LA 70 Bypass
Stage 0 Feasibility

Final Report

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Prepared for:

Louisiana Department of Transportation and Development

Prepared by:

CB&I

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List of Acronyms

ADT	Average Daily Traffic
CB&I	Chicago Bridge & Iron
CIBTFF	Timber Trestle w/ I-Beam Stringers (w/ Timber Deck)
COPCSS	Concrete Precast Slab units
COSLAB	Concrete Slab
HCM	Highway Capacity Manual
IBSWNG	Steel I-Beam (Swing Span)
LA DOTD	Louisiana Department of Transportation and Development
LDNR	Louisiana Department of Natural Resources
LOS	Level of Service
MPH	Miles per Hour
NCHRP	National Cooperative Highway Research Program
NSI	Neel-Schaffer, Inc.
PONTON	Pontoon Bridge
Providence	Providence Engineering and Environmental Group, LLC
ROW	Right-of-Way
SHPO	State Historic Preservation Office
T-Baker	T Baker Smith, LLC
TITCOF	Treated Timber Trestle (w/ Concrete Deck)
USFWS	United States Fish & Wildlife Service

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 proposed bypass route on Louisiana Highway 70 (LA 70). The proposed project will provide an alternative route for commuters traveling along the highway in the event of a closure of the roadway associated with the Napoleonville Salt Dome. This report covers the tasks completed as part of the Stage 0 Feasibility Study/Environmental Inventory. ***Exhibit 1*** shows the project vicinity.

Three (3) proposed Bypass Routes, as shown in ***Exhibit 2***, were considered in the study to serve as long-term solutions should LA 70 be closed. The proposed Bypass Routes vary in length; Bypass Route 1 is approximately 4 miles in length and Bypass Routes 2 and 3 are both approximately 2 miles in length. As a separate part of this project, the construction of a Detour Route for LA 70 is considered. This route, covered in a separate report, will provide a solution in the event of an emergency closure of the roadway.

This report will also consider the required improvements to bring two (2) Traffic Contingency Plan detour routes (Local Detour and Primary Detour) which are located on existing roadways up to current design criteria.

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 LA 70 is closed to local responders and residents due to activities associated with the Napoleonville Salt Dome. 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 oil and gas well blowouts, LA 70 has been closed three (3) times since 2003. The potential exists that future closures may be required due to

long-term subsidence associated with the nearby sinkhole and activity related to the Napoleonville Salt Dome.

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 bypass route should the closure of LA 70 be required due to long-term subsidence related to the sinkhole or other activities associated with the Napoleonville Salt Dome. 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 long term area of concern.

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 Louisiana Highway 22 (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 three (3) proposed Bypass Routes: Bypass Routes 1, 2 and 3. These routes are shown in aerial view in ***Exhibit 2***. Each of these routes was based on stakeholder input and is located within the general vicinity but outside of the area of long-term subsidence for the sinkhole. These routes are also outside of the Napoleonville Salt Dome (as defined by the contour -1000 below ground surface).

Bypass Route 1 begins on LA 70 near Rue De Kajun and ends at LA 69 south of its intersection with LA 996 and is approximately 4 miles long. Bypass Route 2 begins on LA 69 north of LA 70 and ends at the intersection of LA 996 and LA 1000 and is approximately 2 miles long. Bypass Route 3 begins on LA 69 north of LA 70 and ends on LA 996 between LA 1000 and LA 70. Bypass Route 3 is approximately 2

miles long. Each of the Bypass Routes are two (2) lane roadways with 12 ft. travel lanes, 8 ft. shoulders and roadside ditches. The typical sections for the bypass routes are shown in ***Exhibit 2***.

The construction of each Bypass Route will have considerable impacts on wetlands. In order to mitigate these impacts, it was determined that the routes would be elevated over most of the wetland areas. This would reduce the direct impacts to the environment. For comparison purposes only, each route is shown in two forms: one mostly elevated and on mostly at-grade. The designation of Bypass Routes 1, 2 and 3 are used for the routes which are elevated over wetland areas. These routes are recommended for construction and are mostly elevated. The designation of Bypass Routes 1A, 2A and 3A are used for the routes which are elevated only over waterways shown in GIS. These routes are shown to compare the impacts to wetlands due to at-grade construction and are not recommended due to the increased environmental impacts. ***Table 1*** shows a comparison of the bridge and roadway lengths for each route. The plan sheets for each route is shown in ***Exhibit 2***.

Table 1

Bypass Routes Bridge and Roadway Lengths

Route	Bridge Length (Miles)	Roadway Length (Miles)	Total Length (Miles)
Bypass Route 1 (elevated)	2.8	1.2	4
Bypass Route 1A (at-grade)	0.2	3.8	4
Bypass Route 2 (elevated)	1.6	0.4	2
Bypass Route 2A (at-grade)	0.3	1.7	2
Bypass Route 3 (elevated)	1.3	0.7	2
Bypass Route 3A (at-grade)	0.1	1.9	2

The original Bypass Route 1 alignment was developed to provide a direct connection to LA 996 at its intersection with LA 69. This route was shifted south to avoid a historical/archeological site located west of the intersection of LA 996 and LA 69. It was later suggested that Bypass Route 1 be extended past LA 69 to provide a more direct connection to LA 996. This proposed segment of Bypass Route 1 from LA 69 to

LA 996 would conflict with approximately nineteen (19) pipelines and one buried telephone line. In addition, this segment would require the construction of two (2) additional bridges and impact three (3) additional acres of wetlands. The preliminary conceptual construction cost estimate for this 0.7 mile segment alone would total approximately $24 million. Taking all of this into consideration, it was determined that the segment of Bypass Route 1 between LA 69 and LA 996 would not be feasible.

In order to provide an alternative route west of LA 69, Bypass Route 1 will need to be constructed or the Detour Route would have to serve as a permanent alternative. Bypass Routes 2 and 3 provide a connection east of LA 69 only and to satisfy the purpose and need, must function with either the Detour Route or Bypass Route 1.

6.0 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. All three of the bypass routes will potentially impact high quality wetland areas. Direct and indirect wetland impacts were calculated for all three routes. Direct impacts are defined by at-grade construction as well as including bridge pile acreage for elevated sections of the routes. Indirect impacts were calculated by subtracting the bridge pile acreage from the elevated section acreage of each route. Elevated sections of roadway will prevent the complete loss of wetlands; however, shading effects will effectively convert the wetland habitat below the bridge superstructure to a potentially lower quality. The following three (3) Bypass Routes with just a numeric designation, assumes minimal at-grade construction and mostly elevated portions along the route. Bypass Route 1 includes approximately 2 acres of direct wetland impact and 76 acres of indirect wetland impacts. Bypass Route 2 includes approximately 12 acres of direct impacts and 41 acres of indirect

impacts. Bypass Route 3 includes approximately 3 acres of direct impacts and 33 acres of indirect impacts. The designation of "A" after the Bypass Route number assumes at-grade construction for almost the entire length of the route with minimal elevated portions. Bypass Route 1A will have direct impacts to approximately 79 acres, Bypass Route 2A will directly impact approximately 53 acres, and Bypass Route 3A will directly impact approximately 36 acres of wetlands. The wetland mitigation costs depicted in this report assume direct impacts for at-grade construction only for all six (6) Bypass Routes.

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 all three bypass routes. 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 vicinity of Bypass Routes 2 and 3. Maps for all of these wells can be found in ***Exhibit 1***.

Historic Sites: There are potential historical sites located north of Bypass Route 1 where it ties into LA 69 and west of where it goes near Bayou Corne. Bypass Route 3 is also adjacent to documented sites near its intersection with LA 996. From records and information received from the Louisiana State Historic Preservation Office (SHPO), most of the area and the previously recorded sites have never been systematically surveyed and these sites have not been assessed for eligibility for nomination to the National Register of Historic Places. These areas would need to be surveyed in order determine if cultural resources are present.

7.0 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 Bypass 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 Bypass Routes. **Table 2** provides a brief description of all coordination meetings on record.

Table 2

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

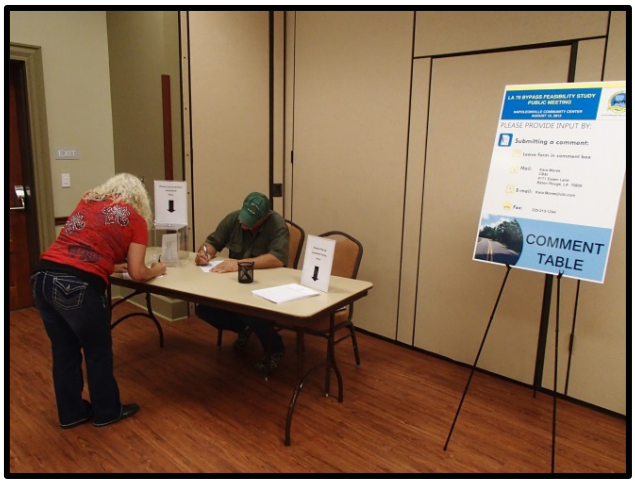
8.0 Public Involvement:

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 focus was more towards the two (2) Detour Route alternatives which were being considered in the event that an emergency closure of LA 70 takes place. However, the three bypass alignments, which

would provide a more permanent solution should the highway be closed, were introduced as an exhibit at the public meeting.

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. Several residents also expressed concerns over the safety of LA 996 being used as a connection point of the Bypass Routes. A future public meeting and a public hearing are planned as part of the Stage 1 process in regards to the Bypass Routes. A complete list of interested parties to date can be found in ***Appendix F***.

9.0 Design Criteria:

All concepts developed for this project are based on the appropriate LA DOTD Design Criteria. The Bypass Routes meet the Rural Arterial (RA-2) design criteria for roadways. Each of the Bypass Route alignments consists of a two (2) lane roadway with 12 ft. lanes and 8 ft. shoulders and has a design speed of 60 mph. The bridges will be a combination of slab span and girder span bridge types and are designed to

match the roadway width. Slab span bridges were assumed for bridge structures less than 1200 ft. long. For structures greater than 1200 ft. in length, slab spans were assumed at the bridge ends and girder spans for the inner bridge spans.

Superelevation will likely be required for each of the proposed Bypass 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.

Bypass Route 2 encroaches onto an existing ditch close to its intersection with LA 1000. It has been assumed that the required capacity of this ditch can be obtained within a relocated ditch or with the use of drainage structures. The construction cost estimate was completed with the assumption that subsurfacing is required which would provide for the worst case scenario.

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 from a two (2) lane roadway to a four (4) lane facility. The four lane section was considered by LA DOTD but due to the number of impacts to wetlands, construction costs, and tie-ins with existing 2-lane facilities at both ends it was determined that a two (2) lane roadway would be recommended. A copy of the LA DOTD Minimum Design Guidelines for Rural Arterial Roads is provided in ***Appendix H***.

Each of the Bypass Routes will impact wetland areas. In order to reduce these impacts, it has been suggested that the bridges be constructed using end-on bridge construction techniques and the cost for the bridge estimates have been inflated to absorb this method of construction.

It may be worth considering the realignment of the existing LA 69 highway as part of the turn lane improvements at each of the Bypass Routes. This realignment would improve the intersection sight distances where the existing LA 69 intersects the Bypass Routes and would help accommodate the proposed Grand Bayou Bridge for Bypass Routes 2 and 3. The cost estimates presented in this study do not include the construction costs associated with these improvements.

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.

10.0 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 of the Bypass Routes. 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 Bypass 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 full utility report is provided in ***Appendix I***.

10.1 Bypass Route 1

The estimated utility relocation cost for Bypass Route 1 was determined to be a total of approximately $2.25* million. The utilities which were identified in close proximity of Bypass Route 1 are shown in **Table 3** and are discussed in detail in the utility relocation report provided in ***Appendix I***.

Table 3

Existing Utilities Bypass Route 1*

Utility Owner	Utility Description
Acadian Gas, L.L.C.	36” natural gas pipeline
Bridgeline Holdings, L.P.	20” natural gas pipeline
Bridgeline Holdings, L.P.	30” natural gas pipeline
Entergy/Allen’s Cable	Overhead Electric/Telecomm
Enterprise Products Partners, L.P.	8” highly volatile liquid pipeline
Enterprise Products Partners, L.P.	12” highly volatile liquid pipeline
Florida Gas Transmission, L.L.C.	12” Methane pipeline
NuStar Energy	8” highly volatile liquid pipeline

*Existing Utilities table and Relocation Costs are shown only for the segment of Bypass Route 1 which is west of LA 69.

10.2 Bypass Route 2

The estimated utility relocation cost for Bypass Route 2 was determined to be a total of approximately $6.87 million. The utilities which were identified in close proximity of Bypass Route 2 are shown in **Table 4** and are discussed in detail in the utility relocation report provided in ***Appendix I***.

Table 4
Existing Utilities Bypass Route 2

Utility Owner	Utility Description
Assumption Parish Water	2-4" waterlines
Assumption Parish Water	2-2" waterlines
AT&T	Overhead/buried telephone lines
Boardwalk Pipeline Partners	12" ethane pipeline
Boardwalk Pipeline Partners	6" propylene pipeline
Charter Communications	Overhead cable
Chevron	4" highly volatile liquid pipeline
Chevron	6" highly volatile liquid pipeline
Chevron	8" highly volatile liquid pipeline
Crosstex Energy	2-4" highly volatile liquid pipelines
DOW	2-8" butane pipelines
DOW	2-8" liquid petroleum gas pipelines
DOW	24" Brine pipeline
DOW	12" propane pipeline
DOW	16" ethylene pipeline
DOW	20" butane pipeline
DOW	12" propylene pipeline
Entergy	Overhead electric lines along West Star Rd.
Entergy/Charter Communications	Along Hwy 996
Enterprise Products Partners, L.P.	2-8" highly volatile liquid pipelines
Enterprise Products Partners, L.P.	6" highly volatile liquid pipeline
Enterprise Products Partners, L.P.	12" highly volatile liquid pipeline
Exxon Mobil	8" highly volatile liquid pipeline
NuStar Energy, L.P.	8" highly volatile liquid pipeline
Shell	12" highly volatile liquid pipeline
Shell	10" highly volatile liquid pipeline
Unknown	Gas line

10.3 Bypass Route 3

The estimated utility relocation cost for Bypass Route 3 was determined to be a total of approximately $7.56 million. The utilities which were identified in close proximity of Bypass Route 3 are shown in **Table 5** and are discussed in detail in the utility relocation report provided in ***Appendix I***.

Table 5

Existing Utilities Bypass Route 3

Utility Owner	Utility Description
Acadian Gas, L.L.C.	2-20” natural gas pipelines
Assumption Parish Water	4” waterline
Boardwalk Pipeline Partners	12” ethane pipeline
Boardwalk Pipeline Partners	6” propylene pipeline
Bridgeline Holdings, L.P.	24” natural gas pipeline
Chevron	4” highly volatile liquid pipeline
Chevron	6” highly volatile liquid pipeline
Chevron	8” highly volatile liquid pipeline
Crosstex Energy	2-4” highly volatile liquid pipelines
Crosstex Energy	2-36” natural gas pipeline (1 abandoned)
DOW	2-8” butane pipelines
DOW	2-8” liquid petroleum gas pipelines
DOW	24” Brine pipeline
DOW	12” propane pipeline
DOW	16” ethylene pipeline
DOW	20” butane pipeline
DOW	12” propylene pipeline
Entergy	Overhead electric lines along West Star Rd.
Enterprise Products Partners, L.P.	2-8” highly volatile liquid pipelines
Enterprise Products Partners, L.P.	6” highly volatile liquid pipeline
Exxon Mobil	8” highly volatile liquid pipeline
Shell	12” highly volatile liquid pipeline
Shell	10” highly volatile liquid pipeline

11.0 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 Bypass Routes. The traffic analysis assumed that the LA 70 Bypass Routes would be completed and operational by the year 2018. Design year (2038) analyses were performed for the LA 70 Bypass Routes.

In addition, due to the potential combination of the proposed bypass routes and existing routes to maintain network connectivity, four (4) traffic analysis scenarios are evaluated as part of this study. These traffic analysis scenarios are shown in ***Appendix B*** and are described as follows:

Traffic Analysis Scenario 1A -	Utilizes LA 70 Bypass Route 1 and existing routes LA 69, LA 70 (east of LA 69) and LA 996.
Traffic Analysis Scenario 1B -	Utilizes LA 70 Bypass Routes 1 and 3; and existing routes LA 996, LA 1000 and LA 70 (east of LA 996).
Traffic Analysis Scenario 2 -	Utilizes existing LA 70 (east of LA 69) and LA 70 Bypass Route 3 to LA 996.
Traffic Analysis Scenario 3 -	Utilizes existing LA 70 (east of LA 996) and LA 70 Bypass Route 2 to LA 996 at LA 1000.

11.1 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 7** of the traffic report and the existing AM and PM counts are provided in **Figure 8** of the traffic report in ***Appendix B***.

11.2 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 Bypass 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 9 through 18** of the traffic report for various traffic analysis scenarios.

11.3 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*". By using the build volumes for the LA 70 Bypass Routes, turn-lane warrant analyses were performed for the following intersections

- LA 69 at LA 70 Bypass Route 1
- LA 69 at LA 70 Bypass Route 2
- LA 69 at LA 70 Bypass Route 3
- LA 70 at LA 69
- LA 996 / LA 1000 at LA 70 Bypass Route 2
- LA 996 at LA 70 Bypass Route 3
- LA 70 at LA 996

The analyses were performed for the left turn lanes, right turn lanes and the side street approaches for the 2018 and 2038 AM and PM peaks. The turn lane warrant analyses performed on the LA 70 Bypass Routes are summarized in **Table 6**. The detailed turn-lane analyses are provided in electronic form.

Table 6
Turn Lane Warrant Analyses*

Bypass Route 1					
Movements		**2018 Alternative 1A**		**2038 Alternative 1A**	
		AM	*PM*	*AM*	*PM*
LA 69 at LA 70 Bypass Route 1	NBL	Not Warranted	Not Warranted	Not Warranted	Warranted
	SBR	Not Warranted	Warranted	Not Warranted	Warranted
	Side Street	Single Lane	Single Lane	Consider 2 Approach Lanes	Single Lane
Bypass Route 1					
Movements		**2018 Alternative 1B**		**2038 Alternative 1B**	
		AM	*PM*	*AM*	*PM*
LA 69 at LA 70 Bypass Route 1	NBL	Not Warranted	Not Warranted	Not Warranted	Warranted
	SBR	Not Warranted	Warranted	Not Warranted	Warranted
	Side Street	Single Lane	Single Lane	Consider 2 Approach Lanes	Single Lane
Bypass Route 2					
Movements		**2018 Alternative 3**		**2038 Alternative 3**	
		AM	*PM*	*AM*	*PM*
LA 69 at Bypass Route 2	SBL	Not Warranted	Not Warranted	Not Warranted	Not Warranted
	NBR	Warranted	Warranted	Warranted	Warranted
	Side Street	Single Lane	Consider 2 Approach Lanes	Single Lane	Consider 2 Approach Lanes
Bypass Route 2					
Movements		**2018 Alternative 3**		**2038 Alternative 3**	
		AM	*PM*	*AM*	*PM*
LA 70 at LA 69	EBL	Warranted	Not Warranted	Warranted	Not Warranted
	WBR	Not Warranted	Not Warranted	Not Warranted	Not Warranted
	Minor Street	Single Lane	Single Lane	Single Lane	Consider 2 Approach Lanes
Bypass Route 2					
Movements		**2018 Alternative 3**		**2038 Alternative 3**	
		AM	*PM*	*AM*	*PM*
LA 996 at Bypass Route 2	WBL	Not Warranted	Warranted	Not Warranted	Warranted
	Side Street	Single Lane	Single Lane	Single Lane	Single Lane
Bypass Route 3					
Movements		**2018 Alternative 1B**		**2038 Alternative 1B**	
		AM	*PM*	*AM*	*PM*
LA 996 at Bypass Route 3	NBL	Not Warranted	Not Warranted	Not Warranted	Not Warranted
	SBR	Not Warranted	Not Warranted	Not Warranted	Not Warranted
	Side Street	Single Lane	Single Lane	Single Lane	Single Lane
Bypass Route 3					
Movements		**2018 Alternative 2**		**2038 Alternative 2**	
		AM	*PM*	*AM*	*PM*
LA 69 at Bypass Route 3	SBL	Not Warranted	Not Warranted	Not Warranted	Warranted
	NBR	Warranted	Warranted	Warranted	Warranted
	Side Street	Single Lane	Consider 2 Approach Lanes	Single Lane	Consider 2 Approach Lanes
Bypass Route 3					
Movements		**2018 Alternative 2**		**2038 Alternative 2**	
		AM	*PM*	*AM*	*PM*
LA 996 at Bypass Route 3	NBL	Not Warranted	Not Warranted	Not Warranted	Not Warranted
	SBR	Not Warranted	Not Warranted	Not Warranted	Not Warranted
	Side Street	Single Lane	Single Lane	Single Lane	Single Lane
Movements		**2018 Alternative 2**		**2038 Alternative 2**	
		AM	*PM*	*AM*	*PM*
LA 996 at LA 70	EBL	Not Warranted	Not Warranted	Not Warranted	Not Warranted
	WBR	Not Warranted	Not Warranted	Not Warranted	Not Warranted
	Side Street	Single Lane	Single Lane	Single Lane	Consider 2 Approach Lanes

*Table provided by NSI

11.4 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 five (5) proposed intersections. The four (4) existing intersections were evaluated for the existing 2013, 2018 and 2038 No Build and Build conditions for the various traffic analysis scenarios. The five (5) proposed intersections were evaluated for the 2018 and 2038 Build conditions for the various traffic analysis scenarios. 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. 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 the traffic report in ***Appendix B***.

11.5 Traffic Analysis Results

The analyses performed for this study indicate that the LA 70 Bypass Routes will have a positive impact on the transportation network within the project limits. Based on the turn lane warrants and the intersection analysis, the following intersection recommendations should be considered:

LA 69 at LA 70 Bypass Route 1 (based on Traffic Analysis Scenarios 1A and 1B)

- LA 69 northbound left turn lane (400 ft. storage length)
- LA 69 southbound right turn lane (270 ft. storage length)
- LA 70 Bypass Route 1 eastbound right turn lane (360 ft. storage length)

LA 69 at LA 70 Bypass Route 2 / Route 3 (based on Traffic Analysis Scenarios 2 and 3)

- LA 69 northbound right turn lane (270 ft. storage length)
- LA 69 southbound left turn lane (280 ft. storage length)
- LA 70 Bypass Route 2 / Route 3 westbound right turn lane (400 ft. storage length)

LA 996 / LA 1000 at LA 70 Bypass Route 2 (based on Traffic Analysis Scenario 3)

- LA 1000 westbound left turn lane (170 ft. storage length)
- LA 996 northbound right turn lane (270 ft. storage length)

LA 70 at LA 69 (based on Traffic Analysis Scenario 3)

- LA 70 eastbound left turn lane (330 ft. storage length)
- LA 69 southbound right turn lane (300 ft. storage length)

LA 70 at LA 996 (based on Traffic Analysis Scenario 1A)

- LA 996 southbound right turn lane (315 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.

12.0 Traffic Contingency Plan Detour Routes:

As part of this project, Chicago Bridge & Iron (CB&I) analyzed the required enhancements to bring two (2) Traffic Contingency Plan detour routes up to current design criteria. These routes would serve as the No Build alternative to the Bypass Routes 1, 2 and 3. These detour routes consist of a 35 mile Local Detour Route for vehicular traffic and a 50 mile Primary Detour Route for truck traffic. The two detour routes are necessary due to the restrictive load rating of the Bayou Pidgeon/Lower Grand River Bridge located on LA 997 along the Local Detour Route. This structure has a posted weight limit of 15 tons for a 2-axle vehicle and 25 tons for a 3-axle vehicle. This restriction does not allow for all truck traffic. Therefore, the Primary Detour Route is provided for those vehicles which exceed the limit of the Local Detour Route. Both routes are shown in ***Exhibit 3*.**

12.1 Existing Roadway Analysis – Roadway Widening

The roadway classifications for each corridor were determined using the LA DOTD Highway Functional Classification Map and the posted speed limits. ***Exhibit 3*** shows the classifications used to determine the minimum requirements for each existing roadway. The existing roadway widths were determined based on the as-built plans where possible. Most of the roadways did not meet the current recommended widths for travel lanes and shoulders when compared to the LA DOTD Minimum Design Guidelines. However, the routes along the Primary Detour Route were closer to meeting the current design criteria than the others. It may be worth considering design exceptions for roadways which are close to the required guidelines and have large impacts associated with widening. The cost estimates in this study assume that each roadway will be widened to a final roadway section consisting of two (2) 12 ft. lanes with 8 ft. shoulders. **Table 7**

shows a summary of the roadways with required improvements associated with widening of travel lanes and shoulders. ***Exhibit 3*** shows a map with the roadways which require improvements.

Table 7

Summary of Required Roadway Widening

Local & Primary Detour Routes			
Route Number	**Length (Miles)**	**Classification**	**Meets Current Guidelines**
LA 70	4	UA-2	no
Local Detour Route			
Route Number	**Length (Miles)**	**Classification**	**Meets Current Guidelines**
LA 997	13	RL-3	no
LA 75	4	RC-3	no
LA 404	8	RC-3	no
Primary Detour Route			
Route Number	**Length (Miles)**	**Classification**	**Meets Current Guidelines**
LA 70	13	RA-2/UA-2	no
US 90	7	RA-3	yes
LA 662	5	RC-3	no
LA 398	11	RC-3	no

Each of the roadways included in the Traffic Contingency Plan Detours will require additional shoulder width, with the exception of US 90 and LA 70 in Pierre Part. The additional required lane width varies from one (1) to two (2) feet and the additional required shoulder width varies from two (2) to eight (8) feet.

12.2 Existing Roadway Analysis – Horizontal Curves

The existing horizontal geometry was determined from as-built plans where possible. LA 997 was not included in this portion of the analysis due to lack of as-built data. However, it was included in the roadway widening analysis based on visual inspection which determined that the existing roadway has no shoulders.

A comparison of the existing curve lengths and radii was completed to determine which would be considered for improvements. It was assumed that the 15V rule applies to curve length and the minimum radius should be met based on the roadway classification.

It was noticed that many of the curve lengths and radii did not meet the current desired criteria and it was assumed that consideration for minor upgrades would apply at these locations. Based on this criteria, three roadways were determined to require upgrades and they are LA 662, LA 70 and LA 75. The project numbers for the as-built plan sets utilized for this determination is provided in the following table.

Table 8

Plan Sets Used for Upgrade Requirements for Roadway Widening

Route Number	As-Built Plan Set Project Numbers
LA 75	S.P. 230-03-22
LA 662	S.P. 804-23-05 and S.P. 804-23-11
LA 70	S.P. 232-01-59, S.P. 230-05-12, S.P. 230-05-10, S.P. 230-05-06, S.P. 230-06-05, S.P. 230-05-09, S.P. 230-06-04, & S.P. 230-05-0.

The upgrades associated with the roadways would include possible speed reductions through curves, warning signs, and pavement striping. The cost estimates presented in this study assume the layout for each curve is similar to the example shown on page 111 in the 2009 edition of the Manual on Uniform Traffic Control Devices.

12.3 Existing Bridge Analysis

The existing bridge analysis was completed based on desktop survey, inspection reports and as-built plans. There are two (2) bridges which are common to both the Local and Primary Detour Routes, six (6) which are located along the Local Detour Route, and multiple bridges along the Primary Detour Route, most of which are along US 90. The overall bridge ratings for these structures vary from 4 (which indicates "meets minimum tolerable limits to be left in place as is") to 7 (which means "better than the present minimum criteria"). Most of the recent inspections are dated 2012 or 2013. The structures along US 90 were constructed relatively recently and therefore appear not to have had an inspection. A summary of the existing bridge data is provided in **Table 9.**

Table 9
Summary of Existing Bridge Data

Local & Primary Detour Routes								
Bridge Crossing	Route Number	Bridge Type	Construction year	Date of Last Inspection	Posted Weight Limit	Length (ft)	Exist "Fascia to Fascia" Width (ft)	Curb to Curb Structure Width (ft)
Pierre Part Bay	LA 70	IBSWNG	1936	7/17/2012	N/A	476	39.5	28.5
Belle River	LA 70	PONTON	1958	6/20/2012	2-Axle: 25T, 3-Axle: 40T	165	31.5	24.5
Local Detour Route								
Bridge Crossing	Route Number	Bridge Type	Construction year	Date of Last Inspection	Posted Weight Limit	Length	Exist "Fascia to Fascia" Width (ft)	Curb to Curb Structure Width (ft)
Bayou Pidgeon/Lower Grand R.	LA 997	PONTON	1957	10/19/2012	2-Axle: 15T, 3-Axle: 25T	341	39.9	24
Bayou Choctaw	LA 404	CIBTTF	1955	3/20/2012	Weight Limit: 5T	145	28.2	26
Bayou Tigris	LA 404	CIBTTF	1955	3/20/2012	2-Axle: 15T, 3-Axle: 25T	126	28.3	26
Bayou Daniel	LA 404	TTTCOF	1955	1/22/2013	N/A	152	28.3	26.2
Bayou Black	LA 404	COPCSS	1970	7/24/2012	N/A	38	28	26
Levy Canal	LA 404	COPCSS	1962	1/22/2013	N/A	57	28.5	24
Primary Detour Route								
Bridge Crossing	Route Number	Bridge Type	Construction year	Date of Last Inspection	Posted Weight Limit	Length	Exist "Fascia to Fascia" Width (ft)	Curb to Curb Structure Width (ft)
Multiple Hwy 90 Bridges	Hwy 90	Multiple	1977-1998,	N/A	N/A	Mult.	81	80
Bayou L'Ourse Bridge	LA 398	COSALB	1969	2/22/2013	N/A	120	33.7	30
Morgan City Bayou Bridge	LA 398	COSALB	1969	2/22/2013	N/A	140	33.7	30

Bridge Type List of Acronyms

CIBTFF Timber Trestle w/ I-Beam Stringers (w/ Timber Deck)
COPCSS Concrete Precast Slab units
COSLAB Concrete Slab
IBSWNG Steel I-Beam (Swing Span)
PONTON Pontoon Bridge
TTTCOF Treated Timber Trestle (w/ Concrete Deck)

The Overall Structural Ratings indicated on the inspection reports were used to identify structures for replacement. Structures with an Overall Structure Rating of 5 or below were designated as in need of replacement. A rating of 5 indicates "somewhat better than minimum adequacy to tolerate being left in place as is". Additionally, the feasibility of replacing the structure was considered in the case of the Pierre Part Bay Bridge.

With an overall rating of 5, the Pierre Part Bay Bridge is recommended for repair rather than replacement due to the excessive financial cost of replacement in addition to the location of the structure along the detour routes. The structure is located within the portion of LA 70 which is common to both the Local and the Primary Detour Routes. Due to this location, replacement of the structure would necessitate all traffic originating on Hwy 70 between the sinkhole and the structure to utilize the recently constructed Detour Route 1 or 2 as referenced in "LA 70 Bypass (Detour Route) Stage 0 Feasibility Study" for the entire construction duration of the Pierre Part Bay Bridge. As the primary purpose of the Local and Primary Detour Routes is a safe alternative to the recently constructed Detour Route 1 or 2, additional routing of traffic over this road for the duration of the bridge replacement proves counter-productive.

The Bayou Pidgeon/Lower Grand River Bridge was not recommended for replacement based on the Overall Structural Ratings but it could be considered due to its impacts on truck traffic along the Local Detour Route. Preliminary conceptual cost estimates show that it would cost approximately $18,900,000 to replace this structure. Included in this cost is a 35% contingency but it does not consider ROW, engineering, mitigation or construction inspection.

Recommended improvements for the existing bridge analyses vary from replacement to upgrades. It is assumed that replacement bridges will be constructed without changes to the existing bridge lengths or finished grade elevations. It is also assumed that the posted weight limits will remain in place for bridges not called for replacement which will effect and limit overweight vehicles and truck traffic using these routes. The final section for the new bridges consists of two (2) 12 ft. travel lanes and 8 ft. shoulders to match approach roadway sections. Suggested repairs should be coordinated with and executed in concert with the Bridge Preventive Maintenance Program which is responsible for continued monitoring of the structures. A summary of the bridge improvements is provided in **Table 10.** ***Exhibit 3*** shows a map with the bridges which require replacement and upgrades and improvements.

Table 10

Summary of Bridge Improvements

Local & Primary Detour Routes					
Bridge Crossing	Route No. (Structure No.)	Recommendation	Length (ft)	Curb to Curb Structure Width (ft)	"Fascia to Fascia width (ft)" Replacement Width
Pierre Part Bay	LA 70 (61042320113011)	Replacing guardrails, replacing bridge railings, repair cracking and spalling of deck, repair paint failure and corrosion of steel girders, stringers, and floor beams, repair spalling and cracking of concrete caps, repair cracking of concrete piers, and repair scaling of concrete columns at waterline.	476	28.5	N/A
Belle River	LA 70 (61042320116621)	Replacing guardrails, replacing bridge railings, repair of paint failure and corrosion of steel stringers and floor beams, repair corrosion of pins, repair spalling and cracking of concrete caps.	165	24.5	N/A
Local Detour Route					
Bridge Crossing	Route No. (Structure No.)	Recommendation	Length (ft)	Curb to Curb Structure Width (ft)	"Fascia to Fascia width (ft)" Replacement Width
Bayou Pidgeon/Lower Grand R.	LA 997 (61242300309551)	Replace bridge railings, replace corrosion of deck, repair pontoon, repair paint failure and corrosion of steel stringers and floor beams, repair corrosion of pins, repair spalling and cracking of concrete caps and repair scaling of concrete columns at waterline.	341	24	N/A
Bayou Choctaw	LA 404 (61244050100391)	Complete Bridge Replacement, including bridge removal/demo in addition to construction of new structure of same width as the design detour roadway, with concrete railing and applicable guard rails and safety features.	145	26	42.5
Bayou Tigris	LA 404 (61244050103781)	Complete Bridge Replacement, including bridge removal/demo in addition to construction of new structure of same width as the design detour roadway, with concrete railing and applicable guard rails and safety features.	126	26	42.5
Bayou Daniel	LA 404 (61244050104081)	Complete Bridge Replacement, including bridge removal/demo in addition to construction of new structure of same width as the design detour roadway, with concrete railing and applicable guard rails and safety features.	152	26.2	42.5
Bayou Black	LA 404 (61244050106431)	Repair guardrail, replace bridge railings, and repair spalling of deck.	38	26	N/A
Levy Canal	LA 404 (61244050107601)	Complete Bridge Replacement, including bridge removal/demo in addition to construction of new structure of same width as the design detour roadway, with concrete railing and applicable guard rails and safety features.	57	24	42.5

Primary Detour Route					
Bridge Crossing	Route No. (Structure No.)	Recommendation	Length	Curb to Curb Structure Width (ft)	"Fascia to Fascia width (ft)" Replacement Width
Multiple Hwy 90 Bridges	Hwy 90 (4240533051, 4240533885, 4240533928, 4240535356, 4240535377, 4240535638, 4240535655, 4240536941, 4240536942, 4240537201, 4240537202, 4240538741, 4240538742, 4240600001, 4240600018, 4240600907, 4240600015, 4240600018, 4240600907, 4240601001, 4240601002, 4240601006, 4240601035, 4240601038, 4240700051, 4240700052)	None	Mult.	80	N/A
Bayou L'Ourse Bridge	LA 398 (61048041510331)	None	120	30	N/A
Morgan City Bayou Bridge	LA 398 (61048041508611)	None	140	30	N/A

12.4 Construction Cost Estimates for Detour Routes

The following tables provide a summary of the probable cost for the roadway widening, upgrades to horizontal curves, and the bridge upgrades and replacements. Preliminary construction cost estimates for roadway widening and horizontal curve upgrades were completed utilizing the LA DOTD Unit Cost Bid Summaries for the 2nd quarter of 2013 where possible.

Site visits were not conduced for the Primary and Local Detour Routes; instead the estimates were completed based on a combination of desktop survey, as-built plans and bridge inspection reports. Each Preliminary Construction Cost estimate along the detour route has a 35% contingency to reflect the higher risk and potential for unknown conditions.

The bridge improvements and horizontal curve improvement costs are for construction only and do not include costs for items such as permitting, engineering, construction inspections, ROW, or wetland mitigation. Pipeline relocation costs are not included in the probable construction cost estimate.

The probable cost for roadway widening includes the relocation of utilities (with the exception of pipelines) and removal of structures and obstructions which appear to be in the new clear zone based on desktop survey. In more densely populated areas, removals consist of homes and industrial buildings. Most of the roadways require the relocation of several utilities along the roadway segment. A small number of conflicts exist with major utility structures and obstructions such as a power substation for example. These relocation costs are included in the probable cost estimates but are itemized to allow for their removal should design exceptions allow for a section with fewer conflicts.

Table 11
Preliminary Conceptual Cost Estimate Roadway Widening

LA 70 (LA 997 to Pierre Part ; 4 Miles)		
Primary & Local Detour Routes	Construction Cost	$10,882,000
	Removal of Structures and Obstructions	$8,250,000
	Utility Relocation Cost	$5,327,000
	Subtotal	$24,459,000
	Contingency (35%)	$8,561,000
	LA 70 Total Preliminary Conceptual Cost Estimate	**$33,020,000**
LA 404 (LA 69 to LA 75 ; 8 Miles)		
Local Detour Route	Construction Cost	$28,612,000
	Removal of Structures and Obstructions	$1,500,000
	Utility Relocation Cost	$10,449,000
	Subtotal	$40,561,000
	Contingency (35%)	$14,197,000
	LA 404 Total Preliminary Conceptual Cost Estimate	**$54,758,000**
LA 75 (LA 404 to LA 997 ; 4 Miles)		
Local Detour Route	Construction Cost	$13,220,000
	Removal of Structures and Obstructions	$350,000
	Utility Relocation Cost	$4,802,000
	Subtotal	$18,372,000
	Contingency (35%)	$6,431,000
	LA 75 Total Preliminary Conceptual Cost Estimate	**$24,803,000**
LA 997 (LA 75 to LA 70 ; 13 Miles)		
Local Detour Route	Construction Cost	$47,226,000
	Removal of Structures and Obstructions	$6,500,000
	Utility Relocation Cost	$16,966,000
	Subtotal	$70,692,000
	Contingency (35%)	$24,743,000
	LA 997 Total Preliminary Conceptual Cost Estimate	**$95,435,000**
LA 70 (LA 997to 1.5 miles south of LA 997; 1 Miles)		
Local Detour Route	Construction Cost	$2,957,000
	Removal of Structures and Obstructions	$6,500,000
	Utility Relocation Cost	$1,921,000
	Subtotal	$11,378,000
	Contingency (35%)	$3,983,000
	LA 70 Total Preliminary Conceptual Cost Estimate	**$15,361,000**
Total Local Detour Route Conceptual Cost Estimate (Includes cost estimate for LA 70 between LA 997 and Pierre Part)		**$223,377,000**
LA 70 (1 mile south of LA 997to 1.85 mile north of US 90; 11 Miles)		
Primary Detour Route	Construction Cost	$20,620,000
	Removal of Structures and Obstructions	$2,500,000
	Utility Relocation Cost	$14,725,000
	Subtotal	$37,845,000
	Contingency (35%)	$13,246,000
	LA 70 Total Preliminary Conceptual Cost Estimate	**$51,091,000**
LA 70 (1.85 mile north of US 90 to US 90; 2 Miles)		
Primary Detour Route	Construction Cost	$5,645,000
	Removal of Structures and Obstructions	$750,000
	Utility Relocation Cost	$2,369,000
	Subtotal	$8,764,000
	Contingency (35%)	$3,068,000
	LA 70 Total Preliminary Conceptual Cost Estimate	**$11,832,000**
LA 662 (US 90 to LA 398; 5 Miles)		
Primary Detour Route	Construction Cost	$9,350,000
	Removal of Structures and Obstructions	$250,000
	Utility Relocation Cost	$5,954,000
	Subtotal	$15,554,000
	Contingency (35%)	$5,444,000
	LA 662 Total Preliminary Conceptual Cost Estimate	**$20,998,000**
LA 398 (US 662 to LA 1; 10 Miles)		
Primary Detour Route	Construction Cost	$25,897,000
	Removal of Structures and Obstructions	$0
	Utility Relocation Cost	$13,445,000
	Subtotal	$39,342,000
	Contingency (35%)	$13,770,000
	LA 398 Total Preliminary Conceptual Cost Estimate	**$53,112,000**
Primary Detour Routes Conceptual Cost Estimate (Includes cost estimate for LA 70 between LA 997 and Pierre Part)		**$170,053,000**

Table 12
Preliminary Conceptual Cost Estimate Horizontal Curve Upgrades

Local Detour Route	
Roadway Corridor	**Estimated Cost**
LA 75	$114,000
Total Local Detour Route	**$114,000**
Primary Detour Route	
Roadway Corridor	**Estimated Cost**
LA 70	$135,000
LA 662	$40,000
Total Primary Detour Route	**$175,000**

For bridge probable cost estimates, LA DOTD Unit Cost Bid Summaries were utilized where possible. When Unit Cost Bid Summaries did not cover the recommended rehabilitation, a factor was applied to the construction cost for the associated material. It is anticipated that rehabilitation is more tedious and labor intensive than new construction utilizing the same material. The material cost was inflated by a factor to represent the additional cost associated with rehabilitation versus new construction. **Table 13** shows the results of these calculations.

Table 13
Preliminary Conceptual Cost Estimate Bridge Improvements

Local & Primary Detour Routes			
Bridge Crossing	**Route Number**	**Estimated Cost per ft^2**	**Estimated Cost**
Pierre Part Bay	LA 70	$68	$924,000
Belle River	LA 70	$79	$319,000
Local Detour Route			
Bridge Crossing	**Route Number**	**Estimated Cost per ft^2**	**Estimated Cost**
Bayou Pidgeon/Lower Grand R.	LA 997	$70	$574,000
Bayou Choctaw	LA 404	$269	$1,013,000
Bayou Tigris	LA 404	$278	$910,000
Bayou Daniel	LA 404	$254	$1,013,000
Bayou Black	LA 404	$112	$111,000
Levy Canal	LA 404	$365	$499,000
Total Cost Local Detour Route[1]			**$5,363,000**
Primary Detour Route			
Bridge Crossing	**Route Number**	**Estimated Cost per ft^2**	**Estimated Cost**
Multiple Hwy 90 Bridges	Hwy 90	N/A	N/A
Bayou L'Ourse Bridge	LA 398	N/A	N/A
Morgan City Bayou Bridge	LA 398	N/A	N/A
Total Cost Primary Detour Route[1]			**$1,243,000**

1. Includes cost for Pierre Part Bay and Belle River Bridge Crossings.

Table 14

Total Estimated Construction Cost

(Bridge Improvements, Roadway Widening and Horizontal Curve Upgrades)

Route	Total Estimated Construction Cost
Local Detour Route	$228,854,000
Primary Detour Route	$171,471,000

13.0 Bypass Routes Preliminary Construction Cost Estimates:

Due to the large amount of wetlands impacted by each bypass route, it has been assumed that environmentally sensitive bridge construction will be required. Conventional construction allows for ease and speed of construction but typically is accomplished in part from the ground which leads to disturbance to the vegetation and potentially the destruction of sensitive wetlands. End-On Construction allows for the erection of the superstructure from the substructure and/or previously erected superstructure. These techniques avoid and minimize environmental impacts but have extensive impacts on the construction cost and time.

To address the increase in cost associated with these bridge construction methods, the probable construction cost estimates for all bridges along the Bypass Routes were increased by 60%. This adjustment was applied to estimate the difference between conventional construction costs and environmentally sensitive bridge construction costs.

As previously mentioned, two versions of each alignment are shown for comparison purposes. The designations are as follows:

- Bypass Routes 1, 2 and 3 consist of mostly bridges due to the fact that these routes are elevated over wetland areas. These routes are recommended for construction. These routes are presented throughout the entirety of this report.
- Bypass Routes 1A, 2A and 3A are elevated only over waterways based on GIS mapping. This results in routes with only a small segment of elevated portions. These routes are shown only to allow for a comparison of the direct and indirect environmental impacts and as justification for the recommended elevated routes. These at-grade routes are only presented in sections of the report where it is beneficial for comparison purposes.

Wetland mitigation costs and utility relocation costs were calculated to consider the worst case scenario which assumes that each route is at-grade for the entire length. If the bridges are designed to span over utility crossings, the utility relocation costs shown in this report would likely be reduced. Each Bypass Route and the associated utility conflicts are shown in plan view in ***Appendix I.*** Reference ***Appendix C*** and ***Appendix I*** for wetland mitigation quotes and Utility Location Survey and Relocation Cost Estimate utilized in the preliminary conceptual cost estimates.

Bridge Costs assume a combination of slab span and girder span bridge types. For bridges less than 1200 ft. in length, slab spans are assumed. For longer bridges, slab spans are assumed at the bridge ends and girder spans for inner spans. ***Table 15*** shows the estimated bridge costs per square foot.

Table 15

Preliminary Conceptual Cost Estimate Bypass Route Bridge Structures

(Structures are listed from west to east along each route. See exhibit 2 for additional information.)

Route	Bridge Type	Length (Ft)	Structure Width (Ft)	Total Cost	Estimated Cost per ft^2
Bypass Route 1	COSALB & COPSGR	14540	42.5	$67,019,000.00	$174
	COSALB	80	42.5	$500,000.00	$235
Route	**Bridge Type**	**Length (Ft)**	**Structure Width (Ft)**	**Total Cost**	**Estimated Cost per ft^2**
Bypass Route 2	COSALB & COPSGR	8390	42.5	$38,760,000.00	$174
Route	**Bridge Type**	**Length (Ft)**	**Structure Width (Ft)**	**Total Cost**	**Estimated Cost per ft^2**
Bypass Route 3	COSALB & COPSGR	6815	42.5	$31,578,000.00	$174
Route	**Bridge Type**	**Length (Ft)**	**Structure Width (Ft)**	**Total Cost**	**Estimated Cost per ft^2**
Bypass Route 1A	COSALB	200	42.5	$1,037,000.00	$195
	COSALB	220	42.5	$1,122,000.00	$192
	COSALB	120	42.5	$696,000.00	$218
	COSALB	100	42.5	$611,000.00	$230
	COSALB	180	42.5	$954,000.00	$200
	COSALB	80	42.5	$532,000.00	$251
Route	**Bridge Type**	**Length (Ft)**	**Structure Width (Ft)**	**Total Cost**	**Estimated Cost per ft^2**
Bypass Route 2A	COSALB	220	42.5	$1,141,000.00	$195
	COSALB	1100	42.5	$4,924,000.00	$169
	COSALB	160	42.5	$876,000.00	$206
Route	**Bridge Type**	**Length (Ft)**	**Structure Width (Ft)**	**Total Cost**	**Estimated Cost per ft^2**
Bypass Route 3A	COSALB	220	42.5	$1,129,000.00	$193
	COSALB	220	42.5	$1,129,000.00	$193

Bridge Type List of Acronyms

COPSGR Concrete Prestressed Girders
COSLAB Concrete Slab

Preliminary construction cost estimates were completed utilizing the LA DOTD Unit Cost Bid Summaries for the 2nd quarter of 2013 where possible.

13.1 Cost Estimates:

The preliminary conceptual cost estimates for the Bypass Routes are provided in ***Table 16***. 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 16

Preliminary Conceptual Cost Estimate Bypass Routes

Cost Category	Bypass Route 1 (Elevated Route) Estimated Cost	Bypass Route 1A (At-Grade Route) Estimated Cost	Bypass Route 2 (Elevated Route) Estimated Cost	Bypass Route 2A (At-Grade Route) Estimated Cost	Bypass Route 3 (Elevated Route) Estimated Cost	Bypass Route 3A (At-Grade Route) Estimated Cost
Engineering Design[1]	$12,167,000	$4,778,000	$7,200,000	$3,553,000	$6,100,000	$2,878,000
Mitigation[2]	$9,105,000	$9,105,000	$5,770,000	$5,770,000	$3,880,000	$3,880,000
R/W Acquisition [3]	$69,000	$108,000	$39,000	$66,000	$40,000	$60,000
Utility Relocations[4]	$2,248,000	$2,248,000	$6,879,000	$6,879,000	$7,563,000	$7,563,000
Roadway Construction Cost	$11,719,000	$39,095,000	$8,841,000	$23,860,000	$9,507,000	$24,711,000
Bridge Construction Cost[5]	$108,031,000	$7,927,000	$62,016,000	$11,107,000	$50,525,000	$3,614,000
Mobilization[6]	$23,950,000	$9,405,000	$14,172,000	$6,994,000	$12,007,000	$5,665,000
Traffic Control[7]	$8,383,000	$3,292,000	$4,960,000	$2,448,000	$4,203,000	$1,983,000
Subtotal	$175,672,000	$75,958,000	$109,877,000	$60,677,000	$93,825,000	$50,354,000
Contingency (20%)	$35,135,000	$15,192,000	$21,976,000	$12,136,000	$18,765,000	$10,071,000
Total Project Cost	**$210,807,000**	**$91,150,000**	**$131,853,000**	**$72,813,000**	**$112,590,000**	**$60,425,000**

Notes:

1. Calculated as 8% of the roadway construction, bridge construction, mobilization and traffic control costs.
2. See Appendix C for wetland mitigation quotes. The wetland mitigation costs depicted in this report assume direct impacts for at-grade construction only for all Bypass Routes.
3. ROW costs were assumed to be $1000 per acre based on local sales and the assessed property values.
4. See Appendix I for Utility Relocation Cost Estimates. Relocation Cost Estimates depicted in this report assume equal cost for elevated and at-grade Bypass Routes. Bypass Route 1 costs are shown for segment between LA 70 and LA 69 only.
5. Calculated bridge construction costs include a 60% adjustment to account for additional cost associated with end-on bridge construction.
6. Calculated as 20% of roadway and bridge construction cost. It is assumed that the contractor will mobilize twice due to roadway surcharge construction.
7. Calculated as 7% of roadway and bridge construction cost.

14.0 Conclusions:

Taking into consideration the major impacts to wetlands that at-grade construction poses and the poor soil conditions, it was determined that each of the Bypass Routes shall consist of mostly elevated segments. These routes are designated as Bypass Routes 1, 2 and 3. A dramatic reduction of direct wetland impacts will allow for a more viable justification when presenting the alternatives to agencies during the permitting process as well as providing for a larger reduction of mitigation costs. The following table provides a summary of the findings for each of the mostly elevated Bypass Routes.

Table 17

Summary of Findings

Evaluation Criteria	Bypass Route 1 (Elevated Route)	Bypass Route 2 (Elevated Route)	Bypass Route 3 (Elevated Route)
Impact to Business(es)	no	no	no
Direct Impact to Wetlands[1]	2 Acres	12 Acres	3 Acres
Indirect Impact to Wetlands[1]	76 Acres	41 Acres	33 Acres
Impact to Significant Tree(s)	yes	yes	yes
Impact to Historical/Archeological Site(s)	no (adjacent sites-yes)	no	no (adjacent sites-yes)
Utility Relocation Cost	$2,248,000	$6,879,000	$7,563,000
Roadway Construction Cost	$11,719,000	$8,841,000	$9,507,000
Bridge Construction Cost	$108,031,000	$62,016,000	$50,525,000
Right-of-Way	$69,000	$39,000	$40,000
Total Project Cost	**$210,807,000**	**$131,853,000**	**$112,590,000**

1. Direct and indirect wetland impacts were calculated for all three routes. Direct impacts are defined by at-grade construction as well as including bridge pile acreage for elevated sections of the routes. Indirect impacts were calculated by subtracting the bridge pile acreage from the elevated section acreage of each route.

Preliminary Scope & Budget Checklist

STAGE 0
Preliminary Scope and Budget Checklist

The information presented on this checklist applies only to the LA 70 Bypass Routes. There is a Detour Route which is also being considered as part of this contract but this route is covered in a separate report.

A. Project Background

District 61 Parish Assumption

Bypass Route 1: Begin C.S. and Log mile 232-01; 5.8 End C.S. and Log mile 406-01; 2.64

Bypass Route 2: Begin C.S. and Log mile 406-01; 0.43 End C.S. and Log mile 804-08; 2.44

Bypass Route 3: Begin C.S. and Log mile 406-01; 0.43 End C.S. and Log mile 804-08; 0.72

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

Date Study Completed: October 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. It is a two-lane undivided roadway. LA 70 has 12 ft. wide travel lanes with paved shoulders which vary from 6ft to 10ft in width. There are open ditches on both sides of LA 70 and LA 70 has posted speeds which vary from 45 mph to 55 mph. A summary of the historical traffic count data is shown below. For additional data please refer to Appendix B.

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, Agricultural and Wetlands

Who is the sponsor of the study? LA DOTD

List study team members: CB&I (Dishili Young & Kara Moree); Neel-Schaffer, Inc. - Traffic (Nick Ferlito); T. Baker Smith, LLC – 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 Stage 1 EA (Providence) is being conducted for the Bypass 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. Stage 1 for the LA 70 Bypass is the next stage in project delivery process. Stage 1 will include the completion of the detailed planning and environmental analysis for the concepts presented in this project. This Stage 0 and Stage 1 will provide 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 LA 70 is closed to local responders and residents due to activities associated with the Napoleonville Salt Dome. 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).

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 three (3) Bypass Routes. Each of these routes is shown in aerial view on Exhibit 2. These routes consist of a two (2) lane roadways with 12 ft. travel lanes, 8 ft. shoulders and roadside ditches. Each route has a design speed of 60 MPH which is above the posted speed for the segment of LA 70 it bypasses. Bypass Route 1 begins on LA 70 close to Rue De Kajun and ends at LA 69 south of its intersection with LA 996. Bypass Route 2 begins on LA 69 north of LA 70 and ends at the intersection of LA 996 and LA 1000. Bypass Route 3 begins on LA 69 north of LA 70 and ends on LA 996 between LA 1000 and LA 70. Each route is a two lane roadway with 12 ft. travel lanes, 8 ft. shoulders and roadside ditches.

For the purpose of comparing the wetland impacts, two versions of each bypass route are shown. Bypass Routes 1, 2 and 3 are mostly elevated and Bypass Routes 1A, 2A and 3A are mostly at-grade. However, only the mostly elevated routes are recommended for construction due to the substantial impact at-grade construction has on the wetland areas. The typical sections for the Bypass Routes are shown in Exhibit 2. 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 Traffic Contingency Plan detour routes instead of the existing LA 70 roadway should the existing roadway be closed.

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 Bypass Routes 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? N/A

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 . In addition the residential properties along Bypass Route 2 would be provided access because the roadway widening could be constructed while keeping a minimum of one lane open to traffic.

Describe screening criteria used to compare alternatives and from what agency the criteria were defined. The major criteria for determining the desired alternatives were the environmental impacts and avoidance of utility pipeline conflicts.

Give an explanation for any alternative that was eliminated based on the screening criteria.
The original alignment for Bypass Route 1 intersected LA 69 at LA 996. It was later determined that a historical/archeological site was located at the location where the Bypass Route would meet LA 69. The alignment was then shifted south to avoid the site and an extension was added between LA 69 and LA 996 to provide a connection to LA 996 away from the site. The utility survey determined that the extension would cost over $4 million in relocation costs. Additional analysis revealed that two bridge structures would be required and 3 acres of wetlands impacted. Taking these issues into consideration, it was determined that the extension would be removed from further consideration.

Which alternatives should be brought forward into NEPA and why? Bypass Routes 1, 2 and 3

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. During some of the stakeholder meetings, concerns were expressed by the representatives of LDNR and USFWS about the amount of wetland acreage that Bypass Route 1 would impact.

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:

Below are the cost estimates for the elevated routes only. These are recommended for construction and are considered the most feasible option due to the drastic reduction in wetland impacts.

Cost Category	Bypass Route 1 (Elevated Route) Estimated Cost	Bypass Route 2 (Elevated Route) Estimated Cost	Bypass Route 3 (Elevated Route) Estimated Cost
Engineering Design[1]	$12,167,000	$7,200,000	$6,100,000
Mitigation[2]	$9,105,000	$5,770,000	$3,880,000
R/W Acquisition [3]	$69,000	$39,000	$40,000
Utility Relocations[4]	$2,248,000	$6,879,000	$7,563,000
Roadway Construction Cost	$11,719,000	$8,841,000	9,507,000
Bridge Construction Cost[5]	$108,031,000	$62,016,000	$50,525,000
Mobilization[6]	$23,950,000	$14,172,000	$12,007,000
Traffic Control[7]	$8,383,000	$4,960,000	$4,203,000
Subtotal	$175,672,000	$109,877,000	$93,825,000
Contingency (20%)	$35,135,000	$21,976,000	$18,765,000
Total Project Cost	$210,807,000	$131,853,000	$112,590,000

Notes:

1. Calculated as 8% of the roadway construction, bridge construction, mobilization and traffic control costs.
2. See Appendix C for wetland mitigation quotes. The wetland mitigation costs depicted in this report assume direct impacts for at-grade construction only for all Bypass Routes.
3. ROW costs were assumed to be $1000 per acre based on local sales and the assessed property values.
4. See Appendix I for Utility Relocation Cost Estimates. Relocation Cost Estimates depicted in this report assume equal cost for elevated and at-grade Bypass Routes. Bypass Route 1 costs are shown for segment between LA 70 and LA 69 only.
5. Calculated bridge construction costs include a 60% adjustment to account for additional cost associated with end-on bridge construction.
6. Calculated as 20% of roadway and bridge construction cost. It is assumed that the contractor will mobilize twice due to roadway surcharge construction.
7. Calculated as 7% of roadway and bridge 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 Bypass Routes 1, 2, and 3 Parish: Assumption

Bypass Route 1: Begin C.S. and Log mile 232-01; 5.8 End C.S. and Log mile 406-01; 2.64
Bypass Route 2: Begin C.S. and Log mile 406-01; 0.43 End C.S. and Log mile 804-08; 2.44
Bypass Route 3: Begin C.S. and Log mile 406-01; 0.43 End C.S. and Log mile 804-08; 0.72

ADJACENT LAND USE: Residential, Industrial, Commercial, Forested Wetlands, Agriculture

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 Exhibit 1 – Wetland Maps; ***Bypass Route 1*** Area of Impact totals approximately 2 acres of direct wetland impacts and 76 acres of indirect wetland impacts. ***Bypass Route 2*** Area of Impact totals approximately 12 acres of direct impacts and 41 acres of indirect impacts. ***Bypass Route 3*** Area of Impact totals approximately 3 acres of direct impacts and 33 acres of indirect impacts. ***Bypass Route 1-A*** Area of Impact contains approximately 79 acres of wetlands; ***Bypass Route 2-A*** Area of Impact contains approximately 53 acres of wetlands; and ***Bypass Route 3-A*** Area of Impact contains approximately 36 acres of wetlands. A more detailed wetland assessment will be conducted in Stage 1 to produce exact acreage totals. *Note: The "A" designation assumes at-grade construction for almost entire length of route with minimal elevated portions.*

Community Elements: Is the project impacting or adjacent to any (if the answer is yes, list names and locations):
(Y or N) Cemeteries Yes; St. Martin's Cemetery is located 0.5 miles north of ***Bypass Route 2*** on LA 996. (verified per field review and la-cemeteries.com)

(Y or N) Churches Yes; St. Martin's Chapel is located 0.5 miles north of ***Bypass Route 2*** on LA 996. (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 0.7 miles southwest of where ***Bypass Route 3*** ties into LA 996).

(Y or N) Community water well/supply Yes; Per the LDNR SONRIS database, there is 1 Plugged & Abandoned Piezometer well located within the Area of Impact of ***Bypass Route 2*** (30.030, -91.110).

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

(Y or N) Historic Sites Yes; there are several sites listed in the State Historic Preservation Office (SHPO) database. ***Bypass Route 1*** is adjacent to site numbers 16IV6 (Brusly St. Martin Mound), 16AS44 (Assumption A), and 16AS107 (DOW-F-1) close to where it intersects LA 69. Site numbers 16AS31 and 16AS32 are also both adjacent to Bypass Route 1 in the vicinity of where the alignment comes close to Bayou Corne. ***Bypass Route 3*** is adjacent to site numbers 16AS108 (Simmoneaux Historic Scatter), 16AS109 (Clifton Historic Scatter), and 16AS113 (Dow-Sorr/10) near where it intersects LA 996.

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.

STAGE 0
Environmental Checklist

Do you know 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 (from Detour Route report), 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 (associated with the Detour Route report) 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 vicinity. 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.

Are there any Significant Trees as defined by EDSM I.1.1.21 within proposed ROW? (Y or N) If so, where? Yes, all three alignments pass through several 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, all 3 routes impact several drainage features which are unnamed.

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 any of the Bypass Routes per EDR Radius Map Reports.

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

(Y or N) ERNS Yes per the EDR Radius Map Reports, there are 7 ERNS sites within approx. 2 miles of the bypass 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); 6225 Hwy 996, Belle Rose (various years)

(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 Reports 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); Stazione #3 (2502 Hwy 70 S, Pierre Part); possibly DOW Chemical (875 Hwy 70, Belle Rose), Bayou Cajun Engine Repair (113 Edmond Ln., Belle Rose), K/D/S Promix (6225 Hwy 996, Belle Rose), and No Problem Raceway Park (6470 Hwy 996, Belle Rose); There are also several facilities listed as Historical Auto Stations on the EDR Radius Map Reports 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), Acadian Gas Pipeline (6326 Hwy 996, Belle Rose), Chevron (7486 Hwy 996, Belle Rose), Mike's Automotive (6659 Hwy 996, Belle Rose), D&M Transmission Service (635 Genevieve St., Belle Rose), and Waguespack Motors (117 Oak Ln., Pierre Part).

STAGE 0
Environmental Checklist

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 in the vicinity of all 3 Bypass Routes. 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), Shell Pipeline Co. (158 Shell Pipe Line Rd., Belle Rose), Occidental Chemical-Grand Bayou/Texas Brine Co. (165 Grand Bayou, Belle Rose), Acadian Gas Pipeline System (6326 Hwy 996, Belle Rose), KDS Promix (6225 Hwy 996, Belle Rose), Gulf South Pipeline (6283 Hwy 996, Belle Rose), UCAR Pipeline (245 Ucar Rd., Belle Rose) and PB Energy Storage Services, Inc. (165 Grand Bayou St., 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 Reports; There are no Dry Cleaner facilities (current or historical) listed on the EDR Radius Map Reports.

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, database was checked; there is 1 Plugged & Abandoned Oil Producing well (30.026, -91.120) and 1 Plugged & Abandoned Gas and Condensate Producing well (30.030, -91.111) within the Area of Impact of ***Bypass Route 2***; The Area of Impact for ***Bypass Route 3*** contains 2 Plugged & Abandoned Dry Hole wells (30.023, -91.114; and 30.017, -91.102); The Napoleonville Oil & Gas Field is located southeast of where ***Bypass Route 3*** ties into LA 996. Please see the Environmental Avoidance Map for locations of all wells in the area.

Are there any possible residential or commercial relocations/displacements? (Y or N)
How many? No; however there are 5 residential homes located within the Area of Impact for ***Bypass Route 2*** near the intersection of Star Rd. and LA 996. These homes will not need to be relocated due to the alignment following the existing roadway as much as possible.

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 traveling vehicular traffic. There have also been several closures of LA 70 since 2003 associated with activities from nearby chemical plants.

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 for all three Bypass Routes.

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.
N/A

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

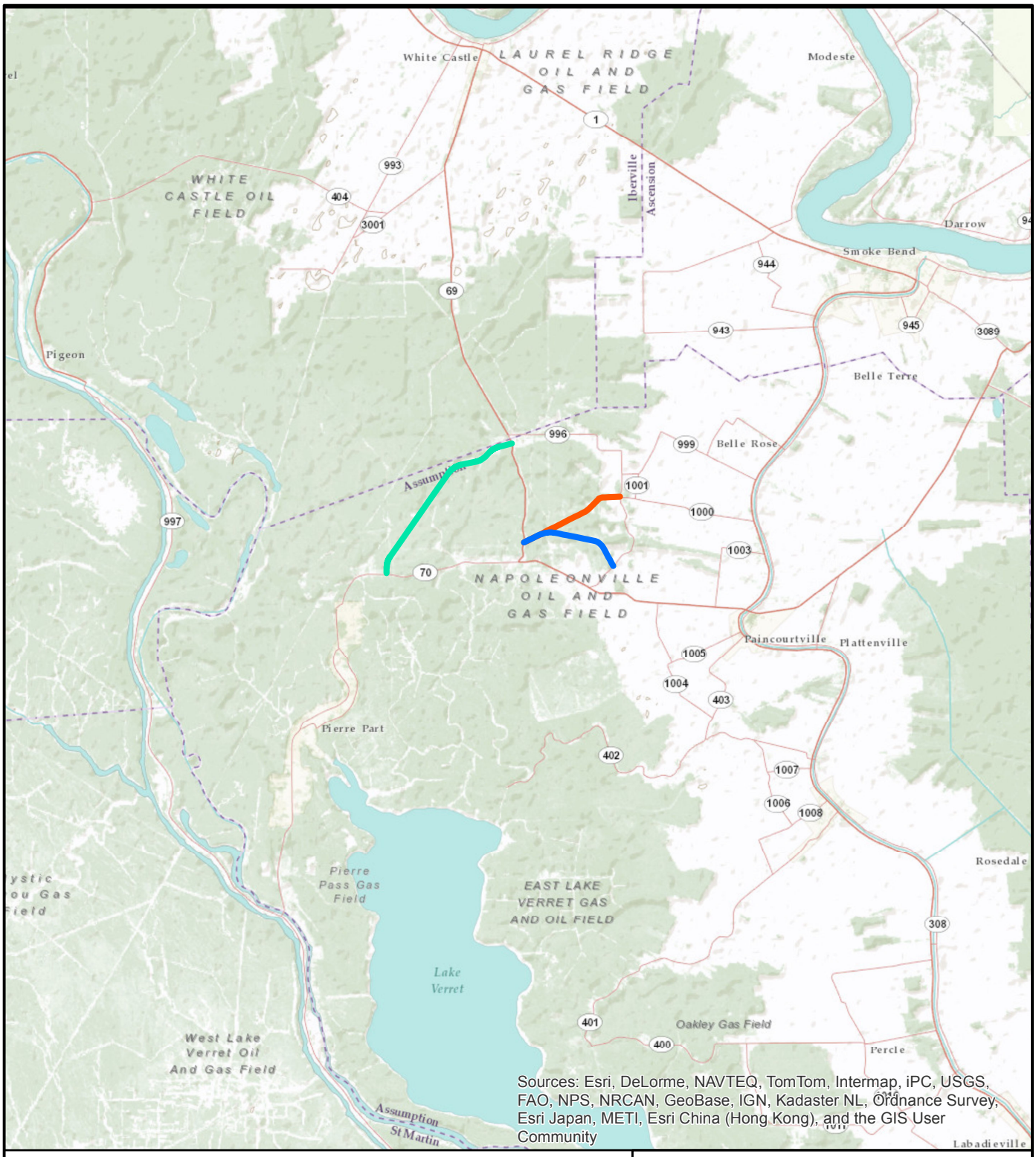
(225) 932-5803
Phone Number

October 21, 2013
Date

Exhibit 1

Maps

- Vicinity Map
- Environmental Avoidance (11 X 17)
- Bypass Route 1 Wetlands (11 X 17)
- Bypass Route 2 Wetlands (11 X 17)
- Bypass Route 3 Wetlands (11 X 17)



Legend

- Bypass Route 1
- Bypass Route 2
- Bypass Route 3

N

3 1.5 0 3

Miles

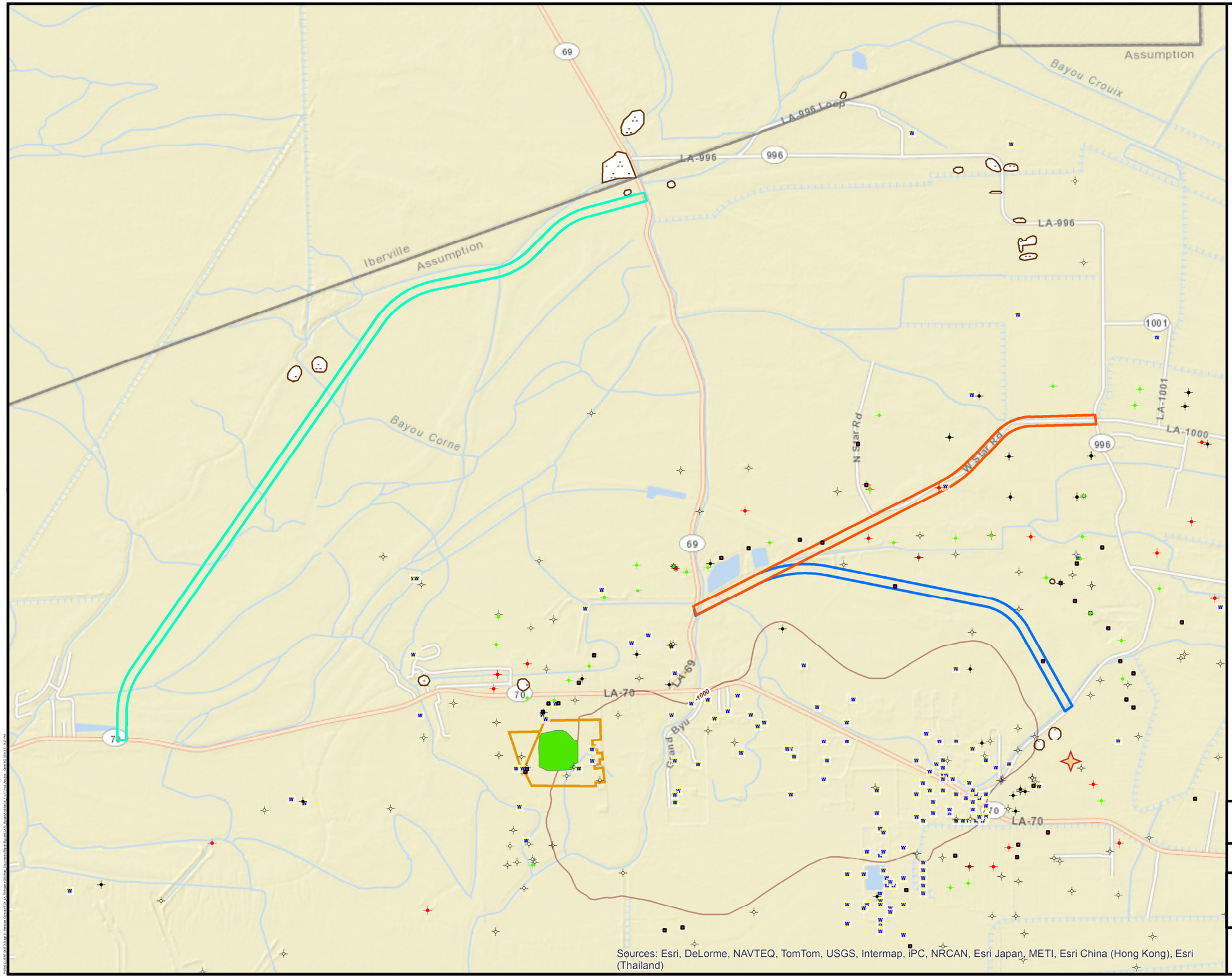
LA DOTD
S.P. No. H.010571.1

Stage 0 Feasibility Study

LA 70 Bypass 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\Bypass\LA_70_Bypass Vicinity.mxd; Analyst: ; Date: 9/22/2013 3:01:36 PM



Sources: Esri, DeLorme, NAVTEQ, TomTom, USGS, Intermap, iPC, NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand)

Legend

- Bypass 1 Area of Impact
- Bypass 2 Area of Impact
- Bypass 3 Area of Impact
- Sinkhole
- Boundary of Containment
- Top of Salt Elevation Contour (-1000 ft msl)
- Potential Historical/Archaeological

Oil & Gas Wells

- 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
- Oil & Gas Field

N

0 1,250 2,500 5,000 Feet

1 inch = 2,500 feet

LA DOTD
S.P. No. H.010571.1

Stage 0 Feasibility Study

LA 70 Bypass
Environmental Avoidance
Assumption Parish, LA

Shaw Environmental & Infrastructure, Inc.
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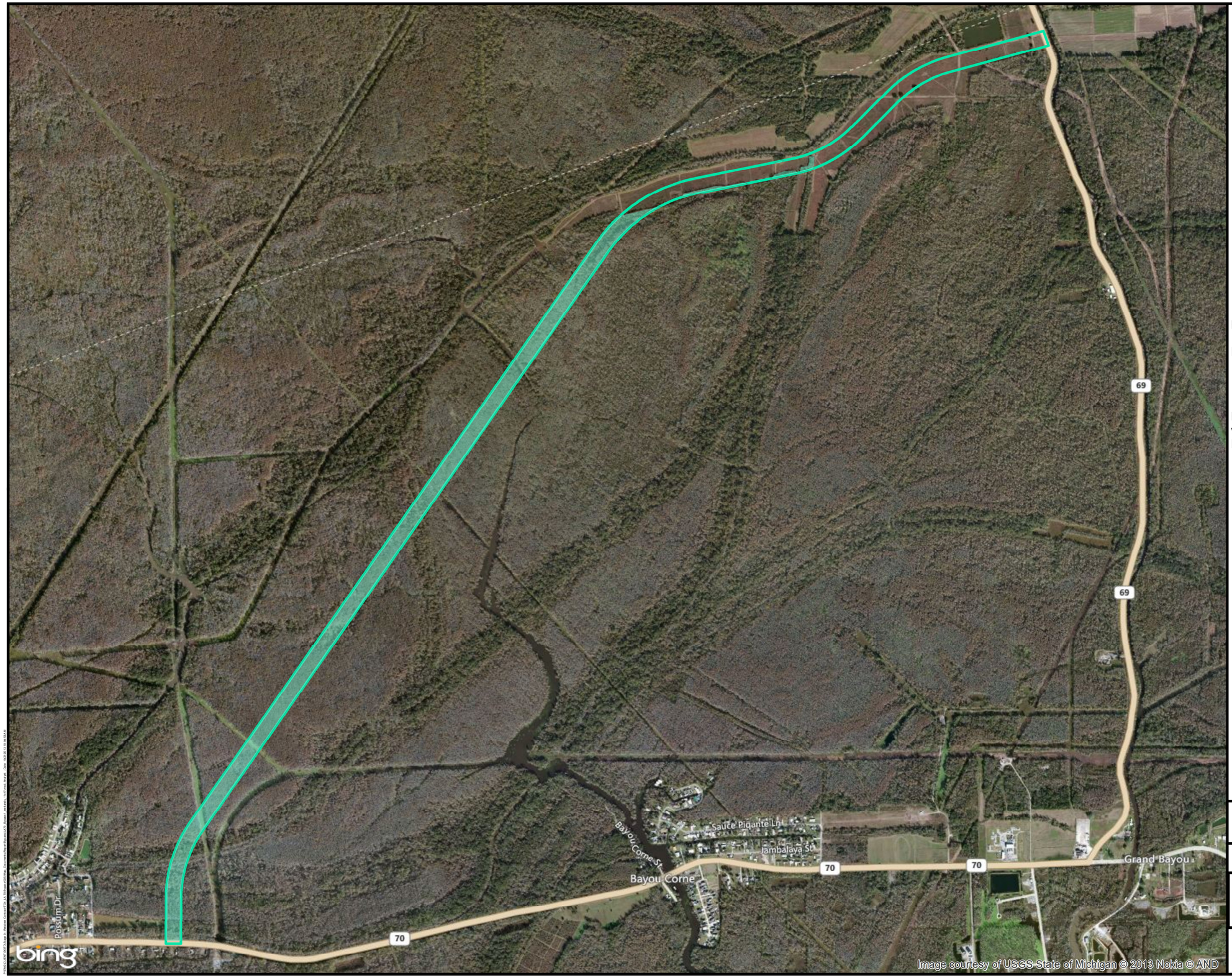
Baton Rouge, LA 70809



Legend

Bypass Route 1 Area of Impact

Wetlands

Bypass Route 1 (minimal at-grade and mostly elevated construction):
Direct Wetland Impacts = Approx. 2 Acres
Indirect Wetland Impacts = Approx. 76 Acres

Bypass Route 1-A (mostly at-grade construction with minimal elevated portions):
Direct Wetland Impacts = Approx. 79 Acres

N

0 750 1,500 3,000 Feet

1 inch = 1,500 feet

LA DOTD
S.P. No. H.010571.1

Stage 0 Feasibility Study

LA 70 Bypass Route 1
Wetlands
Assumption Parish, LA

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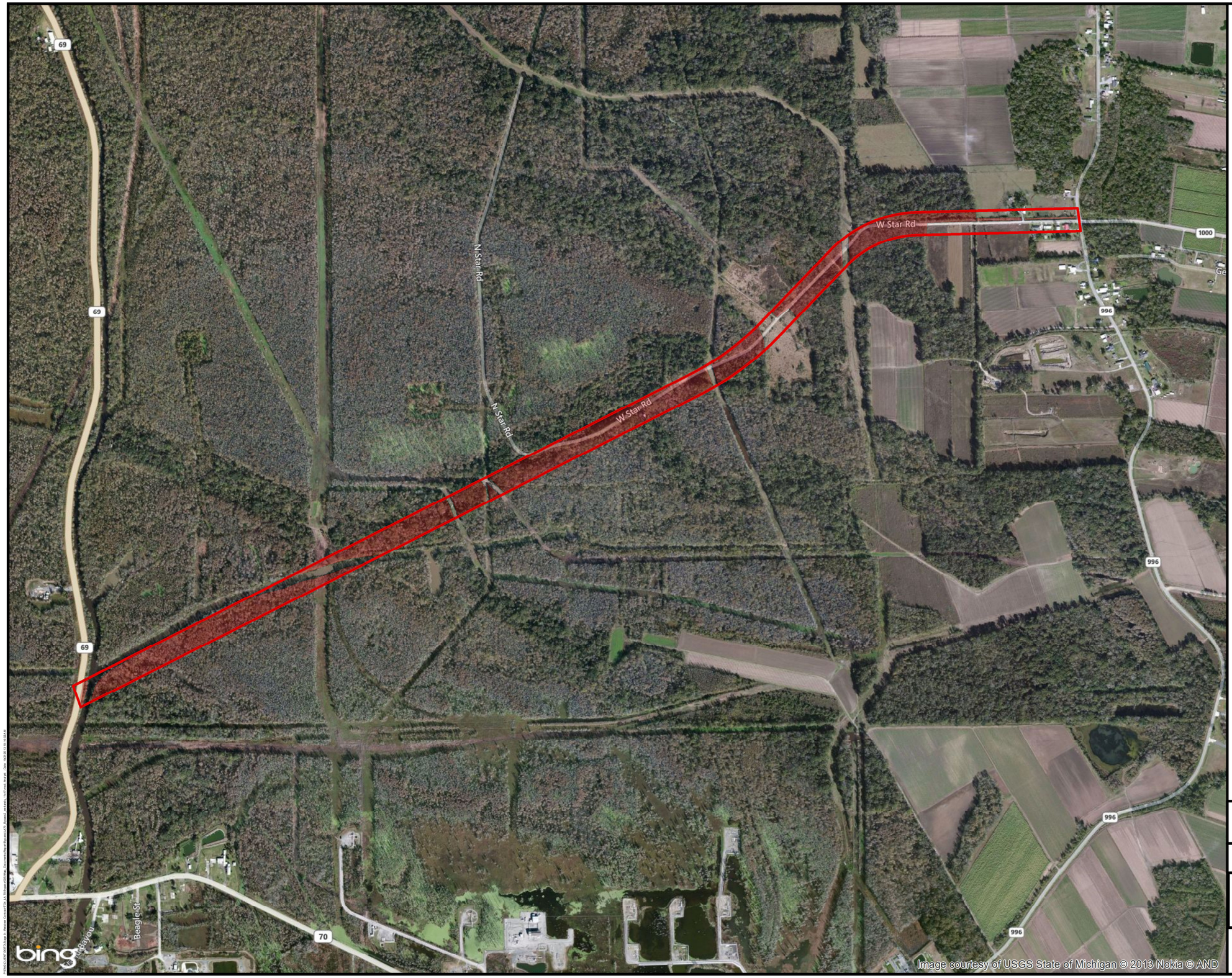
4171 Essen Lane
Baton Rouge, LA 70809



Legend

Bypass Route 2 Area of Impact

Wetlands

Bypass Route 2 (minimal at-grade and mostly elevated construction):
Direct Weltand Impacts = Approx. 12 Acres
Indirect Wetland Impacts = Approx. 41 Acres

Bypass Route 2-A (mostly at-grade construction with minimal elevated portions):
Direct Weltand Impacts = Approx. 53 Acres

N

0 500 1,000 2,000 Feet

1 inch = 1,000 feet

LA DOTD
S.P. No. H.010571.1

Stage 0 Feasibility Study

LA 70 Bypass Route 2
Wetlands
Assumption Parish, LA

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

Legend

Bypass Route 3 Area of Impact

Wetlands

Bypass Route 3 (minimal at-grade and mostly elevated construction):
Direct Wetland Impacts = Approx. 3 Acres
Indirect Wetland Impacts = Approx. 33 Acres

Bypass Route 3-A (mostly at-grade construction with minimal elevated portions):
Direct Wetland Impacts = Approx. 36 Acres

N

0 500 1,000 2,000 Feet

1 inch = 1,000 feet

LA DOTD
S.P. No. H.010571.1

Stage 0 Feasibility Study

LA 70 Bypass Route 3
Wetlands
Assumption Parish, LA

Shaw Environmental & Infrastructure, Inc.
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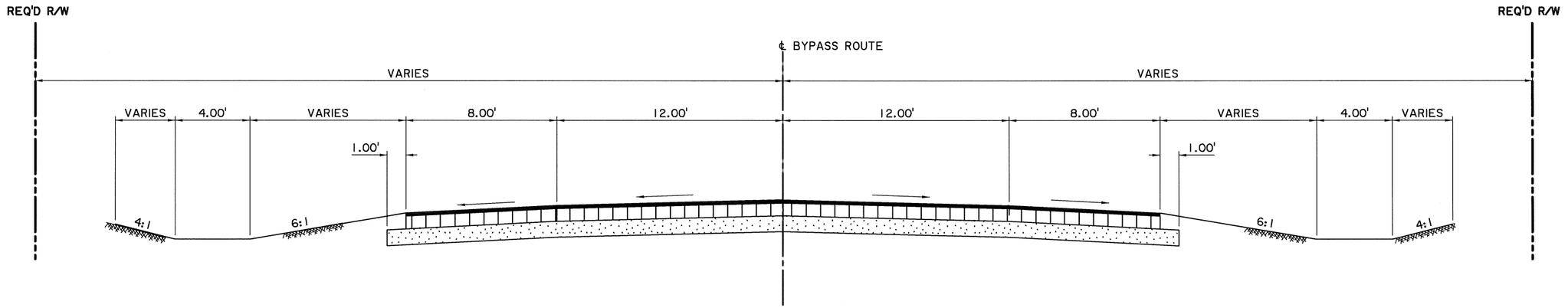
4171 Essen Lane
Baton Rouge, LA 70809

Exhibit 2

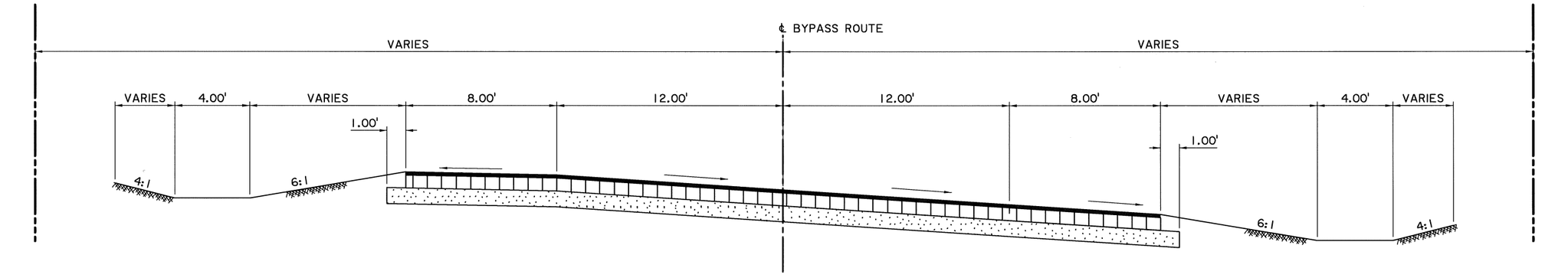
Typical Sections and Plan Sheets

2.1 Bypass Route Typical Section (11 x 17)
2.2 Bypass Route Bridge Typical Section (11x17)
2.3 Bypass Route Plan Sheet (11x 17)
Elevated Routes – Recommended for Construction
- Bypass Route 1 Plan Sheets (5 pages)
- Bypass Route 2 Plan Sheets (3 pages)
- Bypass Route 3 Plan Sheets (3 pages)

2.4 Bypass Route Plan Sheet (11x 17)
At-Grade Routes – For Comparison Purposes Only
- Bypass Route 1A Plan Sheets (5 pages)
- Bypass Route 2A Plan Sheets (3 pages)
- Bypass Route 3A Plan Sheets (3 pages)



TYPICAL FINISHED SECTION (N.T.S.)



SUPERELEVATED SECTION (N.T.S.)

NOTE:

SEE DESIGN CRITERIA FOR CROSS SLOPE REQUIREMENTS

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Louisiana Department of Transportation and Development

ENGINEER: DISHILI YOUNG

LICENSE #: 33723

DATE: 09/23/2013

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

TYPICAL SECTIONS

LA 70 BYPASS STAGE 0 FEASABILITY STUDY

SHAW E & I, INC.

10/21/2013 08:2

P:\ENG\CLIENT\DOTD\Stage 0 - Retainer Contract\TO4_LA 70 Bypass\DGN\14816604 Typical Section.dgn

CHECK PRINTS
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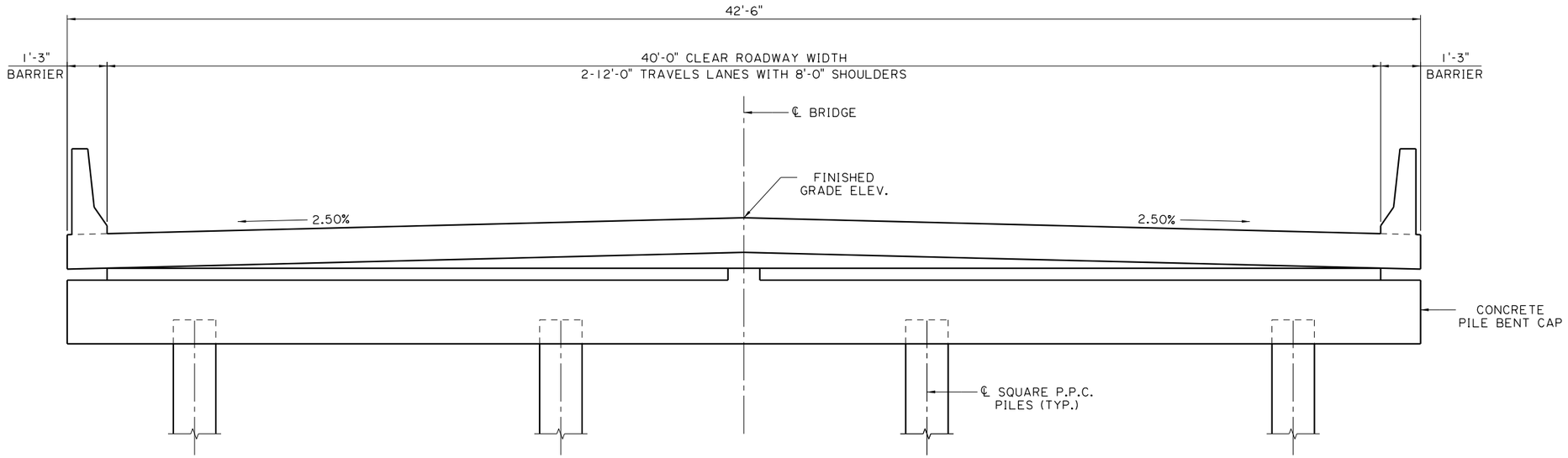
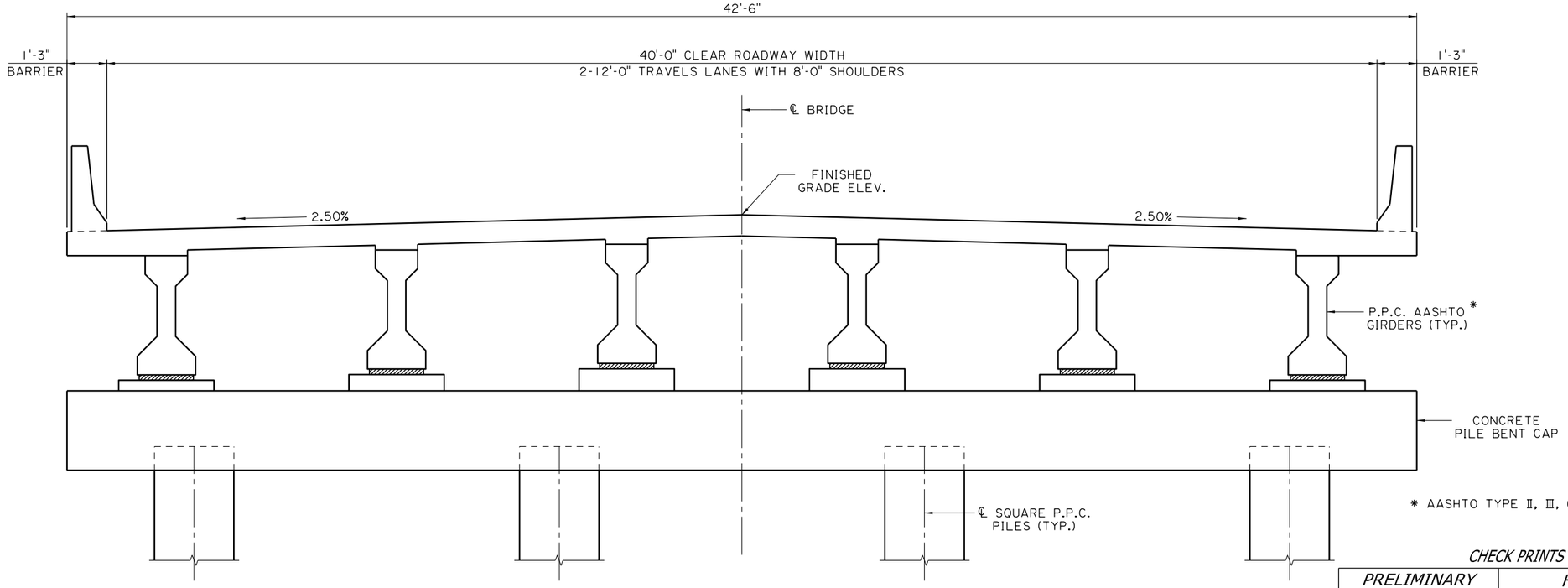


TYPICAL BRIDGE SECTION
(CONCRETE SLAB SPAN)
1" = 2'-0"



TYPICAL BRIDGE SECTION
(P.P.C. GIRDER SPAN)
1" = 2'-0"

* AASHTO TYPE II, III, OR IV GIRDERS

CHECK PRINTS

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HUVAL & ASSOCIATES, INC.
ENGINEER: JUSTIN C. PELTIER
LICENSE #: 34765
DATE: 9/10/2013

SHEET NUMBER 2.2

PARISH: ASSUMPTION
CONTROL SECTION:
STATE PROJECT: H.010571

DESIGNED: JCP
CHECKED:
DETAILED: AJJ
CHECKED:
REVIEWED:
SERIES #:

NO.	DATE	REVISION OR CHANGE ORDER DESCRIPTION	BY

TYPICAL BRIDGE SECTIONS

STAGE 1 - LA 70 RELOCATION

HUVAL & ASSOCIATES, INC. Consulting Engineers

10-21-13

Scale : 1" = 2000'

BYPASS ROUTE 1
SHEET 1

BYPASS ROUTE 1
SHEET 2

BYPASS ROUTE 1
SHEET 3

BYPASS ROUTE 1
SHEET 4

BYPASS ROUTE 1
SHEET 5

BYPASS ROUTE 2
SHEET 1

BYPASS ROUTE 2
SHEET 2

BYPASS ROUTE 2
SHEET 3

BYPASS ROUTE 3
SHEET 1

BYPASS ROUTE 3
SHEET 2

BYPASS ROUTE 3
SHEET 3

DETOUR ROUTE
SHEET 1

BYPASS ROUTE 1

BYPASS ROUTE 2

BYPASS ROUTE 3

LA 70 DETOUR ROUTE

LA 70

LA 69

LA 996

LA 1000

LA HWY 996

BAYOU CROUIX

BAYOU PIERRE PART

MUDDY BAYOU

GRAND BAYOU

BAYOU CHOUPIQUE

BAYOU CORNE

COON ROAD

POSSUM DR.
FRENCH DR.
RUE DE KAJUN

N STAR RD

W STAR RD

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ENGINEER: DISHILI YOUNG

LICENSE #: 33723

DATE: 10/21/2013

SHEET NUMBER 2.3

PARISH: ASSUMPTION

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STATE PROJECT: H.010571

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DETAILED
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SERIES NUMBER

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PLAN SHEET
KEY MAP

LA 70 BYPASS STAGE 0 FEASABILITY STUDY

SHAW E & I, INC.

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SHEET NUMBER 1

PARISH ASSUMPTION

CONTROL SECTION

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SERIES NUMBER

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BYPASS ROUTE 1 PLAN

LA 70 BYPASS STAGE 0 FEASABILITY STUDY

SHAW E & I, INC.

10-21-13

BAYOU PIERRE PART

BAYOU PIERRE PART

Scale : 1" = 400'

MATCHLINE
SEE SHEET 1

BYPASS ROUTE 1

RE0'D. BRIDGE

MATCHLINE
SEE SHEET 3

LEGEND:

EDGE OF PAVEMENT

EDGE OF SHOULDER

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Louisiana Department of Transportation and Development

ENGINEER: DISHILI YOUNG

LICENSE #: 33723

DATE: 10/21/13

SHEET NUMBER 2

PARISH ASSUMPTION

CONTROL SECTION

STATE PROJECT H.010571

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DETAILED CHECKED

SERIES NUMBER

NO.	DATE	REVISION OR CHANGE ORDER DESCRIPTION	BY

BYPASS ROUTE 1 PLAN

LA 70 BYPASS STAGE 0 FEASABILITY STUDY

SHAW E & I, INC.

10-21-13

MUDDY BAYOU

BAYOU PIERRE PART

BAYOU CORNE

Scale : 1" = 400'

MATCHLINE
SEE SHEET 2

BYPASS ROUTE 1

REQ'D. BRIDGE

MATCHLINE
SEE SHEET 4

LEGEND:

EDGE OF PAVEMENT

EDGE OF SHOULDER

PRELIMINARY

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ENGINEER: DISHILI YOUNG

LICENSE #: 33723

DATE: 10/21/13

SHEET NUMBER 3

PARISH ASSUMPTION

CONTROL SECTION

STATE PROJECT H.010571

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DETAILED CHECKED

SERIES NUMBER

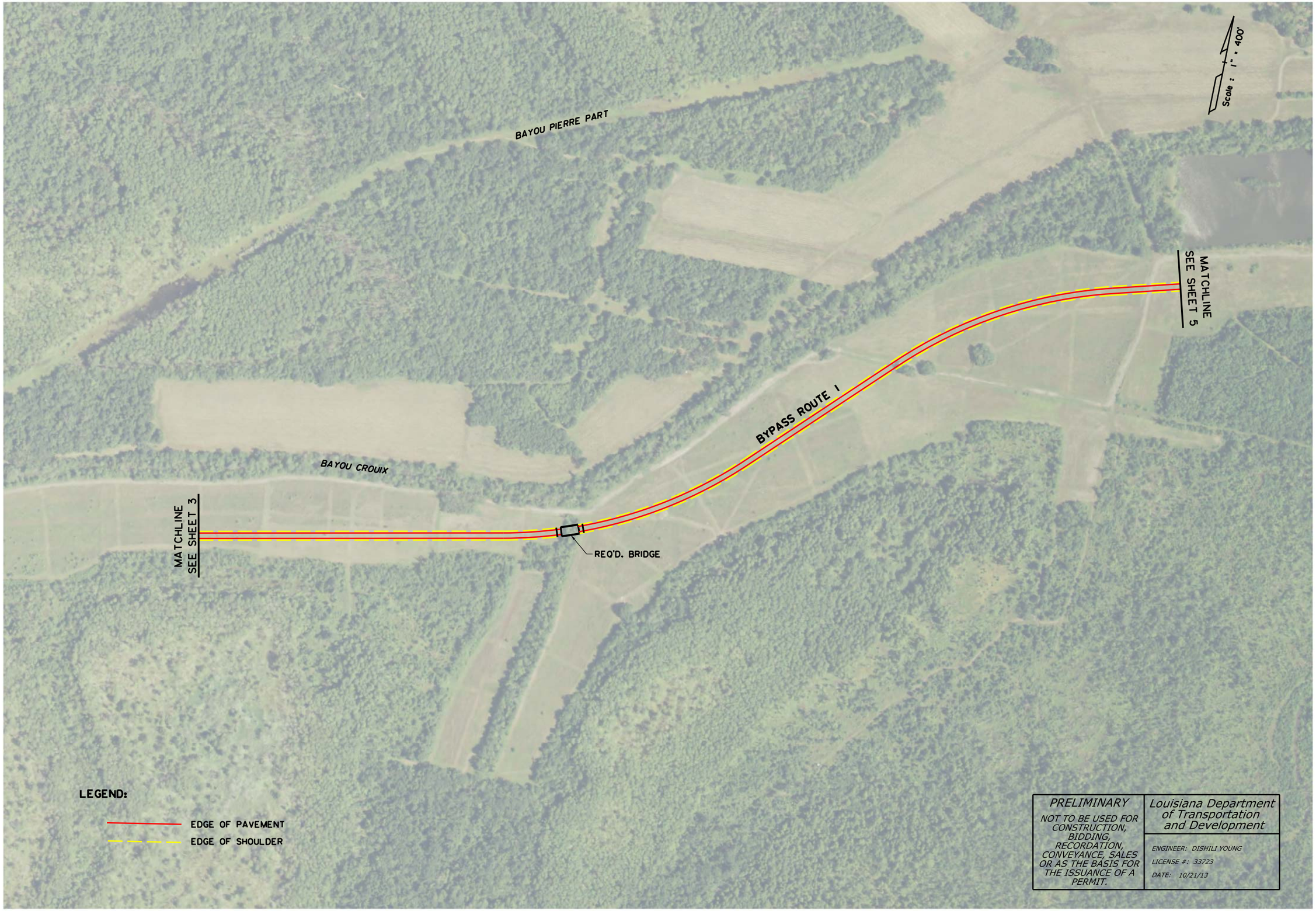
NO. DATE BY REVISION OR CHANGE ORDER DESCRIPTION

BYPASS ROUTE 1 PLAN

LA 70 BYPASS STAGE 0 FEASABILITY STUDY

SHAW E & I, INC.

10-21-13



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ENGINEER: DISHILI YOUNG

LICENSE #: 33723

DATE: 10/21/13

SHEET NUMBER 4

PARISH: ASSUMPTION

CONTROL SECTION:

STATE PROJECT: H.010571

DESIGNED
CHECKED
DETAILED
CHECKED
SERIES NUMBER

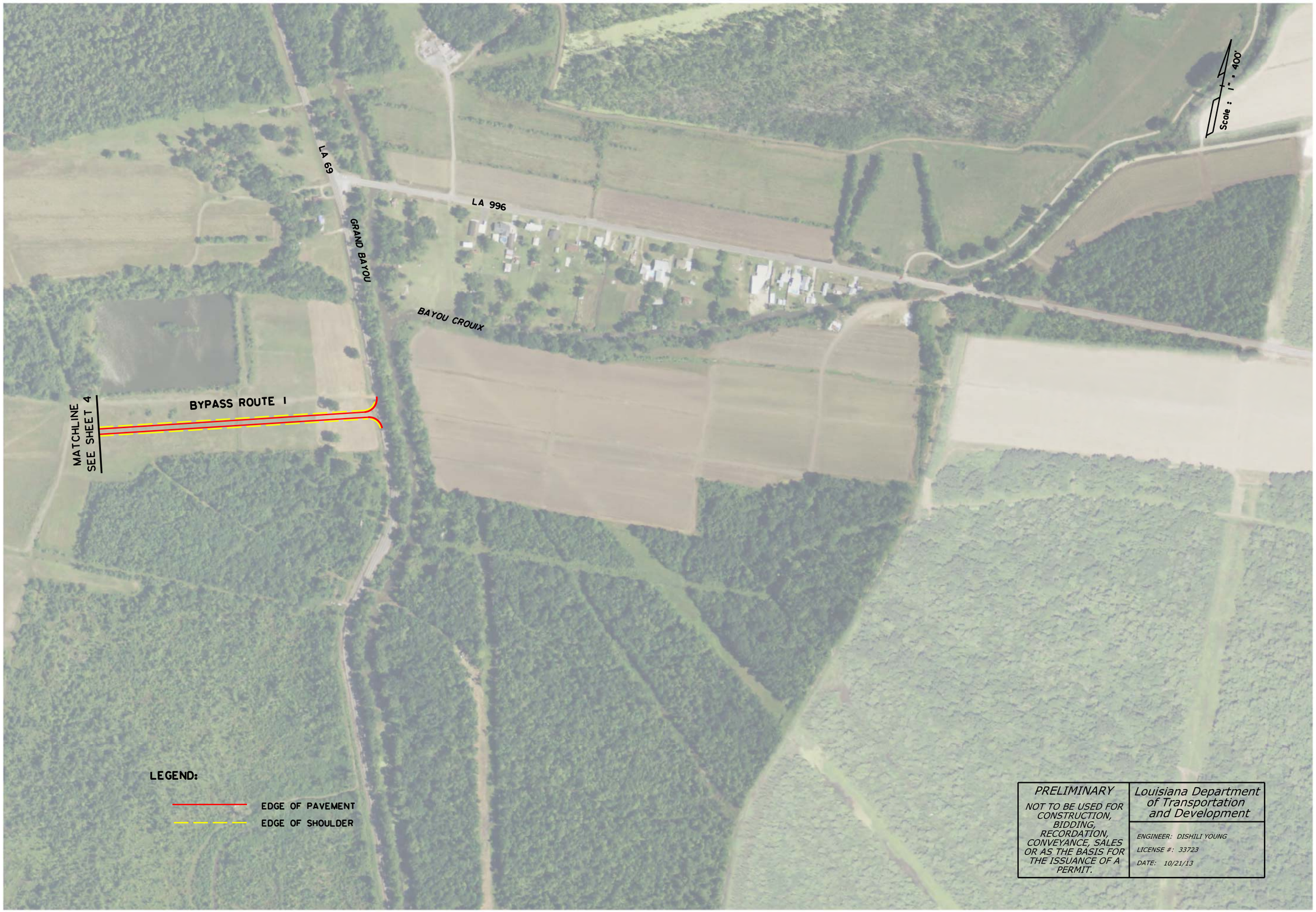
NO.	DATE	REVISION OR CHANGE ORDER DESCRIPTION	BY

BYPASS ROUTE I PLAN

LA 70 BYPASS STAGE 0 FEASABILITY STUDY

SHAW E & I, INC.

10-21-13



PRELIMINARY

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Louisiana Department of Transportation and Development

ENGINEER: DISHILI YOUNG

LICENSE #: 33723

DATE: 10/21/13

SHEET NUMBER 5

PARISH ASSUMPTION

CONTROL SECTION

STATE PROJECT H.010571

DESIGNED CHECKED

DETAILED CHECKED

SERIES NUMBER

NO.	DATE	REVISION OR CHANGE ORDER DESCRIPTION	BY

BYPASS ROUTE 1 PLAN

LA 70 BYPASS STAGE 0 FEASABILITY STUDY

SHAW E & I, INC.

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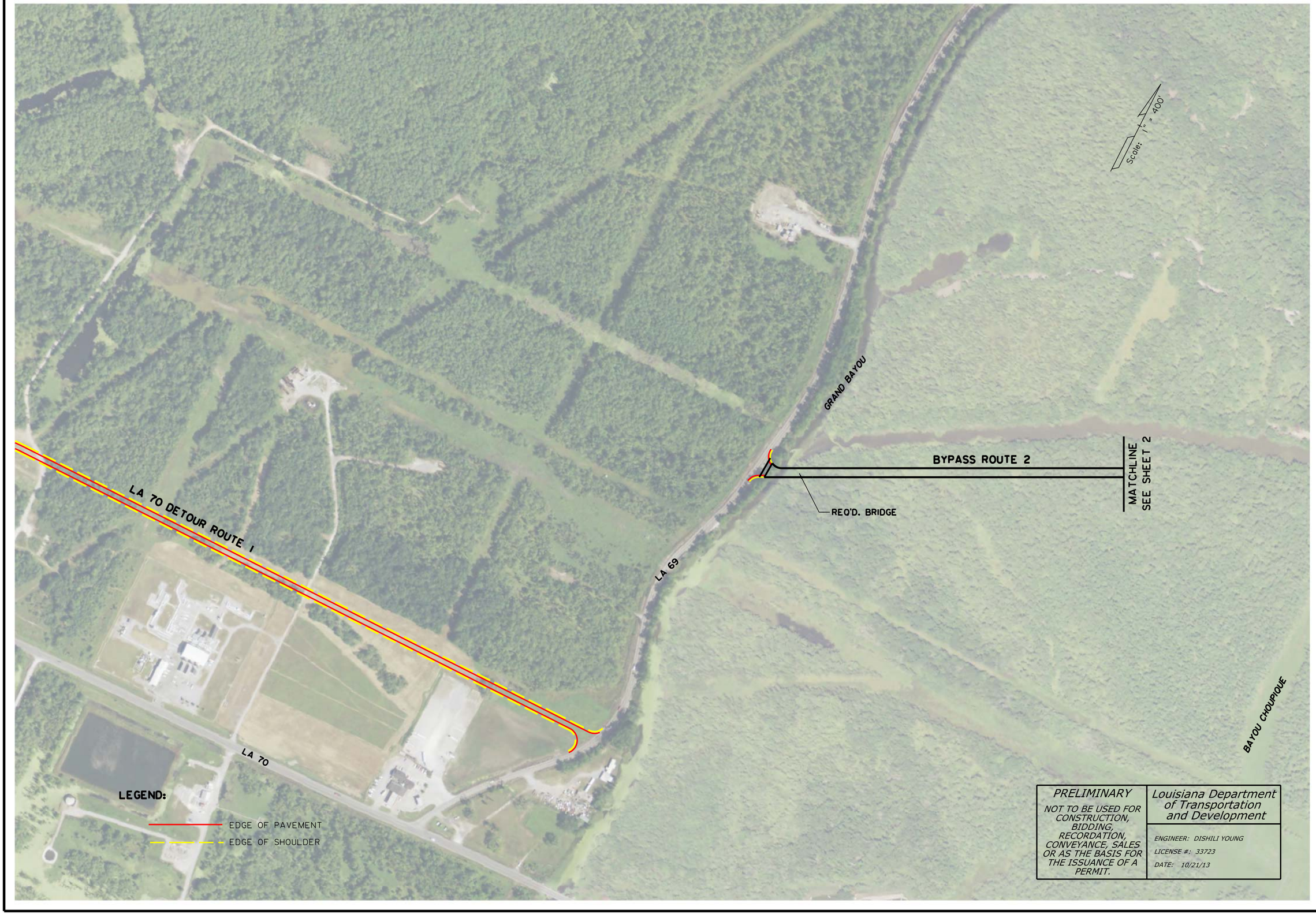

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Louisiana Department of Transportation and Development

ENGINEER: DISHILI YOUNG

LICENSE #: 33723

DATE: 10/21/13

NO.	DATE	REVISION OR CHANGE ORDER DESCRIPTION	BY

DESIGNED
CHECKED
DETAILED
CHECKED
SERIES NUMBER

PARISH: ASSUMPTION
CONTROL SECTION
STATE PROJECT: H.010571

SHEET NUMBER: 1

BYPASS ROUTE 2 PLAN

LA 70 BYPASS STAGE 0 FEASABILITY STUDY

SHAW E & I, INC.

10-21-13

Scale : 1" = 400'

MATCHLINE
SEE SHEET 1

BYPASS ROUTE 2

MATCHLINE
SEE SHEET 3

REQ'D. BRIDGE

LEGEND:

EDGE OF PAVEMENT

EDGE OF SHOULDER

PRELIMINARY

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ENGINEER: DISHILI YOUNG

LICENSE #: 33723

DATE: 10/21/13

SHEET NUMBER 2

PARISH ASSUMPTION

CONTROL SECTION

STATE PROJECT H.010571

DESIGNED
CHECKED

DETAILED
CHECKED

SERIES NUMBER

NO.	DATE	REVISION OR CHANGE ORDER DESCRIPTION	BY

BYPASS ROUTE 2 PLAN

LA 70 BYPASS STAGE 0 FEASIBILITY STUDY

SHAW E & I, INC.

10-21-13

N STAR RD

W STAR RD

BYPASS ROUTE 2

LA 1000

LA 996

MATCHLINE
SEE SHEET 2

REQ'D. BRIDGE

Scale : 1" = 400'

LEGEND:

EDGE OF PAVEMENT

EDGE OF SHOULDER

PRELIMINARY

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ENGINEER: DISHILI YOUNG

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DATE: 10/21/13

SHEET NUMBER	3
PARISH	ASSUMPTION
CONTROL SECTION	
STATE PROJECT	H.010571
DESIGNED / CHECKED	
DETAILED / CHECKED	
SERIES NUMBER	

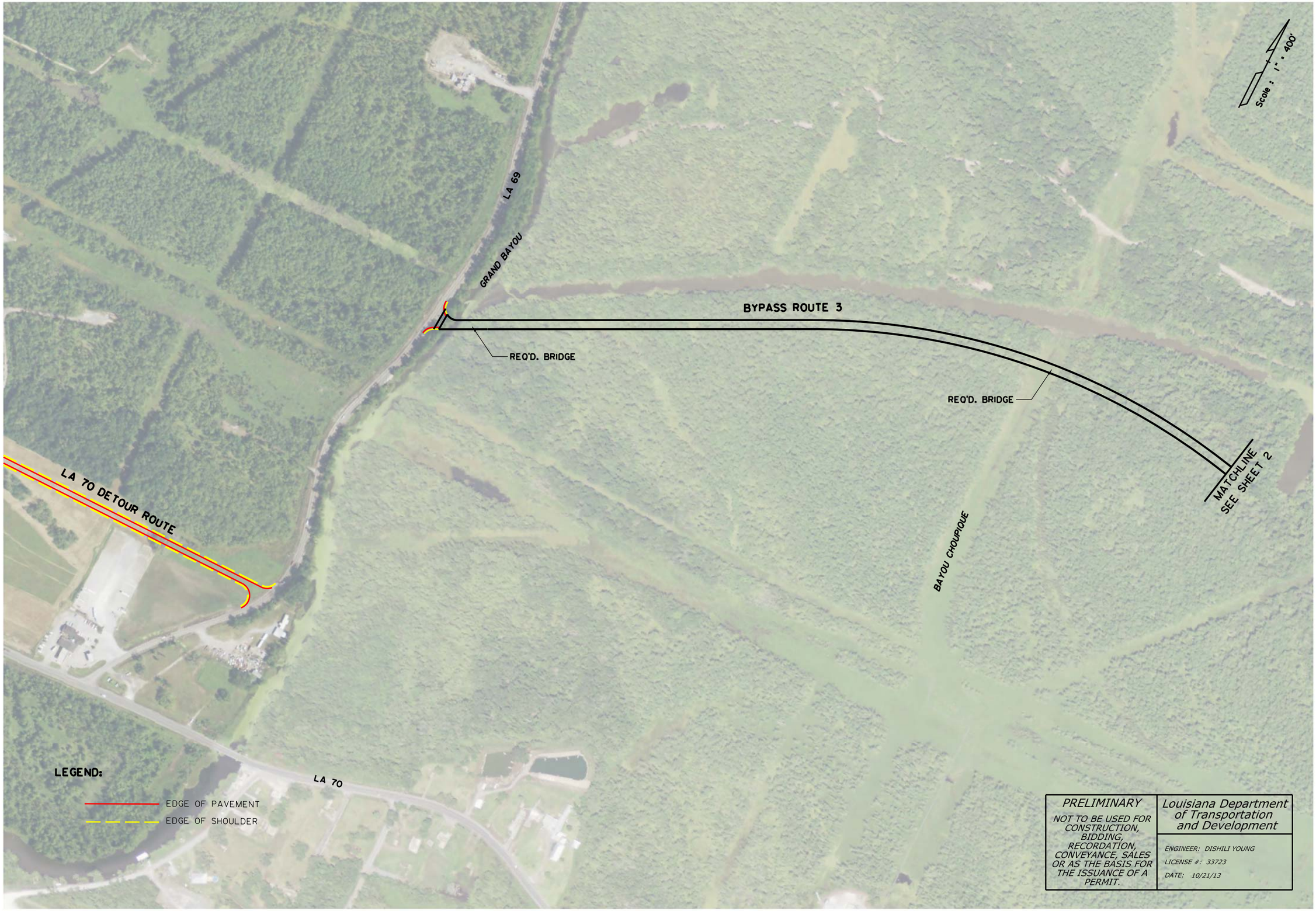
NO.	DATE	REVISION OR CHANGE ORDER DESCRIPTION	BY

BYPASS ROUTE 2 PLAN

LA 70 BYPASS STAGE 0 FEASABILITY STUDY

SHAW E & I, INC.

10-21-13



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ENGINEER: DISHILI YOUNG

LICENSE #: 33723

DATE: 10/21/13

SHEET NUMBER 1

PARISH: ASSUMPTION

CONTROL SECTION:

STATE PROJECT: H.010571

DESIGNED / CHECKED:

DETAILED / CHECKED:

SERIES NUMBER:

NO.	DATE	REVISION OR CHANGE ORDER DESCRIPTION	BY

BYPASS ROUTE 3 PLAN

LA 70 BYPASS STAGE 0 FEASABILITY STUDY

SHAW E & I, INC.

10-21-13

BYPASS ROUTE 3

MATCHLINE
SEE SHEET 1

MATCHLINE
SEE SHEET 3

BAYOU CHOUPIQUE

Scale : 1" = 400'

LEGEND:

EDGE OF PAVEMENT

EDGE OF SHOULDER

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Louisiana Department of Transportation and Development

ENGINEER: DISHILI YOUNG

LICENSE #: 33723

DATE: 10/21/13

SHEET NUMBER 2

PARISH ASSUMPTION

CONTROL SECTION

STATE PROJECT H.010571

DESIGNED CHECKED

DETAILED CHECKED

SERIES NUMBER

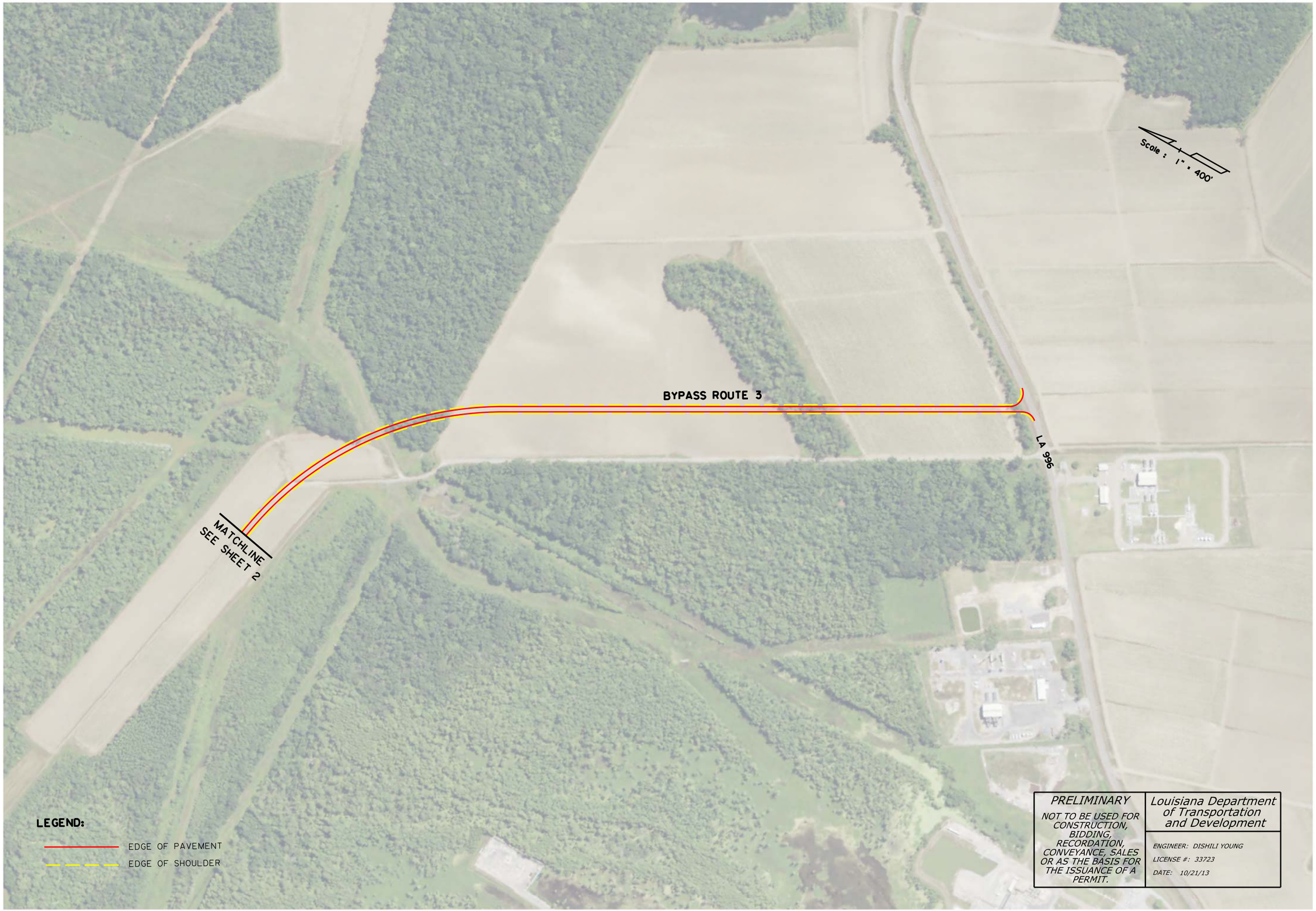
NO.	DATE	REVISION OR CHANGE ORDER DESCRIPTION	BY

BYPASS ROUTE 3 PLAN

LA 70 BYPASS STAGE 0 FEASABILITY STUDY

SHAW E & I, INC.

10-21-13



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Louisiana Department of Transportation and Development

ENGINEER: DISHILI YOUNG

LICENSE #: 33723

DATE: 10/21/13

SHEET NUMBER 3

PARISH: ASSUMPTION

CONTROL SECTION:

STATE PROJECT: H.010571

DESIGNED CHECKED:

DETAILED CHECKED:

SERIES NUMBER:

NO.	DATE	REVISION OR CHANGE ORDER DESCRIPTION	BY

BYPASS ROUTE 3 PLAN

LA 70 BYPASS STAGE 0 FEASABILITY STUDY

SHAW E & I, INC.

10-21-13

Scale : 1" = 2000'

BYPASS ROUTE 1A
SHEET 1

BYPASS ROUTE 1A
SHEET 2

BYPASS ROUTE 1A
SHEET 3

BYPASS ROUTE 1A
SHEET 4

BYPASS ROUTE 1A
SHEET 5

BYPASS ROUTE 2A
SHEET 1

BYPASS ROUTE 2A
SHEET 2

BYPASS ROUTE 2A
SHEET 3

BYPASS ROUTE 3A
SHEET 1

BYPASS ROUTE 3A
SHEET 2

BYPASS ROUTE 3A
SHEET 3

DETOUR ROUTE
SHEET 1

BYPASS ROUTE 1A

BYPASS ROUTE 2A

BYPASS ROUTE 3A

LA 70 DETOUR ROUTE

LA 70

LA 69

LA HWY 996

LA 1000

LA 996

BAYOU PIERRE PART

MUDDY BAYOU

GRAND BAYOU

BAYOU CROUIX

BAYOU CHOUPIQUE

BAYOU CORNE

N STAR RD

W STAR RD

COON ROAD

POSSUM DR.
FRENCH DR.
RUE DE KAJUN

PRELIMINARY

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Louisiana Department of Transportation and Development

ENGINEER: DISHILI YOUNG

LICENSE #: 33723

DATE: 10/21/2013

SHEET NUMBER	2.4
PARISH	ASSUMPTION
CONTROL SECTION	
STATE PROJECT	H.010571
DESIGNED / CHECKED	
DETAILED / CHECKED	
SERIES NUMBER	

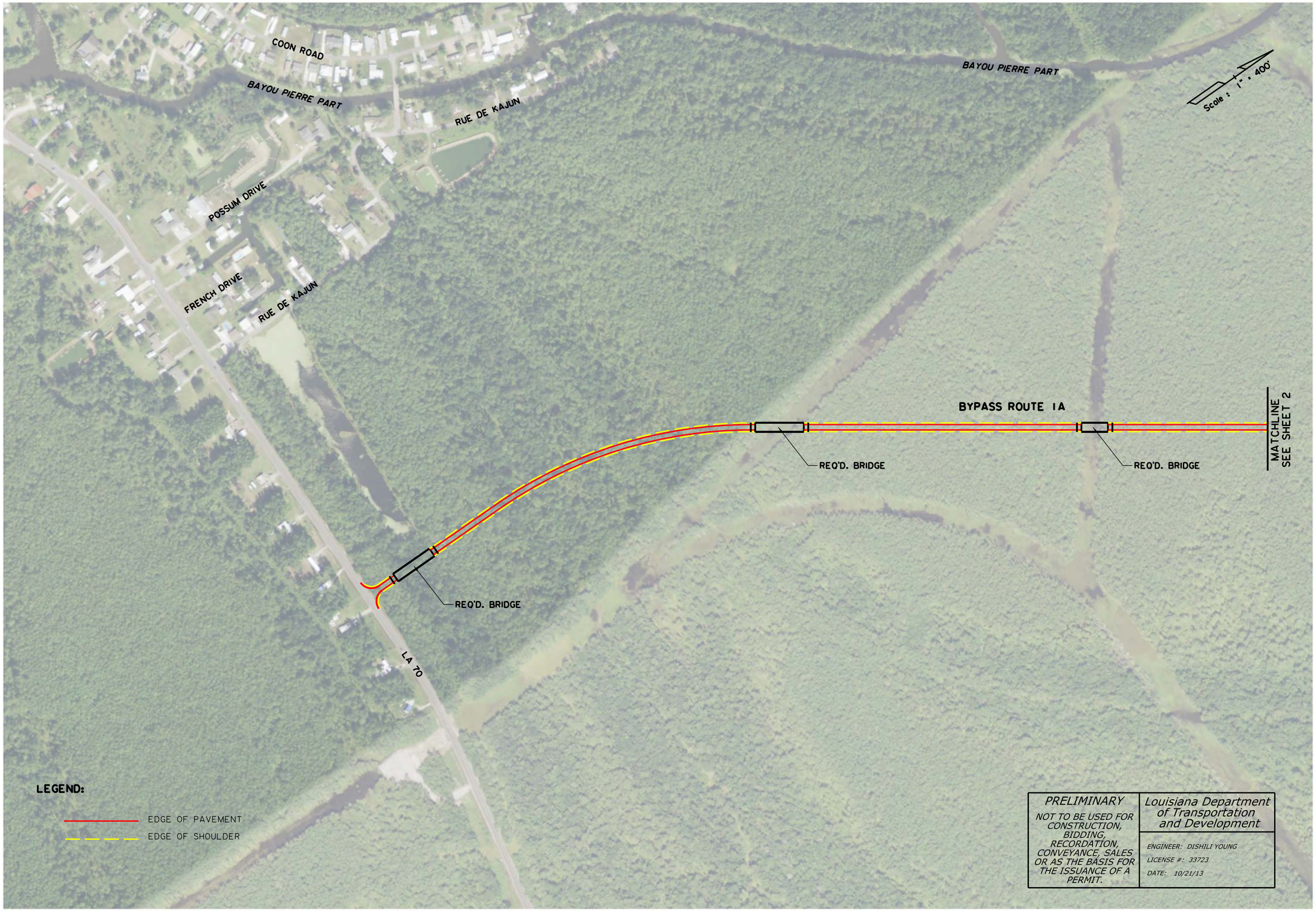
NO.	DATE	REVISION OR CHANGE ORDER DESCRIPTION	BY

PLAN SHEET
KEY MAP

LA 70 BYPASS STAGE 0 FEASABILITY STUDY

SHAW E & I, INC.

10-21-13



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Louisiana Department of Transportation and Development

ENGINEER: DISHILI YOUNG

LICENSE #: 33723

DATE: 10/21/13

SHEET NUMBER 1

PARISH ASSUMPTION

CONTROL SECTION

STATE PROJECT H.010571

DESIGNED CHECKED

DETAILED CHECKED

SERIES NUMBER

NO. DATE REVISION OR CHANGE ORDER DESCRIPTION BY

BYPASS ROUTE 1A PLAN

LA 70 BYPASS STAGE 0 FEASABILITY STUDY

SHAW E & I, INC.

10-21-13

BAYOU PIERRE PART

BAYOU PIERRE PART

Scale : 1" = 400'

MATCHLINE SEE SHEET 1

BYPASS ROUTE 1A

RE'O'D. BRIDGE

MATCHLINE SEE SHEET 3

LEGEND:

EDGE OF PAVEMENT

EDGE OF SHOULDER

PRELIMINARY

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Louisiana Department of Transportation and Development

ENGINEER: DISHILI YOUNG

LICENSE #: 33723

DATE: 10/21/13

SHEET NUMBER 2

PARISH: ASSUMPTION

CONTROL SECTION:

STATE PROJECT: H.010571

DESIGNED CHECKED:

DETAILED CHECKED:

SERIES NUMBER:

NO.	DATE	REVISION OR CHANGE ORDER DESCRIPTION	BY

BYPASS ROUTE 1A PLAN

LA 70 BYPASS STAGE 0 FEASABILITY STUDY

SHAW E & I, INC.

10-21-13

MUDDY BAYOU

BAYOU PIERRE PART

BAYOU CORNE

Scale : 1" = 400'

MATCHLINE
SEE SHEET 2

BYPASS ROUTE 1A

RE'O'D. BRIDGE

MATCHLINE
SEE SHEET 4

LEGEND:

EDGE OF PAVEMENT

EDGE OF SHOULDER

PRELIMINARY

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Louisiana Department of Transportation and Development

ENGINEER: DISHILI YOUNG

LICENSE #: 33723

DATE: 10/21/13

SHEET NUMBER 3

PARISH: ASSUMPTION

CONTROL SECTION:

STATE PROJECT: H.010571

DESIGNED
CHECKED

DETAILED
CHECKED

SERIES NUMBER

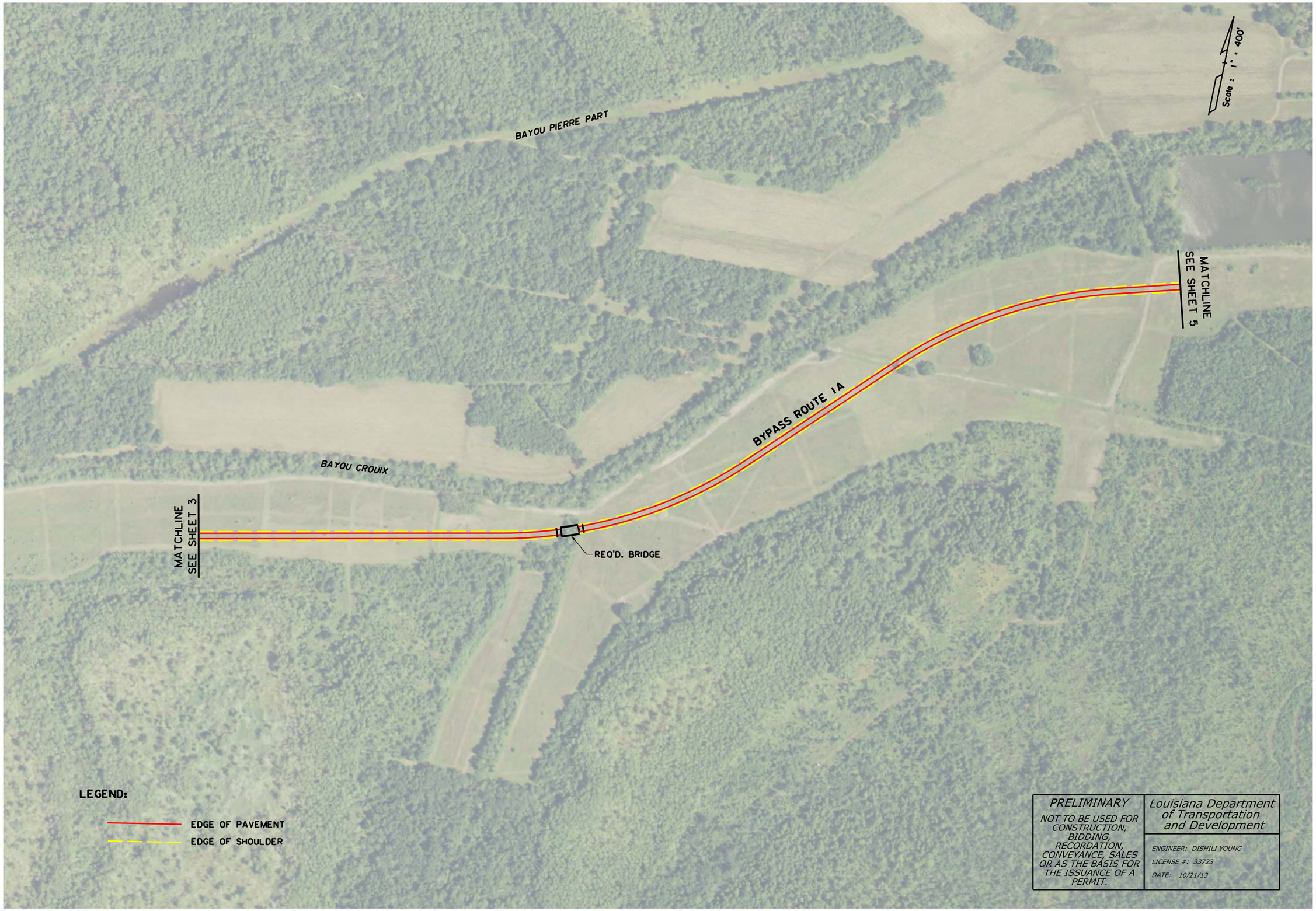
NO.	DATE	REVISION OR CHANGE ORDER DESCRIPTION	BY

BYPASS ROUTE 1A PLAN

LA 70 BYPASS STAGE 0 FEASABILITY STUDY

SHAW E & I, INC.

10-21-13



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: 10/21/13

SHEET NUMBER 4

PARISH: ASSUMPTION
CONTROL SECTION:
STATE PROJECT: H.010571

DESIGNED
CHECKED
DETAILED
CHECKED
SERIES NUMBER

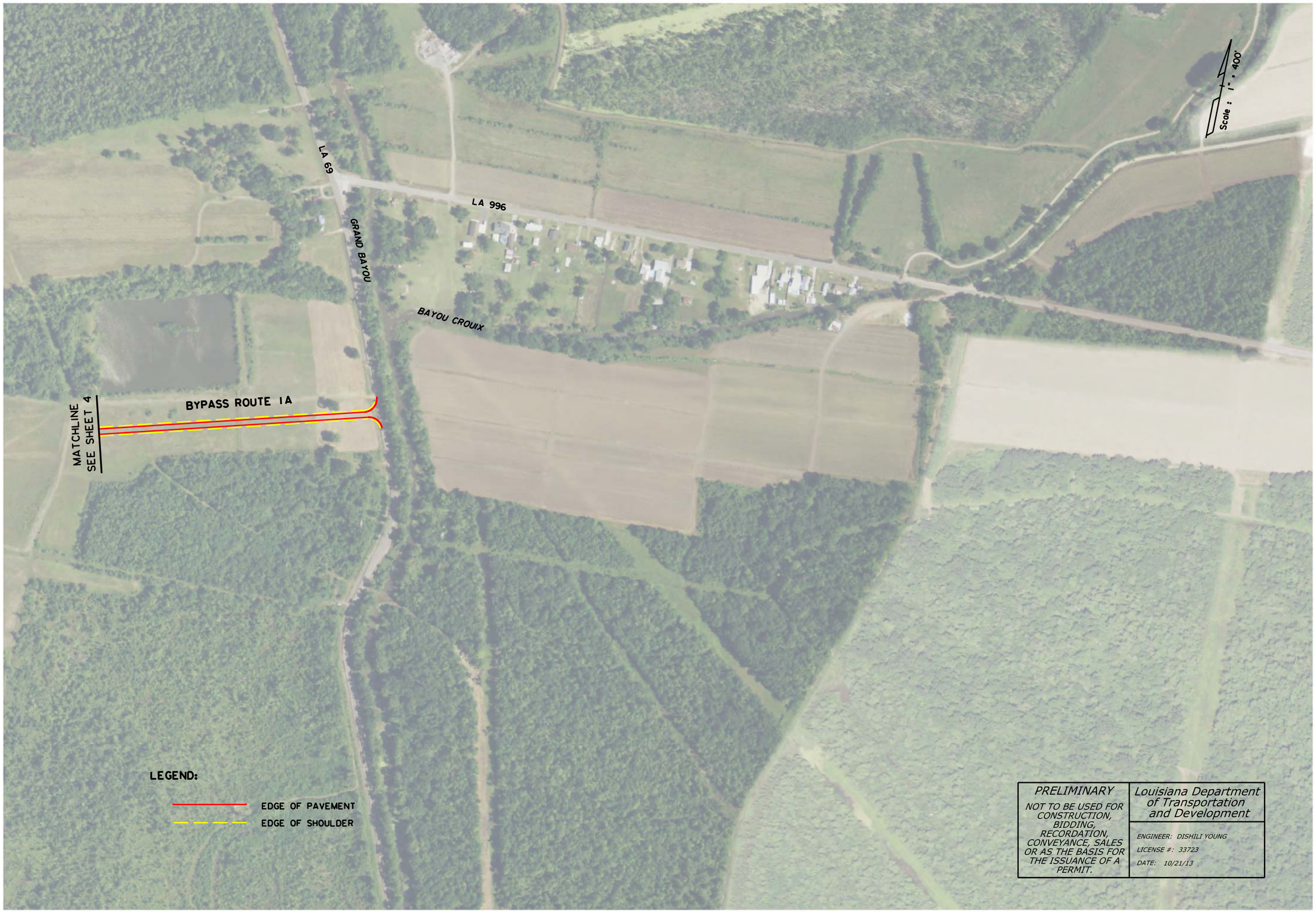
NO. | DATE | REVISION OR CHANGE ORDER DESCRIPTION | BY

BYPASS ROUTE 1A PLAN

LA 70 BYPASS STAGE 0 FEASABILITY STUDY

SHAW E & I, INC.

10-21-13



PRELIMINARY

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Louisiana Department of Transportation and Development

ENGINEER: DISHILI YOUNG

LICENSE #: 33723

DATE: 10/21/13

SHEET NUMBER 5

PARISH ASSUMPTION

CONTROL SECTION

STATE PROJECT H.010571

DESIGNED CHECKED

DETAILED CHECKED

SERIES NUMBER

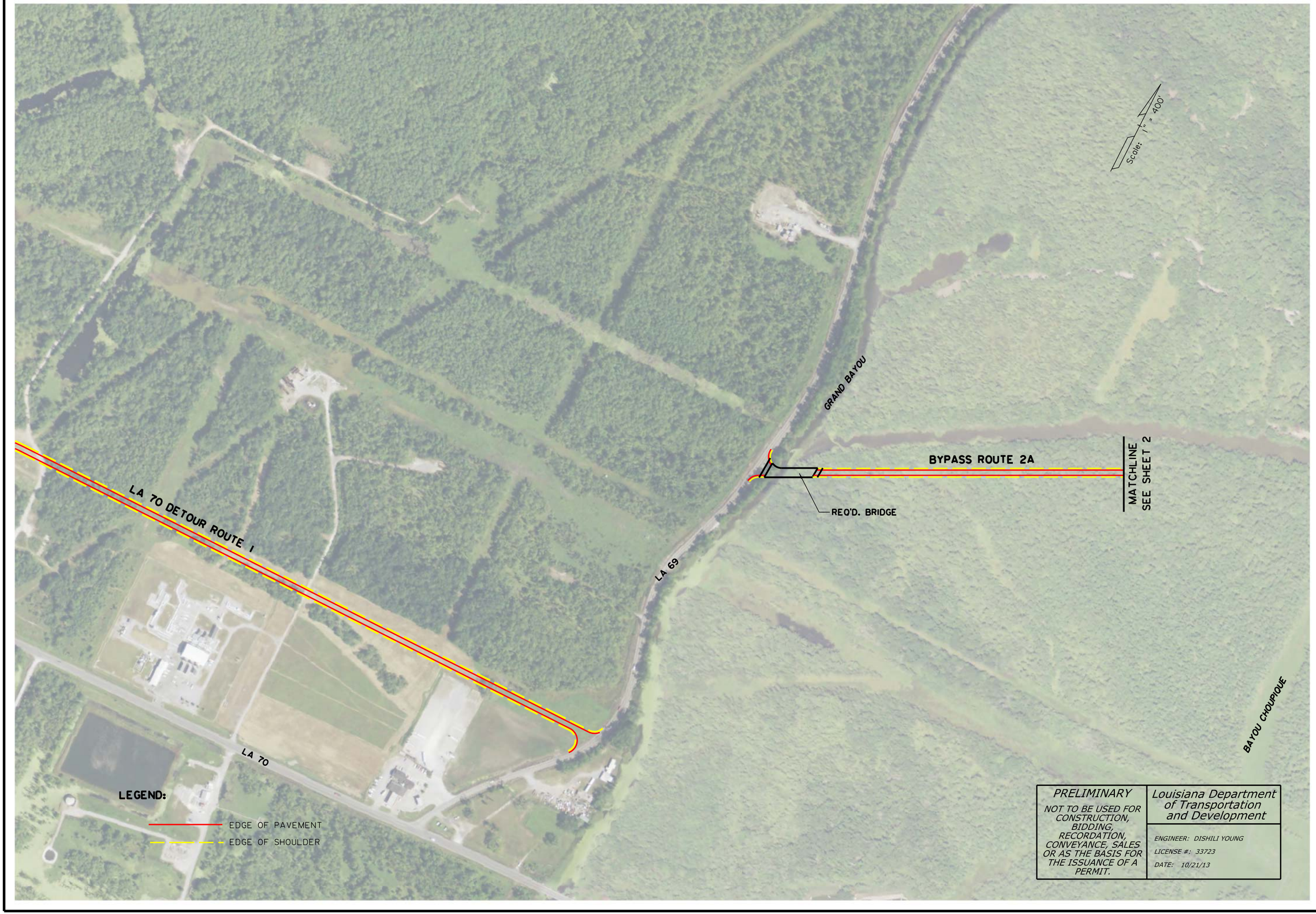
NO.	DATE	REVISION OR CHANGE ORDER DESCRIPTION	BY

BYPASS ROUTE 1A PLAN

LA 70 BYPASS STAGE 0 FEASABILITY STUDY

SHAW E & I, INC.

10-21-13



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Louisiana Department of Transportation and Development

ENGINEER: DISHILI YOUNG

LICENSE #: 33723

DATE: 10/21/13

NO.	DATE	REVISION OR CHANGE ORDER DESCRIPTION	BY

DESIGNED / CHECKED

DETAILED / CHECKED

SERIES NUMBER

PARISH: ASSUMPTION

CONTROL SECTION

STATE PROJECT: H.010571

SHEET NUMBER: 1

BYPASS ROUTE 2A PLAN

LA 70 BYPASS STAGE 0 FEASABILITY STUDY

SHAW E & I, INC.

10-21-13

Scale : 1" = 400'

MATCHLINE SEE SHEET 1

BYPASS ROUTE 2A

REQ'D. BRIDGE

REQ'D. BRIDGE

MATCHLINE SEE SHEET 3

LEGEND:

EDGE OF PAVEMENT

EDGE OF SHOULDER

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: 10/21/13

SHEET NUMBER	2
PARISH	ASSUMPTION
CONTROL SECTION	
STATE PROJECT	H.010571
DESIGNED / CHECKED	
DETAILED / CHECKED	
SERIES NUMBER	

NO.	DATE	REVISION OR CHANGE ORDER DESCRIPTION	BY

BYPASS ROUTE 2A PLAN

LA 70 BYPASS STAGE 0 FEASABILITY STUDY

SHAW E & I, INC.

10-21-13

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LICENSE #: 33723

DATE: 10/21/13

NO.	DATE	BY	REVISION OR CHANGE ORDER DESCRIPTION

DESIGNED
CHECKED
DETAILED
CHECKED
SERIES NUMBER

PARISH: ASSUMPTION
CONTROL SECTION
STATE PROJECT: H.010571

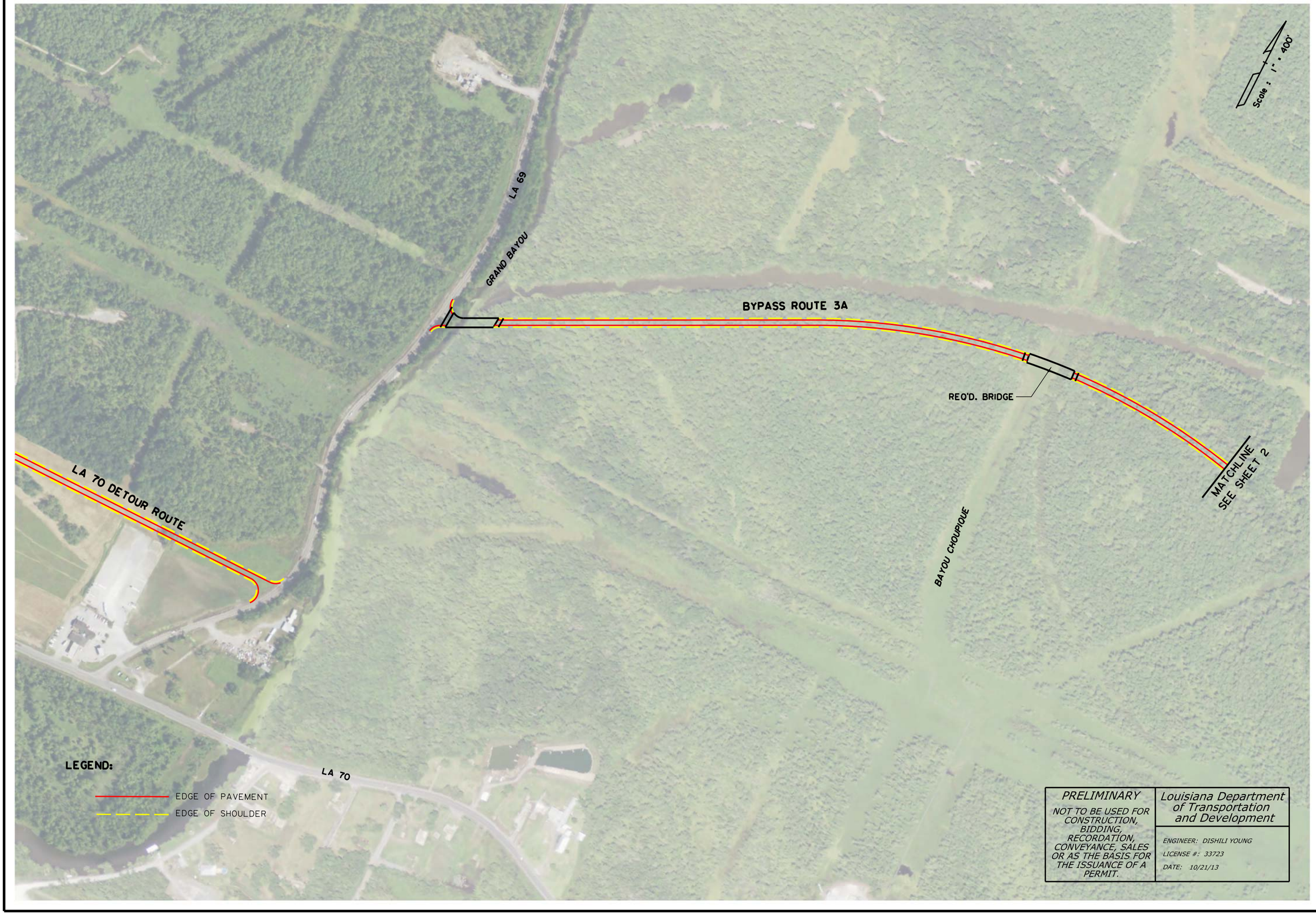
SHEET NUMBER 3

BYPASS ROUTE 2A PLAN

LA 70 BYPASS STAGE 0 FEASABILITY STUDY

SHAW E & I, INC.

10-21-13



Scale : 1" = 400'

PRELIMINARY

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Louisiana Department of Transportation and Development

ENGINEER: DISHILI YOUNG

LICENSE #: 33723

DATE: 10/21/13

SHEET NUMBER 1

PARISH: ASSUMPTION

CONTROL SECTION:

STATE PROJECT: H.010571

DESIGNED / CHECKED

DETAILED / CHECKED

SERIES NUMBER

NO.	DATE	REVISION OR CHANGE ORDER DESCRIPTION	BY

BYPASS ROUTE 3A PLAN

LA 70 BYPASS STAGE 0 FEASABILITY STUDY

SHAW E & I, INC.

10-21-13

Scale : 1" = 400'

BYPASS ROUTE 3A

MATCHLINE
SEE SHEET 1

MATCHLINE
SEE SHEET 3

BAYOU CHOUPIQUE

LEGEND:

EDGE OF PAVEMENT

EDGE OF SHOULDER

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: 10/21/13

SHEET NUMBER	2
PARISH	ASSUMPTION
CONTROL SECTION	
STATE PROJECT	H.010571
DESIGNED / CHECKED	
DETAILED / CHECKED	
SERIES NUMBER	

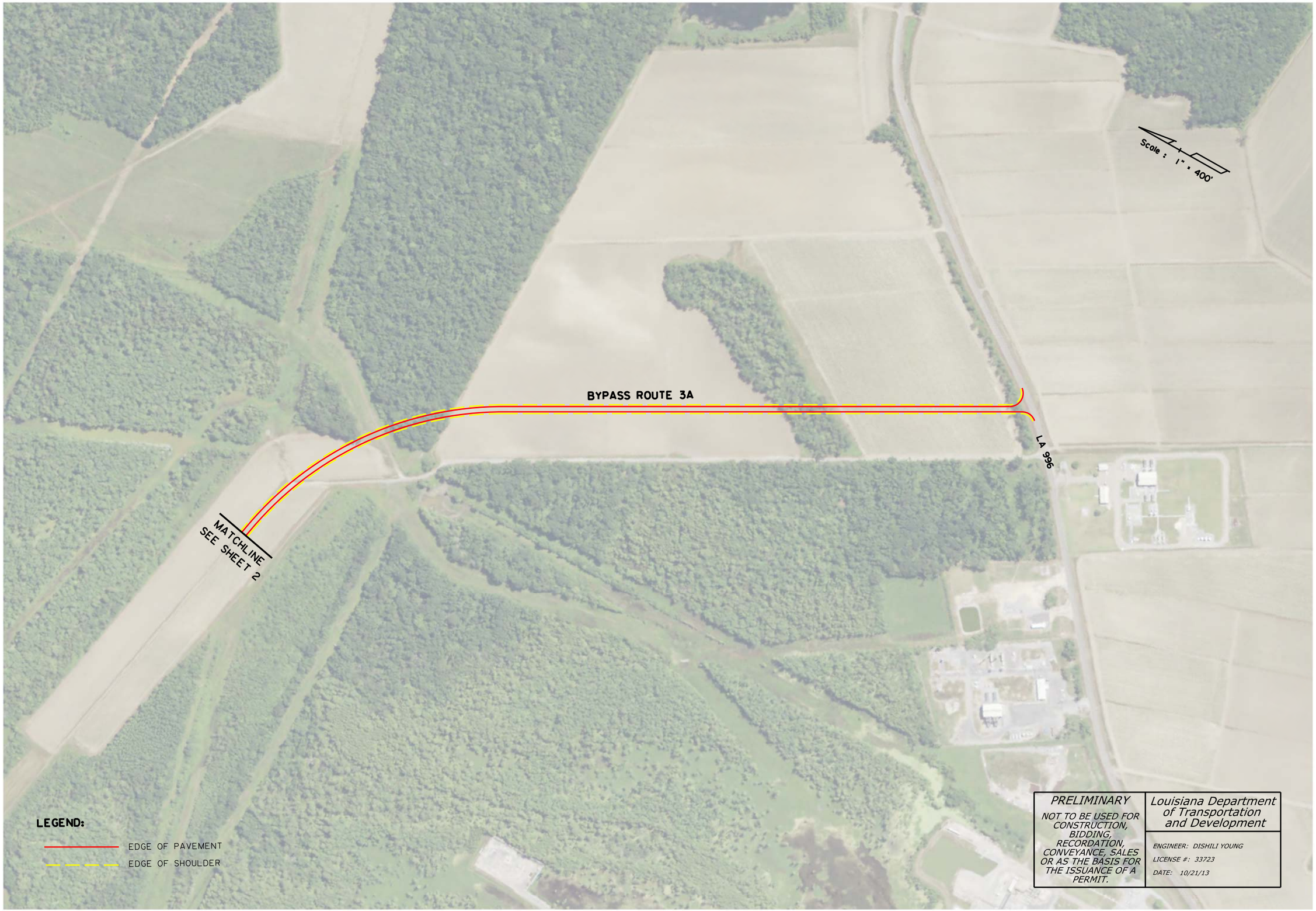
NO.	DATE	REVISION OR CHANGE ORDER DESCRIPTION	BY

BYPASS ROUTE 3A PLAN

LA. 70 BYPASS STAGE 0 FEASABILITY STUDY

SHAW E & I, INC.

10-21-13



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: 10/21/13

SHEET NUMBER 3

PARISH: ASSUMPTION

CONTROL SECTION

STATE PROJECT: H.010571

DESIGNED CHECKED

DETAILED CHECKED

SERIES NUMBER

NO.	DATE	REVISION OR CHANGE ORDER DESCRIPTION	BY

BYPASS ROUTE 3A PLAN

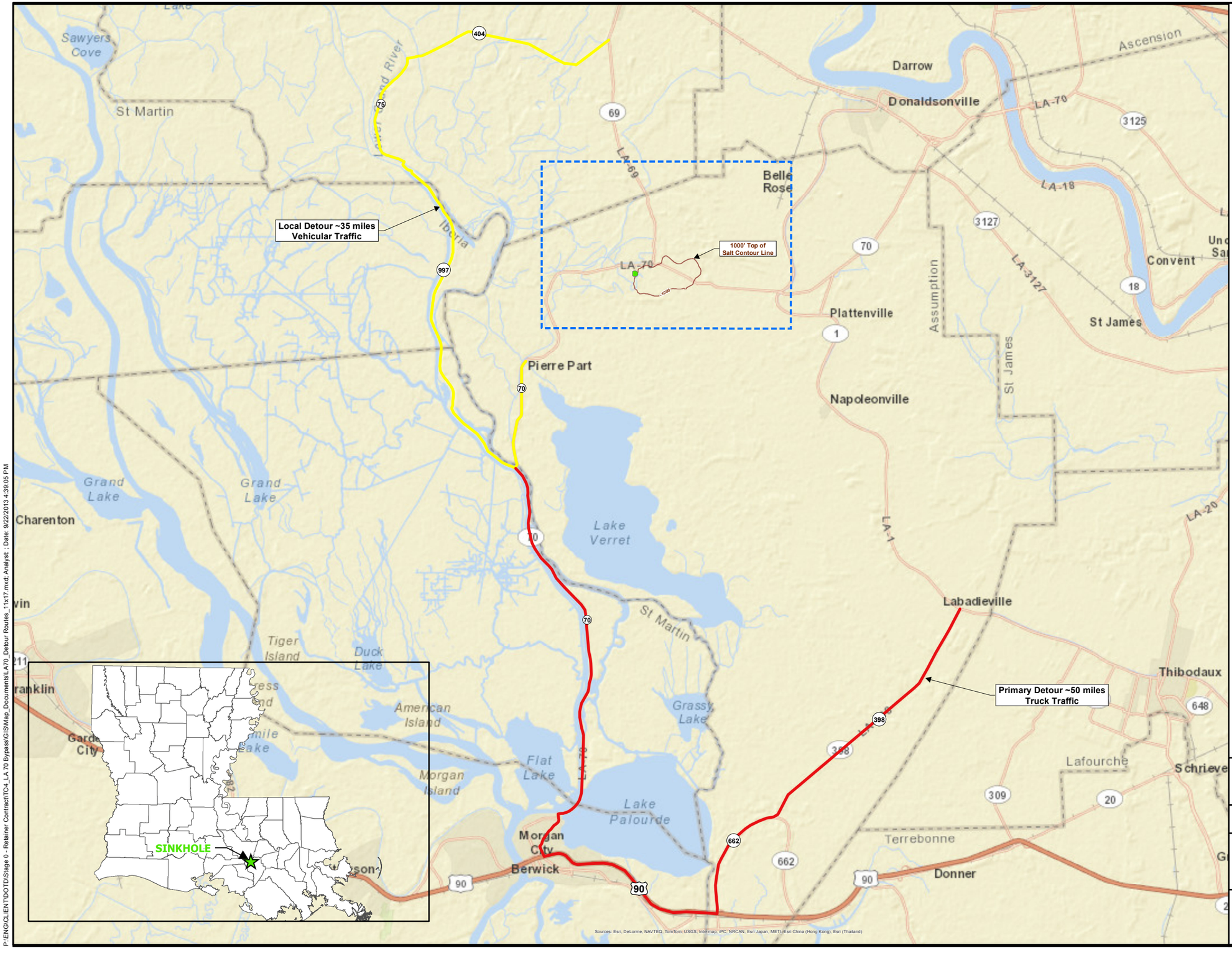
LA 70 BYPASS STAGE 0 FEASABILITY STUDY

SHAW E & I, INC.

Exhibit 3

Traffic Contingency Plan Detour Routes

3.1 Vicinity Map
3.2 Roadway Classifications
3.3 Recommended Roadway and Bridge Improvements



Legend

- Approx. Study Area for Potential New Corridors
- Sinkhole

Detour Routes

- Local Detour
- Primary Detour

N

4 2 0 4

Miles

REFERENCE:

LA DOTD
S.P. No. H.010571.1

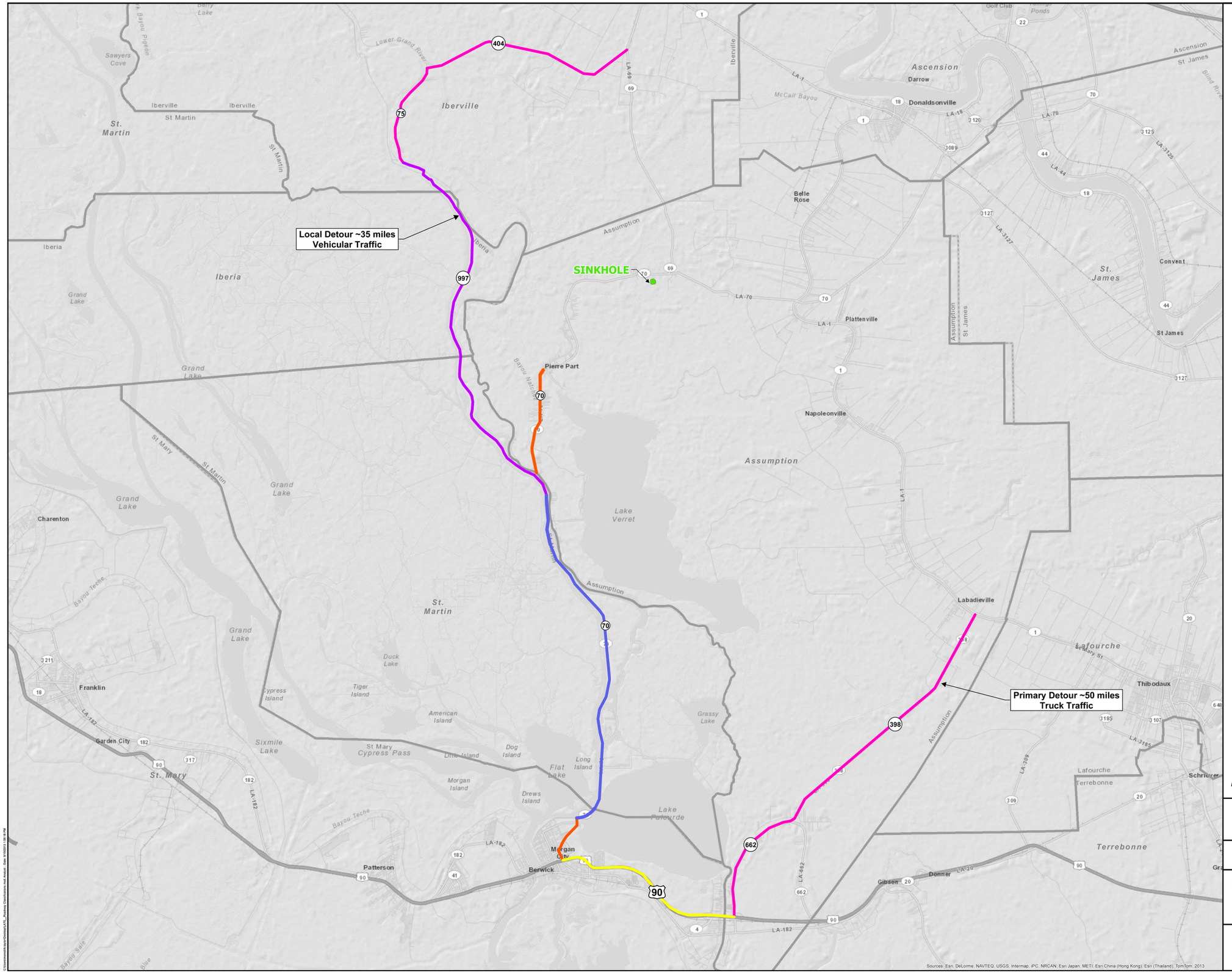
Stage 0 Feasibility Study
LA 70 Bypass

EXHIBIT 3.1

Traffic Contingency Plan
Detour Routes
Vicinity Map

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

P:\ENG\CLIENT\DOTD\Stage 0 - Retainer Contract\TO4_LA 70 Bypass\GIS\Map_Documents\LA70_Detour Routes_11x17.mxd: Analyst: : Date: 9/22/2013 4:39:05 PM



Roadway Classifications

- RA-2
- RA-3
- RC-3
- RL-3
- UA-2
- Sinkhole
- Parish Boundaries

N

9,000 4,500 0 9,000 18,000

Feet

REFERENCE:

LA DOTD
S.P. No. H.010571.1

Stage 0 Feasibility Study

EXHIBIT 3.2

Roadway Classifications

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

C:\Documents and Settings\Desktop\LA DOTD_Roadway Classifications.mxd August 8, 2013 1:55:13 PM

BAYOU TIGRIS

BAYOU DANIEL

BAYOU CHOCTAW

LEVY CANAL

BAYOU BLACK

BAYOU PIDGEON / LOWER GRAND RIVER

Local Detour ~35 miles Vehicular Traffic

SINKHOLE

PIERRE BAY

BELLE RIVER

BAYOU MORGAN CITY

BAYOU L'OURSE

HWY 90

HWY 90

Primary Detour ~50 miles Truck Traffic

Sawyers Cove
Iberville
St Martin
St. Martin
Iberia
Grand Lake
Charenton
Bayou Teche
Franklin
Garden City
St. Mary
St Mary
Cypress Pass
Sixmile Lake
Cypress Island
Tiger Island
Duck Lake
American Island
Grassy Lake
Dog Island
Long Island
Flat Lake
Morgan Island
Drews Island
Lake Palourde
Lake Verret
Patterson
Berwick
Morgan City
Pierre Part
Bayou Boeuf
Bayou Black
Bayou Teche
Bayou Sale
Assumption
Napoleonville
Labadieville
Belle Rose
Plattenville
Donaldsonville
Darrow
Ascension
St James
Convent
Lafourche
Terrebonne
Thibodaux
Schriever
Gibson
Donner
McCall Bayou
Blind River

LEGEND

- Required Bridge Replacement
- Required Bridge Upgrades
- No Required Improvements
- Required Roadway Improvements

N

9,000 4,500 0 9,000 18,000 Feet

REFERENCE:

Sources: Esri, DeLorme, NAVTEQ, USGS, Intermap, iPC, NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, 2013

LA DOTD
S.P. No. H.010571.1

Stage 0 Feasibility Study

EXHIBIT 3.3

Recommended Roadway and Bridge Improvements

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

Appendix A

Existing Site Photos

for

Bypass Routes 1, 2, & 3

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:** East	
Description: Aerial View of where Bypass Routes 2 and 3 would begin on 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. 3 **Direction:** North **Description:** Aerial View of LA 69 (close to where Bypass Routes 2 and 3 would tie into LA 69)	
Photograph No. 4 **Direction:** Northeast **Description:** Aerial View of where Bypass Routes 2 and 3 would tie into LA 69 and view of typical heavily forested wetland areas	

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:** West	
Description: View of area where Bypass Route 1 would tie into LA 69	
Photograph No. 6 **Direction:** East	
Description: Looking towards LA 69 where Bypass Route 1would tie in to highway	

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:** East	
Description: View of intersection of LA 70 and Rue de Kajun Rd. near where Bypass Route 1 ties into LA 70	
Photograph No. 8 **Direction:** East	
Description: View of existing pond area adjacent to Rue de Kajun Rd. and LA 70 near where Bypass Route 1 will tie in	

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:** N/A	
Description: Aerial View of typical heavily forested wetland areas for all 3 Bypass Routes	
Photograph No. 10 **Direction:** East	
Description: View of typical heavily forested wetland areas for all 3 Bypass Routes	

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:** North	
Description: Standing on LA 69 looking towards intersection of LA 996. View of where Bypass Route 1 would tie into LA 69	
Photograph No. 12 **Direction:** South	
Description: Standing on LA 69. View of where Bypass Route 1 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. 13 **Direction:** North	
Description: Standing on LA 996 at intersection of W. Star Rd. where Bypass Route 2 will tie in	
Photograph No. 14 **Direction:** South	
Description: Standing on LA 996 at intersection of W. Star Rd. where Bypass Route 2 would tie in	

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. 15 **Direction:** East	
Description: Standing on W. Star Rd. facing LA 996 – Bypass Route 2 would follow this alignment	
Photograph No. 16 **Direction:** West	
Description: Standing on W. Star Rd. after pavement section ends. Bypass Route 2 will follow this existing alignment	

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. 17 **Direction:** Southwest	
Description: View of St. Martin's Chapel and Cemetery (0.5 miles north of Bypass Route 2 ties into LA 996)	
Photograph No. 18 **Direction:** West	
Description: View of Mike's Automotive (6659 Hwy 996) which is south of where Bypass Route 2 will tie into LA 996	

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. 19 **Direction:** North	
Description: View of LA 996 near where Bypass Route 3 will tie in	
Photograph No. 20 **Direction:** South	
Description: View of LA 996 near where Bypass Route 3 will tie in	

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. 21 **Direction:** East	
Description: View of Agricultural area where Bypass Route 3 will tie in to LA 996	
Photograph No. 22 **Direction:** West	
Description: View of where agricultural land ends along Bypass Route 3	

Appendix B

Traffic Study Report

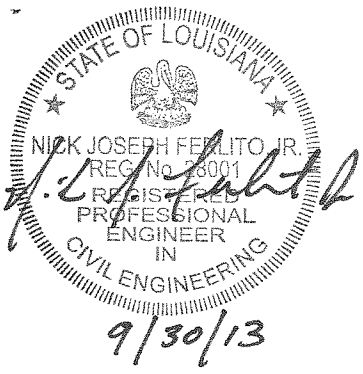
Appendices Included as Digital Copy on Compact Disc

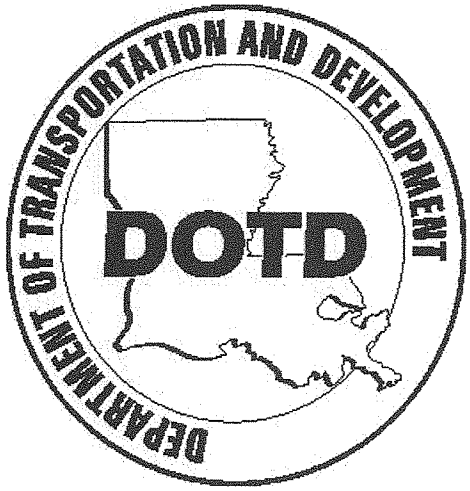
LA 70 Bypass
Assumption Parish, Louisiana

Traffic Study Report

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

For





September 2013

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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 bypass routes on Louisiana Highway 70 (LA 70). The proposed project will provide an alternative route for commuters traveling along the highway in the event of a closure of the roadway associated with the Napoleonville Salt Dome. This report covers the tasks completed as part of the Stage 0 Feasibility Study/Environmental Inventory. **Figure 1** shows the project vicinity.

Three (3) proposed Bypass Routes, as shown in **Figure 2,** were considered in the study to serve as long-term solutions should LA 70 be closed. The proposed Bypass Routes vary in length; Bypass Route 1 is approximately 4 miles in length and Bypass Routes 2 and 3 are both approximately 2 miles in length. As a separate part of this project, the construction of a Detour Route for LA 70 is considered. This route, covered in a separate report, will provide a solution in the event of an emergency closure of the roadway.

This report will also consider the required improvements to bring two (2) Traffic Contingency Plan routes which are located on existing roadways up to current design criteria.

The purpose and need of this project is to protect human welfare and provide system linkage in the event that LA 70 is closed to local responders and residents due to activities associated with the Napoleonville Salt Dome. 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 oil and gas well blowouts, LA 70 has been closed three (3) times since 2003. The potential exist that future closures may be required due to long-term subsidence associated with the nearby sinkhole and activity related to the Napoleonville Salt Dome.

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 bypass route should the closure of LA 70 be required due to long-term subsidence related to the sinkhole or other activity associated with the Napoleonville Salt Dome. 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 long term area of concern.

1.1.3 Study Purpose

This report evaluates three (3) proposed Bypass Routes: Bypass Routes 1, 2 and 3. These routes are shown in aerial view in **Figure 2**. Each of these routes were based on stakeholder input and are located within the general vicinity but outside of the area of long-term subsidence for the sinkhole. These routes are also outside of the Napoleonville Salt Dome (as defined by the contour -1000 below ground surface).

Bypass Route 1 begins on LA 70 near Rue De Kajun and ends at LA 69 south of its intersection with LA 996. This route is approximately 4 miles long which includes 0.17 miles of bridge structures. Bypass Route 2 begins on LA 69 north of LA 70 and ends at the intersection of LA 996 and LA 1000. Bypass Route 2 has a total length of approximately 2 miles with 0.28 miles of bridge structures. Bypass Route 3 begins on LA 69 north of LA 70 and ends on LA 996 between LA 1000 and LA 70. Bypass Route 3 is approximately 2 miles long with 0.08 miles of bridge structures. Bypass Routes 1, 2 and 3 are all two (2) lane roadways with 12 ft. travel lanes, 8 ft. shoulders and roadside ditches.

The original Bypass Route 1 alignment was developed to provide a direct connection to LA 996 at its intersection with LA 69. This route was shifted south to avoid a historical/archeological site located west of the intersection of LA 996 and LA 69. It was later suggested that Bypass Route 1 be extended past LA 69 to provide a more direct connection to LA 996. This proposed segment of Bypass Route 1 from LA 69 to LA 996 would conflict with approximately nineteen (19) pipelines and one buried telephone line. In addition, this segment would require the construction of two (2) additional bridges and impact three (3) additional acres of wetlands. The preliminary conceptual construction cost estimate for this 0.7 mile segment alone would total approximately $24 million. Taking all of this into consideration, it was determined that the segment of Bypass Route 1 between LA 69 and LA 996 would not be feasible.

In order to provide an alternative route west of LA 69, Bypass Route 1 will need to be constructed or the Detour Route would have to serve as a permanent alternative. Bypass Routes 2 and 3 provide a connection east of LA 69 only and to satisfy the purpose and need, must function with either the Detour Route or Bypass Route 1.

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 Bypass Routes 1, 2 and 3 in Assumption Parish, Louisiana. This report analyzes four (4) existing intersections and five (5) proposed intersections located within the study area as shown in **Figure 1**. In addition, due to the potential combination of the proposed bypass routes and existing routes to maintain network connectivity, four (4) traffic analysis scenarios are evaluated as part of this study. These traffic analysis scenarios are shown in **Figures 3-6** and are described as follows.

Traffic Analysis Scenario 1A - Utilizes LA 70 Bypass Route 1 and existing routes LA 69, LA 70 (east of LA 69) and LA 996.

Traffic Analysis Scenario 1B - Utilizes LA 70 Bypass Routes 1 and 3; and existing routes LA 996, LA 1000 and LA 70 (east of LA 996).

Traffic Analysis Scenario 2 - Utilizes existing LA 70 (east of LA 69) and LA 70 Bypass Route 3 to LA 996.

Traffic Analysis Scenario 3 - Utilizes existing LA 70 (east of LA 996) and LA 70 Bypass Route 2 to LA 996 at LA 1000.

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

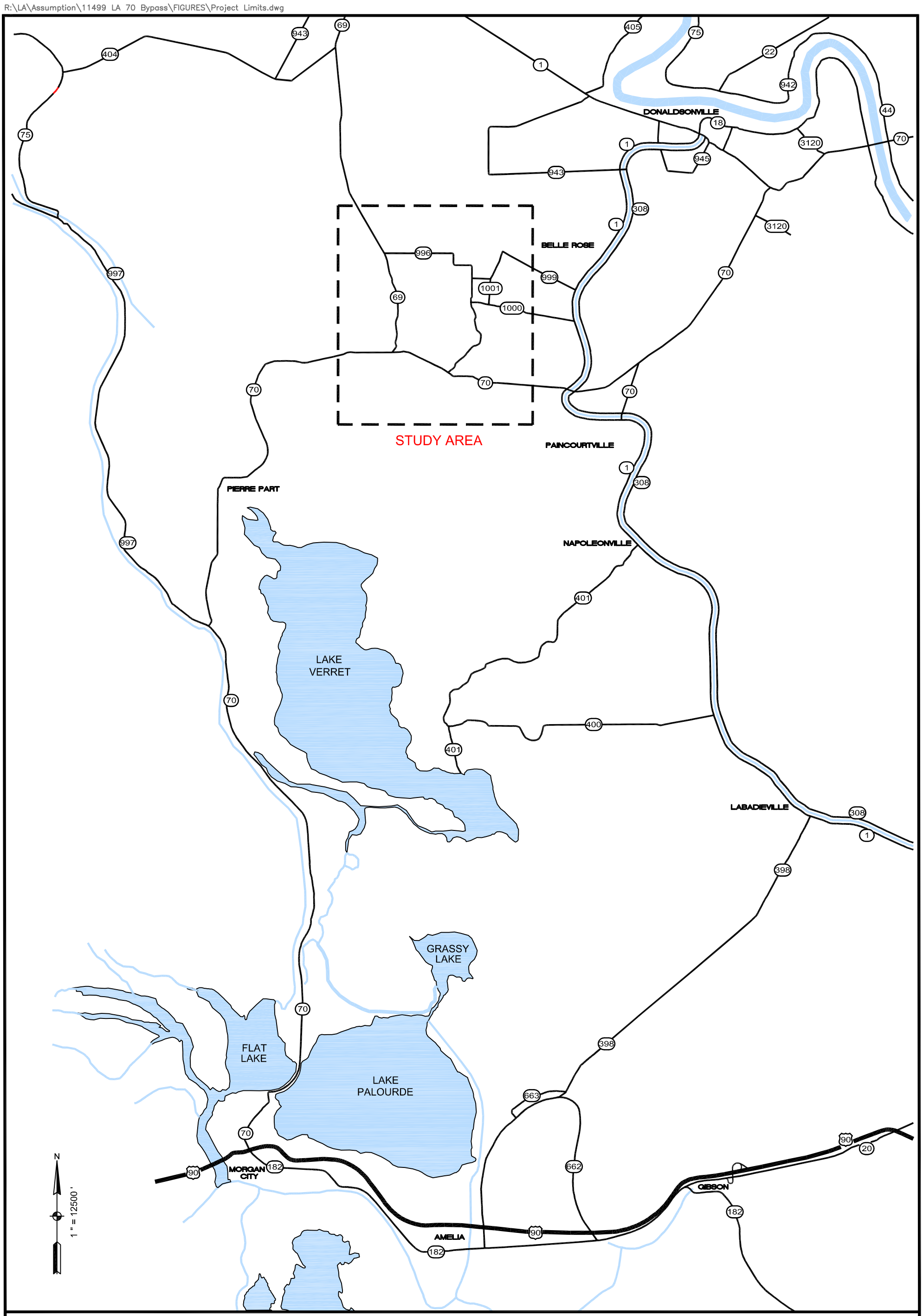


FIGURE 1

PROJECT LIMITS

PIERRE PART, LA
ASSUMPTION PARISH

NEEL-SCHAFFER
Solutions you can build upon

09-12-13

FIGURE 2

Preliminary Plans

Subject to Change

SHAW E & I, INC.	DOTD	PLAN SHEET KEY MAP			DESIGNED / CHECKED	PARISH	ASSUMPTION
		LA 70 BYPASS STAGE 0 FEASABILITY STUDY			DETAILED / CHECKED	CONTROL SECTION	
			NO.	DATE / REVISION OR CHANGE ORDER DESCRIPTION / BY	SERIES NUMBER	STATE PROJECT	H.010571

TRAFFIC ANALYSIS SCENARIO 1A

Road Closed

Vehicular Traffic

LA 69

LA HWY 996

BAYOU CROUIX

N.T.S.

BAYOU PIERRE PART

MUDDY BAYOU

BAYOU PIERRE PART

GRAND BAYOU

LA 996

LA 1000

N STAR RD

W STAR RD

BYPASS ROUTE 1

BAYOU CHOUPIQUE

BYPASS ROUTE 2

BYPASS ROUTE 3

BAYOU CORNE

BAYOU PIERRE PART

GRAND BAYOU

LA 69

LA 70 DETOUR ROUTE

COON ROAD

POSSUM DR.
FRENCH DR.
RUE DE KAJUN

LA 70

LA 996

BAYOU CORNE

NOTE:
BYPASS ROUTE 1 MODELED ONLY BETWEEN LA 70 & LA 69

FIGURE 3

TRAFFIC ANALYSIS SCENARIO 1B

Road Closed

Vehicular Traffic

LA 69

LA HWY 996

BAYOU CROUIX

N.T.S.

BAYOU PIERRE PART

MUDDY BAYOU

BAYOU PIERRE PART

GRAND BAYOU

LA 996

LA 1000

N STAR RD

W STAR RD

BYPASS ROUTE 1

BAYOU CHOUPIQUE

BYPASS ROUTE 2

BYPASS ROUTE 3

GRAND BAYOU

BAYOU CORNE

BAYOU PIERRE PART

LA 69

LA 70 DETOUR ROUTE

LA 70

LA 996

COON ROAD

POSSUM DR.
FRENCH DR.
RUE DE KAJUN

LA 70

BAYOU CORNE

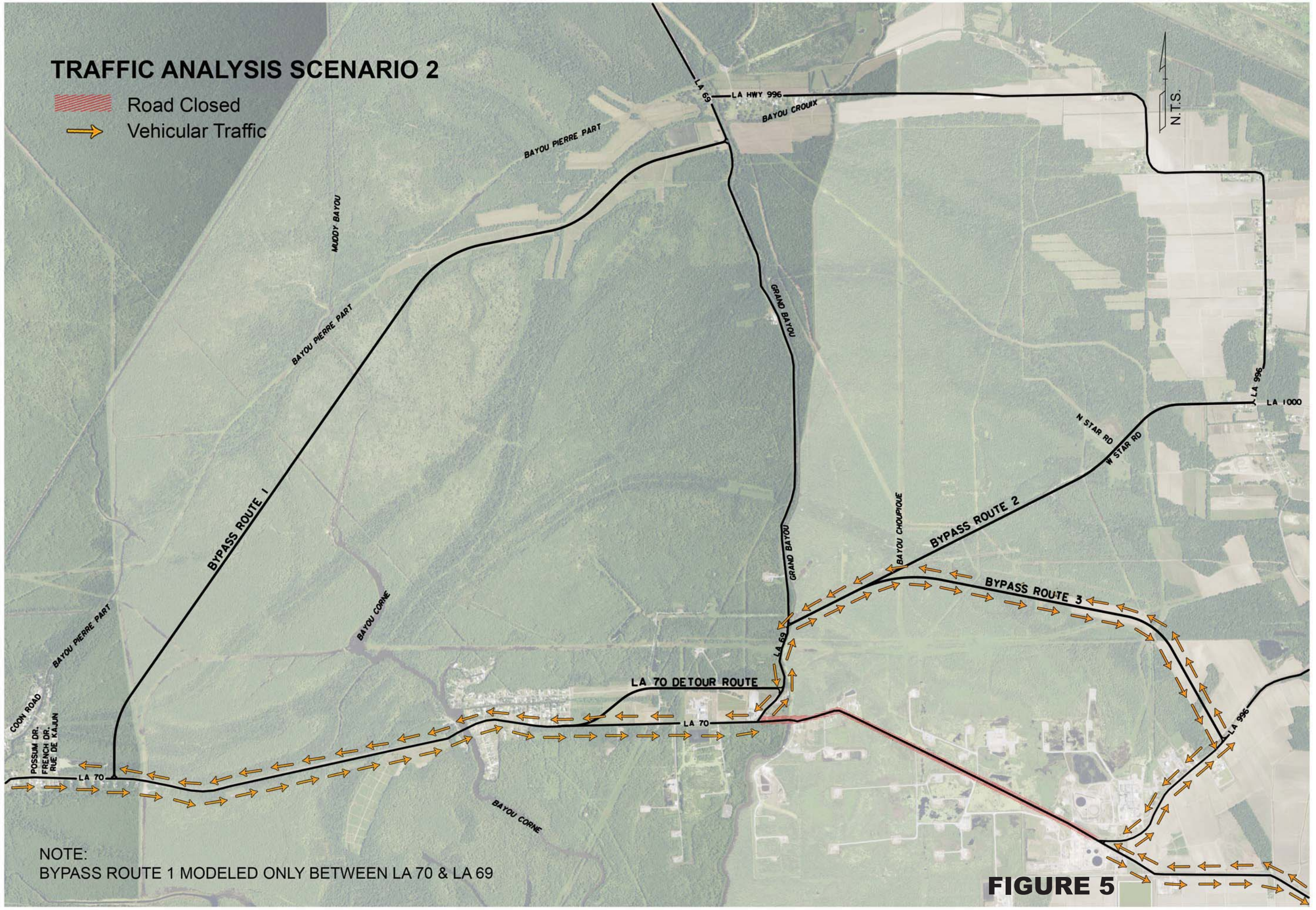
NOTE:
BYPASS ROUTE 1 MODELED ONLY BETWEEN LA 70 & LA 69

FIGURE 4

TRAFFIC ANALYSIS SCENARIO 2

Road Closed

Vehicular Traffic



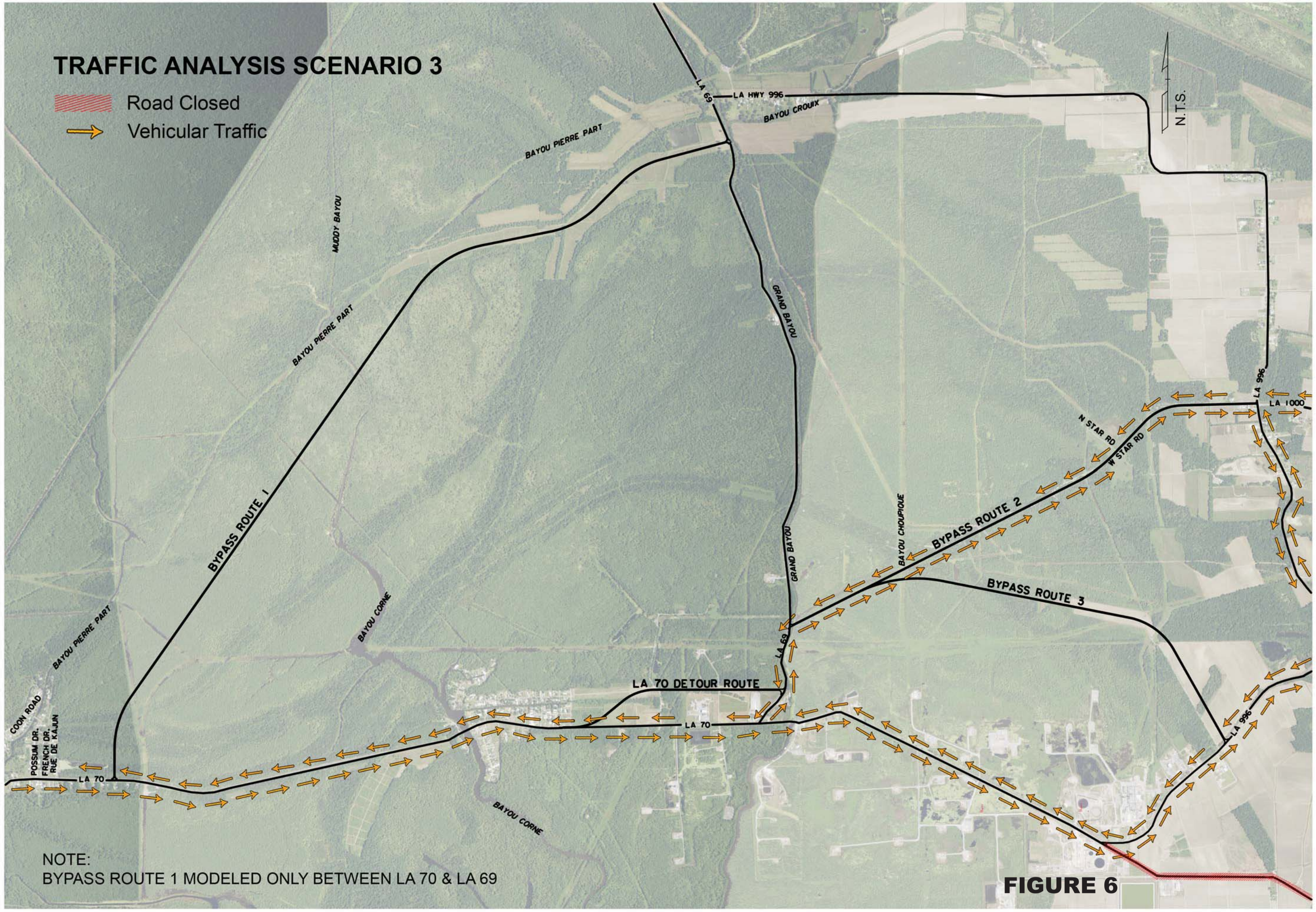
NOTE:
BYPASS ROUTE 1 MODELED ONLY BETWEEN LA 70 & LA 69

FIGURE 5

TRAFFIC ANALYSIS SCENARIO 3

Road Closed

Vehicular Traffic



NOTE:
BYPASS ROUTE 1 MODELED ONLY BETWEEN LA 70 & LA 69

FIGURE 6

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 Bypass Route 1	Proposed / Unsignalized
6. LA 69 at LA 70 Bypass Route 2 / Route 3	Proposed / Unsignalized
7. LA 996/LA 1000 at LA 70 Bypass Route 2	Proposed / Unsignalized
8. LA 996 at LA 70 Bypass Route 3	Proposed / Unsiganlized

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 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 bypass routes will be completed and operational by the year 2018. In addition, design year (2038) analyses were performed for the LA 70 Bypass Routes. 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 7**.

1.3 Traffic Volumes

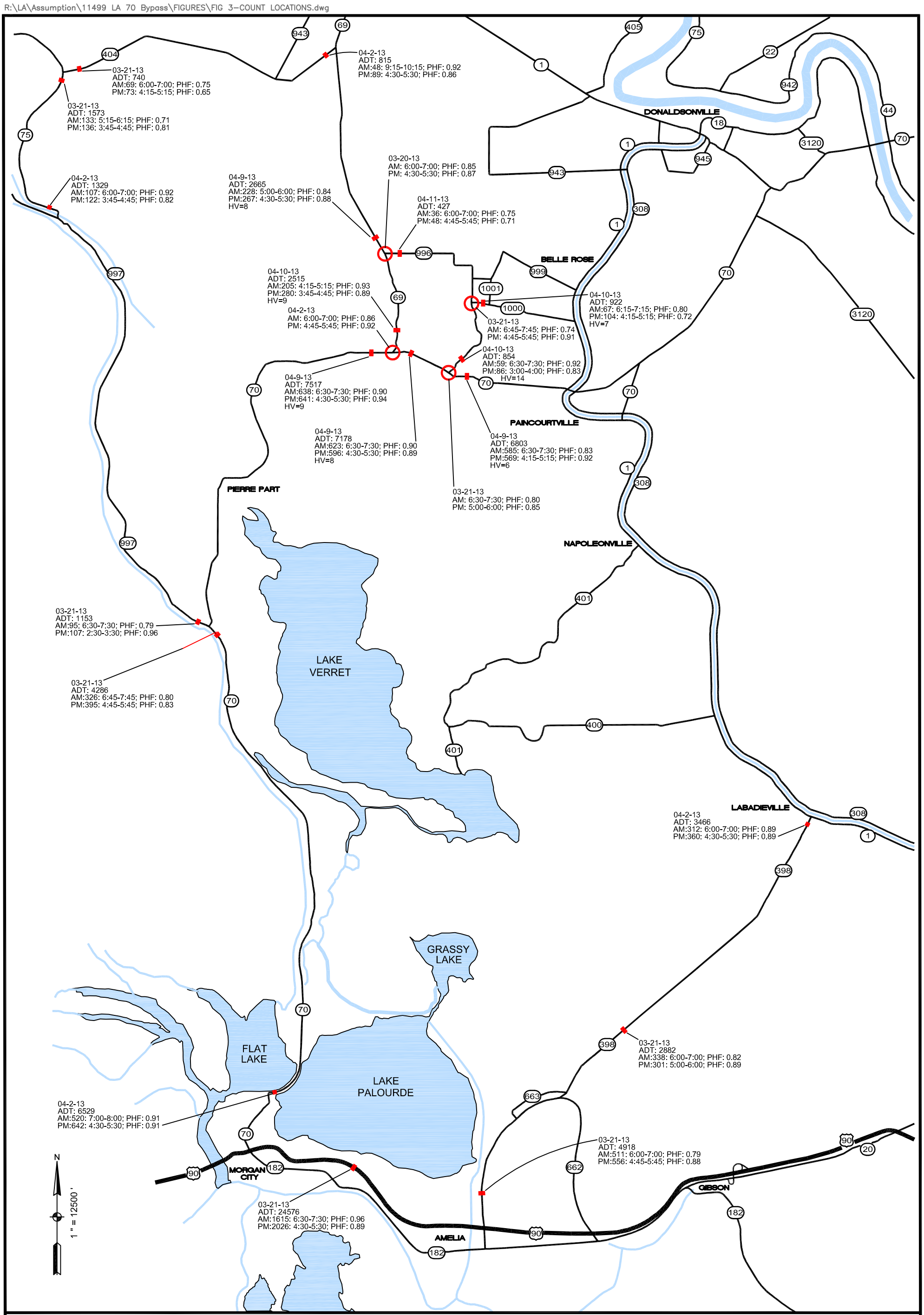
1.3.1 Existing Volumes

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 7**. Intersection TMC were collected at the four (4) existing intersections over a three (3) hour period during the AM and PM peaks. From this data, AM and PM peak hour traffic volumes were derived for the existing conditions. The existing 2013 AM and PM peak volumes are shown in **Figure 8**.

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 existing geometry. The Build volumes reflect the volumes with the LA 70 Bypass Routes in place. The No Build and Build volumes for the AM and PM peak hours for various traffic analysis scenarios for 2018 and 2038 are shown in **Figures 9-18**.

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



LEGEND

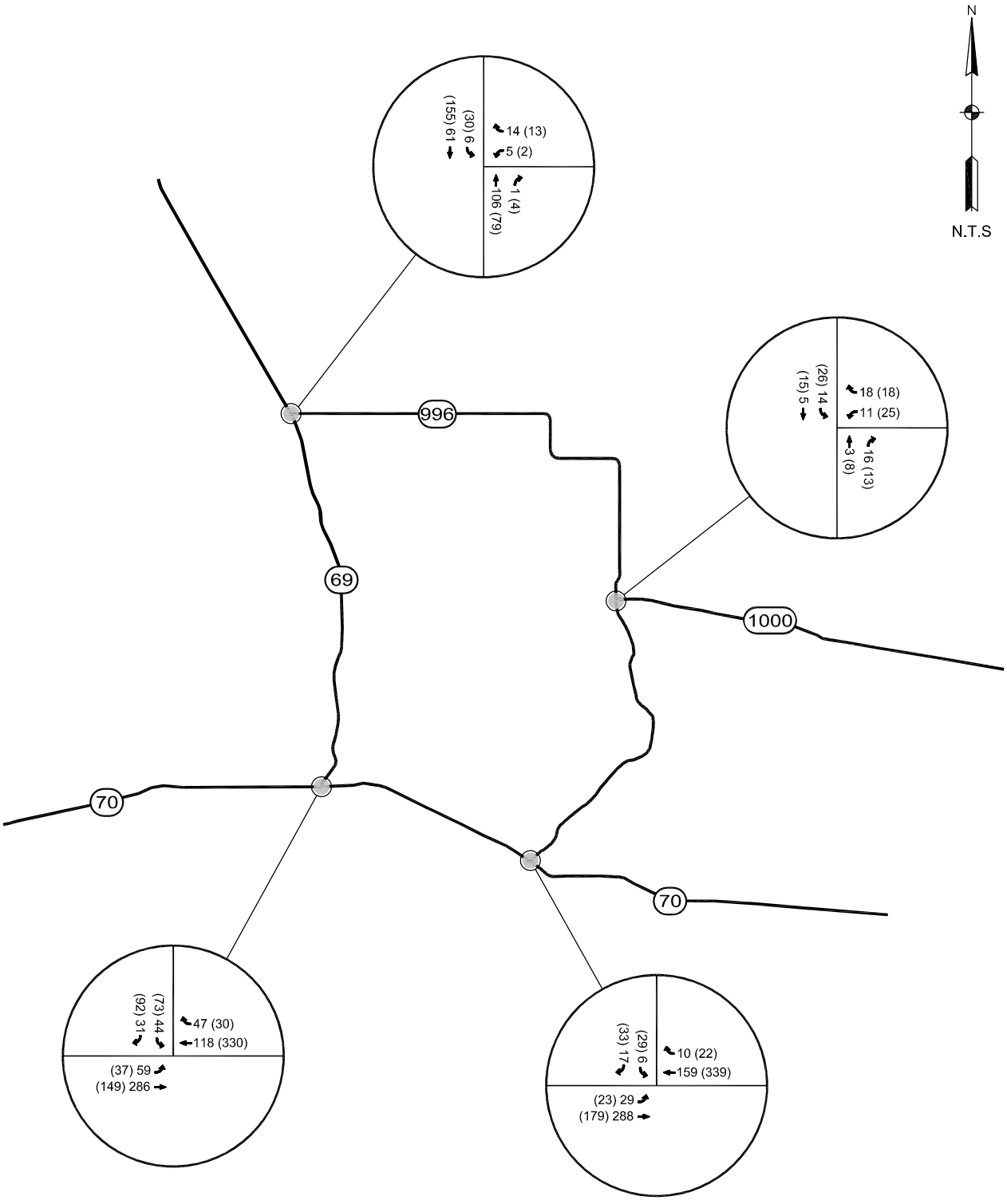
- TUBE COUNT LOCATION
- TURNING MOVEMENT LOCATION
- HV HEAVY VEHICLE PERCENTAGE

FIGURE 7

AVERAGE DAILY TRAFFIC, COUNT LOCATIONS & HEAVY VEHICLE PERCENTAGES

PIERRE PART, LA
ASSUMPTION PARISH

NEEL-SCHAFFER
Solutions you can build upon



LEGEND

STUDY INTERSECTION

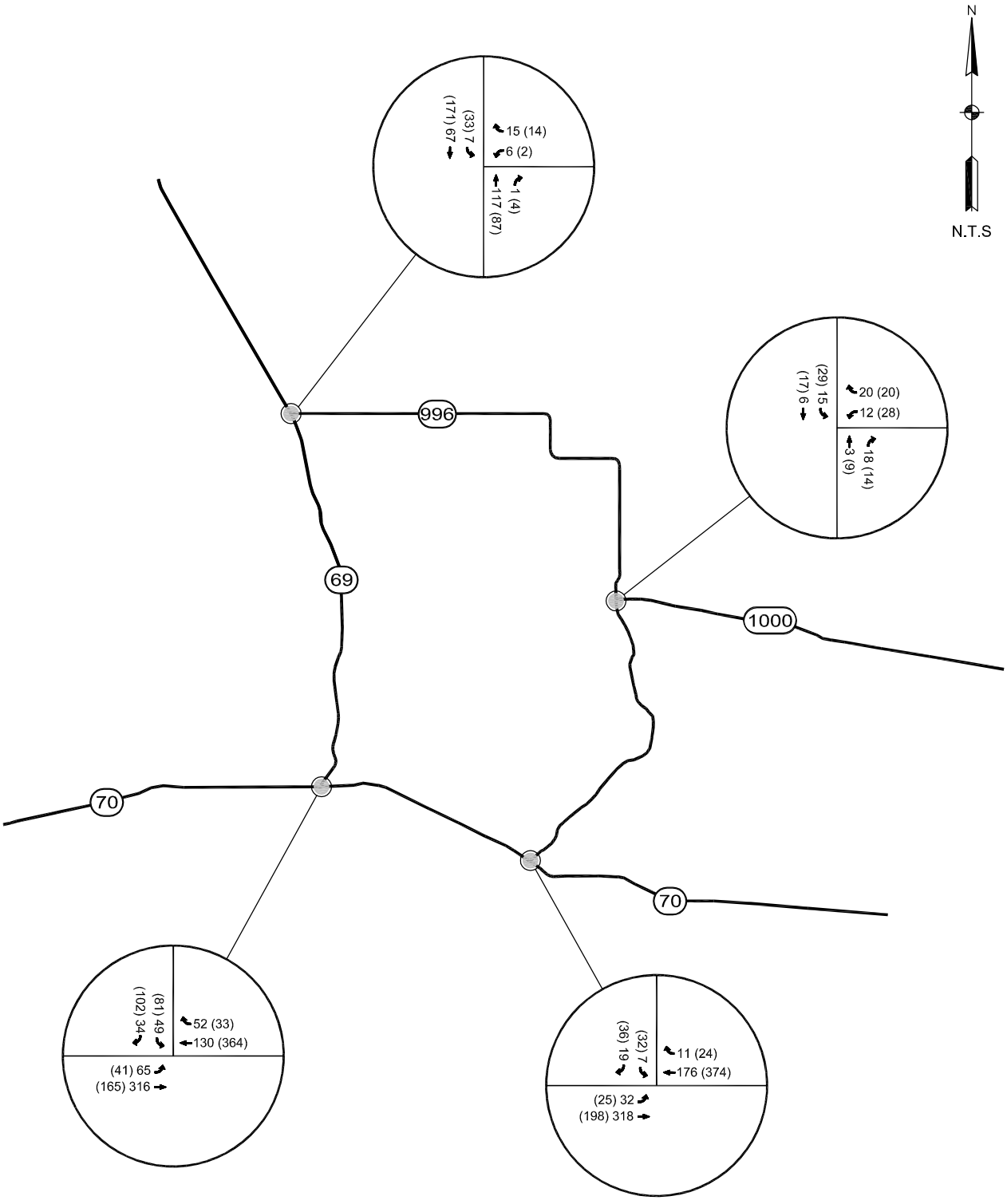
10 (22) AM (PM) VOLUMES

FIGURE 8
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

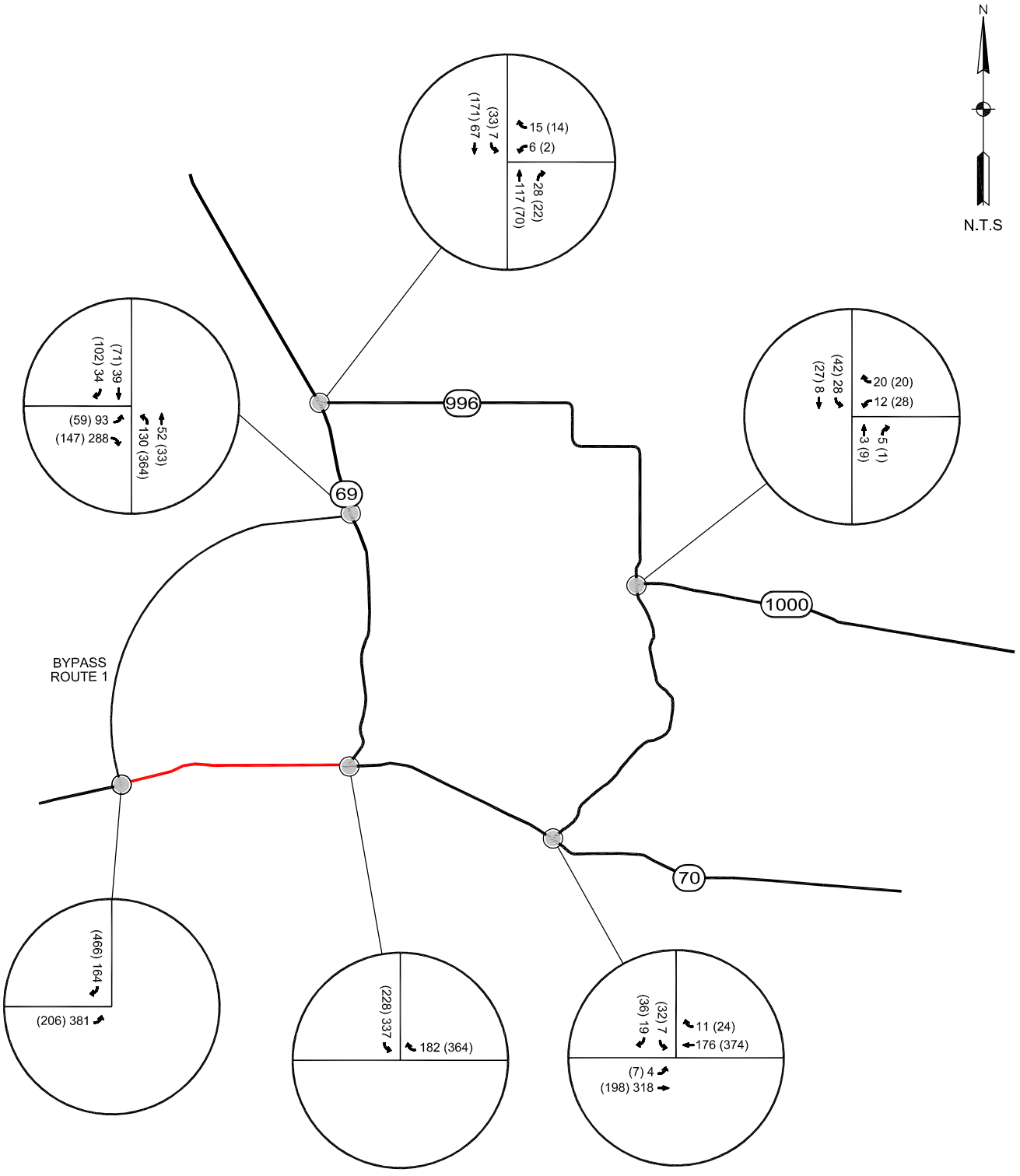
10 (22) AM (PM) VOLUMES

FIGURE 9
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

STUDY INTERSECTION

10 (22) AM (PM) VOLUMES

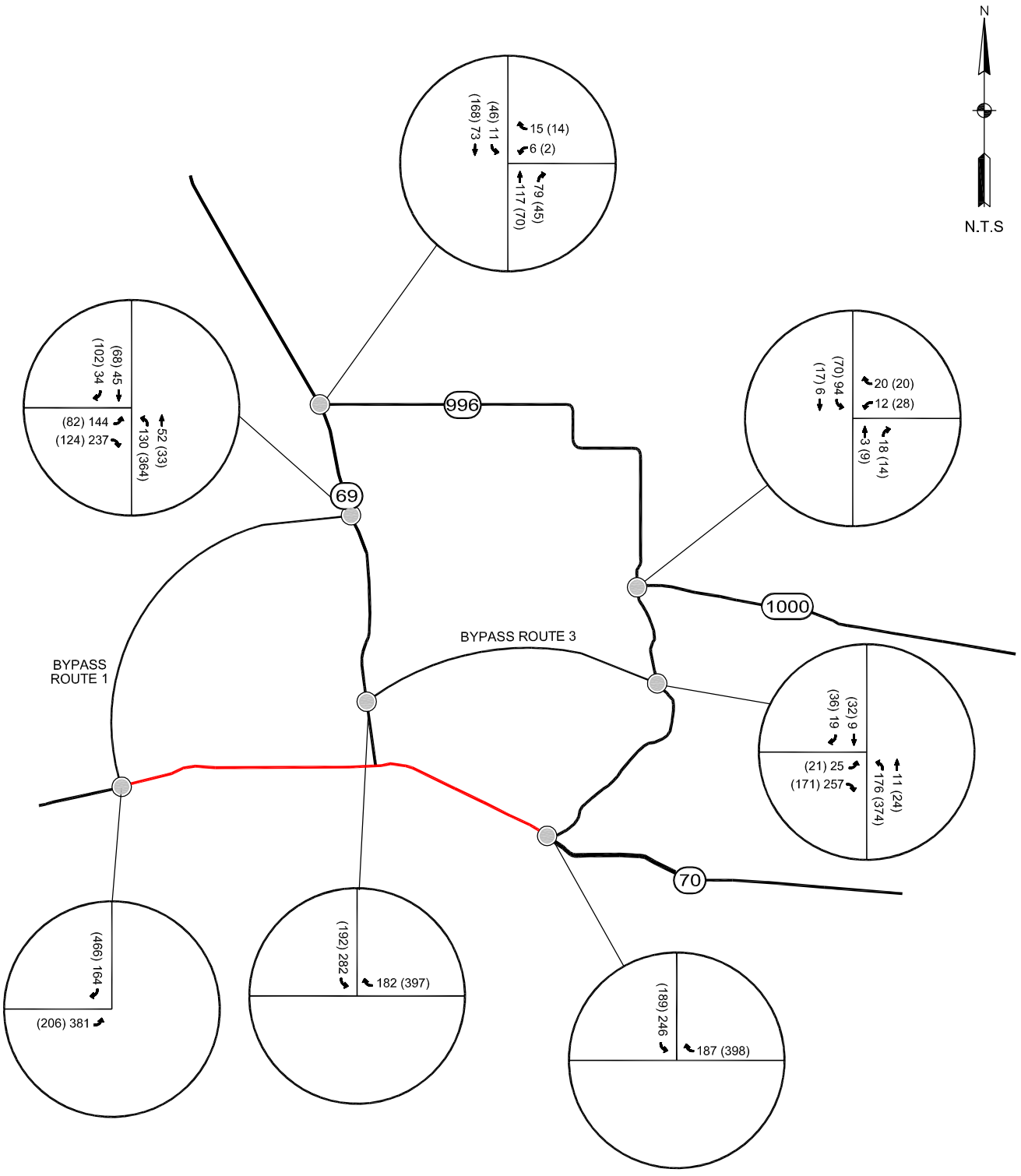
ROADWAY CLOSURE

FIGURE 10
2018 VOLUMES
TRAFFIC ANALYSIS SCENARIO 1A

PIERRE PART, LA
ASSUMPTION PARISH

NEEL-SCHAFFER
Solutions you can build upon

R:\LA\Assumption\11499 LA 70 Bypass\2-Data\FIGURES\Permanent Bypass Figures.dwg



LEGEND

- STUDY INTERSECTION
- 10 (22) AM (PM) VOLUMES
- ROADWAY CLOSURE

FIGURE 11
2018 VOLUMES
TRAFFIC ANALYSIS SCENARIO 1B

PIERRE PART, LA
ASSUMPTION PARISH

NEEL-SCHAFFER
Solutions you can build upon

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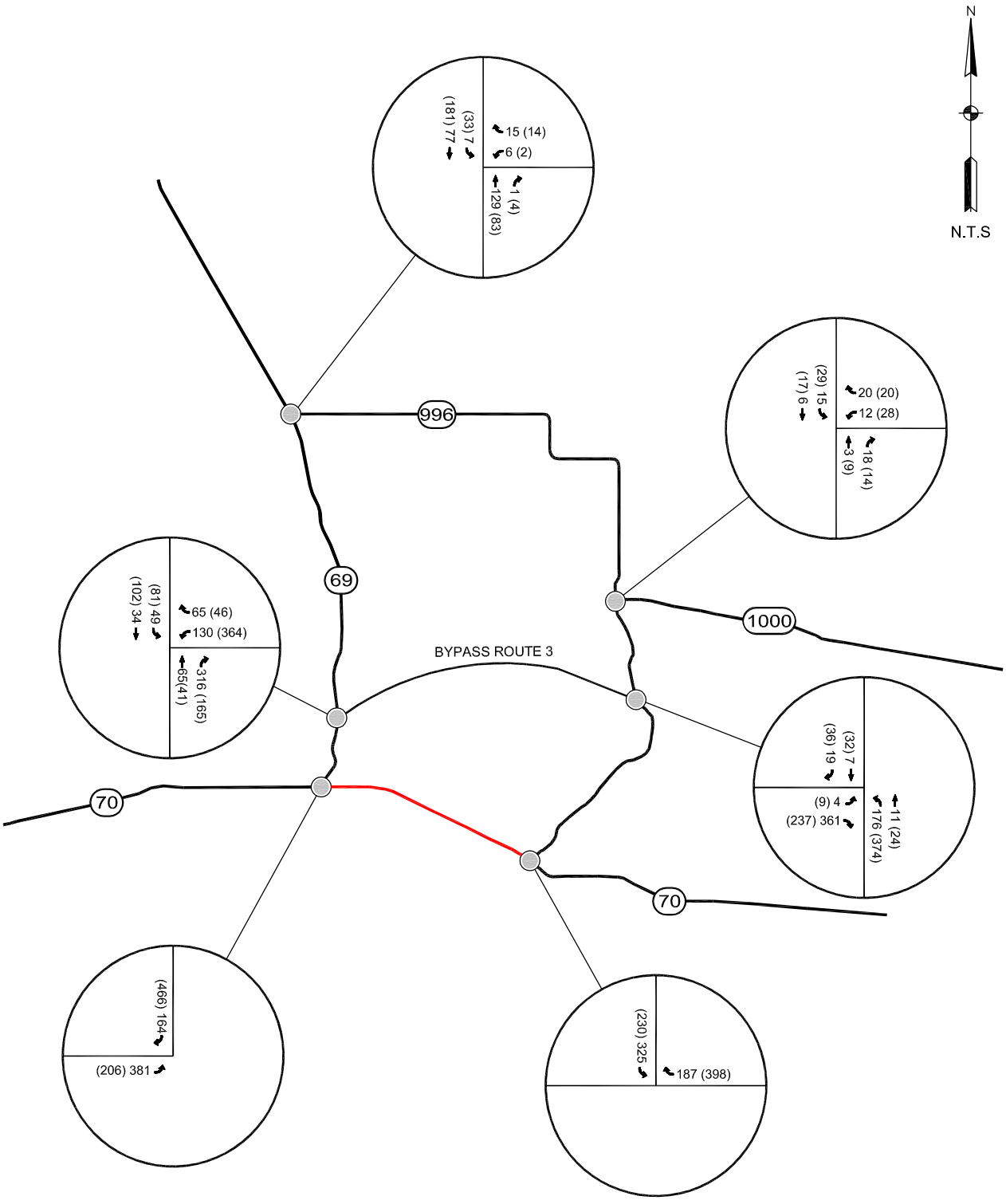

LEGEND

STUDY INTERSECTION

10 (22) AM (PM) VOLUMES

ROADWAY CLOSURE

FIGURE 12
2018 VOLUMES
TRAFFIC ANALYSIS SCENARIO 2

PIERRE PART, LA
ASSUMPTION PARISH

NEEL-SCHAFFER
Solutions you can build upon

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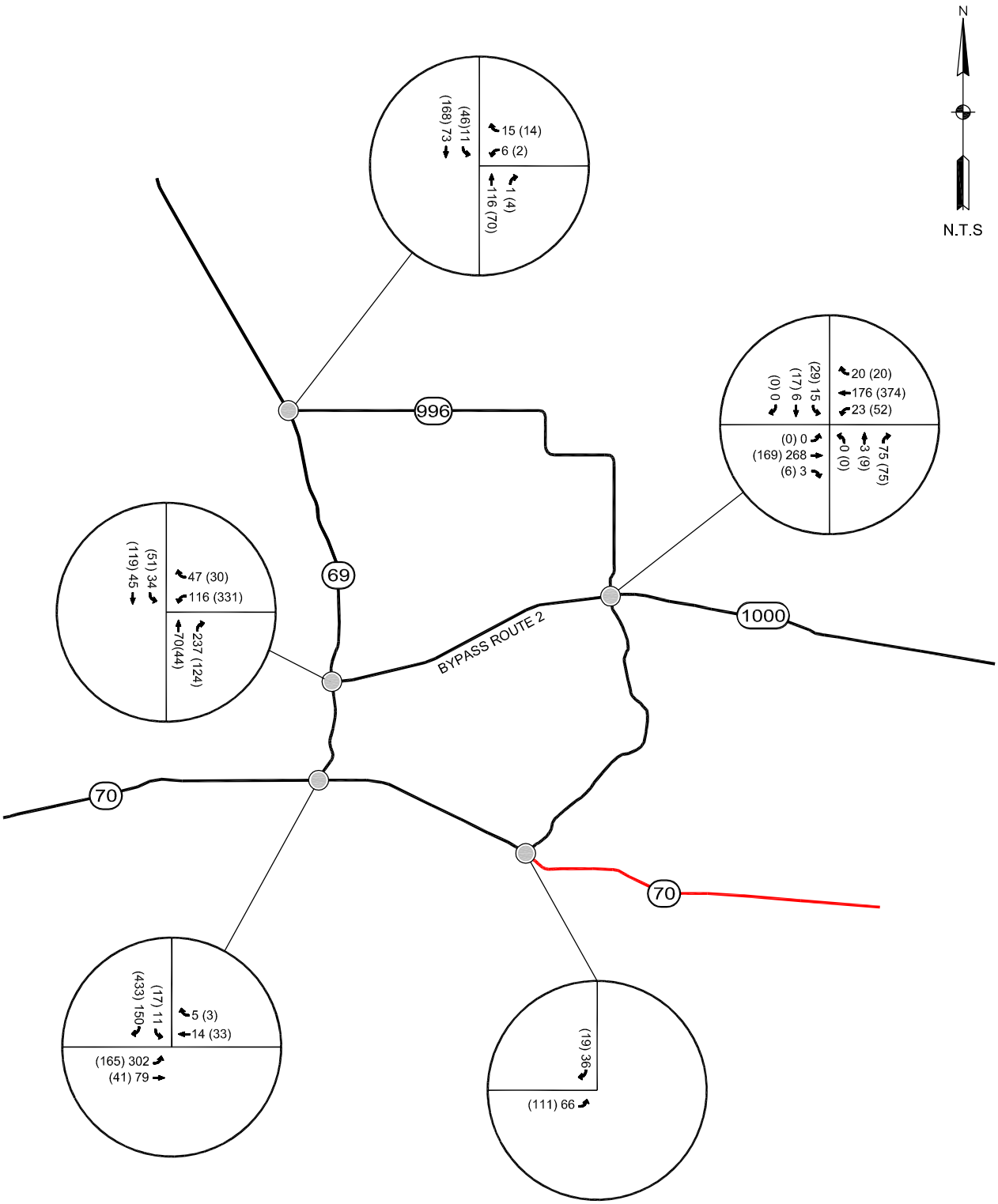

LEGEND

STUDY INTERSECTION

10 (22) AM (PM) VOLUMES

ROADWAY CLOSURE

FIGURE 13
2018 VOLUMES
TRAFFIC ANALYSIS SCENARIO 3

PIERRE PART, LA
ASSUMPTION PARISH

NEEL-SCHAFFER
Solutions you can build upon

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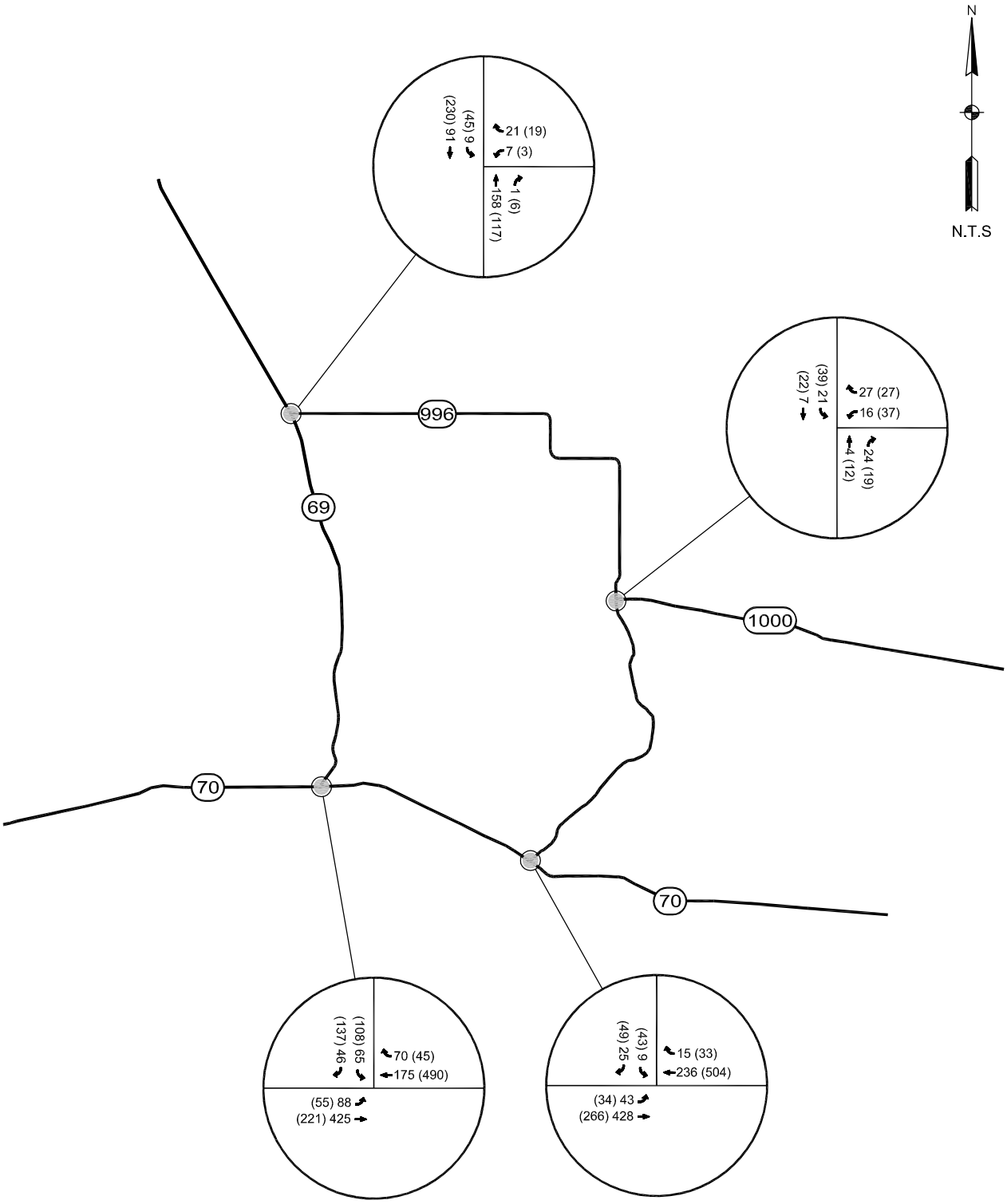


LEGEND

STUDY INTERSECTION

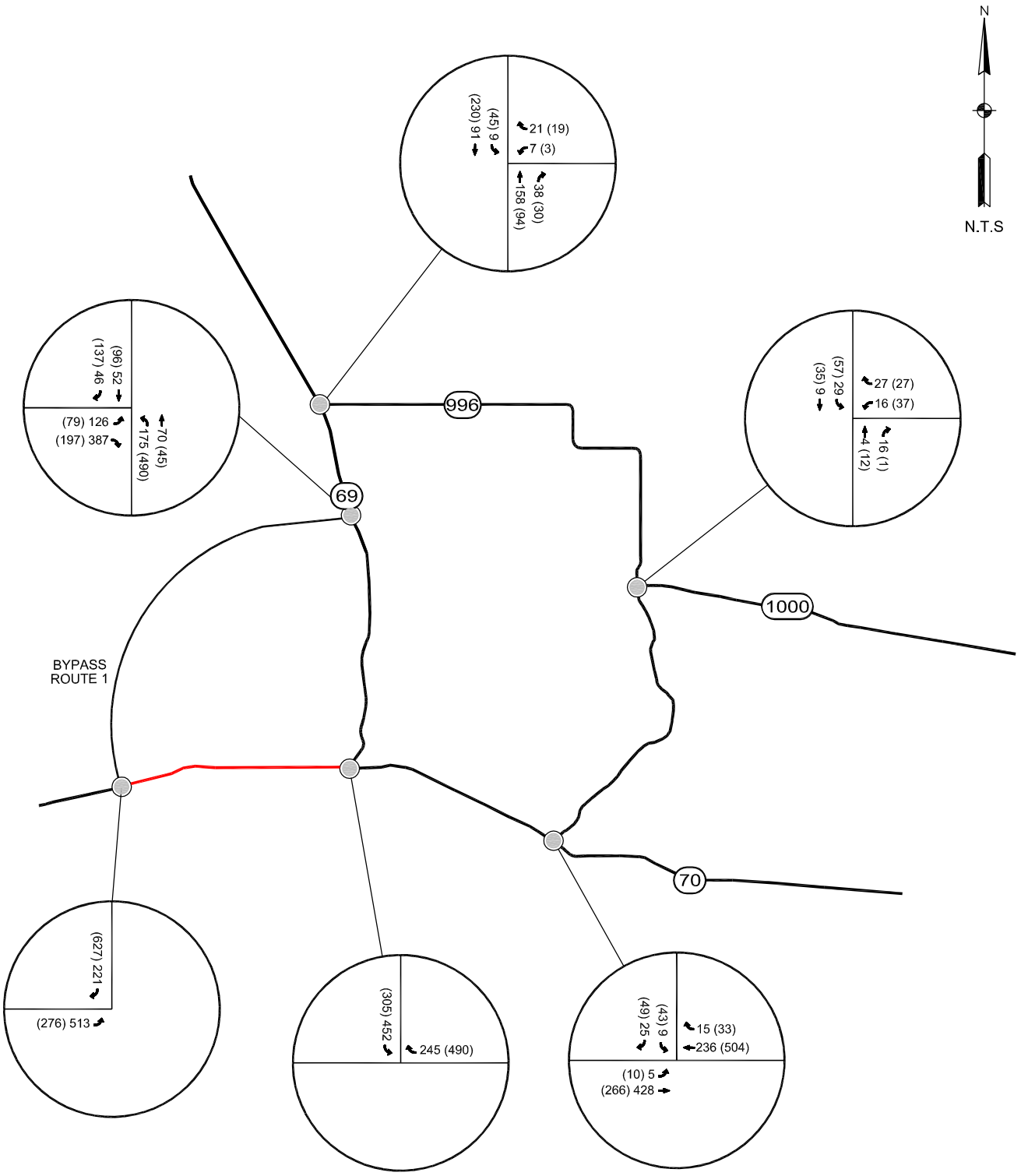
10 (22) AM (PM) VOLUMES

FIGURE 14
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

STUDY INTERSECTION

10 (22) AM (PM) VOLUMES

ROADWAY CLOSURE

FIGURE 15
2038 VOLUMES
TRAFFIC ANALYSIS SCENARIO 1A

PIERRE PART, LA
ASSUMPTION PARISH

NEEL-SCHAFFER
Solutions you can build upon

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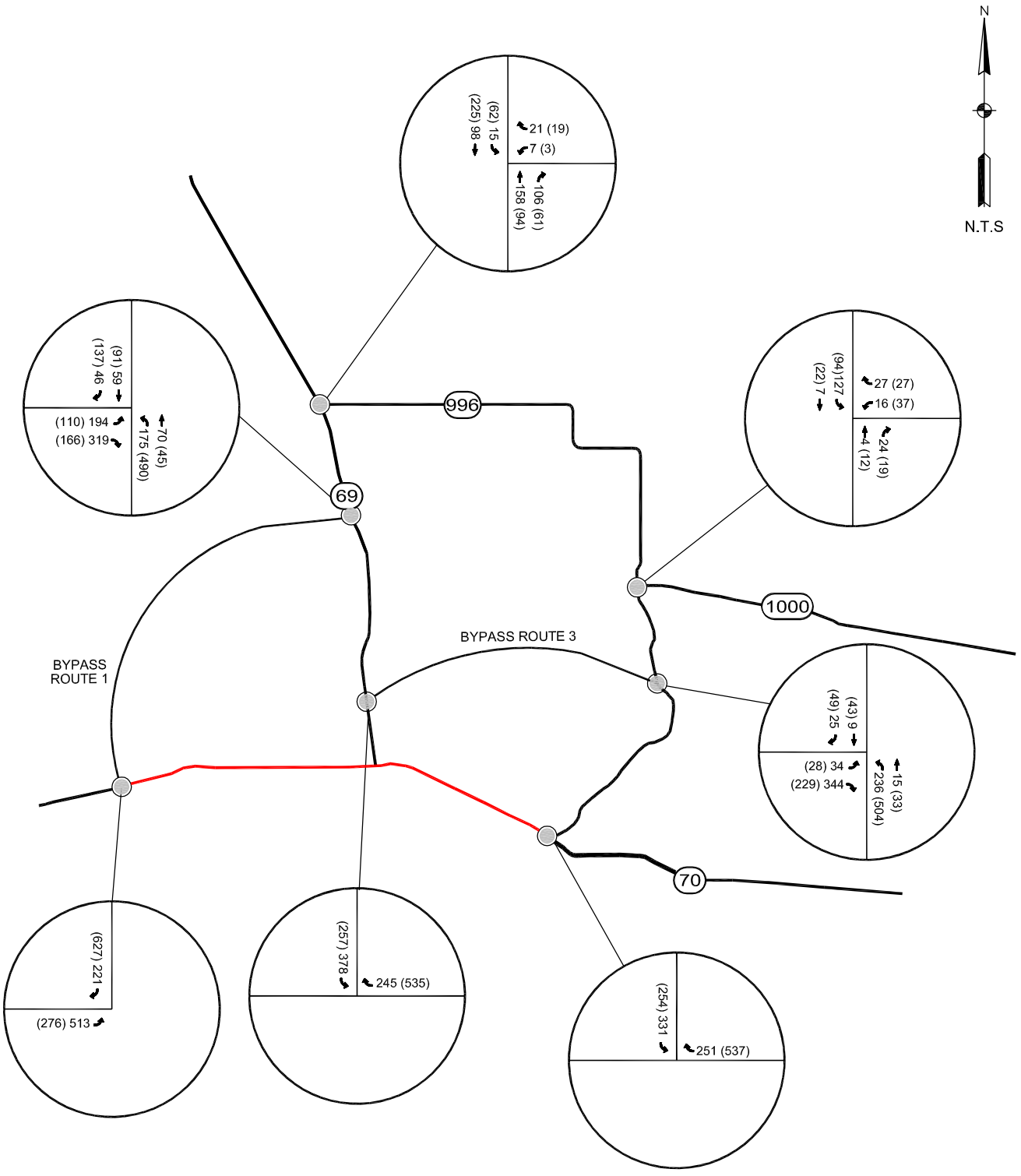

LEGEND

- STUDY INTERSECTION
- 10 (22) AM (PM) VOLUMES
- ROADWAY CLOSURE

FIGURE 16
2038 VOLUMES
TRAFFIC ANALYSIS SCENARIO 1B

PIERRE PART, LA
ASSUMPTION PARISH

NEEL-SCHAFFER
Solutions you can build upon

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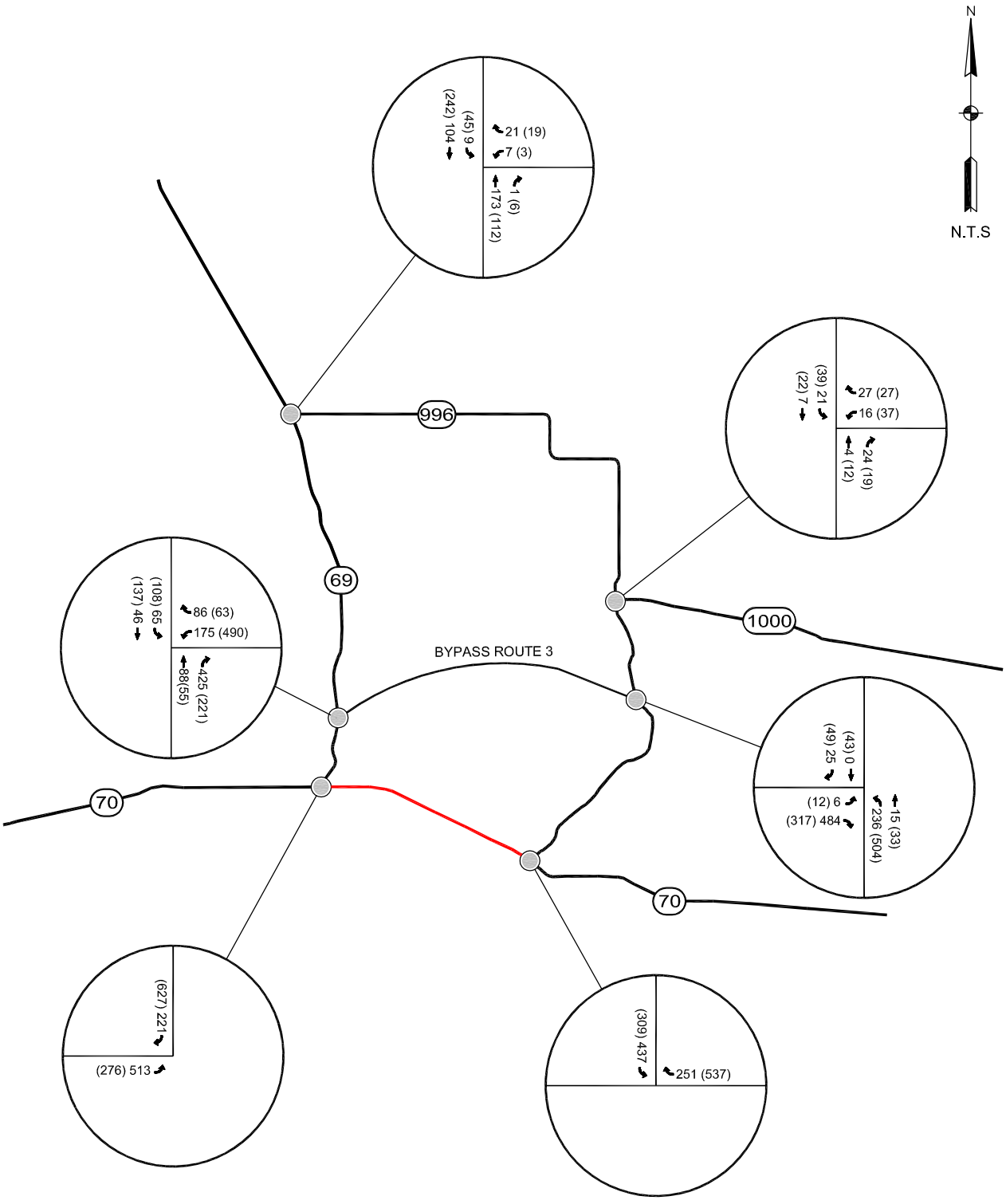

LEGEND

STUDY INTERSECTION

10 (22) AM (PM) VOLUMES

ROADWAY CLOSURE

FIGURE 17
2038 VOLUMES
TRAFFIC ANALYSIS SCENARIO 2

PIERRE PART, LA
ASSUMPTION PARISH

NEEL-SCHAFFER
Solutions you can build upon

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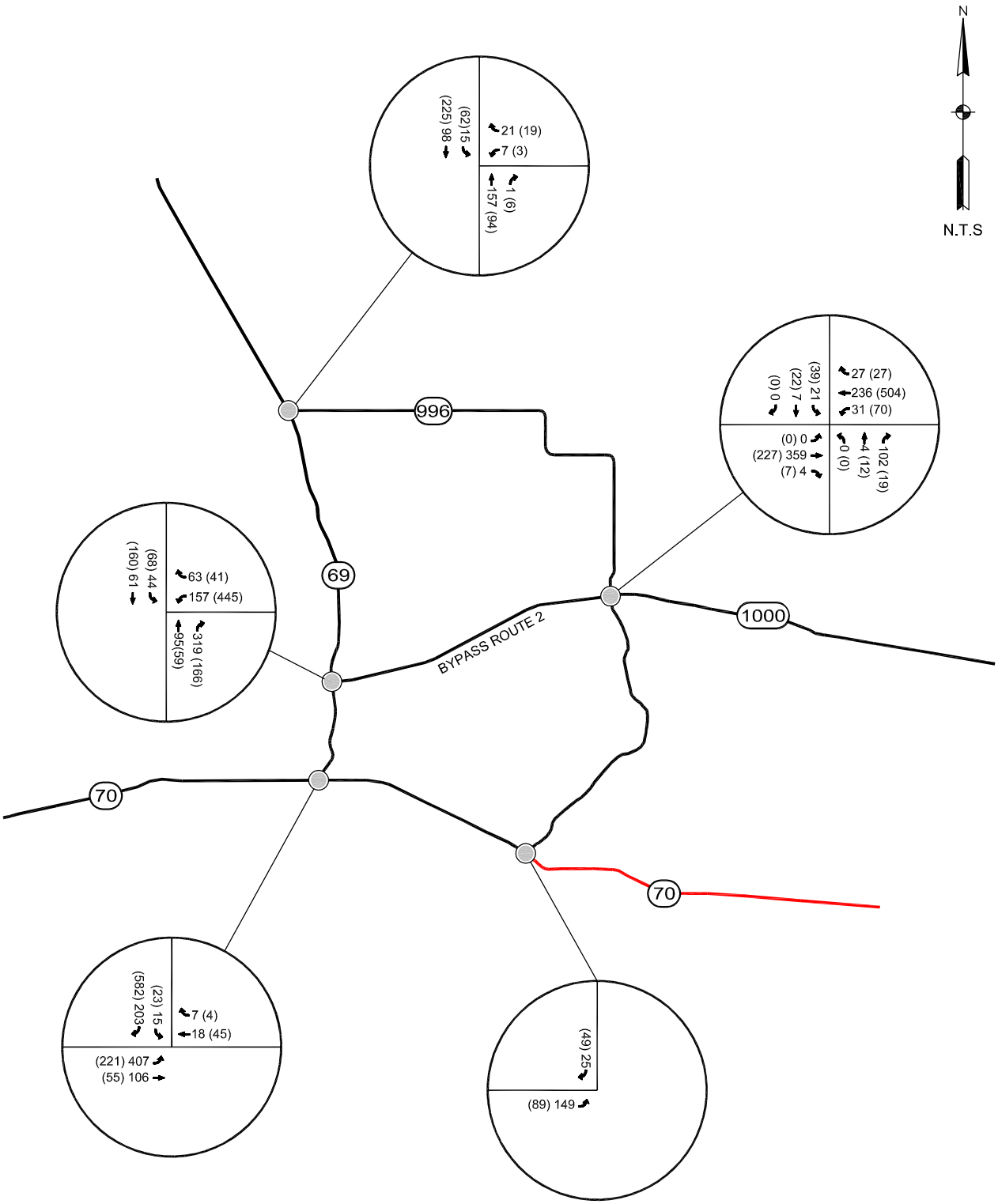


LEGEND

STUDY INTERSECTION

10 (22) AM (PM) VOLUMES

ROADWAY CLOSURE

FIGURE 18
2038 VOLUMES
TRAFFIC ANALYSIS SCENARIO 3

PIERRE PART, LA
ASSUMPTION PARISH

NEEL-SCHAFFER
Solutions you can build upon

R:\LA\Assumption\11499 LA 70 Bypass\2-Data\FIGURES\Permanent Bypass Figures.dwg

1.4 Analyses

1.4.1 Turn Lane Warrant Analyses

By using the build volumes for the LA 70 Bypass Routes, turn-lane warrant analyses were performed for the following intersections

- LA 69 at LA 70 Bypass Route 1
- LA 69 at LA 70 Bypass Route 2
- LA 69 at LA 70 Bypass Route 3
- LA 70 at LA 69
- LA 996 / LA 1000 at LA 70 Bypass Route 2
- LA 996 at LA 70 Bypass Route 3
- LA 70 at LA 996

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 left turn lanes, right turn lanes and the side street approaches for the 2018 and 2038 AM and PM peaks. The turn lane warrant analyses performed on the LA 70 Bypass Routes are summarized in **Table 1**. The detailed turn-lane analyses are provided in the **Appendix**.

Table 1
Turn Lane Warrant Analyses

Bypass Route 1					
Movements		**2018 Alternative 1A**		**2038 Alternative 1A**	
		AM	*PM*	*AM*	*PM*
LA 69 at LA 70 Bypass Route 1	NBL	Not Warranted	Not Warranted	Not Warranted	Warranted
	SBR	Not Warranted	Warranted	Not Warranted	Warranted
	Side Street	Single Lane	Single Lane	Consider 2 Approach Lanes	Single Lane
Bypass Route 1					
Movements		**2018 Alternative 1B**		**2038 Alternative 1B**	
		AM	*PM*	*AM*	*PM*
LA 69 at LA 70 Bypass Route 1	NBL	Not Warranted	Not Warranted	Not Warranted	Warranted
	SBR	Not Warranted	Warranted	Not Warranted	Warranted
	Side Street	Single Lane	Single Lane	Consider 2 Approach Lanes	Single Lane
Bypass Route 2					
Movements		**2018 Alternative 3**		**2038 Alternative 3**	
		AM	*PM*	*AM*	*PM*
LA 69 at Bypass Route 2	SBL	Not Warranted	Not Warranted	Not Warranted	Not Warranted
	NBR	Warranted	Warranted	Warranted	Warranted
	Side Street	Single Lane	Consider 2 Approach Lanes	Single Lane	Consider 2 Approach Lanes
Bypass Route 2					
Movements		**2018 Alternative 3**		**2038 Alternative 3**	
		AM	*PM*	*AM*	*PM*
LA 70 at LA 69	EBL	Warranted	Not Warranted	Warranted	Not Warranted
	WBR	Not Warranted	Not Warranted	Not Warranted	Not Warranted
	Minor Street	Single Lane	Single Lane	Single Lane	Consider 2 Approach Lanes
Bypass Route 2					
Movements		**2018 Alternative 3**		**2038 Alternative 3**	
		AM	*PM*	*AM*	*PM*
LA 996 at Bypass Route 2	WBL	Not Warranted	Warranted	Not Warranted	Warranted
	Side Street	Single Lane	Single Lane	Single Lane	Single Lane
Bypass Route 3					
Movements		**2018 Alternative 1B**		**2038 Alternative 1B**	
		AM	*PM*	*AM*	*PM*
LA 996 at Bypass Route 3	NBL	Not Warranted	Not Warranted	Not Warranted	Not Warranted
	SBR	Not Warranted	Not Warranted	Not Warranted	Not Warranted
	Side Street	Single Lane	Single Lane	Single Lane	Single Lane
Bypass Route 3					
Movements		**2018 Alternative 2**		**2038 Alternative 2**	
		AM	*PM*	*AM*	*PM*
LA 69 at Bypass Route 3	SBL	Not Warranted	Not Warranted	Not Warranted	Warranted
	NBR	Warranted	Warranted	Warranted	Warranted
	Side Street	Single Lane	Consider 2 Approach Lanes	Single Lane	Consider 2 Approach Lanes
Bypass Route 3					
Movements		**2018 Alternative 2**		**2038 Alternative 2**	
		AM	*PM*	*AM*	*PM*
LA 996 at Bypass Route 3	NBL	Not Warranted	Not Warranted	Not Warranted	Not Warranted
	SBR	Not Warranted	Not Warranted	Not Warranted	Not Warranted
	Side Street	Single Lane	Single Lane	Single Lane	Single Lane
Movements		**2018 Alternative 2**		**2038 Alternative 2**	
		AM	*PM*	*AM*	*PM*
LA 996 at LA 70	EBL	Not Warranted	Not Warranted	Not Warranted	Not Warranted
	WBR	Not Warranted	Not Warranted	Not Warranted	Not Warranted
	Side Street	Single Lane	Single Lane	Single Lane	Consider 2 Approach Lanes

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 were evaluated for the existing 2013, 2018 and 2038 No Build and Build conditions for the various traffic analysis scenarios. The five (5) proposed intersections were evaluated for the 2018 and 2038 Build conditions for the various traffic analysis scenarios. 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/veh) & LOS

Intersection			LA 69 at LA 70 Bypass Route 1	LA 69 at LA 70	LA 69 at LA 996	LA 996 at LA 1000	LA 996 at LA 1000/Bypass Route 2		LA 70 at LA 996	LA 996 at Bypass Route 3	LA 69 at Bypass Route 3		LA 69 at Bypass Route 2	
Stop Controlled Approach			*EB*	*SB*	*WB*	*WB*	*SB*	*NB*	*SB*	*EB*	*WB*	*SB*	*WB*	*SB*
2013 Existing	AM	*Delay*	--	15.9	7.8	7.4	--	--	12.9	--	--	--	--	--
		LOS	--	B	A	A	--	--	B	--	--	--	--	--
	PM	*Delay*	--	21.0	7.7	7.5	--	--	19.6	--	--	--	--	--
		LOS	--	C	A	A	--	--	B	--	--	--	--	--
2018 No Build	AM	*Delay*	--	17.7	7.8	7.5	--	--	13.8	--	--	--	--	--
		LOS	--	C	A	A	--	--	B	--	--	--	--	--
	PM	*Delay*	--	26.0	7.7	7.5	--	--	21.8	--	--	--	--	--
		LOS	--	D	A	A	--	--	C	--	--	--	--	--
2018 Alternative 1A	AM	*Delay*	13.8	--	7.8	7.5	--	--	13.5	--	--	--	--	--
		LOS	B	--	A	A	--	--	B	--	--	--	--	--
	PM	*Delay*	13.8	--	7.7	7.6	--	--	21.2	--	--	--	--	--
		LOS	B	--	A	A	--	--	C	--	--	--	--	--
2018 Alternative 1A with Recommended Geometry	AM	*Delay*	11.5	--	--	--	--	--	13.2	--	--	--	--	--
		LOS	B	--	--	--	--	--	B	--	--	--	--	--
	PM	*Delay*	11.9	--	--	--	--	--	18.9	--	--	--	--	--
		LOS	B	--	--	--	--	--	C	--	--	--	--	--
2018 Alternative 1B	AM	*Delay*	15.2	--	7.9	7.6	--	--	--	10.7	--	--	--	--
		LOS	C	--	A	A	--	--	--	B	--	--	--	--
	PM	*Delay*	15.3	--	7.7	7.6	--	--	--	10.9	--	--	--	--
		LOS	C	--	A	A	--	--	--	B	--	--	--	--
2018 Alternative 1B with Recommended Geometry	AM	*Delay*	11.7	--	--	--	--	--	--	--	--	--	--	--
		LOS	B	--	--	--	--	--	--	--	--	--	--	--
	PM	*Delay*	12.9	--	--	--	--	--	--	--	--	--	--	--
		LOS	B	--	--	--	--	--	--	--	--	--	--	--
2018 Alternative 2	AM	*Delay*	--	--	7.9	7.5	--	--	--	11.2	12.9	12.3	--	--
		LOS	--	--	A	A	--	--	--	B	B	B	--	--
	PM	*Delay*	--	--	7.7	7.5	--	--	--	10.7	15.5	9.6	--	--
		LOS	--	--	A	A	--	--	--	B	C	A	--	--
2018 Alternative 2 with Recommended	AM	*Delay*	--	--	--	--	--	--	--	--	11.6	9.1	--	--
		LOS	--	--	--	--	--	--	--	--	B	A	--	--
	PM	*Delay*	--	--	--	--	--	--	--	--	13.8	5.2	--	--
		LOS	--	--	--	--	--	--	--	--	B	A	--	--
2018 Alternative 3	AM	*Delay*	--	10.2	7.9	--	20.9	14.7	--	--	--	--	11.8	10.0
		LOS	--	B	A	--	C	B	--	--	--	--	B	A
	PM	*Delay*	--	13.3	7.7	--	22.7	12.4	--	--	--	--	13.5	8.5
		LOS	--	B	A	--	C	B	--	--	--	--	B	A
2018 Alternative 3 with Recommended	AM	*Delay*	--	9.9	--	--	21.0	14.7	--	--	--	--	11.0	10.0
		LOS	--	A	--	--	C	B	--	--	--	--	B	A
	PM	*Delay*	--	12.6	--	--	22.9	12.5	--	--	--	--	12.7	8.5
		LOS	--	B	--	--	C	B	--	--	--	--	B	A
2038 No Build	AM	*Delay*	--	31.1	8.0	7.5	--	--	17.8	--	--	--	--	--
		LOS	--	D	A	A	--	--	C	--	--	--	--	--
	PM	*Delay*	--	111.4	7.9	7.6	--	--	46.0	--	--	--	--	--
		LOS	--	F	A	A	--	--	E	--	--	--	--	--
2038 Alternative 1A	AM	*Delay*	21.4	--	8.0	7.5	--	--	17.0	--	--	--	--	--
		LOS	C	--	A	A	--	--	C	--	--	--	--	--
	PM	*Delay*	21.2	--	7.8	7.7	--	--	42.9	--	--	--	--	--
		LOS	C	--	A	A	--	--	E	--	--	--	--	--
2038 Alternative 1A with Recommended Geometry	AM	*Delay*	13.2	--	--	--	--	--	16.2	--	--	--	--	--
		LOS	B	--	--	--	--	--	C	--	--	--	--	--
	PM	*Delay*	14.8	--	--	--	--	--	31.0	--	--	--	--	--
		LOS	B	--	--	--	--	--	D	--	--	--	--	--
2038 Alternative 1B	AM	*Delay*	27.9	--	8.0	7.6	--	--	--	12.1	--	--	--	--
		LOS	D	--	A	A	--	--	--	B	--	--	--	--
	PM	*Delay*	27.3	--	7.8	7.7	--	--	--	12.6	--	--	--	--
		LOS	D	--	A	A	--	--	--	B	--	--	--	--
2038 Alternative 1B with Recommended Geometry	AM	*Delay*	13.8	--	--	--	--	--	--	--	--	--	--	--
		LOS	B	--	--	--	--	--	--	--	--	--	--	--
	PM	*Delay*	17.8	--	--	--	--	--	--	--	--	--	--	--
		LOS	C	--	--	--	--	--	--	--	--	--	--	--
2038 Alternative 2	AM	*Delay*	--	--	8.1	7.5	--	--	--	13.0	17.9	16.3	--	--
		LOS	--	--	A	A	--	--	--	B	C	C	--	--
	PM	*Delay*	--	--	7.9	7.6	--	--	--	12.2	31.3	11.5	--	--
		LOS	--	--	A	A	--	--	--	B	D	B	--	--
2038 Alternative 2 with Recommended Geometry	AM	*Delay*	--	--	--	--	--	--	--	--	14.1	12.7	--	--
		LOS	--	--	--	--	--	--	--	--	B	B	--	--
	PM	*Delay*	--	--	--	--	--	--	--	--	22.5	6.6	--	--
		LOS	--	--	--	--	--	--	--	--	C	A	--	--
2038 Alternative 3	AM	*Delay*	--	11.3	8.0	--	35.3	20.4	--	--	--	--	14.6	11.4
		LOS	--	B	A	--	E	C	--	--	--	--	B	B
	PM	*Delay*	--	19.8	7.8	--	36.3	18	--	--	--	--	20.7	9.4
		LOS	--	C	A	--	E	C	--	--	--	--	C	A
2038 Alternative 3 with Recommended Geometry	AM	*Delay*	--	10.6	--	--	35.5	20.4	--	--	--	--	12.8	11.4
		LOS	--	B	--	--	E	C	--	--	--	--	B	B
	PM	*Delay*	--	12.6	--	--	36.7	18.1	--	--	--	--	17.8	9.4
		LOS	--	B	--	--	E	C	--	--	--	--	C	A

1.5 Conclusions

The analyses performed for this study indicate that the LA 70 Bypass Routes will have a positive impact on the transportation network within the project limits. Based on the turn lane warrants and the intersection analysis, the following intersection recommendations should be considered.

LA 69 at LA 70 Bypass Route 1 (based on Traffic Analysis Scenarios 1A and 1B)

- LA 69 northbound left turn lane (400 ft. storage length)
- LA 69 southbound right turn lane (270 ft. storage length)
- LA 70 Bypass Route 1eastbound right turn lane (360 ft. storage length)

LA 69 at LA 70 Bypass Route 2 / Route 3 (based on Traffic Analysis Scenarios 2 and 3)

- LA 69 northbound right turn lane (270 ft. storage length)
- LA 69 southbound left turn lane (280 ft. storage length)
- LA 70 Bypass Route 2 / Route 3 westbound right turn lane (400 ft. storage length)

LA 996 / LA 1000 at LA 70 Bypass Route 2 (based on Traffic Analysis Scenario 3)

- LA 1000 westbound left turn lane (170 ft. storage length)
- LA 996 northbound right turn lane (270 ft. storage length)

LA 70 at LA 69 (based on Traffic Analysis Scenario 3)

- LA 70 eastbound left turn lane (330 ft. storage length)
- LA 69 southbound right turn lane (300 ft. storage length)

LA 70 at LA 996 (based on Traffic Analysis Senario 1A)

- LA 996 southbound right turn lane (315 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**.

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 Reports (Digital Copies 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

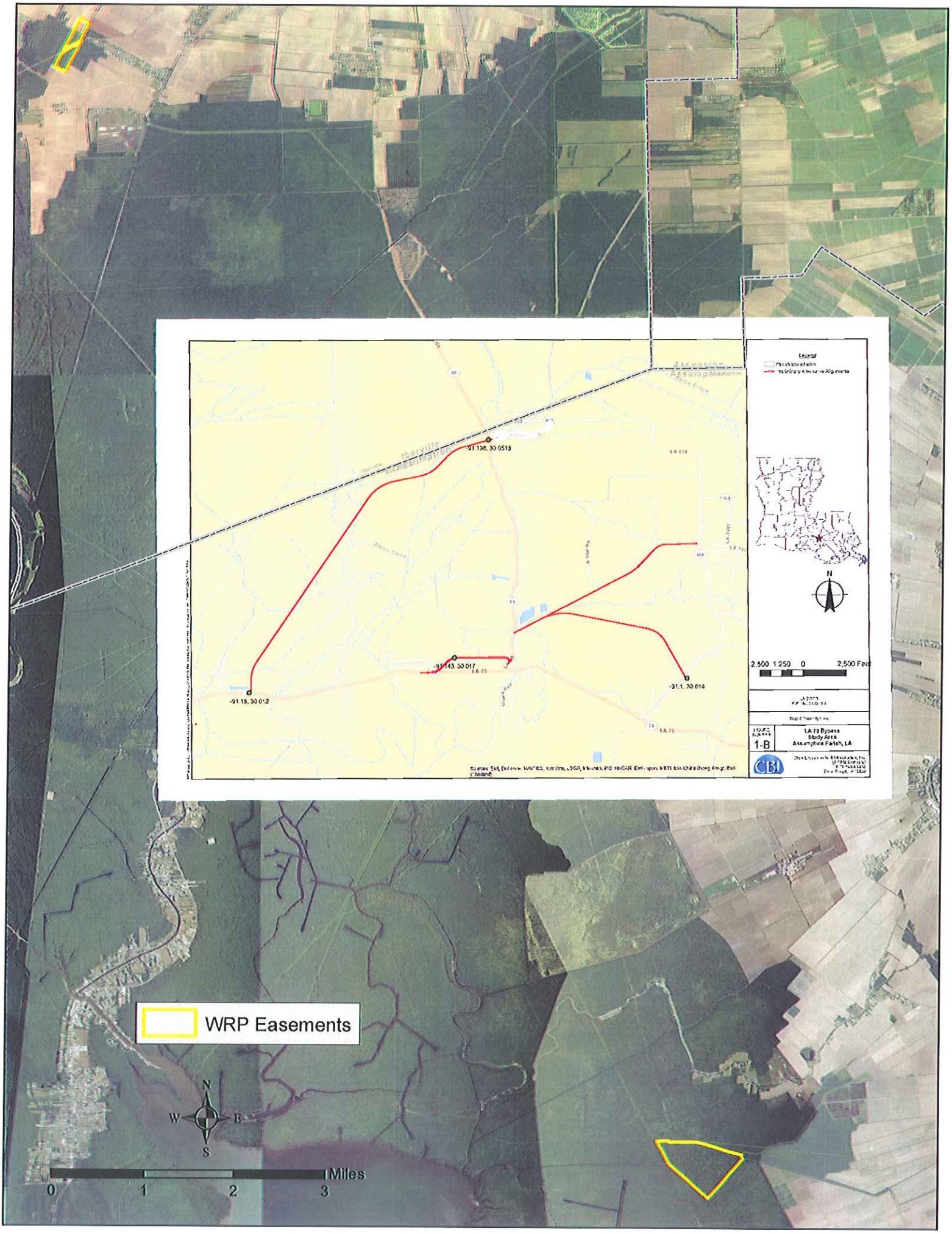
From: Moree, Kara [mailto:kara.moree@cbi.com]
Sent: Thursday, July 25, 2013 4:22 PM
To: Farmer, Dustin - NRCS, Alexandria, LA; Cruse, Steve - NRCS, Alexandria, LA; Millicks, Jackie - NRCS, Alexandria, LA
Subject: RE: LA 70 Bypass Feasibility Study - WRP properties

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


WRP Easements
N
W
E
S
0
1
2
3
Miles

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

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NGS Information Services
NOAA, NNGS12
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/.

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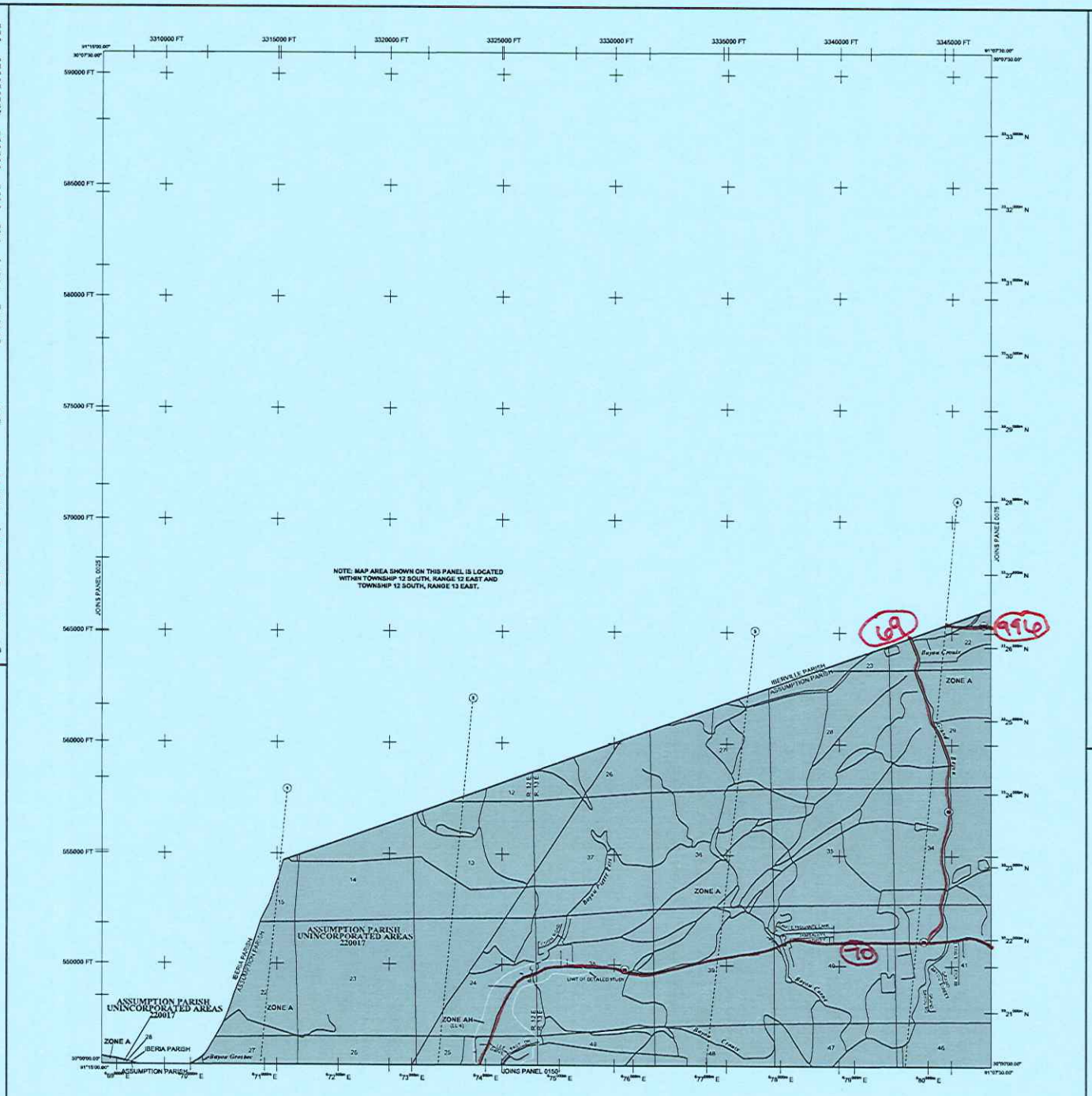
If you have questions about this map or questions concerning the National Flood Insurance Program in general, please call 1- 877- FEMA MAP (1- 877- 336- 2627) or visit the FEMA website at http://www.fema.gov/.



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°22'30" — Geographic coordinates referenced to the North American Datum of 1983 (NAD 83)
- 4275000mN — 1000-meter Universal Transverse Mercator grid ticks, zone 15
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- DX5510 — Bench mark (see explanation in Notes to Users section of this FIRM panel)
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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

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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 flood insurance 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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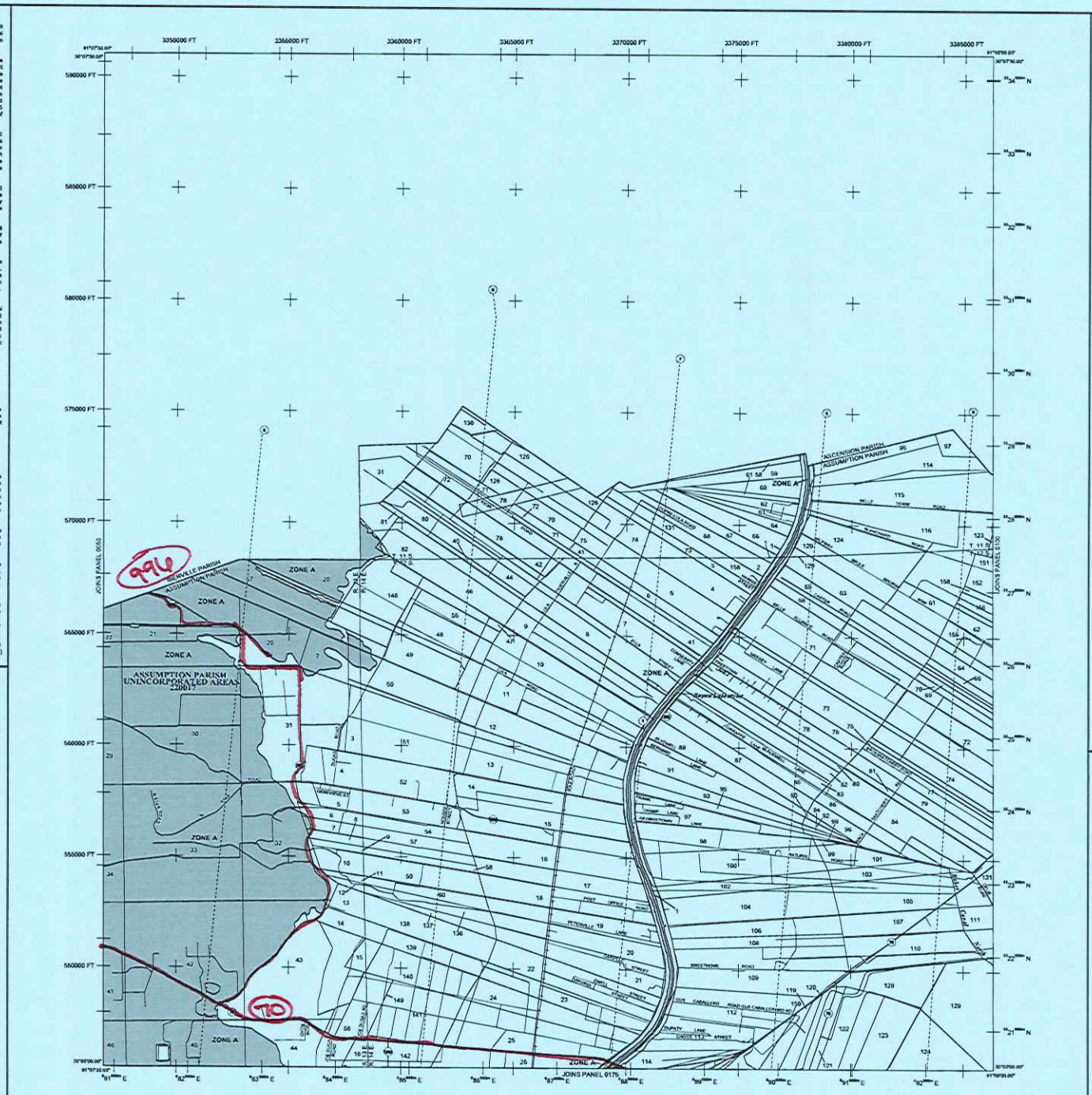

LEGEND

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1000 0 2000 4000 FEET
300 0 600 1200 METERS

PANEL 0075D

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

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

CONTAINING:

COMMUNITY	NUMBER	PANEL	SUFFIX
ASSUMPTION PARISH	220017	0075	D

PRELIMINARY
JULY 28, 2009

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MAP NUMBER
22007C0075D
EFFECTIVE DATE

Federal Emergency Management Agency

NATIONAL FLOOD INSURANCE PROGRAM

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:

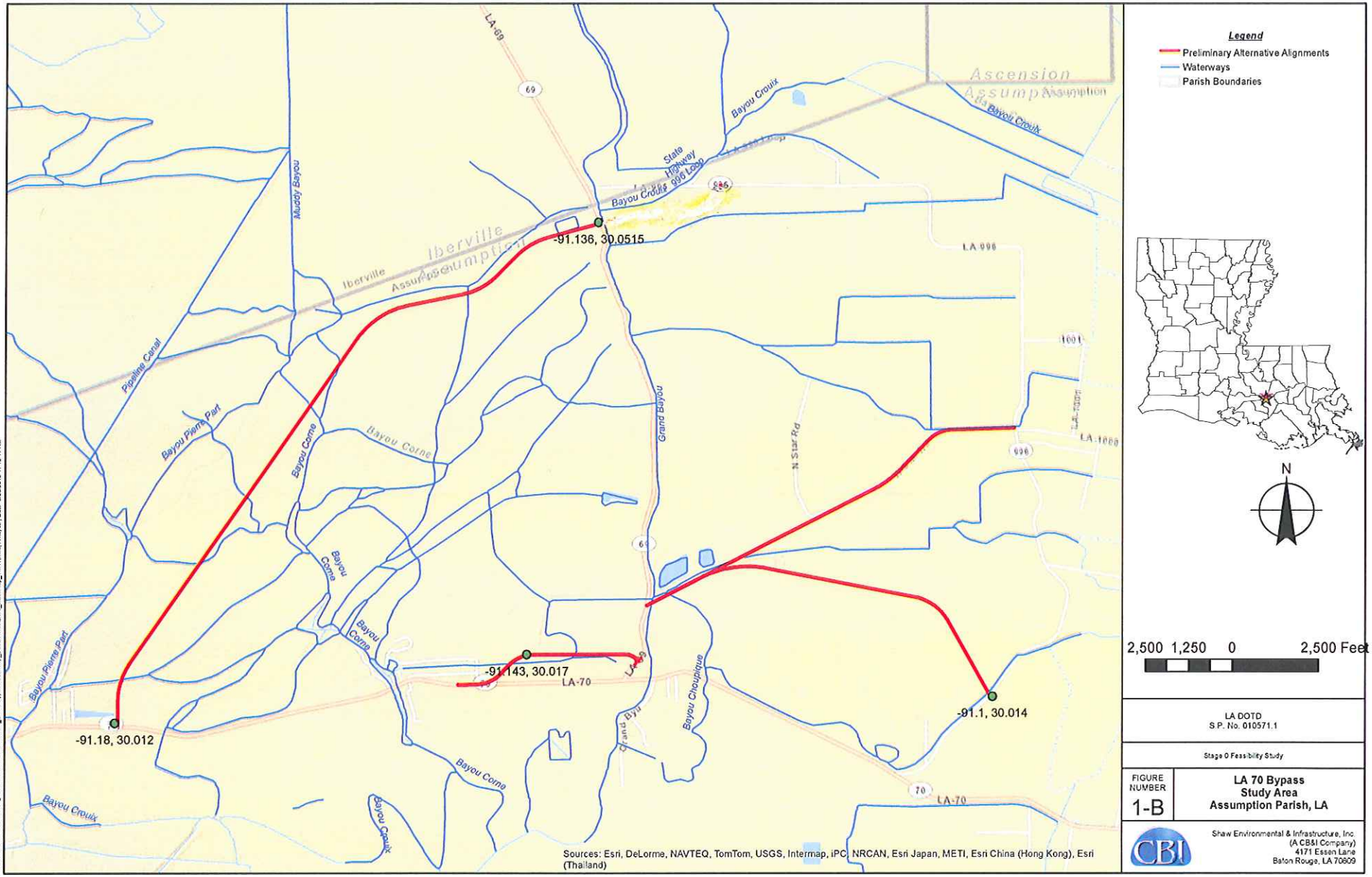
This letter is to request a determination as to whether or not any waterways that cross or come within 500 feet of the above referenced project are considered "navigable" as well as if there are any flood control levee systems within the project area. The preliminary project alternatives are to investigate 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 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

P:\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

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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 – Bypass Routes

RIBITS

Regulatory In-lieu Fee and Bank Information Tracking System

[Print] [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]

Note

The filtered drop down will determine whether you have the option to search by HUC/8 digit and will set the default listing to the center of the District/State/Field Office/NOAA Fisheries Region selected. If you do not specify species or HUC/8s, the resulting list of banks will have service areas overlapping the jurisdictions selected. Hope Area 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.

Permit No

* Latitude: 30.017365304893454

* Longitude: -91.13594834585675

Single Client: ☑ Yes

Service Area Rank: ☑ Primary ☑ Secondary ☑ Tertiary

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

ATL 10.00

Terms of Use

Sources of Credits for Impact Location

Mitigation Banks Suitable for Permit No. Including single clients with Lat/Long (30.017365304893454, -91.13594834585675) using service areas of rank Primary, Secondary, Tertiary

Impact County:	Assumption Parish
Impact State:	Louisiana
Impact HUC:	8080302
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@bgvlp.com
Phone: (225) 381-9044
Fax: (225) 378-9819

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@ESEmitigation.com
Phone: (225) 372-6161
Fax: (225) 372-6162

Bank POC: Frank Bevry
412 North Fourth Street
Suite 300
Baton Rouge, LA 70802
Email: fbevry@esemitigation.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 10/3/13.

Bank Name: Lake Long Coastal:

Comments: Primary Service Area is HUC 08090302. Secondary Service Area is HUCs 08090301 and 08070300. re-establish and rehabilitate, maintain and protect a Fresh water marsh, bottomland hardwood and baldcypress/tupelo swamp wetland

Bank States: Louisiana

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

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

Credit Classifications Available Credits

Cypress/Tupelo Gum Swamp	0.20
Fresh Marsh	43.00

Notes

Bank Name: Supple's Wetlands:

Bank States: Louisiana

Bank Sponsor: J. Supples Bona Planting Company, LLC
Bayou Goula, LA

Bank POC: Jimmy Ewing
29030 Highway 405
Bayou Goula, LA 70788
Email: supplebanking@hotmail.com
Phone: (225) 645-8417
Fax: (225) 645-8410

Credit Classifications Available Credits

Bottomland Hardwoods	66.40

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.

Notes

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

Bank Name: Texada Mitigation Bank:

Comments: HUC = 08070300

Bank States: Louisiana

Bank Sponsor: Texada Properties Inc.
57590 New Erwin Dr.
Plaquemine, LA 70764
Email: casey@bkgeninsacring.broadnet.com
Phone: (225) 687-2203

Bank POC: Harry Cass
57590 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

NOTE: Mitigation Quotes are for Bypass Routes 1-A, 2-A, and 3-A only (mostly at-grade construction with direct impacts)

From: Frankie Savoy
To: Moree, Kara
Subject: Re: Quick Quote for LA 70 Feasibility Study - Bypass Routes 1 - 3
Date: Thursday, October 03, 2013 2:49:30 PM

Kara,

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 Bypass Route 1 (78.697 acres of impact) -- estimated MCM credit (not acre) requirement -- 1138.1 credits
For Bypass Route 1 Expansion (3.306 acres of impact) -- estimated MCM credit (not acre) requirement -- 38.5 credits
For Bypass Route 2 (52.846 acres of impact) -- estimated MCM credit (not acre) requirement -- 721.2 credits
For Bypass Route 3 (36.307 acres of impact) -- estimated MCM credit (not acre) requirement -- 484.9 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.

Bypass Route 1 estimated price range: $6,828,600 - $9,104,800
Bypass Route 1 Expasion estimated price range: $231,000 - $308,000
Bypass Route 2 estimated price range: $4,327,200 - $5,769,600
Bypass Route 3 estimated price range: $2,909,400 - $3,879,200

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.

I'm giving you a quick call to discuss - if I miss you, please call me when you have a moment.

Thanks!

Frankie

Frankie Savoy
Regional Program Manager

Resource Environmental Solutions, LLC
1200 Camellia Blvd, Suite 101
Lafayette, LA 70508
225.372.6106 - Direct
337.580.2781 - Mobile
frankie@res.us
www.res.us

On Oct 3, 2013, at 10:01 AM, Moree, Kara wrote:

> Hi Frankie,
>
> Just wanted to check in with you to see if you still had time to do a quick quote for me on these?
>
> Let me know.
>
> 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
>
> CB&I
> 4171 Essen Lane
> Baton Rouge, LA 70809
> www.CBI.com
>
> ---
>
> **From:** Moree, Kara
> **Sent:** Wednesday, September 18, 2013 3:08 PM
> **To:** Frankie Savoy, (frankie@res.us)
> **Subject:** Quick Quote for LA 70 Feasibility Study - Bypass Routes 1 - 3
>
> Hey Frankie,
>
> Hope you are doing well!
>
> If possible, would you mind giving me a quick quote for the bypass routes that we are

doing a feasibility study on near the sinkhole.

Kind of the same thing that you gave me a couple of weeks ago. That one was for 2 emergency detour routes and this one would be for 3 potential alternative alignments which would be more permanent solution to the Salt Dome area.

I attached maps of the alignments as well as acreage tables with habitats.

Let me know if you have time to work on this.

I'm sure I will see you in the morning anyway!
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

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Bypass Route 1-A Wetlands

Elevated	# Acres	Habitat Type
N	76.425	CT
N	1.037	CT
N	0.535	CT
N	0.646	BLH
N	0.054	BLH
Total Acres:	78.697	

Direct Impacts = 78.70 acres

Bypass Route 1-A Extension Wetlands

Elevated	# Acres	Habitat Type
N	0.295	CT
N	0.327	CT
N	0.564	Scrub-Shrub
N	1.594	BLH
N	0.526	Scrub-Shrub
Total Acres:	3.306	

Direct Impacts = 3.31 acres

Bypass Route 2-A Wetlands

Elevated	# Acres	Habitat Type
N	0.352	CT
N	13.703	CT
N	7.163	CT
N	2.027	CT
N	0.272	CT
N	14.026	CT
N	3.553	BLH
N	4.815	BLH
N	6.277	BLH
N	0.401	BLH
N	0.257	BLH
Total Acres:	52.846	

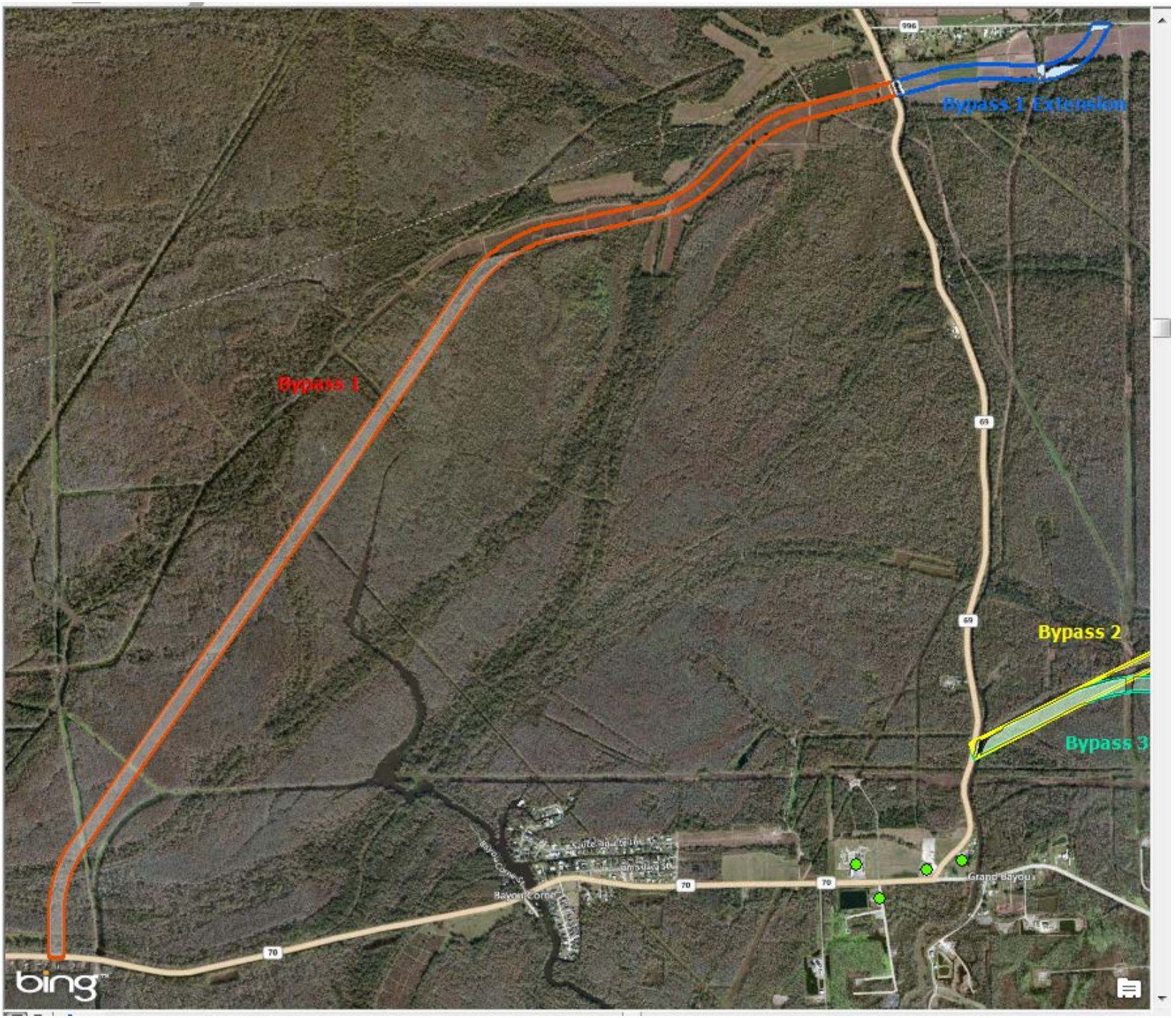
Direct Impacts = 52.85 acres

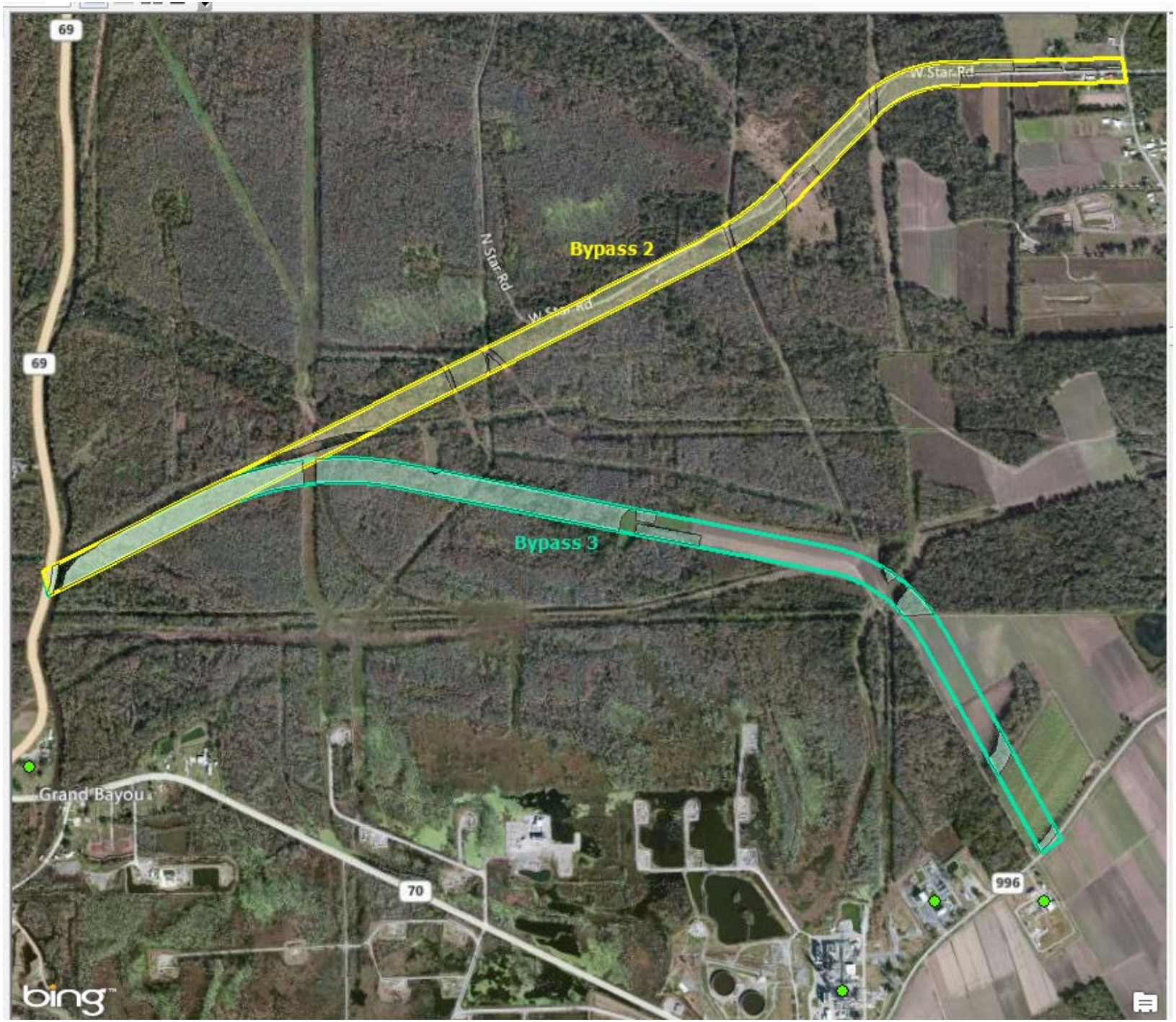
Bypass Route 3-A Wetlands

Elevated	# Acres	Habitat Type
N	0.403	CT
N	13.848	CT
N	16.864	CT
N	0.477	CT
N	1.532	CT
N	0.226	BLH
N	1.389	BLH
N	1.145	BLH
N	0.423	BLH
Total Acres:	36.307	

Direct Impacts = 36.31 acres

CT = Cypress Tupelo
BLH = Bottomland Hardwood
Direct Impacts = Non-Elevated Roadway


Bypass 1 Extension
Bypass 1
Bypass 2
Bypass 3
996
69
70
bing


69
69
W Star Rd
N Star Rd
W Star Rd
Bypass 2
Bypass 3
Grand Bayou
70
996
bing

Bypass Route 1 Wetlands

Elevated	# Acres	Habitat Type	Bridge Pile Acres
Y	76.425	CT	0.09
N	1.037	CT	
N	0.535	CT	
N	0.646	BLH	
N	0.054	BLH	
Total Acres:	78.697		

Direct Impacts = 2.36 acres
Indirect Impacts = 76.34 acres

Bypass Route 2 Wetlands

Elevated	# Acres	Habitat Type	Bridge Pile Acres
Y	0.352	CT	0.052
Y	13.703	CT	
Y	7.163	CT	
Y	2.027	CT	
Y	0.272	CT	
Y	14.026	CT	
Y	3.553	BLH	
N	4.815	BLH	
N	6.277	BLH	
N	0.401	BLH	
N	0.257	BLH	
Total Acres:	52.846		

Direct Impacts = 11.80 acres
Indirect Impacts = 41.04 acres

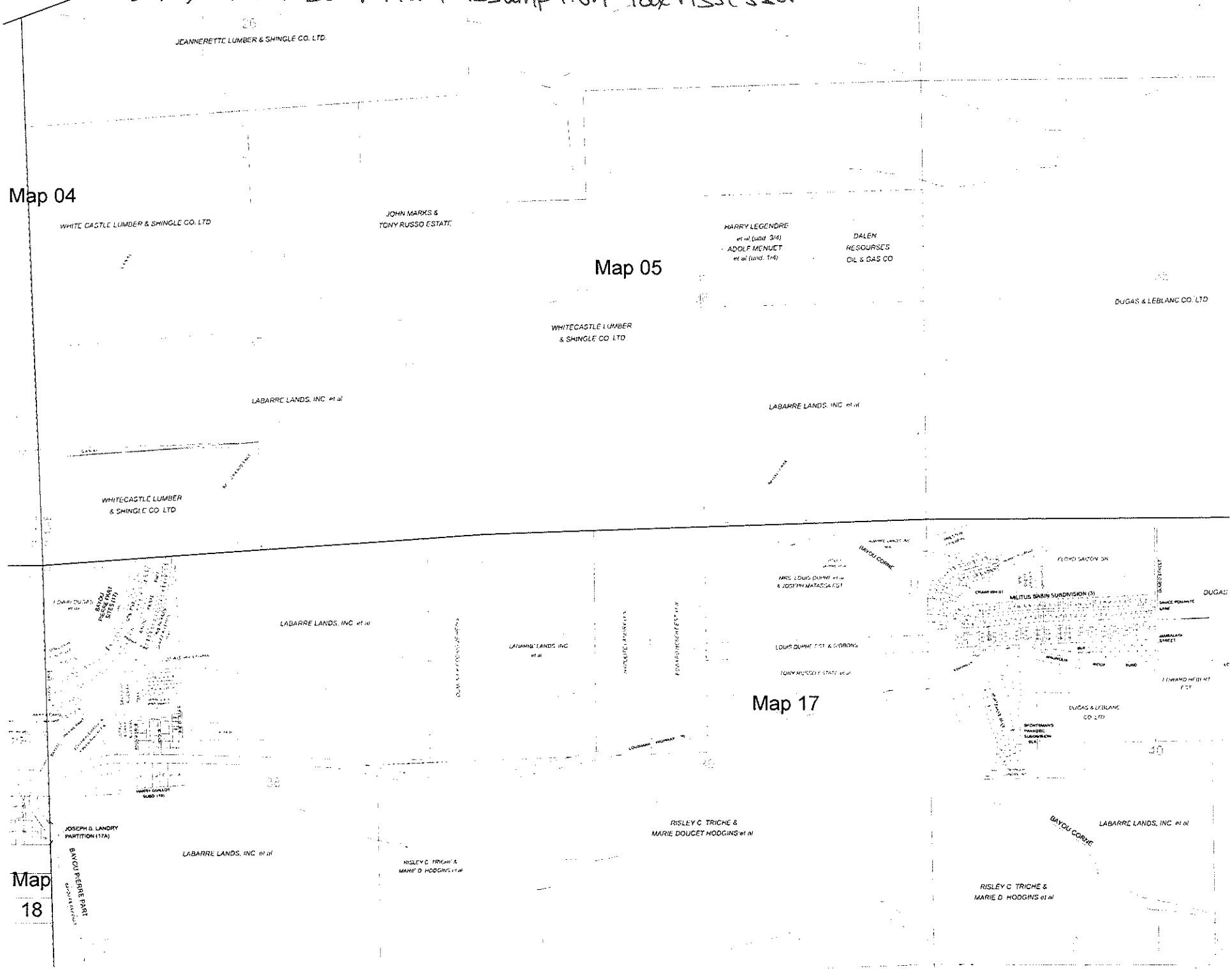
Bypass Route 3 Wetlands

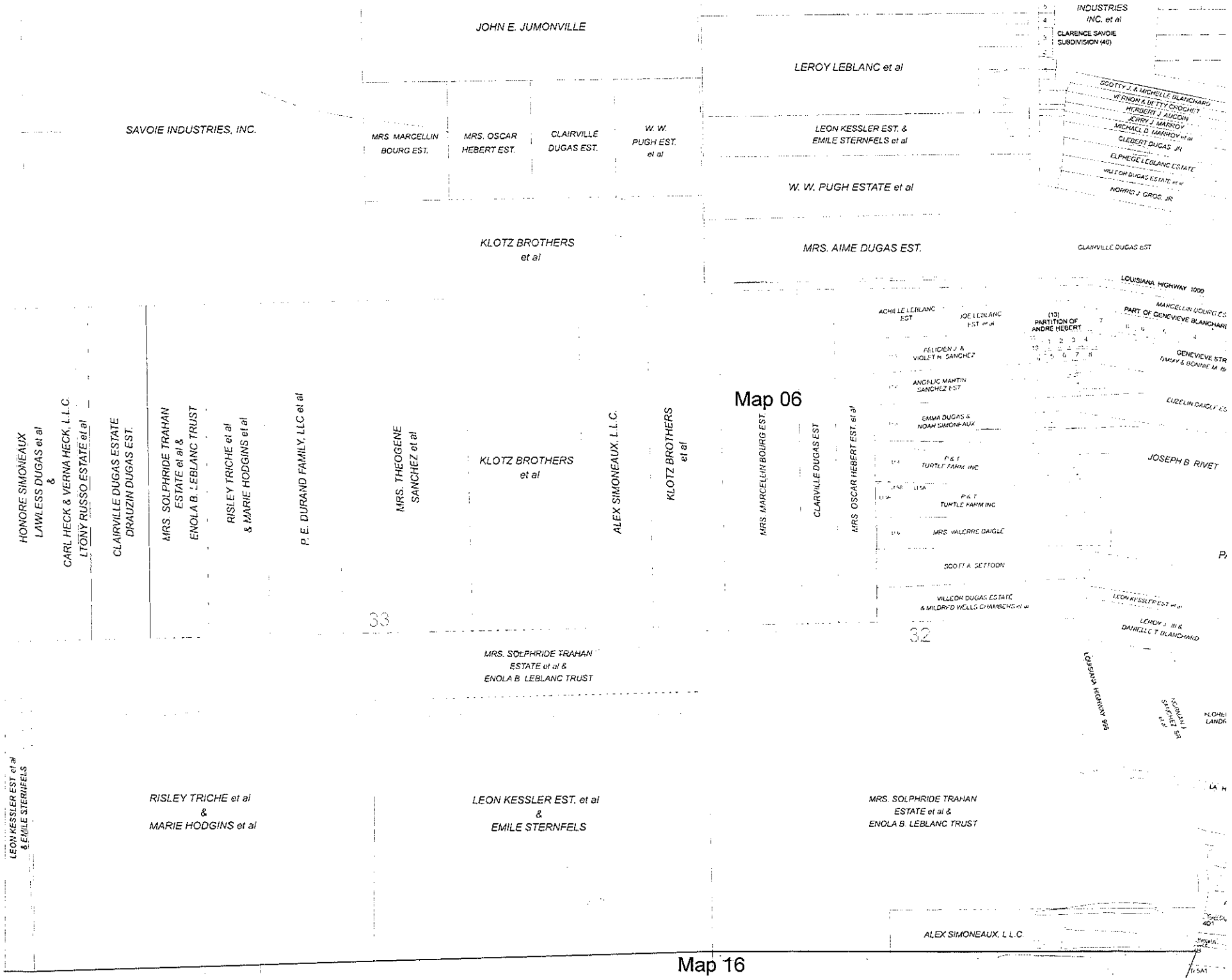
Elevated	# Acres	Habitat Type	Bridge Pile Acres
Y	0.403	CT	0.042
Y	13.848	CT	
Y	16.864	CT	
Y	0.477	CT	
Y	1.532	CT	
N	0.226	BLH	
N	1.389	BLH	
N	1.145	BLH	
N	0.423	BLH	
Total Acres:	36.307		

Direct Impacts = 3.23 acres
Indirect Impacts = 33.08 acres

CT = Cypress Tupelo
BLH = Bottomland Hardwood
Direct Impacts = Non-Elevated + Bridge Pile Acres
Indirect Impacts = Elevated - Bridge Pile Acres

2013 Tax Parcel Data from Assumption Tax Assessor




JOHN E. JUMONVILLE
LEROY LEBLANC et al
INDUSTRIES INC. et al
CLARENCE SAVOIE SUBDIVISION (46)
SCOTTY J. & MICHELLE BLANCHARD
VERNON & DETTY CROCHET
HERBERT J. AUCOIN
JERRY J. MARROY
MICHAEL D. MARROY et al
CLEBERT DUGAS JR
ELPHEGE LEBLANC ESTATE
WILLEON DUGAS ESTATE et al
NORRIS J. GROS JR
SAVOIE INDUSTRIES, INC.
MRS. MARCELLIN BOURG EST.
MRS. OSCAR HEBERT EST.
CLAIRVILLE DUGAS EST.
W. W. PUGH EST. et al
LEON KESSLER EST. & EMILE STERNFELS et al
W. W. PUGH ESTATE et al
KLOTZ BROTHERS et al
MRS. AIME DUGAS EST.
CLAIRVILLE DUGAS EST
LOUISIANA HIGHWAY 1000
ACHILLE LEBLANC EST
JOE LEBLANC EST et al
(13) PARTITION OF ANDRE HEBERT
MARCELLIN BOURG ES
PART OF GENEVIEVE BLANCHARD
FELICIEN J. & VIOLET M. SANCHEZ
GENEVIEVE STR
TIMMY & BONNIE M.
ANGELIC MARTIN SANCHEZ EST
EURELIN DAIGLE ES
EMMA DUGAS & NOAH SIMONEAUX
P & T TURTLE FARM, INC
JOSEPH B. RIVET
P & T TURTLE FARM INC
MRS. VALERIE DAIGLE
SCOTT A. SETTOON
WILLEON DUGAS ESTATE & MILDRED WELLS CHAMBERS et al
LEON KESSLER EST et al
LEROY J. III & DANIELLE T. BLANCHARD
LOUISIANA HIGHWAY 958
NORMAN J. SANCHEZ SR
HONORE SIMONEAUX LAWLESS DUGAS et al & CARL HECK & VERNA HECK, L.L.C. LTONY RUSSO ESTATE et al
CLAIRVILLE DUGAS ESTATE DRAUZIN DUGAS EST.
MRS. SOLPHRIDE TRAHAN ESTATE et al & ENOLA B. LEBLANC TRUST
RISLEY TRICHE et al & MARIE HODGINS et al
P. E. DURAND FAMILY, LLC et al
MRS. THEOGENE SANCHEZ et al
KLOTZ BROTHERS et al
ALEX SIMONEAUX, L.L.C.
KLOTZ BROTHERS et al
MRS. MARCELLIN BOURG EST
CLARVILLE DUGAS EST
MRS. OSCAR HEBERT EST. et al
Map 06
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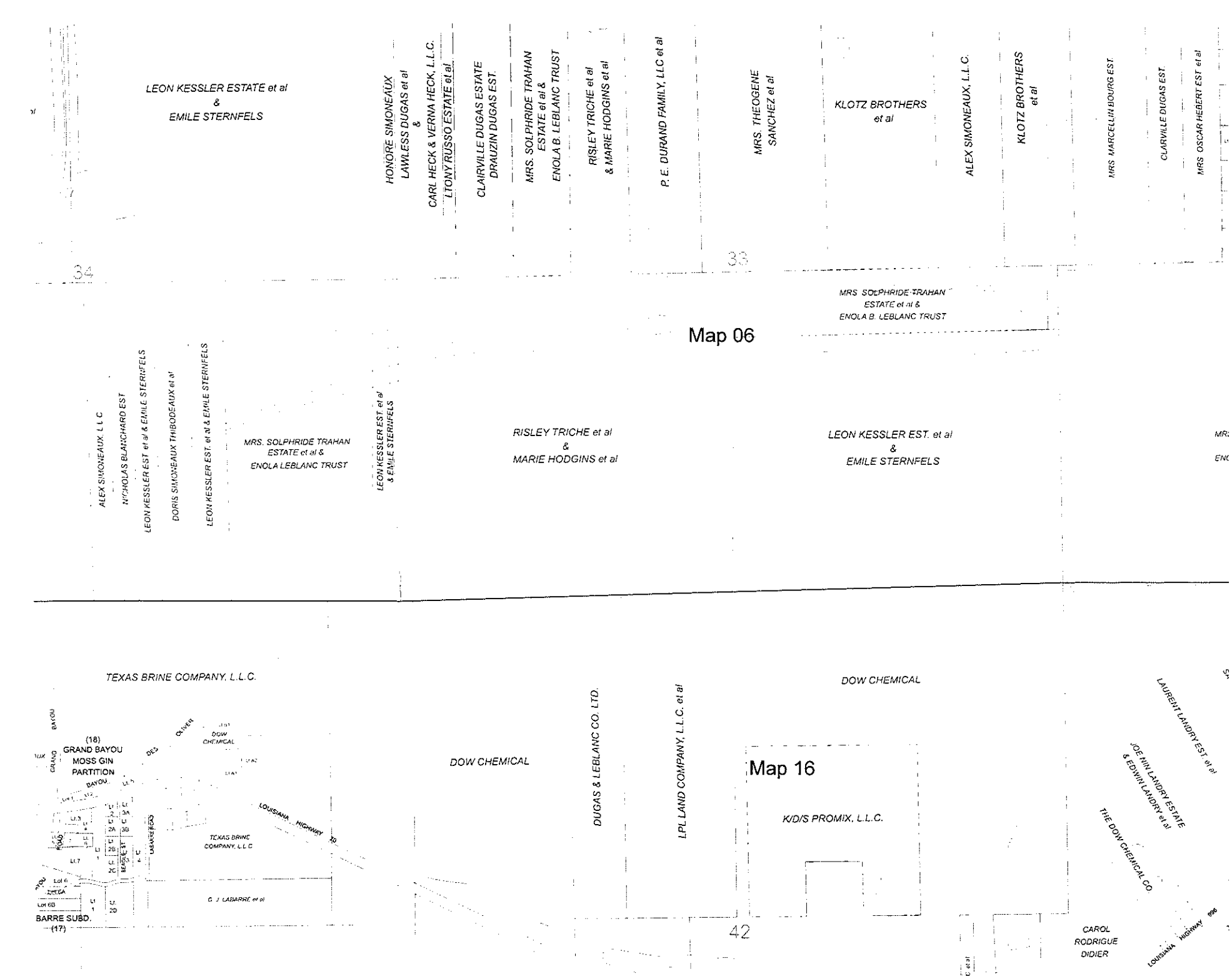
MRS. SOLPHRIDE TRAHAN ESTATE et al & ENOLA B. LEBLANC TRUST
LEON KESSLER EST. et al & EMILE STERNFELS
RISLEY TRICHE et al & MARIE HODGINS et al
LEON KESSLER EST. et al & EMILE STERNFELS
MRS. SOLPHRIDE TRAHAN ESTATE et al & ENOLA B. LEBLANC TRUST
ALEX SIMONEAUX, L.L.C.
Map 16


LEON KESSLER ESTATE et al
&
EMILE STERNFELS
HONORE SIMONEAUX
LAWLESS DUGAS et al
&
CARL HECK & VERNA HECK, L.L.C.
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DRAUZIN DUGAS EST.
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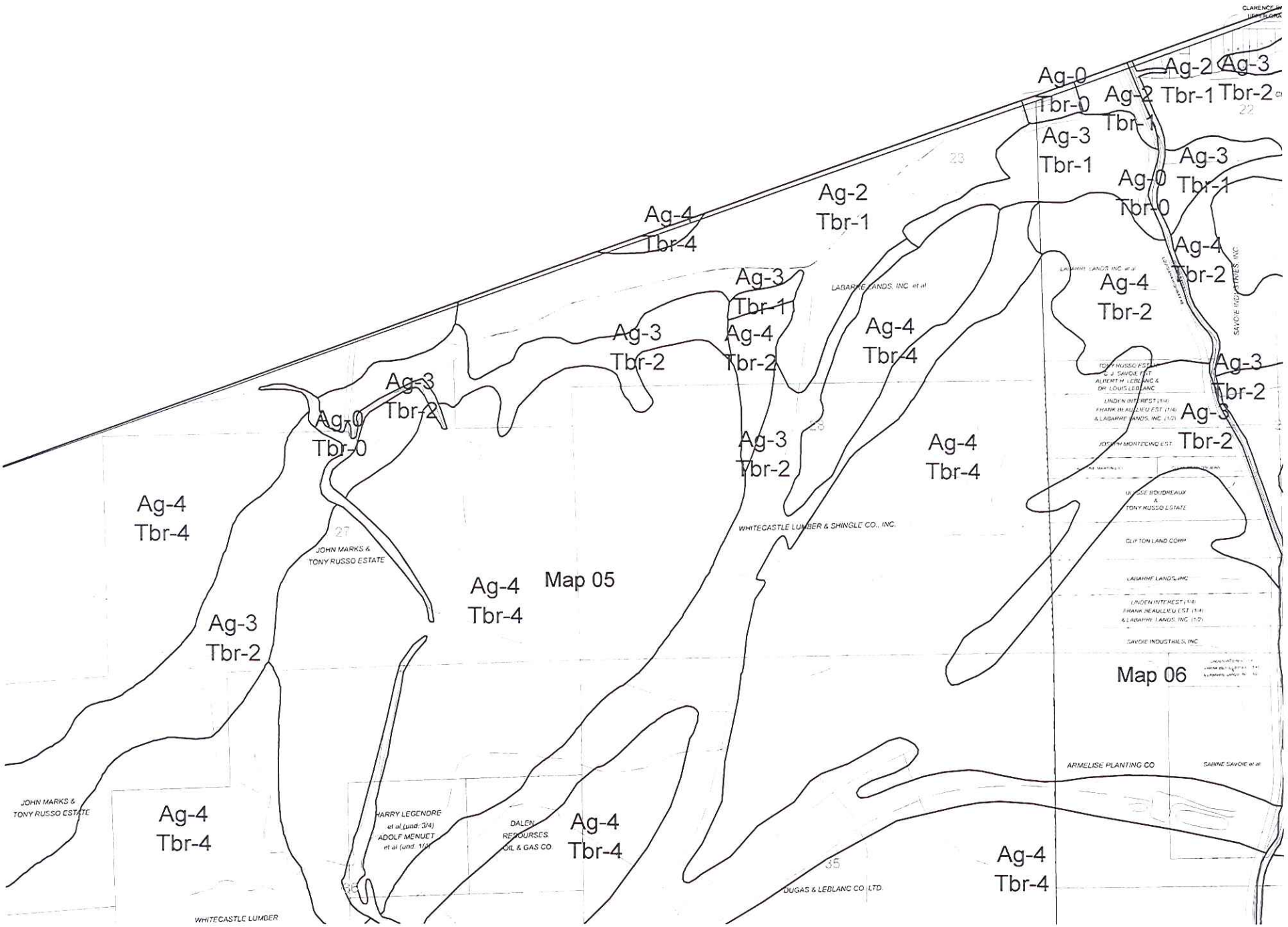
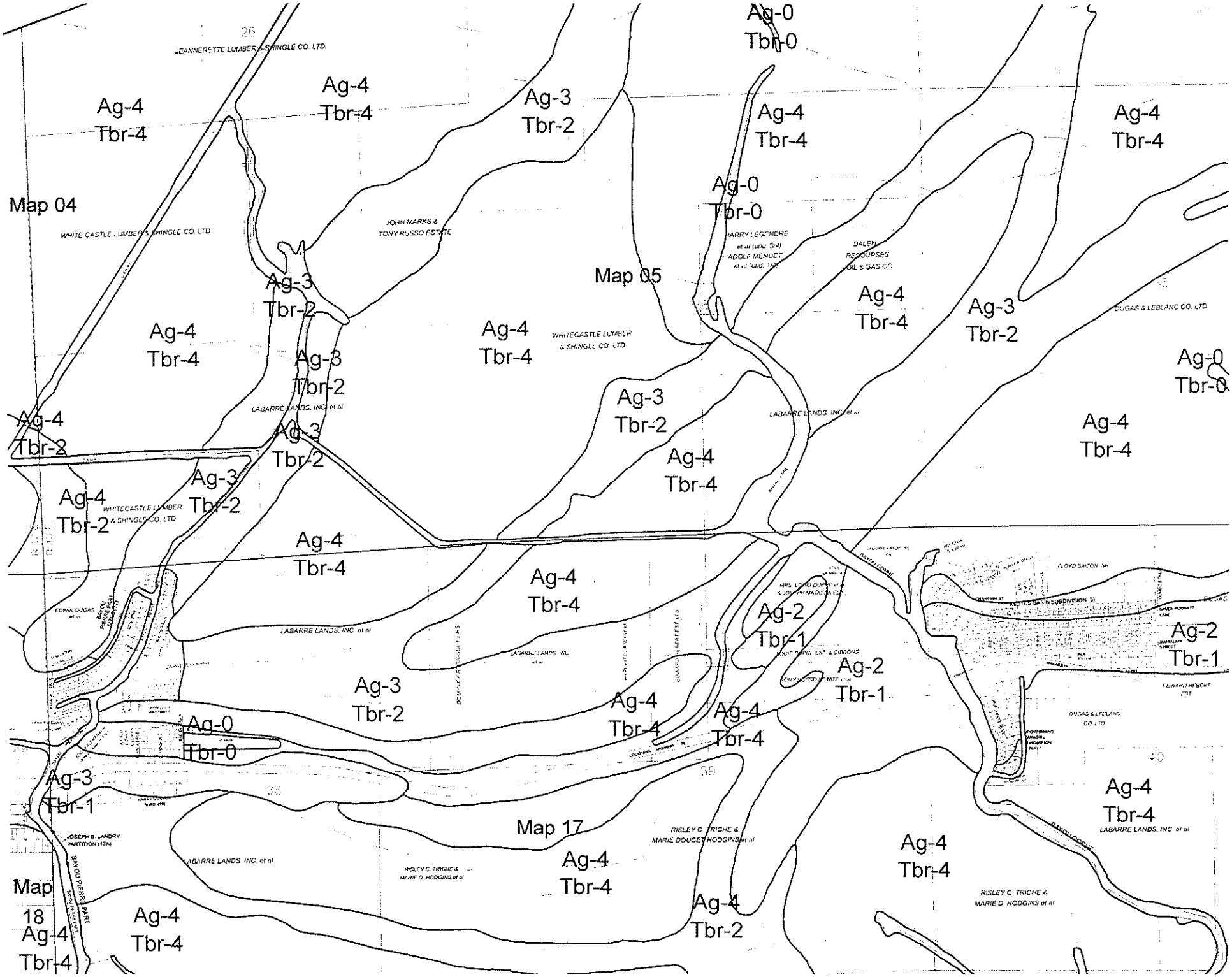
ESTATE et al &
ENOLA B. LEBLANC TRUST
RISLEY TRICHE et al
& MARIE HODGINS et al
P.E. DURAND FAMILY, LLC et al
MRS. THEOGENE
SANCHEZ et al
KLOTZ BROTHERS
et al
ALEX SIMONEAUX, L.L.C.
KLOTZ BROTHERS
et al
MRS MARCELLIN BOURG EST.
CLARVILLE DUGAS EST.
MRS OSCAR HEBERT EST et al
36
35
MRS. SOLPHRIDE TRAHAN
ESTATE et al &
ENOLA B. LEBLANC TRUST
Map 06
ALEX SIMONEAUX, L.L.C
NICHOLAS BLANCHARD EST
LEON KESSLER EST et al & EMILE STERNFELS
DORIS SIMONEAUX THIBODEAUX et al
LEON KESSLER EST. et al & EMILE STERNFELS
MRS. SOLPHRIDE TRAHAN
ESTATE et al &
ENOLA LEBLANC TRUST
LEON KESSLER EST. et al
& EMILE STERNFELS
RISLEY TRICHE et al
&
MARIE HODGINS et al
LEON KESSLER EST. et al
&
EMILE STERNFELS
TEXAS BRINE COMPANY, L.L.C.
(18)
GRAND BAYOU
MOSS GIN
PARTITION
DOW
CHEMICAL
LOUISIANA HIGHWAY 70
TEXAS BRINE
COMPANY, L.L.C
G. J. LABARRE et al
BARRE SUBD.
(17)
DOW CHEMICAL
DUGAS & LEBLANC CO. LTD.
LPL LAND COMPANY, L.L.C. et al
DOW CHEMICAL
Map 16
K/D/S PROMIX, L.L.C.
42
LAURENT LANDRY EST. et al
JOE HIN LANDRY ESTATE
& EDWIN LANDRY et al
THE DOW CHEMICAL CO.
CAROL
RODRIGUE
DIDIER
LOUISIANA HIGHWAY 996

Land Classification from NRCS
(from Assumption Tax Assessor)

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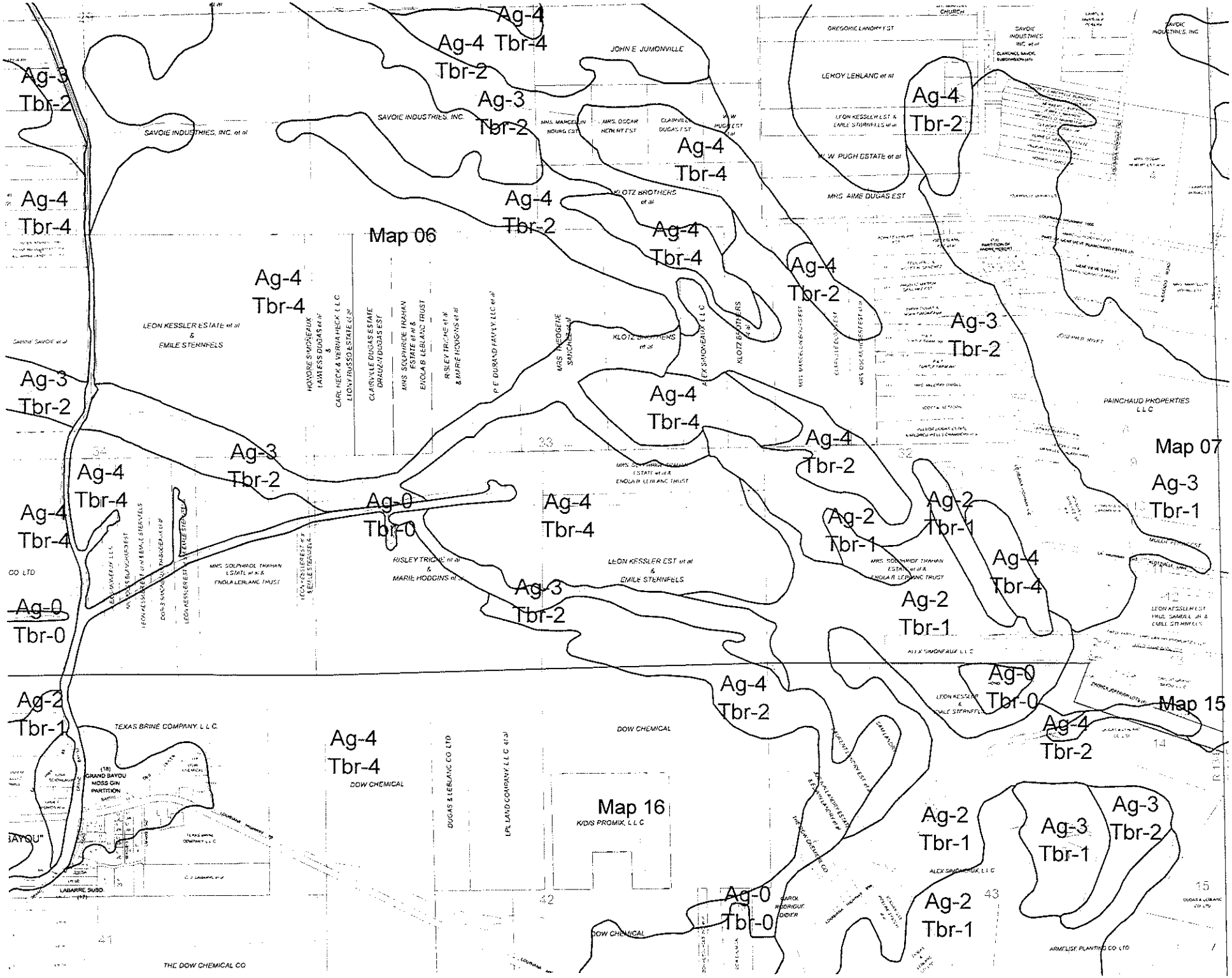
Map 04
Map 05
Map 17
Map 18
JEANNERETTE LUMBER & SHINGLE CO. LTD.
WHITE CASTLE LUMBER & SHINGLE CO. LTD
JOHN MARKS & TONY RUSSO ESTATE
HARRY LEGENDRE et al (und. 3/4)
ADOLF MENUET et al (und. 1/4)
DALEN RESOURCES OIL & GAS CO
DUGAS & LEBLANC CO. LTD
WHITECASTLE LUMBER & SHINGLE CO. LTD
LABARRE LANDS, INC et al
EDWIN DUGAS et ux
BAYOU PIERRE PARTITION (17A)
JOSEPH B. LANDRY PARTITION (17A)
RISLEY C. TRICHE & MARIE DOUGET HODGINS et al
RISLEY C. TRICHE & MARIE D. HODGINS et al
LOUIS DUPRE EST. & GIBBONS
FLOYD SALCON, JR.
KELTUS SABIN SUBDIVISION (3)
DUGAS & LEBLANC CO. LTD
LABARRE LANDS, INC et al
BAYOU CORNE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Map 06
Map 07
Map 15
Map 16
SAVOIE INDUSTRIES, INC. et al
JOHN E. JUMONVILLE
LEROY LEBLANC et al
LEON KESSLER ESTATE et al
&
EMILE STERNFELS
KLOTZ BROTHERS et al
MRS. AIME DUGAS EST
PAINCHAUD PROPERTIES L L C
TEXAS BRINE COMPANY, L L C.
DOW CHEMICAL
DUGAS & LEBLANC CO LTD
LPL LAND COMPANY L L C et al
KIDS PROMIX, L L C
THE DOW CHEMICAL CO
ARMELISE PLANTING CO LTD
ALEX SIMONEAUX L L C
LABARRE SUBD.

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

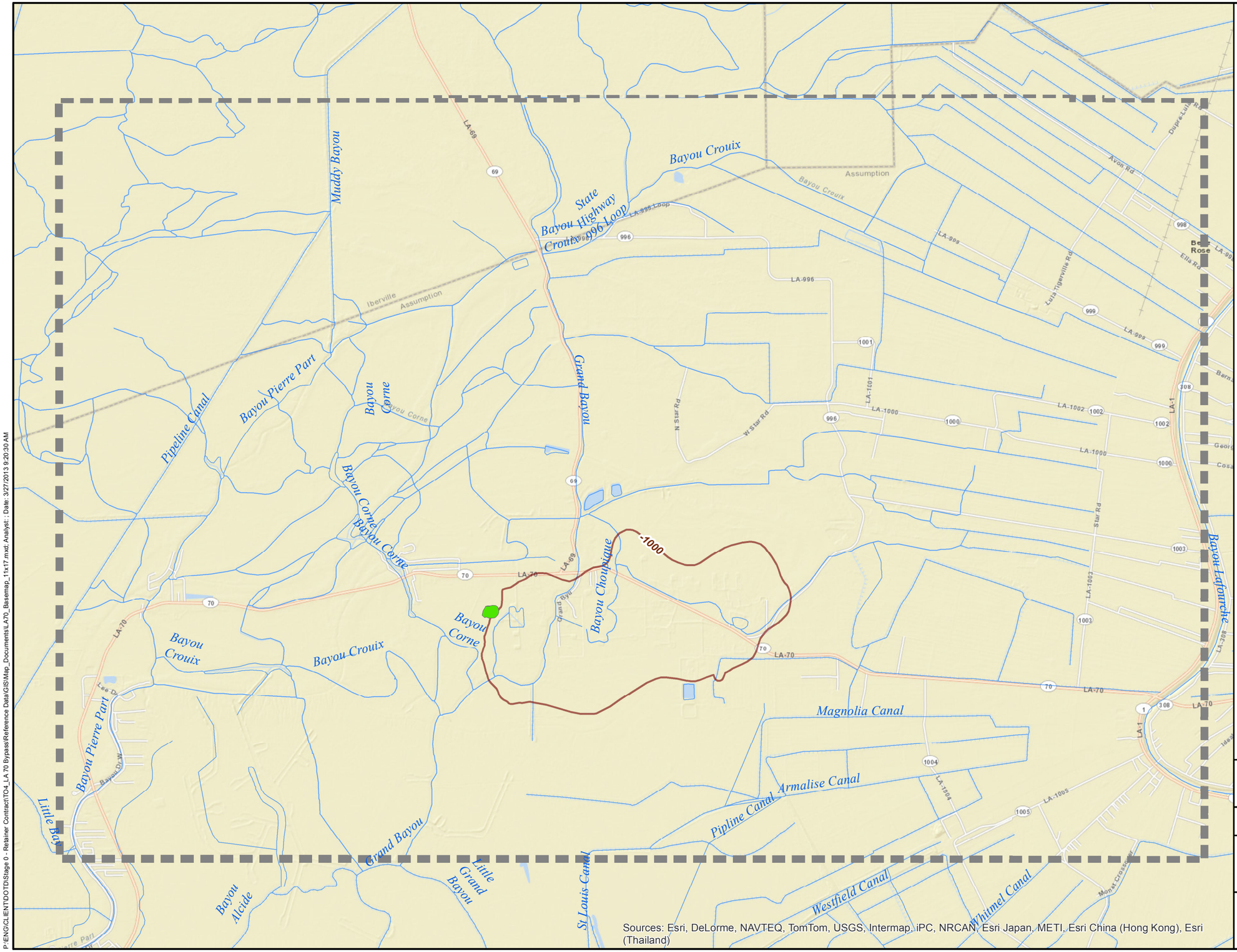
V. Stage 0 Feasibility Process

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.



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
John Boudreaux	Assumption OHSEP	985-369-7386	johnboudreaux@assumptionoep.com
Booster Breaux	APPJ - Ward 8	985-518-3002	boosterbreaux@yahoo.com
Karen St Germain	Rep (State)	985-252-9017	KStgerma@bellsouth.net
Henry Dupre	APPJ	985-513-2880	HenryDupre@Charter.Net
Connie Betts	DOTD	225.379.1297	connie.porter@la.gov
[redacted] Roy Schmidt	DOTD	231-3101	
Noel Ardoin	DOTD	2252424501	noel.ardoin@la.gov
Sherri LeBas	DOTD	225 3791200	sherri.lebas@la.gov
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		browntr@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
Bart Moore	LA DOTD D61	389-2141	bart.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

---

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
Boosta Breaux	APPJ	985-518-3002	boostabreaux@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 Ferlite	Neel Schaffer	225-924-0235	nick.ferlite@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
Monica Herrera	Providence	225-766-7400	monicaherrera@providenceeng.com
Noel Ardoin	DOTD	2252424501	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

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Feet

LOUISIANA DEPARTMENT OF NATURAL RESOURCES

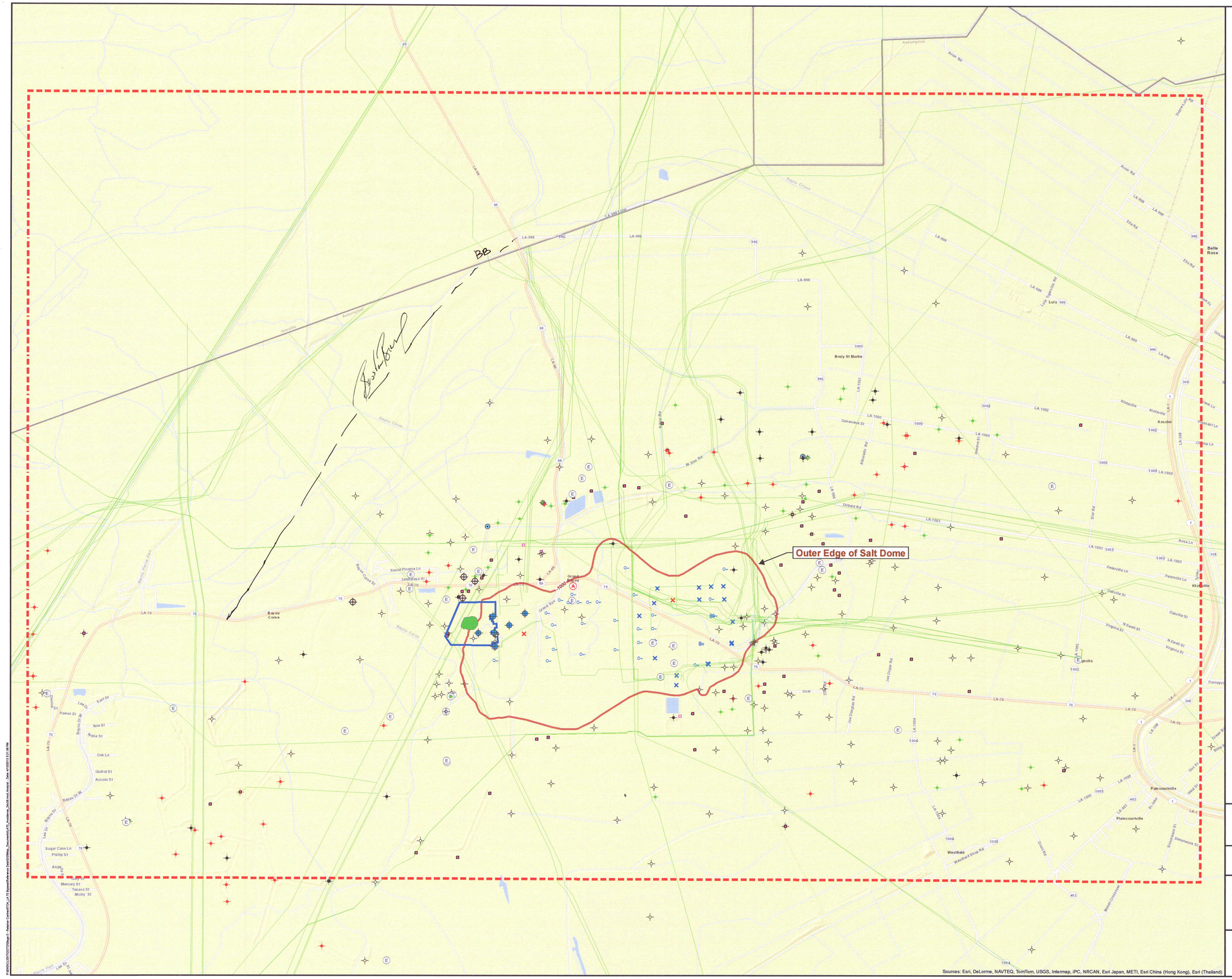
BAYOU CORNE/NAPOLEONVILLE SALT DOME EMERGENCY RESPONSE

FIGURE NUMBER 2

HIGHWAY 70 AND HIGHWAY 69

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

G:\GIS_Base_Covers\03_Documents\Project_Maps\Server\MC_042_DOTD_Large_Area.mxd Arsenal Date: 3/13/2013 10:54:46 AM



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

* Gary Snowgrove
Geologist DNR
Relief well Question

N

0 400 800 1,600 Feet

1 inch = 800 feet

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

LA DOTD
S.P. No. H.010571.1

Stage 0 Feasibility Study

FIGURE NUMBER 3

**LA 70 Bypass Study Area
Aerial Photo
Assumption Parish, LA**

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-schaffei.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@assumptionosep.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 Spellcore	DNR OC	" 342 7222	gary.spellcore@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 - 58		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

-----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.

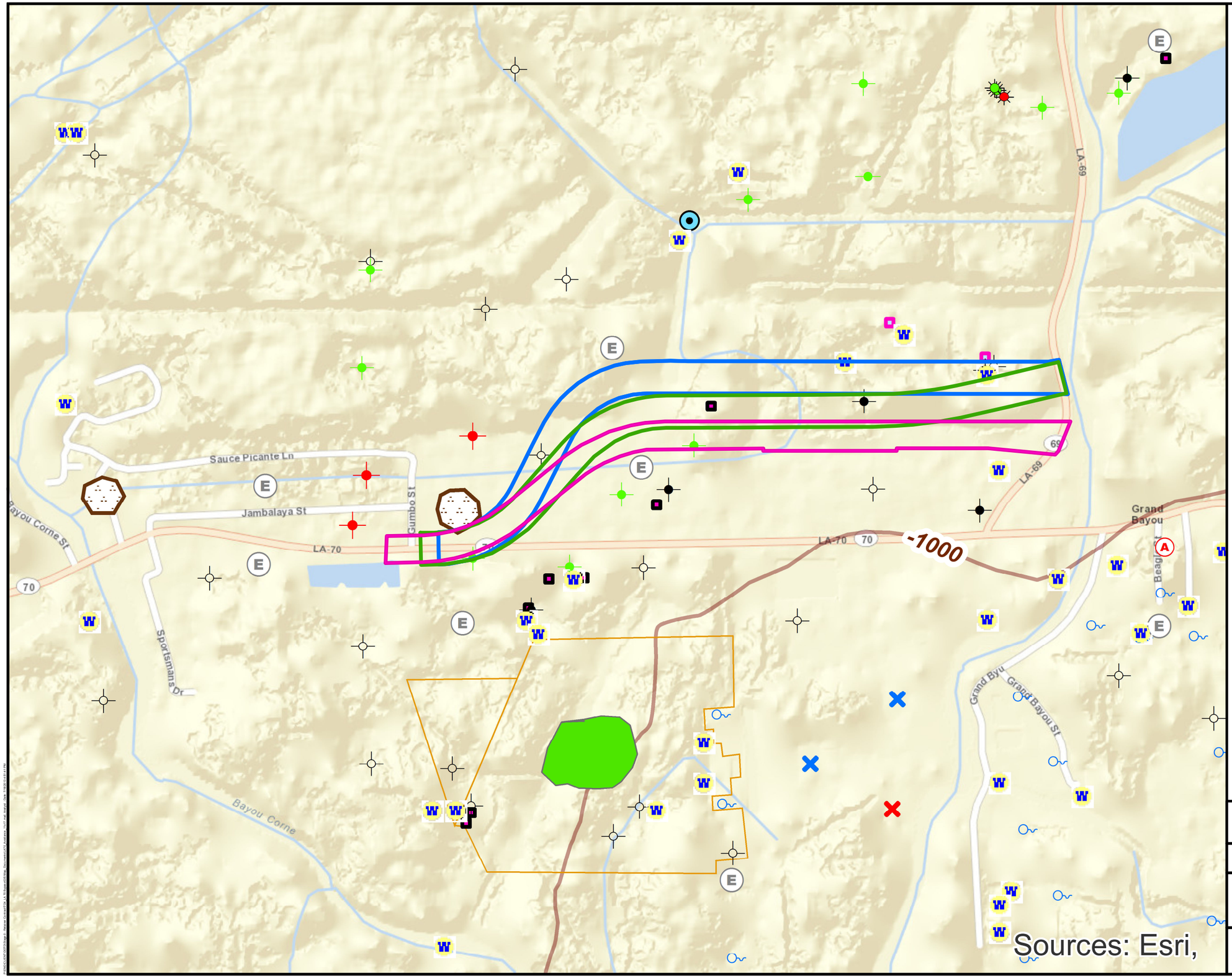
SAP Contract No. 4400001862
State Project No. H.010571.1
LA 70 Bypass
Stage 0 Feasibility Study
Assumption Parish, LA

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	225-342-7591	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
PAUL 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	leewomack@providenceeng.com
[illegible]	State Rep #60		
Bobbie Robinson	DOTD	225 231 4105	
Joey Turean	DOTD	225-274-2022	
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	225-379-1783	richard.swan@la.gov
Robin Romero	DOTD	225-379-1208	Robin.Romero@LA.GOV
Steve Mermer	DOTD	225-379-1545	Steve.Mermer@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 Ardoin	DOTD - 28	2252424501	noel.ardoin@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	BENJAMEN.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.

Legend

- Sinkhole
- Berm
- Potential Historical/Archeological
- Top of Salt Elevation Contour (-1000 ft msl)
- Bypass Alternatives
- Waterways

N

0 600 1,200 2,400 Feet

1 inch = 1,200 feet

LA DOTD
S.P. No. H.010571.1

Stage 0 Feasibility Study

FIGURE NUMBER 2

LA 70 Bypass Alternatives Assumption Parish, LA

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

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	2253791048
12	Stacie Palmer	DotD	Stacie.Palmer@La.gov	342-4517
13	Kerry Orial (via phone)	Providence	Kerryorial@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

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

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

THE ENTERPRISE / NEWS EXAMINER and THE ASSUMPTION PIONEER

PUBLISHED BY RUHR VALLEY PUBLISHING, INC.

THE ENTERPRISE
2677 Hwy. 20 *(Waguespack Mall)*
P. O. Box 9
Vacherie, LA 70090
PHONE: 225-265-2120
FAX: 225-265-2133

THE NEWS EXAMINER
2290 Texas Street
P. O. Drawer 460
Lutcher, LA 70071
PHONE: 225-869-5784
FAX: 225-869-4386

THE ASSUMPTION PIONEER
501 Assumption Street
P. O. Box 460
Napoleonville, LA 70390
PHONE: 985-369-7153
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-**
AL CALDWELL MURRAY,
bier, Attorney at Law, 200
0, Napoleonville, Louisiana

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

ts Notice

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

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

Notice

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

nmental Services, is accepting
ing Notice of Intent (NOI) sub-
ne 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.
ee 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-
Permits.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

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Attention: Kara Moree
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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.

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
#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

The Assumption Parish School Board is accepting applications for the following

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
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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

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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.

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

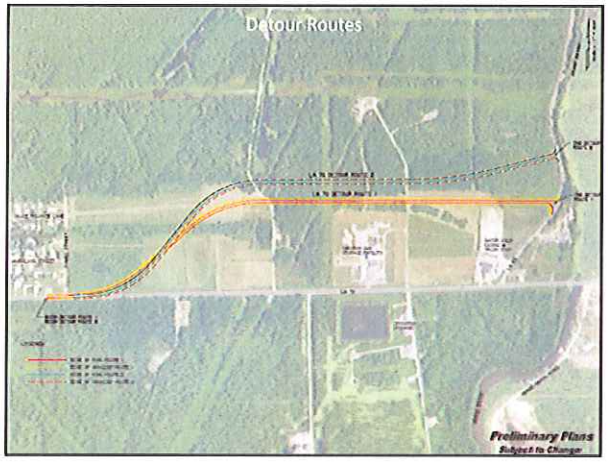
Utility Information

- 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.

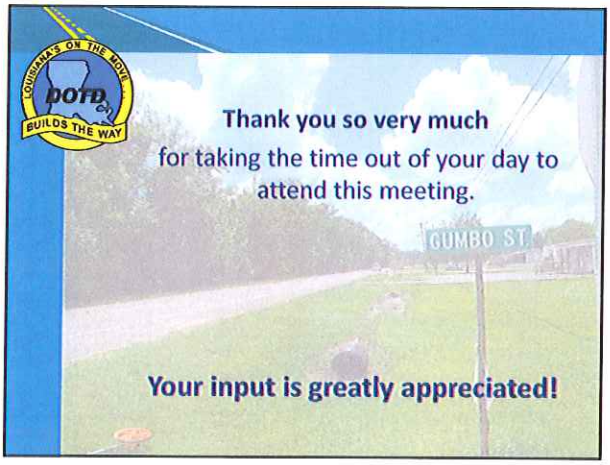
Comments

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



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 Hennessy	~~Burk-Kleinpeter~~/Providence	225-456-4943	monicahennessy@providenceeng.com
Betty, Ronnie Thibodaux	1428 Sauce Piquette Loop	985-688-2075	
Telsa Donachricha	resident	225 936 1916	TDonachricha@yahoo.com
Henry Wedge	resident Right of Way	225 202 4637	
Scott Brady	DOTD - Real Estate	(225) 242-4584	scott.brady@la.gov
~~August Lizana~~	~~Lizana 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 Lizana	Lizana 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 Picuzzte	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 Mahle	1444 Sauce Picuzte	985-515-1042	Johnny_Mahle@Yahoo.com
Chad Vosburg	8/60 Airline Hwy/LADOTD	225-231-4101	chad.vosburg@la.gov
Herbert Hymel	112 Muncy St	985-519-0729	
Don Breaux	106 ST Peters	985-209-6302	dbcintr@hotmail.com
Claudette Charlet	7421 Hwy 996	225-717-6847	
Danielle Blanchard	6604 Hwy 996	985-513-1884	danielle.t.blanchard@gmail.com
Jacob Albares	6214 Hwy 996	225-368-5877	
Ramsey Madere	6785 Hwy 996	985-513-1313	
LEROY BLANCHARD	6604 Hwy 996	985 513 1347	leroy_blanchard@hotmail.com

SAP Contract No. 4400001862
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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	[redacted] 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
Maureen Mabile	320 Bayou Drive	985-519-2660	maureenmabile@MSN.com
Milissa Pitner	149 S Bayou Rd Pierre Part	985-474-4277	spitnar@aol.com
DONNIE ALBARADO SR	1436 SAUCE PIQUANTE	985 518 6321	
Dennis P. Landry	120 Sportsmans BR LA	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 70 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
Jenny Charlet	7421 Hwy 996	225-716-0441	Timmy@comtexas.com
PAUL GRIGGS	1201 MAIN - BR	225-766-7400	pgriggs7676@gmail.com
Deborah Saxton	4171 ESSEN LANE BTR	225 987 7335	~~dsaxton~~ deborah.saxton@cbi.com
Gary Hecox		[redacted]	
CONRAD COAUTREAUX	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	215 St. Vincent Rd Napoleonville	985-665-5454	fita715@charter.net
Jacquelyn Wood	4520 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

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SIGN-IN SHEET

NAME	ADDRESS / ORGANIZATION	PHONE	E-MAIL
C.J Berthelot	2325 Lee Dr. P.P.	985-252-6188	cjberth@yahoo.com
Mohan Menon	Ch2M	225-281-1149	Mohan.menon@Ch2m.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.

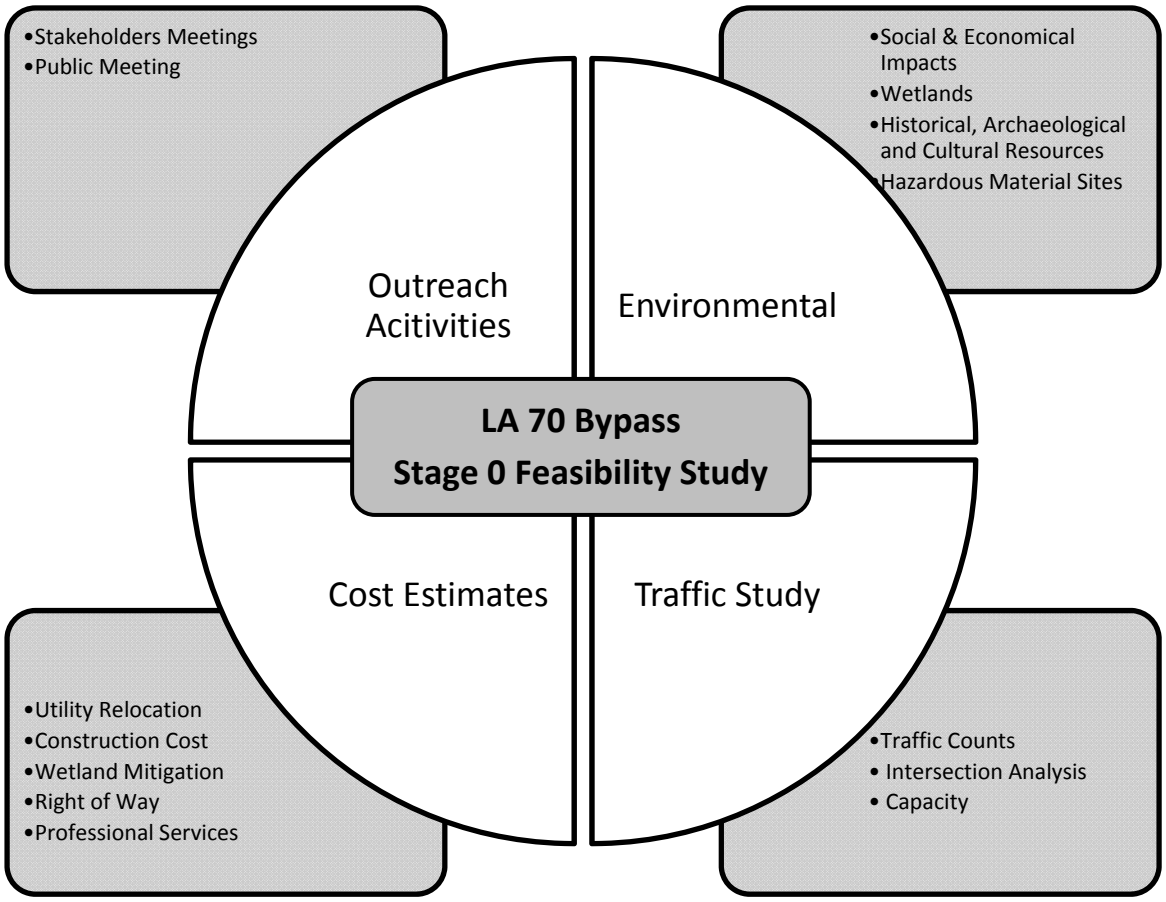
Exhibits
- Project staff members are situated at the exhibits in the meeting room with CB&I name tags. Feel free to ask them questions as you view the exhibits.

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

I N D E X

PUBLIC COMMENTS

1. Henry Welch, 1433 Jambalaya Street, Belle Rose, Louisiana. The ZIP code -- I don't know what that is. My phone number is 225-202-4637.

The reroute thing they got on the maps and stuff, I disagree on some of it -- not all of it, but a lot of it. I think if we hit Highway 70 it's a big pond right on Highway 70, and I don't think that would be a good point to come out right there to bypass for school buses and stuff. I think they ought to go straight on to -- what is that, Sauce Piquante Road -- and cut back across the canal and put it back out on Highway 70 by the Sportsman Paradise or whatever you call it down there.

I think it would be the most feasible route. I don't know if it would be the cheapest route. But that's basically what I got is the pond is right where they're coming out. I think if the sinkhole goes to the road, I think it's going to go there. My point is the safety for the kids and the school buses. The older people, they can take care of themselves. That's about it, I guess.

2. John Mabile, 1444 Sauce Picante Lane, Belle Rose, Louisiana 70341, M-A-B-I-L-E. Coming from the north, they go from LA 1000, make one

gradual loop coming down to Lee Drive off of LA 70. Simple. If they're talking about routing traffic through 996, that's going to kill a lot of people. That road is not -- it just can't handle the amount of traffic that's going to come through in the morning and in the afternoon. They got a lot of -- like 6,000 cars going through there in the morning and evening. And if they catch 996, they're going to be running through a lot of residential area. That's not good.

3. Randy Rousseau, R-O-U-S-S-E-A-U. The address -- my address is 1130 Highway 70, Belle Rose. That's not where I'm living anymore. Okay. First of all, this should have been done a long time ago. We're a year into this, okay? There's busloads of kids that go through there every day. It's a mandatory evacuation zone for a reason. It's not just because they felt like doing that. These kids are exposed to something every day when they pass through there. The State is putting those kids' lives in danger, in jeopardy, and we don't know the long-term effects of this. This bypass road should have been studied and done a long time ago. This should be under construction as we speak. The little bypass road behind the gator farm and

stuff like that is just a complete waste of time and money. You're not putting them out of the danger zone. And if that's going to be a gravel road, it's putting those kids even in more danger when there's wet weather and all the traffic and all the big trucks that pass on there. It's not safe at all.

This is an emergency situation. It's a sinkhole. It's not going to get better, whether they want to realize it or not. It's not getting any better. That bypass needs to be done. It needs to be put on a priority list, not a five-year deal. Not a six-year deal. It needs to be done now. There's just too many lives, too many kids that pass through there. And it's not only the air contaminants and it's not only the road possibility of sinking, but there's a lot of traffic in and out of the construction area. They have big trucks coming in and out of there. It's just a completely hazardous situation that these kids have no choice. They ride a bus. They have no choice. They have to go to school. People that drive on there can take another route if they so elect. But these kids have no choice. And if one of these kids gets hurt, the State should be held fully responsible for it. It's just a crazy situation to drive kids through a

mandatory evacuation zone. Do you think they would have drove kids through New Orleans in Katrina? That was mandatory evacuation. They didn't do that. They need to think and think long and hard about their future, the future of these children, the health concerns. You don't know what they're exposed to. This should be put on a priority list. I say it again. And it should be done now.

4. Samuel Hood, H-O-O-D. My address is 135 Crawfish Stew Street. The alternative route, one, should have a bypass coming out by Lee Drive in Pierre Part and come around and make a loop all the way and junction in to LA 1000. And I think that would be your better alternative route.

(End of comments.)

R E P O R T E R ' S C E R T I F I C A T E

I, Sara Piazza, Certified Court Reporter (#29026), for the State of Louisiana, as the officer before whom this testimony was taken, do hereby certify that public comments were taken by me upon authority of R.S. 37:2554 and set forth in the foregoing 6 pages;

That the proceedings were reported by me in stenomask reporting method, was prepared and transcribed by me or under my personal direction and supervision, and is a true and correct transcript to the best of my ability and understanding;

That the transcript has been prepared in compliance with transcript format guidelines required by the statue or by the rules of the board;

That I have acted in compliance with the prohibition on contractual relationships, as defined by Louisiana Code of Civil Procedure Article 1434 and in rules and advisory opinions of the board;

That I am not related to counsel or to the parties herein, nor am I otherwise interested in the outcome of this matter.

This certification is valid only for a transcript accompanied by my handwritten or digital signature and the image of my State authorized seal

on this page

SIGNED THIS AUGUST 15, 2013

SARA PIAZZA, CCR

* * *

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

DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

Reference

Base map comprised of 2013 aerials provided by Louisiana Department of Transportation and 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	08/05/13
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
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Comments:

Alternate #1 is good Except when it hits LA 70 at Possum DR. Needs To go ½ mile further + Go To Derrick Levee 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 Possum + Derrick Levee one Accident shuts To Down,

Second it need To hit 69 even with LA 1000 + Do not use Hwy 996 - Hwy 996 will be a nightmare For Accidents CAUSE 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

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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

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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 think there a lot 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 of 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:

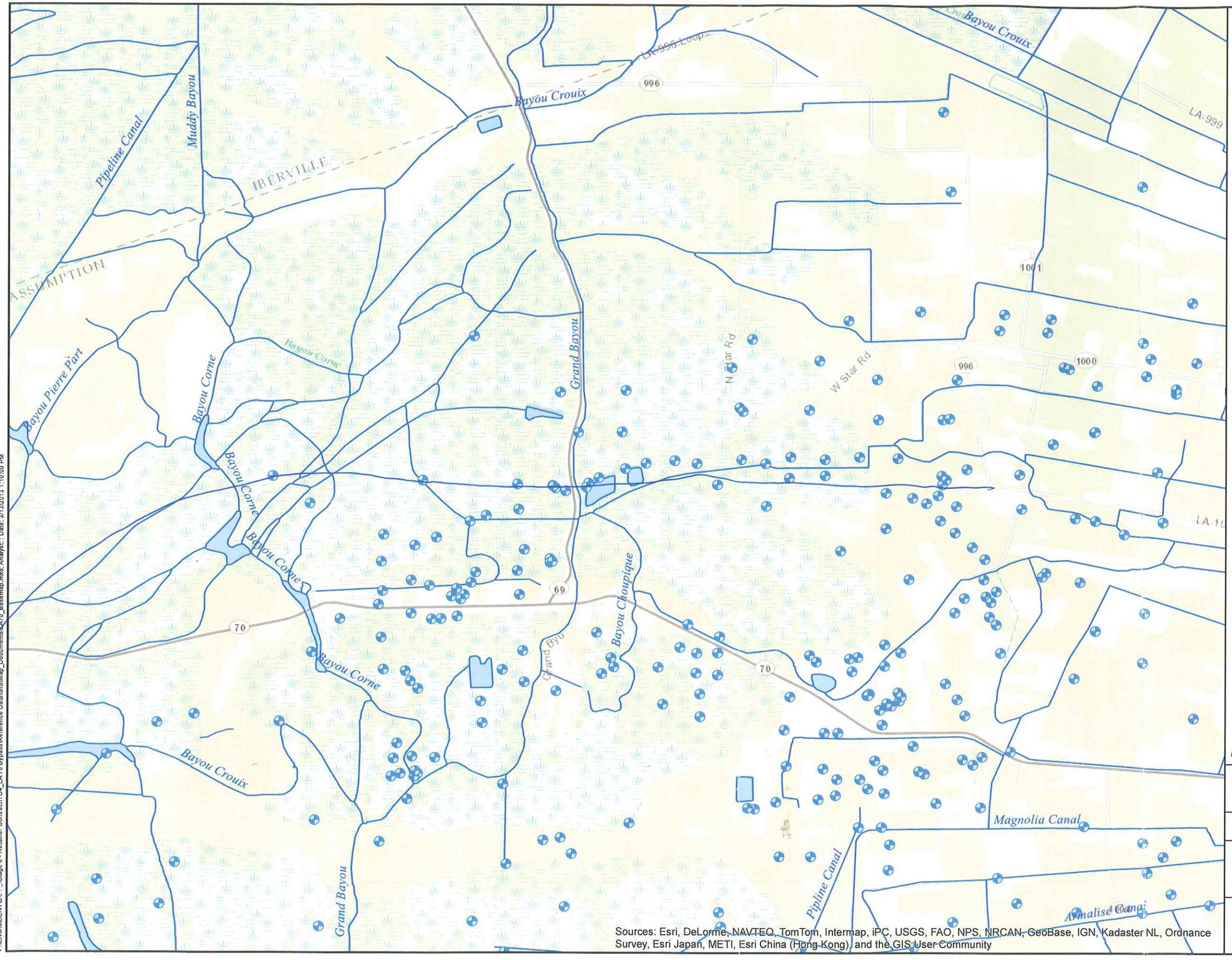
Name: Jimmy Charlet

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).



P:\ENG\CLIENTS\... ...Stage 0 - Retainer Contract\TO4_LA 70 Bypass\Reference Data\GISMap_Documents\LA70_Basemap.mxd: Analyst: : Date: 3/13/2013 1:10:00 PM

To Lee Perre @ LA 70

Legend

- Waterways
- Oil & Gas Wells

N

3,000 1,500 0 3,000

Feet

John Mabile
1444 Sauce Piquante Ln
Belle Rose, LA
70341

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

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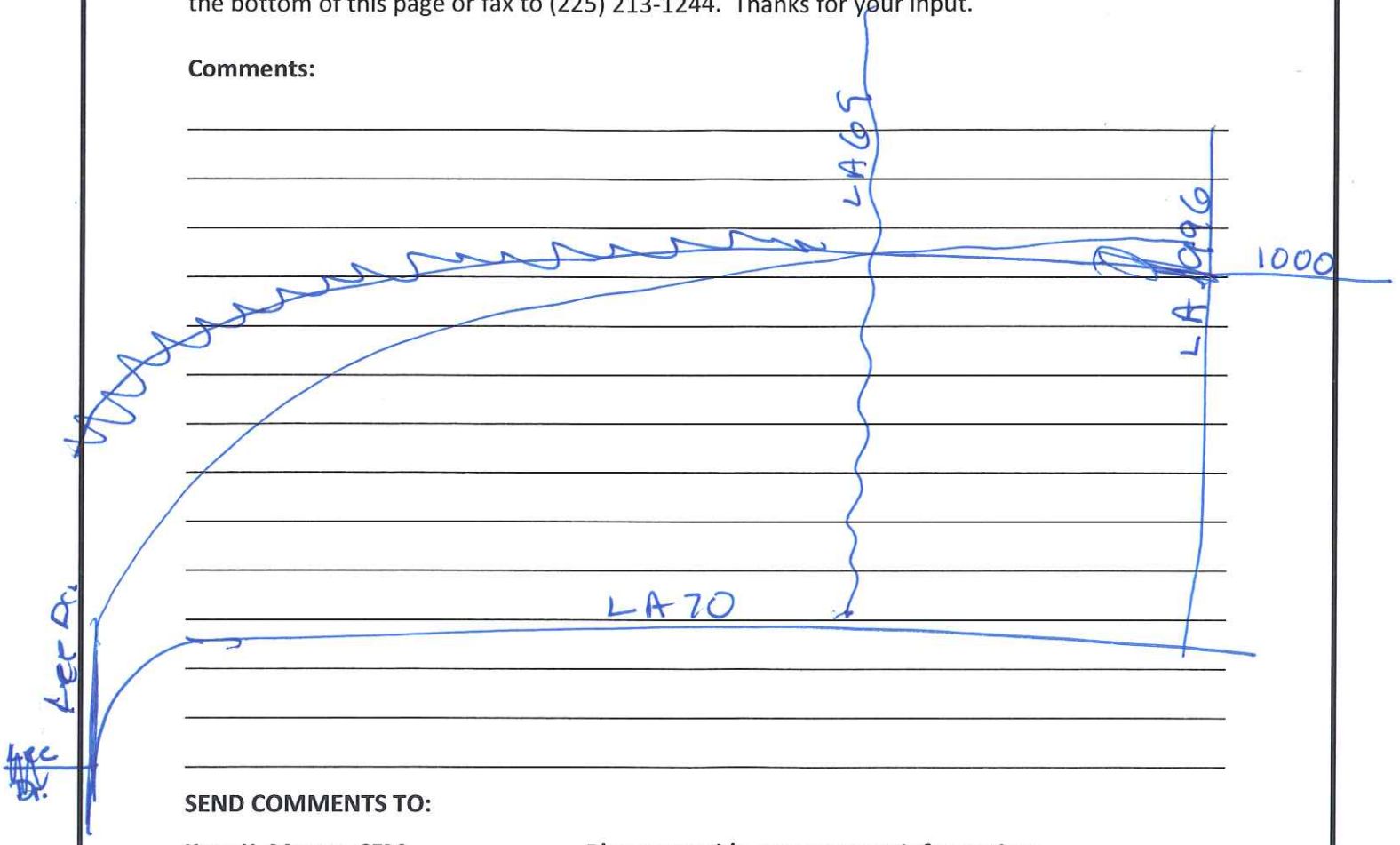
Comments:



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: _____

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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 good idea 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.

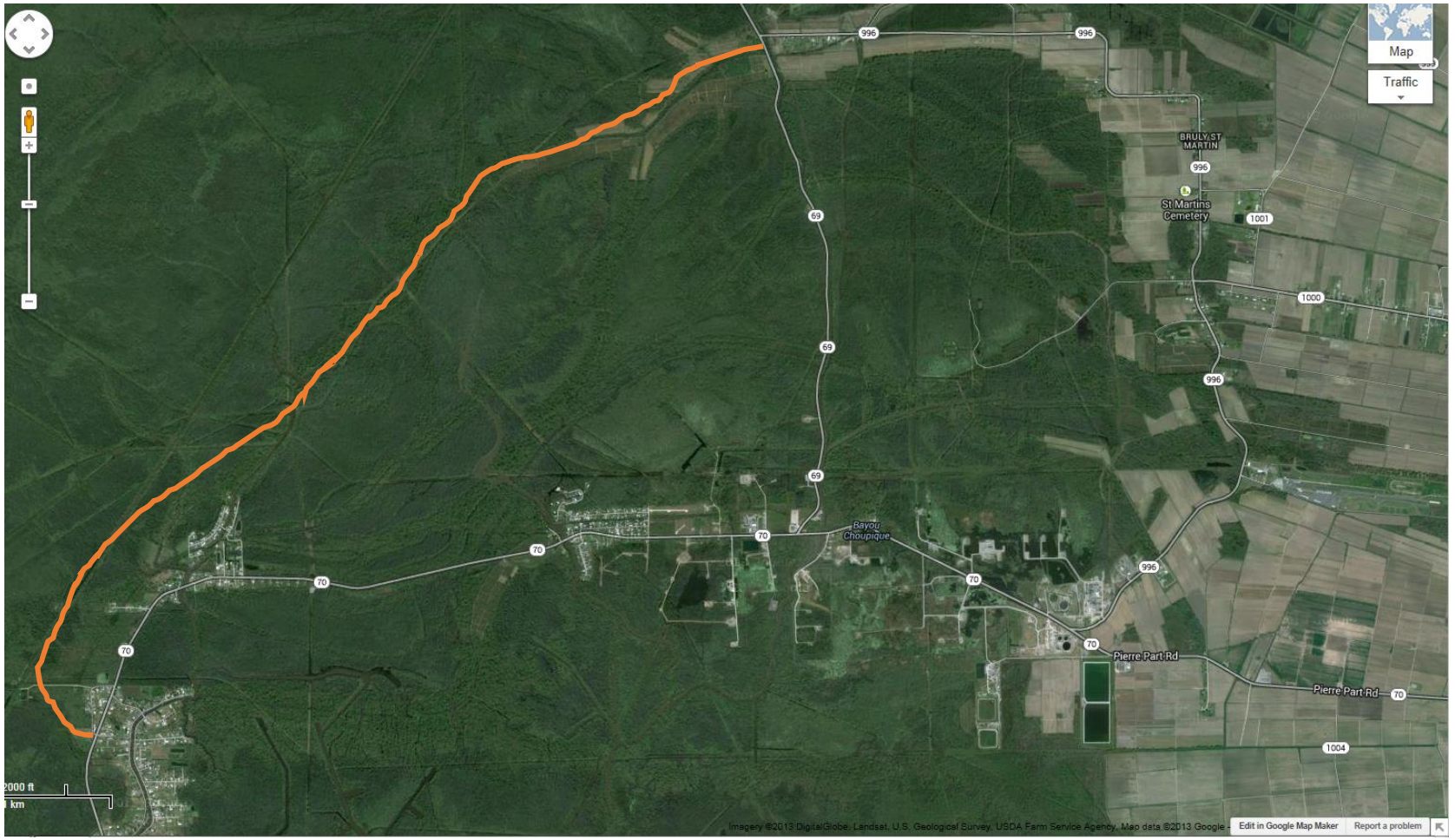
If additional information or clarification is needed, please contact me at your convenience.

Leroy Blanchard, PE

Assistant Chief/President of the Board of Directors of the Paincourtville Fire Department (PVFD)

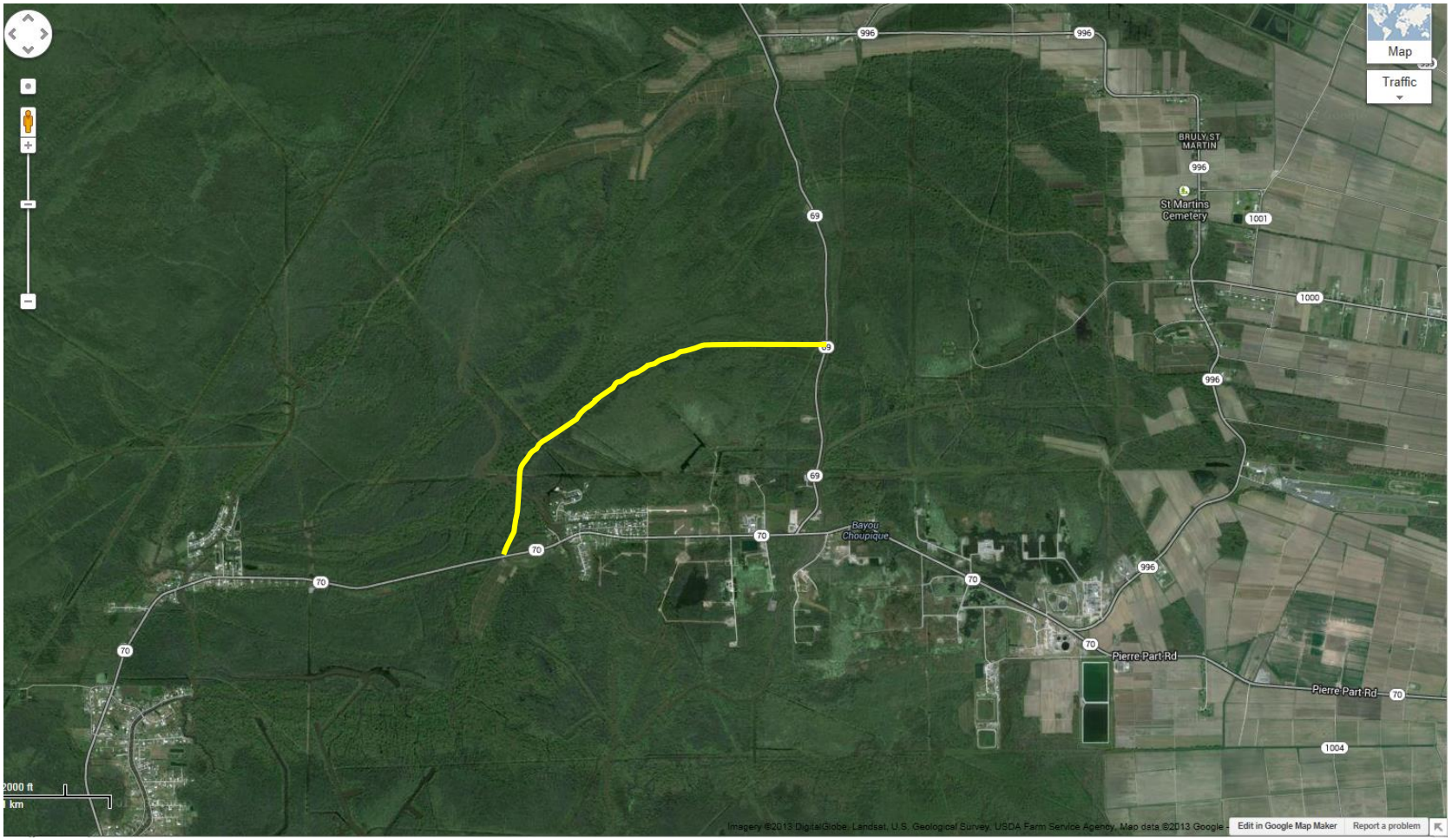
Cell: 985-513-1347

Leroy_blanchard@hotmail.com



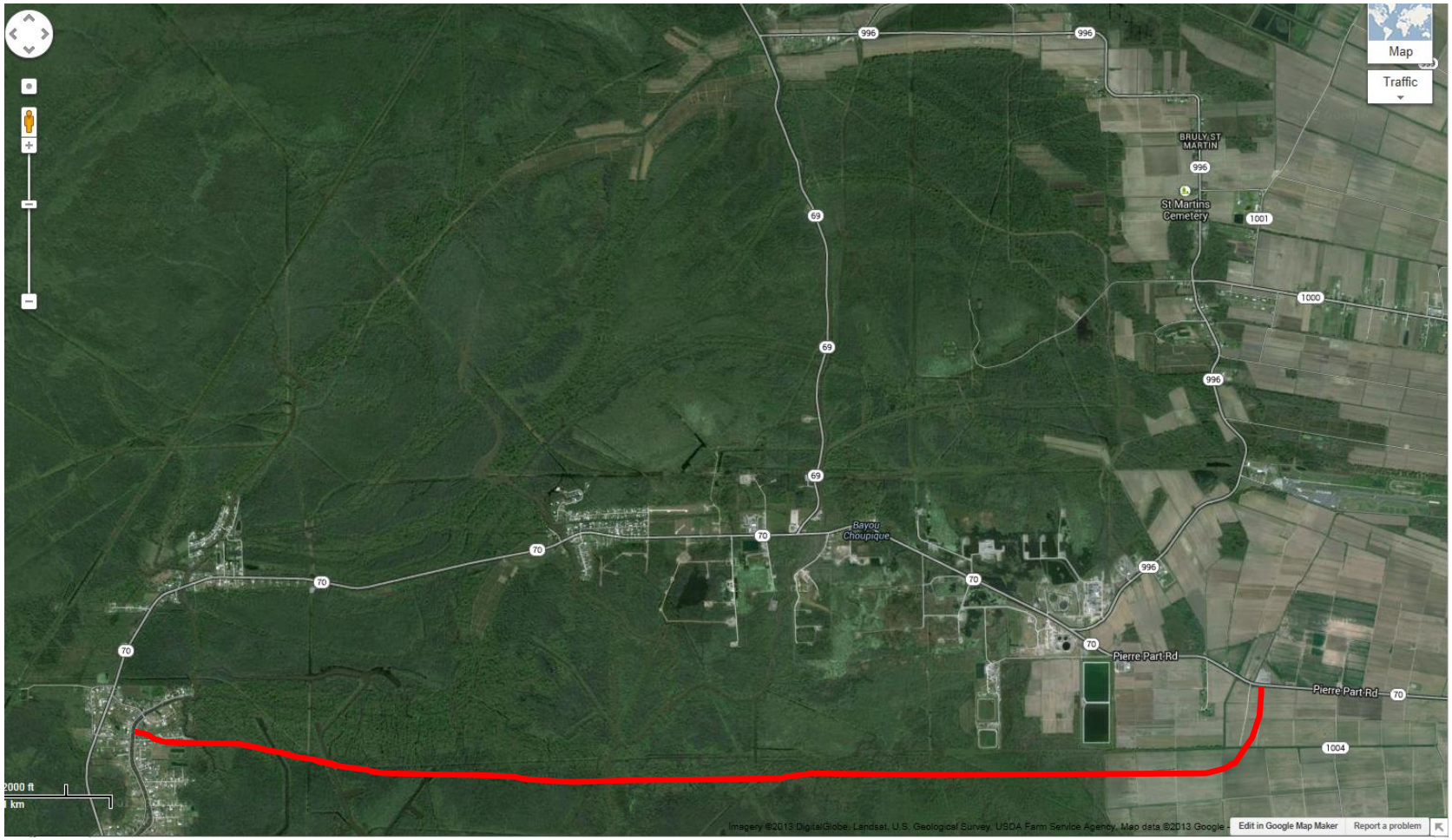
Orange route – This route would be the preferred route for a few reasons. (my choice number 2)

- 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



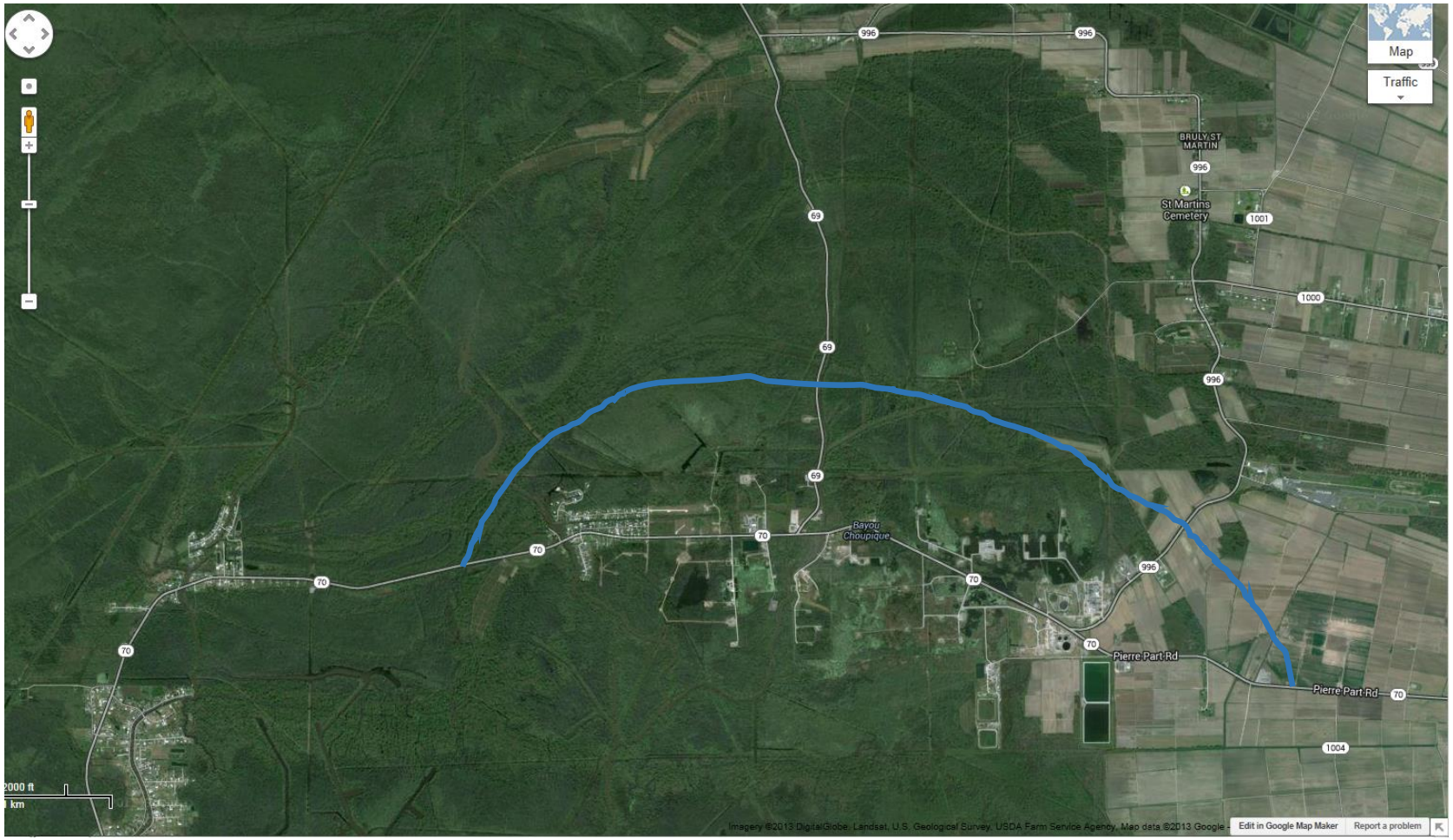
Yellow route - Shortest route possible maintaining the determine safe buffer zone.

- 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

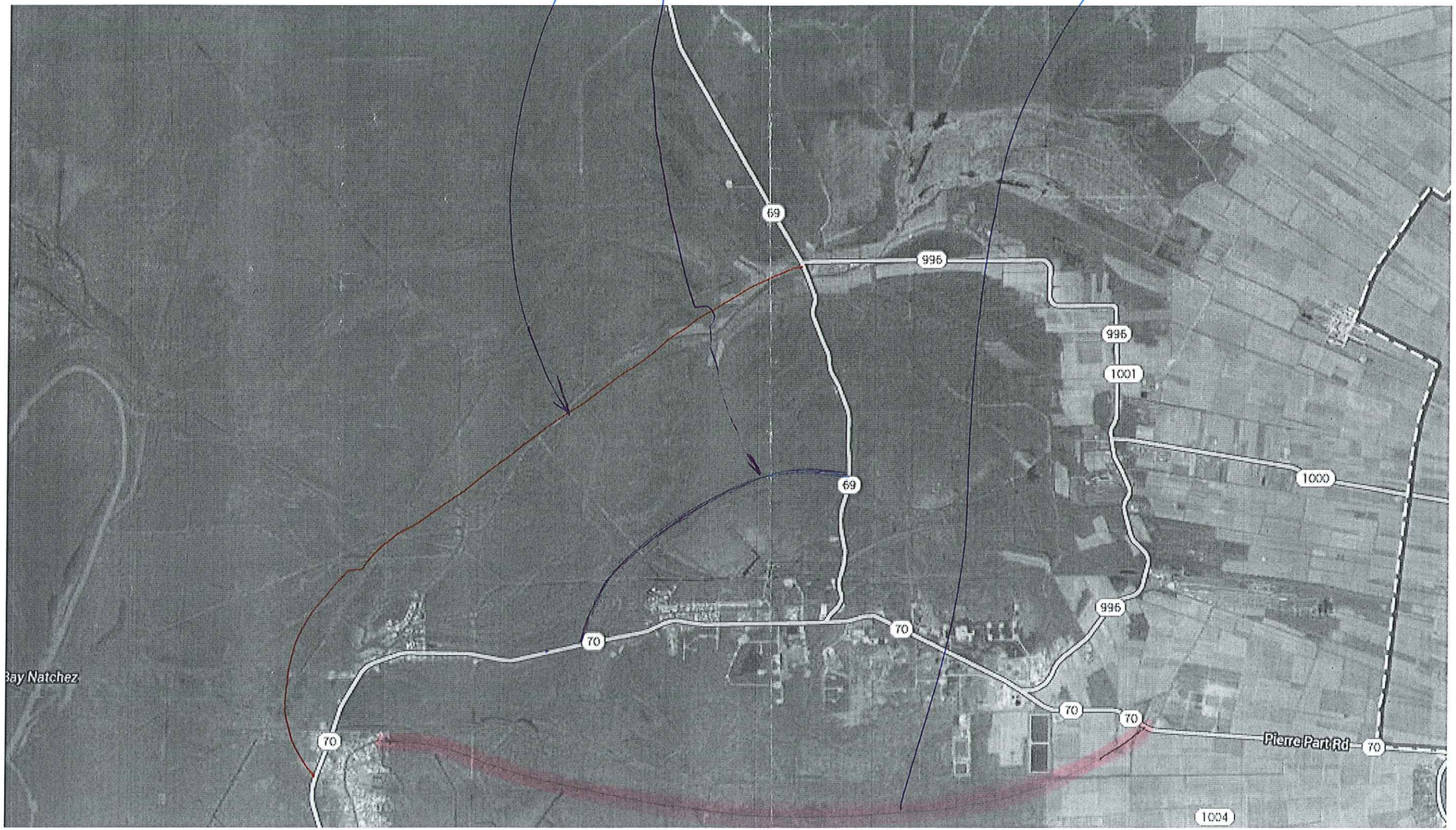
Don't forget the Big Picture

LEROY BLANCHARD
985 573 6347
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

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

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

Design Guidelines for Bypass Roadways and Contingency Plan Detour Routes

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 _____ 12-4-09
Chief Engineer 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.

LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
Minimum Design Guidelines for Urban Arterial Roads and Streets

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

Item No.	Item	Urban				
		UA-1	UA-2	UA-3	UA-4	UA-5
1	Design Speed (mph)	40	45	50	55	60
2	Level of Service [1]	C	C	C	C	C
3	Number of Lanes	2 (min) – 4 (typ)	2 (min) – 4 (typ)	2 (min) – 4 (typ)	2 (min) – 4 (typ)	2 (min) – 4 (typ)
4	Width of Travel Lanes (ft)	11	11 – 12	12	12	12
5	Width of Shoulders (minimum) (ft) [2]					
	(a) Inside on multilane facilities	N/A	N/A	4	4	4
	(b) Outside	8	8	8	8	8
6	Shoulder Type	Paved	Paved	Paved	Paved	Paved
7	Parking Lane Width (ft)	10 – 12	10 – 12	N/A	N/A	N/A
8	Width of Median on Multilane Facilities (ft)					
	(a) Depressed	N/A	N/A	30	34 – 42	42
	(b) Raised	6 [3] – 30	6 [3] – 30	30	30	30
	(c) Two way left turn lane	11 – 14 typ. [4]	11 – 14 typ. [4]	N/A	N/A	N/A
9	Width of Sidewalk (minimum) (where used) (ft) [5]					
	(a) When offset from curb	4	4	4	4	4
	(b) When adjacent to curb	6	6	N/A	N/A	N/A
10	Fore slope (vertical – horizontal)	1:3 (min) – 1:4 (des)	1:3 (min) – 1:4 (des)	1:4	1:6	1:6
11	Back slope (vertical – horizontal)	1:3	1:3	1:3	1:4	1:4
12	Pavement Cross-slope (%)	2.5	2.5	2.5	2.5	2.5
13	Min. Stopping Sight Distance (ft)	305	360	425	495	570
14	Maximum Superelevation (%)	4	4	4	6	6
15	Minimum Radius (ft) [6,7]					
	(a) With normal crown (-2.5% cross-slope)	700	1,000	16,700	19,700	22,880
	(b) With 2.5% superelevation	550	750	3,500	5,250	6,280
	(c) With full superelevation	500	700	1,000	1,100	1,400
16	Maximum Grade (%)	7	6	6	5	5
17	Minimum Vertical Clearance (ft) [8]	16	16	16	16	16
18	Minimum Clear Zone (ft)					
	(a) From edge of through travel lane	18 [9]	24 [9]	28 [10]	22	30
	(b) Outside from back of curb (when curb is used)	6 (min) – 16 (des) [11]	6 (min) – 22 (des) [11]	19 [10]	13	21
	(c) Median from back of curb [12] (when curb is used)	4 (min) – 12 (des)	4 (min) – 18 (des)	8 (min) – 17 (des)	8 (min) – 17 (des)	8 (min) – 25 (des)
19	Bridge Design Live Load [13]	AASHTO	AASHTO	AASHTO	AASHTO	AASHTO
20	Width of Bridges (minimum) (face to face of bridge rail at gutter line) (ft)					
	(a) Curbed facilities (without sidewalks)	Traveled way plus 8′ [14]	Traveled way plus 8′ [14]	Roadway width	Roadway width	Roadway width
	(b) Shoulder facilities	Roadway width	Roadway width	Roadway width	Roadway width	Roadway width
21	Guardrail Required at Bridge Ends	[14]	[14]	Yes	Yes	Yes

Approved _____ 12-4-09
Chief Engineer Date

LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

Footnotes for Minimum Design Guidelines for Urban Arterial Roads and Streets

1- Level of service D allowable in heavily developed urban areas.
2- Curb may be used in place of shoulders on UA-1 and UA-2 facilities. If used on UA-3, UA-4, or UA-5 facilities, curb should be placed at the edge of shoulder. For design speeds greater than 45 mph, curb will not be placed in front of guardrail.
3- With Chief Engineer's approval, curb offsets may be eliminated and the minimum median width can be reduced to 4 feet. On principal arterials, particularly at intersections, the upper limit should be considered.
4- Cannot be used on multilane roadways (with four or more through lanes) without the Chief Engineer's approval.
5- Sidewalks must be separated from the shoulder and should be placed as near the right of way line as possible. On high speed facilities, they should preferably be placed outside the minimum clear zone shown in item 18.
6- 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.
7- The following radii apply at divisional islands. The radius selected must match the design speed of the road. These radii also apply to the other guidelines where divisional islands are mentioned.

Design Speed	Radius (rounded)	Degree of Curve
20 mph	1,450′	4°
25 mph	1,650′	3° 30′
30 mph	1,950′	3°
35 mph	2,300′	2° 30′

Design Speed	Radius (rounded)	Degree of curve
40 mph	2,900′	2°
45 mph	3,850′	1° 30′
50 mph	5,750′	1°
55 & 60 mph	11,500′	0° 30′

8- An additional 6 inches should be added for additional future surfacing.
9- Applies to facilities with shoulders. Refer to the Roadside Design Guide when 1:3 fore slopes are used or for slopes flatter than 1:4.
10- The distance may be reduced by 6 feet if 1:6 slopes are used. For outside shoulders wider than 8 feet, further reduction should be proportional to the added shoulder width.
11- If outside shoulders and curb are used, refer to the Roadside Design Guide.
12- Where left turn lanes are provided or where the median is less than 6 feet in width, the minimum clearance will be 1.5 feet from back of curb. For median slopes steeper than 1:6, refer to the Roadside Design Guide for the desirable clear zone.
13- LRFD for bridge design.
14- Refer to EDSM II.3.1.4 when sidewalks will be provided and for guardrail requirements.

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.

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

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

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

Approved _____ Chief Engineer

12-4-09 Date

LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

Footnotes for Minimum Design Guidelines for Rural Collector Roads

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

General Note:

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

LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
Minimum Design Guidelines for Local Roads and Streets

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

Item No.	Item	Rural			Urban	
		RL-1	RL-2	RL-3	UL-1	UL-2
1	Design Speed (mph) [1]	30	40	50	20	30
2	Average Daily Traffic	0 – 250	250 – 400	Over 400	N/A	N/A
3	Typical Number of Lanes	2	2	2	2	2
4	Minimum Width of Travel Lanes (ft)	9	9	11 – 12 [2]	10 – 11 [3]	10 – 11 [3]
5	Minimum Width of Shoulders (ft) [4]	2	2	5 – 8 [5]	When used [6]	When used [6]
6	Shoulder Type	Aggregate	Aggregate	Aggregate	Paved	Paved
7	Minimum Width of Parking Lanes (where used) (ft)	N/A	N/A	N/A	7 – Residential 8 – Industrial	7 – Residential 8 – Industrial
8	Minimum Width of Sidewalk (where used) (ft)					
	(a) When offset from curb	N/A	N/A	N/A	4	4
	(b) When adjacent to curb	N/A	N/A	N/A	6	6
9	Fore Slope (vertical – horizontal)	1:3 [7]	1:3 [7]	1:4	1:3	1:3
10	Back Slope (vertical – horizontal)	1:2	1:2	1:3	1:2	1:2
11	Pavement Cross Slope (%)	2.5	2.5	2.5	2.5	2.5
12	Min. Stopping Sight Distance (ft)	200	305	425	115	200
13	Maximum Superelevation (%)	10 [8]	10 [8]	10 [8]	4	4
14	Minimum Radius (ft) [9, 10]					
	(a) With normal crown (-2.5% cross slope)	7,585	11,625	16,700	100	325
	(b) With 2.5% superelevation	1,930	3,250	5,000	85	250
	(c) With full superelevation	250	450	700	80	235
15	Maximum Grade (%) [11]	7	7	6	10	9
16	Minimum Vertical Clearance (ft)	15	15	15	15	15
17	Minimum Clear Zone (ft)					
	(a) From edge of though travel lane	10 [7]	10 [7]	Varies [12]	7 – Shoulder facilities	10 – Shoulder facilities
	(b) From back of curb (when curb is used)	N/A	N/A	N/A	1 (min) – 6 (des)	1 (min) – 6 (des)
18	Bridge Design Live Load [13]	AASHTO	AASHTO	AASHTO	AASHTO	AASHTO
19	Minimum Width of Bridges (face to face of bridge rail at gutter line)	Traveled way plus 4'	Traveled way plus 4'	Traveled way plus 6' [14]	Traveled way plus 8' [15, 16]	Traveled way plus 8' [15, 16]
20	Bridge End Treatment	Yes	Yes	Yes	[16]	[16]

Approved _____ Chief Engineer

12-4-09 Date

LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

Footnotes for Minimum Design Guidelines for Local Roads and Streets

1- The design speed may not be less than the current posted speed of the overall route.
2- For ADT greater than 2,000, use 12-foot lane widths.
3- Lane widths in residential areas may be reduced to 9 feet if necessary. Twelve foot lane widths are preferred in industrial areas.
4- Where bicycle activity is prevalent, a paved 4-foot shoulder should be provided.
5- For ADT less than 1,500, the minimum shoulder width may be reduced to 4 feet if necessary. For ADT 1,500 to 2,000, use 6-foot shoulders. For ADT over 2,000, use 8-foot shoulders.
6- Select the shoulder width that corresponds to the ADT shown in the rural local road guidelines.
7- The value shown should be provided on new roadways. A lesser value may be used on existing roads depending on soil stability, right-of-way constraints, the safety record of the road, and the size vehicles using the road. Guidance is available in the AASHTO publication titled 'Guidelines for Geometric Design of Very Low Volume Local Roads (ADT $\leq$ 400)'.
8- In Districts 04 and 05, where ice is more frequent, superelevation should not exceed 8 percent from the emax = 10% table.
9- 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.
10- On roadways with an ADT $\leq$ 400, a sharper radius may be used on fully superelevated roadways if necessary. For specific values refer to the AASHTO publication titled 'Guidelines for Geometric Design of Very Low Volume Local Roads (ADT $\leq$ 400)'. Different radii apply at divisional islands.
11- Grades 2 percent higher may be used in rural rolling terrain.
12- Varies from 14 feet to 28 feet. Refer to the Roadside Design Guide for the applicable value. For spot replacement projects refer to footnote 7.
13- LRFD for bridge design.
14- For ADT greater than 2,000, use roadway width.
15- Refer to EDSM II.3.1.4 when sidewalks will be provided and for guardrail requirements.
16- When shoulders are provided, the minimum bridge width shall be the larger of that shown or the roadway width.

General Local Road Notes:

These guidelines shall not apply to:

a. Dead end roads (open at one end only).
b. Roads that are dependent on dead end roads for access.

Urban guidelines may be applied to any street for which curb is to be used and the posted speed is less than 50 mph, or any street for which a posted speed of 30 mph or less would be appropriate.

On spot replacement projects the existing geometry and superelevation may remain providing there are no safety problems.

The appropriate local governing body is authorized to make design exceptions for specific items listed in these guidelines, with proper engineering justification.

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

Utility Location Survey & Relocation Cost Estimate

Existing Utility Conflicts and Probable Relocations Study

Bypass Routes 1-3

for

LA 70 Bypass
Stage 0 Feasibility Study
S.P. No. H.010571.1

Assumption Parish, LA

Prepared for:

AND

Prepared by:
T. Baker Smith, LLC
1100 South Acadia Road
Thibodaux, LA 70301
985.446.7970

T. BAKER SMITH, LLC
A CENTURY OF SOLUTIONS
1913
2013

October 1, 2013

T. BAKER SMITH, LLC
A CENTURY OF SOLUTIONS
1913
2013

1100 South Acadia Thibodaux, LA 70301

985.446.7970 (P) 1.866.357.1050 (TF)
www.tbsmith.com 985.446.9535 (F)

October 1, 2013

Mrs. Dishili Young, P.E.
Project Manager
CB&I
4171 Essen Lane
Baton Rouge, LA 70809

Re: **Existing Utility Conflicts and Probable Relocations Study**
Bypass Routes 1-3
LA 70 Bypass Stage 0 Feasibility Study
S.P. No. H.01057.1
Assumption Parish, LA

Dear Mrs. Young,

Herein contains the completed professional services for the above referenced project including existing utility locations and relocation cost estimates. This work was performed in accordance with our DOTD form 24-102 proposal dated 9/9/2011 and your Purchase Order No. 854371-000 dated 5/21/13.

This report contains the results of TBS' field utility location survey, visual inspections, data collection and research of the existing utilities along the proposed routes for the project provided by CB&I for Bypass Routes 1-3. Also included is a summary of the utility conflicts for each route, assumed procedures for mitigation/relocation of these conflicts and associated cost estimates. Also included is information and estimates related to the relocation of the existing LA 70 utilities along each route.

I thank you for allowing TBS to provide these services to CB&I and the Louisiana Department of Transportation and Development. Should you have any questions regarding the findings given in the report, or need additional information, please contact me directly at 985-493-2963.

Sincerely,

T. BAKER SMITH, LLC

Dennis M. Hymel, Jr., P.E.
Project Manager

Enclosure

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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 bypass route alternates for State Route 70 (LA 70) in Assumption Parish, Louisiana. The proposed new 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).

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 provided were given as "on-grade" routes with no apparent areas of elevated roadway for lengths longer than necessary to cross large drainage features. It is understood Bypass Route 1consists of a new permanent roadway which travels northeast from LA 70 near Rue De Kajun Street, intersecting LA 69 south of LA 996, and terminating at LA 996 east of its intersection with LA 69. Bypass Route 2 consists of a new permanent route from LA 69 north of LA 70 traveling northeast, a portion of which is along West Star Road, and terminating at LA 996 at the intersection of LA 1000. Bypass Route 3 consists of a new permanent route traveling eastward from LA 69, turning southeast, and terminating at LA 996 approximately 3700 feet north of its intersection with LA 70. CB&I provided a proposed right-of-way width of 240' to be used for all bypass routes.

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 three (3) proposed bypass alternate routes. 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. 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.

Evaluation

The existing subsurface and above ground utilities along the impacted portion of LA 70 and the new proposed corridors 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 was 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. 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 – BYPASS ROUTE 1

Existing Utility Conflicts

The following existing utilities have been identified by TBS as conflicts for Bypass Route 1.

Station 20+66.04 and Station 20+97.30:
Bridgeline Holdings, L.P. operates a 20" and a 30" natural gas pipeline which cross the proposed alignment at a 44 degree skew. The natural ground elevation over the pipelines is approximately 1.4' and the average depth of cover is approximately 3.3'. The soil in this area is swampy and in poor condition. These lines will remain active. Assumed mitigation requirement for these conflicts would be to relocate the 30" pipeline vertically and to install a split casing on the 20" pipeline.

Station 34+75.19 and Station 34+98.23:
Enterprise Products Partners, L.P. operates an 8" and a 12" highly volatile liquid (HVL) pipeline (products include Butane, Propane, Y-Grade, Isobutane, Ethane, and Natural Gas Liquid) which both intersect the proposed alignment at an 85 degree skew. The natural ground elevation over these pipelines is approximately 1.3' and the approximate depth of cover is 5.0'. The soil in this area appears to be in poor condition. These lines will remain active, and assumption for mitigation at these conflicts would be to install reinforced concrete matting over the top of the pipes for the entire width of the proposed right of way.

Station 85+40.75:
Florida Gas Transmission Company, L.L.C. operates a 12" methane pipeline which intersects the proposed alignment at a 77 degree skew. Based upon phone conversations, this line is presently flat and will, at some point in the near future, be abandoned and filled with water. It is assumed that no conflict mitigation will be necessary for this pipeline.

Station 85+86.74:
Acadian Gas, L.L.C. operates a 36" natural gas pipeline which intersects the proposed alignment at a 77 degree skew. This is a newly placed line and will remain active. Depth of cover information was not obtainable in the field. Since this line is relatively new, it is assumed that the depth of cover is near 4 feet. Assumption for mitigation of this conflict would be to install a split casing on the line for the width of the proposed right-of-way.

Station 200+13.66:
Nustar Energy operates an 8" highly volatile liquid (HVL) pipeline which intersects the proposed alignment at a 138 degree skew. Information could not be obtained for this line as it has changed hands of many owners and a solid contact could not be identified; however, the line was found during our survey and could therefore be active or abandoned. The natural ground

elevation at the intersection of the alignment is approximately 4.0' with a depth of cover of 5.1'. Existing soil conditions at the intersection appear to be high and in good condition. Assumption for mitigation at this conflict is to install a split casing on the pipeline for the entire width of the proposed right-of-way.

Station 211+75.00:
Overhead services including electric power distribution lines and telecommunications (cable) along the west side of LA 69 intersect the proposed alignment on an approximate skew of 90 degrees. Due to the proposed roadway, it is assumed that these facilities would require relocation 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 Bypass Route 1, this conflict may not be eliminated. 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/elevating of approximately 250 linear feet of services including 2 poles.

Station 216+09.49:
Chevron operates a 4" pipeline containing highly volatile liquid which intersects the proposed alignment at a 110 degree skew. Based upon phone conversations, the line will remain active. The natural ground elevation above the pipelines is approximately 2.23' with a depth of cover of approximately 3.7'. Existing soil conditions appear to be in an agricultural area and are fair. Assumption for mitigation at this conflict is to install a split casing on the pipeline for the entire width of the proposed right of way.

Station 216+47.69:
Crosstex Energy operates a 6" pipeline containing highly volatile liquid (HVL) which intersects the proposed alignment at an 81 degree skew. The natural ground elevation above the pipelines is approximately 2.13' with a depth of cover of approximately 2.6'. Existing soil conditions appear to be in an agricultural area and are fair. Assumption for mitigation at this conflict is to install a split casing on the pipeline for the entire width of the proposed right-of-way.

Station 217+00.67:
Texas Brine Company, L.L.C. operates a 12" brine pipeline which intersects the proposed alignment at a 119 degree skew. Based upon phone conversations, the line will remain active. Depth of cover is unknown. Natural ground elevation in this area is approximately 2.5', the area is agricultural and soils are in fair condition. Assumption for mitigation for this conflict is to install reinforced concrete matting over the pipeline in the proposed roadside ditches with (2) 10' x 20' mats.

Stations 217+58.34, 217+74.74, 217+81.09, 218+87.93, 217+92.34, 218+01.93, 218+11.83, 218+18.43, and 218+23.60:

DOW owns and operates the majority of lines in this corridor. The first line intersects at a 129 degree skew, and the remaining 8 lines intersect the proposed alignment at a 131 degree skew. The westernmost line at STA. 217+58.34 is a 26" brine pipeline. Traveling along the alignment, the remaining pipelines consist of 8" butane, 12" propane, 8" liquid petroleum gas, 16" ethylene, 8" liquid petroleum gas, 16" propylene, 20" butane, and 8" butane respectively from west to east. Natural ground in this area is approximately 2.5' and the average depth of cover ranges from 2.5-3'. The soil conditions appear to be in an agricultural area and are fair. Assumption for mitigation of the conflict involving the brine pipeline would be to install concrete matting over the pipeline in the proposed roadside ditches with (2) 18' x 30' mats. Assumption for the remaining 8 lines would be to install split casings on the pipelines for the entire width of the proposed right-of-way.

Station 218+24.97 and Station 218+28.62:

Crosstex Energy operates (2) 4" HVL pipelines which intersect the proposed alignment at a 132 degree skew. Based upon phone conversations, both lines will remain active. The natural ground elevation above the pipelines is approximately 2.7' with a depth of cover of approximately 2.2'. The soil conditions appear to be in an agricultural area and are fair. Assumption for mitigation at these conflicts is to install a split casing on the pipelines for the entire width of the proposed right-of-way.

Station 237+85.41:

Acadian Gas, L.L.C. operates a 20" natural gas pipeline (Chico D) which intersects the proposed alignment at a 64 degree skew. The natural ground elevation in this area is approximately 4.40' and the pipe has a depth of cover of approximately 3.5'. The soil in this area is high and in good condition. Assumption for mitigation of this conflict is to install a split casing on the pipeline for the entire width of the proposed right-of-way. It is noted that this line is shut in at the sinkhole, but plans are to re-route around the sinkhole and tie in south of where this line conflicts Bypass Route 1; therefore, this line is assumed active at this conflict location.

Station 238+06.58:

Crosstex Energy operates a 10" HVL pipeline which intersects the proposed alignment at a 64 degree skew. The natural ground in this area is approximately 4.21' and the pipeline has a depth of cover of approximately 3.7'. The soil in this area is high and in good condition. Assumption for mitigation of this conflict is to install a split casing on the pipeline for the entire width of the proposed right of way.

Station 238+40.04 and Station 238+45.68:
Texas Brine Company, L.L.C. operates a 12" brine pipeline that intersects the proposed alignment at a 64 degree skew. The natural ground elevation in this area is approximately 3.93' and the pipe has a depth of cover of approximately 3.8'. The soil in this area is in fair to good condition. Texas Brine, L.L.C. also owns a 10" brine pipeline that runs parallel to the 12" brine line, however this line is abandoned. Assumption for mitigation of the 12" brine pipeline would be to install concrete matting in the proposed roadside ditches with (2) 10' x 20' mats. No action is necessary regarding the abandoned line.

Station 242+54.99:
Enterprise Products Partners, L.P. operates a 10" HVL pipeline which intersects the proposed alignment at a 153 degree skew, then turns within the proposed right-of-way. This is either a newly placed line or a proposed line. Exact information on this line was not made readily available to TBS and the line was not confirmed by the field survey. Assumption for mitigation would be to relocate the line and eliminate the apparent P.I. within the right-of-way.

Relocation of Existing LA 70 Utilities to Proposed Bypass 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 Bypass Route 1. A scenario may exist in which these facilities may be relocated along the proposed route should LA 70 become compromised. It is noted that due to the long length of Bypass Route 1, it is likely more cost effective to relocate LA 70 utilities nearer to LA 70 in a dedicated utility corridor or similar approach to continue services from LA 69 to south of the Bypass Route 1 tie in location.

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 Bypass Route 1, then following said route until the tie in to the existing LA 70 near Rue De Kajun Street where said utilities shall be tied into the existing routes. Utilities servicing facilities in the area between LA 69 and Bypass Route 1 tie in were not included in this estimate as it is likely these utilities would be spot re-located to maintain services if LA 70 is compromised. 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 are mostly fiber) running along the north side of LA 70 from Gumbo Street 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). Assumed relocation costs include installing new aerial fiber and buried copper along Bypass Route 1 as well as heading south along LA 69 from the Bypass Route 1 intersection to LA 70 in order to tie into existing facilities. It is assumed that services to facilities along LA 70 would remain in place or require spot re-location if LA 70 is compromised; therefore, these are not included in the re-route cost estimate. AT&T has mentioned verbally that buried cable along the new Bypass Route would only be necessary if development occurs along the route. The buried facilities along LA 70 are simply there to service the customers in that area.

Entergy:

Entergy currently has overhead distribution lines running along the north side of LA 70 from Gumbo Street to LA 69, as well as lines running along the south side of LA 70 from the 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. Relocation costs assume new facilities along Bypass Route 1 from LA 69 to the tie in at LA 70. Existing facilities along LA 69 from Bypass Route 1 intersection to LA 70 are assumed to remain in place and active.

Allen's Cable:

Allen's Cable currently has coaxial lines that are fixed to Entergy's power poles on the north side of LA 70. Fiber lines are located on the south side of LA 70 which currently terminates at Beagle Street. These fiber lines also run along the west side of LA 69 northward where they tie into Cox lines near the Assumption/Iberville Parish line. Lines along LA 70 also service 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 and coaxial cable lines along Entergy's relocated power poles along the Bypass Route 1 alignment only.

Assumption Water:

Assumption Parish currently operates two (2) active water lines (6" and 14") that 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 the 14" line along the Bypass Route 1 and southward down LA 69 to tie in at LA 70. It is assumed that the 6" line would not be necessary along Bypass Route 1 since the additional capacity could be incorporated into the 14" line as a larger line. It is again noted that, unless development along Bypass Route 1 requires water service, it is much more cost effective to leave the existing lines along LA 70 active until compromised, and even such, potential spot relocations should be considered into an offset corridor paralleling LA 70.

Table A.1 – Existing Utility Conflicts Summary – Bypass Route 1

Owner/Operator	Approximate Station	Size (in)	Contents	Conflict Length
Bridgeline Holdings, L.P.	20+65.84	20	Natural Gas	342
Bridgeline Holdings, L.P.	20+97.30	30	Natural Gas	342
Enterprise Products Partners, L.P.	34+75.19	8	HVL	241
Enterprise Products Partners, L.P.	34+98.21	12	HVL	241
Florida Gas Transission Company, L.L.C.	85+00.21	12	Methane	246
Acadian Gas, L.L.C.	114+56.88	36	Natural Gas	246
Nustar Energy	200+13.66	8	HVL	362
Entergy/Allen's Cable	211+80.00	-	Overhead Electric/Cable	242
Chevron	216+09.49	4	HVL	251
Crosstex Energy	216+47.69	6	HVL	244
Texas Brine Company, L.L.C.	217+00.62	12	Brine	274
DOW	217+58.26	24	Brine	310
DOW	217+74.63	8	Butane	322
DOW	217+81.14	12	Propane	322
DOW	217+87.95	8	Liquid Petroleum Gas	322
DOW	217+92.34	16	Ethylene	322
DOW	218+01.92	8	Liquid Petroleum Gas	322
DOW	218+11.85	12	Propylene	322
DOW	218+18.44	20	Butane	321
DOW	218+23.60	8	Butane	321
Crosstex Energy	218+24.98	4	HVL	325
Crosstex Energy	218+28.60	4	HVL	325
Acadian Gas, L.L.C.	237+85.41	20	Natural Gas	263
Crosstex Energy	238+06.61	10	HVL	265
Texas Brine Company, L.L.C.	238+40.04	12	Brine	271
Texas Brine Company, L.L.C.	238+45.68	10	Brine - Abandoned	272
Enterprise Products Partners, L.P.	242+54.99	10	HVL	401
AT&T	250+37.00	-	Buried Telephone	270

Table A.2 – Existing LA 70 Utilities Summary (LA 69 to Bypass Route 1 Tie In)

Owner/Operator	Size (in)	Contents	Current Length (FT.)	Relocated Length (FT.)
Assumption Parish	14	Water	14975	34800
Assumption Parish	6	Water	14975	0
AT&T	-	Buried Telecomm (Copper)	14975	34800
Entergy/Allen's	-	Overhead Electric/Cable	14975	21100
AT&T	-	Overhead Telecomm (Fiber)	14975	34800

Table A.3 – Utility Relocation Cost Estimate – Bypass Route 1

Station	Description	Length	Unit	Unit Cost	Total
20+66.04	Bridgeline Holdings, L.P. - 20" Natural Gas Pipeline				
	Split Casing on pipe for width of proposed R/W	342	LNFT	$1,300	$444,600
20+97.30	Bridgeline Holdings, L.P. - 30" Natural Gas Pipeline				
	Vertical relocation of pipeline within proposed R/W	342	LNFT	$2,000	$684,000
34+75.19	Enterprise Products Partners, L.P. - 8" Highly Volatile Liquid Pipeline				
	Reinforced Concrete Matting over Pipe within proposed R/W	165	SQYD	$1,000	$165,000
34+98.23	Enterprise Products Partners, L.P. - 12" Highly Volatile Liquid Pipeline				
	Reinforced Concrete Matting over Pipe within proposed R/W	165	SQYD	$1,000	$165,000
85+40.75	Florida Gas Transmission Company, L.L.C. - 12" Methane Pipeline (Flat, To Be Abandoned)				
	No Mitigation Necessary	246	LNFT	$0	$0
85+86.74	Acadian Gas, L.L.C. - 36" Natural Gas Pipeline				
	Split Casing on Pipe for width of proposed R/W	246	LNFT	$1,850	$455,100
200+13.66	Nustar Energy - 8" Highly Volatile Liquid Pipeline				
	Split Casing on Pipe for width of proposed R/W	362	LNFT	$850	$307,700
211+75.00	Entergy/Allen's Cable - Overhead Electric/Telecomm				
	Relocation/Elevation of facilities for R/W +30'	275	LNFT	$95	$26,125
216+09.49	Chevron - 4" Highly Volatile Liquid Pipeline				
	Reinforced Concrete Matting over Pipe within proposed R/W	115	SQYD	$1,000	$115,000
216+47.69	Crosstex Energy - 6" Highly Volatile Liquid Pipeline				
	Split Casing on pipe for width of proposed R/W	244	LNFT	$600	$146,400
217+00.67	Texas Brine Company, L.L.C. - 12" Brine Pipeline				
	Concrete Matting in Roadside Ditches (2 - 10'x20')	45	SQYD	$1,000	$45,000
217+58.34	DOW - 24" Brine Pipeline				
	Concrete Matting in Roadside Ditches (2 - 18'x30')	120	SQYD	$1,000	$120,000
217+74.74	DOW - 8" Butane Pipeline				
	Split Casing on pipe for width of proposed R/W	322	LNFT	$800	$257,600

217+81.09	DOW - 12" Propane Pipeline				
	Split Casing on pipe for width of proposed R/W	322	LNFT	$1,050	$338,100
217+87.93	DOW - 8" Liquified Petroleum Gas				
	Split Casing on pipe for width of proposed R/W	322	LNFT	$800	$257,600
217+92.34	DOW - 16" Ethylene Pipeline				
	Split Casing on pipe for width of proposed R/W	322	LNFT	$1,250	$402,500
218+01.93	DOW - 8" Liquified Petroleum Gas Pipeline				
	Split Casing on pipe for width of proposed R/W	322	LNFT	$800	$257,600
218+11.83	DOW - 12" Propylene Pipeline				
	Split Casing on pipe for width of proposed R/W	322	LNFT	$1,050	$338,100
218+18.43	DOW - 20" Butane Pipeline				
	Split Casing on pipe for width of proposed R/W	322	LNFT	$1,500	$483,000
218+23.60	DOW - 8" Butane Pipeline				
	Split Casing on pipe for width of proposed R/W	322	LNFT	$800	$257,600
218+24.97	Crosstex Energy - 4" HVL Pipeline				
	Split Casing on pipe for width of proposed R/W	325	LNFT	$400	$130,000
218+28.62	Crosstex Energy - 4" HVL Pipeline				
	Split Casing on pipe for width of proposed R/W	325	LNFT	$400	$130,000
237+85.41	Acadian Gas, L.L.C. - 20" Natural Gas Pipeline				
	Split Casing on pipe for width of proposed R/W	263	LNFT	$1,350	$355,050
238+06.58	Crosstex Energy - 10" HVL Pipeline				
	Split Casing on pipe for width of proposed R/W	265	LNFT	$1,075	$284,875
238+40.04	Texas Brine Company, L.L.C. - 12" Brine Pipeline				
	Concrete Matting Over Pipeline in Ditches (2 - 10'x20')	45	SQYD	$1,000	$45,000
238+45.68	Texas Brine Company, L.L.C. - 10" Brine Pipeline (Abandoned)				
	No Mitigation Necessary	0	SQYD	$1,000	$0
242+54.99	Enterprise Products Partners, L.P. - 12" Highly Volatile Liquid Pipeline				
	Relocate line to eliminate PI within R/W	366	LNFT	$1,250	$457,500
250+37.00	AT&T Buried Telephone	270	LNFT	$35	$9,450
	Relocate facilities as necessary for roadway tie in				
Estimate of Probable Utility Relocation Costs					**$6,677,900**

Table A.4 – Existing LA 70 Utilities Cost Estimate - Relocate to Bypass Route 1

Owner	Description	Length	Unit	Unit Cost	Total
AT&T	Buried Telephone Lines Along LA 70	34,800	LNFT	$35	$1,218,000
	Re-route Along North Side of Bypass 1/West side of LA 69				
Entergy	Overhead Electrical Lines Along LA 70	21,100	LNFT	$70	$1,477,000
	Re-route Along North Side of Bypass 1				
Allen's Cable	Cable Lines attached to Energy's Overhead Electric	21,100	LNFT	$25	$527,500
	Re-route with Overhead Lines along Bypass 1				
Assumption Water	6" Water Line Along South Side of LA 70	0	LNFT	$30	$0
	Re-route assumed not necessary				
Assumption Water	14" Water Line Along South Side of LA 70	34,800	LNFT	$85	$2,958,000
	Re-route Along South Side of Bypass 1/East side of LA 69				
AT&T	Aerial Telephone Lines Along LA 70	34,800	LNFT	$20	$696,000
	Re-route Along North Side of Bypass 1/West side of LA 69				
Estimate of Probable Utility Relocation Cost					**$6,876,500**

SECTION B – BYPASS ROUTE 2

Existing Utility Conflicts

The following existing utilities have been identified by TBS as conflicts for Bypass Route 2.

Station 00+48.93:
Assumption Parish operates a 4" water line which intersects the proposed alignment at a 48 degree skew. The natural ground elevation as well as the depth of cover over the water line is unknown. Assumption for mitigation at this conflict would be to relocate the waterline due to the proposed tie in of the roadway.

** It is noted that the proposed alignment intersects facilities from STA. 28+70.52 to STA. 30+00.00 at an existing drainage channel. Information regarding a proposed bridge or culvert at this location was not provided. Assumption for mitigation of these conflicts would be to relocate all facilities for the width of the proposed right of way plus additional length (400' total) to avoid bridge piers or culvert foundations. Re-alignment of the route away from the pipeline/drainage channel location or channel re-routing may lessen the assumed relocations.**

Stations 28+70.52, 28+88.19, and 29+07.72
Enterprise Products Partners, L.P. operates an 8", 6" and 8" highly volatile liquid (HVL) pipeline with respect to the stations listed above. These lines intersect the proposed alignment at approximately a 66 degree skew. The natural ground elevation over these pipelines is approximately 1.31' and an average depth of cover of approximately 8.0'. The soil in this area is swampy and in poor condition. Based upon phone conversations, these lines will remain active. Assumption for mitigation of these conflicts would be to relocate all facilities for the width of the proposed right-of-way to avoid bridge piers or culvert foundations.

Station 29+20.41:
Exxon Mobil operates an 8" HVL pipeline which intersects the proposed alignment at a 64 degree skew. The natural ground elevation is approximately 1.79' and the depth of cover is unknown. The soil in this area appears to be very swampy and in poor to fair condition. Assumption for mitigation of these conflicts would be to relocate all facilities for the width of the proposed right-of-way to avoid bridge piers or culvert foundations.

Station 29+60.84 and Station 29+62.87:
Shell operates a 12" and 10" HVL pipelines which intersect the proposed alignment at a 67 degree skew. The natural ground elevation over these lines is approximately 1.32' and depth of cover is approximately 5.0'. Existing soils are in swampy/poor condition. Assumption for mitigation of these conflicts would be to relocate all facilities for the width of the proposed right-of-way to avoid bridge piers or culvert foundations.

Station 29+99.04:
Boardwalk Pipeline Partners, L.P. operates a 12" ethane pipeline which intersects the proposed alignment at a 63 degree skew. Natural ground elevations in this area are approximately 1.3'. Depth of cover was not able to be obtained in the field, possibly because of the line's offset to cross the existing drainage channel nearby. Assumption for mitigation of these conflicts would be to relocate all facilities for the width of the proposed right-of-way to avoid bridge piers or culvert foundations.

Station 42+62.37:
Chevron operates a 4" highly volatile liquid pipeline which intersects the proposed alignment at an 85 degree skew. The natural ground elevation in this area is approximately 2.72' and the pipeline has a depth of cover of approximately 3.4'. Existing soils appear to be in poor to fair condition. Assumption for mitigation at this conflict would be to install a split casing on the pipeline for the entire width of the proposed right-of-way.

Station 48+65.53:
Chevron operates an 8" HVL pipeline which intersects the proposed alignment at a 66 degree skew. The natural ground elevation in this area is approximately 2.70' and the depth of cover over the pipeline is approximately 5.5'. The soil appears to be in poor to fair condition. Assumption for mitigation at this conflict would be to install a split casing on the pipeline for the entire width of the proposed right-of-way.

Station 49+34.94:
NuStar Energy, L.P. operates an 8" HVL pipeline containing ammonia which intersects the proposed alignment at a 124 degree skew. The natural ground elevation above the pipeline is approximately 2.67' with a depth of cover of approximately 5.0. Existing soil conditions appear to be poor to fair condition. Assumption for mitigation at this conflict would be to install a split casing on the pipeline for the entire width of the proposed right-of-way.

Station 75+18.91:
Boardwalk Pipeline Partners, L.P. operates a 6" propylene pipeline which intersects the proposed alignment at a 76 degree skew. The natural ground elevation in this area is approximately 4.53' and the pipeline has a depth of cover of approximately 6.0'. The soil is high and in good condition. Assumption for mitigation for this conflict would be to install reinforced concrete matting the entire width of the proposed right-of-way.

Station 75+40.40:
Chevron operates a 6" highly volatile liquid pipeline that intersects the proposed alignment at approximately a 76 degree skew. The natural ground elevation above the pipelines is

approximately 4.47' with a depth of cover of approximately 4.8'. Existing soil conditions appear to be high and in good condition. Assumption for mitigation would be to install reinforced concrete matting the entire width of the proposed right-of-way.

Station 94+16.18:
Enterprise Products Partners, L.P. operates a 12" HVL pipeline that intersects the proposed alignment at a 45 degree skew. The natural ground elevation in this area is approximately 3.10' with a depth of cover over the pipe of approximately 4.8'. Existing soils appear to be in fair to good condition. Assumption for mitigation would be to install reinforced concrete matting the entire width of the proposed right-of-way.

Stations 94+85.95, 94+97.60, 95+05.71, 95+10.46, 95+20.38, 95+27.33, 95+45.86, 95+49.96, and 95+51.26:
DOW owns and operates the majority of the lines in this corridor. All 9 lines cross the proposed alignment at a 42 degree skew. The western most line at STA. 94+85.95 is a 24" brine pipeline. Traveling along the alignment, the remaining pipelines are an 8" butane, 12" propane, 8" liquid petroleum gas, 16" ethylene, 8" liquid petroleum gas, 12" propylene, 20" butane, and a 8" butane respectively from west to east. Natural ground in this area is approximately 3.06' and the average depth of cover ranges from 2.9-5.6'. The soil condition for this area is fair to good. Assumption for mitigation of the conflict involving the brine pipeline would be to mat over the pipeline in roadside ditches with (2) 18'X30' mats. Assumption for the remaining 8 lines would be to install a split casing over all Dow lines within this corridor. Due to the close proximity of all pipelines, a reduced cost was used.

Station 95+64.63 and Station 95+66.60:
Crosstex Energy operates (2) 4" HVL pipelines which intersect the proposed alignment at a 52 degree skew. Based upon phone conversations, both lines will remain active. The natural ground elevation above the pipelines is approximately 3.18' with a depth of cover of approximately 3.7'. Existing soil conditions appear to be in fair condition. Assumption for mitigation would be to install split casings on both lines for the entire width of the proposed right-of-way.

Station 89+12.63-120+16.04 and Station 120+14.17:
Entergy owns overhead power lines along West Star Road for 3,275 feet running parallel with the projected alignment before intersecting Hwy. 996. Those power lines tie into Entergy's existing overhead power lines running along the east side of Hwy. 996. Assumption for mitigation would be to remove and relocate all power lines within the proposed right-of-way. It is noted that the relocation costs are included in the re-route of LA 70 utilities.

Station 113+88.08-120+15.38 and Station 120+10.76:
Assumption Parish operates a 2" water line that runs along West Star Road for 627 feet running parallel with the projected alignment before tying into another existing water line running along the east side of Hwy. 996. Assumption for mitigation would be to remove and relocate all water lines within the proposed right-of-way. It is noted that the relocation costs are included in the re-route of LA 70 utilities.

Station 114+06.69-120+28.78 and Station 120+24.11:
AT&T operates overhead telephone lines along West Star Road for 622 feet running parallel with the projected alignment before tying into existing facilities running along the east side of Hwy. 996. Assumption for mitigation would be to remove and relocate all of AT&T's telephone lines within the proposed right-of-way. It is noted that the relocation costs are included in the re-route of LA 70 utilities.

Station 114+46.18-120+16.04 and Station 120+14.17:
Charter Communications apparently owns overhead cable lines running along Entergy's power poles on West Star Road as well as Hwy. 69. Assumption for mitigation would be to remove and relocate all of Charter's lines within the proposed right-of-way.

Relocation of Existing LA 70 Utilities to Proposed Bypass Route 2

As requested, TBS has identified the following existing utilities which follow along LA 70 from LA 69 to LA 996. A scenario may exist where these facilities may be relocated along the proposed route should LA 70 become compromised. It is noted that due to the length of Bypass Route 2 along with the long length needed to travel north along LA 996 to reach the intersection of Bypass Route 2 and LA 996, it is likely much more cost effective to relocate LA 70 utilities nearer to LA 70 in a dedicated utility corridor or similar approach to continue services from LA 69 to the LA 996/LA 70 intersection. Even though routing utilities from LA 70 north on LA 996 to Bypass 2 and back to LA 70 is extremely unpractical, costs are provided for comparison.

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 Bypass Route 2, then following said route until the tie in to LA 996, then southward along LA 996 until tying into existing utilities along LA 70 near its intersection with LA 996. Utilities along LA 70 servicing facilities in the area between LA 69 and LA 996 were not included in this estimate as it is likely these utilities would either be left in place or would be spot re-located to maintain services if LA 70 is compromised. 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 are mostly fiber) running along the north and south side of LA 70 from LA 69 to LA 996. Assumed relocation costs include installing new aerial fiber and buried copper along Bypass Route 2 as well as south along LA 69 from the Bypass Route 2 intersection to LA 70 and south along LA 996 from the proposed intersection with Bypass Route 2 to the intersection of LA 996 and LA 70 in order to tie into existing facilities for the aerial fiber. Re-located buried facilities along LA 996 would likely terminate at the end of AT&T's buried facilities near the Dow facility. AT&T has mentioned verbally that buried cable along the new Bypass Route would only be necessary if development occurs along the route. The buried facilities along LA 70 are simply there to service the customers in that area. It is assumed that services to facilities along LA 70 would remain in place or require spot re-location if LA 70 is compromised and, therefore, these are not included in the re-route cost estimate.

Entergy:

Entergy currently has overhead distribution lines running along the north and south side of LA 70 from LA 996 to LA 69. These facilities run into and out of substations and some facilities are major since these supply power to nearby facilities such as Dow. 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. Relocation costs assume new facilities along Bypass Route 2 from LA 69 to the tie in at LA 996. Existing facilities along LA 69 from Bypass Route 2 intersection to LA 70 and facilities east of LA 996 from the Bypass Route 2 tie in to LA 70 are assumed to be tied into active.

Allen's Cable:

Allen's Cable currently has fiber lines that are fixed to Entergy's power poles along LA 69 then turning east on the south side of LA 70 from LA 69 to Beagle Street where a drop runs fiber underground to service customers in the area. Plans are to extend the fiber east along LA 70 to Dow near LA 996. Allen's also has coaxial cable attached to Entergy's poles along LA 70 from LA 69 to LA 996. Assumption for relocation would be to run new fiber and coaxial lines along Entergy's relocated power poles along the Bypass Route 2 alignment from LA 69 to LA 996, then south along LA 996 to LA 70 to tie into existing facilities.

Assumption Water:

Assumption Parish currently operates a 14" water line which parallels LA 70 from LA 996 to LA 69. This line is predominately located on the south side of LA 70 but does appear to cross LA 70 in certain areas east of Grand Bayou. Additionally, a 4" water line runs along the east side of LA 69 from a 6" main on LA 70 near its intersection with LA 69. Along LA 996, Assumption Parish has an 8" line which runs from LA 70 to north of No Problem Raceway along the east side of LA

996. Assumption for relocation, if LA 70 is compromised between LA 69 and LA 996, is to relocate the 14” line along the Bypass Route 2 and southward down LA 69 and LA 996 to tie in at LA 70. It is again noted that, unless development along Bypass Route 2 requires water service, it is much more cost effective to leave the existing lines along LA 70 active until compromised, and even such, potential spot relocations should be considered. Also, a separate utility corridor closer to LA 70 should be analyzed to provide continuous service to areas south of LA 69. Assumption Parish does have an existing 8” line in areas along LA 996 near its intersection with LA 1000. See the following exhibit in this area for complete details on water lines in this area. Additionally, an 8” line to loop the existing 8” line along LA 996 to the existing 14” line along LA 70 may be all that is necessary depending on demand at the time and the condition of LA 70 and its utilities.

Table B.1 – Existing Utility Conflicts Summary – Bypass Route 2

Owner/Operator	Approximate Station	Size (in)	Contents	Conflict Length
Assumption Parish Water	00+48.93	4	Water	324
Enterprise Products Partners, L.P.	28+70.52	8	HVL	265
Enterprise Products Partners, L.P.	28+88.19	6	HVL	265
Enterprise Products Partners, L.P.	29+07.72	8	HVL	265
Exxon Mobil	29+20.45	8	HVL	265
Shell	29+60.84	12	HVL	265
Shell	29+62.87	10	HVL	265
Boardwalk Pipeline Partners, L.P.	29+99.04	12	Ethane	268
Chevron	44+62.37	4	HVL	241
Chevron	48+65.53	8	HVL	264
NuStar Energy	49+34.94	8	HVL	281
Boardwalk Pipeline Partners, L.P.	75+18.91	6	Propylene	256
Chevron	75+40.40	6	HVL	259
Enterprise Products Partners, L.P.	94+12.12	12	HVL	335
DOW	94+85.95	24	Brine	330
DOW	94+97.60	8	Butane	326
DOW	95+05.71	12	Propane	320
DOW	95+10.46	8	Liquid Petroleum Gas	318
DOW	95+20.38	16	Ethylene	316
DOW	95+27.33	8	Liquid Petroleum Gas	317
DOW	95+45.86	12	Propylene	314
DOW	95+49.96	20	Butane	316
DOW	95+51.26	8	Butane	316
Crosstex Energy	95+64.63	4	HVL	312
Crosstex Energy	95+66.60	4	HVL	312
Entergy	89+12.63-120+16.04	-	Overhead Electric	3275
Assumption Parish Water	113+88.08-120+15.38	2	Water	627
AT&T	114+06.69-120+28.78	-	Telecom	622
Charter Communications	114+46.18-120+16.04	-	Cable	570
Gas	120+00.30	2	Natural Gas	242

Table B.2 – Existing LA 70 Utilities Summary (LA 69 to LA 996)

Owner/Operator	Size (in)	Contents	Current Length (FT.)	Relocated Length (FT.)
Assumption Parish	14	Water	8500	27500
Allen's Cable	-	Overhead Fiber/Coaxial	1500	27500
AT&T	-	Buried Telecom	8500	24000
Entergy	-	Overhead Electric	8500	27500
AT&T	-	Overhead Telecomm (Fiber)	8500	27500

Table B.3 – Utility Relocation Cost Estimate – Bypass Route 2

Station	Description	Length	Unit	Unit Cost	Total
00+48.93	Assumption Parish Water - 4" Water Line				
	Relocate Water Line due to roadway tie in	374	LNFT	$24	$8,976
28+70.52	Enterprise Products Partners, L.P. - 8" Highly Volatile Liquid Pipeline				
	Relocate to avoid possible bridge piers or culvert foundations	400	LNFT	$850	$340,000
28+88.19	Enterprise Products Partners, L.P. - 6" Highly Volatile Liquid Pipeline				
	Relocate to avoid possible bridge piers or culvert foundations	400	LNFT	$650	$260,000
29+07.72	Enterprise Products Partners, L.P. - 8" Highly Volatile Liquid Pipeline				
	Relocate to avoid possible bridge piers or culvert foundations	400	LNFT	$850	$340,000
29+20.45	Exxon Mobil - 8" Highly Volatile Liquid Pipeline				
	Relocate to avoid possible bridge piers or culvert foundations	400	LNFT	$950	$380,000
29+60.84	Shell - 12" Highly Volatile Liquid Pipeline				
	Relocate to avoid possible bridge piers or culvert foundations	400	LNFT	$1,250	$500,000
29+62.87	Shell - 10" Highly Volatile Liquid Pipeline				
	Relocate to avoid possible bridge piers or culvert foundations	400	LNFT	$1,025	$410,000
29+99.04	Boardwalk Pipeline Partners, L.P. - 12" Ethane Pipeline				
	Relocate to avoid possible bridge piers or culvert foundations	400	LNFT	$1,250	$500,000
42+62.37	Chevron - 4" Highly Volatile Liquid Pipeline				
	Split Casing on pipe for width of proposed R/W	241	LNFT	$500	$120,500
48+65.53	Chevron - 8" Highly Volatile Liquid Pipeline				
	Split Casing on pipe for width of proposed R/W	264	LNFT	$800	$211,200
49+34.94	NuStar Energy, L.P. - 8" Highly Volatile Pipeline				
	Split Casing on pipe for width of proposed R/W	281	LNFT	$800	$224,800
75+18.91	Boardwalk Pipeline Partners, L.P. - 6" Propylene Pipeline				
	Reinfoced Concrete Matting over Pipe within proposed R/W	115	SQYD	$1,000	$115,000
75+40.40	Chevron - 6" Highly Volatile Liquid Pipeline				
	Reinfoced Concrete Matting over Pipe within proposed R/W	115	SQYD	$1,000	$115,000
94+12.12	Enterprise Products Partners, L.P. - 12" Highly Volatile Liquid Pipeline				
	Reinfoced Concrete Matting over Pipe within proposed R/W	300	SQYD	$1,000	$300,000
94+85.95	DOW - 24" Brine Pipeline				
	Concrete Matting Over Pipeline in Roadside Ditches (2 - 18'x30	120	SQYD	$1,000	$120,000

94+97.60	DOW - 8" Butane Pipeline				
	Split Casing on pipe for width of proposed R/W	326	LNFT	$800	$260,800
95+05.71	DOW - 12" Propane Pipeline				
	Split Casing on pipe for width of proposed R/W	320	LNFT	$1,050	$336,000
95+10.46	DOW - 8" Liquid Petroleum Gas Pipeline				
	Split Casing on pipe for width of proposed R/W	318	LNFT	$800	$254,400
95+20.38	DOW - 16" Ethylene Pipeline				
	Split Casing on pipe for width of proposed R/W	316	LNFT	$1,200	$379,200
95+27.33	DOW - 8" Liquid Petroleum Gas Pipeline				
	Split Casing on pipe for width of proposed R/W	317	LNFT	$800	$253,600
95+45.86	DOW - 12" Propylene Pipeline				
	Split Casing on pipe for width of proposed R/W	314	LNFT	$1,050	$329,700
95+49.96	DOW - 20" Butane Pipeline				
	Split Casing on pipe for width of proposed R/W	316	LNFT	$1,500	$474,000
95+51.26	DOW - 8" Butane Pipeline				
	Split Casing on pipe for width of proposed R/W	316	LNFT	$800	$252,800
95+64.63	Crosstex Energy - 4" Highly Volatile Liquid Pipeline				
	Split Casing on pipe for width of proposed R/W	312	LNFT	$450	$140,400
95+66.60	Crosstex Energy - 4" Highly Volatile Liquid Pipeline				
	Split Casing on pipe for width of proposed R/W	312	LNFT	$450	$140,400
89+12.63	Entergy - Overhead Electric Lines along West Star Rd.				
	Removal of facilities	3275	LNFT	$15	$49,125
113+88.08	Assumption Parish Water - 2" Water Line				
	Removal of facilities	627	LNFT	$10	$6,270
114+06.69	AT&T - Overhead/Buried Telephone Lines				
	Removal of facilities	622	LNFT	$10	$6,220
114+43.18	Charter Communications - Overhead Cable				
	Removal of facilities	570	LNFT	$10	$5,700

120+00.30	Unknown Gas Owner - 2"				
	Relocation of facilities for roadway tie in	242	LNFT	$40	$9,680
120+10.76	Assumption Parish Water - 2" Water Line				
	Relocation of facilities for roadway tie in	150	LNFT	$20	$3,000
120+10.76	Assumption Parish Water - 4" Water Line				
	Relocation of facilities for roadway tie in	92	LNFT	$24	$2,208
120+14.17	Entergy/Charter Communications - Hwy. 996				
	Relocation/Elevation of facilities for roadway tie in	242	LNFT	$95	$22,990
120+24.11	AT&T - Overhead/Buried Telephone Lines				
	Relocation of facilities for roadway tie in	242	LNFT	$30	$7,260
Estimate of Probable Utility Relocation Costs					**$6,879,229**

Table B.4 – Existing LA 70 Utilities Cost Estimate - Relocate to Bypass Route 2

AT&T	Buried Telephone Lines Along LA 70	24,000	LNFT	$35	$840,000
	Re-route Along Bypass 2/ LA 69/LA 996				
Entergy	Overhead Electrical Lines Along LA 70	27,500	LNFT	$70	$1,925,000
	Re-route Along North Side of Bypass 2/LA 69/LA996				
Allen's Cable	Cable Lines attached to Energy's Overhead Electric	27,500	LNFT	$25	$687,500
	Re-route with along Bypass 2/LA 996/LA 69				
Assumption Water	14" Water Line Along LA 70	27,500	LNFT	$85	$2,337,500
	Re-route Along Bypass 2/LA 69/LA 996				
AT&T	Aerial Telephone Lines Along LA 70	27,500	LNFT	$20	$550,000
	Re-route Along Bypass 2/LA 996/LA69				
Estimate of Probable Utility Relocation Cost					**$6,340,000**

SECTION C – BYPASS ROUTE 3

Existing Utility Conflicts

The following existing utilities have been identified by TBS as conflicts for Bypass Route 3.

Station 00+48.93:
Assumption Parish operates a 4" water line along the east side of LA 69 which intersects the proposed alignment at a 48 degree skew. Assumption for mitigation at this conflict would be to relocate the waterline due to the proposed roadway tie in.

It is noted that depth of cover for the pipelines in the corridor from STA. 28+00 to STA. 29+50 is likely deep due to the existing drainage channel to the north. It is not known where these offsets terminate, therefore split casings are assumed to be necessary.

Stations 28+05.45, 28+21.60, and 28+38.85:
Enterprise Products Partners, L.P. operates an 8", 6", and 8" highly volatile liquid (HVL) pipeline with respect to the stations listed above. These lines intersect the proposed alignment at approximately an 89 degree skew. The natural ground elevation over these pipelines is approximately 1.31' and an average depth of cover of approximately 8.0'. The soil in this area is swampy and in poor condition. Based upon phone conversations, these lines will remain active. Assumption for mitigation at this conflict would be to install a split casing on the pipelines for the entire width of the proposed right-of-way.

Station 28+47.76:
Exxon Mobil operates an 8" HVL pipeline which intersects the proposed alignment at an 89 degree skew. The natural ground elevation is approximately 1.79' and the approximate depth of cover is 15.0'. The soil in this area appears to be very swampy and in poor to fair condition. Assumption for mitigation at this conflict would be to install a split casing on the pipeline for the entire width of the proposed right-of-way.

Station 28+78.21 and Station 28+80.19:
Shell operates a 12" and a 10" HVL pipeline which intersect the proposed alignment at a 83 degree skew. The natural ground elevation over these lines is approximately 1.32' and depth of cover is approximately 5.0'. Existing soils are swampy and in poor condition. Assumption for mitigation at this conflict would be to install a split casing on the pipelines for the entire width of the proposed right-of-way.

Station 29+99.04:
Boardwalk Pipeline Partners, L.P. operates a 12" ethane pipeline which intersects the proposed alignment at a 90 degree skew. Natural ground elevations in this area are approximately 1.3'.

Depth of cover was not able to be obtained in the field, possibly because of the line's offset to cross the existing drainage channel nearby. Assumption for mitigation at this conflict would be to install a split casing on the pipeline for the entire width of the proposed right-of-way.

Station 44+54.34:
Chevron operates an 8" HVL pipeline which intersects the proposed alignment at a 60 degree skew. The natural ground elevation in this area is approximately 1.48' and the pipeline has a depth of cover of approximately 4.0'. Existing soils appear to be swampy and in poor condition. Assumption for mitigation at this conflict would be to install a split casing on the pipeline for the entire width of the proposed right-of-way.

Station 79+66.47:
Crosstex Energy has a currently abandoned 36" natural gas pipeline which intersects the proposed alignment at a 26 degree skew. Crosstex has plans to relocate this pipeline which will be addressed later within this report. The natural ground elevation in this area is approximately 3.24' and the depth of cover over the pipeline is unknown. The soil appears to be in fair condition. Assumption for mitigation at this conflict would be to cut and seal the abandoned pipeline in place.

Station 80+60.60:
Acadian Gas, L.L.C. operates a 20" natural gas pipeline which intersects the proposed alignment at a 26 degree skew. The natural ground elevation above the pipeline is approximately 3.24' with a depth of cover of approximately 2.6'. Existing soil conditions appear to be in fair condition. Assumption for mitigation at this conflict would be to install a split casing on the pipeline for the entire width of the proposed right-of-way.

Station 81+51.24:
Bridgeline Holdings, L.P. operates a 24" natural gas pipeline which intersects the proposed alignment at a 26 degree skew. The natural ground elevation in this area is approximately 3.24' and the depth of cover over the pipeline is unknown. Existing soil conditions appear to be in fair condition. Assumption for mitigation at this conflict would be to install a split casing on the pipeline for the entire width of the proposed right-of-way.

Station 84+95.19:
Boardwalk Pipeline Partners, L.L.C. operates a 6" HVL pipeline that intersects the proposed alignment at approximately a 142 degree skew. The natural ground elevation above the pipelines is approximately 4.10' with a depth of cover of approximately 8.0'. Existing soils appear to be high and in good condition. Assumption for mitigation would be to install reinforced concrete matting the entire width of the proposed right-of-way due to the good soil conditions and the depth of cover.

Station 85+33.90:
Chevron operates a 6" HVL pipeline that intersects the proposed alignment at approximately a 142 degree skew. The natural ground elevation in this area is approximately 4.10' with a depth of cover over the pipe of approximately 8.0'. Existing soils appear to be high and in good condition. Assumption for mitigation would be to install reinforced concrete matting the entire width of the proposed right-of-way due to the good soil conditions and the depth of cover.

Station 86+09.52:
Chevron operates a 4" HVL pipeline that intersects the proposed alignment at approximately a 126 degree skew. The natural ground elevation in this area is approximately 3.0' with a depth of cover over the pipe of approximately 3.7'. Existing soils appear to be in fair to good condition. Assumption for mitigation would be to install a split casing on the pipeline for the entire width of the proposed right-of-way.

Station 87+00.58:
Crosstex Energy has plans for a relocation of their 36" natural gas pipeline that would intersect the proposed alignment at approximately a 156 degree skew. The natural ground elevation in this area is approximately 3.8' with a depth of cover yet to be determined, but assumed to be deep enough pass under all pipelines in the DOW corridor. Existing soils appear to be high and in good condition. Assumption for mitigation would be to install a split casing on the pipeline for the entire width of the proposed right-of-way.

Stations 87+01.14, 87+05.65, 87+11.74, 87+15.59, 87+19.58, 87+23.82, 87+23.82, 87+31.28, and 95+51.26:
Dow owns and operates the majority of the lines in this corridor. All 9 lines cross the proposed alignment at a 90 degree skew. The western most line at STA. 87+01.14 is a 24" brine pipeline. Traveling along the alignment, the remaining pipelines are 8" butane, 12" propane, 8" liquid petroleum gas, 16" ethylene, 8" liquid petroleum gas, 12" propylene, 20" butane, and a 8" butane respectively from west to east. Natural ground in this area is approximately 3.75' and the average depth of cover ranges from 2.7-5.5'. The soils in this area appear to be high and in good condition. Assumption for mitigation of the conflict involving the brine pipeline would be to mat over the pipeline in roadside ditches with (2) 18'X30' mats. Assumption for the remaining 8 lines would be to install a split casing over all Dow lines within this corridor. Due to the close proximity of all pipelines, an assumed reduced cost is provided.

Station 87+59.59 and Station 87+61.76:
Crosstex Energy operates (2) 4" HVL pipelines which intersect the proposed alignment at a 90 degree skew. Based upon phone conversations, both lines will remain active. The natural ground elevation above the pipelines is approximately 4.10' with a depth of cover of approximately 4.0'. Existing soils appear to be high and in good condition. Assumption for

mitigation would be to install split casings on both lines for the entire width of the proposed right-of-way.

Relocation of Existing LA 70 Utilities to Proposed Bypass Route 3

As requested, TBS has identified the following existing utilities which follow along LA 70 from LA 69 to LA 996. A scenario may exist where these facilities may be relocated along the proposed route should LA 70 become compromised. It is noted that due to the length of Bypass Route 3 along with the length needed to travel north along LA 996 to reach the intersection of Bypass Route 3 and LA 996, it is likely more cost effective to relocate LA 70 utilities nearer to LA 70 in a dedicated utility corridor or similar approach to continue services from LA 69 to the LA 996/LA 70 intersection.

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 Bypass Route 3, then following said route until the tie in to LA 996, then southward along LA 996 until tying into existing utilities along LA 70 near its intersection with LA 996. Utilities along LA 70 servicing facilities in the area between LA 69 and LA 996 were not included in this estimate as it is likely these utilities would either be left in place or would be spot re-located to maintain services if LA 70 is compromised. 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 are mostly fiber) running along the north and south side of LA 70 from LA 69 to LA 996. Assumed relocation costs include installing new aerial fiber and buried copper along Bypass Route 3 as well as south along LA 69 from the Bypass Route 3 intersection to LA 70 and south along LA 996 from the proposed intersection with Bypass Route 3 to the intersection of LA 996 and LA 70 in order to tie into existing facilities for the aerial fiber. Re-located buried facilities along LA 996 would likely terminate at the end of AT&T's buried facilities near the Dow facility. It is assumed that services to facilities along LA 70 would remain in place or require spot re-location if LA 70 is compromised; therefore, these are not included in the re-route cost estimate. AT&T has mentioned verbally that buried cable along the new Bypass Route would only be necessary if development occurs along the route. The buried facilities along LA 70 are simply there to service the customers in that area.

Entergy:

Entergy currently has overhead distribution lines running along the north and south side of LA 70 from LA 996 to LA 69. These facilities run into and out of substations and some facilities are major since these supply power to nearby facilities such as Dow. Based upon phone conversations with Entergy associates, if they relocate their lines along the proposed alignment, they anticipate continuing servicing all facilities in the area. Relocation costs assume new facilities along Bypass Route 3 from LA 69 to the tie in at LA 996. Existing facilities along LA 69 from Bypass Route 3 intersection to LA 70 and facilities east of LA 996 from the Bypass Route 3 tie in to LA 70 are assumed to be tied into active.

Allen's Cable:

Allen's Cable currently has fiber lines that are fixed to Entergy's power poles along LA 69 then turning east on the south side of LA 70 from LA 69 to Beagel Street where a drop runs fiber underground to service customers in the area. Plans are to extend the fiber east along LA 70 to Dow near LA 996. Allen's also has coaxial cable attached to Entergy's poles along LA 70 from LA 69 to LA 996. Assumption for relocation would be to run new fiber and coaxial lines along Entergy's relocated power poles along the Bypass Route 3 alignment from LA 69 to LA 996, then south along LA 996 to LA 70 to tie into existing facilities.

Assumption Water:

Assumption Parish currently operates a 14" water line which parallels LA 70 from LA 996 to LA 69. This line is predominately located on the south side of LA 70 but does appear to cross LA 70 in certain areas east of Grand Bayou. Additionally, a 4" water line runs along the east side of LA 69 from a 6" main on LA 70 near its intersection with LA 69. Along LA 996, Assumption Parish has an 8" line which runs from LA 70 to north of No Problem Raceway along the east side of LA 996. Assumption for relocation if LA 70 is compromised between LA 69 and LA 996 is to relocate the 14" line along the Bypass Route 3 and southward down LA 69 and LA 996 to tie in at LA 70. It is again noted that, unless development along Bypass Route 3 requires water service, it is much more cost effective to leave the existing lines along LA 70 active until compromised, and even such, potential spot relocations should be considered into an offset corridor paralleling LA 70. Additionally, only an 8" line to loop the existing 8" line along LA 996 to the existing 14" line along LA 70 may be all that is necessary depending on demand at the time and the condition of LA 70 and its utilities.

Table C.1 – Existing Utility Conflicts Summary – Bypass Route 3

Owner/Operator	Approximate Station	Size (in)	Contents	Conflict Length
Assumption Parish Water	00+48.93	4	Water	324
Enterprise Products Partners, L.P.	28+05.45	8	HVL	241
Enterprise Products Partners, L.P.	28+21.60	6	HVL	241
Enterprise Products Partners, L.P.	28+38.85	8	HVL	241
Exxon Mobil	28+47.76	8	HVL	241
Shell	28+78.21	12	HVL	241
Shell	28+80.19	10	HVL	241
Boardwalk Pipeline Partners, L.P.	29+18.61	12	Ethane	240
Chevron	44+54.34	8	HVL	278
Crosstex Energy	79+66.47	36	Natural Gas	523
Acadian Gas, L.L.C.	80+60.60	20	Natural Gas	514
Bridgeline Holdings, L.P.	81+51.24	24	Natural Gas	474
Boardwalk Pipeline Partners, L.P.	84+95.19	6	Propylene	396
Chevron	85+33.90	6	HVL	410
Chevron	86+09.52	4	HVL	278
Crosstex Energy	87+00.58	36	Natural Gas	722
DOW	87+01.14	24	Brine	240
DOW	87+05.65	8	Butane	240
DOW	87+11.74	12	Propane	240
DOW	87+15.59	8	Liquid Petroleum Gas	240
DOW	87+19.58	16	Ethylene	240
DOW	87+23.82	8	Liquid Petroleum Gas	240
DOW	87+31.28	12	Propylene	240
DOW	87+37.72	20	Butane	240
DOW	87+45.77	8	Butane	240
Crosstex Energy	87+59.59	4	HVL	240
Crosstex Energy	87+61.76	4	HVL	240
Acadian Gas, L.L.C.	87+89.04	20	Natural Gas	243

Table C.2 – Existing LA 70 Utilities Summary (LA 69 to LA 996)

Owner/Operator	Size (in)	Contents	Current Length (FT.)	Relocated Length (FT.)
Assumption Parish	14	Water	8500	18000
Allen's Cable	-	Overhead Fiber/Coaxial	1500	15700
AT&T	-	Buried Telecom	8500	15210
Entergy	-	Overhead Electric	8500	11700
AT&T	-	Overhead Telecomm (Fiber)	8500	18000

Table C.3 – Utility Relocation Cost Estimate – Bypass Route 3

Station	Description	Length	Unit	Unit Cost	Total
00+48.93	Assumption Parish Water - 4" Waterline				
	Re-locate Water Line to west side of Hwy. 69	374	LNFT	$20	$7,480
28+05.45	Enterprise Products Partners, L.P. - 8" Highly Volatile Liquid Pipeline				
	Split Casing on pipe for width of proposed R/W	241	LNFT	$800	$192,800
28+21.60	Enterprise Products Partners, L.P. - 6" Highly Volatile Liquid Pipeline				
	Split Casing on pipe for width of proposed R/W	241	LNFT	$600	$144,600
28+38.85	Enterprise Products Partners, L.P. - 8" Highly Volatile Liquid Pipeline				
	Split Casing on pipe for width of proposed R/W	241	LNFT	$800	$192,800
28+47.76	Exxon Mobil - 8" Highly Volatile Liquid Pipeline				
	Split Casing on pipe for width of proposed R/W	241	LNFT	$800	$192,800
28+78.21	Shell - 12" Highly Volatile Liquid Pipeline				
	Split Casing on pipe for width of proposed R/W	241	LNFT	$1,050	$253,050
28+80.19	Shell - 10" Highly Volatile Liquid Pipeline				
	Split Casing on pipe for width of proposed R/W	241	LNFT	$1,075	$259,075
29+18.61	Boardwalk Pipeline Partners, L.L.C. - 12" Ethane Pipeline				
	Split Casing on pipe for width of proposed R/W	240	LNFT	$1,050	$252,000
44+54.34	Chevron - 8" Highly Volatile Liquid Pipeline				
	Split Casing on pipe for width of proposed R/W	278	LNFT	$800	$222,400
79+66.47	Crosstex Energy - 36" Natural Gas Pipeline (Abandoned)				
	Cut and Seal Pipeline	523	LNFT	$100	$52,300
80+60.60	Acadian Gas, L.L.C. - 20" Natural Gas Pipeline				
	Split Casing on pipe for width of proposed R/W	514	LNFT	$1,350	$693,900
81+51.24	Bridgeline Holdings, L.P. -24" Natural Gas Pipeline				
	Split Casing on pipe for width of proposed R/W	474	LNFT	$1,495	$708,630
84+95.19	Boardwalk Pipeline Partners, L.L.C. - 6" Propylene Pipeline				
	Reinforced Concrete Matting over pipe within proposed R/W	176	SQYD	$1,000	$176,000
85+33.90	Chevron - 6" Highly Volatile Liquid Pipeline				
	Reinforced Concrete Matting over pipe within proposed R/W	182	SQYD	$1,000	$182,000

86+09.52	Chevron - 4" Highly Volatile Liquid Pipeline				
	Split Casing on pipe for width of proposed R/W	278	LNFT	$450	$125,100
87+00.58	Crosstex Energy - 36" Natural Gas Pipeline				
	Split Casing on pipe for width of proposed R/W	722	LNFT	$1,850	$1,335,700
87+01.14	DOW - 24" Brine Pipeline				
	Concrete Matting over pipeline in roadside ditches (2 - 18'x30')	120	SQYD	$1,000	$120,000
87+05.65	DOW - 8" Butane Pipeline				
	Split Casing on pipe for width of proposed R/W	240	LNFT	$800	$192,000
87+11.74	DOW - 12" Propane Pipeline				
	Split Casing on pipe for width of proposed R/W	240	LNFT	$1,050	$252,000
87+15.59	DOW - 8" Liquid Petroleum Gas Pipeline				
	Split Casing on pipe for width of proposed R/W	240	LNFT	$800	$192,000
87+19.58	DOW - 16" Ethylene Pipeline				
	Split Casing on pipe for width of proposed R/W	240	LNFT	$1,200	$288,000
87+23.82	DOW - 8" Liquid Petroleum Gas Pipeline				
	Split Casing on pipe for width of proposed R/W	240	LNFT	$800	$192,000
87+31.28	DOW - 12" Propylene Pipeline				
	Split Casing on pipe for width of proposed R/W	240	LNFT	$1,050	$252,000
87+37.72	DOW - 20" Butane Pipeline				
	Split Casing on pipe for width of proposed R/W	240	LNFT	$1,500	$360,000
87+45.77	DOW - 8" Butane Pipeline				
	Split Casing on pipe for width of proposed R/W	240	LNFT	$800	$192,000
87+59.59	Crosstex Energy - 4" Highly Volatile Liquid Pipeline				
	Split Casing on pipe for width of proposed R/W	240	LNFT	$450	$108,000
87+61.76	Crosstex Energy - 4" Highly Volatile Liquid Pipeline				
	Split Casing on pipe for width of proposed R/W	240	LNFT	$450	$108,000
87+89.04	Acadian Gas, L.L.C. - 20" Natural Gas Pipeline				
	Split Casing on pipe for width of proposed R/W	243	LNFT	$1,300	$315,900
Estimate of Probable Utility Relocation Costs					**$7,562,535**

Table C.4 – Existing LA 70 Utilities Cost Estimate - Relocate to Bypass Route 3

Owner	Description	Length	Unit	Unit Cost	Total
AT&T	Buried Telephone Lines Along LA 70	15,210	LNFT	$35	$532,350
	Re-route Along Bypass 3/ LA 69/LA 996				
Entergy	Overhead Electrical Lines Along LA 70	11,700	LNFT	$70	$819,000
	Re-route Along North Side of Bypass 3				
Allen's Cable	Cable Lines attached to Energy's Overhead Electric	15,700	LNFT	$25	$392,500
	Re-route with along Bypass 3/LA 996				
Assumption Water	14" Water Line Along LA 70	18,000	LNFT	$85	$1,530,000
	Re-route Along Bypass 3/LA 69/LA 996				
AT&T	Aerial Telephone Lines Along LA 70	18,000	LNFT	$20	$360,000
	Re-route Along Bypass 3/LA 996/LA69				
Estimate of Probable Utility Relocation Cost					**$3,633,850**

APPENDIX

Utility Contact Information

Acadian/Enterprise

Gas
Bryan Giroir
(O) (985) 493-4619
(C) (985) 414-2824
bpgiroir@eprod.com

Liquids
Ben Bernard
(O) (225) 675-2513
(C) (225) 313-9976
bmbernard@eprod.com

AT&T

Codie Granier
(O) (985) 580-7160
Cg9586@att.com

Boardwalk

Mike Baham
(O) (225) 282-0392
(C) (225) 921-9149

Andre' Thibodeaux
(O) (337) 856-2211
(C) (225)405-5962
Andre.Thibodeaux@bwpmlp.com

Allen's Cable

Greg Price
(O) (985) 252-4405

Chevron/Bridgeline

Dane Sutton
(O) (225) 615-2621
dsut@chevron.com

Keith Foret
(O) (225) 344-3377
(C) (225) 268-8606
kejf@chevron.com

Crosstex

Gas Ronnie Dimm
(C) (225) 202-3877
Ronnie.Dimm@crosstexenergy.com

Liquids Nick Laiche
(C) (225) 573-4787
Nick.Laiche@crosstexenergy.com

Dow/Ucar

Jere Dial
(O) (286) 966-4068

Entergy

Steve Dupre
(O) (985) 526-7108
(C) (225) 324-4918

Florida Gas

Danny Sparacino
(C) (225) 572-9376
Danny.sparacino@energytransfer.com

Shell

Tammy Pimley
(O) (504) 425-4799
(C) (504) 338-2641
Tammy.pimley@shell.com

Texas Brine

Kenneth Blanchard
(O) (985) 369-6657 (Ext. 101)
(C) (985) 637-9774

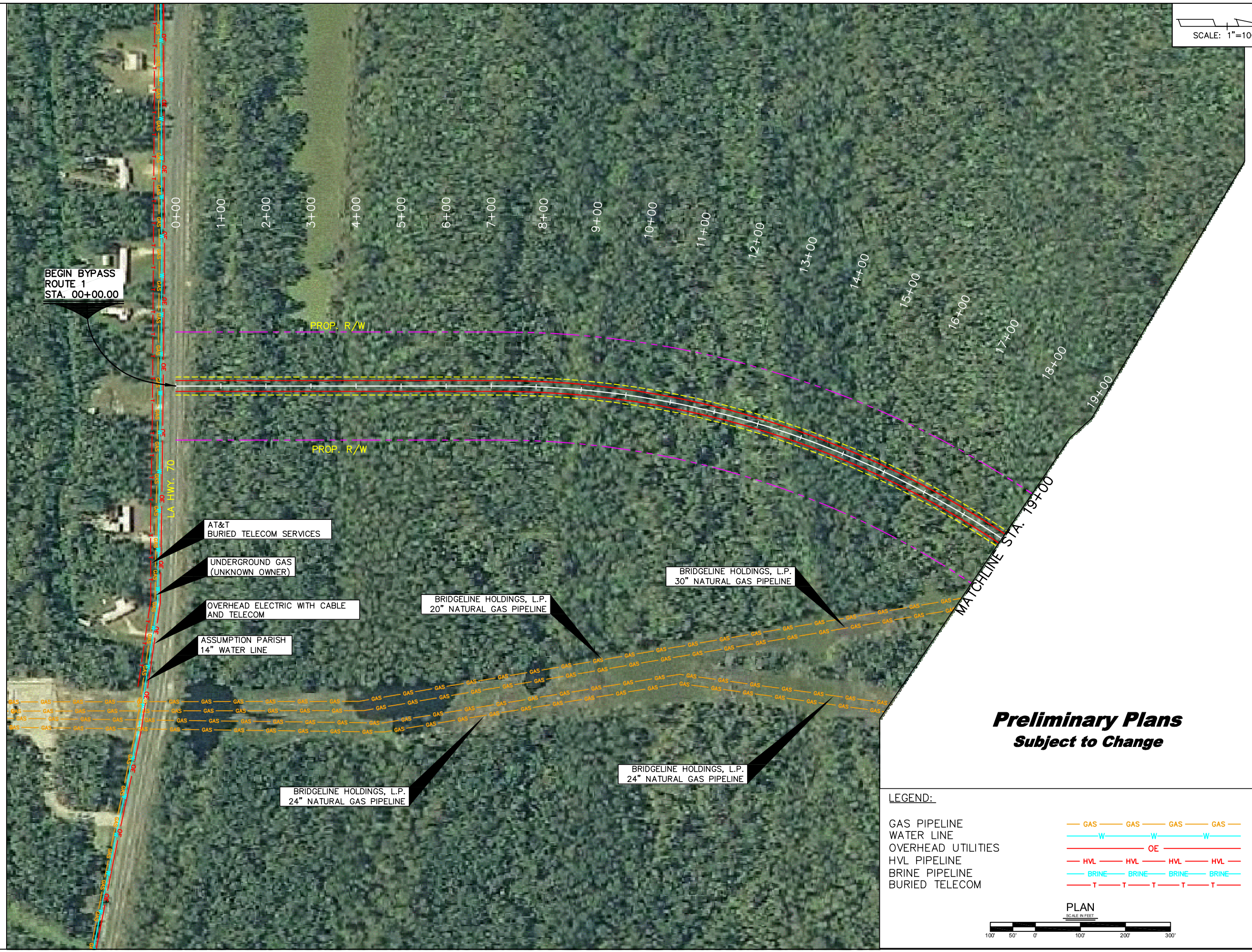
Joel Miller
(O) (337) 828-1950
(C) (337) 578-3211
Joel.miller@cox-internet.com

Water

Ricky Mollere
(O) (985) 369-6156

Williams

Diane Caselena
(O) (225) 654-2047
Diane.Casalena@williams.com



SHEET NUMBER	A-10
PARISH	ASSUMPTION
FEDERAL PROJECT	
STATE PROJECT	
DESIGNED	
CHECKED	
DETAILED	D. BINET
CHECKED	P. OLIVIER
DATE	OCT. 2013
SHEET	

STAGE 0 STUDY SUBMITTAL
Louisiana Department of Transportation and Development
ENGINEER: D.HYMEL
LICENSE: 38172
DATE: 10/1/2013

PRELIMINARY
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PLAN – EXISTING UTILITIES
BYPASS ROUTE 1

LA 70 BYPASS STAGE 0 FEASIBILITY STUDY

STATE OF LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

TBS

PLAN – EXISTING UTILITIES
BYPASS ROUTE 1

LA 70 BYPASS STAGE 0 FEASIBILITY STUDY

Preliminary Plans
Subject to Change

LEGEND:

- GAS PIPELINE
- WATER LINE
- OVERHEAD UTILITIES
- HVL PIPELINE
- BRINE PIPELINE
- BURIED TELECOM

PLAN
SCALE IN FEET
100' 50' 0' 100' 200' 300'

SCALE: 1"=100'

MATCHLINE STA. 46+00

MATCHLINE STA. 19+00

PROP. R/W

PROP. R/W

ENTERPRISE PRODUCTS PARTNERS, L.P.
12" HVL PIPELINE

ENTERPRISE PRODUCTS PARTNERS, L.P.
8" HVL PIPELINE

BRIDGELINE HOLDINGS, L.P.
20" NATURAL GAS PIPELINE

BRIDGELINE HOLDINGS, L.P.
24" NATURAL GAS PIPELINE

BRIDGELINE HOLDINGS, L.P.
24" NATURAL GAS PIPELINE

BRIDGELINE HOLDINGS, L.P.
30" NATURAL GAS PIPELINE

5.0' D.O.C.
1.20' N.G

5.9' D.O.C.
1.48' N.G

3.5' D.O.C.
1.35' N.G

3.3' D.O.C.
1.41' N.G

3.3' D.O.C.
1.37' N.G

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
TIMS

STAGE 0 STUDY SUBMITTAL
Louisiana Department of Transportation and Development
ENGINEER: D.HINKEL
LICENSE: 39172
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DESIGNED		PARISH	ASSUMPTION
CHECKED			
DETAILED	D. BINET	FEDERAL PROJECT	
CHECKED	P. OLIVIER		
DATE	OCT. 2013	STATE PROJECT	
SHEET			

SHEET NUMBER A-11

MATCHLINE STA. 46+00

46+00
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68+00
69+00
70+00
71+00
72+00
73+00

PROP. R/W
PROP. R/W
PROP. R/W
PROP. R/W

Preliminary Plans
Subject to Change

LEGEND:

GAS PIPELINE — GAS —
WATER LINE — W —
OVERHEAD UTILITIES — OE —
HVL PIPELINE — HVL —
BRINE PIPELINE — BRINE —
BURIED TELECOM — T —

PLAN
SCALE IN FEET
100' 50' 0' 100' 200' 300'

MATCHLINE STA. 73+00

SCALE: 1"=100'

PLAN – EXISTING UTILITIES
BYPASS ROUTE 1

LA 70 BYPASS STAGE 0 FEASIBILITY STUDY

STAGE 0 STUDY SUBMITTAL

PRELIMINARY
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ENGINEER: D.HYMEL
LICENSE: 38172
DATE: 10/1/2013

DESIGNED		PARISH	ASSUMPTION
CHECKED			
DETAILED	D. BINET	FEDERAL PROJECT	
CHECKED	P. OLIVIER		
DATE	OCT. 2013	STATE PROJECT	
SHEET			

SHEET NUMBER A-12

PLAN – EXISTING UTILITIES
BYPASS ROUTE 1

LA 70 BYPASS STAGE 0 FEASIBILITY STUDY

Preliminary Plans
Subject to Change

LEGEND:

- GAS PIPELINE
- WATER LINE
- OVERHEAD UTILITIES
- HVL PIPELINE
- BRINE PIPELINE
- BURIED TELECOM

PLAN
SCALE IN FEET
100' 50' 0' 100' 200' 300'

FLORIDA GAS TRANSMISSION COMPANY, L.L.C.
12" NATURAL GAS PIPELINE
(CURRENTLY FLAT. TO BE ABANDONED.)

ACADIAN GAS COMPANY, L.L.C.
36" NATURAL GAS PIPELINE

PROP. R/W

MATCHLINE STA. 73+00

MATCHLINE STA. 100+00

73+00 74+00 75+00 76+00 77+00 78+00 79+00 80+00 81+00 82+00 83+00 84+00 85+00 86+00 87+00 88+00 89+00 90+00 91+00 92+00 93+00 94+00 95+00 96+00 97+00 98+00 99+00 100+00

SCALE: 1"=100'

PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION, BIDDING, RECORDATION, CONVEYANCES OR AS THE BASIS FOR THE ISSUANCE OF A PERMIT

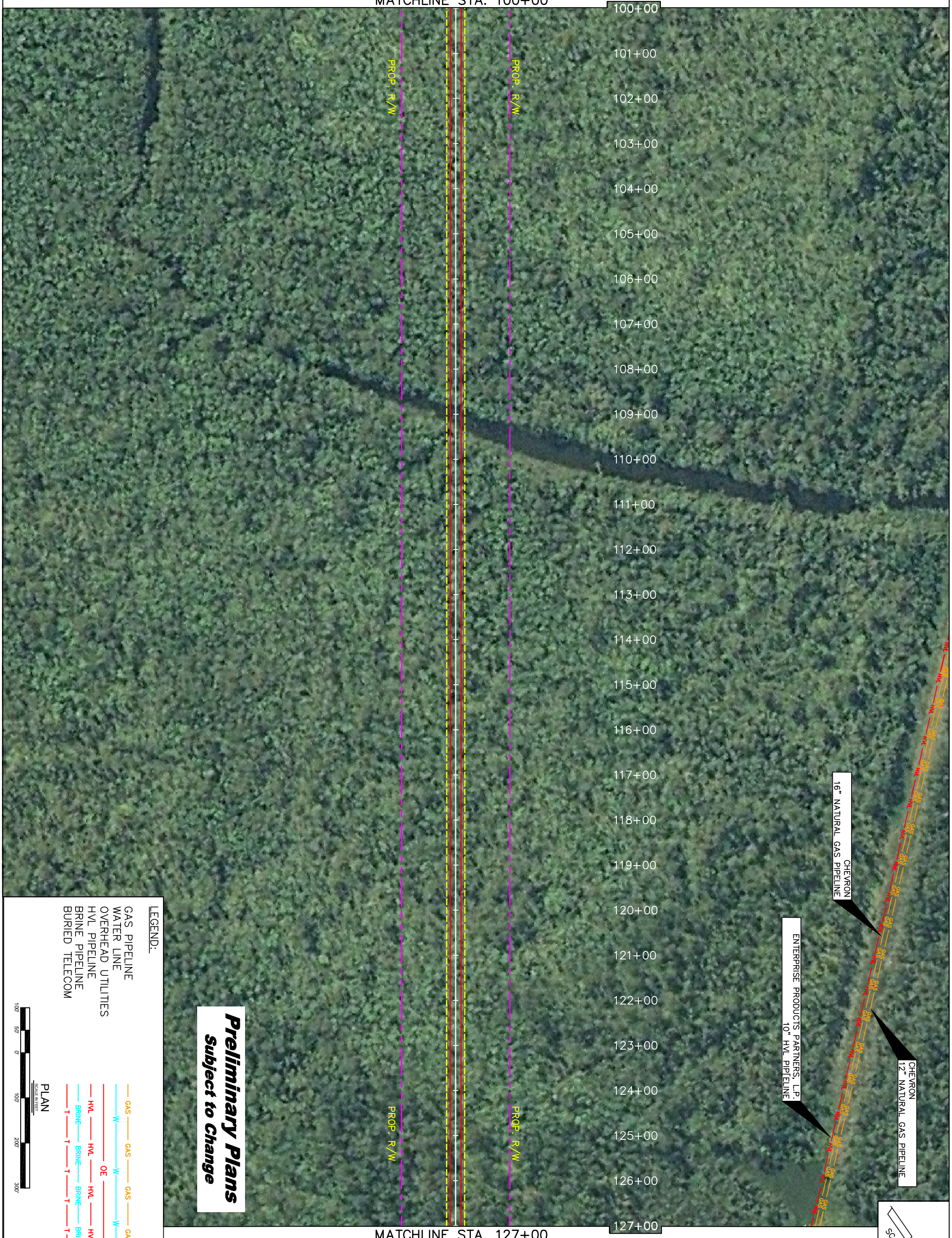
STAGE 0 STUDY SUBMITTAL
Louisiana Department of Transportation and Development

ENGINEER: D.I.H.M.E.
LICENSE: 38172
DATE: 10/1/2013

DESIGNED		PARISH	ASSUMPTION
CHECKED		FEDERAL PROJECT	
DETAILED	D. BINET		
CHECKED	P. OLIVIER	STATE PROJECT	
DATE	OCT. 2013		
SHEET		SHEET NUMBER	A-13

TES

MATCHLINE STA. 100+00



MATCHLINE STA. 127+00

Preliminary Plans
Subject to Change

LEGEND:

- GAS PIPELINE
- WATER LINE
- OVERHEAD UTILITIES
- HVL PIPELINE
- BRINE PIPELINE
- BURIED TELECOM

PLAN
SCALE IN FEET
100' 50' 0' 100' 200' 300'

SCALE: 1"=100'

PLAN – EXISTING UTILITIES
BYPASS ROUTE 1

LA 70 BYPASS STAGE 0 FEASIBILITY STUDY

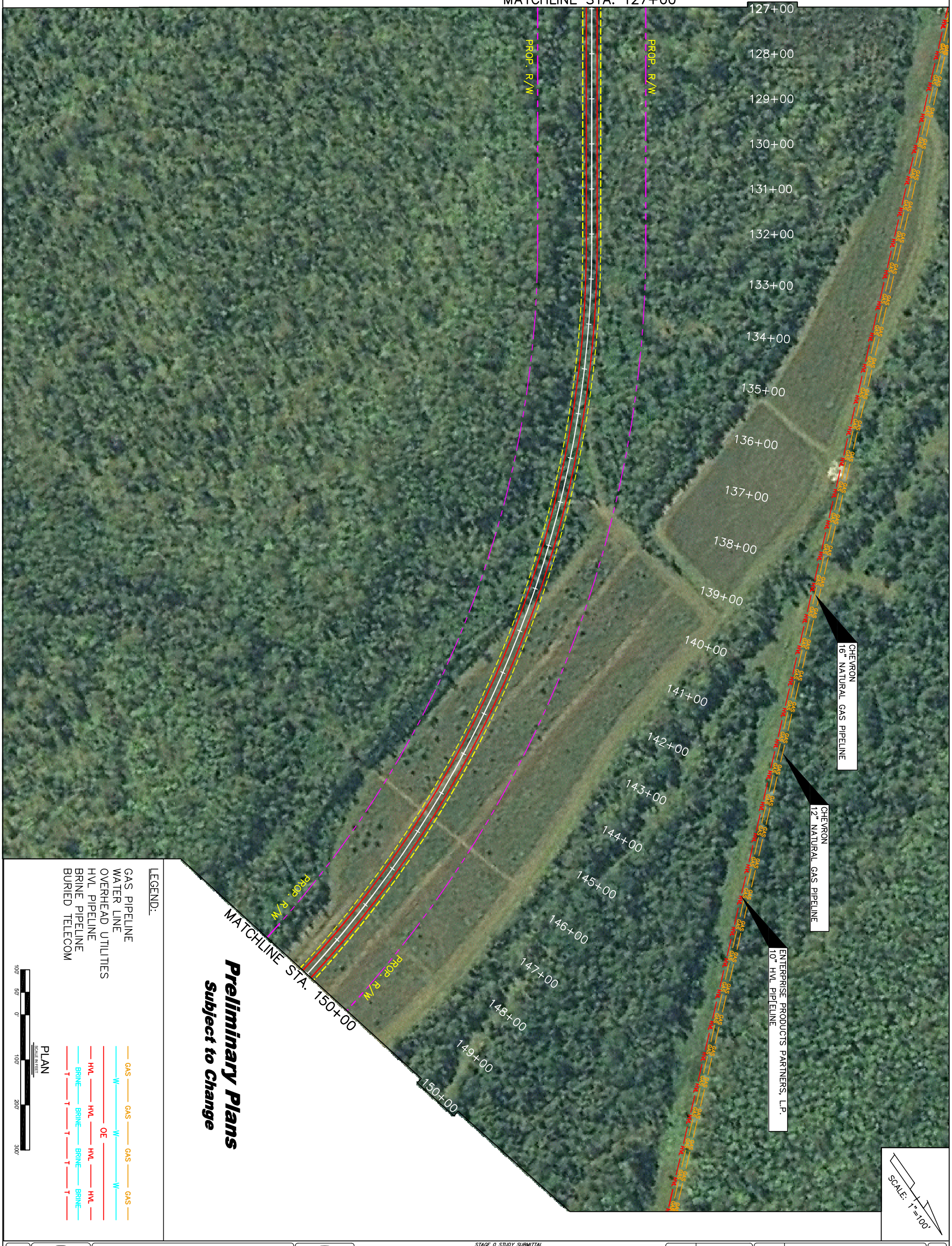
STAGE 0 STUDY SUBMITTAL

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: D.HYMEL
LICENSE: 38172
DATE: 10/1/2013

DESIGNED		PARISH	ASSUMPTION
CHECKED			
DETAILED	D. BINET	FEDERAL PROJECT	
CHECKED	P. OLIVIER		
DATE	OCT. 2013	STATE PROJECT	
SHEET			

SHEET NUMBER A-14



Preliminary Plans
Subject to Change

LEGEND:

- GAS PIPELINE
- WATER LINE
- OVERHEAD UTILITIES
- HVL PIPELINE
- BRINE PIPELINE
- BURIED TELECOM

PLAN
SCALE IN FEET
100' 50' 0' 100' 200' 300'

PLAN – EXISTING UTILITIES
BYPASS ROUTE 1

LA 70 BYPASS STAGE 0 FEASIBILITY STUDY

STAGE 0 STUDY SUBMITTAL

PRELIMINARY
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Louisiana Department of Transportation and Development
ENGINEER: D.HYMEL
LICENSE: 38172
DATE: 10/1/2013

DESIGNED		PARISH	ASSUMPTION
CHECKED			
DETAILED	D. BINET	FEDERAL PROJECT	
CHECKED	P. OLIVIER		
DATE	OCT. 2013	STATE PROJECT	
SHEET			

SHEET NUMBER A-15

MATCHLINE STA. 150+00

150+00
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171+00
172+00
173+00
174+00
175+00
176+00

PROP. R/W

PROP. R/W

PROP. R/W

PROP. R/W

CHEVRON 12" NATURAL GAS PIPELINE

CHEVRON 16" NATURAL GAS PIPELINE

ENTERPRISE PRODUCTS PARTNERS, L.P. 10" HVL PIPELINE

Preliminary Plans
Subject to Change

MATCHLINE STA. 176+00

LEGEND:

GAS PIPELINE
WATER LINE
OVERHEAD UTILITIES
HVL PIPELINE
BRINE PIPELINE
BURIED TELECOM

PLAN
SCALE IN FEET
100' 50' 0' 100' 200' 300'

SCALE: 1"=100'

PLAN – EXISTING UTILITIES
BYPASS ROUTE 1

LA 70 BYPASS STAGE 0 FEASIBILITY STUDY

STAGE 0 STUDY SUBMITTAL

PRELIMINARY
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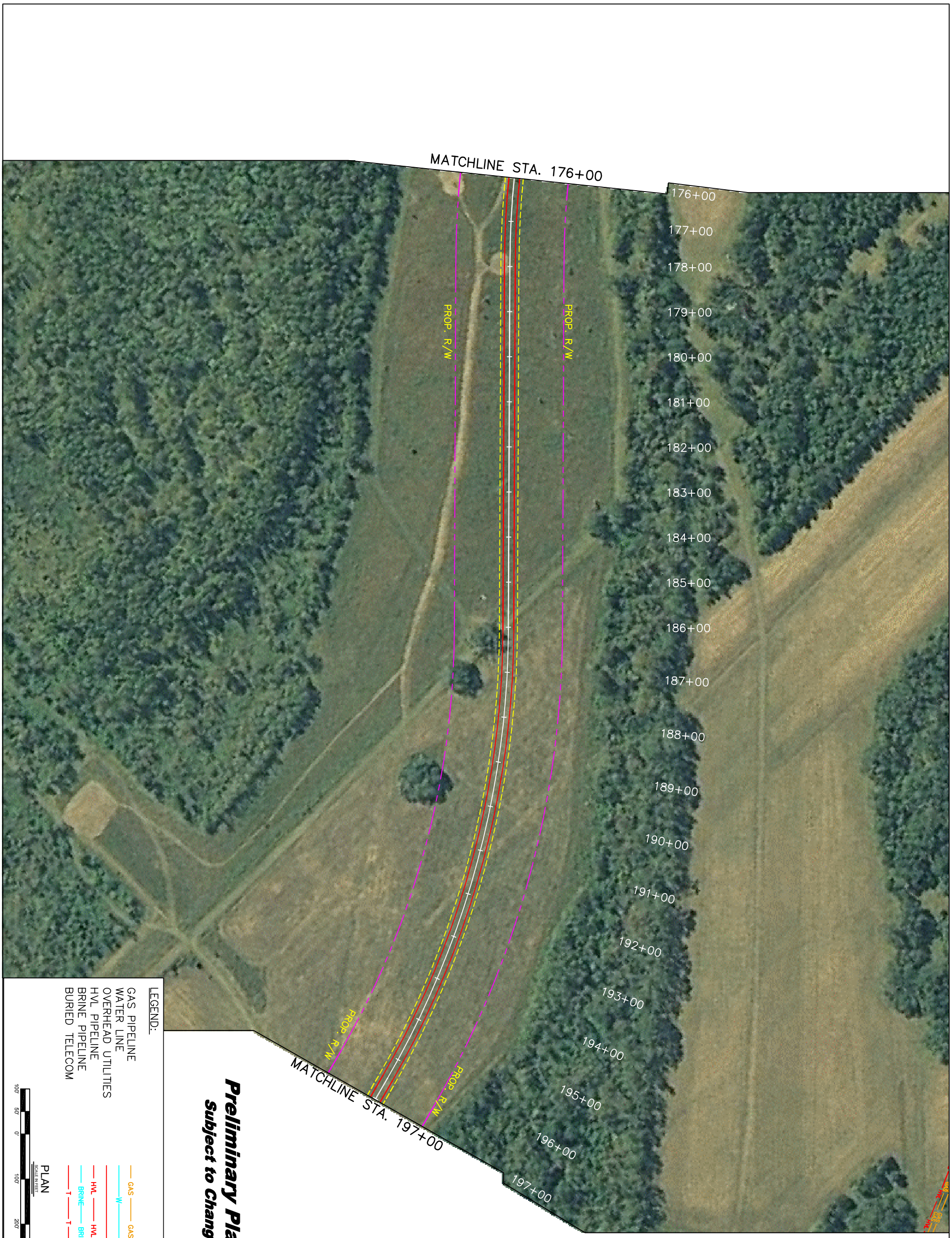
Louisiana Department of Transportation and Development
ENGINEER: D.HYMEL
LICENSE: 38172
DATE: 10/1/2013

DESIGNED		PARISH	ASSUMPTION
CHECKED			
DETAILED	D. BINET	FEDERAL PROJECT	
CHECKED	P. OLIVIER		
DATE	OCT. 2013	STATE PROJECT	
SHEET			

SHEET NUMBER A-16



LEGEND:

GAS PIPELINE
WATER LINE
OVERHEAD UTILITIES
HVL PIPELINE
BRINE PIPELINE
BURIED TELECOM

PLAN
SCALE IN FEET
100' 50' 0 100' 200' 300'

Preliminary Plans
Subject to Change

SCALE: 1" = 100'

PLAN – EXISTING UTILITIES
BYPASS ROUTE 1

LA 70 BYPASS STAGE 0 FEASIBILITY STUDY

STAGE 0 STUDY SUBMITTAL

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DESIGNED		PARISH	ASSUMPTION
CHECKED			
DETAILED	D. BINET	FEDERAL PROJECT	
CHECKED	P. OLIVIER		
DATE	OCT. 2013	STATE PROJECT	
SHEET			

SHEET NUMBER A-17

PLAN – EXISTING UTILITIES
BYPASS ROUTE 1

LA 70 BYPASS STAGE 0 FEASIBILITY STUDY

Preliminary Plans
Subject to Change

LEGEND:

GAS PIPELINE
WATER LINE
OVERHEAD UTILITIES
HVL PIPELINE
BRINE PIPELINE
BURIED TELECOM

PLAN
SCALE IN FEET
100' 50' 0' 100' 200' 300'

MATCHLINE STA. 197+00

MATCHLINE STA. 224+00

PROP. R/W

HWY 69

HWY 996

NUSTAR ENERGY
8" HVL PIPELINE

OVERHEAD ELECTRIC
WITH CABLE

TEXAS BRINE COMPANY, L.L.C.
12" BRINE PIPELINE

CROSSTEX ENERGY
6" HVL PIPELINE

CHEVRON 4"
HVL PIPELINE

CROSSTEX ENERGY
4" HVL PIPELINE

CROSSTEX ENERGY
4" HVL PIPELINE

DOW
12" PROPYLENE PIPELINE

DOW
8" LIQUID PETROLEUM GAS PIPELINE

DOW
16" ETHYLENE PIPELINE

DOW
8" LIQUID PETROLEUM GAS PIPELINE

DOW
8" BUTANE PIPELINE

DOW
20" BUTANE PIPELINE

DOW
12" PROPANE PIPELINE

DOW
8" BUTANE PIPELINE

DOW
24" BRINE PIPELINE

ENTERPRISE PRODUCTS PARTNERS, L.P.
12" HVL PIPELINE

5.5', D.O.C.
2.59', N.G.

5.1', D.O.C.
4.04', N.G.

4.7', D.O.C.
3.81', N.G.

2.6', D.O.C.
2.13', N.G.

3.7', D.O.C.
2.23', N.G.

2.5', D.O.C.
1.82', N.G.

STA.	OWNER	SIZE (IN)	CONTENTS	AVG. D.O.C. (FT)	AVG. N.G. (FT)
217+58.26	DOW	24	BRINE	3.3	2.34
217+74.63	DOW	8	BUTANE	4.0	2.27
217+81.14	DOW	12	PROPANE	4.2	2.31
217+87.95	DOW	8	LIQUID PETROLEUM GAS	3.2	2.21
217+92.34	DOW	16	ETHYLENE	3.2	2.16
218+01.92	DOW	8	LIQUID PETROLEUM GAS	2.5	2.19
218+11.85	DOW	12	PROPYLENE	3.5	2.30
218+18.44	DOW	20	BUTANE	2.4	2.19
218+23.60	DOW	8	BUTANE	UNK	UNK
218+24.98	CROSSTEX	4	HVL	2.3	2.37
218+28.60	CROSSTEX	4	HVL	2.2	2.45

SCALE: 1"=100'

STAGE 0 STUDY SUBMITTAL
Louisiana Department of Transportation and Development
ENGINEER: D.HYMEL
LICENSE: 30172
DATE: 10/1/2013

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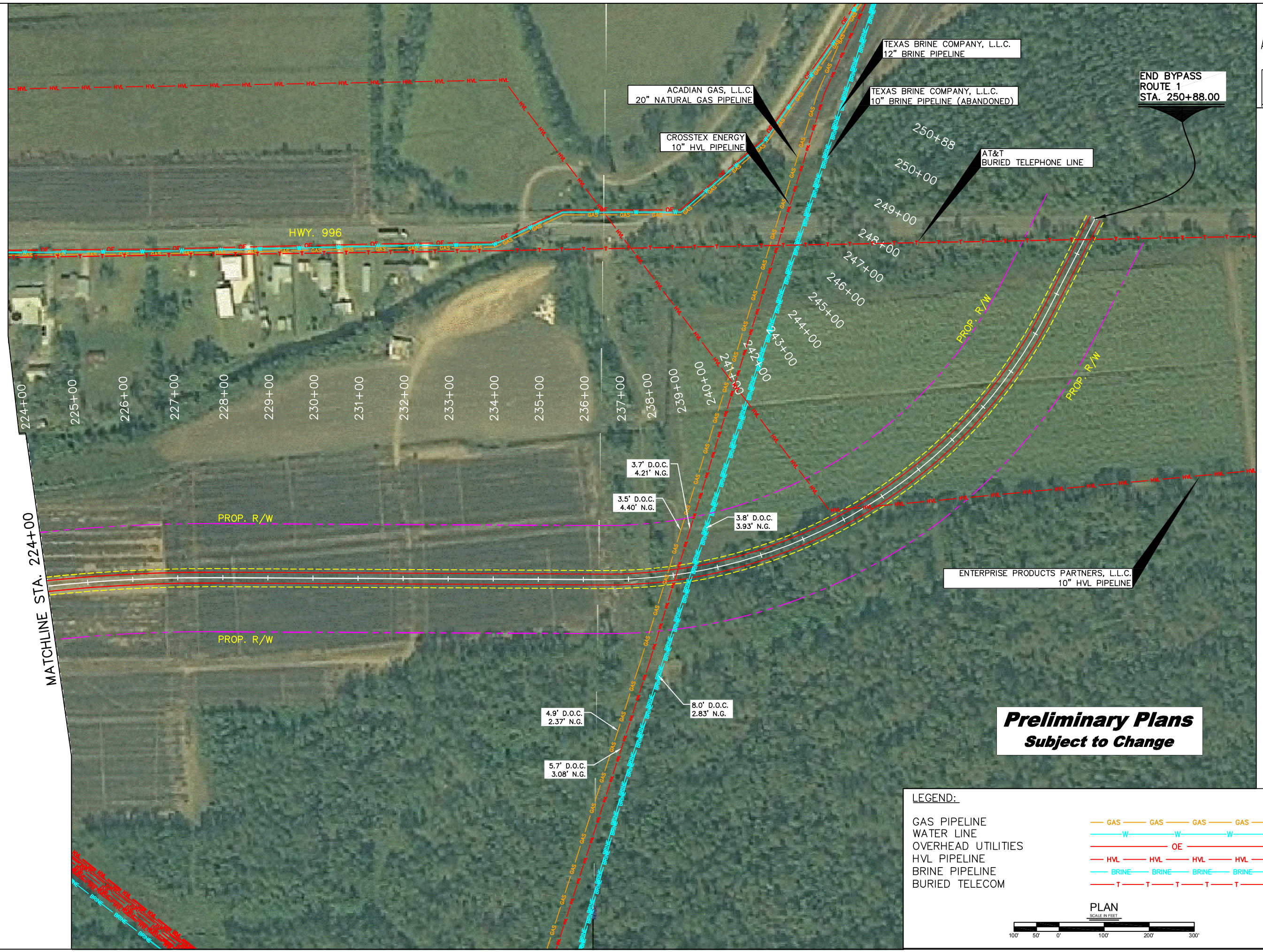
DESIGNED		PARISH	ASSUMPTION
CHECKED			
DETAILED	D. BINET	FEDERAL PROJECT	
CHECKED	P. OLIVIER		
DATE	OCT. 2013	STATE PROJECT	
SHEET			

SHEET NUMBER A-18



LEGEND:

GAS PIPELINE	GAS GAS GAS GAS
WATER LINE	W W W
OVERHEAD UTILITIES	OE
HVL PIPELINE	HVL HVL HVL HVL
BRINE PIPELINE	BRINE BRINE BRINE BRINE
BURIED TELECOM	T T T T T

PLAN
SCALE IN FEET
100' 50' 0' 100' 200' 300'

SCALE: 1"=100'

SHEET NUMBER	A-19
PARISH	ASSUMPTION
FEDERAL PROJECT	
STATE PROJECT	
DESIGNED	
CHECKED	
DETAILED	D. BINET
CHECKED	P. OLIVIER
DATE	OCT. 2013
SHEET	

STAGE 0 STUDY SUBMITTAL
Louisiana Department of Transportation and Development
ENGINEER: D.AYMEL
LICENSE: 38172
DATE: 10/1/2013

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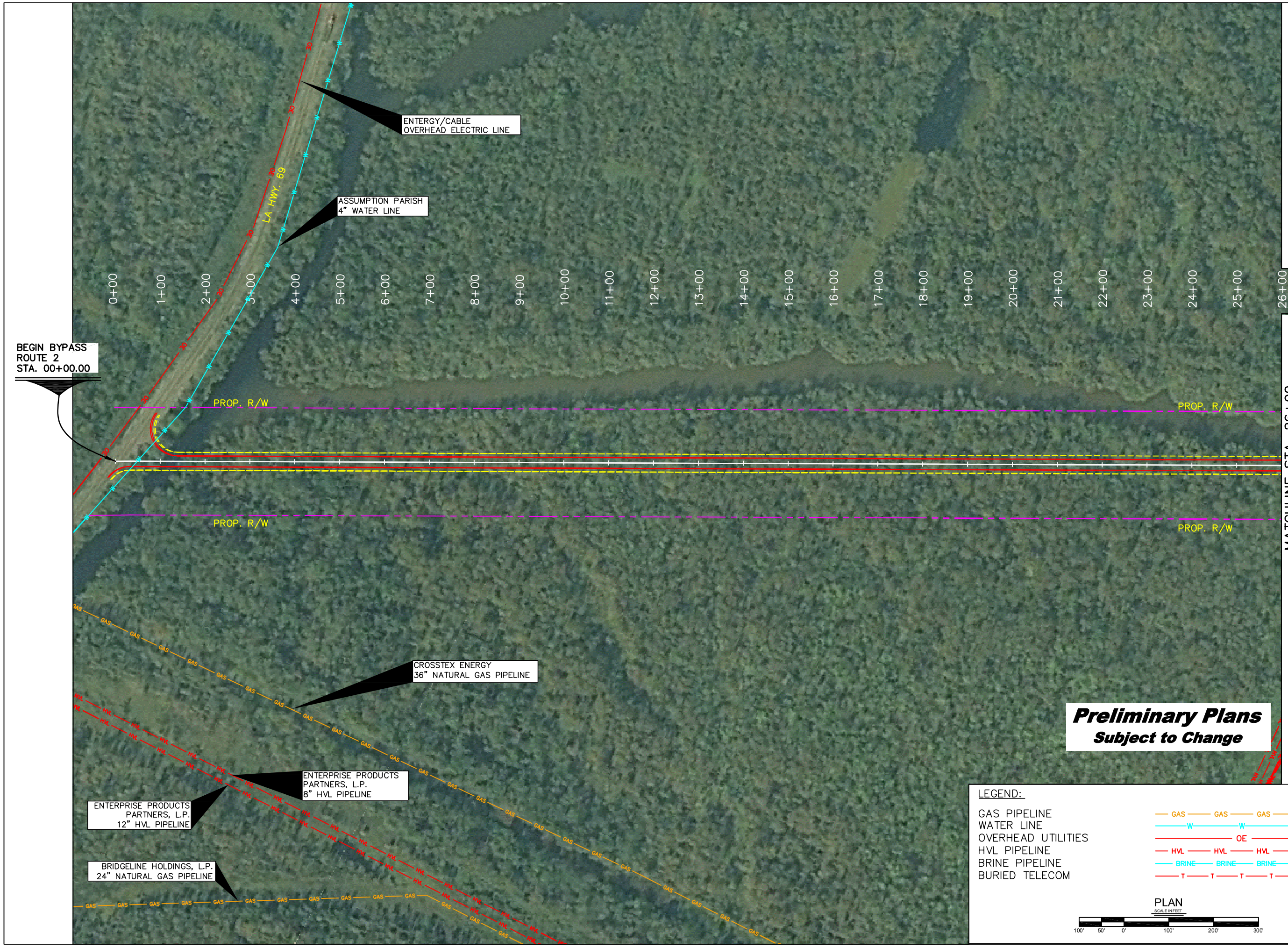
PLAN – EXISTING UTILITIES
BYPASS ROUTE 1

LA 70 BYPASS STAGE 0 FEASIBILITY STUDY

LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

TBS



SHEET NUMBER B–11

PARISH ASSUMPTION

FEDERAL PROJECT

STATE PROJECT

DESIGNED
CHECKED

DETAILED D. BINET
CHECKED P. OLIVIER

DATE OCT 2013
SHEET

STAGE 0 STUDY SUBMITTAL
Louisiana Department of Transportation and Development
ENGINEER: D.HYMEL
LICENSE: 38172
DATE: 10/1/2013

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PLAN – EXISTING UTILITIES
BYPASS ROUTE 2

LA 70 BYPASS STAGE 0 FEASIBILITY STUDY

STATE OF LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

TBS

MATCHLINE STA. 26+00

MATCHLINE STA. 53+00

BOARDWALK PIPELINE PARTNERS, L.P.
12" ETHANE PIPELINE

8.7' D.O.C.
1.31' N.G.

1.25' N.G.

1.45' N.G.

ENTERPRISE PRODUCTS PARTNERS, L.P.
6" HVL PIPELINE

15.0' D.O.C.
1.79' N.G.

1.39' N.G.

1.27' N.G.

SHELL
10" HVL PIPELINE

SHELL
12" HVL PIPELINE

9.0' D.O.C.
0.79' N.G.

4.5' D.O.C.
2.02' N.G.

4.9' D.O.C.
1.38' N.G.

4.6' D.O.C.
2.04' N.G.

9.0' D.O.C.
2.80' N.G.

5.4' D.O.C.
1.37' N.G.

5.1' D.O.C.
1.16' N.G.

4.0' D.O.C.
2.03' N.G.

7.0' D.O.C.
1.75' N.G.

ENTERPRISE PRODUCTS PARTNERS, L.P.
8" HVL PIPELINE

EXXON MOBIL
8" HVL PIPELINE

ENTERPRISE PRODUCTS PARTNERS, L.P.
8" HVL PIPELINE

PROP. R/W

PROP. R/W

CHEVRON
4" HVL PIPELINE

3.5' D.O.C.
2.80' N.G.

3.6' D.O.C.
2.30' N.G.

3.0' D.O.C.
1.90' N.G.

3.4' D.O.C.
2.67' N.G.

4.2' D.O.C.
3.40' N.G.

NUSTAR ENERGY, L.P.
8" HVL PIPELINE

CHEVRON
8" HVL PIPELINE

4.5' D.O.C.
1.97' N.G.

5.5' D.O.C.
2.45' N.G.

3.9' D.O.C.
1.71' N.G.

3.8' D.O.C.
1.95' N.G.

4.0' D.O.C.
2.67' N.G.

5.1' D.O.C.
3.61' N.G.

26+00
27+00
28+00
29+00
30+00
31+00
32+00
33+00
34+00
35+00
36+00
37+00
38+00
39+00
40+00
41+00
42+00
43+00
44+00
45+00
46+00
47+00
48+00
49+00
50+00
51+00
52+00
53+00

Preliminary Plans
Subject to Change

LEGEND:

GAS PIPELINE
WATER LINE
OVERHEAD UTILITIES
HVL PIPELINE
BRINE PIPELINE
BURIED TELECOM

PLAN
SCALE IN FEET
100' 50' 0' 100' 200' 300'

SCALE: 1"=100'

PLAN – EXISTING UTILITIES
BYPASS ROUTE 2

LA 70 BYPASS STAGE 0 FEASIBILITY STUDY

STAGE 0 STUDY SUBMITTAL

PRELIMINARY
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Louisiana Department of Transportation and Development
ENGINEER: D.HYMEL
LICENSE: 38172
DATE: 10/1/2013

DESIGNED		PARISH	ASSUMPTION
CHECKED			
DETAILED	D. BINET	FEDERAL PROJECT	
CHECKED	P. OLIVIER		
DATE	OCT. 2013	STATE PROJECT	
SHEET			

SHEET NUMBER B-12

MATCHLINE STA. 53+00

53+00
54+00
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73+00
74+00
75+00
76+00
77+00
78+00
79+00
80+00

PROP. R/W

PROP. R/W

W. STAR ROAD

BOARDWALK PIPELINE PARTNERS, L.P.
6" PROPYLENE PIPELINE

CHEVRON
6" HVL PIPELINE

4.7' D.O.C.
3.49' N.G.

5.2' D.O.C.
4.04' N.G.

6.0' D.O.C.
4.53' N.G.

4.3' D.O.C.
3.68' N.G.

4.6' D.O.C.
4.51' N.G.

4.8' D.O.C.
4.47' N.G.

PROP. R/W

PROP. R/W

Preliminary Plans
Subject to Change

LEGEND:

GAS PIPELINE
WATER LINE
OVERHEAD UTILITIES
HVL PIPELINE
BRINE PIPELINE
BURIED TELECOM

PLAN
SCALE IN FEET
100' 50' 0' 100' 200' 300'

MATCHLINE STA. 80+00

SCALE: 1"=100'

PLAN – EXISTING UTILITIES
BYPASS ROUTE 2

LA 70 BYPASS STAGE 0 FEASIBILITY STUDY

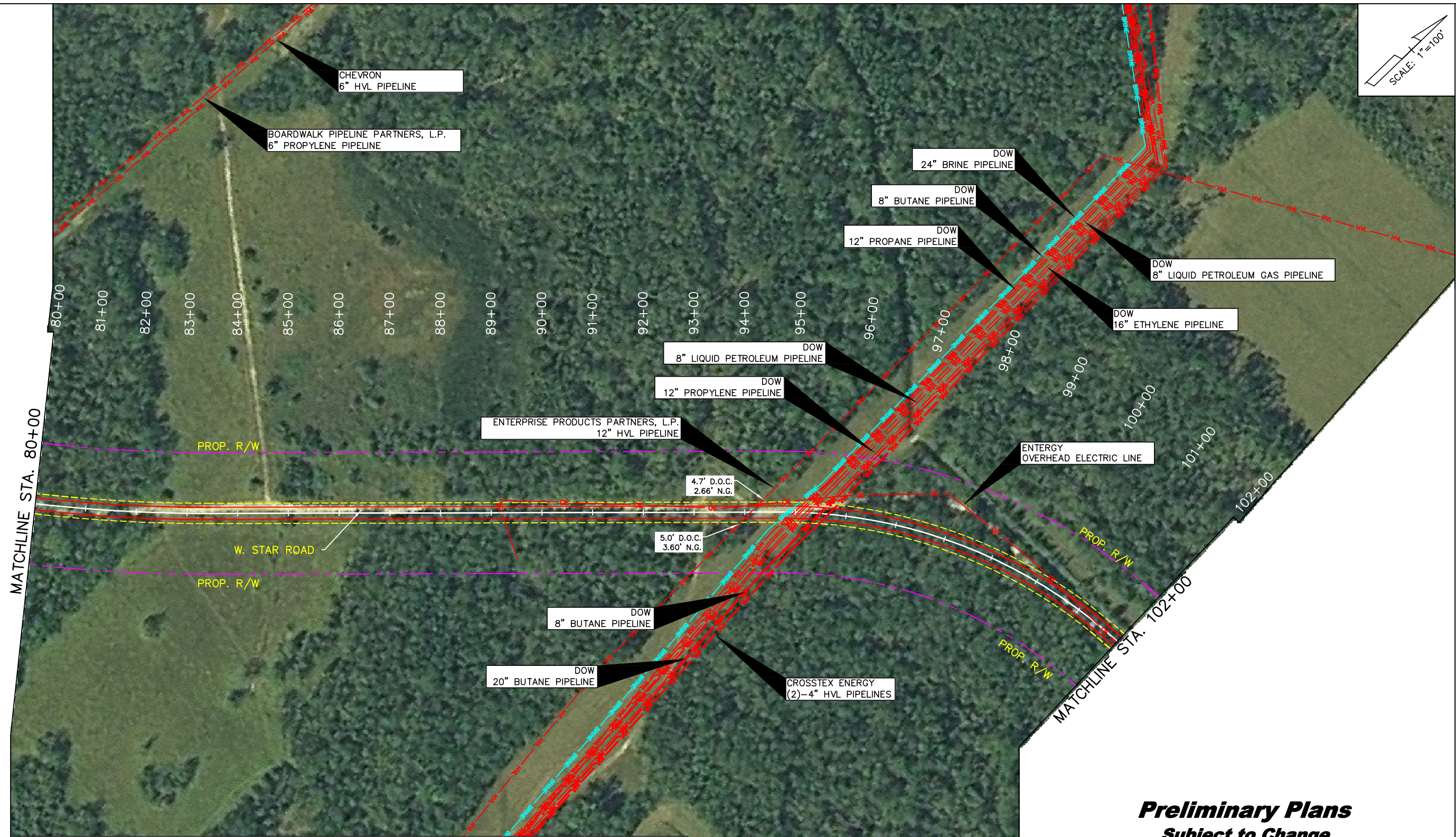
STAGE 0 STUDY SUBMITTAL

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: D.HYMEL
LICENSE: 38172
DATE: 10/1/2013

DESIGNED		PARISH	ASSUMPTION
CHECKED			
DETAILED	D. BINET	FEDERAL	
CHECKED	P. OLIVIER	PROJECT	
DATE	OCT. 2013	STATE	
SHEET		PROJECT	

SHEET NUMBER B-13



STA.	OWNER	SIZE (IN)	CONTENTS	AVG. D.O.C. (FT)	AVG. N.G. (FT)
94+85.95	DOW	24	BRINE	5.6	3.25
94+97.60	DOW	8	BUTANE	5.5	3.15
95+05.71	DOW	12	PROPANE	5.1	3.09
95+10.46	DOW	8	LIQUID PETROLEUM GAS	5.6	3.12
95+20.38	DOW	16	ETHYLENE	3.7	3.09
95+27.33	DOW	8	LIQUID PETROLEUM GAS	2.9	3.05
95+45.86	DOW	12	PROPYLENE	4.5	3.12
95+49.96	DOW	20	BUTANE	4.3	2.55
95+51.26	DOW	8	BUTANE	UNK	3.07
95+64.63	CROSSTEX	4	HVL	UNK	3.10
95+66.60	CROSSTEX	4	HVL	3.7	3.23

Preliminary Plans
Subject to Change

LEGEND:

GAS PIPELINE	GAS GAS GAS GAS
WATER LINE	W W W
OVERHEAD UTILITIES	OE
HVL PIPELINE	HVL HVL HVL HVL
BRINE PIPELINE	BRINE BRINE BRINE BRINE
BURIED TELECOM	T T T T T

PLAN
SCALE IN FEET
100' 50' 0' 100' 200' 300'

SHEET NUMBER B–14

ASSUMPTION

PARISH | FEDERAL PROJECT | STATE PROJECT

DESIGNED
CHECKED
DETAILED D. BINET
CHECKED P. OLIVIER
DATE OCT. 2013
SHEET

STAGE 0 STUDY SUBMITTAL
Louisiana Department of Transportation and Development
ENGINEER: D.HYMEL
LICENSE: 38172
DATE: 10/1/2013

PRELIMINARY
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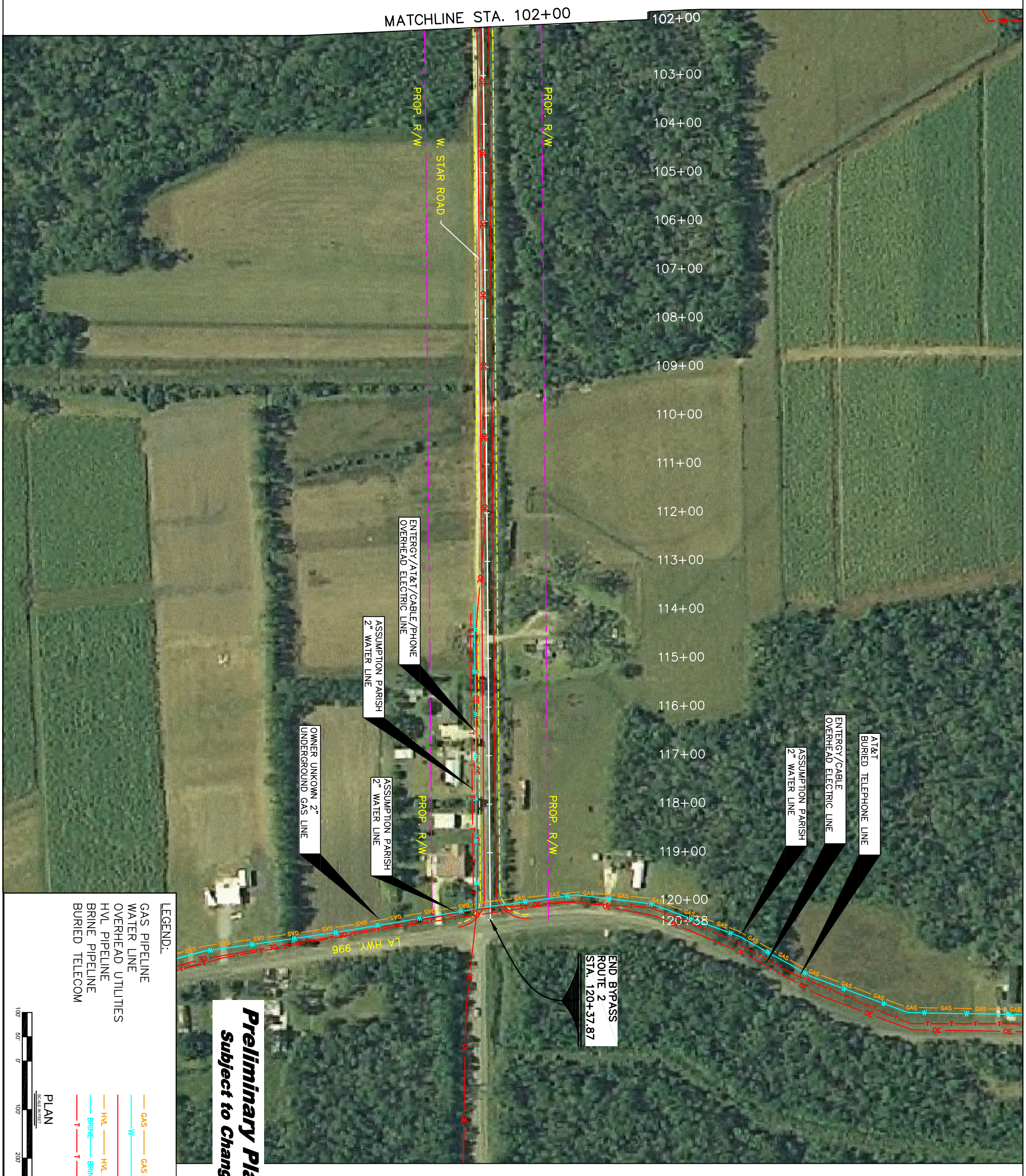
PLAN – EXISTING UTILITIES
BYPASS ROUTE 2

LA 70 BYPASS STAGE 0 FEASIBILITY STUDY

STATE OF LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT DOTD

TBS



PLAN – EXISTING UTILITIES

BYPASS ROUTE 2

LA 70 BYPASS STAGE 0 FEASIBILITY STUDY

STAGE 0 STUDY SUBMITTAL

PRELIMINARY

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Louisiana Department of Transportation and Development

ENGINEER: D.HYMEL

LICENSE: 38172

DATE: 10/1/2013

DESIGNED		PARISH	ASSUMPTION
CHECKED			
DETAILED	D. BINET	FEDERAL PROJECT	
CHECKED	P. OLIVIER		
DATE	OCT. 2013	STATE PROJECT	
SHEET			

SHEET NUMBER B-15

ENTERGY/CABLE
OVERHEAD ELECTRIC LINE

ASSUMPTION PARISH
4" WATER LINE

LA HWY. 69

BEGIN BYPASS
ROUTE 3
STA. 00+00.00

0+00 1+00 2+00 3+00 4+00 5+00 6+00 7+00 8+00 9+00 10+00 11+00 12+00 13+00 14+00 15+00 16+00 17+00 18+00 19+00 20+00 21+00 22+00 23+00 24+00 25+00 26+00

PROP. R/W

PROP. R/W

PROP. R/W

PROP. R/W

MATCHLINE STA. 26+00

CROSSTEX ENERGY
36" NATURAL GAS PIPELINE

ENTERPRISE PRODUCTS PARTNERS, L.P.
8" HVL PIPELINE

ENTERPRISE PRODUCTS PARTNERS, L.P.
12" HVL PIPELINE

BRIDGELINE
24" NATURAL GAS PIPELINE

Preliminary Plans
Subject to Change

LEGEND:

GAS PIPELINE	GAS GAS GAS GAS
WATER LINE	W W W
OVERHEAD UTILITIES	OE
HVL PIPELINE	HVL HVL HVL HVL
BRINE PIPELINE	BRINE BRINE BRINE BRINE
BURIED TELECOM	T T T T T

PLAN
SCALE IN FEET
100' 50' 0' 100' 200' 300'

SCALE: 1"=100'

SHEET NUMBER	C-10
PARISH	ASSUMPTION
FEDERAL PROJECT	
STATE PROJECT	
DESIGNED	
CHECKED	
DETAILED	D. BINET
CHECKED	P. OLIVIER
DATE	OCT. 2013
SHEET	

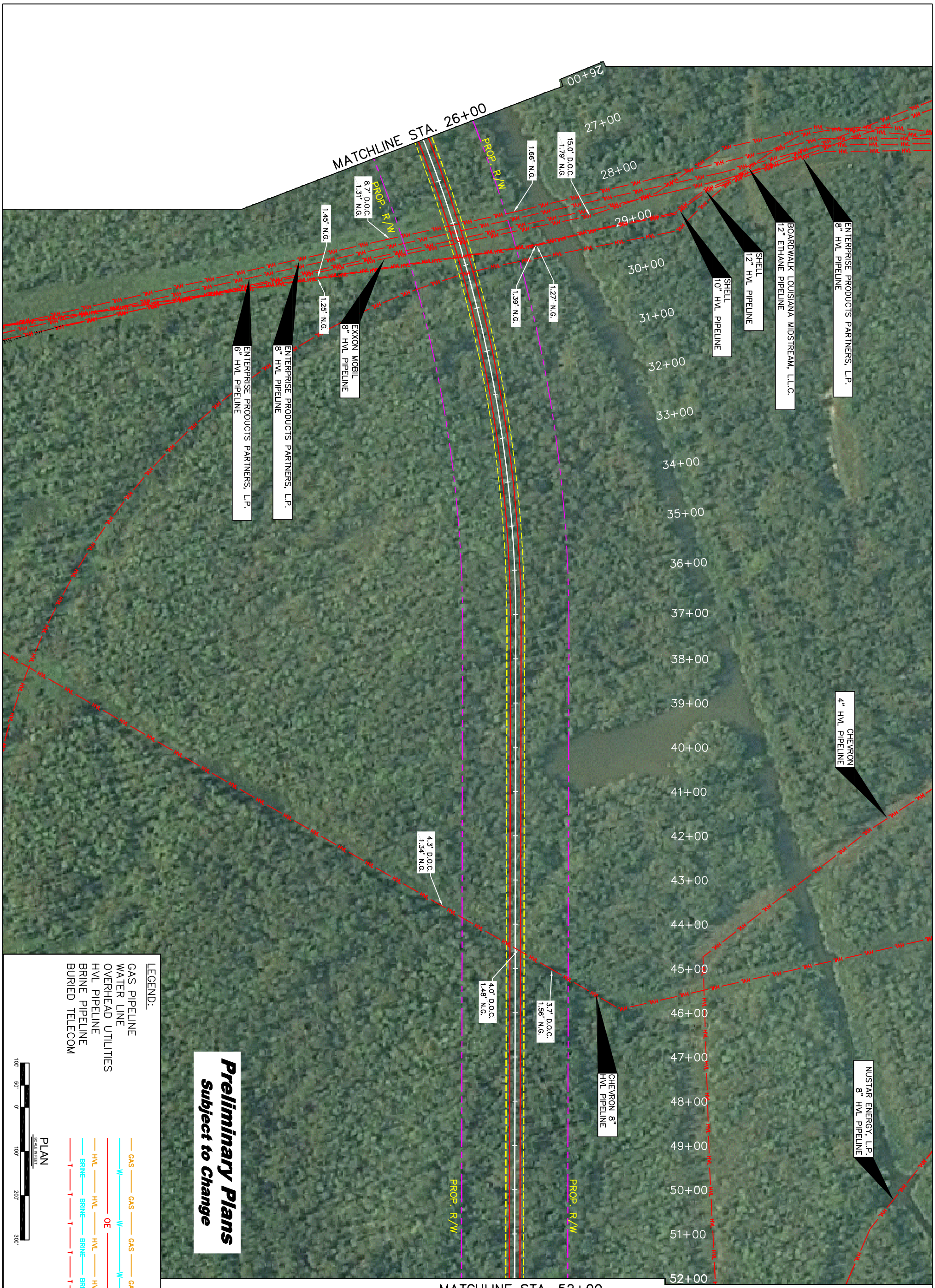
STAGE 0 STUDY SUBMITTAL.
Louisiana Department of Transportation and Development
ENGINEER: D.AYMEL
LICENSE: 38172
DATE: 10/1/2013

PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION, BIDDING OR RECORDATION PURPOSES. CONSIDERED AS THE BASIS FOR THE ISSUANCE OF A PERMIT

PLAN – EXISTING UTILITIES
BYPASS ROUTE 3

LA 70 STAGE 0 STUDY

TBS



PLAN – EXISTING UTILITIES

BYPASS ROUTE 3

LA 70 STAGE 0 STUDY

STAGE 0 STUDY SUBMITTAL

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: D.HYMEL

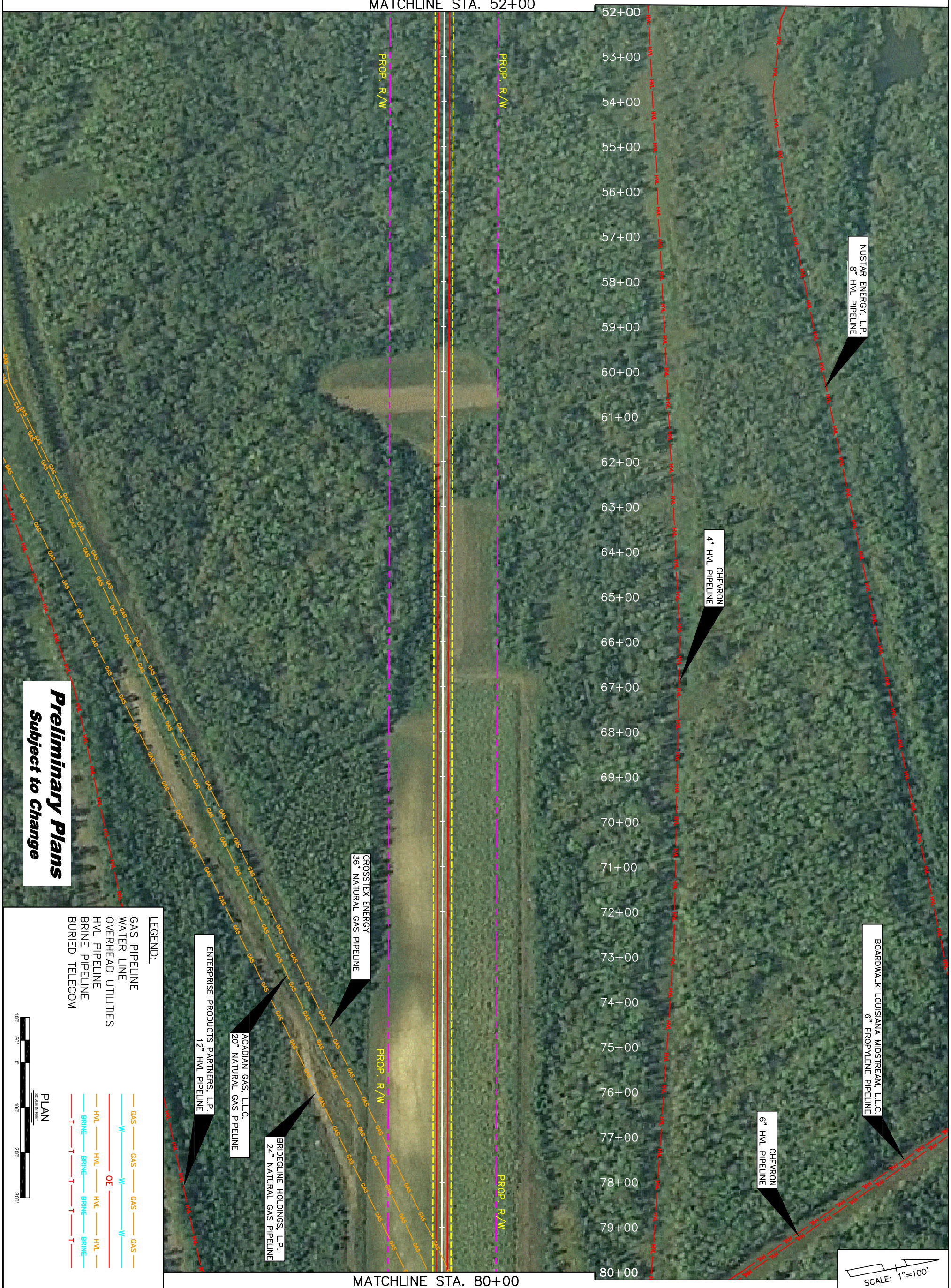
LICENSE: 38172

DATE: 10/1/2013

DESIGNED		PARISH	ASSUMPTION
CHECKED			
DETAILED	D. BINET	FEDERAL PROJECT	
CHECKED	P. OLIVIER		
DATE	OCT. 2013	STATE PROJECT	
SHEET			

SHEET NUMBER C-11

MATCHLINE STA. 52+00



MATCHLINE STA. 80+00

PLAN – EXISTING UTILITIES
BYPASS ROUTE 3

LA 70 STAGE 0 STUDY

STAGE 0 STUDY SUBMITTAL

PRELIMINARY

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Louisiana Department of Transportation and Development

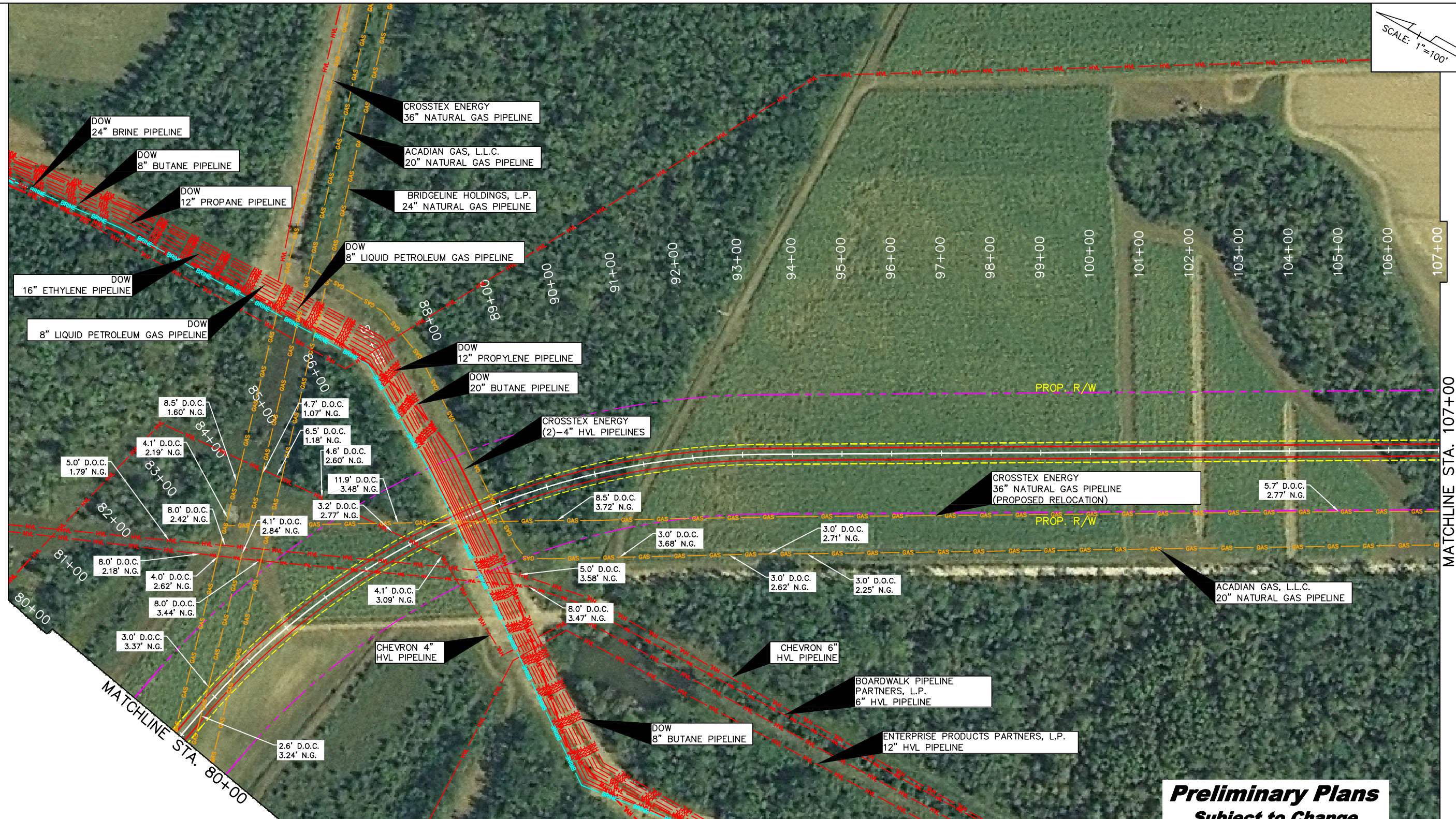
ENGINEER: D.HYMEL

LICENSE: 38172

DATE: 10/1/2013

DESIGNED		PARISH	ASSUMPTION
CHECKED			
DETAILED	D. BINET	FEDERAL PROJECT	
CHECKED	P. OLIVIER		
DATE	OCT. 2013	STATE PROJECT	
SHEET			

SHEET NUMBER C-12



STA.	OWNER	SIZE (IN)	CONTENTS	AVG. D.O.C. (FT)	AVG. N.G. (FT)
87+01.14	DOW	24	BRINE	4.2	3.72
87+05.62	DOW	8	BUTANE	5.5	3.72
87+11.79	DOW	12	PROPANE	3.5	3.65
87+15.68	DOW	8	LIQUID PETROLEUM GAS	4.2	3.65
87+19.63	DOW	16	ETHYLENE	3.9	3.73
87+23.95	DOW	8	LIQUID PETROLEUM GAS	4.8	3.77
87+31.22	DOW	12	PROPYLENE	2.8	3.88
87+37.86	DOW	20	BUTANE	3.4	3.99
87+45.87	DOW	8	BUTANE	3.7	3.90
87+60.03	CROSSTEX	4	HVL	4.0	4.10
87+61.71	CROSSTEX	4	HVL	4.1	4.10

Preliminary Plans
Subject to Change

LEGEND:

- GAS PIPELINE
- WATER LINE
- OVERHEAD UTILITIES
- HVL PIPELINE
- BRINE PIPELINE
- BURIED TELECOM

PLAN
SCALE IN FEET
100' 50' 0' 100' 200' 300'

SHEET NUMBER C-13

ASSUMPTION

PARISH | FEDERAL PROJECT | STATE PROJECT

DESIGNED
CHECKED
DETAILED D. BINET
CHECKED P. OLIVIER
DATE OCT. 2013
SHEET

STAGE 0 STUDY SUBMITTAL
Louisiana Department of Transportation and Development
ENGINEER: D.AYMEL
LICENSE: 38172
DATE: 10/1/2013

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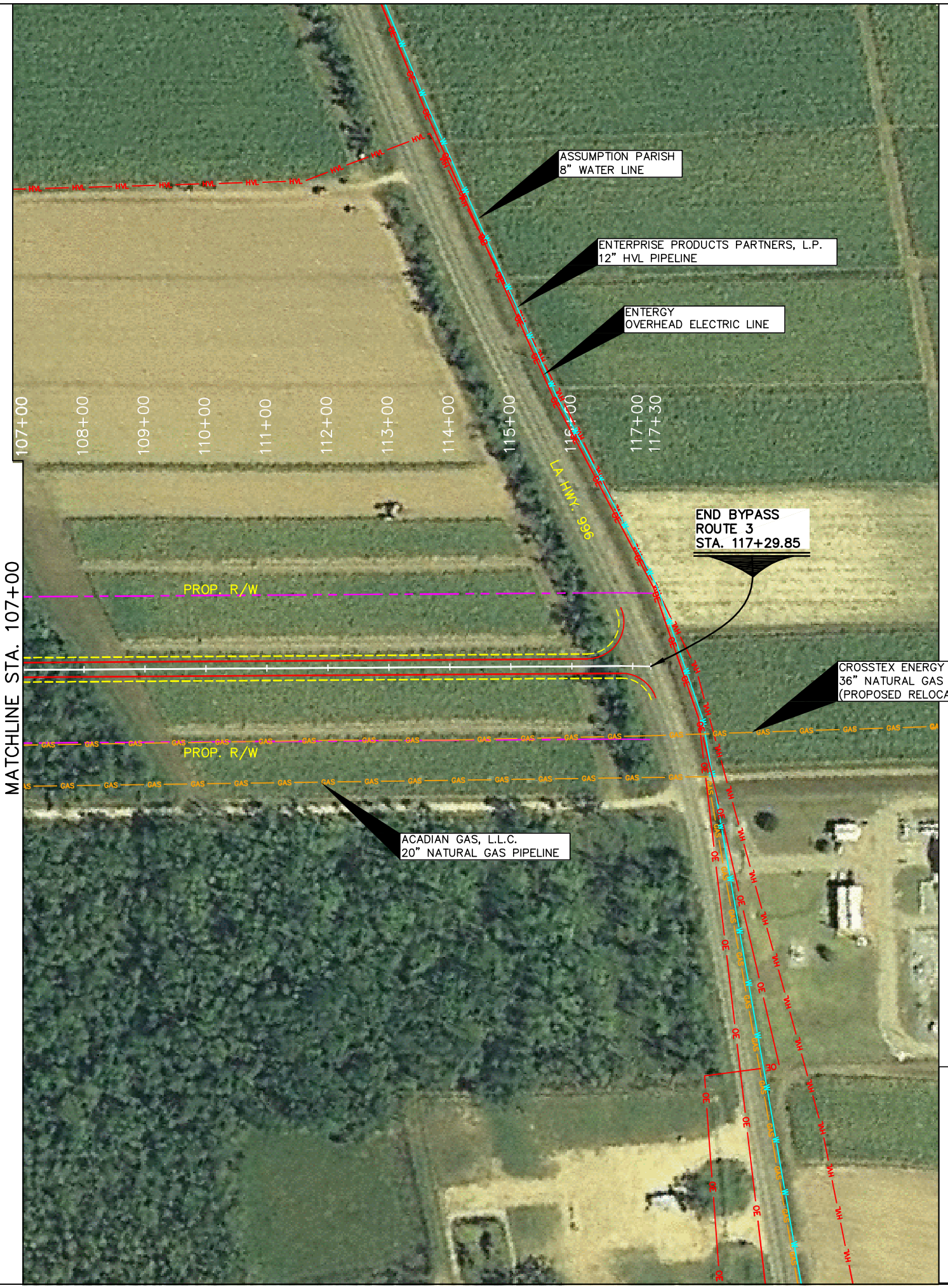
PLAN – EXISTING UTILITIES
BYPASS ROUTE 3

LA 70 STAGE 0 STUDY

LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
DOTD

TBS



SCALE: 1"=100'

Preliminary Plans
Subject to Change

LEGEND:

GAS PIPELINE	GAS GAS GAS GAS
WATER LINE	W W W
OVERHEAD UTILITIES	OE
HVL PIPELINE	HVL HVL HVL HVL
BRINE PIPELINE	BRINE BRINE BRINE BRINE
BURIED TELECOM	T T T T T

PLAN
SCALE IN FEET
100' 50' 0' 100' 200' 300'

SHEET NUMBER	C–14
PARISH	ASSUMPTION
FEDERAL PROJECT	
STATE PROJECT	
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DETAILED	D. BINET
CHECKED	P. OLIVIER
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SHEET	

STAGE 0 STUDY SUBMITTAL
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PLAN – EXISTING UTILITIES
BYPASS ROUTE 3

LA 70 STAGE 0 STUDY