Bridge No. C-07-001

ENVIRONMENTAL ASSESSMENT

Mitchell River Bridge Replacement Project

Bridge Street over Mitchell River, Chatham, Massachusetts

EA Public Hearing – November 27, 2012

U.S. Department of Transportation
Federal Highway Administration

ACCELERATED BRIDGE PROGRAM

Innovation, Efficiency, Transparency

Overview

- Introduction
- Project Funding
- Purpose of Hearing

Mitchell River Bridge
Class of Action

- Following NEPA Protocols
- Footprint Bridge Program
  - Exemptions
    - Massachusetts Environmental Policy Act (MEPA)
    - Chapter 91
    - Wetlands Protection Act

EA Contents

- Project History
- Purpose & Need
- Alternatives Evaluation
- Affected Environment
- Environmental Consequences
- Indirect Effects and Cumulative Impacts
- Section 4(f)
- Mitigation/Preventive Measures
- Permits and Regulatory Reviews
- Public and Interagency Coordination
- Funding

Project Summary

- Mitchell River Crossing History
- Project Development & National Register Overview
- Memorandum of Agreement Signed by Consulting Parties

Project Purpose

- ✓ *To eliminate structural deficiencies and overcome functional obsolescence, while considering the context of the surrounding area and accommodating existing and future uses of the bridge*

Bridge Deficiencies

- ✓ Sufficiency Rating below 50 (considered structurally deficient)
- ✓ Deck Geometry Rating of 2 – “intolerable with a high priority for replacement”
- ✓ Sidewalks do not satisfy the Americans with Disabilities Act
- ✓ Draw Span opening violates existing USCG permit conditions

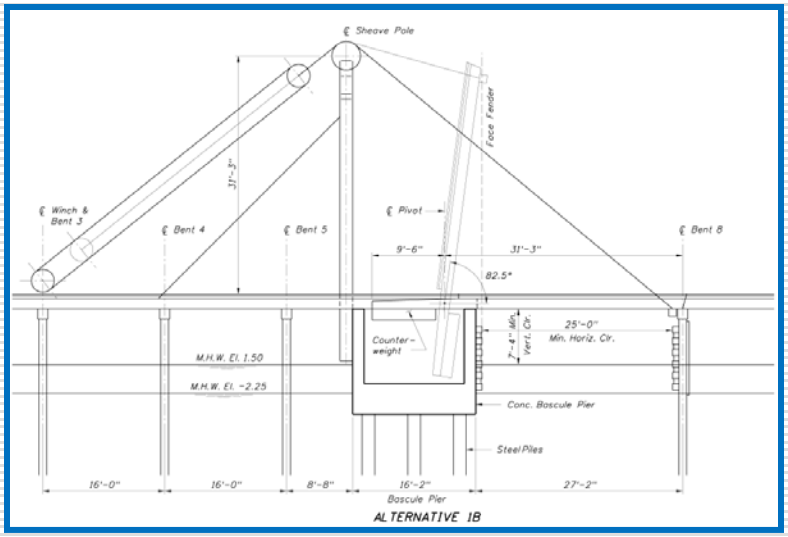
Alternatives Evaluation

- Seven Build Alternatives
  - ‘All Wood’ Alternatives
    - Alternative 1 – All Wood & Replicate Existing (19’-4” draw)
    - Alternative 1A – Like Alternative 1, 25’ Draw Span
    - Alternative 1B – Like Alternative 1A with enclosed concrete bascule pier
  - Other Structures Evaluated
    - Alternative 2 - All Wood w/Conc & Steel Bascule (25’)
    - Alternative 3 - Wood Superstructure & Steel/Concrete Substructure (25’)
    - Alternative 4 - Wood Deck w/Steel Beams & Steel/Concrete Substructure (25’)
    - Alternative 5 - All Concrete/Steel Replacement Structure (25’)

EA Alternatives

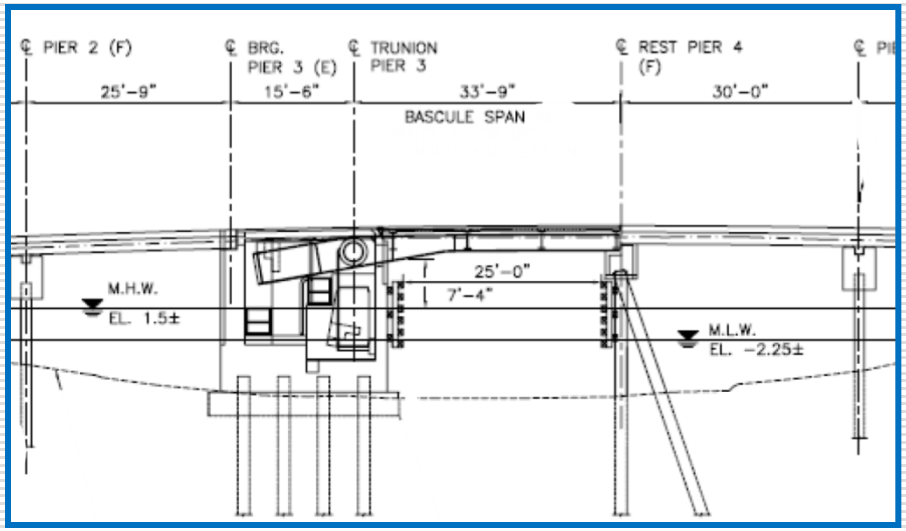
Alternative 1B

All Wood with Concrete Bascule



Alternative 3

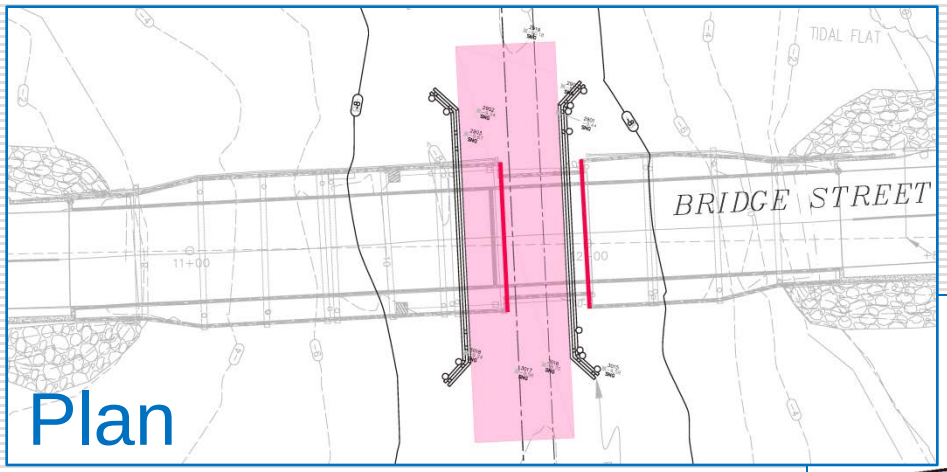
All Wood Superstructure with Steel/Concrete Substructure

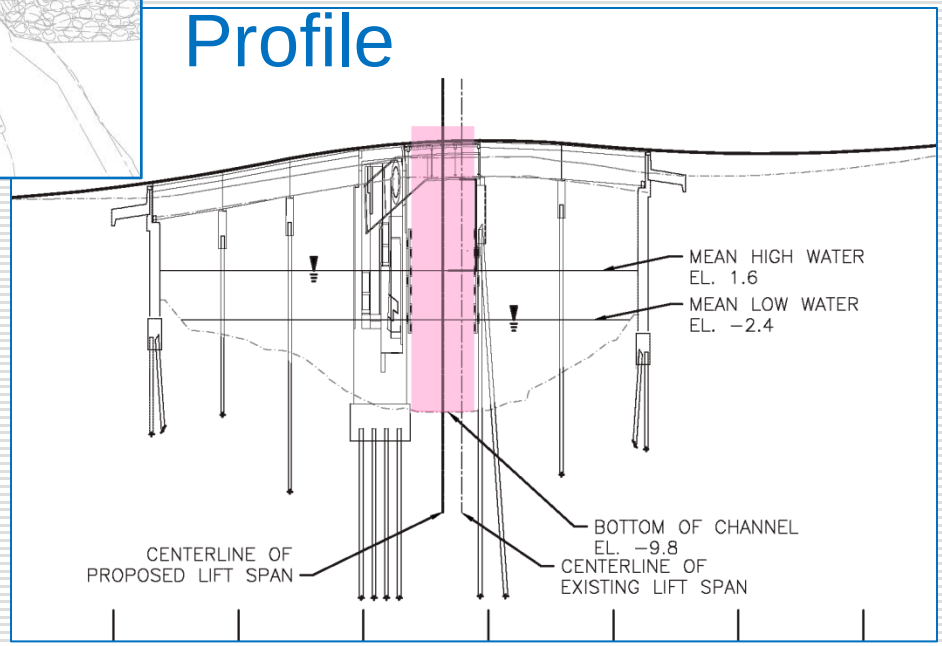


Alternatives Evaluation

- Life Cycle Cost Study Describes Alternatives in Detail
- Alternative 3 Identified as the Preferred Alternative
  - ✓ Best satisfies the Project Purpose & Need
  - ✓ Fair balance of a context-sensitive timber superstructure with a concrete/steel substructure
  - ✓ Provides for reduced maintenance costs over the life of the bridge for the Town of Chatham
  - ✓ Provides a reliable bascule span with improved channel alignment and opening for mariners
  - ✓ Reduces the environmental impacts associated with future substructure repairs or replacements

Draw Span Shift





Affected Environment

- Shellfish beds
- Embayment/Marine Habitat
- Public access to waterway

Indirect Effects and Cumulative Impacts

- Indirect Effects
  - Council on Environmental Quality Regulations (40 CFR 1508.8)
    - ◊ "…caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable."
- Cumulative Impacts
  - 40 CFR 1508.7
    - ◊ "…results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions."
- **Conclusion**
    - ◊ Temporary construction-related impacts would not be significant or sustained.

Section 4(f)

- *De Minimis* Impact Determination – Impact to SE Path

- Programmatic 4(f) Evaluation – for Use of Historic Bridge

Mitigation

- Environmental Impact
  - Avoid
  - Minimize
  - Mitigate (if needed)
- Proactive Measures
  - Working with Agencies
  - Access during Construction
  - Cofferdams
  - Wingwalls
  - Turbidity Curtains
  - Silt Fence/Matting
  - Restoration Details
  - Protect Public Access
  - Pile Removal
    - Navigation Channel
    - Creosote Concern

Permits

- USCG Bridge Permit
- Army Corps of Engineers Section 404 Permit
- DEP (Section 401 WQC)
- Coastal Zone Management – Federal Consistency Review

Public & Interagency Coordination

- Public Information and Stakeholder Meetings
  - September 2009
  - November 2009
  - March 2010
  - October 2010
- Section 106 and Consulting Parties – National Register Eligible
  - Consulting Parties Meetings
    - May 17, 2011
    - Early 2013: Carry out Commitments Stipulated in the MOA
- Interagency Coordination
  - US Coast Guard October 12, 2012
  - DEP, ACOE/EPA November 16, 2012

Conclusions/Recommendations

- Preferred Alternative
  - Alternative 3 - Wood Superstructure & Steel/Concrete Substructure (25’)
  - Best satisfies the Project Purpose and Need
  - Impacts are being Avoided or Mitigated to the Maximum Extent Practicable

Next Steps

- Comments on EA due December 7, 2012
- Fulfill Obligations of MOA
- Anticipate NEPA decision February
- ROW Plans/Certifications
- Obtain Environmental/Permit Clearances
- Completion of Final Design
- Advertisement Date 10/05/13
- Anticipate Notice to Proceed – Spring 2014

EA Comments

Due December 7, 2012

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