

An aerial photograph of a marina with a bridge in the foreground. The bridge is a concrete structure with multiple lanes, supported by wooden pilings. In the background, there is a large body of water with several boats docked at a pier. The water is a deep blue-green color. The sky is clear and blue. The overall scene is a coastal area with a bridge and a marina.

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PROJECT DEVELOPMENT & ENVIRONMENT STUDY SR 5/US-1 Federal Highway Bridge

From CR-A1A to Beach Road | Palm Beach County, Florida
Financial Project ID 428400-2-22-01 | ETDM# 14199

**Palm Beach MPO Board Meeting
December 12, 2016**

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SR 5/US-1 Federal Highway Bridge

Location Map



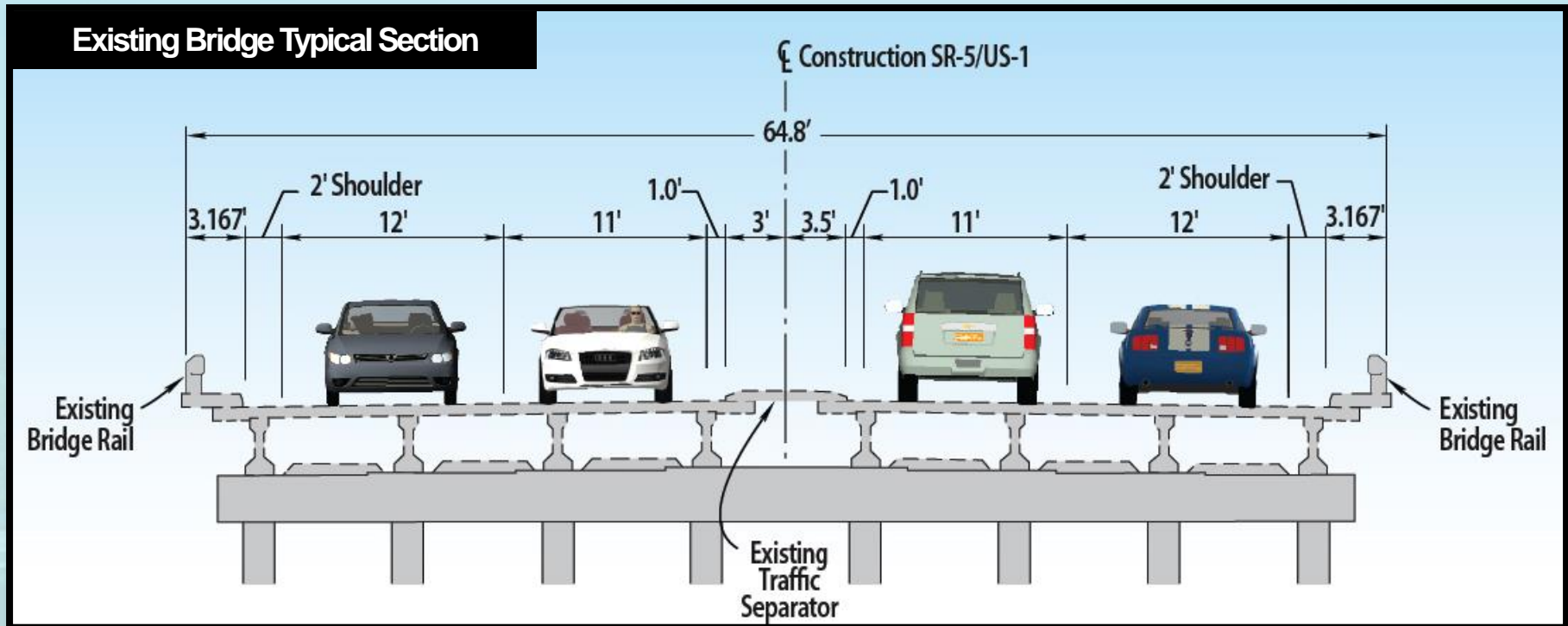
Project Development & Environment (PD&E) Study

The objectives of a PD&E study are to perform necessary social, environmental and engineering studies of a proposed transportation improvement to support decisions concerning if and where it should be built and what will be the basic design concepts.

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SR 5/US-1 Federal Highway Bridge

Existing Typical Section



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SR 5/US-1 Federal Highway Bridge

Existing Bridge

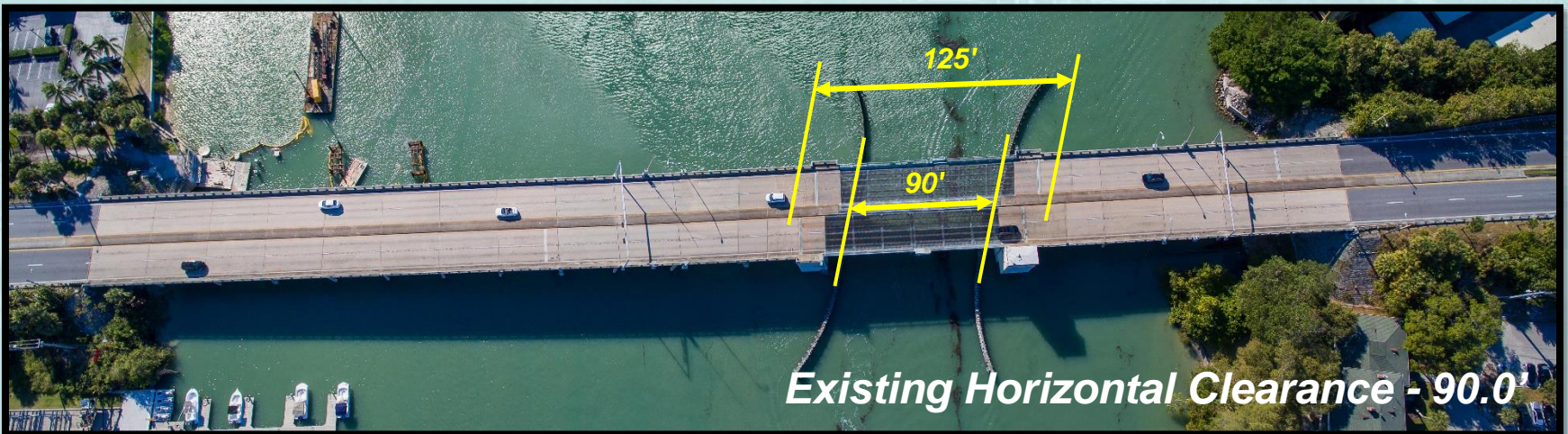
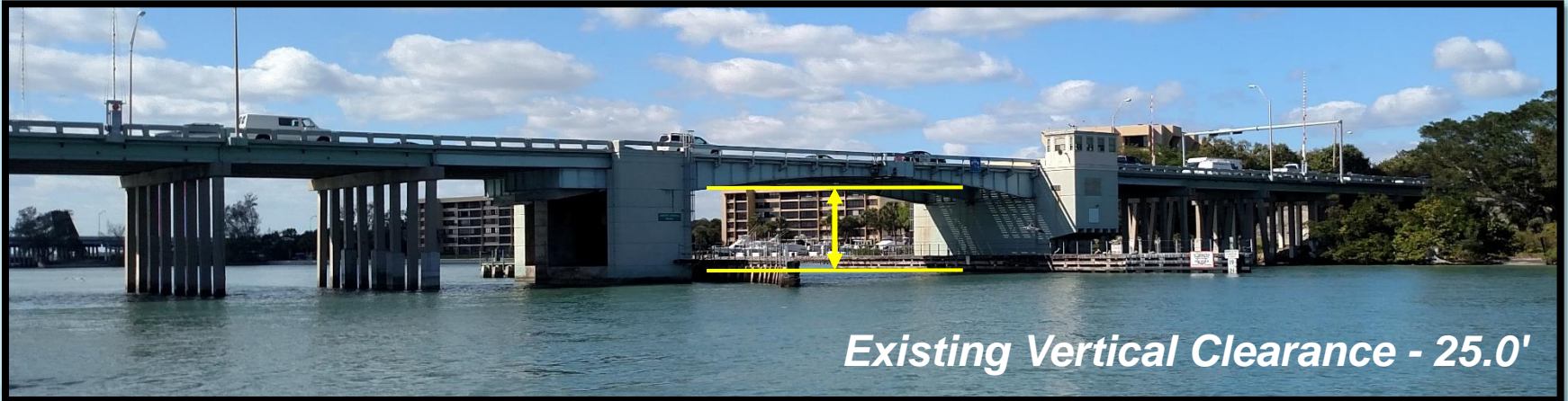
- Structurally deficient
 - Substructure rated “Poor”
 - Superstructure rated “Poor”
- Functionally obsolete
 - No sidewalks
 - No bicycle lanes



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Existing Clearance



Proposed Horizontal Clearance - 125.0'

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Public Involvement Meetings

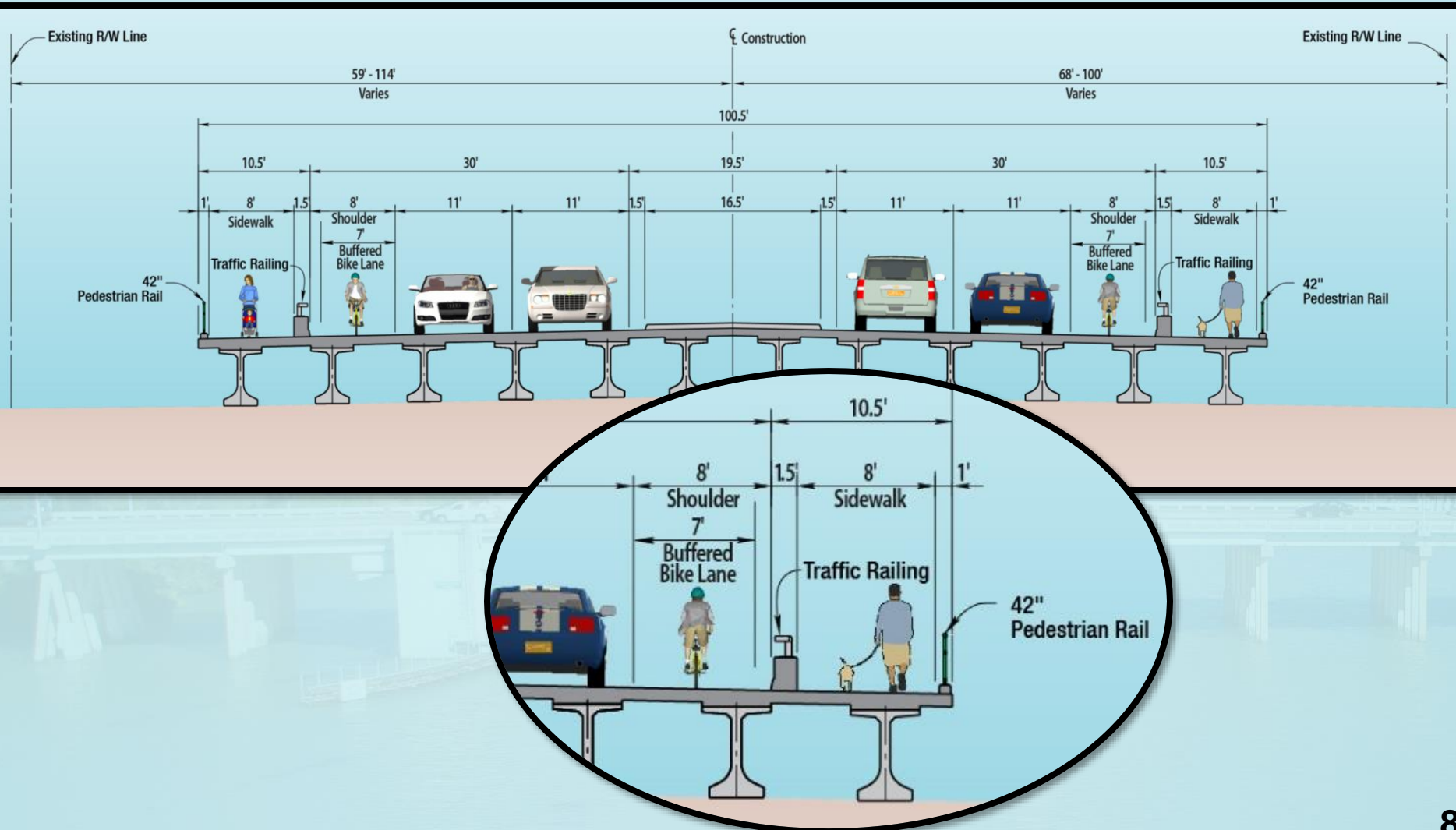
- Elected Officials/ Agency Kickoff Meeting February 17, 2016
- Public Kick-off Meeting February 17, 2016
- Alternatives Public Workshop – September 20, 2016
- Public Hearing – Spring 2017
- Stakeholder Meetings (MPO Board and Committees, Cultural Resource Committee, Bridge Aesthetics Committee, HOA Meetings, etc.)



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SR 5/US-1 Federal Highway Bridge

Proposed Approach Span Typical Section



Alternatives Analysis

- No Build Alternative
- Build Alternatives:
 - Vertical Alignment
 - 25' bascule (same as existing)
 - 30' bascule
 - 35' bascule
 - 40' bascule
 - Horizontal Alignment
 - Centerline same as existing



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Reduction in Openings Compared to Existing

<i>Vertical Clearance</i>	<i>Reduction</i>
25' (Same as Existing)	0%
30'	25%
35'	44%
40'	49%

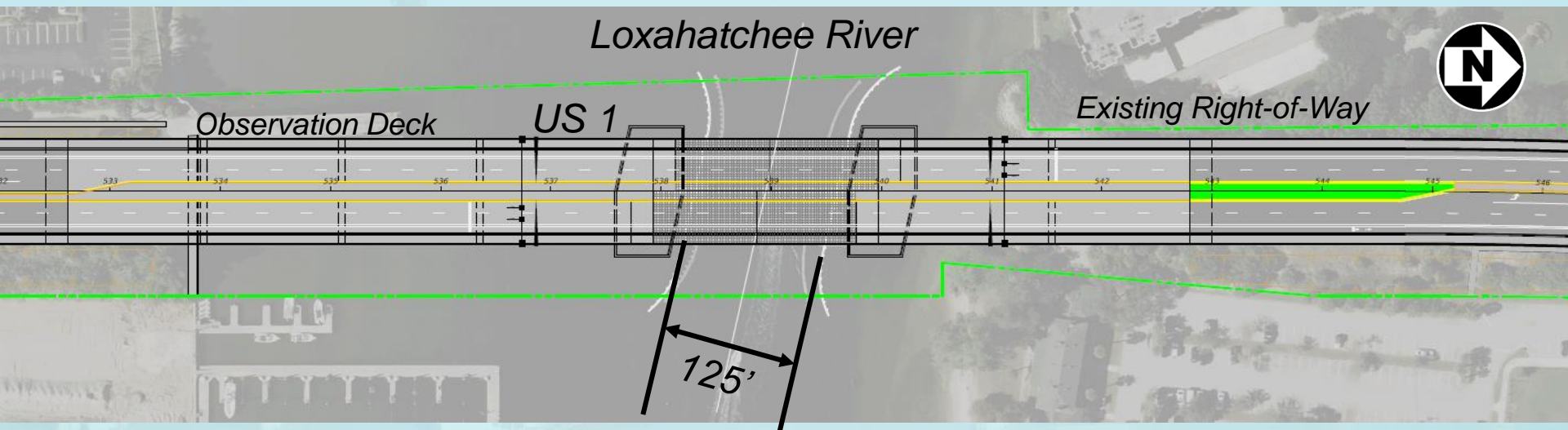


Vertical Clearance

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Horizontal Alignment Alternative



Maintenance of Traffic Option 1

Close Bridge and Detour Traffic

Advantages

- Faster completion
- Less expensive
- No chance old bridge will settle

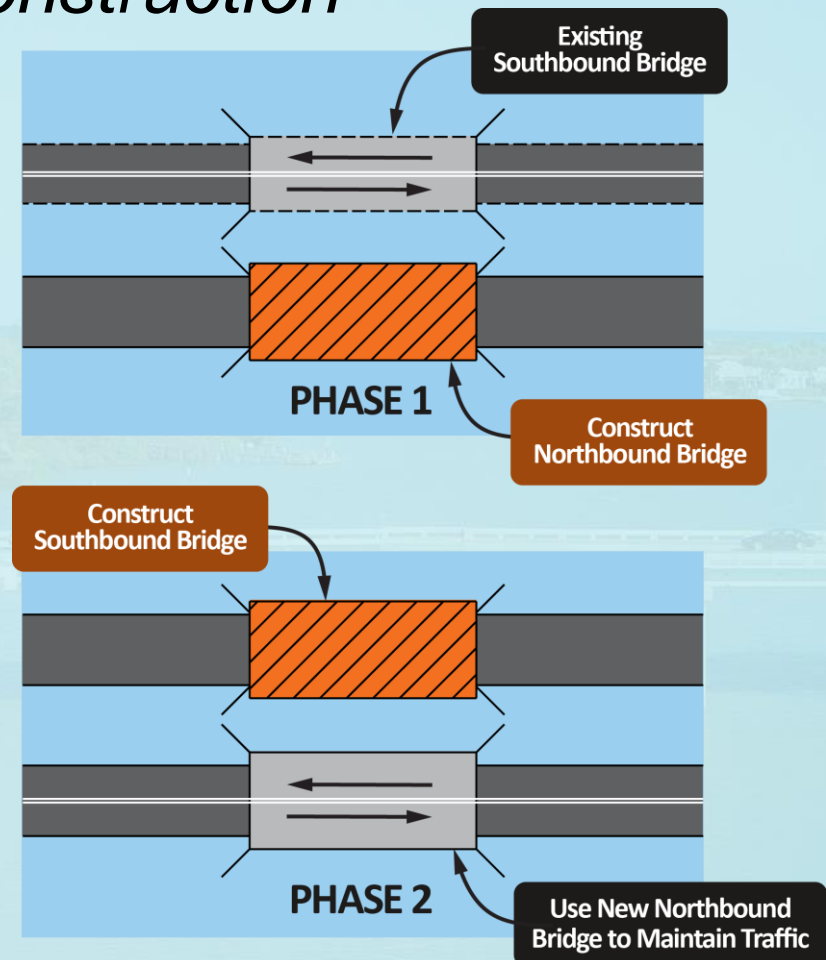


Maintenance of Traffic Option 2

Phase Construction

Advantages

- Provide one lane of traffic in each direction at all times
- Less disruptive to residents and businesses adjacent to the bridge



Environmental

- Social and Cultural Environment
- Natural Environment
- Physical Environment
- Summarize results in Environmental Reports



Environmental Reports

- Wetland Evaluation
- Endangered Species Biological Assessment
- Essential Fish Habitat Assessment
- Cultural Resources Assessment Survey – update
- Section 106 Determination of Effects
- Section 4(f) Determination of Applicability
- Contamination Screening Evaluation
- Air Quality Memorandum
- Noise Study Report

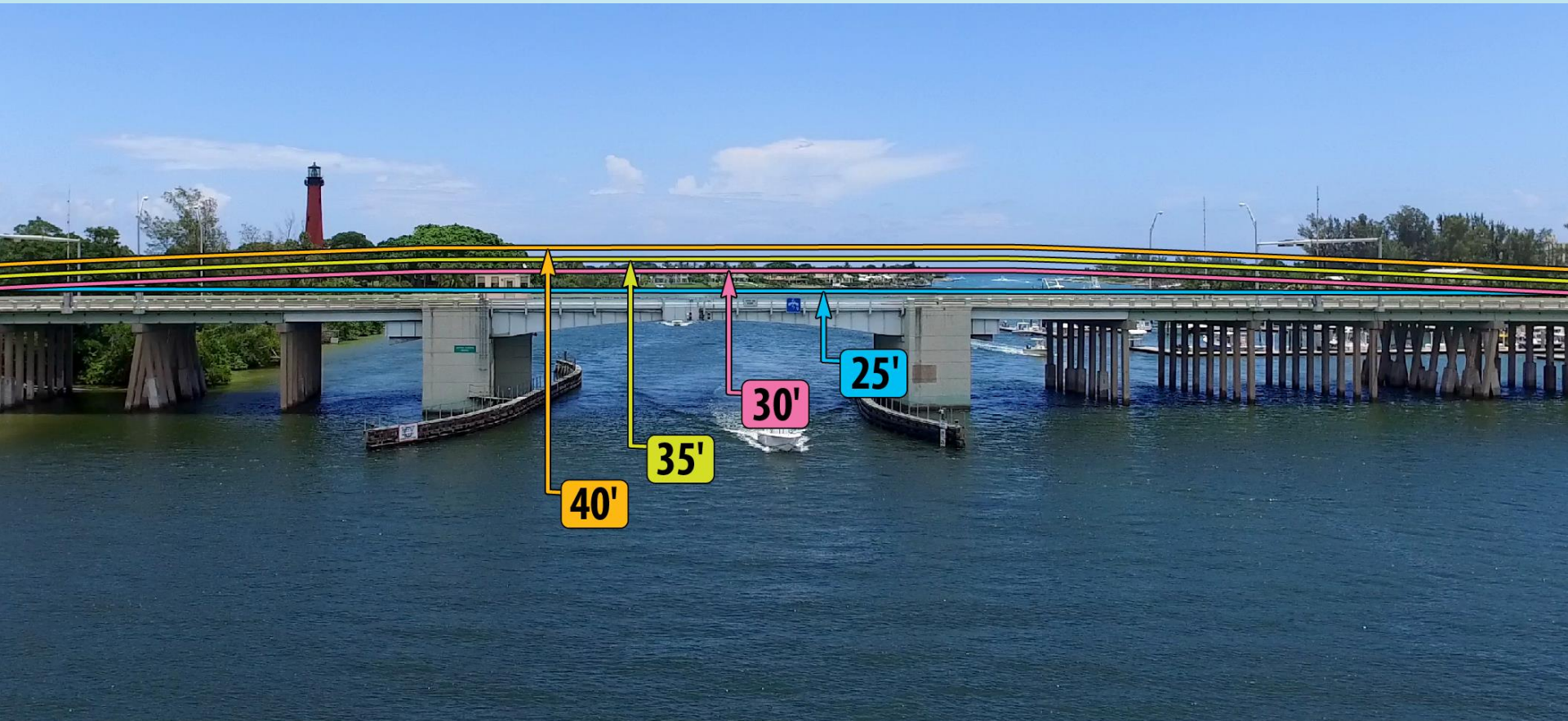
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Evaluation Matrix

	ALTERNATIVES				
	No Build	25' Bascule	30' Bascule	35' Bascule	40' Bascule
Total Project Cost	0	\$112,745,000	\$114,876,250	\$117,540,000	\$121,596,250
Evaluation Points	-10	-2	+2	+6	+4

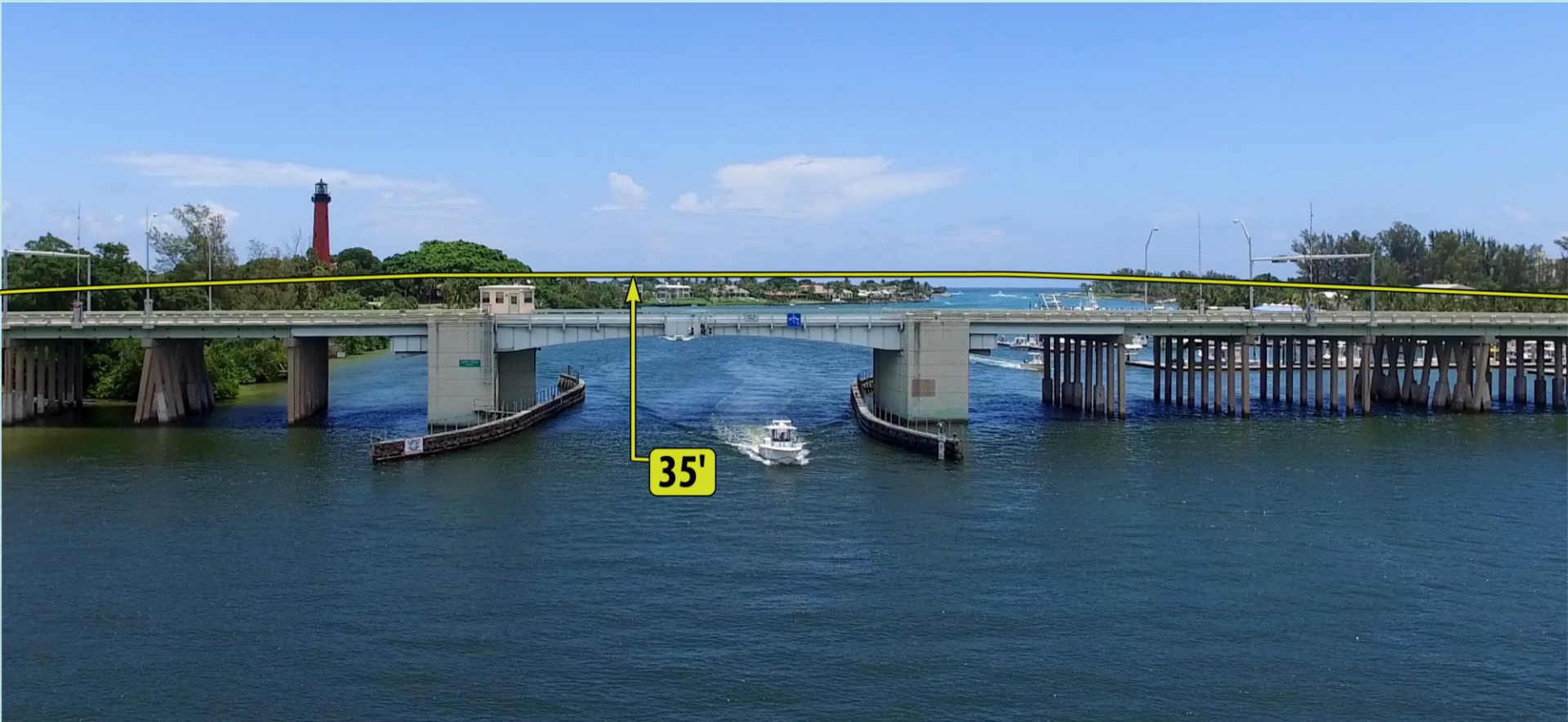
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Vertical Alignment



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Vertical Alignment



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Tenderhouse – Option B



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Tenderhouse – Option C2



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Project Schedule

ACTIVITY	2015				2016				2017			
Begin Study				★								
Public Kick-off Meeting					★							
Public Input												
Develop Build Alternatives												
Alternatives Public Workshop								★				
Public Hearing No-Build and Build Alternatives Presented										★		
Study Complete/Location Design Concept Acceptance											★	

Motion to Endorse Recommended Alternative



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Contact

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