Frank J. Wood Bridge
Public Meeting
April 5, 2017
WIN 22603.00
Project Area
Frank J. Wood Bridge

- 805 ft, three-span steel truss
- Built in 1931
Bridge Terms
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Project Background Information

Existing Bridge Section
Project Background Information

- 2012 & 2014 Routine and Fracture Critical Inspection
  - Deck & superstructure condition “Fair”

- June 2016 Routine and Fracture Critical Inspection
  - Deck & superstructure condition “Poor”

- August 2016 Special Inspection
  - Load posting to 25 tons
Project Background Information

- Deck, floor system & truss bottom chord are in poor condition

- Bridge posted for 25 tons
Current Maintenance Project

- Provides temporary repairs needed to maintain 25 ton weight limit
- A short-term 5 year fix
- Long-term solution needed
Purpose and Need

- Address poor structural conditions and load capacity issues
- Address pedestrian and bicycle mobility and safety concerns
Environmental Considerations

- Historic Resources
- Parks & Recreational Areas
- Endangered Species
- Impacts to Fisheries
- Impacts to the Androscoggin River
- Public Comment
Other Considerations

- Construction Duration
- Traffic Impacts
- Utility Impacts
- ROW Impacts
- Construction Cost
- Life Cycle Cost
Preliminary Design Alternatives

1. New bridge on the existing alignment
2. New bridge on a curved upstream alignment
3. Rehabilitation of the existing bridge
4. Rehabilitation of the existing bridge, with added second sidewalk
5. New bridge on a parallel downstream alignment
Preliminary Design Alternatives

Alignments
Alt. 1 - New Bridge on Existing Alignment

Proposed Bridge Section - Alternate 1
Alt. 1 - New Bridge on Existing Alignment

- Construction duration: 3½ years
- Traffic impacts: on-site temporary detour
- Utility impacts: relocate existing utilities to new bridge
- Construction cost: $16 Million
- Life cycle cost: $16.7 Million
- Cumulative service lifetime cost: not estimated
Alt. 2 - New Bridge on Curved Upstream Alignment

Proposed Bridge Section - Alternate 2
Alt. 2 - New Bridge on Curved Upstream Alignment

Rendering of Curved Upstream Bridge
Alt. 2 - New Bridge on Curved Upstream Alignment

Rendering of Curved Upstream Bridge
Alt. 2 - New Bridge on Curved Upstream Alignment

- Construction duration: 2½ years
- Traffic impacts: on existing bridge
- Utility impacts: relocate existing utilities to new bridge
- Right of way impacts: 3 properties
- Construction cost: $13 Million
- Life cycle cost: $13.7 Million
- Cumulative service lifetime cost: $17.3 Million
Alt. 3 - Rehabilitation of Existing Bridge

Proposed Bridge Section - Alternate 3
Alt. 3 - Rehabilitation of Existing Bridge

- New deck
- New floor framing
- Paint
- Sidewalk support framing repair
- Bottom chord repair
Alt. 3 - Rehabilitation of Existing Bridge

- Construction duration: 3 Years
- Traffic impacts: on-site temporary detour
- Does not address pedestrian mobility and safety concerns
- Construction cost: $15 Million
- Life cycle cost: $20.8 Million
- Cumulative service lifetime cost: $35.2 Million
Alt. 4 - Rehabilitation of Existing Bridge With Added Sidewalk

Proposed Bridge Section - Alternate 4
Alt. 4 - Rehabilitation of Existing Bridge With Added Sidewalk

- Same as Alt. 3 except:
  - Added sidewalk
  - New lightweight deck
Alt. 4 - Rehabilitation of Existing Bridge With Added Sidewalk

- Construction duration: 3 Years
- Traffic impacts: on-site temporary detour
- Construction cost: $17 Million
- Life cycle cost: $23.2 Million
- Cumulative service lifetime cost: $38.2 Million