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
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.
Existing Bridge

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

Existing Vertical Clearance - 25.0'

Existing Horizontal Clearance - 90.0'

Proposed Horizontal Clearance - 125.0'
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.)
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
Reduction in Openings Compared to Existing

<table>
<thead>
<tr>
<th>Vertical Clearance</th>
<th>Reduction</th>
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<tbody>
<tr>
<td>25' (Same as Existing)</td>
<td>0%</td>
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<tr>
<td>30'</td>
<td>25%</td>
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<tr>
<td>35'</td>
<td>44%</td>
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<tr>
<td>40'</td>
<td>49%</td>
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Horizontal Alignment Alternative

Loxahatchee River

Observation Deck  US 1  Existing Right-of-Way

125'
Maintenance of Traffic

Option 1

Close Bridge and Detour Traffic

Advantages

- Faster completion
- Less expensive
- No chance old bridge will settle
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
## Evaluation Matrix

<table>
<thead>
<tr>
<th>ALTERNATIVES</th>
<th>No Build</th>
<th>25’ Bascule</th>
<th>30’ Bascule</th>
<th>35’ Bascule</th>
<th>40’ Bascule</th>
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</thead>
<tbody>
<tr>
<td><strong>Total Project Cost</strong></td>
<td>0</td>
<td>$112,745,000</td>
<td>$114,876,250</td>
<td>$117,540,000</td>
<td>$121,596,250</td>
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<tr>
<td><strong>Evaluation Points</strong></td>
<td>-10</td>
<td>-2</td>
<td>+2</td>
<td>+6</td>
<td>+4</td>
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Vertical Alignment
Vertical Alignment

35'
Tenderhouse – Option B
Tenderhouse – Option C2
## Project Schedule

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
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<tbody>
<tr>
<td>Begin Study</td>
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<td>Public Kick-off Meeting</td>
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<tr>
<td>Public Input</td>
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<td>Develop Build Alternatives</td>
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<td>Alternatives Public Workshop</td>
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<tr>
<td>Public Hearing No-Build and Build Alternatives Presented</td>
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<td>Study Complete/Location Design Concept Acceptance</td>
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Motion to Endorse Recommended Alternative
Contact

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