New "South" Mississippi River Crossing

in the

Baton Rouge Metropolitan Area

Overview – February 2019

LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

Background

- New “South” Mississippi River Bridge included in:
  - 2003 Louisiana Statewide Transportation Plan – Priority C
  - 2015 Louisiana Statewide Transportation Plan – Priority B

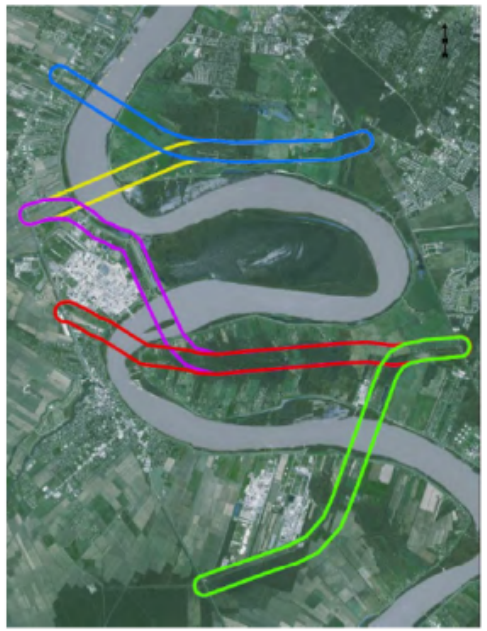
- Several studies over the past 20 years have included a new “South” Mississippi River Bridge.

- Most recent study was completed in August 2016.

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

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FIGURE 1
BUFFERED PROJECT AREAS

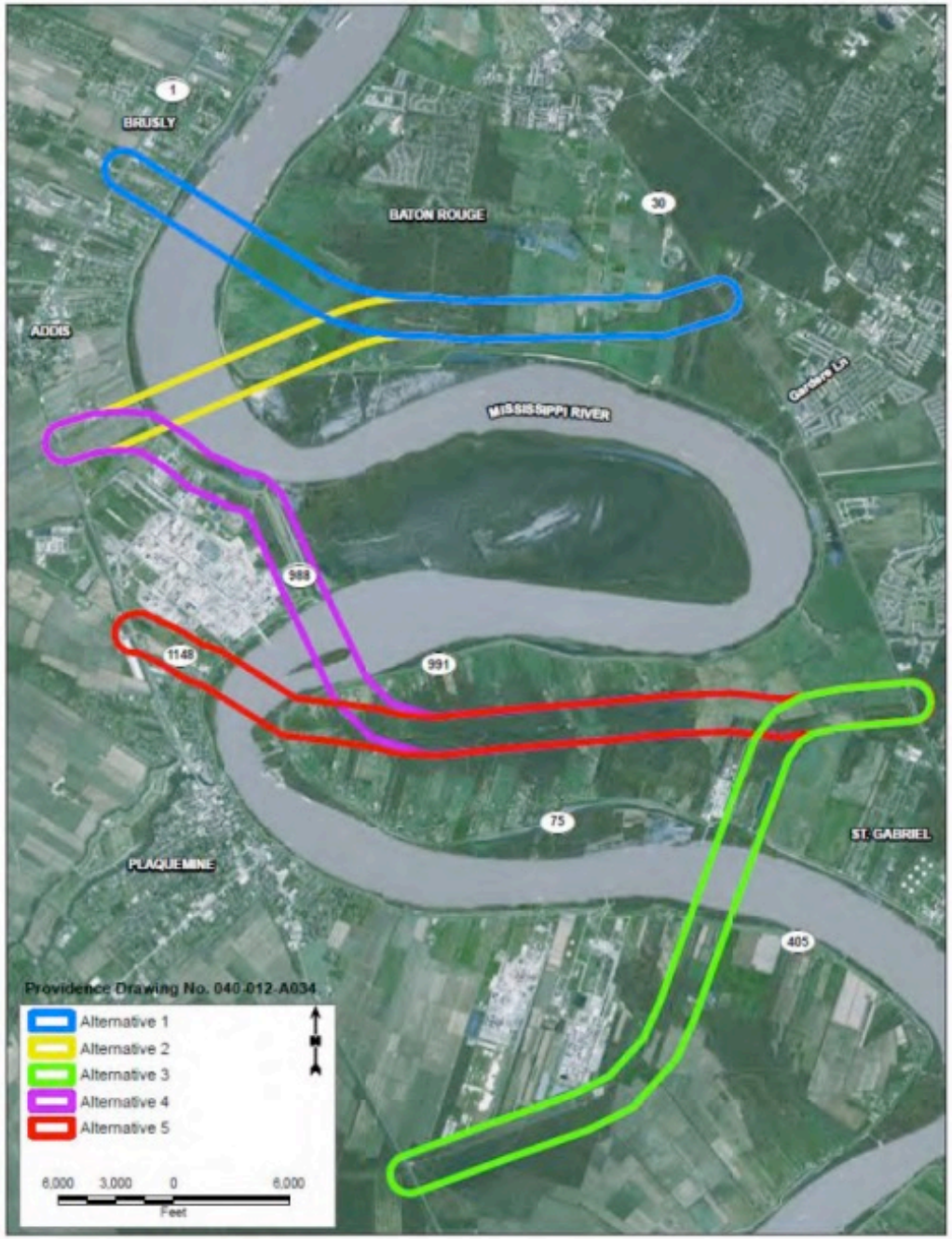

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FIGURE 4
MISSISSIPPI RIVER BRIDGE TYPICAL SECTION WITHOUT RAIL

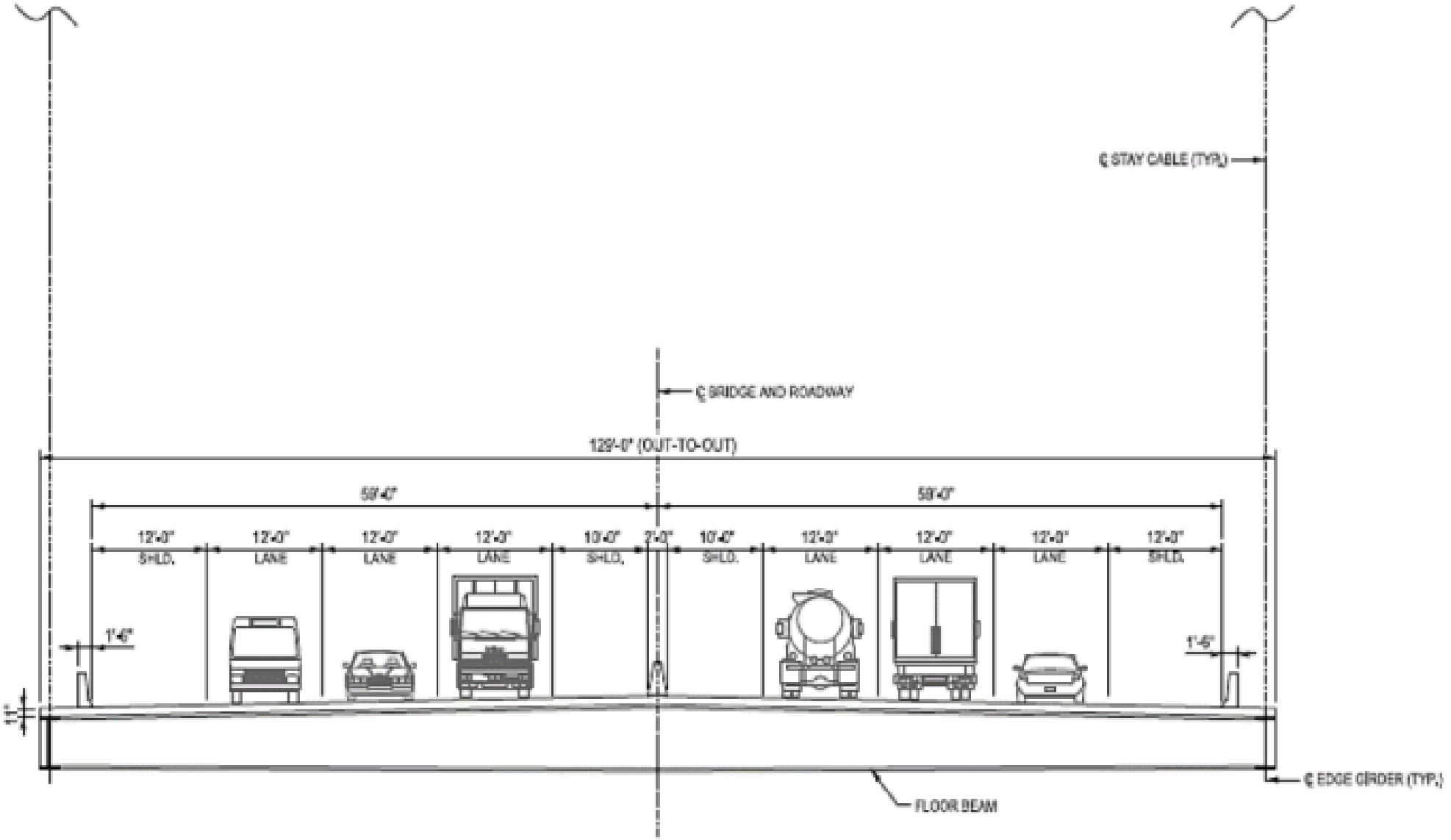

FIGURE 9
MISSISSIPPI RIVER BRIDGE PLAN AND ELEVATION
ALTERNATIVE 1 WITHOUT RAIL

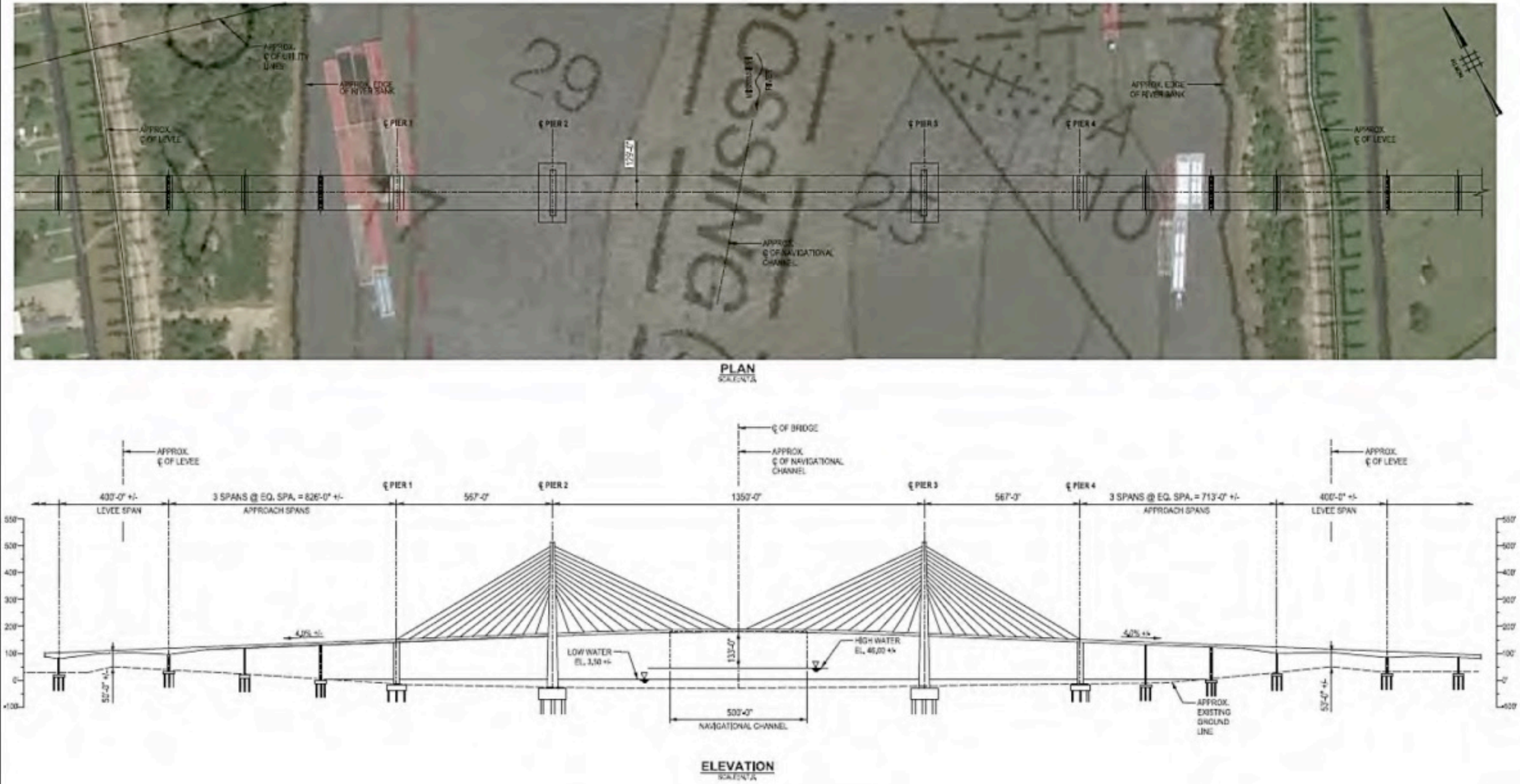

FIGURE 6
RAIL ALIGNMENTS GENERAL PLAN

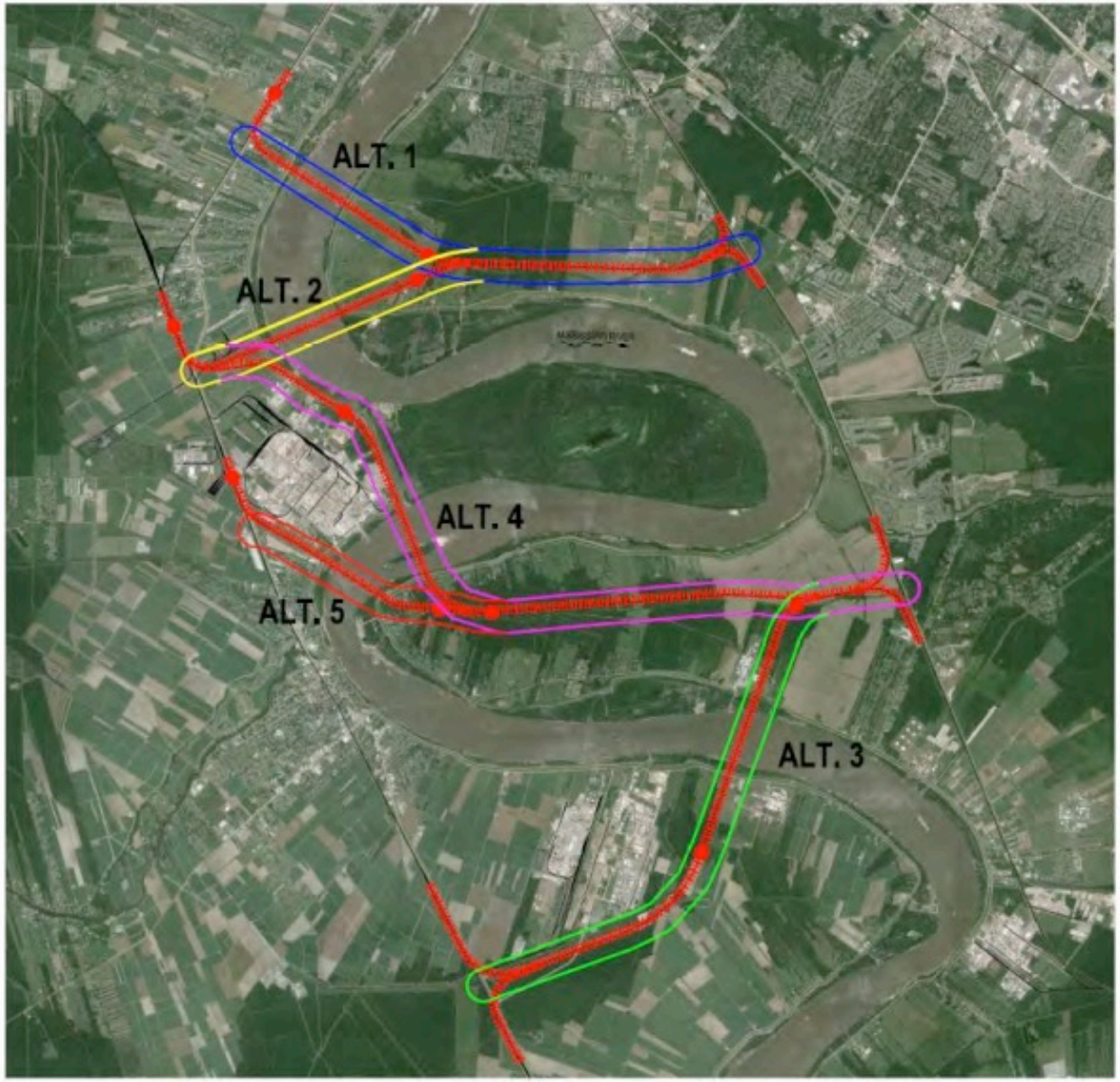

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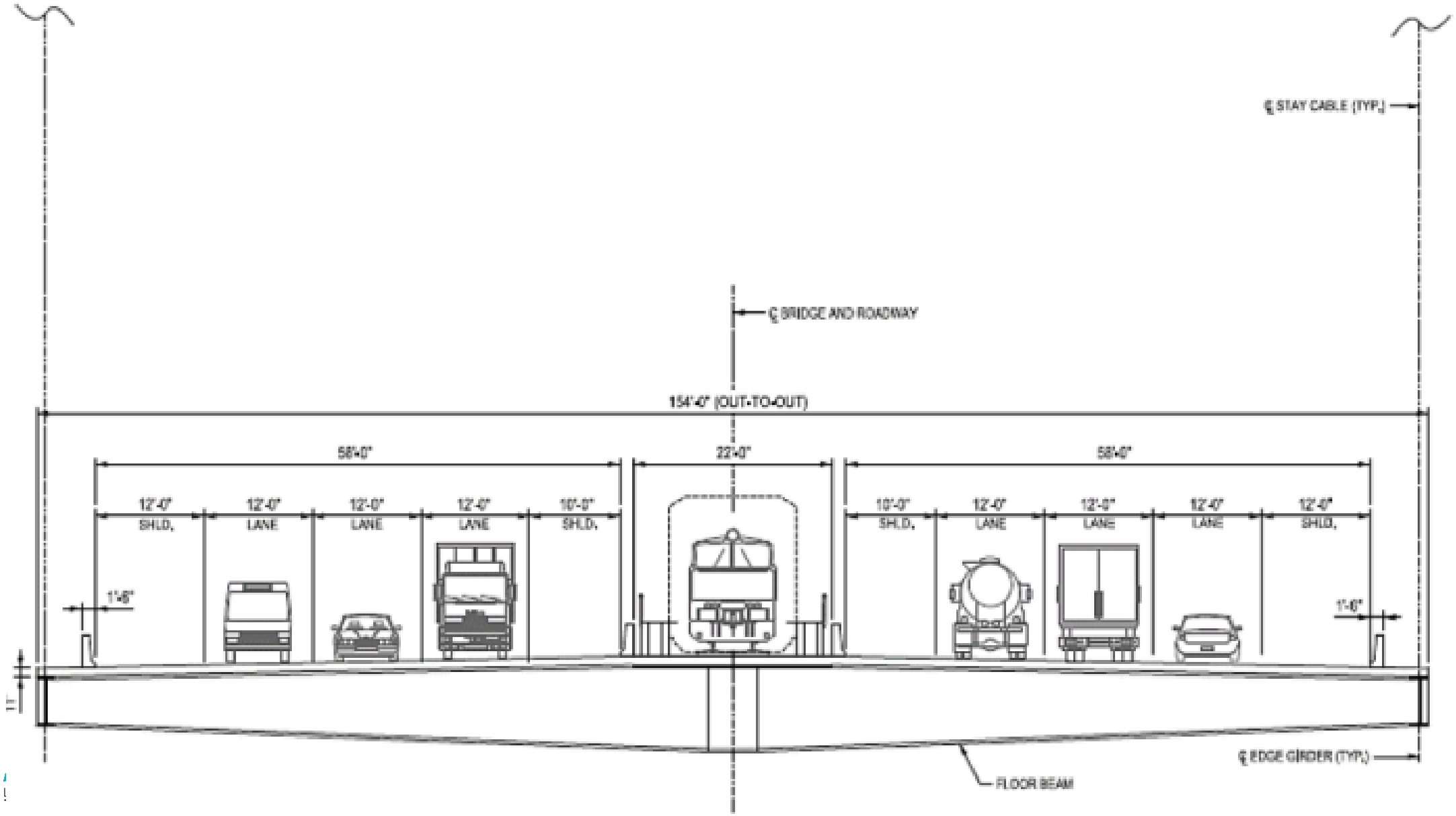
FIGURE 5
MISSISSIPPI RIVER BRIDGE TYPICAL SECTION WITH RAIL



Preliminary Estimates

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

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

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Preliminary Estimates

- **Alternative 1 – Blue Crossing**
  - Highway Only = $853,434,192 With Rail = $2,471,363,060
- **Alternative 2 – Yellow Crossing**
  - Highway Only = $1,012,361,427 With Rail = $2,757,123,873
- **Alternative 3 – Green Crossing**
  - Highway Only = $1,064,810,858 With Rail = $2,711,636,128
- **Alternative 4 – Purple Crossing**
  - Highway Only = $797,484,533 With Rail = $2,619,669,865
- **Alternative 5 – Red Crossing**
  - Highway Only = $733,317,876 With Rail = $2,730,679,707

Rail Considerations

- Including rail dramatically increases cost
- Including rail dramatically increases impacts – bridge approaches are much longer with rail
- Railroads have no interest in another river crossing if they have to pay for the increase in bridge cost to accommodate rail traffic.

Facility Options

- Act 488, RS 48:775, Section E (page 5):
  - "….new Mississippi River Bridge, connectors from Interstate Highway 10 to the bridge on the west side of the Mississippi River, and the connection to and widening of Louisiana Highway 30."

- Two basic facility types can be pursued:
  - Full freeway (Interstate-quality) facility connecting I-10 in WBR Parish to I-10 in Ascension Parish
  - Conventional highway/expressway facility connecting LA 1 with LA 30.
    - Build LA 415 to LA 1 Connector
    - Upgrade LA 1 to expressway
    - Widen and upgrade LA 30 to expressway

Full Freeway

Advantages

- Preserves full freeway (interstate-quality) facility **if** corridor can be preserved (highly desirable)
- Will generate more toll revenue

Disadvantages

- Full freeway option more expensive
- Full freeway option potentially more controversial
  - Full freeway option will have more adverse impacts to both human and natural environments
  - Potential resistance to tolls on segments between bridge approaches and I-10
- More difficult to phase construction without realistic funding plan for entire project.

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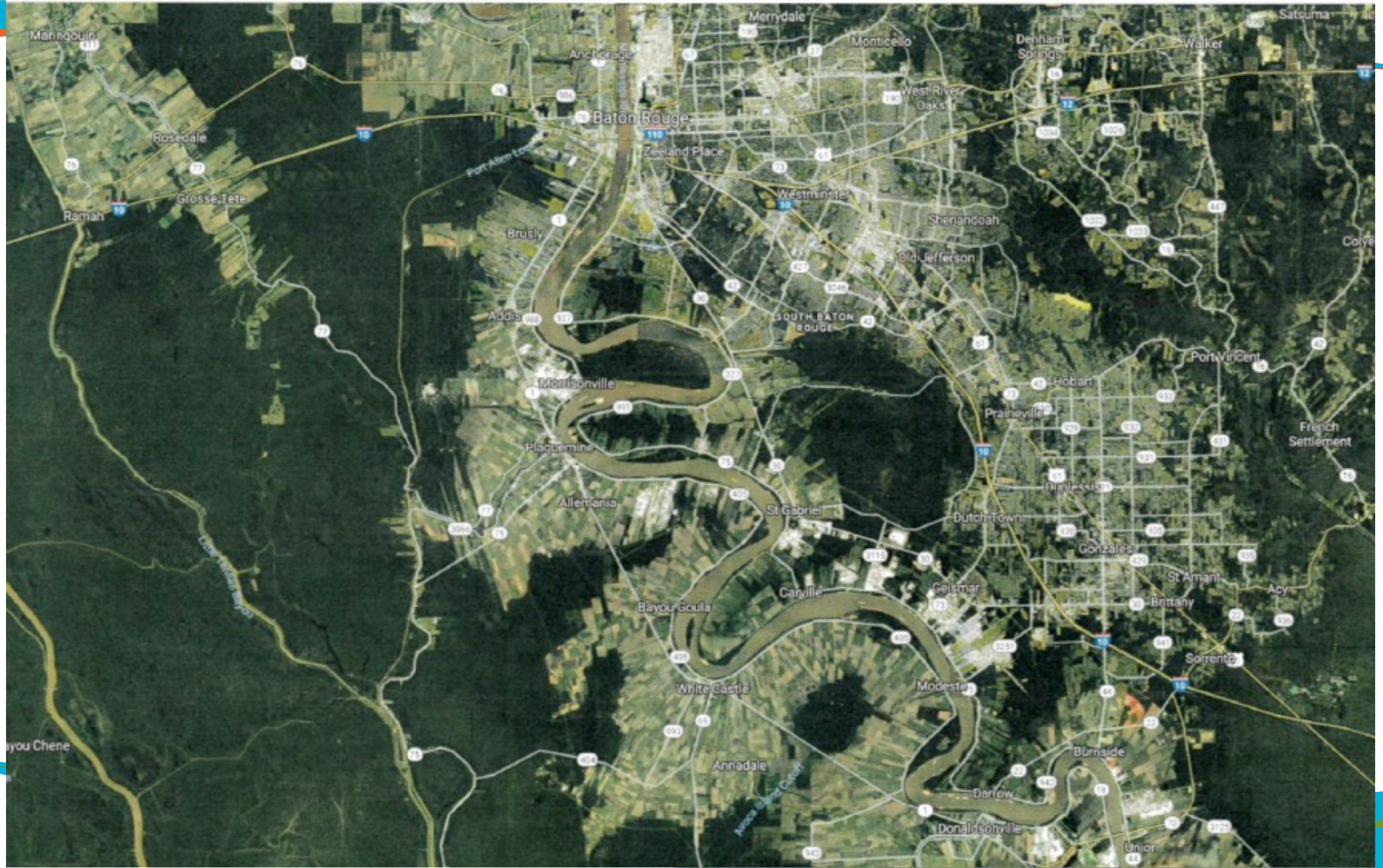
Conventional Highway/Expressway

Advantages

- Conventional/Expressway option less expensive
- Potentially less controversial
  - Will have less adverse impacts to both human and natural environments
- Lends itself to incremental phased construction over a long period of time.
- Allows continued progress on LA 1 to LA 415 Connector as a separate and independent project that still fits in to an overall “plan.”
- Allows selective upgrading of LA 1 and LA 30 to expressways as separate and independent projects that fit into an overall “plan.”

Disadvantages

- Does not preserve full freeway (interstate-quality) facility option. Perhaps short-sighted. (less than desirable)
- Will generate less toll revenue


Maringouin
Morrydale
Montecello
Denham Springs
Walker
Satsuma
Ancharage
West River Oaks
Baton Rouge
Rosedale
Zeeland Place
Port Allen Lock
Grosse Tete
Ramah
Westminster
Shenandoah
Brusly
Old Jefferson
Colyell
Addis
SOUTH BATON ROUGE
Port Vincent
Morrisonville
Hobart
Prairieville
French Settlement
Plaquemine
Pinnlessi
Allemania
St Gabriel
Dutch Town
Gonzales
St Amant
Acy
Carville
Celsmar
Bayou Goula
Brittany
Sorrento
White Castle
Modeste
Burnside
Annadale
Darrow
Donaldsonville
Union
Bayou Chene

Feasibility of Tolling Megaproject B-101
Mississippi River Bridge LA 1 to LA 30
Baton Rouge Metro Area

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Project Overview & Assumptions

- Six-lane bridge with four-lane approaches on each side of the bridge connecting LA 1 to LA 30 with two tolled lanes in each direction.
- Analyzed as a design-build-finance-operate and maintain (DBFOM) PPP project.
- O&M period would be 40 years.
- LADOTD would retain responsibility for emergency responses to incidents.
- AVI (toll tag) toll rates would be determined based on local conditions and with local agency concurrence. Suggested toll rates are shown below.*

Vehicle Classification	Assumed AVI Toll Rates (2015 $) *		
	Peak	Off Peak	Overnight
Passenger	$3.00	$3.00	$0.50
Light Trucks	$5.50	$2.15	$0.50
Heavy Trucks	$8.00	$8.00	$1.00

Toll Feasibility Assessment

Financial Model Parameters	(in millions $)
Total capital cost (2017 $)	$634.0
Bridge & approaches	$627.4
Toll collection system	6.6
Start of project development	1/1/2019
Start of construction	1/1/2022
Start of toll operations	1/1/2026
Total capital cost in YOE dollars	$771.9
Net toll revenue bond proceeds over 40 years in YOE dollars	$113.3
% total construction cost financed by toll revenues	17%
Total public agency funding required	$641.0

Financial Assessment and Tolling Feasibility

Task 2.3

MS River Bridge LA 1 to LA 30

- New 6-lane bridge
- $634 million capital cost
- Peak tolls: $3.00 to $8.00
- 17% construction cost financed by toll revenues

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Funding Considerations

That May Lessen Any New Tax

- DOTD is undertaking a more detailed toll study to get a better estimate of potential toll feasibility.
- Construction of a new bridge will eliminate the Plaquemines Ferry. The present value of running the ferry for 40 years can be credited toward the cost of the project.
- All 5 parishes can participate in the Road Transfer Program and use the 40-year credits toward the new bridge.

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Moving Forward

- If using federal funds, an Environmental Impact Statement (EIS) will be required as well as permits from the US Coast Guard and US Army Corps of Engineers, and others. The project will also have to be included in the 5-Parish Air Quality Conformity analysis.
- Even if no federal funds are used, permits from federal agencies and the air quality analysis are still required.
- Data and analyses from previous studies will be used and referenced.
- Need approximately $5 million for an EIS; additional $ for P3 procurement
- Capitol Area Road and Bridge District can hire consultant directly to staff the District and pursue EIS, or CRPC can pursue EIS, or DOTD can pursue EIS.

Questions & Discussion

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