Falls Bridge Renewal Project

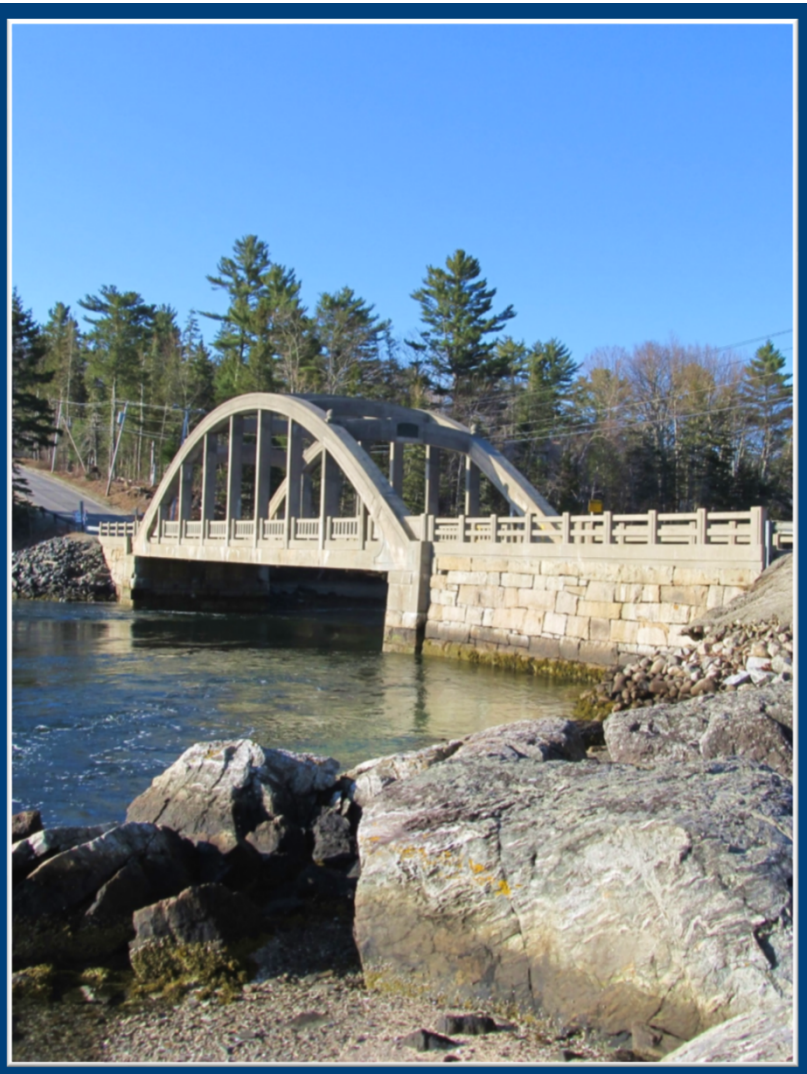
Public Information Session – August 8, 2017

Integrity - Competence - Service

MaineDOT

Meeting Intent

- Update public on project activity since the last public meeting
- Explain the creation and goals of the Bridge Advisory Committee
- Identify the rehabilitation and replacement options currently being considered
- Provide an opportunity for the public to ask questions and give comments for further consideration
- Meeting will not provide rehabilitation or replacement design specifics



Project Update

Public Meetings

August 5th, 2015

- Preservation

November 6th, 2015

- Improve Safety

Archaeological Investigation

Summer of 2015

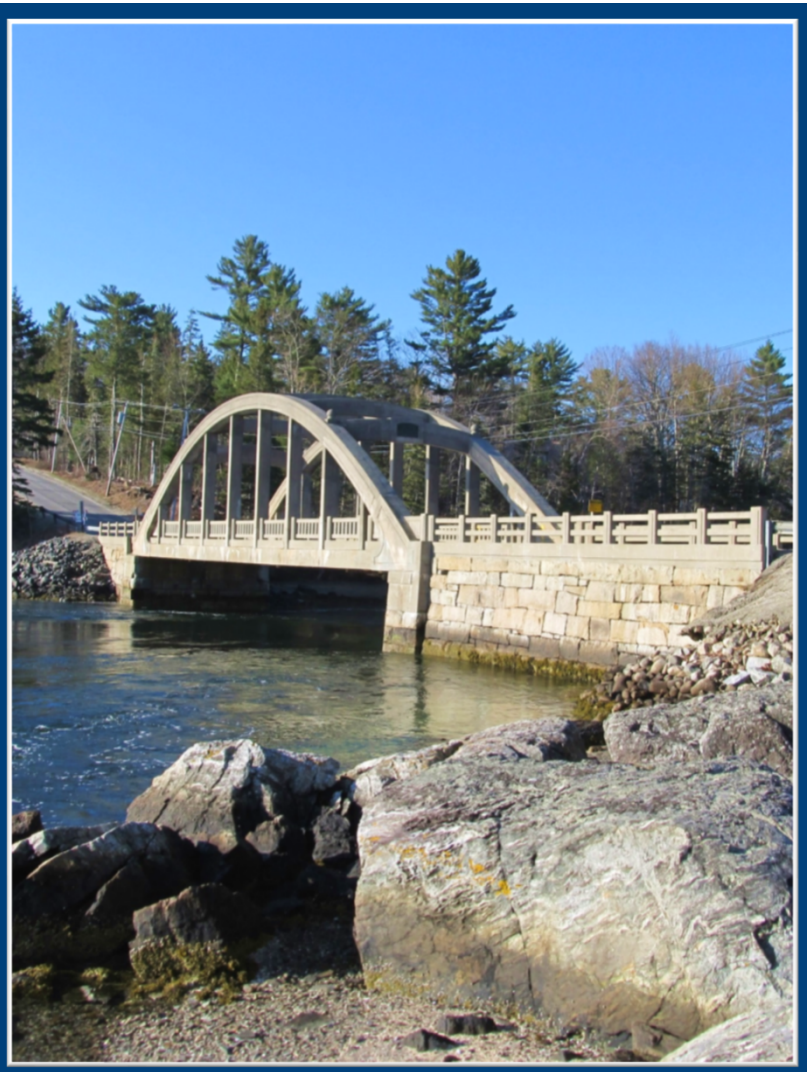
- Extent of 1936-37 Nevin Excavation

Summer of 2016

- Floor of 2,000 year old wigwam
- Roundy homestead

Public Process

- Mixed response from 2015 public meetings
- New information regarding archaeological significance in the area around the bridge
- Reboot the Public Process
- Form Bridge Advisory Committee to identify and discuss problems & needs at the site



Bridge Advisory Committee

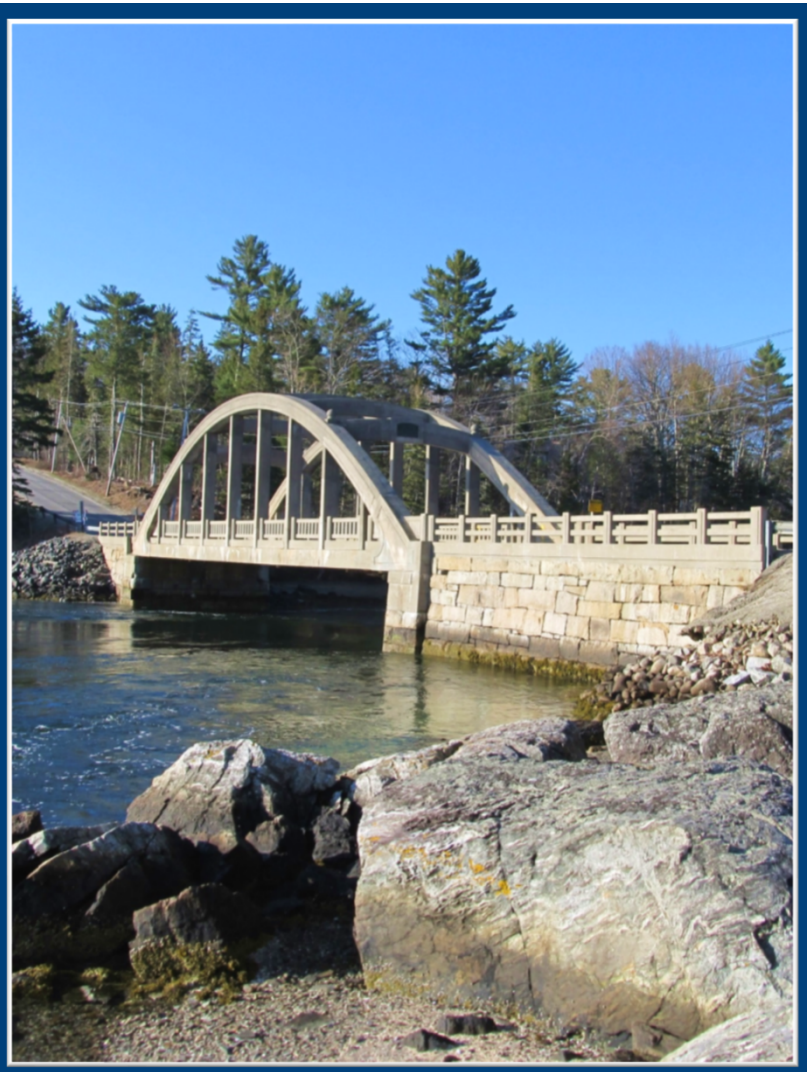
Bridge Advisory Committee Goals

- Identify project constraints
- Identify community problems & needs at the site
- Understand the National Environmental Policy Act (NEPA) decision-making process to help analyze project constraints considered during preliminary design such as historic, archaeological, environmental, design & budget and relay this information to the community outside of formal MDOT meetings as acting community liaisons
- Challenge the design team to thoroughly vet all reasonable options
- Advise the Department in creation of an alternative design matrix
- Support the broader public outreach process
- Continue advisory process through preliminary & final design

Public Process

Opportunities for Additional Public Input

- Bridge Advisory Committee Meetings are open to the public
- Bridge Advisory Committee meeting minutes and presentation material are available on the Town of Blue Hill website
- Town of Blue Hill website has a link to send comments directly to the Department of Transportation's Bridge Program
- Bridge Advisory Committee members are available to hear public comment and concerns and bring them directly to the Committee
- Department will hold future public meetings



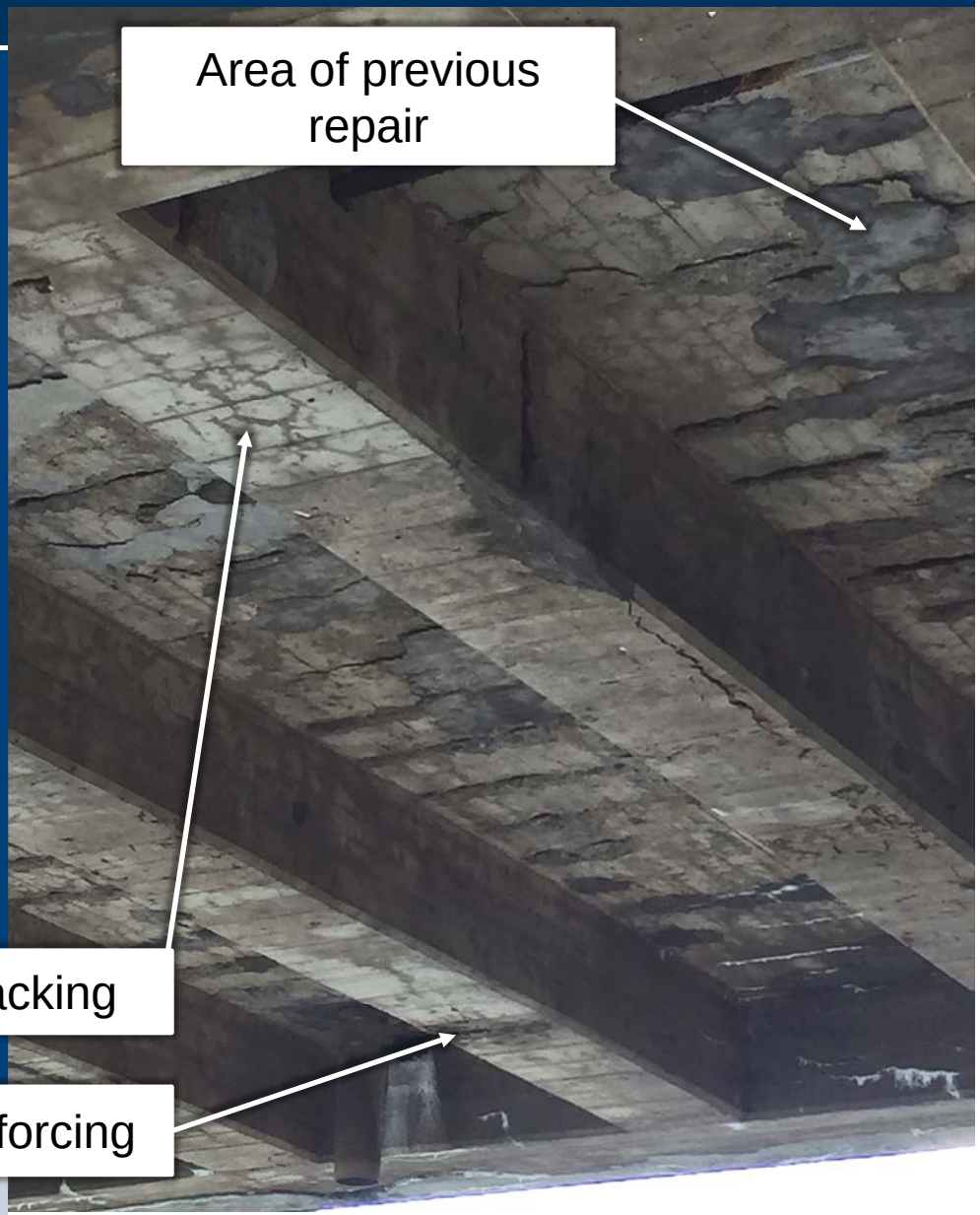
Existing Bridge Conditions

Deck - Poor Condition

Deterioration at Deck Roadway Level

Existing Bridge Conditions

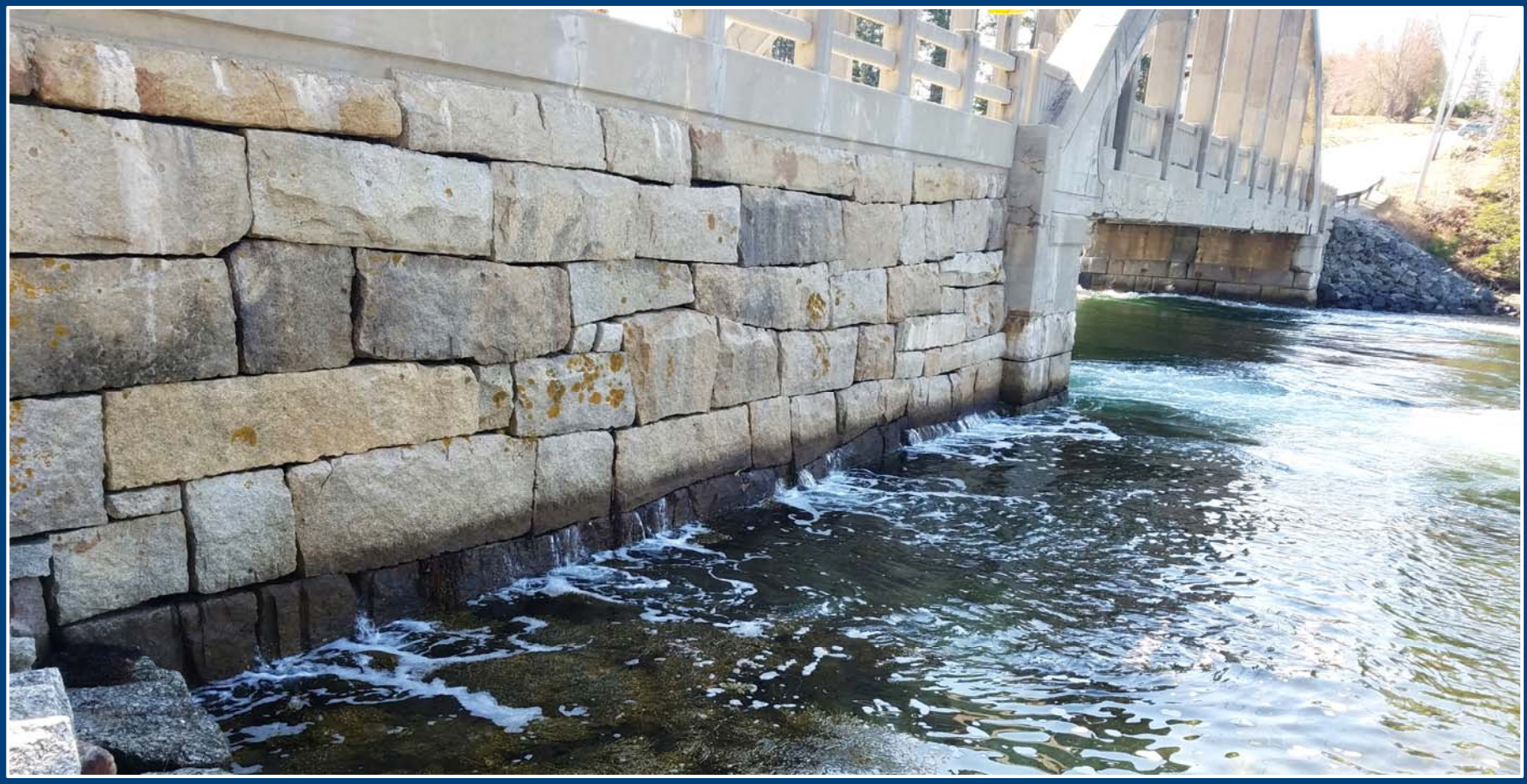
Deck - Poor Condition



Deterioration on Underside of Deck

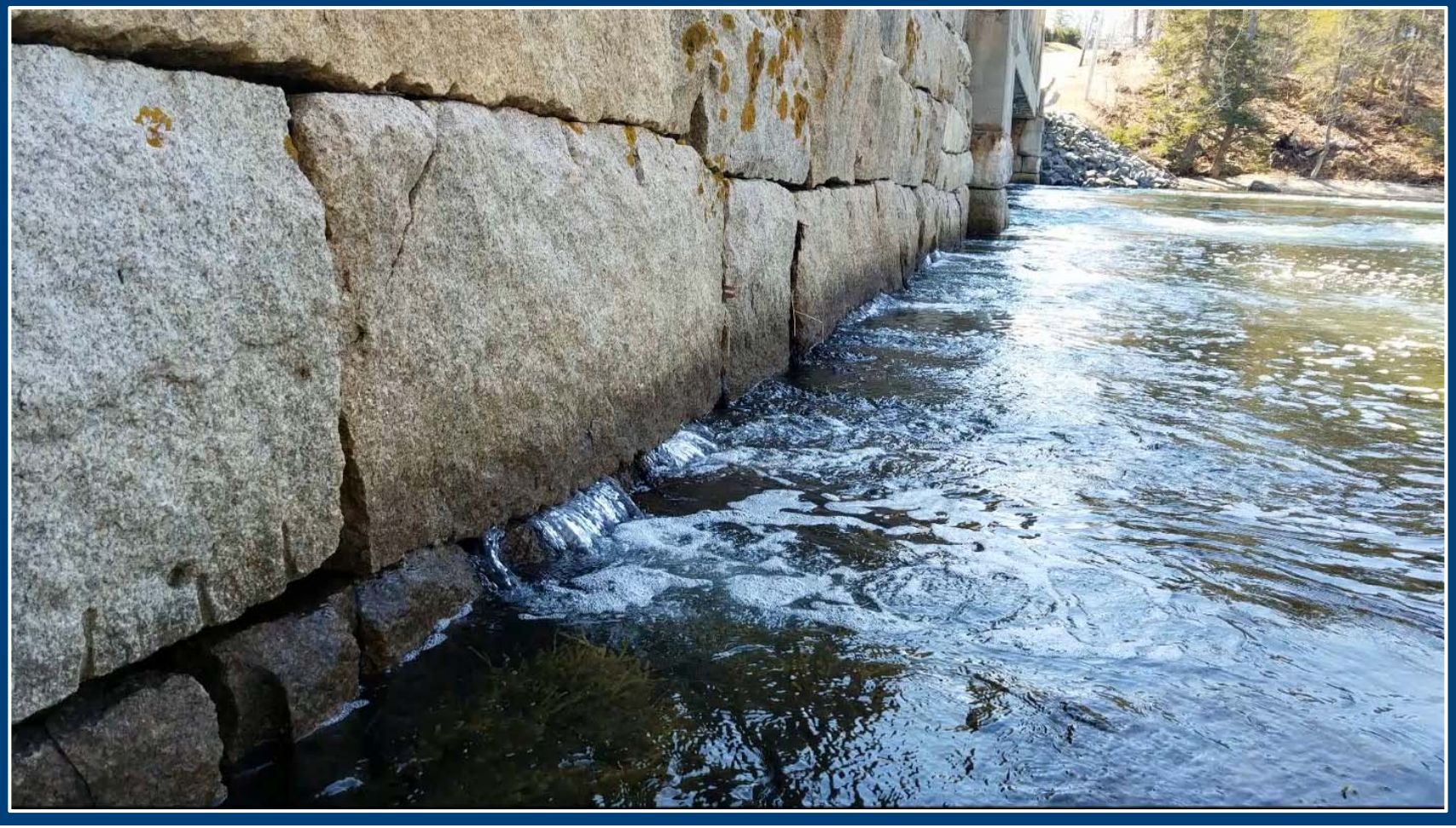
Existing Bridge Conditions

Substructure - Poor Condition



Existing Bridge Conditions

Substructure - Poor Condition (Video)



Existing Bridge Conditions

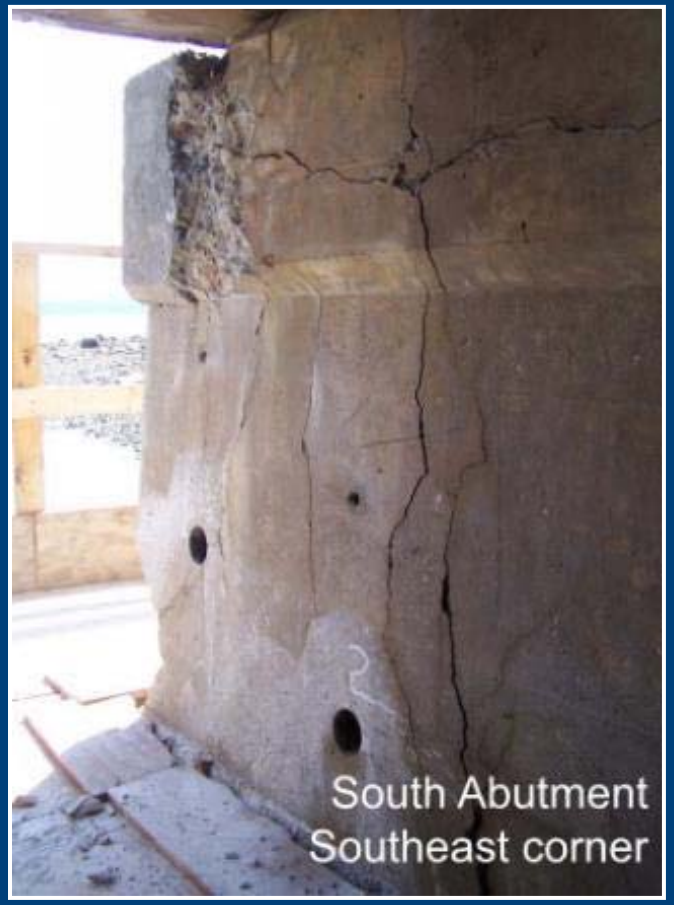
Substructure - Poor Condition

Concrete Spalling at Abutment

Settling Masonry

Existing Bridge Conditions

Substructure - Poor Condition



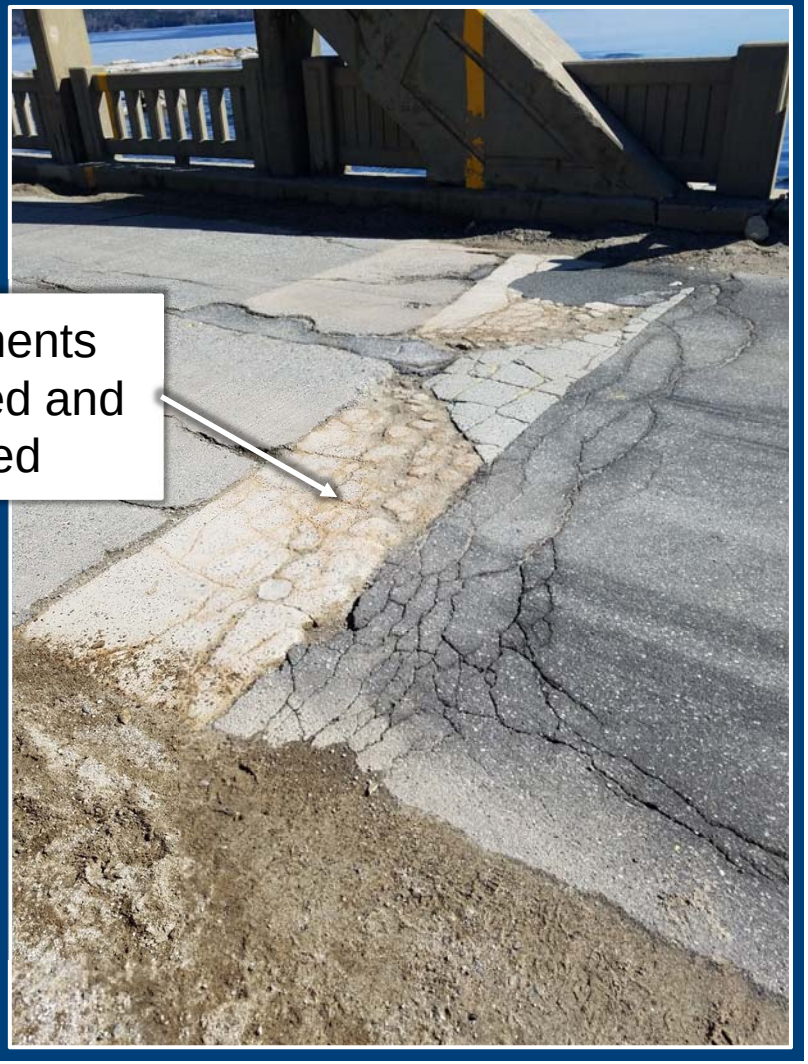
Concrete Spalling at Abutment

Settling & Shifting Masonry

Existing Bridge Conditions

Substructure - Poor Condition

Top of abutments heavily cracked and deteriorated



Existing Bridge Conditions

Superstructure - Fair Condition

Deteriorating Concrete at Northwest Knuckle

Existing Bridge Conditions

Superstructure - Fair Condition

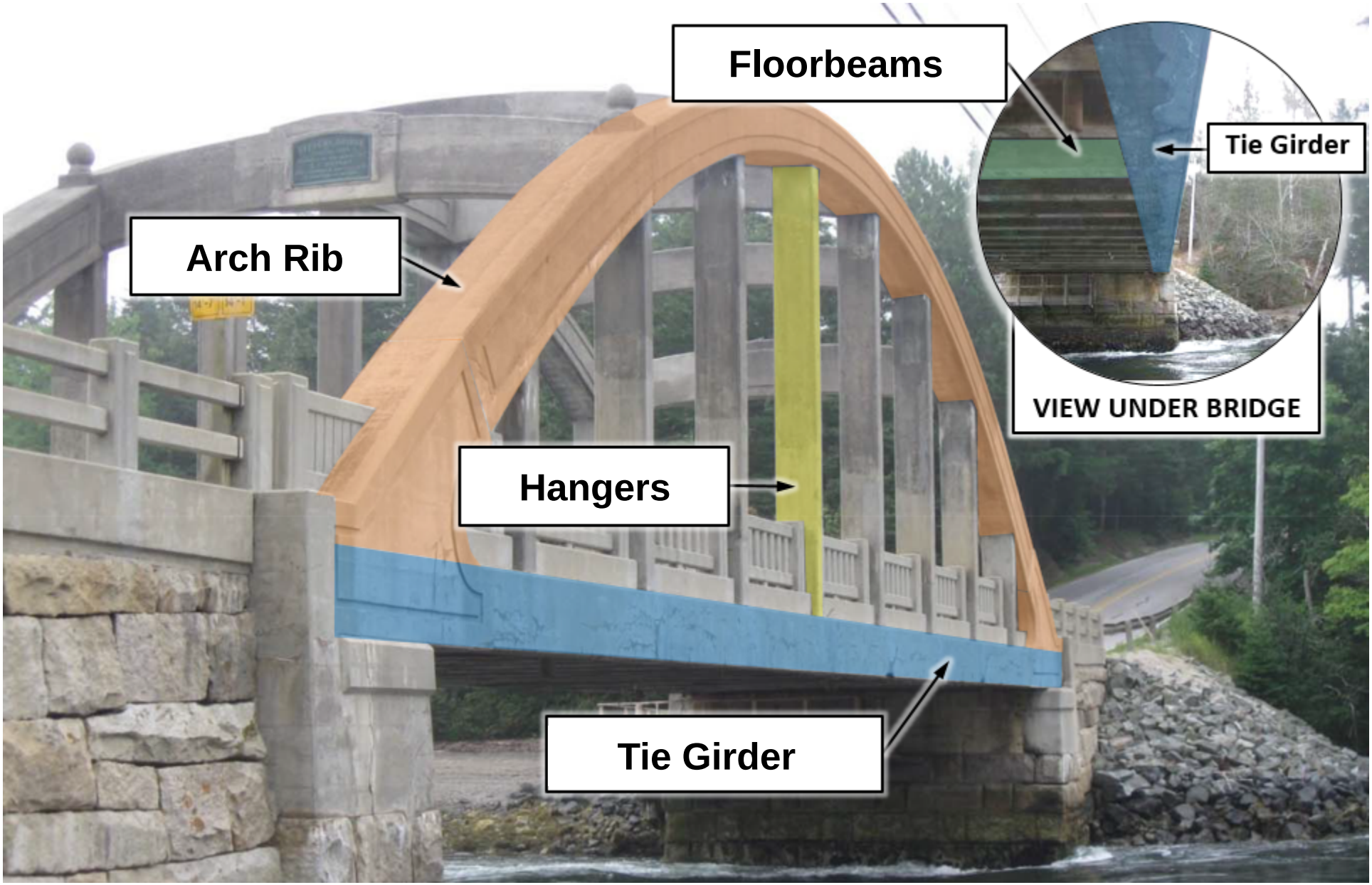
Deteriorating Concrete at Northeast Knuckle

Existing Bridge Conditions

Superstructure - Fair Condition

West Arch Tie Girder

Existing Bridge Conditions – Load Capacity



Existing Site Conditions

- Site Conditions - Archaeological

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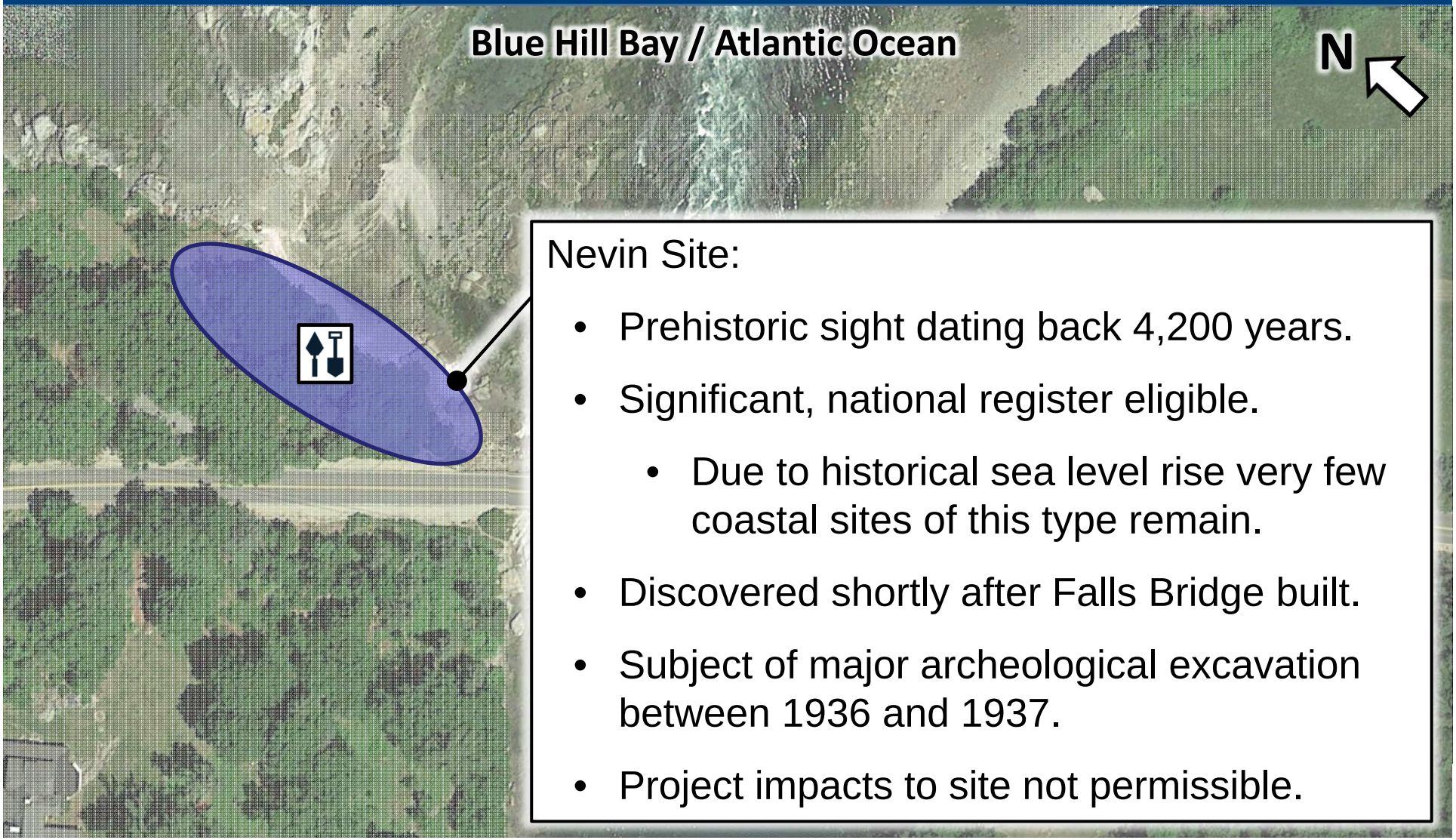
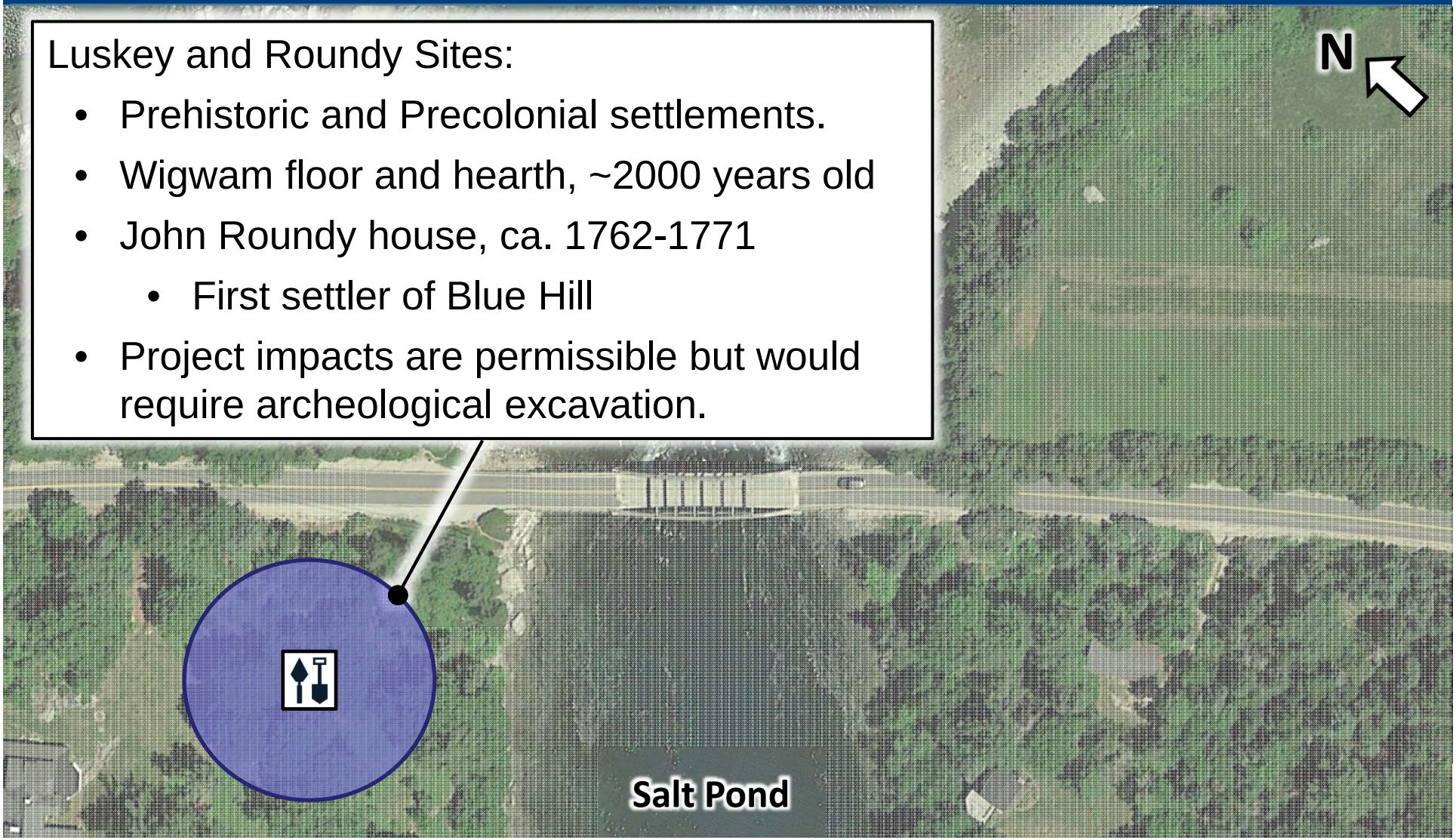


Nevin Site:

- Prehistoric sight dating back 4,200 years.
- Significant, national register eligible.
  - Due to historical sea level rise very few coastal sites of this type remain.
- Discovered shortly after Falls Bridge built.
- Subject of major archeological excavation between 1936 and 1937.
- Project impacts to site not permissible.

Existing Site Conditions

- Site Conditions - Archaeological



Existing Site Conditions

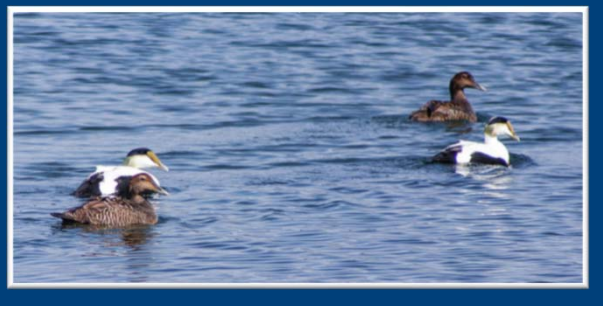
- Site Conditions - Historic

Blue Hill Falls Historic District

- Wakonda – Falls Bridge – Arcady
- All Three National Register Eligible

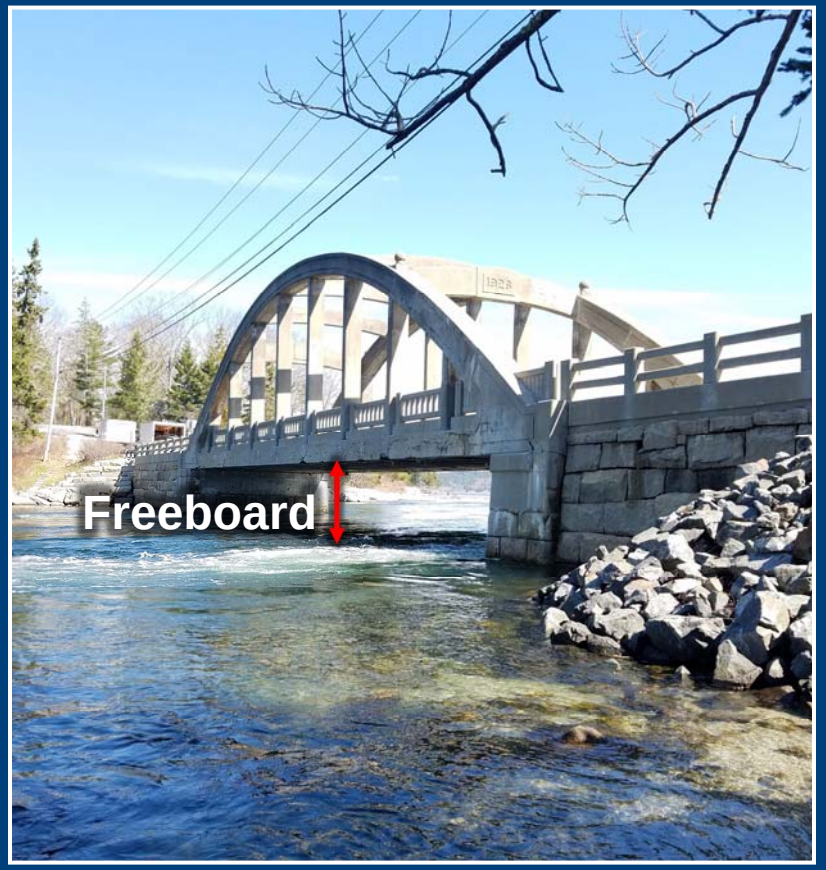
Existing Site Conditions

- Site Conditions – Environmental
  - Natural Resources
    - Coastal Wetlands
    - Fish Species
      - Alewives, Smelt, Eels/Elvers, Shortnose & Atlantic Sturgeon, Atlantic Salmon
    - Shellfish & Waterfowl
      - Scallops, soft shell clams, oysters
      - Wintering eider ducks, ducks, loons
  - Marine Mammals
  - Northern Long-Eared Bat



Existing Site Conditions

- Site Conditions – Hydraulics
  - Existing Bridge Opening
    - Min Freeboard: 6 Feet
    - Width: 100 Feet
    - Min Depth: 6 Feet at low tide
    - Very small opening relative to size of tidal basin
  - Sea Level Rise
    - Potential effects will be considered
    - Freeboard will be increased if practical



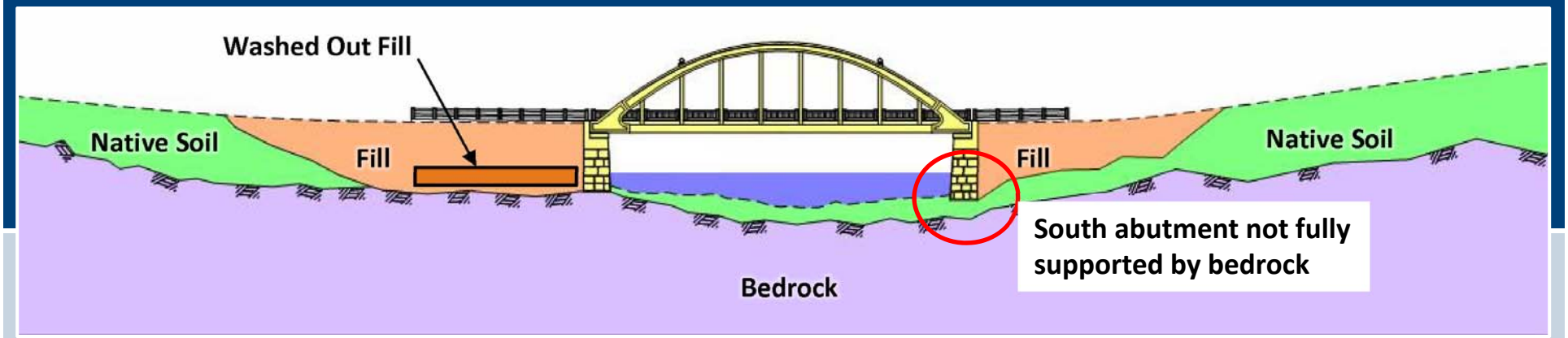
Existing Site Conditions

- Site Conditions – Hydraulics
  - Max. currents of ~15 Ft./Sec.
  - Turbulent flow & standing rapids
  - Recreational Use

- Recreational Use
  - Water Sports
  - Birdwatching / Sightseeing
  - Walking / Bicycling

Existing Site Conditions

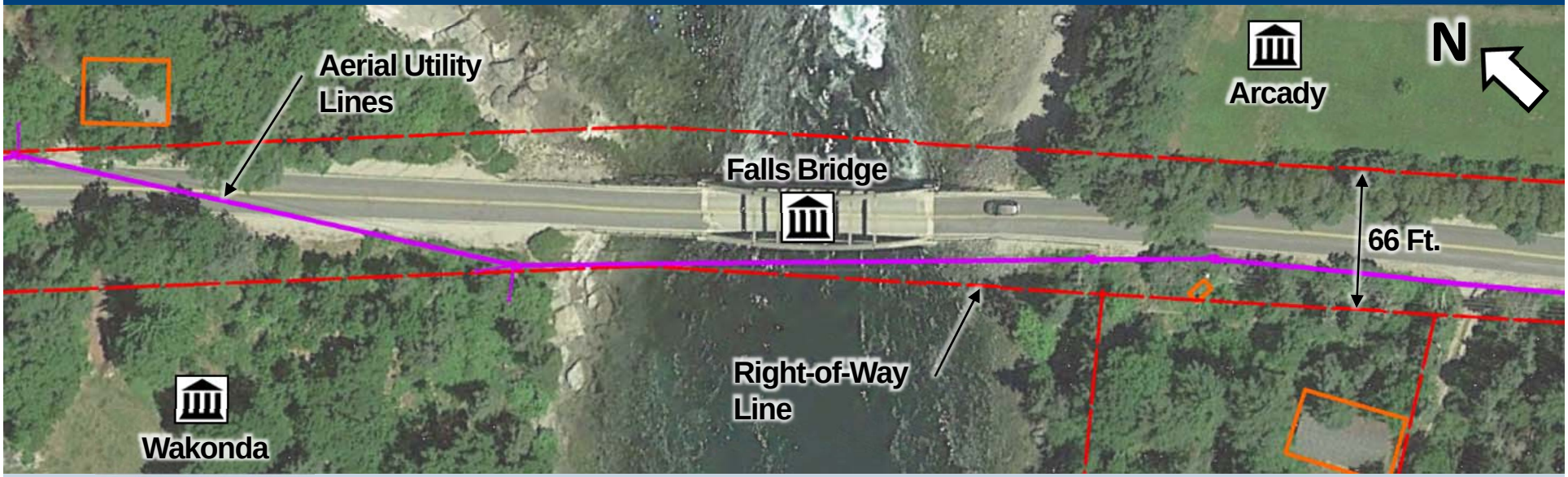
- Site Conditions – Subsurface Soil Conditions



Existing Site Conditions

- Site Conditions – Right of Way & Utilities
  - 66 Feet wide Right of Way
    - Roadway not centered in right-of-way
  - Aerial Utilities close proximity to bridge

Utility Lines West of Bridge



Existing Site Conditions

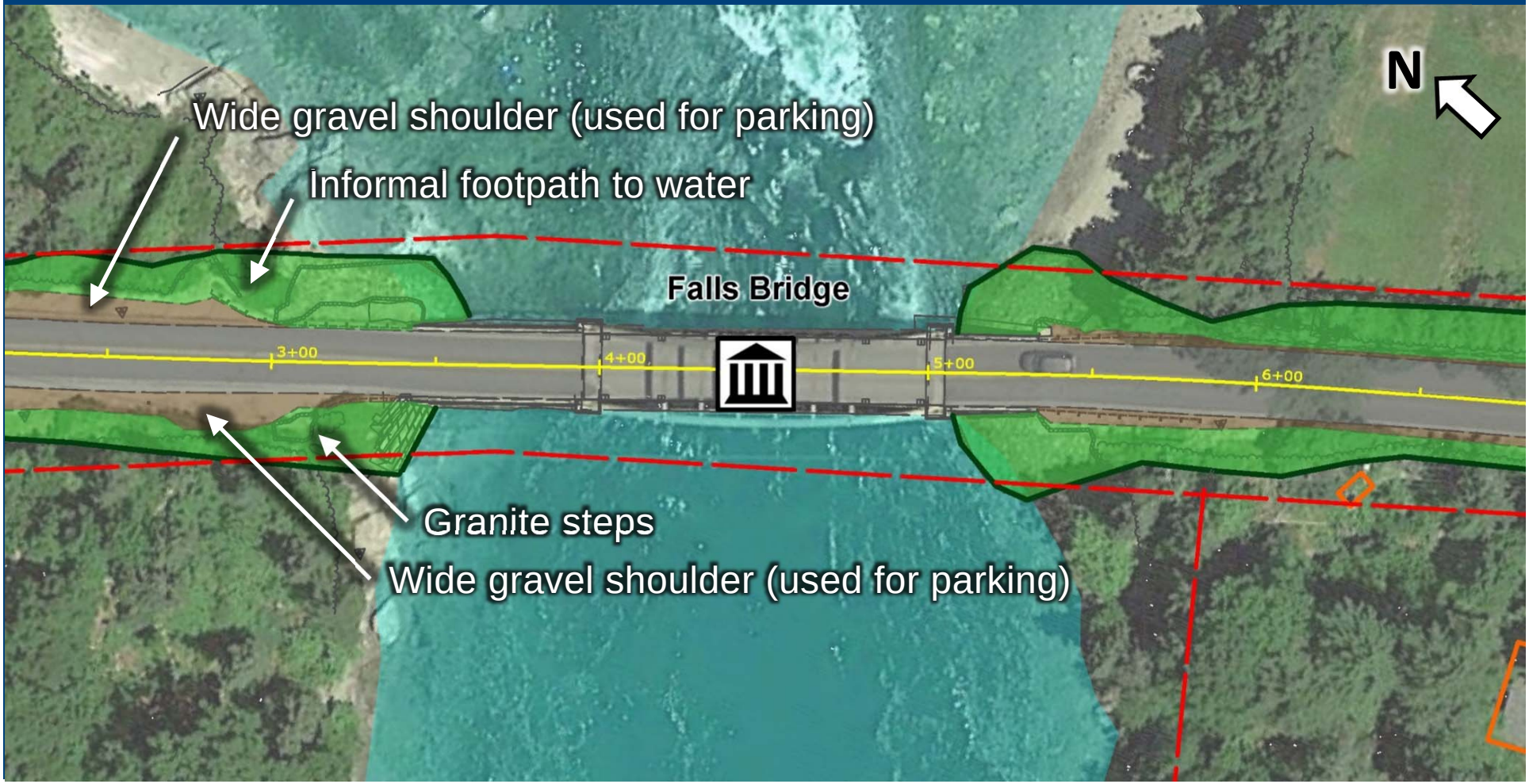
- Site Conditions – Roadway & Bridge Geometrics
  - Main Span: ± 100 Ft.
  - N. Approach: ±100 Ft.
  - S. Approach: ±30 Ft.
  - Max. Vehicle Height: 14’-1”
  - Curb-to-Curb Width: 20’-4”

Existing Site Conditions

- Site Conditions – Roadway & Bridge Geometrics
  - Roadway and bridge width is substandard
    - Roadway paved width = ~20’, informal shoulders
    - Bridge paved width = ~20’-4”, no shoulders
- Site Conditions – Traffic & Accident Data
  - 1,730 vehicles per day (2014 count)
  - No significant crash history at the bridge

Existing Site Conditions

- Site Conditions – Miscellaneous Features



Regulatory Constraints

- National Environmental Policy Act (NEPA)
  - Requires agencies to consider environmental impacts of their actions

- Title VI of Civil Rights Act of 1964
- Americans with Disabilities Act
- Executive Order 12898 (Environmental Justice)
- **Section 4(f) of USDOT Act**
- **Section 106 of National Historic Preservation Act**
- Farmland Protection Policy Act
- Executive Order 11990 (Protection of Wetlands)
- Wetlands (23 CFR 777)
- Executive Order 11988 (Floodplain Management)
- Coastal Zone Management Act
- Fish and Wildlife Coordination Act
- **Section 7 of the Endangered Species Act**
- Clean Air Act
- Section 6(f) of the Land and Water Conservation Fund Act
- Noise (23 CFR 772)
- Highway Noise Standards
- **Marine Mammal Protection Act**
- **Magnuson-Stevens Fishery Conservation and Management Act**
- Migratory Bird Treaty Act
- Economic, Social and Environmental Effects
- AND much MORE…

Regulatory Constraints

- National Environmental Policy Act (NEPA)
  - Requires developing and analyzing a reasonable range of alternatives:
    - Analyze environmental effects (direct, indirect & cumulative effects)
      - Effects include natural, social, economic, human environment
    - Mitigate for adverse effects
      - Avoidance & Minimization
      - Repair, rehabilitation, restoration
      - Preservation
      - Compensation
    - Complete Public Involvement & Interagency Coordination
    - Document outcomes
  - NEPA Compliance will heavily influence selected alternative

Regulatory Constraints

- Section 4(f) of USDOT Act
  - Stipulates that FHWA and other DOT agencies cannot approve the use of land from publicly owned parks, recreational areas, wildlife and waterfowl refuges, or public and private historical sites unless the following conditions apply:
    - There is no feasible and prudent avoidance alternative to the use of land; and the action includes all possible planning to minimize harm to the property resulting from such use;

    OR

    - The Administration determines that the use of the property will have a "de minimis" (i.e., trivial or minor) impact
      - *"de minimis"* impact is one that will not adversely affect the activities, features, or attributes of the Section 4(f) property

Regulatory Constraints

- Section 106 of the National Historic Preservation Act
  - FHWA & DOT responsible for applying adverse effect criteria in consultation with SHPO, THPO, and Consulting Parties.
- Examples of Adverse Effects
  - Take, removal, demolition (direct).
  - Introduction of atmospheric, audible, and visual elements (indirect).
  - Change of use.
- Where adverse effects cannot be reasonably avoided mitigation of the effects is negotiated by FHWA, MaineDOT, State Historic Preservation Office, and Tribal Historic Preservation Officers.

Regulatory Constraints

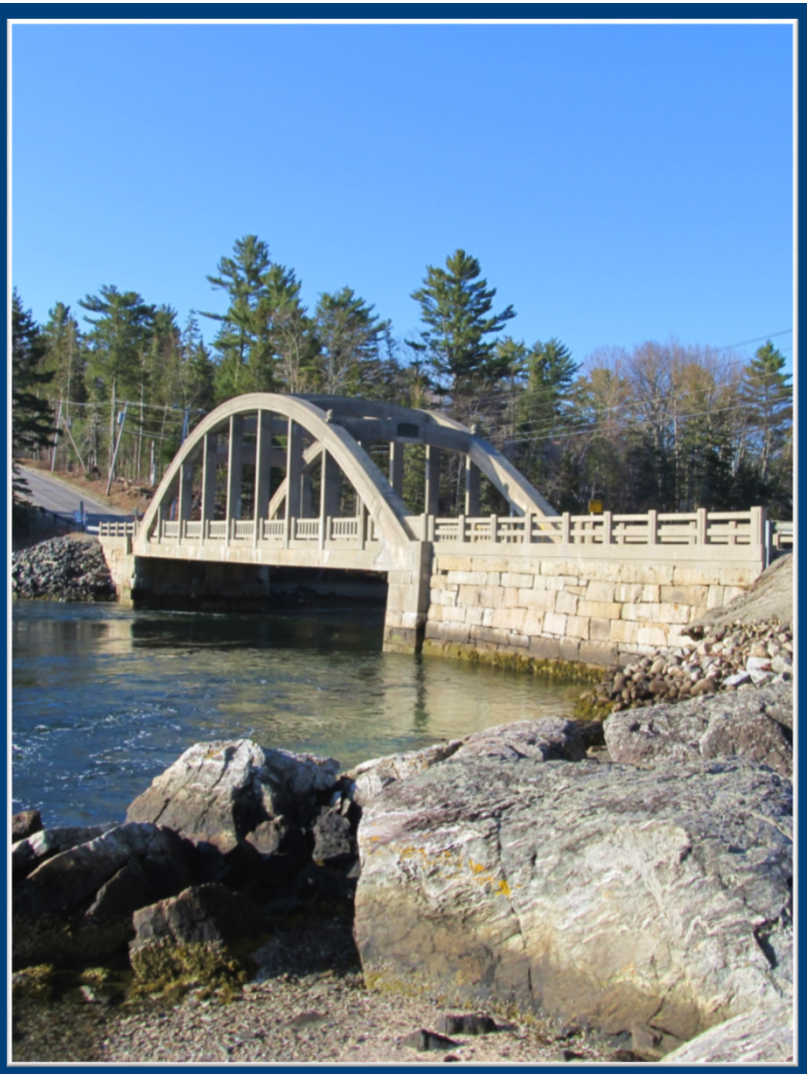
- Natural Resources
  - Section 7: Endangered Species Act
  - Marine Mammal Protection Act
  - Magnuson-Stevens Fishery Conservation and Management Act
- Potential Impacts Regulated by State and Federal Law
  - Habitat Conversion / Permanent Impacts
  - Temporary Impacts from Construction Activities
  - Impacts must be avoided, minimized & mitigated

Bridge Renewal Alternatives

- Evaluating a range of bridge renewal options including:
  - Bridge rehabilitation
  - Bridge replacement
    - Traditional girder bridge with aesthetic treatments
    - Tied arch bridge
  - Reroute Rt. 175 repurpose bridge
- Working with BAC on aesthetics & final appearance
- Options will be evaluated and advanced through the NEPA process
- At the conclusion of this process a preferred alternate will be identified

Bridge Renewal Alternatives

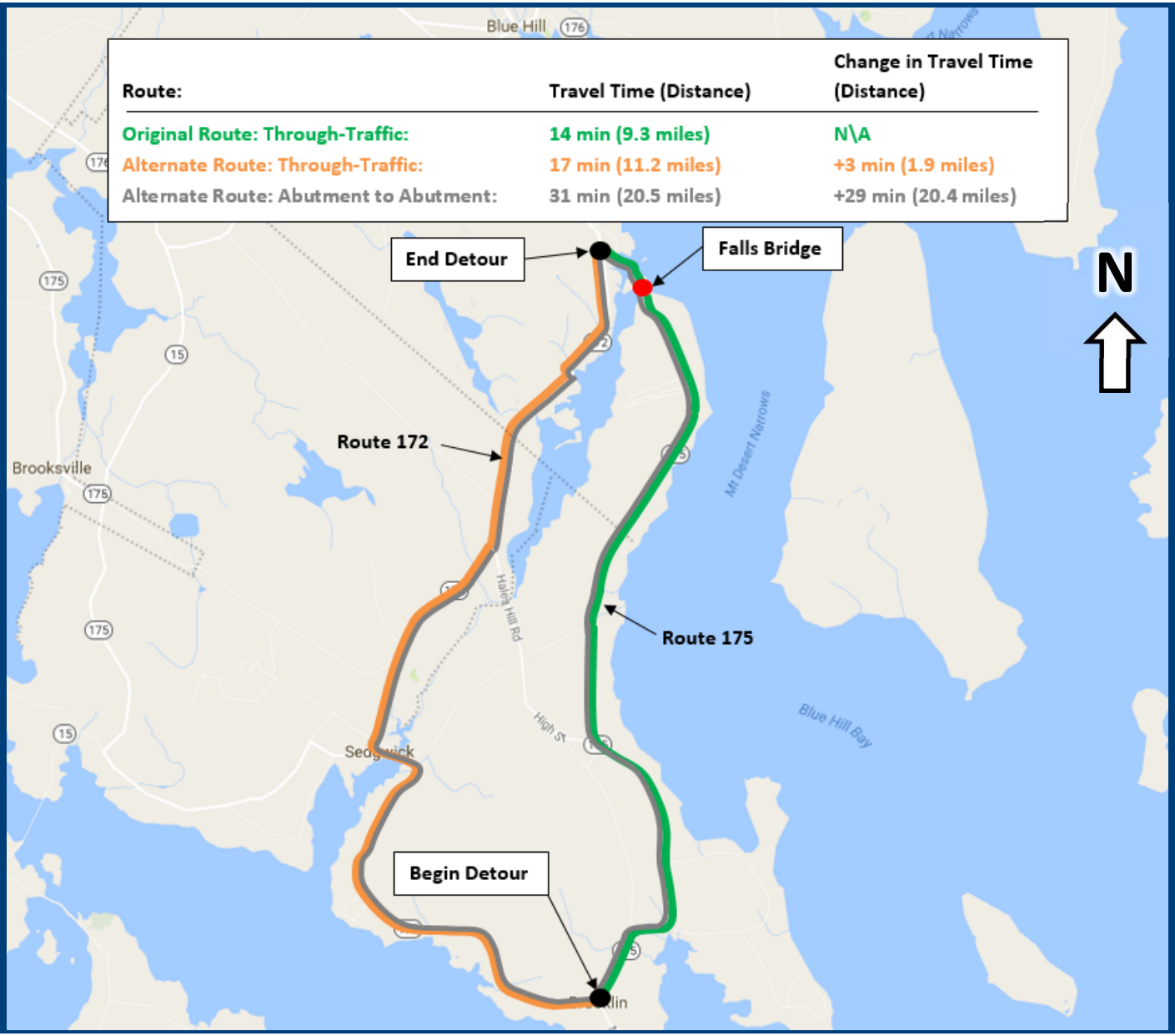
- Evaluation of Alternatives
  - Site Safety
    - Pedestrian Access
    - Traffic Control & Parking
  - Impacts to Archeological & Architectural Resources
  - Impacts to Environmental Resources
  - Impacts to 4(f) and Private Property
  - On-Site Temporary Bridge or Detour
    - Emergency Responders
  - Impact to Existing Hydraulic Opening
  - Cost and Engineering Need



Traffic Management

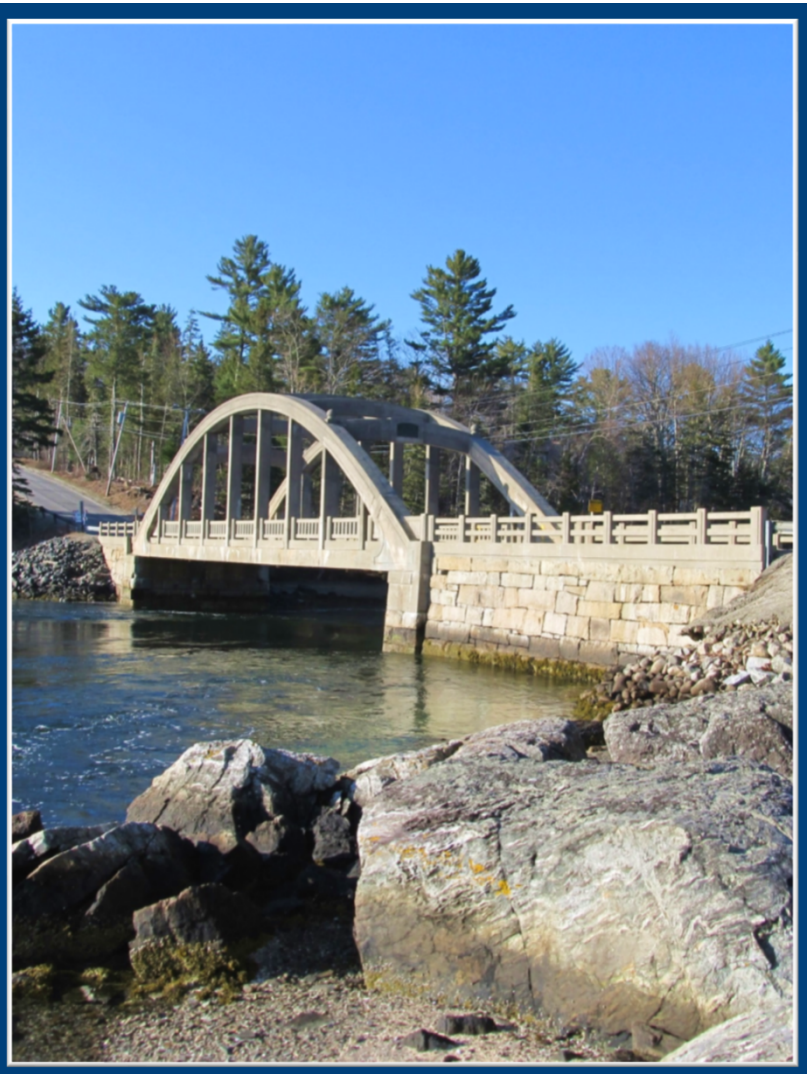
- Traffic Management During Construction
  - On-Site Temporary Bridge
    - One lane bridge, alternating traffic with temporary traffic signals
    - Will require temporary impacts to construct
  - Off-Site Detour

Traffic Management



Moving Forward

- Entering an involved engineering process that will include on-going discussions with BAC
- Create an alternatives design matrix that will show all viable options and their impacts
- FHWA & MDOT will assess rehabilitation of the existing bridge with other alternatives to determine if they meet the purpose and need of the project and if the alternatives create an adverse effect on the bridge's historic integrity
- FHWA & MDOT will select an alternative that will best balance environmental, cultural, social, economic impacts, and transportation needs in addition to considering the engineering, cost, constructability, traffic, utilities, and public input
- Selected alternative will be presented at a future public meeting



Community Discussion