newspaper article and maps of alternative routes for detour route. Feels southern detour	07/08/13	Generic public response sent.	07/17/13
Shauna Rivero	Resident (Evacuee)		Bayou Corne	LA		slrivero79@atvci.net		Detour	Would like the road constructed sooner than later and fears LA	07/03/13	Generic public response sent.	07/17/13
Norman J. Mabile	Resident	320 Bayou Drive	Pierre Part	LA	70339	normanmabile@msn.com	985-519-2660 985-252-6252	Detour	Mailed-in comment as part of Stage 0 Public Meeting 1. Reference email to Paul Griggs on 07-08-2013. Mentions detour route that would reenter LA 70 west of the Gator Super Stop. Detour Route as proposed would result in removing a historical large oak tree, relocation of existing pipeline, large cost, and eliminate family-owned land needed to meet state requirements to operate truck stop/casino. The proposed route will basically shut down the business that has been operating for 40 years having impact on family, parish, and state.	08/13/13	Part of CB&I document.	-
Rep. Karen St. Germain	Local Official	3413 Hwy 70	Pierre Part	LA	70341			Detour	Completed comment form at Stage 0 Public Meeting 1. Heard concerns from many residents that detour route would have only aggregate on top and would not be an appropriate surface for a highly traveled road as this would be.	08/13/13	Part of CB&I document.	-
Dana Cavalier	Resident					danacavalier@att.net		Bypass	Bypass should be closer to Pierre Part and connect further down LA 69 - consider LA 69 and LA 996	06/26/13	There are two studies being done. The first, a Detour Route as referenced and shown, is a route that could be constructed quickly if existing LA 70 is threatened. Immediately following this first study is another study that will determine a permanent Bypass Route that will probably involve bridge construction and a longer route. That will take longer to construct. A route similar to the one you suggested will probably be evaluated for the Bypass Route. I hope this clarifies the process.	06/27/13
Claudette Talbot Charlet	Resident	7421 Hwy 996	Belle Rose	LA	70341	tcharlet5@gmail.com	-	Bypass	Completed comment form at Stage 0 Public Meeting 1. Has lived on Hwy 996 for 32 years and her son's family just built next to her. She hopes Hwy 996 does not become any type of major detour route that would disrupt the quietness of the area.	08/13/13	Part of CB&I document.	-
Don Breaux	Pierre Part Fire Chief	106 St. Peter	Pierre Part	LA		dbchief@hotmail.com	-	Bypass	Completed comment form at Stage 0 Public Meeting 1. Approves of Bypass Alternate 1 but proposes it continues south 1/2 mile past Possum Dr. to Derrick Ln. and connect with 69 even with 1000 versus 996. He believes 996 will be a nightmare for accidents with cane truck drivers and 18-wheelers if that is the route.	08/13/13	Part of CB&I document.	-

Public Mailing List and Comment Log

NAME	AFFILIATION	ADDRESS	CITY	STATE	ZIP	EMAIL	PHONE	ROUTE	COMMENT RECEIVED	COMMENT DATE	RESPONSE	RESPONSE DATE
Jimmy Charlet	Resident	7421 Hwy 996	Belle Rose	LA	70341	timmy@coratexas.com	-	Bypass	Completed comment form at Stage 0 Public Meeting 1. Opposes a route that will utilize 996. He lives off 996/69 for over 32 years. Says it is a peaceful area that will be faced with extra traffic, accidents, speeding that will force their whole way of life to change and there are other options to consider.	08/13/13	Part of CB&I document.	-
John Mabile	Resident	1444 Sauce Piquante Ln	Belle Rose	LA	70341		-	Bypass	Completed comment form at Stage 0 Public Meeting 1. Provided a map drawing showing bypass route from Lee Dr./70 to LA 996/1000.	08/13/13	Part of CB&I document.	-
Leroy Blanchard	Assistant Chief/President of the Board of Directors Paincourtville Fire Dept					leroy_blanchard@hotmail.co	985-513-1347	Bypass	Completed comment form at Stage 0 Public Meeting 1. Provided two map drawings of proposed southern bypass routes. First is over Lake Verret connecting LA 70 with 400/401 junction. Second closer to salt dome area. Also, mailed in during meeting comment period a copy of subsidence report and suggested finding be included in Stage 0 study and proposed four bypass routes with details. He also suggested the objectives of the bypass need to be made clear and that more than just avoiding the sinkhole/salt dome need to occur. There are benefits such as reducing traffic counts on dangerous roads.	08/13/13	Part of CB&I document.	-
Mike Templet	Resident					mike_templet@att.net		Both	Please hurry	06/26/13	Generic public response sent.	07/17/13
Henry Dupre	Police Juror							Both	Completed comment form at Stage 0 Public Meeting 1. Says anything will be a help.	08/13/13	Part of CB&I document.	-

Appendix H

Rural Arterial Design Guidelines

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

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

Item No.	Item	Rural		
		RA-1	RA-2	RA-3
1	Design Speed (mph)	50 [1]	60 [2]	70
2	Number of Lanes (minimum) [3]	2	2	4
3	Width of Travel Lanes (ft)	11 – 12 [4]	12	12
4	Width of Shoulders (minimum) (ft)			
	(a) Two Lane	8 [5]	8 [5]	N/A
	(b) Divided facilities			
	(1) Inside [8]	4	4	4 [6]
	(2) Outside	8 [5]	8 [5]	8 – 10 [7]
5	Shoulder Type	Aggregate (2' min paved)	Aggregate (2' min paved)	Aggregate [8] (2' min paved)
6	Parking Lane Width (ft)	N/A	N/A	N/A
7	Width of Median on Divided Facilities (ft)			
	(a) Depressed	42 – 60	42 – 60	60
	(b) Raised	N/A	N/A	N/A
	(c) Two way left turn lane	N/A	N/A	N/A
8	Fore slope (vertical – horizontal)	1:6	1:6	1:6
9	Back slope (vertical – horizontal)	1:4	1:4	1:4
10	Pavement Cross-slope (%)	2.5	2.5	2.5
11	Minimum Stopping Sight Distance (ft)	425	570	730
12	Maximum Superelevation (%) [9]	10	10	10
13	Minimum Radius (ft) [10] (with full superelevation)	700	1,100	1,700
14	Maximum Grade (%) [11]	4	3	3
15	Minimum Vertical Clearance (ft) [12]	16	16	16
16	Minimum Clear Zone (ft) (from edge of through travel lane)	20	30 [13]	34
17	Bridge Design Live Load [14]	AASHTO	AASHTO	AASHTO
18	Width of Bridges (min) (face to face of bridge rail at gutter line) (ft)	Roadway width	Roadway width	Roadway width

Approved _____ Chief Engineer 12-4-09 Date

LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

Footnotes for Minimum Design Guidelines for Rural Arterial Roads

1. The design speed may not be less than the current posted speed of the overall route.
2. Consider using RA-3 criteria (except Item No. 2) for roadways that will be widened in the future.
3. Consider increasing to a 4-lane facility if design volume is greater than 6,000 vehicles per day and six lanes if design volume is greater than 25,000 vehicles per day. If more than two lanes are to be provided, outside shoulders should be paved.
4. Twelve feet required when design ADT is 1,500 or greater.
5. Six foot shoulders are allowed if design volume is between 400 to 2,000 vehicles per day. Four foot shoulders are allowed if design volume is less than 400 vehicles per day.
6. Eight to ten feet to be provided on six lane facilities.
7. Consider using 10 foot outside shoulders where trucks are greater than 10 percent or if large agricultural vehicles use the roadway.
8. For ADT 5,000 or greater, the full shoulder width shall be paved.
9. In Districts 04 and 05, where ice is more frequent, superelevation should not exceed 8 percent from the e_{max} = 10 percent table.
10. It may be necessary to increase the radius of the curve and/or increase the shoulder width (maximum of 12 feet) to provide adequate stopping sight distance on structure.
11. Grades 1 percent higher are permissible in rolling terrain.
12. An additional 6 inches should be added for additional future surfacing.
13. On multilane facilities, use 32 feet.
14. LRFD for bridge design.

General Note:

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

Appendix I

Well Avoidance Study

(Pages 1 – 15)

Appendices to Well Avoidance Study included on CD

Final

LA 70 Bypass Stage 0 Feasibility Study

Risk Report

State Project No. H.010571.1

Louisiana Department of Transportation & Development

September 2013

Prepared for:

Louisiana Department of Transportation & Development
P.O. Box 94245
Baton Rouge, Louisiana

Prepared by:

Shaw Environmental & Infrastructure, Inc.
A CB&I Company
4171 Essen Lane
Baton Rouge, Louisiana

Table of Contents

List of Figures 3
List of Appendices 4
List of Acronyms and Abbreviations 5
1.0 Introduction 6
1.1 Background 6
1.2 Proposed LA 70 Detour Route Location 6
2.0 Overview of Wells 7
2.1 Permitting 7
2.2 Well Construction Details and Data 8
2.3 Gases of Concern 9
2.3.1 Gas properties 9
2.3.2 Analytical Data 10
3.0 Modeling of Gas Migration Scenarios 11
3.1 Procedure 12
4.0 Results 14
4.1 Red Threat Zone 14
4.2 Orange Threat Zone 15
5.0 Conclusions 15

List of Figures

Figure 1 ORWs and LA 70 Detour Route

List of Appendices

Appendix A	Drilling Logs
Appendix B	Perforation Logs
Appendix C	ALOHA Modeling Guidance Document
Appendix D	Historical Well Pressures
Appendix E	LDEQ Air Permit Application (Sample)

List of Acronyms and Abbreviations

LDOTD	Louisiana Department of Transportation and Development
ORW	Observation Relief Well
MRAA	Mississippi River Alluvial Aquifer
LDNR	Louisiana Department of Natural Resources
EPA	Environmental Protection Agency
ND	Non Detect
CAMEO	Computer-Aided Management of Emergency Operations
ALOHA	Areal Locations of Hazardous Atmospheres
MARPLOT	Mapping Application for Response, Planning, and Local Operational Tasks
NOAA	National Oceanic and Atmospheric Administration Office of Response and Restoration
LOC	Level of Concern
AEGL	Acute Exposure Guideline Level
PAC	Protective Action Criteria
LEL	Lower Explosive Limit
ppm	Parts per Million
CB&I	Chicago Bridge and Iron
Shaw	Shaw Environmental and Infrastructure
LDEQ	Louisiana Department of Environmental Quality
CH_4	Methane Gas
H_2S	Hydrogen Sulfide Gas
ft-bgs	Feet below Ground Surface

1.0 Introduction

Shaw Environmental & Infrastructure (Shaw, A CB&I company) has been tasked by the Louisiana Department of Transportation and Development (LDOTD) to perform a study to present the risk associated with a potential LA 70 detour route in Bayou Corne, Louisiana. Though recent surveys demonstrate that the ground under LA 70 is stable and not currently affected by the sinkhole, the potential for subsidence of the existing roadbed and the work in and around the sinkhole requires the potential rerouting of a section of LA 70 to the LA 70 Detour Route alignment whose proposed passage will be placed north of LA 70 with new connections to be made east of Gumbo St. and west of LA 69. The reroute will be in close proximity to several Observation Relief Wells (ORW): ORW-2, ORW-15, ORW-16, ORW-22, ORW-23, ORW-24, ORW-28, ORW-31 and ORW-32. This study will present a worst case scenario for a gas release from these wells.

1.1 Background

The collapse of a solution-mined brine cavern located near the western flank of the Napoleonville Salt Dome resulted in the formation of a large sinkhole near the collapsed cavern. The collapse of the cavern created pathways from deeper formations containing natural gas and crude oil allowing the release of natural gas (CH_4) into the Mississippi River Alluvial Aquifer (MRAA). The MRAA is a sand and gravel formation occurring with a top depth of approximately 100 feet below ground surface (ft-bgs) and a bottom depth between 350 and 600 ft-bgs. Due to the heterogeneous nature of the soils above the MRAA, natural gas has migrated into the near surface and surface soils within a two square mile area around the collapsed cavern and sinkhole. The presence of shallow gas is evidenced by the observation of gas bubbling in nearby waterways, in the swamp, in the Bayou Corne community, and pockets of gas encountered during drilling activities. In an effort to vent the gas from the MRAA, shallow Observation Relief Wells (ORWs) were installed in the gas area.

The ORWs in the vicinity of the proposed detour have not produced major quantities of gas and should be plugged and abandoned prior to start of any road construction efforts.

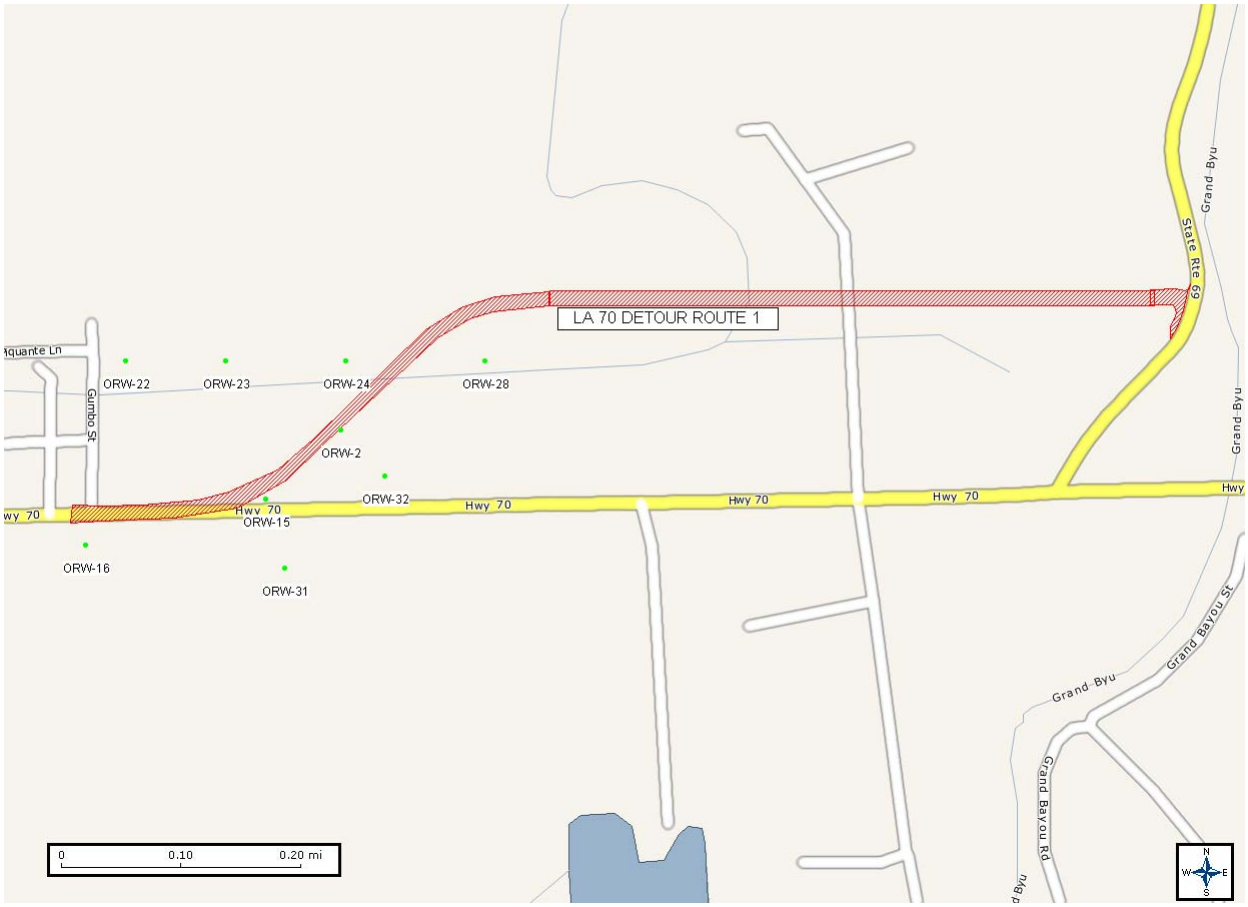
1.2 Proposed LA 70 Detour Route Location

The proposed LA 70 Detour Route extends westward from LA 69 and 0.18 miles north of the current LA 70. It runs parallel to the current LA 70 for approximately 0.7 miles whereby it curves southward to the intersection of LA 70 and Gumbo St.

2.0 Overview of Wells

The LA 70 detour route is anticipated to come into close proximity of several ORWs: ORW-2, ORW-15, ORW-16, ORW-22, ORW-23, ORW-24, ORW-28, ORW-31 and ORW-32 as can be seen below in **Figure 1**. All of these wells are located on the Dugas and Leblanc, Hebert, and Allen J. Jr. and Carol Gros Charlet properties. All of the properties are connected and lie east of Gumbo St., and north of existing LA 70 by approximately 0.125 miles.

Figure 1 ORWs and LA 70 Detour Route



2.1 Permitting

CB&I assumes that each ORW was cleared for surface utilities by utilizing Louisiana One Call. The Louisiana Department of Natural Resources (LDNR) determined that an ORW would be classified as a water well, their registration would not be required to initiate well construction, and due to the emergency nature of the situation, air permitting of these wells would not be required for some unspecified period of time. CB&I assumes that registration of ORWs owned by Texas Brine Co. LLC will be managed by Texas Brine Co. LLC. A copy of the Louisiana Department of Environmental Quality (LDEQ) form for air permits is included in **Appendix D.**

No copy of Texas Brine's ORW air registration could be located on the LDEQ's Electronic Database Management System, and therefore it was not included.

2.2 Well Construction Details and Data

ORW-2

ORW-2 was installed by Gray Wire Line Services for Shaw Environmental and Infrastructure on October 08, 2012. It is located at 30° 00' 58'' North, 91° 08' 37'' West. It was drilled to a depth of 185 ft-bgs with a 2 foot concrete plug installed at the bottom of the well. The well casing was perforated from 126 to 129 ft-bgs on October 09, 2012. Drilling logs are found in **Appendix A**; perforation logs are found in **Appendix B**.

ORW-15

ORW-15 was installed by Walker-Hill for Texas Brine Co. LLC on April 04, 2013. It is located at 30° 00' 55'' North, 91° 08' 41'' West. It was drilled to a depth of 160 ft-bgs with a 2 foot concrete plug installed at the bottom of the well. The well casing was perforated from 123 to 127 ft-bgs. Drilling logs are found in **Appendix A**; perforation logs are found in **Appendix B**.

ORW-16

ORW-16 was installed by Walker-Hill for Texas Brine Co. LLC on April 12, 2013. It is located at 30° 00' 53'' North, 91° 08' 50'' West. It was drilled to a depth of 122 ft-bgs with a 2 foot concrete plug installed at the bottom of the well. The well casing was perforated from 131 to 135 ft-bgs. Drilling logs are found in **Appendix A**; perforation logs are found in **Appendix B**.

ORW-22

ORW-22 was installed by Walker-Hill for Texas Brine Co. LLC on February 08, 2013. It is located at 30° 01' 01'' North, 91° 08' 48'' West. It was drilled to a depth of 159 ft-bgs with a 2 foot concrete plug installed at the bottom of the well. The well casing was perforated on February 08, 2013 from 124 to 128 ft-bgs. Drilling logs are found in **Appendix A**; perforation logs are found in **Appendix B**.

ORW-23

ORW-23 was installed by Walker-Hill on February 10, 2013. It is located at 30° 01' 01'' North, 91° 08' 43'' West. It was drilled to a depth of 149 ft-bgs with a 2 foot concrete plug installed at the bottom of the well. It was perforated on February 11, 2013 from 127 to 131 ft-bgs. Drilling logs are found in **Appendix A**; perforation logs are found in **Appendix B**.

ORW-24

ORW-24 was installed by Walker-Hill on February 11, 2013. It is located at 30° 01’ 01’’ North, 91° 08’ 37’’ West. It was drilled to a depth of 159 ft-bgs with a 2 foot concrete plug installed at the bottom of the well and perforated from 128 to 132 ft-bgs. Drilling logs are found in **Appendix A**; perforation logs are found in **Appendix B**.

ORW-28

ORW-28 was installed by Walker-Hill on March 07, 2013. It is located at 30° 01’ 01’’ North, 91° 08’ 30’’ West. It was drilled to a depth of 159 ft-bgs with a 2 foot concrete plug installed at the bottom of the well. The well was perforated on March 07, 2013 from 128 to 132 ft-bgs. Drilling logs are found in **Appendix A**; perforation logs are found in **Appendix B**.

ORW-31

ORW-31 was installed by Walker-Hill for Texas Brine Co. LLC on March 11, 2013. It is located at 30° 00’ 52’’ North, 91° 08’ 40’’ West. It was drilled to a depth of 156 ft-bgs with a 2 foot concrete plug installed at the bottom of the well. The well casing was perforated on March 12, 2013 from 127 to 131 ft-bgs. Drilling logs are found in **Appendix A**; perforation logs are found in **Appendix B**.

ORW-32

ORW-32 was installed by Walker-Hill for Texas Brine Co. LLC on March 09, 2013. It is located at 30° 00’ 56’’ North, 91° 08’ 35’’ West. It was drilled to a depth of 159 ft-bgs with a 2 foot concrete plug installed at the bottom of the well. The well casing was perforated on March 11, 2013 from 128 to 132 ft-bgs. Drilling logs are found in **Appendix A**; perforation logs are found in **Appendix B**.

2.3 Gases of Concern

Methane gas (CH_4) and hydrogen sulfide (H_2S) have been identified as gases that are or could feasibly be present in sufficient quantities to cause concern for human health and safety for the 4 wells addressed in this report.

2.3.1 Gas properties

CH_4 is a colorless, lighter than air, odorless, tasteless flammable gas that has solubility in water of 3.5% at 17°C. It is considered nontoxic, though it can cause asphyxiation by displacing oxygen. Exposure to CH_4 produces symptoms of dizziness and headache, but these symptoms often go unnoticed until the brain signals the body to gasp for air.

H_2S is colorless, heavier than air, smells like rotten eggs (at low concentrations, at high concentrations H_2S will deaden the nerves in the nose before it can be smelled), and readily partitions into water at 3 g gas/Kg water @ 30°C or 3,000 mg/Kg. It is readily absorbed by the lungs, causing breathing problems and other respiratory issues. Concentrations less than 50 ppm can potentially cause headaches; eye, ear, and throat irritations; poor attention span and motor function; and bad memory. Concentrations of 100 ppm or higher can cause loss of consciousness and possibly death.

While detection of CH_4 has been far more prevalent in gas samples collected from all data locations in the vicinity of the sinkhole, it is still possible that H_2S can migrate from naturally occurring crude-oil and gas formations or the Napoleonville Salt Dome cap rock into the MRAA and subsequently migrate into any wells completed in the MRAA. H_2S has been detected at various locations across the study area in concentrations as high as 3000 ppm at Texas Brine Relief Well #2 completed in the cap rock on 11/20/2012 (*Hydrogen Sulfide in Bayou Corne Area*-CB&I-November, 2012).

2.3.2 Analytical Data

Gas samples from the ORWs were collected following Standard Operating Procedure's described under a different cover. Each sample was sent to SPL laboratories for light hydrocarbon gas as well as a sulfur analysis that included sulfides, mercaptans and disulfides.

- ORW-2 was sampled on November 16, 2012 for light hydrocarbons and sulfide gas analysis. The results indicated that CH_4 was present at a concentration of 78.48 % by weight or 87.919 by Mol %. Less than 1 ppm by weight of sulfides was detected in the forms of hydrogen sulfide and carbonyl sulfide.
- ORW-15 was first sampled on February 15, 2013 for light hydrocarbons and sulfide gas analysis. The results indicated that CH_4 was present at a concentration of 51.341 % by weight or 65.727 by Mol %. Less than 1 ppm by weight of sulfides was detected in the form of hydrogen sulfide. ORW-15 was last sampled for gas on May 23, 2013 for light hydrocarbon and sulfide analysis. A review of the sample results indicates that the majority of the gas was CH_4, 82.434 % by weight or 90.752 by Mol %. The results for all sulfides, mercaptans and disulfides were ND.
- ORW-16 was sampled on February 20, 2013 by CB&I for light hydrocarbons and sulfide gas analysis. The results indicated that CH_4 was present at a concentration of 84.614 % by weight or 91.992 by Mol %. Sulfur analysis indicated that there was less than 1ppm sulfides present in the form of hydrogen sulfide.
- ORW-22 was first sampled on February 15, 2013 for light hydrocarbons and sulfide gas analysis. The results indicated that CH_4 was present at a concentration of 83.727 % by weight or 91.573 % by Mol %. At the time of the February sampling, there was no sulfur detected in the well. ORW-22 was last sampled for gas on 5/23/2013. A review of the results indicates that the majority of the gas sampled was CH_4, 82.868% by weight or

90.929% by Mol %. Less than 1 ppm by weight sulfides were detected in the gas at the time of this sampling event.

- ORW-23 was sampled on February 15, 2013 for light hydrocarbons and sulfide gas analysis. A review of the data indicates that CH_4 was present at 77.028% by weight and 86.830 by Mol %. The results for sulfides were non-detect (ND) for constituents. ORW-23 was also sampled on April 5, 2013 for light hydrocarbons and sulfide gas analysis. CH_4 was detected in the sample at a concentration of 85.549% by weight or 92.554% Mol %. The results for sulfides were ND for all constituents.
- ORW-24 was sampled on February 15, 2013 for light hydrocarbon and sulfide gas analysis. CH_4 was detected in the sample at a concentration of 83.582% by weight or 91.440% by Mol %. The results for sulfides were non-detect for all constituents.
- ORW-28 was sampled on March 09, 2013 for light hydrocarbon and sulfide gas analysis. CH_4 was detected in the sample at a concentration of 83.538% by weight or 91.296 Mol %. Analysis for sulfides yielded a result for Carbonyl Sulfide at a concentration of less than 1 ppm by weight.
- ORW-28 was also sampled on May 23, 2013 for light hydrocarbons and sulfide gas analysis. CH_4 was detected in the sample at a concentration of 83.416% by weight or 91.056 Mol %. All constituents in the sulfur analysis were non-detect.
- ORW-31 was sampled on March 27, 2013 for light hydrocarbon and sulfur analysis. Results indicate that CH4 was present at a concentration of 11.842 % by weight or 19.061 by Mol %, the majority of the remaining gas was nitrogen. Sulfur analysis indicated that less than 1ppm total was sulfur in the forms of hydrogen sulfide and carbonyl sulfide.
- ORW-32 was sampled on March 14, 2013 for light hydrocarbon and sulfur analysis. Sample results indicate that CH_4 was present at a concentration of 84.873 % by weight or 92.196 by Mol %. Sulfur analysis indicated that less than 1 ppm by weight was sulfur in the form of hydrogen sulfide.

3.0 Modeling of Gas Migration Scenarios

Computer-Aided Management of Emergency Operations (CAMEO) software suite is a system of four software applications most often used to plan for and respond to chemical emergencies. It was originally developed because National Oceanic and Atmospheric Administration Office of Response and Restoration (NOAA) recognized the need to assist first responders with easily accessible and accurate response information. It is one of the tools developed by the EPA's Office of Emergency Management and the NOAA, to assist front-line chemical emergency planners and responders. The CAMEO system integrates a chemical database-CAMEO Chemicals, a method to manage the data-CAMEO*fm*, an air dispersion model-ALOHA, and a mapping capability-MARPLOT.

- Mapping Application for Response, Planning, and Local Operational Tasks (MARPLOT) is the mapping application that allows users to visualize the site data and print the information on maps. The areas contaminated by potential or actual chemical release scenarios can be overlaid on the maps to determine potential impacts. The maps are created from the U.S. Bureau of Census TIGER/Line files and can be manipulated to show possible hazard areas.
- Areal Locations of Hazardous Atmospheres (ALOHA) is an atmospheric dispersion model used for evaluating releases of hazardous chemical vapors. ALOHA allows users to estimate the downwind dispersion of a chemical cloud based on the toxicological/physical characteristics of the released chemical, atmospheric conditions, and specific circumstances of the release. ALOHA can estimate threat zones associated with several types of hazardous chemical releases, including toxic gas clouds, fires, and explosions.
- Threat zones can be plotted on maps with MARPLOT to display the location of other facilities storing hazardous materials and vulnerable locations, such as hospitals and schools. Specific information about these locations can be extracted from CAMEO*fm* information models to assist with decision making about the degree of hazard posed. ALOHA displays its estimates as a threat zone, which is an area where a hazard (such as toxicity, flammability, thermal radiation, or damaging overpressure) has exceeded a user-specified Level of Concern (LOC).

3.1 Procedure

Historical pressures since construction of each of ORW-22, ORW-23, ORW-24 and ORW-28 were compiled and can be found in **Appendix D**. The highest pressure recorded at each well was selected as the scenario pressure for that well. Though sulfides have only been detected in ORW-28 wells at concentrations of less than 1 ppm in the form of carbonyl sulfide, it is assumed in a worst case scenario- H_2S from naturally occurring crude in the underlying formation could migrate into the water column and displace all other gases. Scenarios were constructed with ALOHA assuming either 100% CH_4 or H_2S gas. Eight models were constructed for each well with two models, one for CH_4 and one for H_2S gas, for each of the north, south, west and east wind directions.

ALOHA has 3 different potential displays for threat zones; Toxic Area of Vapor Cloud, Flammable Area of Vapor Cloud, and Blast Area of Vapor Cloud, which must be selected individually. Each threat zone selected will yield discreet information based upon that selection. There is no option for all three to be displayed simultaneously.

- Toxic Area of Vapor Clouds within ALOHA is separated by LOC into 3 Acute Exposure Guideline Levels (AEGLs) whose LOC's are determined by the site/situation specific data and chemical of concern information. The AEGL for CH_4 is a Protective Action

Criteria (PAC) value based upon published values from the Department of Energy. CH_4's AEGL's are Red Threat Zone PAC-3: 17000 ppm, Orange Threat Zone PAC-2: 2900 ppm, Yellow Threat Zone PAC-1: 2900 ppm. The Toxic LOC for H_2S is displayed as AEGL's whose categories are: Red for 60 minutes at 50 ppm, Orange for 60 minutes at 27 ppm and Yellow for 60 minutes at 0.51 ppm.

- The Flammable Area of Vapor Cloud is broken down into two threat zones: Red at 60% LEL and Yellow at 10% LEL.
- Blast zones within ALOHA are separated into 3 different categories with corresponding Overpressure and destructive capability; Red threat zone-8.0 psi whereby destruction of buildings is likely, Orange threat zone-3.5 psi whereby serious injury is likely, Yellow threat zone-1.0 psi which can shatter glass.

Each well's volume was calculated using boring information found in **Attachment A**. The scenario pressure for each well was selected as the maximum reported pressure from historical data collected by the LDNR from 3/6/2013 through 06/05/2013. The masses of CH_4 and H_2S were calculated by ALOHA and can be found along with other well specific information in **Table 1**.

Table 1- Well ID's and Specific Scenario Information

Well ID	Length (ft)	Diameter (ft)	Volume (ft^3)	Scenario Pressure	CH_4 Mass (lb)	H_2S Mass (lb)	H_2S Corrected Mass (lb)*
ORW-2	185	0.72	75.2	28 psi	5.84	12.5	0.0375
ORW-15	160	0.72	65	16 psi	2.88	6.16	0.0185
ORW-16	122	0.72	49.5	55 psi	7.59	16.5	0.0495
ORW-22	159	0.72	64.5	53 psi	9.53	20.7	0.0621
ORW-23	149	0.72	60.46	56 psi	9.42	20.6	0.0618
ORW-24	159	0.72	64.5	54 psi	9.71	21.1	0.0633
ORW-28	159	0.72	64.5	54 psi	9.71	21.1	0.0633
ORW-31	156	0.72	63.25	56 psi	9.89	21.4	0.0642
ORW-32	159	0.72	64.5	55 psi	9.9	21.5	0.0645

*ALOHA has no input function for gases that are mixtures as it is designed primarily for pure gas releases; it is highly improbable that pure H_2S could fill the entire volume of any of the four wells. The pathway for gas into the ORW's in the MRAA is through the water bearing layer in which they are screened. The highest possible concentration of H_2S in water based upon its aforementioned Henry's constant and solubility limit is 3000 mg/kg. As ALOHA can only display a pure gas release, or a 1 million ppm source, a corrective multiplier of 3000/1000000 (0.003) has been applied to the concentration of H_2S in the red zone of the AEGL to create appropriately corresponding corrected Red (50 ppm) and Orange (27 ppm) threat zones.

ALOHA requires the input of certain user-selected atmospheric and ambient conditional parameters found below in **Table 2**.

Table 2 -Model Assumptions**

Parameter	Value
Wind Speed (mph)	8
Temperature (^oF)	80
Cloud Cover (%)	50
Elevation (ft)	15
Humidity (%)	45

**Model Assumptions are yearly averages based on available data from National Resource Conservation Service (Wind Speed, Temperature, Humidity, and Cloud Cover) and United States Geological Survey (Elevation)

4.0 Results

ALOHA modeling results for CH_4 and H_2S were evaluated for all four wells. The ALOHA results based on the **Table 1** pressure and corresponding mass of CH_4 show there is no danger of either an explosive release or a toxic gas plume. The ALOHA threat zone for toxic area displays the following message, "Threat zone was not drawn because effects of near field patching make dispersion predictions less reliable for short distances." The Blast Zone scenario states, "No part of the cloud is above the LEL at any time."

Each well was analyzed for threat zone analysis of H_2S. The first analyses performed were the potential for an explosive gas cloud and the associated blast zone radii. According to ALOHA's readout "The LOC was never exceeded" , therefore, no plots were made. This is the same case ALOHA makes for each well in each of the north , south, west, and east wind directions.

The second set of analyses was concerned with the potential toxic area of a vapor cloud release. Though each well was originally planned plotted with a north, a south, a west and an eastern oriented wind, it became quickly evident that wind direction is irrelevant for this analysis and instead concentric radii of the Red and Orange Threat zones better illustrate the threat at each of the well locations.

4.1 Red Threat Zone

The minimum distance from any of the wells using the maximum feasible corrected concentration of H_2S whereby one could experience Red level threat was determined to be

approximately 51 feet. Anyone within this radius of any of the wells should there be a gas release could experience a minimum of 50 ppm H_2S gas exposure.

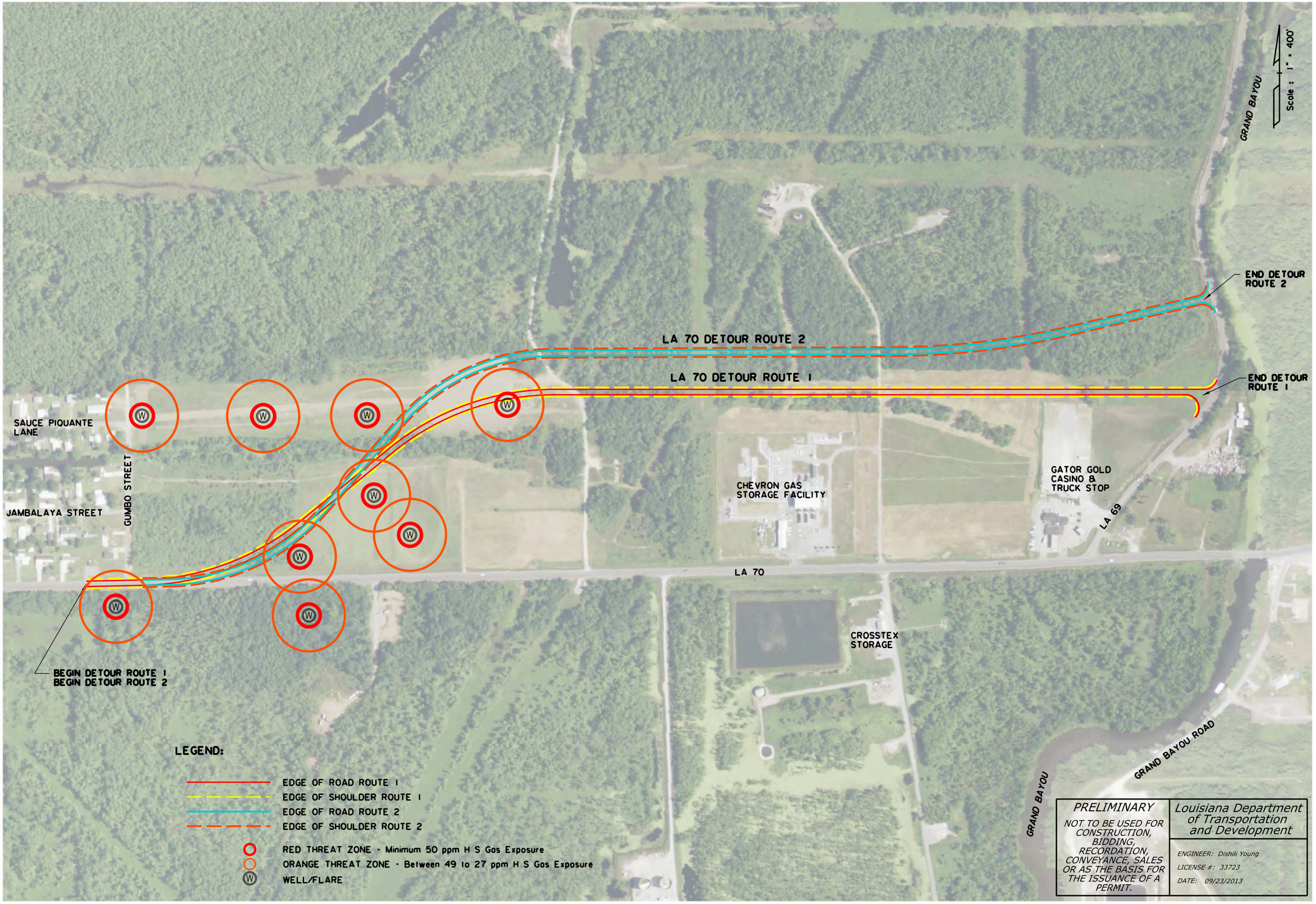
4.2 Orange Threat Zone

The distance from the wells whereby one could experience Orange level threat is between approximately 52 and 160 feet. Anyone within these radii should there be a gas release could be exposed to between 49 ppm and 27 ppm H_2S.

5.0 Conclusions

Based on the findings from ALOHA and MARPLOT, there is significant enough risk to the workers installing the LA 70 reroute to warrant plugging and abandoning the wells discussed in this document. It is prudent to assume that migration of H_2S into the underlying formation is both feasible and imminent. The scenarios posited in this document only take into account either the four base wind directions, N, S, W, E or concentric radii for illustrative purposes. Real world situations will likely have differing wind directions with similar gas concentrations following the wind direction.

09/24/13



PRELIMINARY

NOT TO BE USED FOR CONSTRUCTION, BIDDING, RECORDATION, CONVEYANCE, SALES OR AS THE BASIS FOR THE ISSUANCE OF A PERMIT.

Louisiana Department of Transportation and Development

ENGINEER: Dishili Young

LICENSE #: 33723

DATE: 09/23/2013

SHEET NUMBER

PARISH: ASSUMPTION

CONTROL SECTION

STATE PROJECT: H.010571

DESIGNED / CHECKED

DETAILED / CHECKED

SERIES NUMBER

NO.	DATE	REVISION OR CHANGE ORDER DESCRIPTION	BY

LA 70 DETOUR ROUTE

LA 70 BYPASS STAGE 0 FEASABILITY STUDY

SHAW E & I, INC.

Appendix J

Utility Location Survey & Relocation Cost Estimate

Existing Utility Conflicts and Probable Relocations Study

Detour Routes No. 1 & No. 2

for

LA 70 Bypass
Stage 0 Feasibility Study
S.P. No. H.010571.1

Assumption Parish, LA

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AND

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October 29, 2013

TABLE OF CONTENTS

Introduction, Methodology and Assumptions ii

Section A – Detour Route 1 ..... A-1

Section B – Detour Route 2 ..... B-1

LIST OF TABLES

Table A.1 – Existing Utility Conflicts Summary – Detour Route 1 ..... A-7

Table A.2 – Existing LA 70 Utilities Summary (LA 69 to Detour Route 1 Tie In) A-7

Table A.3 – Existing Utility Relocation Cost Estimate – Detour Route 1 ..... A-8

Table A.4 – Existing LA 70 Utilities Cost Estimate – Relocate to Detour Route 1 ..... A-9

Table A.5 - Existing Utility Relocation Estimate – LA 69 Turn Lane A-11

Table B.1 – Existing Utility Conflicts Summary – Detour Route 2 ..... B-6

Table B.2 – Existing LA 70 Utilities Summary (LA 69 to Detour Route 2 Tie In) B-6

Table B.3 – Existing Utility Relocation Cost Estimate – Detour Route 2 ..... B-7

Table B.4 – Existing LA 70 Utilities Cost Estimate – Relocate to Detour Route 2 ..... B-8

Table B.5 - Existing Utility Relocation Estimate – LA 69 Turn Lane B-10

LIST OF EXHIBITS

Exhibit A.1 – Plan – Existing Utilities – Detour Route 1 ..... A-12

Exhibit B.1 – Plan – Existing Utilities – Detour Route 2 ..... B-11

APPENDIX

Utility Contact Information Appendix-1

INTRODUCTION

This report summarizes the methodology and findings of field survey and reconnaissance activities performed by T. Baker Smith, LLC (TBS) of the existing utilities which apparently conflict with the proposed detour routes for State Route 70 (LA 70) in Assumption Parish, Louisiana. The proposed new detour route alignments were provided by Chicago Bridge and Iron, Inc. (CB&I) for survey and field reconnaissance by TBS. These routes are generally located north of LA 70 between Gumbo Street and LA 69 and between LA 69 and LA 996 near Bayou Corne, Louisiana. The proposed re-route of LA 70 is in response to the activities associated with the apparent sinkhole south of LA 70 near Bayou Corne.

Methodology

The purpose of TBS' scope was to identify existing utilities within the route(s) areas and determine estimated cost to either relocate these facilities or mitigate relocation by providing alternate protective measures to sub-surface facilities, most of which are underground pipelines. TBS was subcontracted by CB&I on May 22, 2013 to perform these services as a supplement to CB&I's Stage 0 Feasibility Study project for the Louisiana Department of Transportation and Development (LADOTD). An advanced NTP was given on October 3, 2013 to include Detour Route 2 for this area and TBS was given NTP for this additional work on October 7, 2013 from CB&I.

Information regarding proposed route alignments, typical sections, right-of-way width, and all other route associated design and construction parameters were provided to TBS by CB&I. All routes were provided as "on-grade" routes with no apparent areas of elevated roadway for lengths longer than necessary to cross large drainage features. It is understood that the proposed Detour Routes 1 & 2 are to be temporary routes constructed between LA 70 and LA 69 in the event LA 70 is compromised due to the sinkhole activities. These routes may become permanent in the future. CB&I provided a proposed right-of-way width of 170' to be used for Detour Routes 1 & 2. An additional 80' of width left from STA.34+00 to STA.55+00 is assumed to be necessary along Detour Route 1 to relocate two (2) 24" gas pipelines; however, this added width was not used in the conflict lengths as this is assumed to serve as a utility servitude beyond the proposed right-of-way. Detour Route 2 was included as a possible route to reduce pipeline impacts and eliminate the need to relocate the two 24" gas lines referenced above.

Data Gathering

TBS researched exiting as-built plans, conducted verbal inquiries (as available), and performed various site investigations including data collection with RTK survey instruments using control established by GPS observation to determine the extent of subsurface and above ground utilities located along the impacted portion of LA 70 and the proposed Detour Routes 1 & 2. For

underground pipeline facilities, a LA One Call request was made and TBS collected data from resulting marks including approximate horizontal and vertical positioning of each pipeline conflict with the proposed routes (as available). These positions were collected in the same manner as done for traditional topographic surveys utilizing Louisiana State Plane Coordinates (NAD 83),vertical positioning as established by GPS control, and physical probing of pipeline facilities to determine approximate depth of burial. For all other subsurface and above ground facilities, TBS gathered data from existing records, oral recollections, and visual inspections of markings placed in response to the LA One Call.

It is noted that flagging of underground facilities, plotting of visible above ground markings, or development of a DTM surface file was neither required nor performed for Detour Route 1. For Detour Route 2, TBS did stake the intersection of the pipeline facilities with the proposed alignment, however due to soil conditions, pins to establish horizontal and vertical positions of the facilities were not installed. Approximate vertical elevations of pipeline facilities were established by physical probing of the lines. Potholing was not performed at any location. Positions of facilities located by surveying techniques as well approximate positions of visually identified utilities or utilities identified by oral recollections or data supplied by utility owners were plotted on drawing exhibits along with the proposed route alignments provided by CB&I. Field survey activities took place from 6-10-2013 to 7-05-2013 for Detour Route 1 and from 10-10-2013 to 10-14-2013 for Detour Route 2.

Evaluation

The existing subsurface and above ground utilities along the impacted portion of LA 70 and the detour routes were inventoried and tabulated. Utility owners were contacted via telephone, email, site visits, and offsite meetings to discuss the location, extent, and character of their facilities. Information obtained was used to determine probable utility relocation extent. Consideration was given to the impacts to existing pipelines and the cost to protect and/or relocate these facilities when evaluating alternatives and making recommendations. TBS corresponded and met with CB&I and LADOTD on multiple occasions, providing utility location information and potential avoidances due to apparent relocation costs. Information obtained from utility owners was used to determine relocation extent, costs, and/or mitigation/protection procedures and costs.

Cost Estimating and Assumptions

Information provided by utility owners was used to develop cost estimates for above ground facilities and subsurface facilities. The conflict lengths of these facilities were determined based upon the proposed right-of-way width for each route provided by CB&I. Relocation and/or protection lengths for each facility were determined either by the proposed right-of-way width or by the necessary length to re-establish utilities being relocated.

For pipeline facilities, several items were taken into account to determine probable cost for potential relocation or protection techniques. Aspects such as depth of cover, facility size, product, existing soil conditions, and other factors such as working pressure, age of facility, and pipe wall thickness (if readily provided to TBS) were taken into account to determine if the line will require relocation or if alternate protection/relocation mitigation techniques may be applicable for use. These aspects mimic what is traditionally considered when performing pipeline wall stress analysis during final design of a roadway crossing. It is noted that the assumed protection techniques have not in any way been agreed to by the pipeline owners/operators and all techniques assumed are subject to change based upon final roadway design parameters including traffic, embankment height, pavement section thickness, potential development along the route, and final depth of cover over the pipeline in areas of roadside drainage ditches. Relocation and protection cost estimates were provided on a linear foot basis depending upon the size and relative product carried by the pipeline. These unit length costs were either provided as budgetary estimates by the pipeline operators or were based upon recent TBS projects of the same character and in approximately the same geographical location where pipeline relocations and/or protections were required.

All cost estimates provided in this report include construction costs only. Cost for items such as engineering design, environmental permitting, construction inspection, wetland mitigation, facility shut-in, facility modifications during pipeline relocation, false work and temporary facility bypasses, surveying, and as-built surveys may be necessary but are not included in these estimates. Additional items not listed herein may also be necessary.

In general, facilities crossing proposed routes with an intersection angle of 15 degrees or less, or traveling parallel and within the proposed right-of-way were assumed to have been relocated. Facilities with a depth of cover of less than 3.0’ were assumed to either require casing or relocation (vertically). Reinforced concrete matting width dimensions were assumed to be 8 times the diameter of the pipe and lengths were determined based upon skew and right-of-way width. Each facility was reviewed individually and all information available was used to determine probable relocation or protection procedure for estimating purposes.

The following table summarizes major categories of pipeline protection assumptions:

Product	**Size**	**Depth of Cover**	**Soil Condition**	**Relocation (Y/N)**	**Protection Procedure**
Natural Gas	8”- 16”	> 3.5’	Fair-Good	N	Mat or Split Casing
	18”- 36”	> 4.0’	Fair-Good	N	Split Casing
Brine	All	> 3.0’	Fair-Good	N	Mat in ditches
HVL	4”- 16”	3.0’ – 4.0’	Fair-Good	N	Split Casing
	4”-16”	>4.0’	Fair-Good	N	Split Casing or Mat

For purposes of this report, pipelines carrying various and predominately liquid products such as liquid petroleum gas, butane, isobutene, propane, ethylene, propylene, Y-grade, and natural gas liquid are noted as Highly Volatile Liquid lines (HVL) pipelines.

The following table provides general cost assumptions for major conflict mitigation procedures. These costs were either provided as budgetary costs for these activities by the utility operators or were derived from historical records belonging to the pipeline operators or known to TBS.

Conflict Mitigation Procedure	Product/Type	Size	Cost/Unit
Relocation	Natural Gas	20”	$2250/LF
		36”	$2650/LF
	HVL	6” - 8”	$650 - $850/LF
		10” - 12”	$1050 - $1250/LF
	Brine	12”	$400 - $500/LF
Split Casing	Natural Gas/HVL	6” – 8”	$600 - $800/LF
		10”	$1000/LF
		18”	$1325/LF
		24”	$1495/LF
		36”	$1850/LF
Concrete Matting	All	All	$1000/SQYD
Relocation	Overhead Electric	-	$70/LF
	Buried Telecomm (Copper)	-	$35/LF
	Overhead Cable (Coax & Fiber)	-	$25/LF
	Overhead Telecomm (Fiber)	-	$20/LF

Differing conditions may result in increased or decreased costs for these procedures. Cost-saving measures were given to areas where multiple lines of relatively the same size, product, and operator were in close proximity and required protection/relocation. Costs reflected in the estimates herein may include other factors either assumed or given by the pipeline operators.

Limitations

All statements, results, assumptions, and locations relative to utilities contained in this report are for the sole use of the parties intended and for the project named herein. Utility locations, sizes, products, and contents were either provided to TBS by the respective utility owners through LA One Call location marks made onsite or through electronic transmission of files and data or as located in the field by TBS field survey personnel. Field verification of utilities included herein took place from 6/10/2013 to 7/05/2013 and from 10/10/2013 to 10/14/2013. Field locations of pipeline facilities are noted on the attached exhibits indicated by a depth of cover description.

Additional utilities from non-responsive utility owners may exist within the limits of our survey. All above ground utilities were identified by visual inspections and data provided by the utility owners. Subsurface utilities such as telephone, gas, cable, and water were identified based upon either LA One Call marks or using data provided by the utility owners. No field location/verification via probing or potholing was performed for these utilities. A LA One Call shall be placed prior to any potential construction activities as required by Louisiana Law. This report shall not be used as the sole basis for utility locations nor a complete listing of all utilities in this project area.

SECTION A – DETOUR ROUTE 1

Existing Utility Conflicts

The following existing utilities have been identified by TBS as conflicts for Detour Route 1.

Station 7+82.88:
AT&T has buried copper cable services along the north side of LA 70 where the proposed alignment will tie into the existing LA 70 alignment. Discussions with AT&T have led to their intent to leave the facilities in place until they would become comprised. For the purposes of this study, costs to relocate were analyzed two ways: both as a single conflict location due to the proposed alignment tie in and as a complete re-route of all utilities along LA 70 to the new proposed alignment. See Table A.4 for details regarding the complete re-route. It is assumed that the buried facilities, including one major cabinet and several pedestals, would require relocation at the tie in of the proposed alignment to LA 70 for a length of approximately 550 linear feet.

Station 7+97.04:
Overhead services including electric power distribution lines, telecommunications, and cable follow LA 70 on the north side near the tie in of the proposed alignment to the existing LA 70. The facilities are owned/operated by Entergy, AT&T, and Allen's Cable, respectively. Entergy (who leases poles for use to AT&T and Allen's Cable) has said in phone conversations that if their poles become compromised, they would prefer to relocate along the proposed alignment and continue to service areas south of the sinkhole, as well as facilities within the area. For the purposes of this study, costs to relocate were analyzed two ways: both as a single conflict location due to the proposed alignment tie in and as a complete re-route of all utilities along LA 70 to the new proposed alignment. See Table A.4 for details regarding the complete re-route. For spot relocation due to the proposed alignment tie in, it is assumed that the overhead facilities will require relocation/elevation of approximately 550 linear feet of services including 3 poles.

Station 23+73.04:
American Tower owns/operates a +/- 310 foot tall cellular services tower which is located approximately 50 feet to the left of the proposed centerline including 3 main guy anchors and associated building facilities and generators. This tower and some of its associated facilities are either leased to or owned by AT&T. It is assumed that this tower in its entirety would require relocation to another site to be determined at that time. It is noted that overhead electric and telecommunications servicing this facility cross the proposed alignment near STA. 27+59.98. Costs to relocate these facilities will be included separately since the new tower location is not yet known. These facilities will be necessary wherever the tower relocation takes place.

Station 26+53.47:

Crosstex Energy Inc. operates a 36” natural gas pipeline that crosses underneath a gravel road leading to the cell tower before crossing the proposed alignment at an 84 degree skew. Based upon phone conversations, this line is currently floating and will be permanently shut off due to the sink hole. The natural ground elevation over the pipeline is approximately 3.07’ and the line has a depth of cover of approximately 5.6’. Existing soil over this pipeline is apparently upland and in good condition. Assumed mitigation activity at this conflict would be to cut and seal the pipeline within the extents of the proposed right-of-way due to anticipated abandonment.

Station 32+50.87 and Station 32+78.06:

Acadian Gas Pipeline System operates two 20” natural gas pipelines which cross the proposed alignment at a 62 degree skew (Chico B being the western most line and Chico D the eastern most line). Based upon phone conversations, these lines are currently depressed and Acadian Gas is waiting for the correct permits to clear before permanently shutting down the lines. Both lines will remain in place; Chico B will eventually be relocated around the sinkhole. Chico D may become active again in the future but this is unknown at this time. The natural ground elevation over these pipelines is approximately 1.75’ and an approximate depth of cover of 4.2’ over both pipelines. Existing soil above the pipelines appear to be swampy and in poor condition. Assumed mitigation requirement for these conflicts would be to cut and seal both pipelines within the extents of the proposed right-of-way.

Station 33+11.22 and Station 33+16.22:

Bridgeline Holdings, L.P. operates two (2) 24” natural gas pipelines which cross the proposed alignment at a 90 degree skew. Based upon phone conversations, these lines are to remain active and will require protection. The natural ground elevation over these pipelines is approximately 1.50’ with an approximate depth of cover of 4.4’ over both pipelines. Existing soil above the pipelines appears to be swampy and in poor condition. Assumed mitigation requirement for these conflicts is to install a split casing on both pipelines the entire width of the proposed right-of-way.

Station 33+42.19:

Texas Brine Company, LLC operates a 12” brine pipeline that crosses the proposed alignment at a 90 degree skew. Based upon phone conversations, this line will remain active. The natural ground elevation above this pipeline is approximately 1.50’ with an approximate depth of cover of 4.3’. Existing soil conditions above the pipeline appear to be swampy and poor. Assumed mitigation requirement for this conflict would be to place 10’ x 20’ reinforced concrete mats beneath the roadside ditches atop the pipeline in question.

Station 34+98.60 through Station 48+92.42:

Bridgeline Holdings, L.P. operates a 24" natural gas pipeline that crosses the proposed alignment perpendicularly at STA. 34+98.60 and makes a 90 degree eastward turn following the proposed alignment 1394' until STA. 48+92.42 where it turns northeast. The natural ground elevation at the intersection of the alignment is approximately 1.45'. A 3.5' depth of cover was found near the Bridgeline facility beyond the proposed right-of-way. Existing soil conditions at the intersection appear to be swampy and poor, but as the pipeline parallels the alignment, the conditions improve slightly as the natural ground elevation will rise. This facility is located approximately 16' north of the proposed edge of shoulder for Detour Route 1. Under an emergency condition, the operators may allow for this line to remain under the roadway embankment in a temporary status, however this is typically handled on a case by case basis and such assumption cannot be confirmed at this time. Therefore, assumed mitigation requirement for this conflict is to relocate the pipeline away from the proposed roadway, while lowering it at the crossing location to assure safe conditions.

Station 36+08.85 through Station 48+92.42:

Bridgeline Holdings, L.P. operates a 24" natural gas pipeline which intersects the bypass alignment perpendicularly at STA. 36+08.85 and then makes a 90 degree eastward turn and follows the proposed alignment 1283' until STA. 48+92.42, where it turns northeast. The natural ground elevation at the intersection of the alignment is approximately 1.45' with an unknown depth of cover. Existing soil conditions at the intersection appear to be swampy and poor, but as the pipeline parallels the alignment, the conditions improve slightly as the natural ground elevation will rise. This facility is located approximately 8'-10' north of the proposed edge of shoulder for Detour Route 1. Under an emergency condition, the operators may allow for this line to remain under the roadway embankment in a temporary status, however this is typically handled on a case by case basis and such assumption cannot be confirmed at this time. Therefore, assumed mitigation requirement for this conflict is to relocate the pipeline away from the proposed roadway, while lowering it at the crossing location to assure safe conditions.
It should be noted that cost saving measures were applied to the linear foot relocation costs for both Bridgeline 24" lines since these would likely be relocated together. Additionally, should the alignment of the proposed Detour Route 1 be shifted southward, as cross sectional geometry allows, the relocation of the parallel portions of these two pipelines could be avoided.

Station 37+07.17:

Acadian Gas Pipeline System operates a 12" natural gas pipeline (Enron Grand Bayou Lateral) which intersects the proposed alignment at an 84 degree skew. The natural ground elevation above the pipeline is approximately 1.36' with a depth of cover of approximately 3.9'. Existing soil conditions appear to be swampy and poor. Based upon phone conversations, it is our assumption that due to the low risk classification of this line, and given the proposed cover between the finished grade of the road and the top of the pipe, split casing will not be necessary.

Assumed mitigation requirement for this conflict would be to place a reinforced concrete mat on top of the pipeline for the entire width of the proposed right-of-way. This low risk classification may be subject to change if the proposed route is made permanent.

Station 41+54.94:
Overhead services including electric power distribution lines and telecommunications servicing the Crosstex facility to the north intersect the proposed alignment at a 90 degree skew. Due to the proposed roadway, it is assumed that these facilities would require relocation or raising of the lines to maintain proper vertical clearance for the width of the proposed right-of-way. It is noted that if the facilities along LA 70 are relocated along the proposed Detour Route 1 alignment to the north, this conflict would be eliminated and the associated relocations would simply involve removing the lines from the proposed alignment to LA 70. See Table A.4 for details regarding the complete re-route. For spot relocation due to the proposed alignment, it is assumed that the overhead facilities will require relocation/elevation of approximately 170 linear feet of services including 2 poles.

Station 47+43.71 and Station 47+48.20:
Crosstex Energy Inc. operates a 10” and 6” pipeline containing highly volatile liquid which intersect the proposed alignment at a 90 degree skew. Both pipes will remain active and will likely require protection. The natural ground elevation above the pipelines is approximately 2.60’ with a depth of cover of approximately 5.0’. Existing soil conditions appear to be in a low lying area and are fair. Based upon phone conversations with the pipeline companies, since both lines contain hazardous material, our assumption is that both lines would need protection. Assumed mitigation requirement for these conflicts is to install a split casing around both the 10” and 6” pipelines for the full width of the proposed right-of-way.

Station 47+85.62:
Texas Brine Company, LLC operates a 12” brine pipeline which perpendicularly intersects the proposed alignment. Based upon phone conversations, the pipeline will remain active in the future. The natural ground elevation above the pipeline is approximately 2.60’ with a depth of cover of approximately 3.6’. Existing soil conditions appear to be in a low lying area and are fair. Assumed mitigation requirement for this conflict is to install 10’ x 20’ reinforced concrete mats underneath the roadside ditches atop the pipeline within the proposed right-of-way.

Station 48+37.54 and Station 48+49.87:
Bridgeline Holdings, L.P. operates (2) - 12” water pipelines which intersect the proposed alignment at an 11 degree skew. Based upon phone conversations, both lines will remain active, and will eventually contain brine instead of water. The natural ground elevation above the pipelines is approximately 2.60’ with a depth of cover of approximately 4.5’ for both pipelines. Existing soil conditions appear to be in a low lying area and are fair.

The total linear footage of pipelines that fall within the proposed right-of-way is approximately 715 LF. Assumed mitigation requirement for these conflicts is to relocate the pipelines alongside the proposed right-of-way, then cross the alignment with enough depth to eliminate the need for additional protection.

Station 54+50.00:
Overhead facilities including electric power distribution lines and cable (fiber optic) follow along the west side of LA 69 at the intersection of the proposed alignment and LA 69. Due to the proposed intersection, it is assumed that these facilities would require relocation and/or elevation of the lines to maintain proper vertical clearance for the width of the proposed right-of-way. It is noted that if the facilities along LA 70 are relocated along the proposed Detour Route 1 alignment to the north, this conflict may either be eliminated or would be included in the global relocation of these facilities from LA 70. See Table A.4 for details regarding the complete re-route. For spot relocation due to the proposed alignment, it is assumed that the overhead facilities will require relocation/elevation of approximately 275 linear feet of services including 3 poles.

Relocation of Existing LA 70 Utilities to Proposed Detour Route 1

As requested, TBS has identified the following existing utilities which follow along LA 70 from LA 69 to the proposed tie in location of Detour Route 1. A scenario may exist where these facilities may be relocated along the proposed route should LA 70 become compromised. Existing utilities are assumed to be abandoned in place and new services installed starting at the LA 70/LA 69 intersection, following northward to the proposed Detour Route 1, then following said route until the tie in to the existing LA 70 near Gumbo Street where said utilities shall be tied into the existing routes. It is assumed that lateral utilities servicing facilities in this area will also be re-directed to these facilities. Overhead electric, telecommunications, and cable are assumed to be located to the north of the proposed alignment, while water services are assumed to be located on the south side of the alignment.

AT&T:
AT&T currently has several lines running along both sides of LA Hwy 70. They consist of both aerial and buried lines (buried facilities are predominately copper, aerial facilities include copper and fiber) running along the north side of LA 70 from Gumbo St. to the Texas Brine facility. From there, aerial lines run along the north side of LA 70 to the intersection of LA 69, as well as aerial and buried lines running along the south side of LA 70 to the intersection of LA 69. AT&T services the Texas Brine facility to the south of LA 70 as well as all of the facilities to the north of LA 70 (cell tower, Chevron, Crosstex, truck stop/casino).

Entergy:
Entergy currently has overhead distribution lines running along the north side of LA 70 from Gumbo Street to LA 69, as well as power poles running along the south side of LA 70 from a Texas Brine facility east, past LA 69. Entergy also services the cell tower on location, as well as both the Chevron and Crosstex facilities to the north of LA 70. Based upon phone conversations with Entergy associates, if they relocate their lines along the proposed alignment, they anticipate maintaining service to all facilities in the area. Costs for these relocations were provided by Entergy as approximately $70 per linear foot of new facilities.

Allen's Cable:
Allen's Cable currently has fiber lines that are fixed to Entergy's power poles on the north side of LA 70. They also have lines servicing the Texas Brine, Chevron, and Crosstex facilities located along LA 70, as well as the truck stop located on the corner of LA 70 and LA 69. Assumption for relocation would be to run new fiber lines along Entergy's relocated power poles and continue servicing all facilities in question.

Assumption Water:
Assumption Parish currently operates two (2) active water lines (6" and 14") which parallel the south side of LA 70 from Gumbo Street to LA 69, totaling approximately 4,330 linear feet. The 14" line continues to run east along LA 70, while the 6" tees off to the north and runs along LA 69, reducing into a 4" after crossing under LA 70. Assumption for relocation is to relocate all water running alongside LA 70 to the south side of the proposed alignment and tie back in at LA 70.

Proposed Turn Lanes – LA 69 @ Detour Route 1

CB&I requested additional utility relocation considerations and estimates due to a proposed turn lane along LA 69 north of the proposed detour Route 1 to serve southbound LA 69 traffic onto Detour Route 1. This request came just shortly before the completion of this report and after TBS field investigations were complete. Using only desktop knowledge obtained previously and without field verification or survey, the apparent utilities in conflict have been tabulated and assumed protection and/or relocation procedures are given in Table A.5. TBS has not made any inquiry of the utility owners in this area nor has a LA One Call request been made in their regard. Additional utilities other than those presented in Table A.5 may exist. It is unknown if the pipeline facilities which cross LA 69 are currently encased and all depths of cover are unknown. Soil conditions are swampy and poor.

Table A.1 – Existing Utility Conflicts Summary – Detour Route 1

Owner/Operator	Approximate Station	Size (in)	Contents	Conflict Length (ft)
AT&T	7+82.88	-	Buried Telecom	505
Entergy/AT&T/Allen's	7+97.04	-	Overhead Electric/Telecom/Cable	512
American Tower/AT&T	23+73.04	-	Cell Tower	-
Crosstex Energy	26+53.46	36	Natural Gas (Abandoned)	177
Entergy/AT&T	27+59.98	-	Overhead Electric/Telecom	170
Acadian	32+50.63	20	Natural Gas (Abandoned)	192
Acadian	32+78.03	20	Natural Gas (To Be Activated)	191
Bridgeline Holdings	33+11.21	24	Natural Gas	170
Bridgeline Holdings	33+16.23	24	Natural Gas	170
Texas Brine Co.	33+42.17	12	Brine	170
Bridgeline Holdings	34+98.59	24	Natural Gas	1680
Bridgeline Holdings	36+08.82	24	Natural Gas	1580
Acadian	37+07.16	12	Natural Gas	171
Entergy/AT&T	41+54.94	-	Overhead Electric/Telecom	170
Crosstex Energy	47+43.78	10	Highly Volatile Liquid	170
Crosstex Energy	47+48.31	6	Highly Volatile Liquid	170
Texas Brine Co.	47+85.61	12	Brine	170
Bridgeline Holdings	48+37.56	12	Water (To Become Brine)	713
Bridgeline Holdings	48+50.16	12	Water (To Become Brine)	716
Entergy/Allen's	54+82.42	-	Overhead Electric/Cable	209

Table A.2 – Existing LA 70 Utilities Summary (LA 69 to Detour Route 1 Tie In)

Owner/Operator	Size (in)	Contents	Current Length (FT.)	Relocated Length (FT.)
Assumption Parish	14	Water	4328	4985
Assumption Parish	6	Water	5026	5596
AT&T	-	Buried Telecom	4493	6510
Entergy/AT&T/Allen's	-	Overhead Electric/Telecom/Cable	4193	5052
Entergy/AT&T	-	Overhead Electric/Telecom	1990	5981

Table A.3 – Utility Relocation Cost Estimate – Detour Route 1

Station	Description	Length	Unit	Unit Cost	Total
7+82.88	AT&T - Buried Telecommunications Cable				
	Relocation of facilities as necessary for roadway tie in	550	LNFT	$35	$19,250
7+97.04	Entergy/AT&T - Overhead Electric/Telecommunications/Cable				
	Relocation of facilities as necessary for roadway tie in	550	LNFT	$115	$63,250
23+73.04	American Tower/AT&T - Cellular Tower				
	Relocation of tower and facilities to unknown site	1	EACH	$800,000	$800,000
	Relocation of associated AT&T buildings, equipment	1	EACH	$400,000	$400,000
26+53.47	Crosstex Energy Inc. - 36" Natural Gas Pipeline (Abandoned)				
	Cut and Seal of Pipeline	177	LNFT	$100	$17,700
27+59.98	Entergy/AT&T - Overhead Electric/Telecommunications				
	Relocation/Elevation of facilities for R/W +30'	200	LNFT	$90	$18,000
32+50.87	Acadian Gas - Chico B 20" Natural Gas Pipeline (Abandoned)				
	Cut and Seal of Pipeline (Will be Re-routed)	192	LNFT	$100	$19,200
32+78.06	Acadian Gas - Chico D 20" Natural Gas Pipeline (Abandoned)				
	Cut and Seal of Pipeline	191	LNFT	$100	$19,100
33+11.22	Bridgeline Holdings, L.P. - 24" Natural Gas Pipeline				
	Split Casing of Pipeline	170	LNFT	$1,150	$195,500
33+16.22	Bridgeline Holdings, L.P. - 24" Natural Gas Pipeline				
	Split Casing of Pipeline	170	LNFT	$1,150	$195,500
33+42.19	Texas Brine Company, LLC - 12" Brine Pipeline				
	Matting over Pipeline in Roadside Ditches (2 - 10' x 20')	45	SQYD	$1,000.00	$45,000
34+98.60 -	Bridgeline Holdings, L.P. - 24" Natural Gas Pipeline				
48+92.42	Relocate Line, Deepen under Crossing	1620	LNFT	$1,440	$2,332,800
36+08.85 -	Bridgeline Holdings, L.P. - 24" Natural Gas Pipeline				
48+92.042	Relocate line away from alignment, Deepen under Crossing	1510	LNFT	$1,440	$2,174,400
37+07.17	Acadian Gas - Enron Grand Bayou Lateral 12" Natural Gas Pipeline				
	Matting over Top of Pipe Entire Right of Way	190	SQYD	$1,000	$190,000

41+54.94	Entergy/AT&T - Overhead Electric/Telecommunications				
	Relocation/Elevation of facilities for R/W +30'	200	LNFT	$90	$18,000
47+43.71	Crosstex Energy Inc. - 10" Highly Volatile Liquid				
	Split Casing on pipe full width of R/W	170	LNFT	$1,000	$170,000
47+48.20	Crosstex Energy Inc. - 6" Highly Volatile Liquid				
	Split Casing on pipe full width of R/W	170	LNFT	$600	$102,000
47+85.62	Texas Brine Company, LLC - 12" Brine Pipeline				
	Matting over Pipeline in Roadside Ditches (2 - 10' x 20')	45	SQYD	$1,000.00	$45,000
48+37.54	Bridgeline Holdings, L.P. - 12" Water Pipeline				
	Relocate line away from alignment, Deepen under Crossing	600	LNFT	$400.00	$240,000
48+49.87	Bridgeline Holdings, L.P. - 12" Water Pipeline				
	Relocate line away from alignment, Deepen under Crossing	600	LNFT	$400.00	$240,000
55+50.00	Entergy/Allen's Cable - Overhead Electric/Telecommunications				
	Relocation of facilities as necessary for roadway tie in	275	LNFT	$95	$26,125
	Estimate of Probable Utility Relocation Costs				**$7,330,825**

Table A.4 – Existing LA 70 Utilities Cost Estimate - Relocate to Detour Route 1

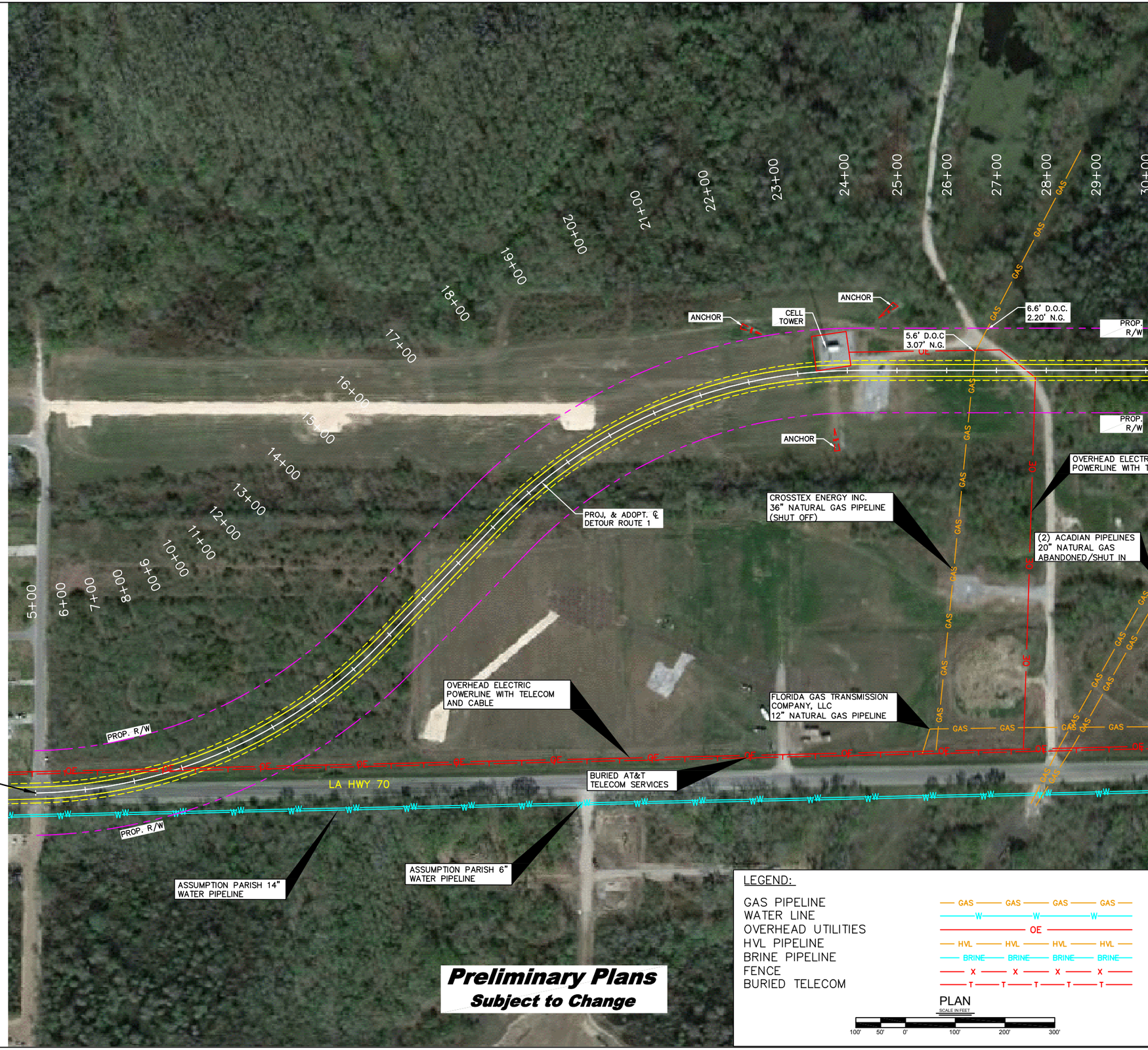
Owner	Description	Length	Unit	Unit Cost	Total
AT&T	Buried Telephone Lines Along LA 70	6000	LNFT	$35	$210,000
	Re-route Along North Side of Detour 1/West side of LA 69				
Entergy	Overhead Electrical Lines Along LA 70	6000	LNFT	$70	$420,000
	Re-route Along North Side of Detour 1/West Side of LA 69				
Allen's Cable	Cable Lines attached to Energy's Overhead Electric	5000	LNFT	$25	$125,000
	Re-route with Overhead Lines along Detour 1				
Assumption Water	6" Water Line Along South Side of LA 70	5,000	LNFT	$30.00	$150,000
	Re-route Water Line Along South Side of Bypass Road				
Assumption Water	14" Water Line Along South Side of LA 70	5,700	LNFT	$85.00	$484,500
	Re-route Along South Side of Detour 1/East side of LA 69				

Entergy	Overhead Electrical Lines to the Cell Tower	1000	LNFT	$70	$70,000
	Re-route to New Location of Cell Tower (Unknown)				
AT&T	Aerial Telecomm to Cell Tower	1000	LNFT	$20	$20,000
	Re-route to New Location of Cell Tower				
AT&T	Aerial Telecomm to Texas Brine Facility South of LA 70	2400	LNFT	$20	$48,000
	Re-route to Facility from Detour 1				
Entergy	Overhead Electrical to Texas Brine South of LA 70	2400	LNFT	$70	$168,000
	Re-route to Facility from Detour 1				
AT&T	Buried Telephone to Chevron Facility	400	LNFT	$35	$14,000
	Re-route Buried Lines from Detour 1 to Facility				
Allen's Cable	Cable Lines to Texas Brine Facility South of LA 70	2400	LNFT	$25	$60,000
	Re-route to Facility from Detour 1				
Subtotal					**$1,769,500**
Relocation of Utilities for Detour Route 1 (Not necessary if all along LA 70 relocated to Detour 1)					
7+82.88	AT&T - Buried Telecommunications Cable				
	Relocation of facilities as necessary for roadway tie in	-550	LNFT	$35	-$19,250
7+97.04	Entergy/AT&T - Overhead Electric/Telecommunications/Cable				
	Relocation of facilities as necessary for roadway tie in	-550	LNFT	$115	-$63,250
27+59.98	Entergy/AT&T - Overhead Electric/Telecommunications				
	Relocation/Elevation of facilities for R/W +30'	-200	LNFT	$90	-$18,000
41+54.94	Entergy/AT&T - Overhead Electric/Telecommunications				
	Relocation/Elevation of facilities for R/W +30'	-200	LNFT	$90	-$18,000
54+82.42	Entergy/Allen's Cable - Overhead Electric/Telecommunications				
	Relocation of facilities as necessary for roadway tie in	-275	LNFT	$95	-$26,125
	Estimate of Probable Utility Relocation Costs				**$1,624,875**

Table A.5 – Existing Utility Relocation Estimate - LA 69 Turn Lane (North of Detour Route 1)

Feet North of Route	Description	Relocation Length	Unit	Unit Cost	Total
200	Bridgeline Holdings, L.P. - 12" Water Pipeline				
	Matting over Pipeline or Extend Casing	50	LNFT	$400.00	$20,000
200	Bridgeline Holdings, L.P. - 12" Water Pipeline				
	Matting over Pipeline or Extend Casing	50	LNFT	$400.00	$20,000
215	Bridgeline Holdings, L.P. - 24" Natural Gas Pipeline				
	Relocation or Extend Casing of Pipeline	50	LNFT	$1,440	$72,000
215	Bridgeline Holdings, L.P. - 24" Natural Gas Pipeline				
	Relocation or Extend Casing of Pipeline	50	LNFT	$1,440	$72,000
910	Enterprise Products - 12" HVL Pipeline				
	Relocation or Extend Casing of Pipeline	50	LNFT	$1,250	$62,500
920	Enterprise Products - 8" HVL Pipeline				
	Relocation or Extend Casing of Pipeline	50	LNFT	$1,000	$50,000
940	Crosstex Energy Inc. - 36" Natural Gas Pipeline (Abandoned)				
	Cut and Seal of Pipeline	180	LNFT	$100	$18,000
	Entergy/Allen's Cable - Overhead Electric/Telecommunications				
	Relocation of facilities for roadway widening	1150	LNFT	$95	$109,250
	Estimate of Probable Utility Relocation Costs				**$423,750**

*Utilities listed above have not been located in field – see page A-6 for details



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SHEET NUMBER	A-12

DESIGNED		PARISH	ASSUMPTION
CHECKED			
DETAILED	D. BINET	FEDERAL PROJECT	
CHECKED	P. OLIVIER		
DATE	SEPT. 2013	STATE PROJECT	
SHEET			

STAGE 0 STUDY SUBMITTAL

Louisiana Department of Transportation and Development

ENGINEER: D.H.MEL

LICENSE: 38172

DATE: 9/9/2013

PRELIMINARY

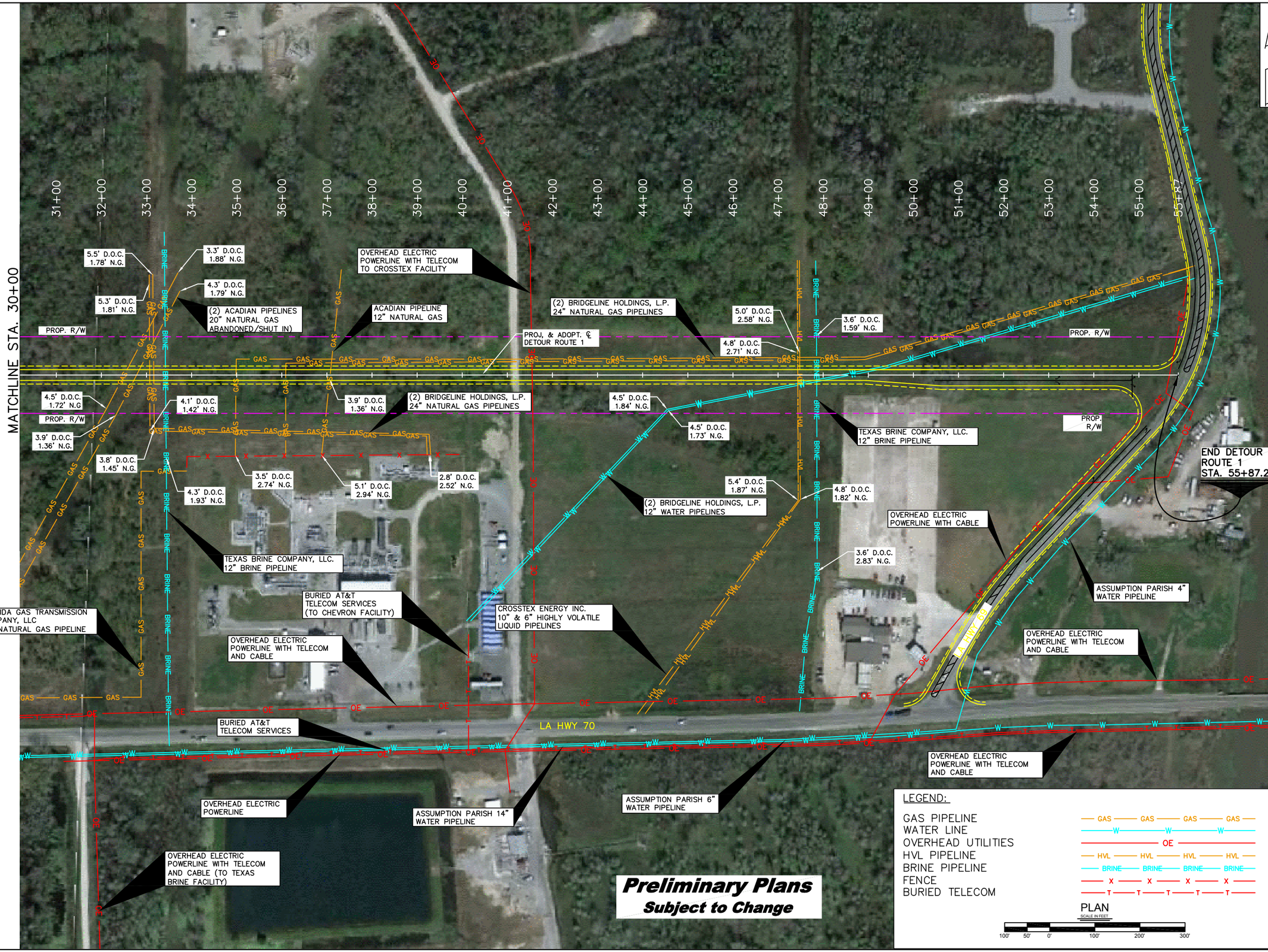
NOT TO BE USED FOR CONSTRUCTION, BIDDING, RECORDATION, CONVEYANCE, SALE OR AS THE BASIS FOR THE ISSUANCE OF A PERMIT

PLAN – EXISTING UTILITIES

LA 70 DETOUR ROUTE 1

LA 70 BYPASS STAGE 0 FEASIBILITY STUDY

TBS



SCALE: 1"=100'

SHEET NUMBER	A-13

PARISH	ASSUMPTION
FEDERAL PROJECT	
STATE PROJECT	

DESIGNED	
CHECKED	
DETAILED	D. BINET
CHECKED	P. OLIVIER
DATE	SEPT. 2013
SHEET	

STAGE 0 STUDY SUBMITTAL
Louisiana Department of Transportation and Development
ENGINEER: D.R.WEL
LICENSE: 38172
DATE: 9/9/2013

PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION, BIDDING, RECONDATION, CONVEYANCES OR AS THE BASIS FOR THE ISSUANCE OF A PERMIT

PLAN – EXISTING UTILITIES

LA 70 DETOUR ROUTE 1

LA 70 BYPASS STAGE 0 FEASIBILITY STUDY

TBS

SECTION B – DETOUR ROUTE 2

Existing Utility Conflicts

The following existing utilities have been identified by TBS as conflicts for Detour Route 2.

Station 103+94.47:
AT&T has buried copper cable services along the north side of LA 70 where the proposed alignment will tie into the existing LA 70 alignment. Discussions with AT&T have led to their intent to leave the facilities in place until they would become comprised. For the purposes of this study, costs to relocate were analyzed two ways: both as a single conflict location due to the proposed alignment tie in and as a complete re-route of all utilities along LA 70 to the new proposed alignment. See Table B.4 for details regarding the complete re-route. It is assumed that the buried facilities, including one major cabinet and several pedestals, would require relocation at the tie in of the proposed alignment to LA 70 for a length of approximately 658 linear feet.

Station 104+11.50:
Overhead services including electric power distribution lines, telecommunications, and cable follow LA 70 on the north side near the tie in of the proposed alignment to the existing LA 70. The facilities are owned/operated by Entergy, AT&T, and Allen's Cable, respectively. Entergy (who leases poles for use to AT&T and Allen's Cable) has said in phone conversations that if their poles become compromised, they would prefer to relocate along the proposed alignment and continue to service areas south of the sinkhole, as well as facilities within the area. For the purposes of this study, costs to relocate were analyzed two ways: both as a single conflict location due to the proposed alignment tie in and as a complete re-route of all utilities along LA 70 to the new proposed alignment. See Table B.4 for details regarding the complete re-route. For spot relocation due to the proposed alignment tie in, it is assumed that the overhead facilities will require relocation/elevation of approximately 668 linear feet of services including 3 poles.

Station 118+69.26:
American Tower owns/operates a +/- 310 foot tall cellular services tower which is located approximately 50 feet left of the proposed centerline including 3 main guy anchors and associated building facilities and generators. This tower and some of its associated facilities are either leased to or owned by AT&T. It is assumed that this tower in its entirety would require relocation to another site to be determined at that time.

Station 122+59.00:
Crosstex Energy Inc. operates a 36” natural gas pipeline that crosses underneath a gravel road near the cell tower before crossing the proposed alignment at a 62 degree skew. Based upon phone conversations, this line is currently floating and will be permanently shut off due to the sink hole. The natural ground elevation over the pipeline is approximately -0.49’ and the line has a depth of cover of approximately 7.6. Existing soil over this pipeline appears to be through a ditch and in poor, low lying conditions. Assumed mitigation activity at this conflict would be to cut and seal the pipeline within the extents of the proposed right-of-way due to anticipated abandonment.

Station 128+37.26 and Station 128+45.50:
Bridgeline Holdings, L.P. operates two (2) 24” natural gas pipelines which cross the proposed alignment at a 90 degree skew. Based upon phone conversations, these lines are to remain active and will require protection. The natural ground elevation over these pipelines is approximately 1.79’ with an approximate depth of cover of 5.4’ over both pipelines. Existing soil above the pipelines appears to be swampy and in poor condition. Assumed mitigation requirement for these conflicts is to install a split casing on both pipelines the entire width of the proposed right of way.

Station 128+71.70:
Texas Brine Company, LLC operates a 12” brine pipeline that crosses the proposed alignment at a 90 degree skew. Based upon phone conversations, this line will remain active. The natural ground elevation above this pipeline is approximately 1.79’ with an approximate depth of cover of 10.4’. Existing soil conditions above the pipeline appears to be swampy and poor. Assumed mitigation requirement for this conflict would be to place 10’ x 20’ reinforced concrete mats beneath the roadside ditches atop the pipeline in question.

Station 128+73.82 and Station 128+99.72:
Acadian Gas Pipeline System operates two (2) 20” natural gas pipelines which cross the proposed alignment at a 62 degree skew (Chico B being the westernmost line and Chico D the easternmost line). Based upon phone conversations, these lines are currently depressed and Acadian Gas is waiting for the correct permits to clear before permanently shutting down the lines. Both lines will remain in place; Chico B will eventually be relocated around the sinkhole. Chico D may become active again in the future but this is unknown at this time. The natural ground elevation over these pipelines is approximately 1.79’ and an approximate depth of cover of 3.5’ over Chico B and 4.3’ over Chico D. Existing soil above the pipelines appear to be swampy and in poor condition. Assumed mitigation requirement for these conflicts would be to cut and seal both pipelines within the extents of the proposed right of way.

Station 132+57.00:
Acadian Gas Pipeline System operates a 12" natural gas pipeline (Enron Grand Bayou Lateral) which intersects the proposed alignment at an 84 degree skew. The natural ground elevation above the pipeline is approximately 2.31' with a depth of cover of approximately 3.9'. Existing soil appears to be in fair, but low lying conditions. Based upon phone conversations, it is our assumption that due to the low risk classification of this line, and given the proposed cover between the finished grade of the road and the top of the pipe, split casing will not be necessary. Assumed mitigation requirement for this conflict would be to place a reinforced concrete mat on top of the pipeline for the entire width of the proposed right-of-way. This low risk classification may be subject to change if the proposed route is made permanent.

Station 136+82.89:
Overhead services including electric power distribution lines and telecommunications servicing the Crosstex facility to the north intersect the proposed alignment at a 90 degree skew. Due to the proposed roadway, it is assumed that these facilities would require relocation or raising of the lines to maintain proper vertical clearance for the width of the proposed right-of-way. It is noted that if the facilities along LA 70 are relocated along the proposed Detour Route 1 alignment to the north, this conflict would be eliminated and the associated relocations would simply involve removing the lines from the proposed alignment to LA 70. See Table B.4 for details regarding the complete re-route. For spot relocation due to the proposed alignment, it is assumed that the overhead facilities will require relocation/elevation of approximately 170 linear feet of services including 2 poles.

Station 142+76.87 and Station 142+81.89:
Crosstex Energy Inc. operates a 10" and 6" pipeline containing highly volatile liquid which intersect the proposed alignment at an 80 degree skew. Both pipes will remain active and will likely require protection. The natural ground elevation above the pipelines is approximately 2.14' with a depth of cover of approximately 5.5'. Existing soil conditions appear to be in a low lying area and are fair. Based upon phone conversations with the pipeline companies, since both lines contain hazardous material, our assumption is that both lines would need protection. Assumed mitigation requirement for these conflicts is to install a split casing around both the 10" and 6" pipelines for the full width of the proposed right-of-way.

Station 143+18.44:
Texas Brine Company, LLC operates a 12" brine pipeline which perpendicularly intersects the proposed alignment. Based upon phone conversations, the pipeline will remain active in the future. The natural ground elevation above the pipeline is approximately 2.14' with a depth of cover of approximately 5.9'. Existing soil conditions appear to be in a low lying area and are fair. Assumed mitigation requirement for this conflict is to install 10' x 20' reinforced concrete mats underneath the roadside ditches atop the pipeline within the proposed right-of-way.

Station 151+01.49:
Overhead facilities including electric power distribution lines and cable (fiber optic) follow along the west side of LA 69 at the intersection of the proposed alignment and LA 69. Due to the proposed intersection, it is assumed that these facilities would require relocation and/or elevation of the lines to maintain proper vertical clearance for the width of the proposed right-of-way. It is noted that if the facilities along LA 70 are relocated along the proposed Detour Route 2 alignment to the north, this conflict may either be eliminated or would be included in the global relocation of these facilities from LA 70. See Table B.4 for details regarding the complete re-route. For spot relocation due to the proposed alignment, it is assumed that the overhead facilities will require relocation/elevation of approximately 170 linear feet of services including 3 poles.

Relocation of Existing LA 70 Utilities to Proposed Detour Route 2

As requested, TBS has identified the following existing utilities which follow along LA 70 from LA 69 to the proposed tie in location of Detour Route 2. A scenario may exist where these facilities may be relocated along the proposed route should LA 70 become compromised. Existing utilities are assumed to be abandoned in place and new services installed starting at the LA 70/LA 69 intersection, following northward to the proposed Detour Route 2, then following said route until the tie in to the existing LA 70 near Gumbo Street where said utilities shall be tied into the existing routes. It is assumed that lateral utilities servicing facilities in this area will also be re-directed to these facilities. Overhead electric, telecommunications, and cable are assumed to be located to the north of the proposed alignment, while water services are assumed to be located on the south side of the alignment.

AT&T:
AT&T currently has several lines running along both sides of LA Hwy 70. They consist of both aerial and buried lines (buried facilities are predominately copper, aerial facilities include copper and fiber) running along the north side of LA 70 from Gumbo St. to the Texas Brine facility. From there, aerial lines run along the north side of LA 70 to the intersection of LA 69, as well as aerial and buried lines running along the south side of LA 70 to the intersection of LA 69. AT&T services the Texas Brine facility to the south of LA 70 as well as all of the facilities to the north of LA 70 (cell tower, Chevron, Crosstex, truck stop/casino).

Entergy:
Entergy currently has overhead distribution lines running along the north side of LA 70 from Gumbo Street to LA 69, as well as power poles running along the south side of LA 70 from a Texas Brine facility east, past LA 69. Entergy also services the cell tower on location, as well as both the Chevron and Crosstex facilities to the north of LA 70. Based upon phone conversations with Entergy associates, if they relocate their lines along the proposed alignment, they anticipate

maintaining service to all facilities in the area. Costs for these relocations were provided by Entergy as approximately $70 per linear foot of new facilities.

Allen's Cable:
Allen's Cable currently has fiber lines that are fixed to Entergy's power poles on the north side of LA 70. They also have lines servicing the Texas Brine, Chevron, and Crosstex facilities located along LA 70, as well as the truck stop located on the corner of LA 70 and LA 69. Assumption for relocation would be to run new fiber lines along Entergy's relocated power poles and continue servicing all facilities in question.

Assumption Water:
Assumption Parish currently operates two (2) active water lines (6" and 14") which parallel the south side of LA 70 from Gumbo Street to LA 69, totaling approximately 4,330 linear feet. The 14" line continues to run east along LA 70, while the 6" tees off to the north and runs along LA 69, reducing into a 4" after crossing under LA 70. Assumption for relocation is to relocate all water running alongside LA 70 to the south side of the proposed alignment and tie back in at LA 70.

Proposed Turn Lanes – LA 69 @ Detour Route 2

CB&I requested additional utility relocation considerations and estimates due to a proposed turn lane along LA 69 north of the proposed detour Route 1 to serve southbound LA 69 traffic onto Detour Route 2. This request came just shortly before the completion of this report and after TBS field investigations were complete. Using only desktop knowledge obtained previously and without field verification or survey, the apparent utilities in conflict have been tabulated and assumed protection and/or relocation procedures are given in Table B.5. TBS has not made any inquiry of the utility owners in this area nor has a LA One Call request been made in their regard. Additional utilities other than those presented in Table B.5 may exist. It is unknown if the pipeline facilities which cross LA 69 are currently encased and all depths of cover are unknown. Soil conditions are swampy and poor.

Table B.1 – Existing Utility Conflicts Summary – Detour Route 2

Owner/Operator	Approximate Station	Size (in)	Contents	Conflict Length (ft)
AT&T	103+94.47	-	Buried Telecom	668
Entergy/AT&T/Allen's	104+11.50	-	Overhead Electric/Telecom/Cable	678
-	118+69.26	-	Cell Tower	-
Crosstex Energy	122+59.00	36	Natural Gas (Abandoned)	192
Bridgeline Holdings	128+37.26	24	Natural Gas	170
Bridgeline Holdings	128+45.50	24	Natural Gas	170
Texas Brine Co.	128+71.69	12	Brine	170
Acadian	128+73.82	20	Natural Gas (Abandoned)	192
Acadian	128+99.72	20	Natural Gas (To Be Activated)	192
Acadian	132+57.00	12	Natural Gas	174
Entergy/AT&T	136+82.83	-	Overhead Electric/Telecom	170
Crosstex Energy	142+76.87	10	Highly Volatile Liquid	172
Crosstex Energy	142+81.89	6	Highly Volatile Liquid	172
Texas Brine Co.	143+18.44	12	Brine	170
Entergy/AT&T/Allen's	151+01.49	-	Overhead Electric/Telecom/Cable	170

Table B.2 – Existing LA 70 Utilities Summary (LA 69 to Detour Route 2 Tie In)

Owner/Operator	Size (in)	Contents	Current Length (FT.)	Relocated Length (FT.)
Assumption Parish	14	Water	4328	5189
Assumption Parish	6	Water	5026	6607
AT&T	-	Buried Telecom	4493	6940
Entergy/AT&T/Allen's	-	Overhead Electric/Telecom/Cable	4193	5482
Entergy/AT&T	-	Overhead Electric/Telecom	1990	6841

Table B.3 – Utility Relocation Cost Estimate – Detour Route 2

Station	Description	Length	Unit	Unit Cost	Total
103+94.47	AT&T - Buried Telecommunications Cable				
	Relocation of facilities as necessary for roadway tie in	668	LNFT	$35	$23,380
104+11.50	Entergy/AT&T - Overhead Electric/Telecommunications/Cable				
	Relocation of facilities as necessary for roadway tie in	678	LNFT	$115	$77,970
118+69.26	American Tower/AT&T - Cellular Tower				
	Relocation of tower and facilities to unknown site	1	EACH	$800,000	$800,000
	Relocation of associated AT&T buildings, generators, equipment	1	EACH	$400,000	$400,000
122+59.00	Crosstex Energy Inc. - 36" Natural Gas Pipeline (Abandoned)				
	Cut and Seal of Pipeline	192	LNFT	$100	$19,200
128+37.26	Bridgeline Holdings, L.P. - 24" Natural Gas Pipeline				
	Split Casing of Pipeline	170	LNFT	$1,150	$195,500
128+45.46	Bridgeline Holdings, L.P. - 24" Natural Gas Pipeline				
	Split Casing of Pipeline	170	LNFT	$1,150	$195,500
128+71.70	Texas Brine Company, LLC - 12" Brine Pipeline				
	Matting over Pipeline in Roadside Ditches (2 - 10' x 20')	170	SQYD	$1,000	$170,000
128+73.81	Acadian Gas - Chico B 20" Natural Gas Pipeline (Abandoned)				
	Cut and Seal of Pipeline (Will be Re-routed)	192	LNFT	$100	$19,200
128+99.70	Acadian Gas - Chico D 20" Natural Gas Pipeline (Abandoned)				
	Cut and Seal of Pipeline	192	LNFT	$100	$19,200
132+56.99	Acadian Gas - Enron Grand Bayou Lateral 12" Natural Gas Pipeline				
	Matting over Top of Pipe Entire Right of Way	175	SQYD	$1,000	$175,000
136+32.86	Entergy/AT&T - Overhead Electric/Telecommunications				
	Relocation/Elevation of facilities for R/W +30'	170	LNFT	$90	$15,300
142+76.79	Crosstex Energy Inc. - 10" Highly Volatile Liquid				
	Split Casing on Pipe Full Width of Right of Way	172	LNFT	$1,000	$172,000
142+81.86	Crosstex Energy Inc. - 6" Highly Volatile Liquid				
	Split Casing on Pipe Full Width of Right of Way	172	LNFT	$600	$103,200

143+18.42	Texas Brine Company, LLC - 12" Brine Pipeline				
	Matting over Pipeline in Roadside Ditches (2 - 10' x 20')	173	SQYD	$1,000	$173,000
151+01.09	Entergy/Allen's Cable - Overhead Electric/Telecommunications				
	Relocation of facilities as necessary for roadway tie in	170	LNFT	$95	$16,150
	Estimate of Probable Utility Relocation Costs				**$2,574,600**

Table B.4 – Existing LA 70 Utilities Cost Estimate - Relocate to Detour Route 2

Owner	Description	Length	Unit	Unit Cost	Total
AT&T	Buried Telephone Lines Along LA 70	6500	LNFT	$35	$227,500
	Re-route Along North Side of Detour 2/West side of LA 69				
Entergy	Overhead Electrical Lines Along LA 70	6500	LNFT	$70	$455,000
	Re-route Along North Side of Detour 2/West Side of LA 69				
Allen's Cable	Cable Lines attached to Energy's Overhead Electric	5100	LNFT	$25	$127,500
	Re-route with Overhead Lines along Detour 2				
Assumption Water	6" Water Line Along South Side of LA 70	5,180	LNFT	$30	$155,400
	Re-route Water Line Along South Side of Bypass Road				
Assumption Water	14" Water Line Along South Side of LA 70	6,565	LNFT	$85	$558,025
	Re-route Along South Side of Detour 2/East side of LA 69				

Entergy	Overhead Electrical Lines to the Cell Tower	1000	LNFT	$70	$70,000
	Re-route to New Location of Cell Tower (Unknown)				
AT&T	Aerial Telecomm to Cell Tower	1000	LNFT	$20	$20,000
	Re-route to New Location of Cell Tower				
AT&T	Aerial Telecomm to Texas Brine Facility South of LA 70	2580	LNFT	$20	$51,600
	Re-route to Facility from Detour 2				
Entergy	Overhead Electrical to Texas Brine South of LA 70	2580	LNFT	$70	$180,600
	Re-route to Facility from Detour 2				
AT&T	Buried Telephone to Chevron Facility	580	LNFT	$35	$20,300
	Re-route Buried Lines from Detour 2 to Facility				
Allen's Cable	Cable Lines to Texas Brine Facility South of LA 70	2580	LNFT	$25	$64,500
	Re-route to Facility from Detour 2				
Subtotal					**$1,930,425**
Relocation of Utilities for Detour Route 2 (Not necessary if all along LA 70 relocated to Detour 2)					
103+94.47	AT&T - Buried Telecommunications Cable				
	Relocation of facilities as necessary for roadway tie in	-700	LNFT	$35	-$24,500
104+11.50	Entergy/AT&T - Overhead Electric/Telecommunications/Cable				
	Relocation of facilities as necessary for roadway tie in	-700	LNFT	$115	-$80,500
118+69.26	Entergy/AT&T - Overhead Electric/Telecommunications				
	Relocation/Elevation of facilities for R/W +30'	-200	LNFT	$90	-$18,000
136+82.83	Entergy/AT&T - Overhead Electric/Telecommunications				
	Relocation/Elevation of facilities for R/W +30'	-200	LNFT	$90	-$18,000
151+01.09	Entergy/Allen's Cable - Overhead Electric/Telecommunications				
	Relocation of facilities as necessary for roadway tie in	-200	LNFT	$95	-$19,000
	Estimate of Probable Utility Relocation Costs				**$1,770,425**

Table B.5 – Existing Utility Relocation Estimate - LA 69 Turn Lane (North of Detour Route 2)

Feet North of Route	Description	Relocation Length	Unit	Unit Cost	Total
200	Bridgeline Holdings, L.P. - 12" Water Pipeline				
	Matting over Pipeline or Extend Casing	50	LNFT	$400	$20,000
200	Bridgeline Holdings, L.P. - 12" Water Pipeline				
	Matting over Pipeline or Extend Casing	50	LNFT	$400	$20,000
215	Bridgeline Holdings, L.P. - 24" Natural Gas Pipeline				
	Relocation or Extend Casing of Pipeline	50	LNFT	$1,440	$72,000
215	Bridgeline Holdings, L.P. - 24" Natural Gas Pipeline				
	Relocation or Extend Casing of Pipeline	50	LNFT	$1,440	$72,000
910	Enterprise Products - 12" HVL Pipeline				
	Relocation or Extend Casing of Pipeline	50	LNFT	$1,250	$62,500
920	Enterprise Products - 8" HVL Pipeline				
	Relocation or Extend Casing of Pipeline	50	LNFT	$1,000	$50,000
940	Crosstex Energy Inc. - 36" Natural Gas Pipeline (Abandoned)				
	Cut and Seal of Pipeline	180	LNFT	$100	$18,000
	Entergy/Allen's Cable - Overhead Electric/Telecommunications				
	Relocation of facilities for roadway widening	1150	LNFT	$95	$109,250
	Estimate of Probable Utility Relocation Costs				**$423,750**

*Utilities listed above have not been located in field – see page B-5 for details

SCALE: 1" = 100'

SHEET NUMBER	B-11

DESIGNED		PARISH	ASSUMPTION
CHECKED			
DETAILED	G. ARIAS	FEDERAL PROJECT	
CHECKED	P. OLIVIER		
DATE	OCT. 2013	STATE PROJECT	
SHEET			

STAGE 0 STUDY SUBMITTAL

PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION, BIDDING OR RECORDATION, CONVEYANCE OR AS THE BASIS FOR THE ISSUANCE OF A PERMIT

Louisiana Department of Transportation and Development

ENGINEER: D.HYNEL
LICENSE: 38172
DATE: 10/23/2013

PLAN - EXISTING UTILITIES

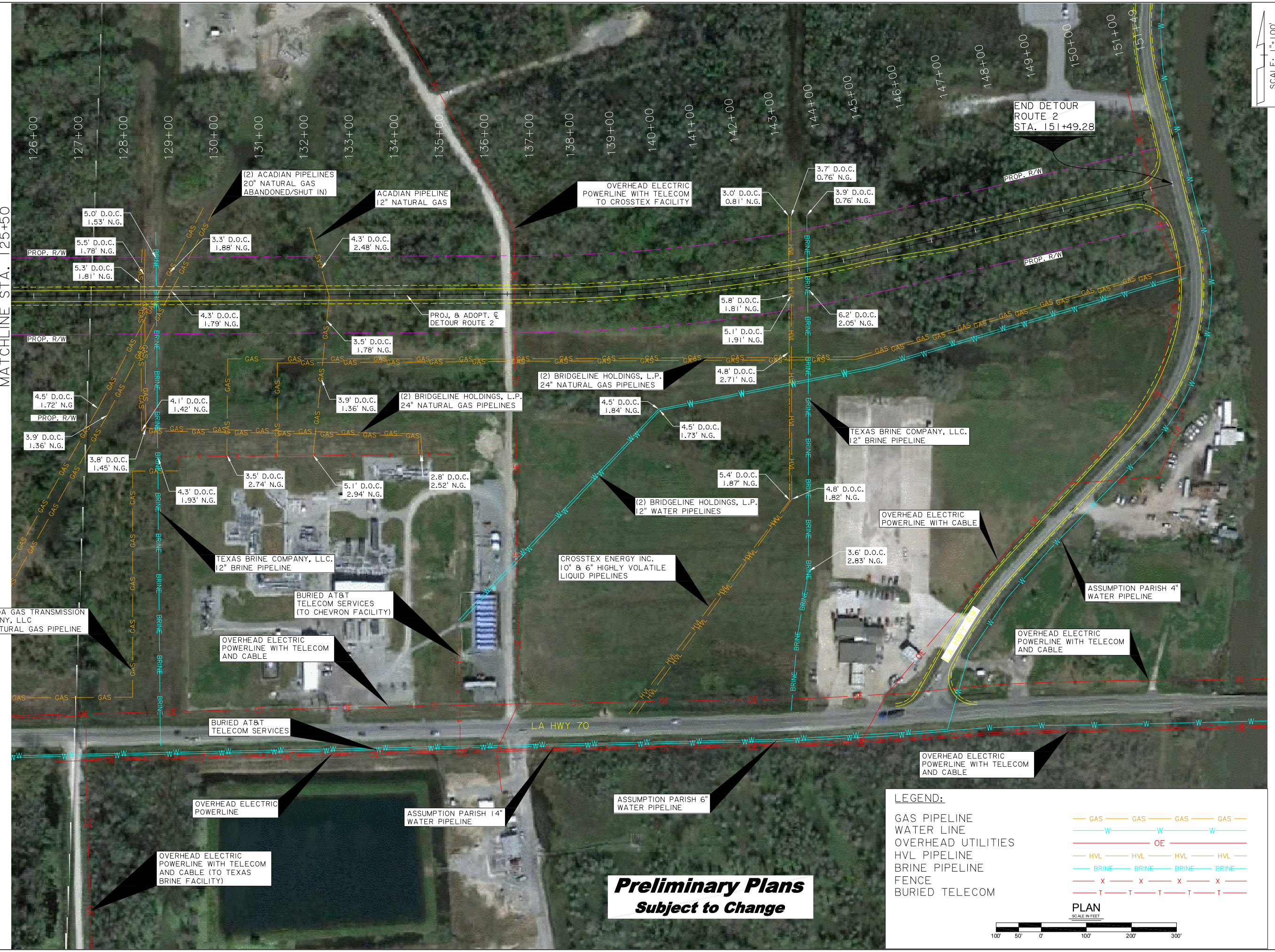
LA 70 DETOUR ROUTE 2

LA 70 BYPASS STAGE 0 FEASIBILITY STUDY

STATE OF LOUISIANA

DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

TBS



SCALE: 1" = 100'

SHEET NUMBER	B-12
PARISH	ASSUMPTION
FEDERAL PROJECT	
STATE PROJECT	
DESIGNED	
CHECKED	
DETAILED	G. ARIAS
CHECKED	P. OLIVIER
DATE	OCT. 2013
SHEET	

STAGE 0 STUDY SUBMITTAL
Louisiana Department of Transportation and Development
ENGINEER: D.HYNEL
LICENSE: 38172
DATE: 10/23/2013

PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION, BIDDING, RECONSTRUCTION, COST ESTIMATES OR AS THE BASIS FOR THE ISSUANCE OF A PERMIT

PLAN - EXISTING UTILITIES
LA 70 DETOUR ROUTE 2

LA 70 BYPASS STAGE 0 FEASIBILITY STUDY

TBS

CROSSTEX ENERGY INC.
36" NATURAL GAS PIPELINE
APPROXIMATE STA. 122+50

ACADIAN PIPELINES
(2) 20" NATURAL GAS PIPELINES
APPROXIMATE STA. 129+00

BRIDGELINE HOLDINGS, L.P.
(2) 24" NATURAL GAS PIPELINES
APPROXIMATE STA. 128+50

ACADIAN PIPELINES
12" NATURAL GAS PIPELINES
APPROXIMATE STA. 132+50

CROSSTEX ENERGY INC.
10" & 6" HIGHLY VOLATILE PIPELINES
APPROXIMATE STA. 143+00

ENTERGY
OVERHEAD ELECTRIC CROSSING ALIGNMENT
APPROXIMATE STA. 151+50

Preliminary Plans
Subject to Change

SHEET NUMBER	B-13
PARISH	ASSUMPTION
FEDERAL PROJECT	
STATE PROJECT	
DESIGNED	
CHECKED	
DETAILED	G. ARIAS
CHECKED	P. OLIVIER
DATE	SEPT. 2013
SHEET	

STAGE 0 STUDY SUBMITTAL
Louisiana Department of Transportation and Development
ENGINEER: D.HYNEL
LICENSE: 38172
DATE: 10/23/2013

PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION, PURCHASE, RECORDATION, CONVEYANCE OF TITLES OR AS THE BASIS FOR THE ISSUANCE OF A PERMIT

STATE OF LOUISIANA

PHOTOS - EXISTING UTILITIES
LA 70 DETOUR ROUTE 2

LA70 STAGE 0 STUDY

DOTD

TBS

APPENDIX

Utility Contact Information

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Williams

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