

H.013284

MRB South GBR:

LA 1 to LA 30 Connector

December 13, 2021

Project Progress Update to CARB-D



LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT | CAPITAL AREA ROAD AND BRIDGE DISTRICT



www.dotd.la.gov

Project Team

➤ Prime Consultant:

- Atlas Technical Consultants, LLC

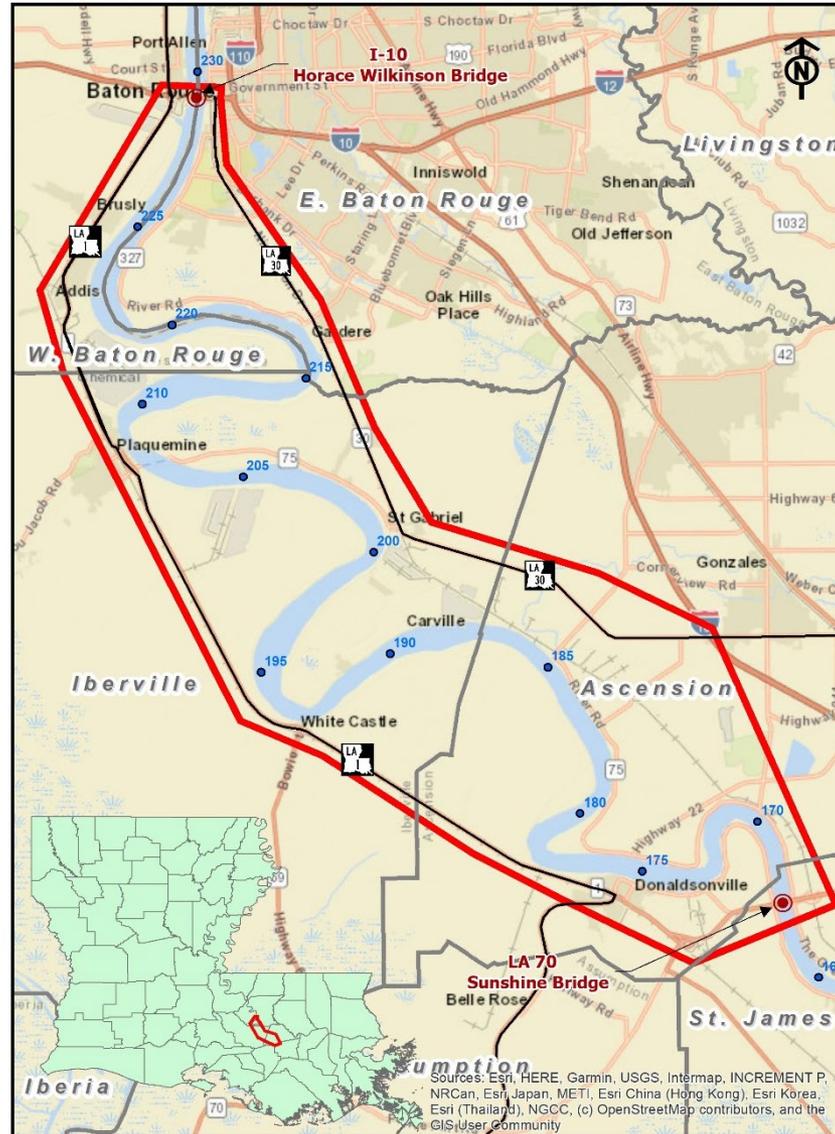
➤ Subconsultants:

- CDM Smith, Inc.
Travel Demand Model & Toll Analysis
- Neel-Schaffer, Inc.
Mesoscopic Model & Traffic Analysis
- INRO Consultants, Inc.
Mesoscopic Model Support
- Franklin Associates, LLC
Public Involvement
- FIGG Bridge Engineering, Inc.
Bridge Technical Concepts
- Shread-Kuyrkendall & Assoc., Inc.
Roadway Technical Concepts
- GIS Engineering, LLC
Navigational Considerations
- Providence Engineering & Environmental Group LLC
Environmental Inventory

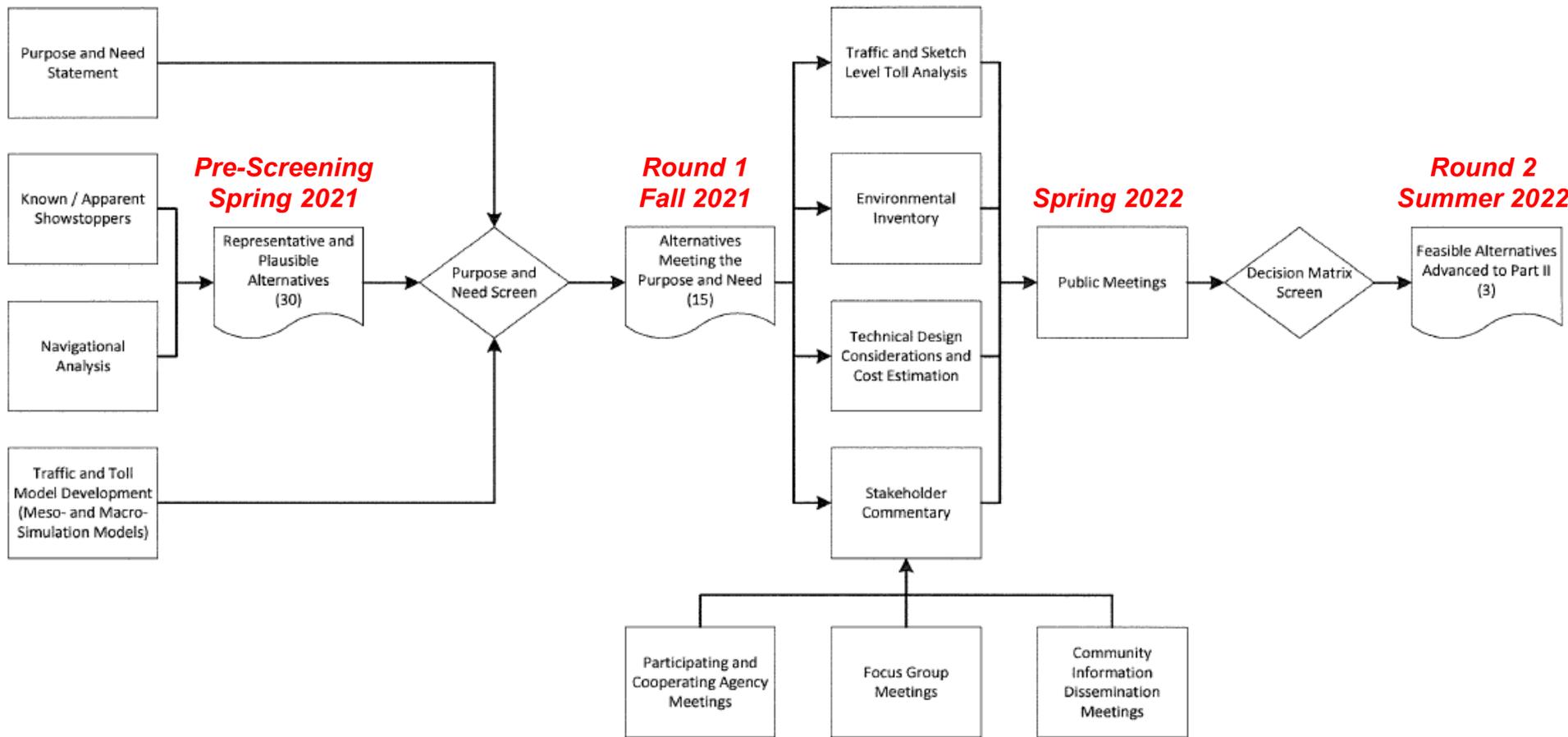
Project Overview

- Ultimate objective is to construct a new crossing of the Mississippi River in the Greater Baton Rouge Area
- **Part I: Enhanced Planning Study**
(July 2020 – Summer 2022)
- **Part II: Environmental Evaluation**
(Summer/Fall 2022 – Summer 2024)

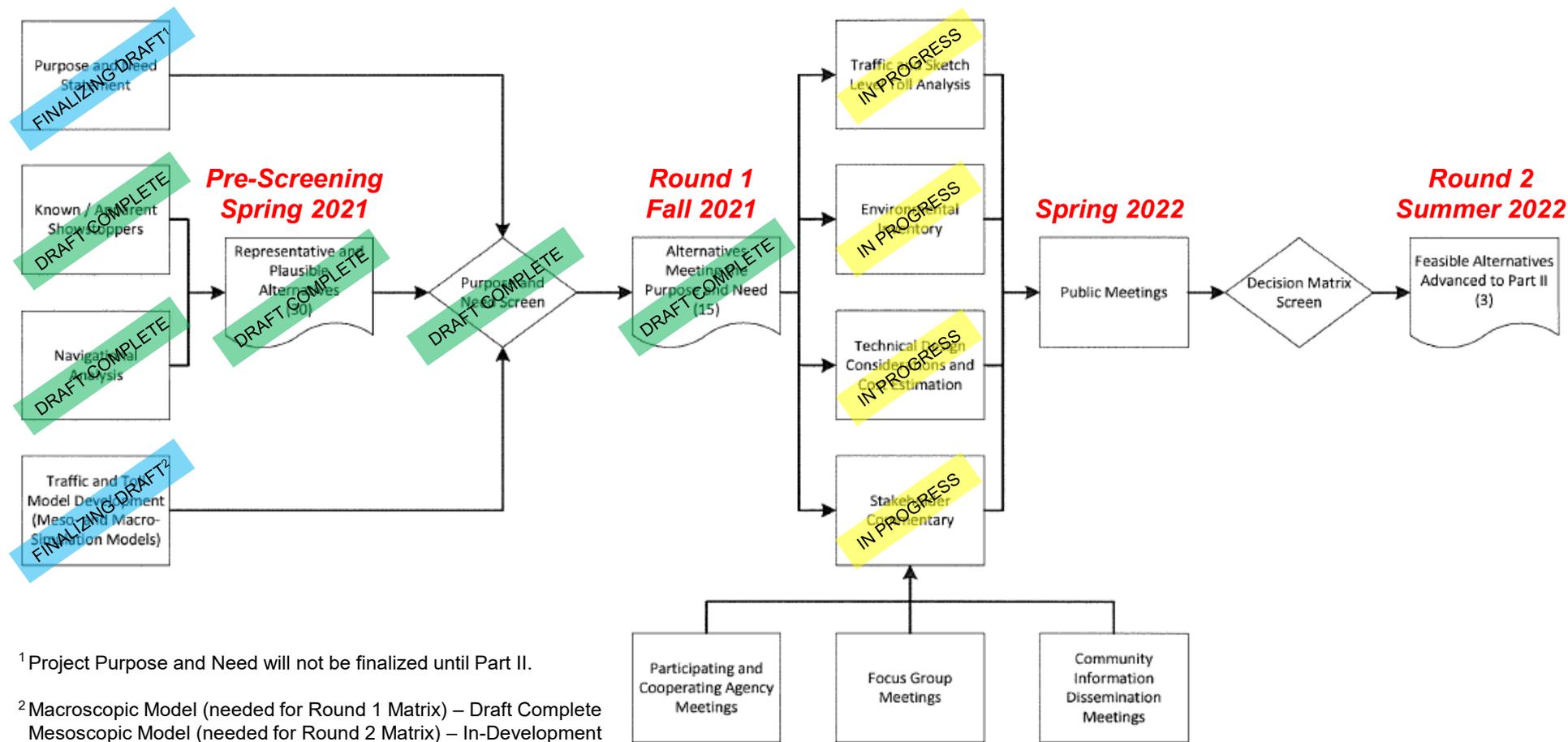
Study Area



Project Workflow (Part I)



Project Workflow (Part I)



¹ Project Purpose and Need will not be finalized until Part II.

² Macroscopic Model (needed for Round 1 Matrix) – Draft Complete
 Mesoscopic Model (needed for Round 2 Matrix) – In-Development

Screening Methodology

- Pre-Screening (Complete)
 - Plausible and Reasonable Alternatives
 - 32 Alternatives Identified
- Round 1 Screening (Complete)
 - Avoid Highly Sensitive Resources
 - Incorporate Travel Demand Information
 - Incorporate Technical Bridge Considerations
 - ~~17~~ 20 Alternatives Retained
- Public Meetings
- Round 2 Screening
 - Identify Most Feasible Alternatives

Round 1 Screening

- Avoid Highly Sensitive Resources
 - Known Section 4(f) Properties
 - Protected Species Critical Habitat
- Incorporate Travel Demand Information
 - MRB Travel Demand (ADT and VHT)
 - I-10 Congestion Relief (VHT)
 - LA 1 Congestion Relief (VHT)
- Bridge Constraints (Updated)

ADT – Average Daily Traffic | VHT – Vehicle Hours Traveled

Round 1 Bridge Constraints

- No Bridge Zone (Span Length Exceeded)
 - 2000 ft span limit
 - Reasonableness limit (not a technical limit)
- Adjacent alignments exceeded 2000 ft
 - Due to slight angle of crossing
 - Impacted four alternatives including northernmost alternative
 - A-1-I, A-1-II, C-9-IV, and H-19-VII
- Updated Bridge Values
 - Unacceptable vs. Marginal

MRB SOUTH GBR: LA 1 TO LA 30 CONNECTOR (SPN H.013284)
ROUND 1 CORRIDOR ALTERNATIVE SCREENING TABLE

ALTERNATIVE	BRIDGE CONSTRAINTS	MRB TRAVEL DEMAND		I-10 CONGESTION RELIEF	LA 1 CONGESTION RELIEF	KNOWN SECTION 4(f) RESOURCE	PROTECTED SPECIES CRITICAL HABITAT
		ADT	VHT	VHT	VHT		
A-1-I	M	M	M	H	L	No	No
A-1-II ^{FS-1}	M	M	M	M	L	No	No
B-2-I	A	M	M	H	M	No	No
B-2-II	A	M	M	H	M	No	No
C-3-I	A	H	M	H	M	No	No
C-3-II ^{FS-2}	A	H	H	H	M	No	No
C-4-I	A	M	H	H	H	No	No
C-5-II	A	H	H	H	H	No	No
C-6-III	A	H	H	H	H	No	No
C-7-IV	A	L	H	M	M	No	No
C-8-IV	A	L	H	M	M	No	No
C-9-IV ^{FS-4}	M	L	H	M	M	No	No
D-10-IV ^{FS-5}	A	H	M	M	H	Yes	No
E-11-IV	A	H	M	M	H	No	No
F-12-IV ^{FS-3}	A	M	M	M	H	No	No
F-13-IV ^{FS-3}	A	H	H	M	H	No	No
F-14-V	A	M	M	M	H	No	No
F-15-VI	A	L	M	M	M	No	No
F-16-VII	A	L	M	M	M	No	No
F-17-VII	A	L	L	L	M	No	No
G-18-VII	A	L	M	L	M	No	No
H-19-VII	M	M	L	M	L	No	No
I-20-VII	A	M	L	M	M	No	No
J-21-VII	A	M	L	M	M	No	No
K-22-VII	A	M	L	M	M	No	No
K-23-VII	A	M	L	M	M	No	No
K-24-VIII	A	M	L	L	L	Yes	No
L-27-X	A	L	L	L	L	No	No
M-24-VIII	A	M	M	L	L	Yes	No
M-25-IX	A	M	M	L	L	No	No
M-26-X	A	M	M	L	L	Yes	No
N-28-X	A	H	M	L	M	No	No

TABLE NOTES:

^{FS-0} Represents one of the five corridors from the Feasibility Study

Highlights: Green = most benefit, Yellow = moderate benefit, Red = least benefit

Pink cross-hatched alternatives were screened out due to low ADT.
 Blue cross-hatched alternatives were screened out due to potential Section 4(f) resource impact.

Bridge Constraints

M = Marginal - main span length slightly exceeds approximate reasonable length of 2,000 ft
 A = Acceptable - span lengths are reasonable with no impacts to the levee system

MRB Travel Demand (all MRB, I-10, LA 1, and LA 30 are Year 2042 traffic):

Average Daily Traffic (ADT)

Low (L) = 24,200-29,900
 Moderate (M) = 30,000-35,400
 High (H) = >35,500

Vehicle Hours of Travel (VHT)

("-" is a reduction):
 L = <-0.90%
 M = -0.91% to -1.19%
 H = -1.20% to -1.74%

I-10 Congestion Relief

("-" is a reduction):
 VHT
 L = -1.52% to -3.39%
 M = -3.40% to -4.99%
 H = >-5.00%

LA 1 Congestion Relief

("-" is a reduction):
 VHT
 L = -4.60% to -7.89%
 M = -7.90% to -12.04%
 H = >-12.05%

Known Section 4(f) Properties and Protected Species Critical Habitat

No = No Impact Known
 Yes = Potentially Impacted



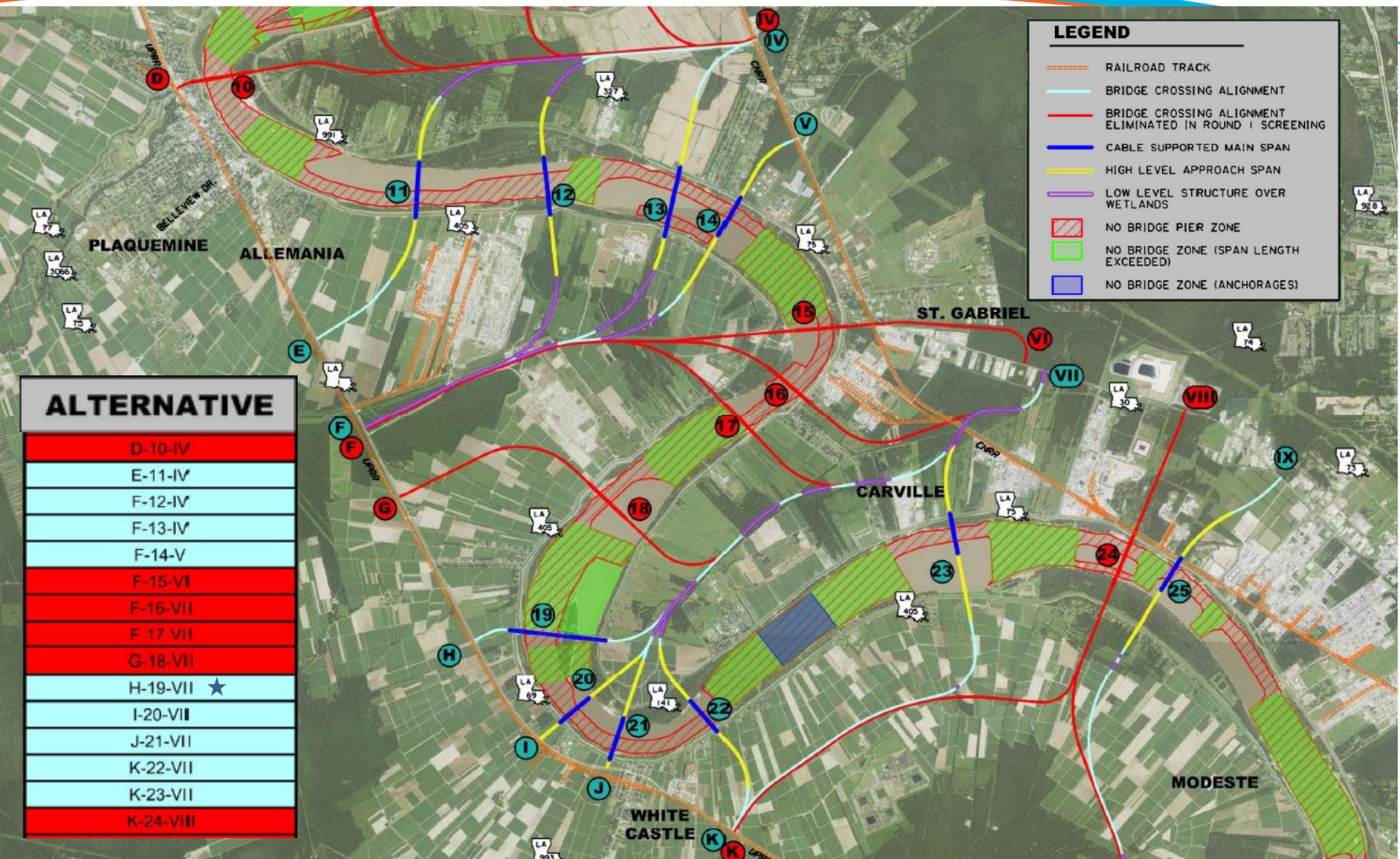
ALTERNATIVE	
A-1-I	★
A-1-II	★
B-2-I	
B-2-II	
C-3-I	
C-3-II	
C-4-I	
C-5-II	
C-6-III	
C-7-IV	
C-8-IV	
C-9-IV	
D-10-IV	

LEGEND	
	RAILROAD TRACK
	BRIDGE CROSSING ALIGNMENT
	BRIDGE CROSSING ALIGNMENT ELIMINATED IN ROUND 1 SCREENING
	CABLE SUPPORTED MAIN SPAN
	HIGH LEVEL APPROACH SPAN
	LOW LEVEL STRUCTURE OVER WETLANDS
	NO BRIDGE PIER ZONE
	NO BRIDGE ZONE (SPAN LENGTH EXCEEDED)
	NO BRIDGE ZONE (ANCHORAGES)

LEGEND

- RAILROAD TRACK
- BRIDGE CROSSING ALIGNMENT
- BRIDGE CROSSING ALIGNMENT ELIMINATED IN ROUND 1 SCREENING
- CABLE SUPPORTED MAIN SPAN
- HIGH LEVEL APPROACH SPAN
- LOW LEVEL STRUCTURE OVER WETLANDS
- NO BRIDGE PIER ZONE
- NO BRIDGE ZONE (SPAN LENGTH EXCEEDED)
- NO BRIDGE ZONE (ANCHORAGES)

ALTERNATIVE	
D-10-IV	
E-11-IV	
F-12-IV	
F-13-IV	
F-14-V	
F-15-VI	
F-16-VII	
F-17-VII	
G-18-VII	
H-19-VII	★
I-20-VII	
J-21-VII	
K-22-VII	
K-23-VII	
K-24-VIII	





ALTERNATIVE	
	L-27-X
	M-24-VIII
	M-25-IX
	M-26-X
	N-28-X

LEGEND	
	RAILROAD TRACK
	BRIDGE CROSSING ALIGNMENT
	BRIDGE CROSSING ALIGNMENT ELIMINATED IN ROUND 1 SCREENING
	CABLE SUPPORTED MAIN SPAN
	HIGH LEVEL APPROACH SPAN
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	NO BRIDGE PIER ZONE
	NO BRIDGE ZONE (SPAN LENGTH EXCEEDED)
	NO BRIDGE ZONE (ANCHORAGES)

Round 2 Screening

- Travel Demand and Traffic Impacts
 - Average Daily Traffic / Vehicle Hours Traveled
- Property Impacts
 - Right-of-Way / Utility / LDEQ Permitted Facilities
- Bridge Impacts
 - Constructability / Navigability / Levees
- Environmental Impacts
 - Protected Species / Fish Habitat / Wetlands / EJ Communities
- Effective Cost
 - Actual Cost reduced by Forecast Toll Revenue

Draft Round 2 Screening Criteria

MRB SOUTH GBR: LA 1 TO LA 30 CONNECTOR (SPN H.013284)
 ROUND 2 PRELIMINARY ALTERNATIVES SCREENING

ALTERNATIVES	APPROX. LENGTH IN MILES	TRAVEL DEMAND/ BRIDGE ADT	TRAFFIC/ DELAY	I-10 Congestion Relief (VHT)	RIGHT-OF-WAY					BRIDGE/ CONSTRUCT- ABILITY ISSUES ¹	BRIDGE/ IMPACTS TO NAVIGATION ²	BRIDGE/ IMPACTS TO LEVEES ³	EFFECTIVE COST	PIPELINES/ POWER LINES (linear feet)	LDEQ PERMITTED FACILITIES ⁴	PROTECTED SPECIES ⁵	ESSENTIAL FISH HABITAT PRESENT (acres)	WETLANDS (acres) (Mainline/ Interchange)	EJ Areas	
					Acres	Buildings														
						R	B	P	I											O
A-1-I																				
A-1-II																				
B-2-I																				
B-2-II																				
C-3-I																				
C-3-II																				
C-4-I																				
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K-23-VII																				
M-25-IX																				
N-28-X																				

Public Involvement

- Agency and Stakeholder Meetings
 - Iberville Parish and West Baton Rouge Parish
 - CRISIS
 - East Iberville Community Advisory Panel
 - Baton Rouge Area Chamber
 - On-Going as Needed / Requested

- Project Informational Website
 - <https://www.mrbsouth.com>

Public Involvement

- Public Meetings - Conceptual Plan (DRAFT)
 - Late Spring 2022
 - Six In-Person Meetings
 - Held across the CARB-D Member Parishes
 - Online Engagement Component
 - Map-Based Virtual Mechanism
 - Illustrate Alignment Alternatives
 - Solicit Feedback on areas of concern
(historic, recreational, faith-based, transportation items, etc.)

Overall Progress (Part I)



➤ 74% Work Completed

➤ 70% Time Elapsed

➤ 50% Funds Dispersed

Looking Ahead...

For 1st Quarter CARB-D Meeting:

- Continue working on Round 2 Screening Criteria
 - Ongoing Modeling and Analyses
- Preparation for Public Meetings

Thank You!