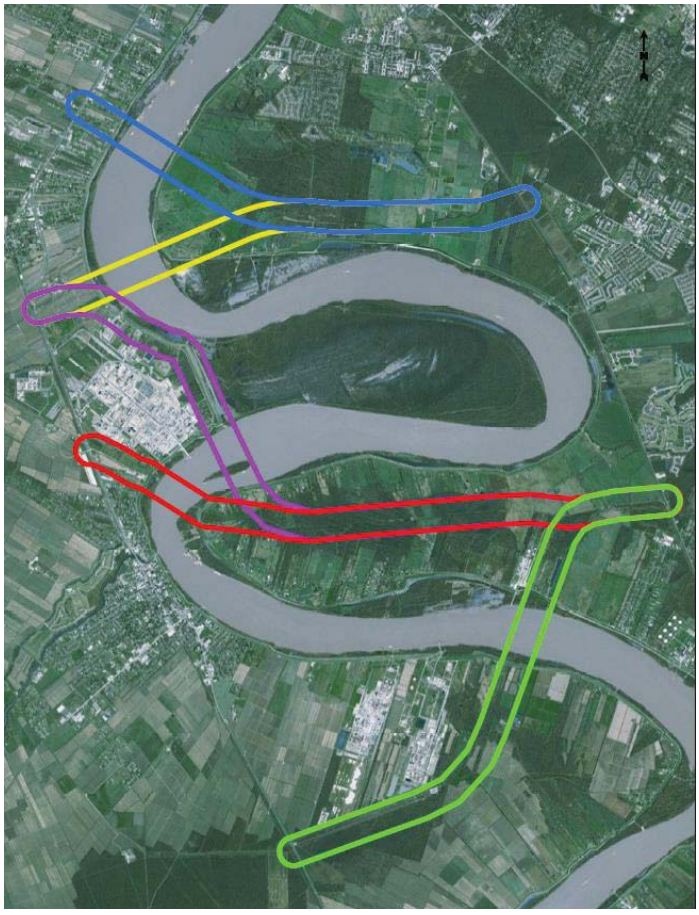
AUGUST 2016

LA 1 TO LA 30 CONNECTOR STAGE 0 FEASIBILITY STUDY

STATE PROJECT NO. H.004100
FEDERAL AID PROJECT NUMBER H004100



EAST AND WEST BATON ROUGE AND IBERVILLE PARISHES, LOUISIANA

DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

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1.0 INTRODUCTION

1.1 Project Description

The Louisiana Department of Transportation and Development (DOTD) and the Interstate 10 (I-10) Corridor Improvement Study Project Team are conducting a Stage 0 Feasibility Study and Environmental Inventory (Feasibility Study) to provide an additional Mississippi River crossing connecting Louisiana Highway 1 (LA 1) to Louisiana Highway 30 (LA 30) at a location between the existing I-10 Mississippi River Bridge and the Sunshine Bridge in Donaldsonville, Louisiana. The crossing locations being studied are located within East Baton Rouge, West Baton Rouge, and Iberville Parishes, Louisiana. The crossing would be a multi-lane structure with roadways connecting LA 1 to LA 30. This connection is proposed to run generally east-west and provide an alternative route for industrial and residential traffic to Baton Rouge and the surrounding areas. As the proposed action involves the installation of a new Mississippi River bridge crossing, consistent with the Statewide Transportation Plan's (STP) Rail Vision, this feasibility study will also consider a bridge structure that integrates rail line. This study accompanies, but is independent of, the I-10 Corridor Stage 0 study, DOTD Project No. H.004100 and Federal Aid Project No. H004100.

1.2 Purpose and Need

Traffic congestion in the Baton Rouge metropolitan area has grown so that improvements to the mainline of I-10 alone cannot solve the issues. A regional approach to improvement projects is necessary. The Baton Rouge Metropolitan long range plan reflects this approach and includes several off-interstate projects along with an improvement to I-10 through Baton Rouge.

The purpose of the proposed project is to provide connectivity between existing LA 1 and LA 30, to serve as an additional Mississippi River crossing, and to decrease traffic congestion along I-10. By fulfilling the project purpose, the project also addresses the need to provide off-interstate projects to relieve traffic pressure on I-10. While the project's purpose is primarily to relieve I-10 congestion, the addition of a rail component complies with the STP objective to expand the state's rail infrastructure to provide increased transportation efficiency, cost effectiveness, accessibility, capacity, and intermodal connectivity.

2.0 ALTERNATIVES

2.1 Alternative Development

There were five build alternatives for the LA 1 to LA 30 Connector studied in this inventory: Alternatives 1 through 5. **Figure 1** below shows the locations of these build alternatives. Alternatives 1, 2, and 3 were derived from the Baton Rouge Loop Tier 1 Final Environmental Impact Statement (FEIS) prepared by the Capital Area Expressway Authority in 2011 and finalized in 2016, incorporated by reference. These alternatives correspond with Alternatives S14, S13, and S12, respectively, of the Baton Rouge Loop Tier 1 FEIS. Alternatives 4 and 5 were added during the scoping of this project and have not been evaluated to the same degree relative to environmental impacts as Alternatives 1-3, as they were accepted from an FEIS. Alternatives 4 and 5 were also not subjected to public review as were Alternatives 1-3.

A 2,000-foot corridor (study area) was created for all build alternatives and used to calculate potential environmental impacts. Each alternative is depicted in **Figure 1** and is described as follows:

The study area for Alternative 1 consists of 1594.58 acres and has a bridge centered at Latitude 30˚22’18.40” N and Longitude 91°14’8.27” W.

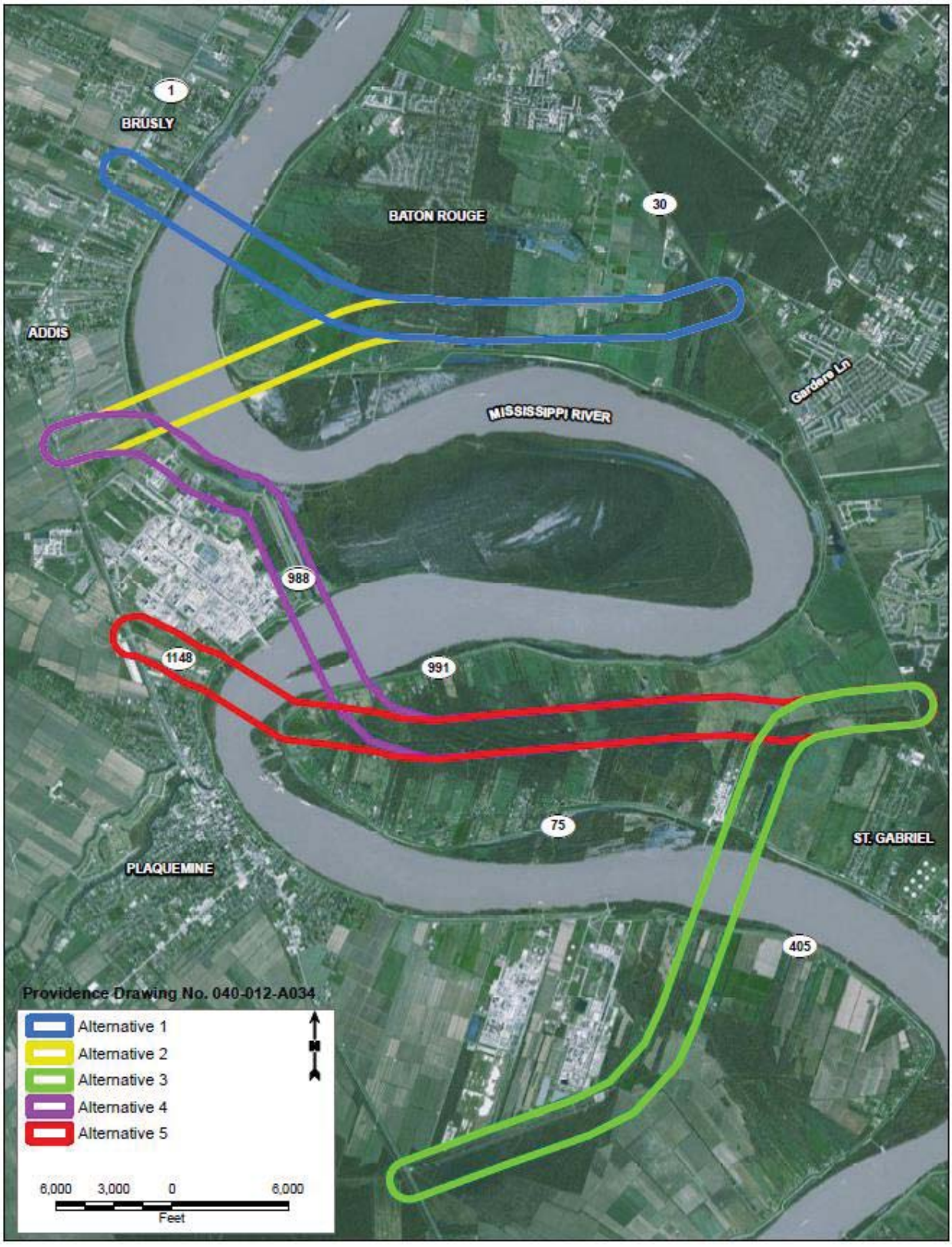
The study area for Alternative 2 consists of 1701.14 acres and has a bridge centered at Latitude 30°20’52.26” N and Longitude 91°14’17.67” W.

The study area for Alternative 3 consists of 1887.91 acres and has a bridge centered at Latitude 30°16’36.36” N and Longitude 91°09’06.08” W.

The study area for Alternative 4 consists of 2472.49 acres and has a bridge centered at Latitude 30°18’47.55” N and Longitude 91°13’01.00” W.

The study area for Alternative 5 consists of 1994.49 acres and has a bridge centered at Latitude 30°18’18.33” N and Longitude 91°13’44.05” W.

FIGURE 1
BUFFERED PROJECT AREAS



All build alternatives propose two scenarios, one being vehicular traffic only, and the other being vehicular traffic plus one railroad section. All build alternatives consist of a four-lane roadway with 12-foot travel lanes,10-foot inside shoulders,12-foot outside shoulders, roadside ditches, and a 66-foot median to allow for future widening to a six-lane facility. All build alternatives also include a new Mississippi River bridge crossing with a six-lane main span. While traffic data presently supports a four-lane bridge, additional lanes cannot be added to a cable stay bridge in the future, therefore, six lanes are proposed to provide for future conditions. The proposed typical roadway sections are shown below in **Figures 2 and 3.** The proposed typical Mississippi River Bridge sections are shown below in **Figures 4 and 5** and are located in **Appendix A**.

FIGURE 2
ROADWAY TYPICAL SECTION WITHOUT RAIL

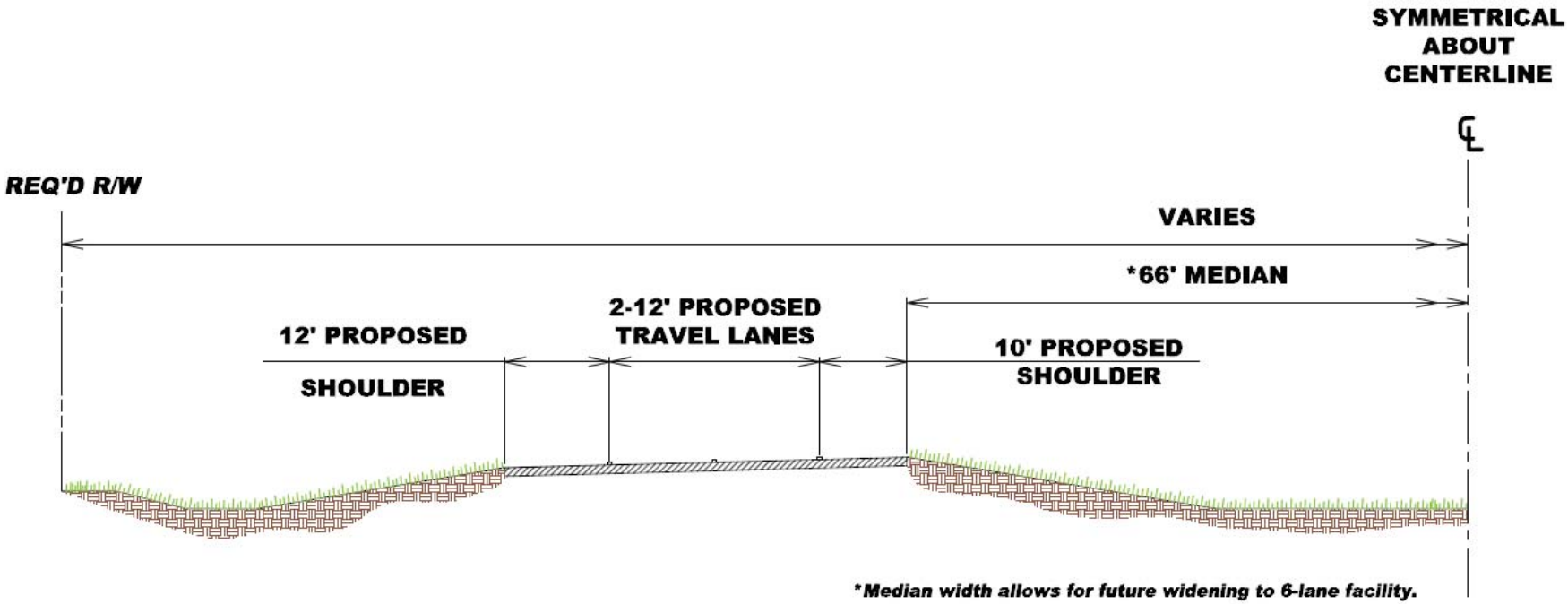


FIGURE 3
ROADWAY TYPICAL SECTION WITH RAIL

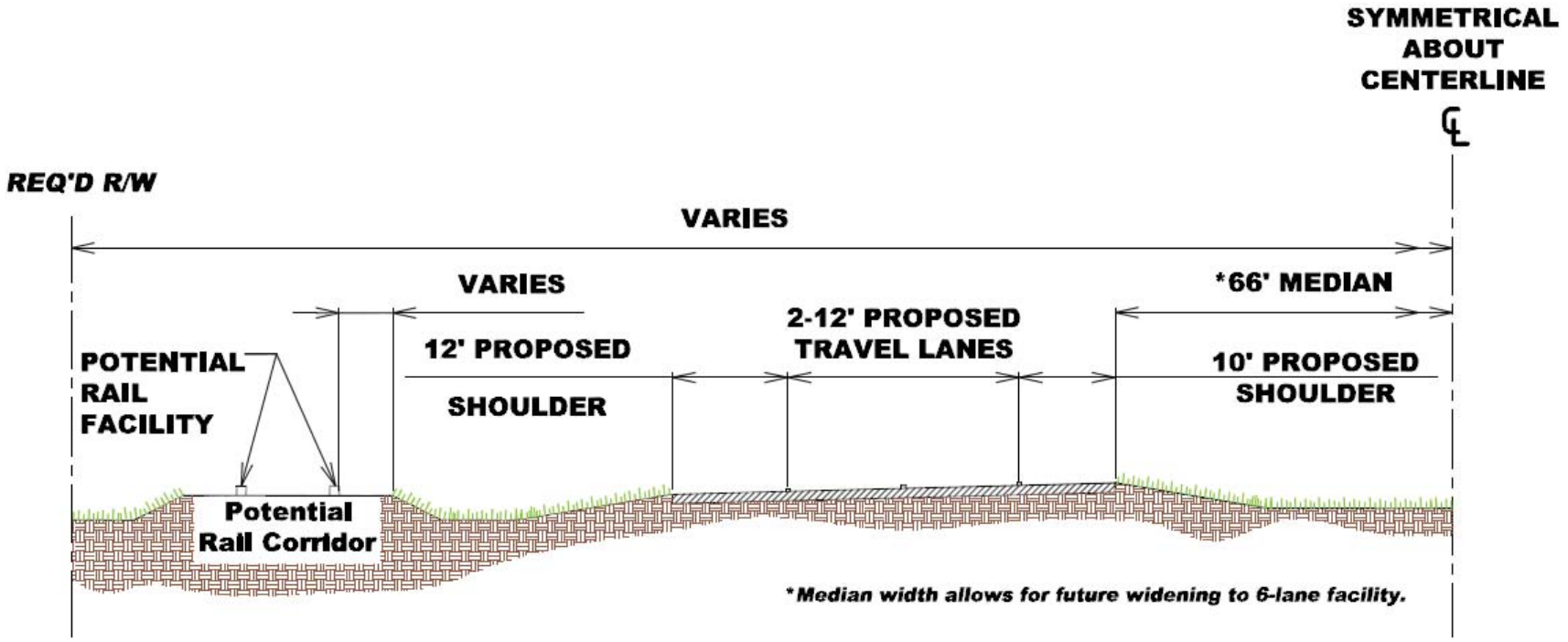


FIGURE 4
MISSISSIPPI RIVER BRIDGE TYPICAL SECTION WITHOUT RAIL

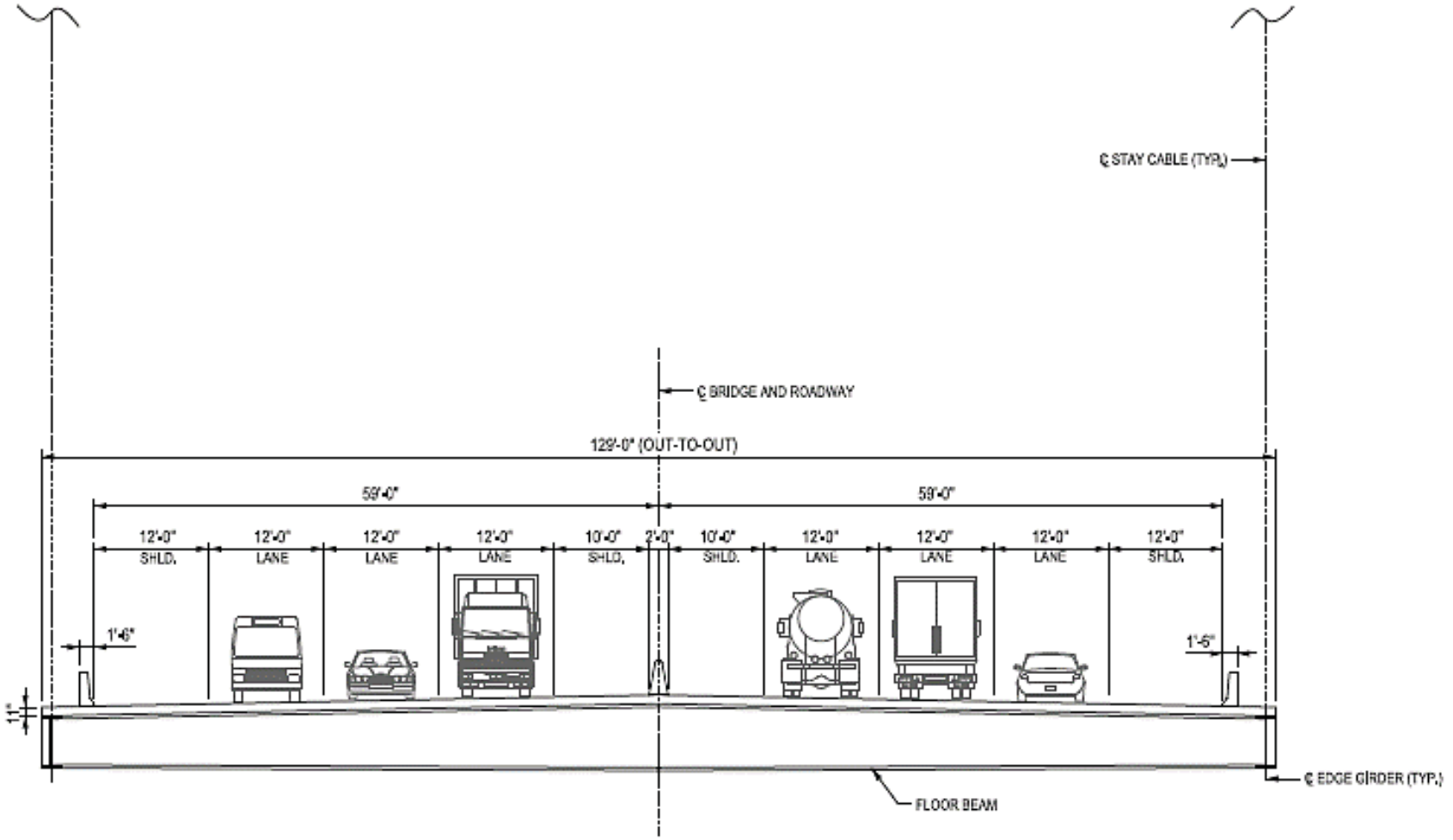
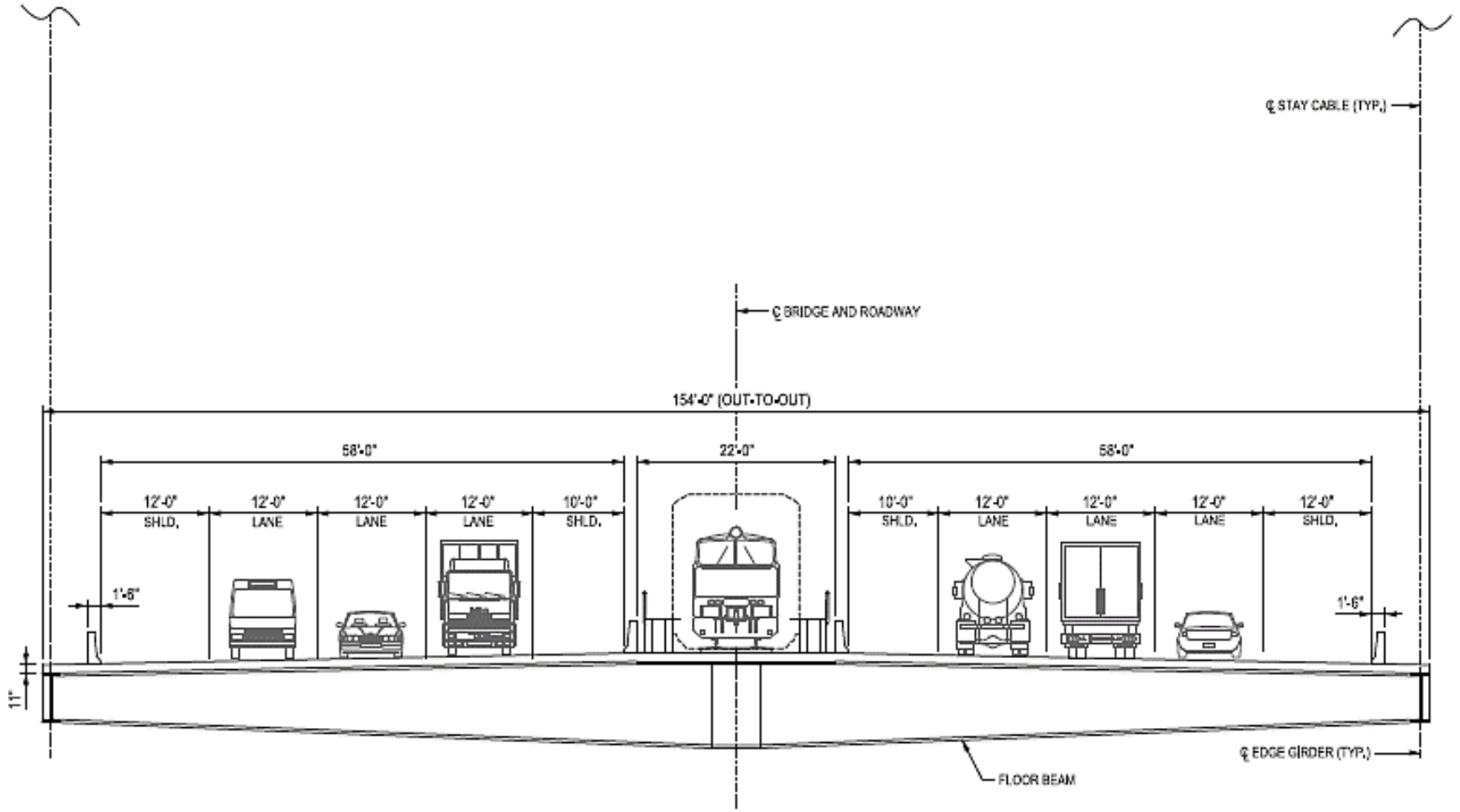


FIGURE 5
MISSISSIPPI RIVER BRIDGE TYPICAL SECTION WITH RAIL



It was assumed that a single railroad line would be acceptable for all alternatives of the proposed connection, as this is the same number which exists on the United States Highway (US) 190 Bridge. Railroad line connections are presumed to occur at LA 1 on the west bank of the Mississippi River and LA 30/Nicholson Drive on the east bank of the Mississippi River. The approximate tie-in locations of each railroad alternative can be seen in **Figure 6** and in **Appendix A** and are described as follows:

The approximate railroad tie-in locations for Alternative 1 are Red Hat Road on the West Bank and GSRI Avenue on the East Bank.

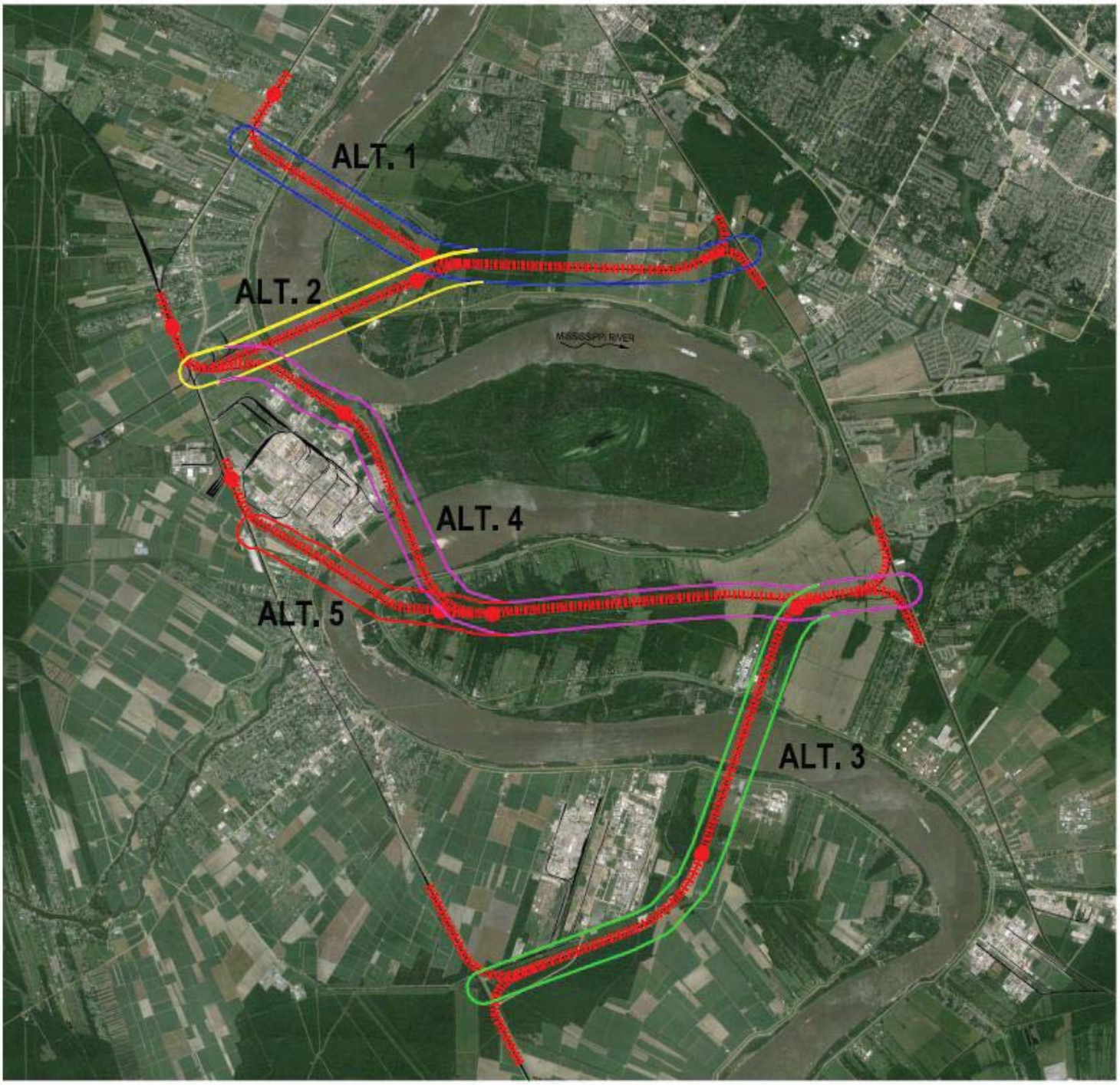
The approximate railroad tie-in locations for Alternative 2 are Sid Richardson Road on the West Bank and GSRI Avenue on the East Bank.

The approximate railroad tie-in locations for Alternative 3 are Evergreen Road on the West Bank and Laurie Lane on the East Bank.

The approximate railroad tie-in locations for Alternative 4 are Sid Richardson Road on the West Bank and Laurie Lane on the East Bank.

The approximate railroad tie-in locations for Alternative 5 are Woodlawn Road on the West Bank and Bayou Paul Lane on the East Bank.

FIGURE 6
RAIL ALIGNMENTS GENERAL PLAN



LEGEND:

Proposed rail alignments

Approximate grade touchdown point

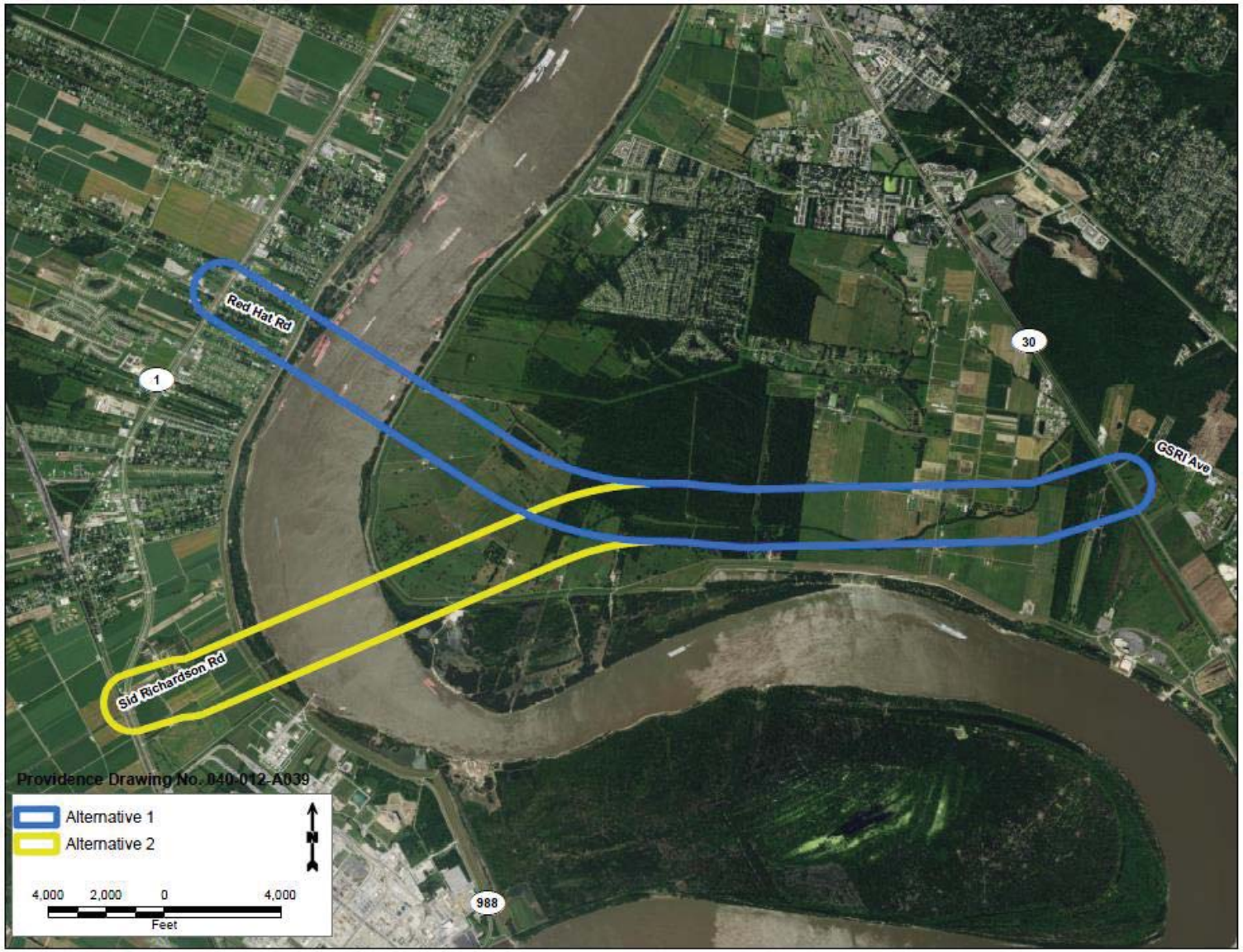
2.1.1 Alternative 1

Alternative 1 proposes a new bridge connection over the Mississippi River from Brusly in West Baton Rouge Parish, Louisiana to just north of Gardere Lane, in East Baton Rouge Parish, Louisiana. It begins in Brusly at the intersection of Famco Road and LA 1, and continues southeast ending at LA 30 and GSRI Avenue. The length of the mainline for Alternative 1 is approximately 6.47 miles. **Figure 7** is the Buffered Project Area Limits for Alternatives 1 and 2.

2.1.2 Alternative 2

Alternative 2 proposes a new bridge connection from Addis in West Baton Rouge Parish, Louisiana to just north of Gardere Lane in East Baton Rouge Parish, Louisiana. The alternative begins in Sid Richardson Road and LA 1 in Addis, continuing northeast to join Alternative 1 at the intersection of LA 30 and GSRI Avenue. The approximate length of Alternative 2 is 6.91 miles.

FIGURE 7
BUFFERED PROJECT AREA LIMITS - ALTERNATIVES 1 AND 2



2.1.3 Alternative 3

Alternative 3 proposes a bridge connection from Plaquemine in Iberville Parish, Louisiana to St. Gabriel, also in Iberville Parish. The length of the mainline for Alternative 3 is approximately 7.88 miles. This alternative is the southernmost alternative, and begins at the intersection of LA 1 and Evergreen Road, continuing east to the intersection of LA 30 and Laurie Lane. **Figure 8** is the Buffered Project Area Limits for Alternatives 3, 4, and 5.

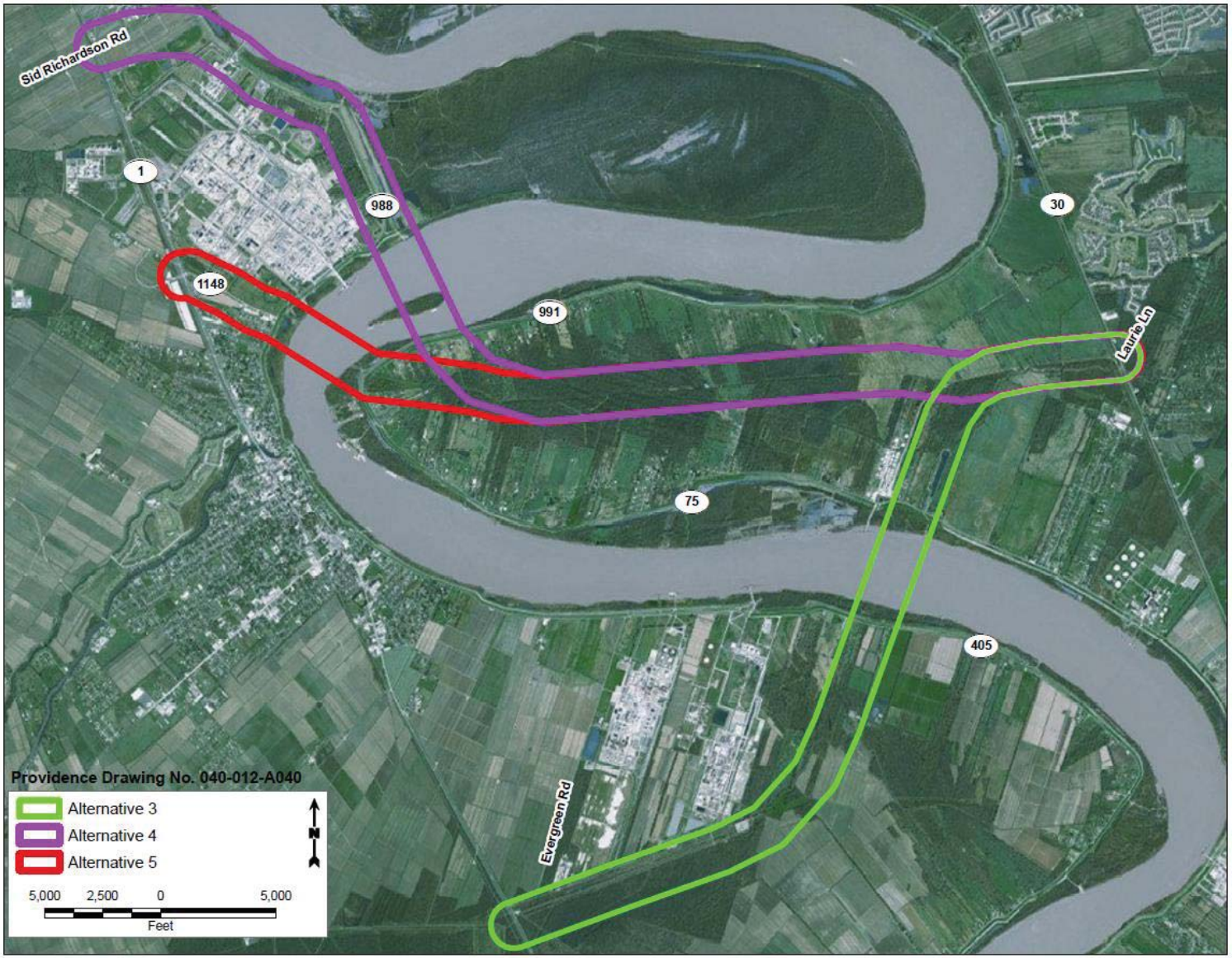
2.1.4 Alternative 4

Alternative 4 proposes a new bridge connection from Addis in West Baton Rouge Parish, Louisiana to St. Gabriel in Iberville Parish, Louisiana. The alternative starts at the intersection of Sid Richardson Road and LA 1 in Addis, continuing southeast and ending at the intersection of LA 30 and Laurie Lane, the same intersection as Alternative 3. At approximately 10.28 miles long, Alternative 4 is the longest alternative.

2.1.5 Alternative 5

Alternative 5 proposes a new bridge connection from Plaquemine in West Baton Rouge Parish, Louisiana, to St. Gabriel in Iberville Parish, Louisiana. Alternative 5 begins at the intersection of Industrial Boulevard/Louisiana Highway 1148 and LA 1, progressing southeast and ending at the intersection of LA 30 and Laurie Lane, similar to Alternatives 3 and 4. Alternative 5 is approximately 8.30 miles long.

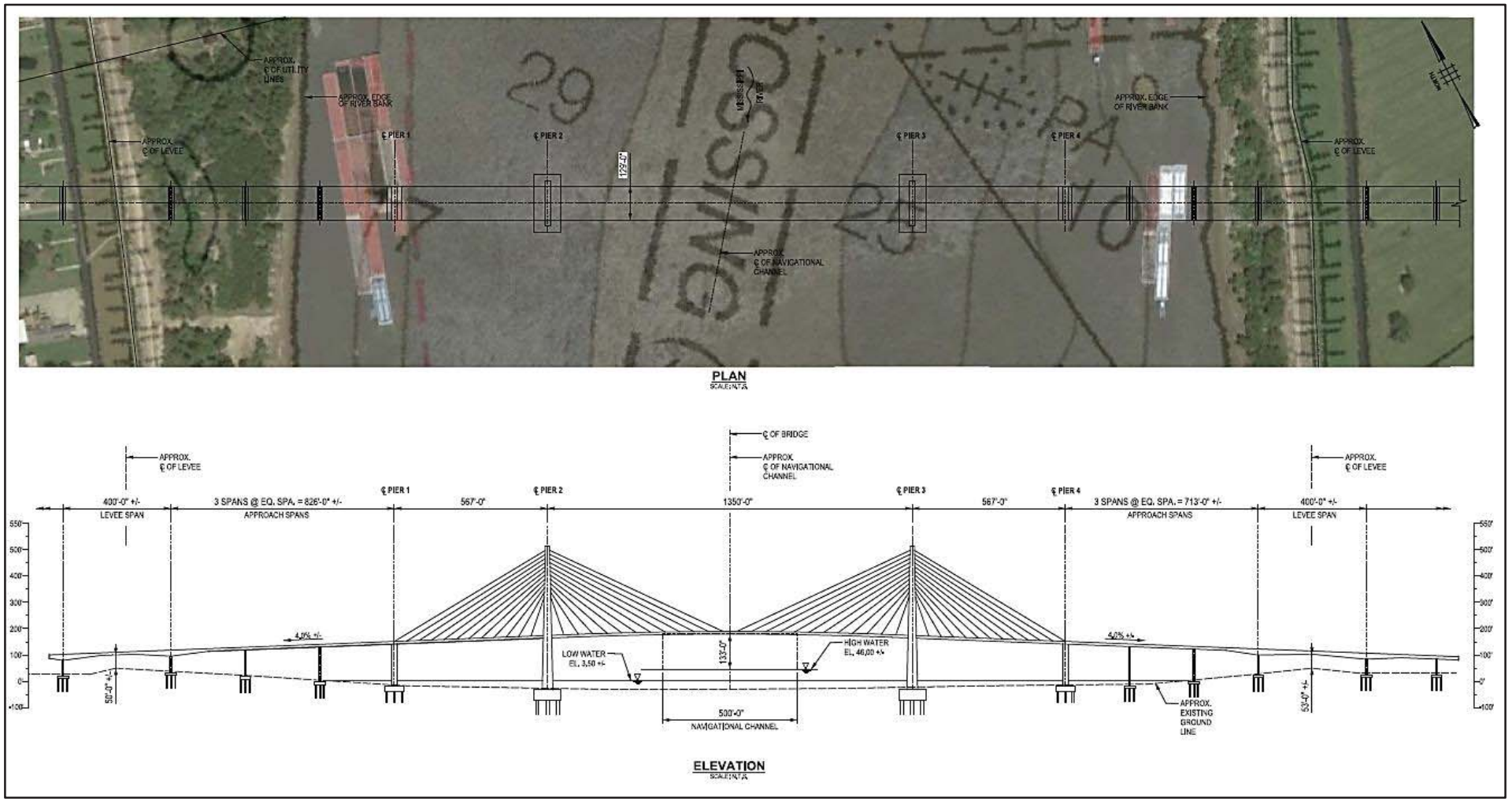
FIGURE 8
BUFFERED PROJECT AREA LIMITS - ALTERNATIVES 3, 4, AND 5



2.2 MISSISSIPPI RIVER BRIDGES

Each alternative in the project would require a new Mississippi River bridge. Because all build alternatives propose two scenarios, one being vehicular traffic only and the other being vehicular traffic plus one railroad section, there are two proposed plan and elevation views for each of the five build alternatives, as shown in **Appendix A**. An example of a plan and elevation view is shown below in **Figure 9**. The lists of site and design assumptions for developing the concepts for the cable stayed bridge are located in **Appendix A**.

FIGURE 9
MISSISSIPPI RIVER BRIDGE PLAN AND ELEVATION
ALTERNATIVE 1 WITHOUT RAIL



3.0 TRAFFIC ANALYSIS

The objectives of this traffic study were to estimate the usage of each of the five proposed crossings, to estimate the resulting reduction of traffic on the existing I-10 bridge, and to determine the appropriate number of lanes on the proposed bridge for a design year of 2032. The study included a high level analysis that could be used as a basis for a detailed traffic study to be conducted should the project move forward to Stage 1 Planning and Environmental (Stage 1). The traffic report is located in **Appendix B.**

This study also considered combining a potential new bridge with other identified improvement projects, including the Baton Rouge Urban Renewal and Mobility Plan (BUMP), the Westside Expressway, and the LA 1 to Louisiana Highway 415 (LA 415) Connector.

Origin and Destination data was reviewed to determine where existing river crossings are occurring and where those crossings are coming from and going to. The data indicated the majority of existing bridge crossings (67%) are on the I-10 Mississippi River Bridge with similar amounts using US 190 (16%) and Louisiana Highway 70 (17%). The analysis results indicated that Alternatives 1, 2 and 3 would be expected to attract more traffic than Alternatives 4 and 5.

The regional transportation modeling indicated the potential Average Daily Traffic (ADT) for a new bridge could range from 8,000 to 16,600 vehicles per day. The projected ADTs did vary depending on the location and on which other projects may also be constructed. The projected ADTs on a new bridge were highest and similar for Alternatives 1, 2, and 3. The projected ADTs on a new bridge were lower and similar for Alternatives 4 and 5. The Bump with the Westside Expressway was estimated to slightly decrease the projected volumes on a new bridge. Model output indicated that neither the LA 415 Connector nor the BUMP alone would impact new bridge volumes.

Modeling also indicated that the LA 1 to LA 415 Connector alone, the BUMP alone, and the BUMP with Westside Expressway would each have a negligible reduction on the existing I-10 bridge traffic. Alternatives 1, 2 and 3 are expected to reduce traffic on the existing I-10 bridge by 10%-25%. Alternatives 4 and 5 are expected to reduce the traffic on the existing I-10 bridge by 8%-20%. A range of reductions is provided as it represents the data reported for daily, AM peak and PM peak traffic volumes.

The 2032 volumes were projected to 2046 to reflect a design year for a bridge built up to ten years from the time of this study. The 2046 volumes were developed by applying a 1.5% growth rate to the 2032 projected volumes**. Table 1** presents the 2032 and 2046 projected peak hour volumes for each of the five bridges and the resulting volumes on the I-10 Bridge.

TABLE 1
2032 AND 2046 PROJECTED VOLUMES (VEHICLES PER HOUR)

Location	Peak	Dir.	Existing	2032						2046					
				No Build	Bridge 1	Bridge 2	Bridge 3	Bridge 4	Bridge 5	No Build	Bridge 1	Bridge 2	Bridge 3	Bridge 4	Bridge 5
New Bridge	AM	EB			918	944	916	653	741		1,211	1,246	1,209	862	978
		WB			954	967	916	702	766		1,259	1,276	1,209	927	1,011
	PM	EB			1,166	1,198	1,170	870	958		1,540	1,582	1,544	1,148	1,265
		WB			1,265	1,294	1,241	918	1,015		1,670	1,709	1,638	1,212	1,340
I-10 Bridge	AM	EB	3,623	5,103	4,494	4,462	4,458	4,659	4,582	6,736	5,932	5,890	5,885	6,150	6,048
		WB	3,529	5,098	4,414	4,383	4,403	4,601	4,546	6,729	5,826	5,786	5,812	6,073	6,000
	PM	EB	4,458	6,352	5,614	5,611	5,591	5,802	5,748	8,385	7,410	7,407	7,380	7,659	7,587
		WB	4,692	6,699	5,783	5,787	5,781	6,026	5,948	8,842	7,634	7,639	7,631	7,955	7,852

A new bridge with four (4) lanes is expected to operate at Level of Service B or better and have excess capacity in the design year of 2032. However, as mentioned above in section 2.1, while traffic data presently supports a four-lane bridge, additional lanes cannot be added to a cable stay bridge in the future, therefore, six lanes on the main span are proposed to provide for future conditions.

Should a new bridge be considered, the location may be selected based on reasons such as cost, connectivity, navigational concerns, and environmental impacts. To determine the expected impact on operational conditions, further analysis would be required as the analysis in this Stage 0 Traffic Study was planning level only. However, it can be concluded, based on the analysis in this study, that to improve the I-10 Bridge and corridor to better than existing conditions, improvements to I-10 are still required, regardless of whether a new bridge and/or the other projects mentioned in this study are constructed.

4.0 AFFECTED ENVIRONMENT

The existing environment was studied in order to assess potential environmental issues that could result in an alternative being considered not reasonable and/or feasible. In order to comply with DOTD's Stage 0 Manual of Standard Practice, the project study areas as defined in Section 2.0 were utilized to identify the affected environment associated with the alternatives. As each alternative lies within its own project area, there were five project areas, all of which encompassed a 1,000-foot buffer to ensure adjacent resources would be identified and to include enough area to accommodate railroad connections. **Figure 1** (see Section 2.1) depicts the five study areas.

The table below represents the Build Alternatives Comparison Matrix, detailing the environmental attributes of the buffer area for each of the alternatives. The Environmental Inventory can be found as **Appendix C,** and the Environmental Checklists are in **Appendix D**.

TABLE 2
ALTERNATIVES ENVIRONMENTAL CRITERIA MATRIX

EVALUATION CRITERIA	BUILD ALTERNATIVES (with rail)				
	Build Alternative 1	Build Alternative 2	Build Alternative 3	Build Alternative 4	Build Alternative 5
General					
Length (in miles)	6.47	6.91	7.88	8.30	10.28
Total Acreage	1596.58	1701.14	1887.91	2472.49	1994.49
Potential Railroad Crossing Locations	2	2	4	3	2
Potential Navigable Water Crossings	1	1	1	1	1
Preliminary Mitigation Costs (in millions) (A)	$10.55	$10.55	$31.40	$31.79	$28.81
Cultural Resources (B)					
Potential to Impact Historical Resources	None	None	Medium	Low	Low
Potential to Impact Archaeological Resources	Medium	Medium	Medium	Medium	Medium
Potential Wetlands (C) and Water Resources					
Potential Freshwater Forested/Shrub Wetland (acres)	295.21	295.18	828.97	891.75	812.25
Potential Freshwater Emergent Wetland (acres)	6.15	6.15	68.20	16.53	10.78
Open Water (acres)	158.40	178.29	146.70	220.16	131.24
Water Quality	Medium to High (D)	Medium to High (D)	Medium to High (D)	Medium to High (D)	Medium to High (D)
Active Water Well Locations	0	3	7	18	10
Threatened/Endangered/Protected Species					
Potential Impact to Threatened and Endangered Species (E)	Low	Low	Low	Low	Low
Community Impacts					
Single Family Residential Structures in the Build Alternative	141	9	24	19	87
Multifamily Residential Structures in the Build Alternative	1	0	0	0	0
Commercial Structures in the Build Alternative	9 (F)	5	2	4 (K)	8 (M)
Churches in the Build Alternative	2 (G)	0	0	0	0
Other Community Facilities in the Build Alternative	1 (H)	0	0	0	0
Industrial Sites	0	1 (I)	1 (J)	1 (L)	2 (N)
Community Cohesion Impact	High	Medium	Low	Low	High
Potential Environmental Justice Concerns	Yes	Yes	No	No	No
Visual Quality					
Potential Visual Quality Impacts	High	High	High	High	High
Land Use					
Prime Farmland (acres)	1123.29	1,177.30	1,653.96	1,781.12	1,418.63
100-yr Floodplain (acres)	959.30	920.11	695.93	1,495.40	1,496.90
Environmental Liability Concerns					
Potential Impacts to Hazardous Sites (O)	Low	Low	Low	Medium	Medium
Active Oil and Gas Well Locations	0	0	0	0	0

NOTES:

(A) Costs are based on aerials, estimated distances, and a 1000' study corridor.

(B) Cultural resource estimates are based off data gathered from the Baton Rouge Loop Tier I EIS document prepared in October 2011 and recent data obtained from the Louisiana Department of Culture, Recreation, and Tourism's website including, the National Register of Historic Places in Louisiana database and the Louisiana Cultural Resources Map, which identifies the location of standing structures and archaeological sites.

(C) Potential wetlands were defined using National Wetlands Inventory data server as of 2/18/16.

(D) Impacts refer to construction impacts alone due to driving piles into the Mississippi River, however efforts to minimize migration of sediments associated with pile driving will be defined in the design phase.

(E) Based on USFWS ECOS database.

(F) Total number includes the JW Food Mart gas station and the WRKF-FM Baton Rouge Radio Station tower.

(G) Total number includes St. John the Baptist Catholic Church.

(H) Total number includes Brusly Town Hall, Brusly Volunteer Fire Department, West Baton Rouge Parish Water Works, and Brusly Police Department.

(I) Total number includes Shintech Louisiana Addis Plant B.

(J) Total number includes LBC Baton Rouge Geismar Industrial Complex.

(K) Total number includes Transport Service Company, a truck fueling station and WBRZ-TV (Baton Rouge) TV station and tower.

(L) Total number includes AEP's Plaquemine Cogenertion Plant. The alternative is impacting part of the facility including overhead pipelines on S River Road.

(M) Total number includes WBRZ-TV (Baton Rouge) TV station and tower.

(N) Total number includes Elliot Group Repair Shop Turbomachinery and Scientific Fabrication Service.

(O) Included in this category are leaking underground storage tanks, landfills, generators, etc. as identified by a NEPAssist database search, desktop observations, and the Baton Rouge Loop Tier I FEIS document.

5.0 AGENCY AND PUBLIC OUTREACH

The Baton Rouge Loop Tier 1 FEIS was utilized to establish three of the five bridge alternatives studied in this Feasibility Study. As this study has been incorporated by reference, no further outreach was determined necessary to assess the viability of the bridge alternatives. In the event that the project is selected to move forward into Stage 1, a formal solicitation of views will be conducted along with public meetings in the affected parishes to obtain agency concerns and garner public opinion.

6.0 STAGE 0 PRELIMINARY SCOPE AND BUDGET CHECKLIST

A. Project Background

District **61** Parish **East Baton Rouge, West Baton Rouge, and Iberville Parishes**
Route **LA 1 to LA 30 Connector** Control Section **NA – New Route**
Begin Log Mile **NA** End Log Mile **NA**
Project Category: **Transportation Linkage w/ New Mississippi River Bridge Crossing**
Date Study Completed: **August 2016**

Describe the existing facility: **The facility does not exist**
Functional classification: **NA** Number and width of lanes: **NA**
Shoulder width and type: **NA** Mode: **NA**
Access control: **NA** ADT: **NA** Posted Speed: **NA**

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: **See the attached Environmental Inventory located in Appendix C.**

Who is the sponsor of the study? **DOTD**

List study team members: **Providence Engineering and Environmental Group LLC (Prime), Urban System Associates, Inc., Earth Search, Inc., T.Y. Lin International, and Franklin Industries, LLC**

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. No transfer of ownership has been initiated.**

Are there recent, current or near future planning studies or projects in the vicinity? **Yes**

If yes, please describe the relationship of this project to those studies/projects. **Portions of this project's alignments utilize the Baton Rouge Loop Tier 1 FEIS. The traffic analysis for this project, in an effort to develop multiple combinations of alternatives for consideration, references the following previous studies: The Baton Rouge Urban Renewal and Mobility Plan (BUMP), the West Side Expressway, the LA 1 to LA 415 Connector, and the current I-10 Corridor Improvement Study.**

Provide a brief chronology of these planning study activities: **The LA 1 to LA 415 Connector (2006 - ongoing), The BUMP (2011), The West Side Expressway (July 2014), The Baton Rouge Loop Tier 1 FEIS (2015), and The I-10 Corridor Improvement Study (2011 - ongoing)**

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 of the proposed project is to provide connectivity between existing LA 1 and LA 30, to serve as an additional Mississippi River crossing, and to decrease traffic congestion along I-10. By fulfilling the project purpose, the project also addresses the need to provide off-interstate projects to relieve traffic pressure on I-10. While the project's purpose is primarily to relieve I-10 congestion, the addition of a rail component complies with the STP objective to expand the state's rail infrastructure to provide increased transportation efficiency, cost effectiveness, accessibility, capacity, and intermodal connectivity.

C. Agency Coordination

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

None to date. The Baton Rouge Loop Tier 1 FEIS was used as reference for agency coordination and concerns. Should the project proceed to Stage 1, agency coordination will be included in that scope.

C. Agency Coordination (Continued)

What transportation agencies were included in the agency coordination effort?

Louisiana Department of Transportation and Development (DOTD). Federal Highway Administration (FHWA) was on the advisory committee for the Baton Rouge Loop Tier 1 FEIS which was used for portions of this project's alignments.

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

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

National Environmental Policy Act (NEPA) scoping will occur as part of Stage 1 should the project proceed. Solicitation of Views (SOV) letters will need to be sent to each agency with jurisdiction over area resources to determine their level of involvement.

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).

No public coordination performed to date.

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).

There were five build alternatives for the LA 1 to LA 30 Connector studied in this inventory: Alternatives 1-5. Figure 1 above shows the locations of these build alternatives. Alternatives 1, 2, and 3 were derived from the Baton Rouge Loop Tier 1 FEIS, prepared by the Capital Area Expressway Authority in 2011, incorporated by reference. These alternatives correspond with Alternatives S14, S13, and S12, respectively, of the Baton Rouge Loop Tier 1 FEIS. Alternatives 4 and 5 were added during the scoping of this project and have not been evaluated to the same degree relative to environmental impacts as Alternatives 1-3, as they were accepted from an FEIS. Alternatives 4 and 5 were also not subjected to public review as were Alternatives 1-3.

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All build alternatives propose two scenarios, one being vehicular traffic only, and the other being vehicular traffic plus one railroad section. All build alternatives consist of a four-lane roadway with 12-foot travel lanes,10-foot inside shoulders,12-foot outside shoulders, roadside ditches, and a 66-foot median to allow for future widening to a six-lane facility. All build alternatives also include a new

Mississippi River bridge crossing with a six-lane main span. While traffic data presently supports a four-lane bridge, additional lanes cannot be added to a cable stay bridge in the future, therefore, six lanes are proposed to provide for future conditions. The proposed typical roadway sections are located above in Figures 2 & 3. Figure 2 shows the proposed typical roadway section without rail, and Figure 3 shows the proposed typical roadway section with rail. The proposed typical Mississippi River Bridge sections, which are shown both without and with railroad, are located in Appendix A.

It was assumed that a single railroad line would be acceptable for all alternatives of the proposed connection, as this is the same number which exists on the United States Highway (US) 190 Bridge. Railroad line connections are presumed to occur at LA 1 on the west bank of the Mississippi River and LA 30/Nicholson Drive on the east bank of the Mississippi River. The approximate tie-in locations of each railroad alternative is as follows:

Alternative 1: Red Hat Road on the West Bank and GSRI Avenue on the East Bank

Alternative 2: Sid Richardson Road on the West Bank and GSRI Avenue on the East Bank

Alternative 3: Evergreen Road on the West Bank and Laurie Lane on the East Bank

Alternative 4: Sid Richardson Road on the West Bank and Laurie Lane on the East Bank

Alternative 5: Woodlawn Road on the West Bank and Bayou Paul Lane on the East Bank

Will design exceptions be required? **None have been identified at this time.**

What impact would this project have on freight movements? **The construction of this project should have a positive impact by providing an additional avenue for freight traveling from either side of the Mississippi River.**

Does this project cross or is it near a railroad crossing? **This project will cross a railroad at the LA 30 tie-in. This project will study the option to include a new railroad crossing within the alignment.**

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.

E. Range of Alternatives – Evaluation and Screening (Continued)

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. **This facility is designed to provide a high speed connection between two major highways; therefore, it may not be desirable for bicyclists and pedestrians. The concept of a multimodal bridge will be more thoroughly evaluated in Stage 1.**

How are Context Sensitive Solutions (CSS) being incorporated into the project? **CSS will be considered during Stage 1.**

Was the DOTD's "Access Management" policy taken into consideration? If so, describe how. **No. At this level, the project has not been studied in sufficient detail as to adequately address access management.**

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? **To determine the expected impact on operational conditions, further analysis would be required, as the analysis in this study was planning level only.**

A further description of the traffic analysis completed as part of this stage can be found in the Traffic Report located in Appendix B.

Will fiber optics be required? If so, are there existing lines to tie into? **This will require further study in Stage 1.**

Are there any future ITS/traffic considerations? **Not at this time.**

What is the required Transportation Management Plan (TMP) level as defined by EDSM No. VI.1.1.8?
Level 2
Please attach documentation required for Stage 0 for this level TMP.

Was Construction Transportation Management/Property Access taken into consideration? **No**

Were alternative construction methods considered to mitigate work zone impacts? **No**

Describe screening criteria used to compare alternatives and from what agency the criteria were defined.
Screening criteria are defined in Table 3-1 of the Environmental Summary; Section 6.0 of the summary provides references for the criteria data.

Give an explanation for any alternative that was eliminated based on the screening criteria.
No alternatives have been eliminated in this stage.

Which alternatives should be brought forward into NEPA and why? **All of the alternatives were deemed feasible based on available desktop data and windshield survey. Additionally, three of the alternatives were previously studied and recommended for further study in the 2015 Baton Rouge Loop Tier 1 FEIS (Alternatives S14, S13, and S12). Traffic data, along with agency discussion and identification of private land uses, will be necessary to assess the continued viability of the five alternatives. These data will be gathered and assessed during the environmental clearance phase, Stage 1.**

Did the public, stakeholders and agencies have an opportunity to comment during the alternative screening process? **As the project is in the feasibility stage and alternatives from the Baton Rouge Loop Tier 1 FEIS were considered, no additional comments were sought.**

Describe any unresolved issues with the public, stakeholders and/or agencies. **No unresolved issues with the public, stakeholders, or agencies have been identified at the feasibility stage.**

F. Planning Assumptions and Analytical Methods

What is the forecast year used in the study? **The attached Traffic Report, located in Appendix B, is based on a design year of 2032. These volumes were projected to 2046 to reflect a design year for a bridge built up to ten years from the time of this report. The 2046 results are described above in Section 4.0.**

What method was used for forecasting traffic volumes? **Refer to the attached Traffic Report located in Appendix B.**

Are the planning assumptions and the corridor vision/purpose and need statement consistent with the long range transportation plan? **Yes.**

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? **Refer to the attached Traffic Report located in Appendix B.**

G. Potential Environmental Impacts
See Appendix D for the Stage 0 Environmental Checklist

H. Cost Estimate
Provide a cost estimate for each feasible alternative:

All cost estimates will require a more detailed study in Stage 1.

Alternative 1

- Engineering Design_**with rail**[1]: **$142,873,940**
- Engineering Design_**without rail**[1]**:** **$48,337,688**
- Additional Traffic Analyses: **$150,000**
- Environmental Processing[2]: **$350,000**
- Mitigation[3]: **$10,550,000**
- R/W Acquisition[3]: **$12,314,865**
- Utility Relocations[3]: **$2,800,000**
- Construction (including const. traffic mgmt.)_**with rail**[4] **$2,302,324,255**
- Construction (including const. traffic mgmt) _**without rail**[4] **$778,931,639**

TOTAL PROJECT COST_with rail **$2,471,363,060**
TOTAL PROJECT COST_without rail **$853,434,192**

Alternative 2

- Engineering Design_**with rail**[1]: **$160,117,048**
- Engineering Design **without rail**[1]**:** **$58,169,858**
- Additional Traffic Analyses: **$150,000**
- Environmental Processing[2]: **$350,000**
- Mitigation[3]: **$10,550,000**
- R/W Acquisition[3]: **$3,085,766**
- Utility Relocations[3]: **$2,684,900**
- Construction (including const. traffic mgmt.)_**with rail**[4] **$2,580,186,159**
- Construction (including const. traffic mgmt) _**without rail**[4] **$937,370,903**

TOTAL PROJECT COST_with rail **$2,757,123,873**
TOTAL PROJECT COST_without rail **$1,012,361,427**

H. Cost Estimate (Continued)

Alternative 3

- Engineering Design_**with rail**[1]: **$152,993,594**
- Engineering Design_**without rail**[1]**:** **$56,768,914**
- Additional Traffic Analyses: **$150,000**
- Environmental Processing[2]: **$350,000**
- Mitigation[3]: **$31,400,950**
- R/W Acquisition[3]: **$11,546,667**
- Utility Relocations[3]: **$49,798,763**
- Construction (including const. traffic mgmt.)_**with rail**[4] **$2,465,396,154**
- Construction (including const. traffic mgmt) _**without rail**[4] **$914,795,564**

TOTAL PROJECT COST_with rail **$2,711,636,128**
TOTAL PROJECT COST_without rail **$1,064,810,858**

Alternative 4

- Engineering Design_**with rail**[1]: **$150,018,519**
- Engineering Design_**without rail**[1]**:** **$43,547,478**
- Additional Traffic Analyses: **$150,000**
- Environmental Processing[2]: **$350,000**
- Mitigation[3]: **$31,789,800**
- R/W Acquisition[3]: **$5,383,116**
- Utility Relocations[3]: **$14,523,754**
- Construction (including const. traffic mgmt)_**with rail**[4] **$2,417,454,676**
- Construction (including const. traffic mgmt) _**without rail**[4] **$701,740,385**

TOTAL PROJECT COST_with rail **$2,619,669,865**
TOTAL PROJECT COST_without rail **$797,484,533**

Alternative 5

- Engineering Design_**with rail**[1]: **$156,897,871**
- Engineering Design_**without rail**[1]**:** **$40,191,195**
- Additional Traffic Analyses: **$150,000**
- Environmental Processing[2]: **$350,000**
- Mitigation[3]: **$28,806,050**
- R/W Acquisition[3]: **$8,864,315**
- Utility Relocations[3]: **$7,300,335**
- Construction (including const. traffic mgmt)_**with rail**[4] **$2,528,311,136**
- Construction (including const. traffic mgmt) _**without rail**[4] **$647,655,981**

TOTAL PROJECT COST_with rail **$2,730,679,707**
TOTAL PROJECT COST_without rail **$733,317,876**

NOTES:

(1) **Engineering design is calculated as 8% of the construction subtotal.**

(2) **Environmental processing cost is shared among the five alternatives, as they would be studied in one document.**

(3) **Cost estimate is based on aerials, estimated distances, and a 2000' study corridor.**

(4) **Total construction cost is calculated as the construction subtotal plus 12% for mobilization and 0.1% for construction layout. A 15% contingency is then included.**

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

ATTACH ANY ADDITIONAL DOCUMENTATION

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

7.0 REFERENCES

AECOM, t*he Baton Rouge Renewal and Mobility Plan (BUMP).* 29 December 2014.

Capital Area Expressway Authority, *Baton Rouge Loop Tier 1 Final Environmental Impact Statement*. 28 December 2015.

DOTD*, LA 1 to LA 415 Connector,* ongoing.

DOTD*, I-10 Corridor Improvement Study,* ongoing.

DOTD, *Manual of Standard Practice*, 25, January 2007

The West Side Expressway, July 2014

FIGURE REFERENCES

Figure 1 Buffered Project Area
Base map comprised of Esri World Imagery Maps dated June 2013.

Figure 4 Buffered Project Area Limits - Alternatives 1 and 2
Base map comprised of Esri World Imagery Maps dated June 2013.

Figure 5 Buffered Project Area Limits - Alternatives 3, 4, and 5
Base map comprised of Esri World Imagery Maps dated June 2013.

8.0 ACRONYMS

ADT	Average Daily Traffic
BUMP	Baton Rouge Urban Renewal and Mobility Plan
CCS	Context Sensitive Solutions
DOTD	Louisiana Department of Transportation and Development
EIS	Environmental Impact Statement
ESRI	Environmental System Research Institute
FEIS	Final Environmental Impact Statement
Feasibility Study	Stage 0 Feasibility Study and Environmental Inventory
FHWA	Federal Highway Administration
I-10	Interstate 10
LA 1	Louisiana Highway 1
LA 30	Louisiana Highway 30
LA 415	Louisiana Highway 415
NEPA	National Environmental Policy Act
TMP	Transportation Management Plans
SOV	Solicitation of Views
Stage 1	Stage 1 Planning and Environmental
STP	Statewide Transportation Plan