

**STATE OF MAINE**  
**Memorandum**

Blue Hill 17712.00

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Through continued consultation with the Maine Historic Preservation Commission (MHPC), additional information has been included in the subject project's Supplemental Supporting Information for a Finding of Effect. These additions relate to the Bypass A Alternative and historic resources found within the project area. Please refer to the red text on pages 4, 12-13, and 15 to review these changes.

MHPC reviewed these changes and concluded that Bypass A would have an adverse effect on historic resources found within the project area. MaineDOT accepts this conclusion. This and MHPC's response to all alternatives and their effects to historic resources can be found on the attached memo dated December 6, 2018.

# STATE OF MAINE

## MEMORANDUM

December 6, 2018

To: Julie Senk, ENV/Maine Department of Transportation  
From: Kirk F. Mohny, State Historic Preservation Officer *KFM*  
Subject: WIN 17712.00, Blue Hill Falls Bridge, Route 175; MHPC # 1737-10

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In response to your recent request, I have reviewed the information received November 8 and 30, 2018 to continue consultation on the above referenced undertaking pursuant to the Maine Programmatic Agreement and Section 106 of the National Historic Preservation Act of 1966, as amended.

### Identification of Historic Properties (cont.)

The Commission concurs with MaineDOT's determination that 203 Falls Bridge Road is eligible for listing in the National Register of Historic Places under Criterion C with a period of significance of c. 1850-1900.

### Finding of Effects

Based on the alternatives presented in the supplemental documentation for finding of effects, the Commission has reached the following conclusions:

### No Build

The Commission concurs with MaineDOT that no historic properties would be affected under this alternative.

### Bypass A

It appears that this alternative would have an adverse effect on 203 Falls Bridge Road due to the proposed new road that would cut across the southwestern portion of the property to join with Falls Bridge Road. Since no archaeological survey has been completed for this alternative, effects on archaeological sites are unknown. In addition, unless a third-party buyer cannot be identified to maintain the bridge, no other properties would be adversely affected by this alternative.

### Rehabilitation A with Detour

The Commission concurs with MaineDOT that this alternative would have an adverse effect on the Blue Hill Falls Historic District, Wakonda, and the Luskey site. This alternative would have no adverse effect to the Blue Hill Falls Bridge or the Roundy site. It appears that Phase III archaeological data recovery of approximately 200 square meters would be required for a temporary work platform for cranes to access the bridge.

Rehabilitation A with Temporary Bridge

This alternative would have an adverse effect on the Blue Hill Falls Historic District, Wakonda, the Roundy and Luskey sites. This alternative would have no adverse effect on the Blue Hill Falls Bridge. In addition to the 200 square meters of archaeological data recovery at the Luskey site, 300- 400 square meters of Phase III archaeological data recovery would be required for the temporary bridge detour at the Roundy site.

Rehabilitation B with Detour

The Commission concurs with MaineDOT that this alternative would have an adverse effect on the Blue Hill Falls Historic District, Wakonda, and the Luskey site. This alternative would have no adverse effect to the Blue Hill Falls Bridge or the Roundy site. It appears that 450 square meters of Phase III archaeological data recovery would be required at the Luskey site due to the additional site work necessary for the proposed sidewalk.

Rehabilitation B with Temporary Bridge

The Commission concurs with MaineDOT that this alternative would have an adverse effect on the Blue Hill Falls Historic District, Wakonda, the Roundy and Luskey sites. In addition to the data recovery required on the Luskey site, 300- 400 square meters of Phase III data recovery would be required for the Roundy site under this alternative due to the temporary bridge.

Either rehabilitation option preserves the Blue Hills Fall Bridge which is one of two historic concrete arch bridges remaining in the state.

Replacement (1-A, 1-B, 2-A, 2-B)

The Commission concurs with MaineDOT's finding that all four replacement alternatives (1-A, 1-B, 2-A, 2-B) would adversely affect the Blue Hill Falls Historic District, Wakonda and Roundy and Luskey sites. Alternatives 1-A and 1-B would require up to 450 square meters of archaeological data recovery for the Roundy and Luskey sites if a temporary bridge is utilized. Alternatives 2-A and 2-B would require up to 200 square meters of archaeological data recovery at the Luskey site with no temporary bridge and use of a detour. Furthermore, additional data recovery may be necessary if the Roundy site is not avoided during tree removal. These alternatives would result in the demolition of the Blue Falls Bridge which would significantly diminish the aspects of integrity of the Blue Hill Falls Historic District.

We understand that in any alternative, the Nevin site will be avoided. In addition, phase III archaeological data recovery on the Luskey site will render it ineligible for listing in the National Register of Historic Places.

Although addressed in the supplemental information, the Commission requests all comments from the Section 106 consulting parties as well as minutes from the Section 106 consulting parties meeting held in August 2018.

Please contact Megan M. Rideout of our office if we can be of further assistance in this matter.

## Supplemental Supporting Information for a Finding of Effect

Blue Hill 17712.00

Scope: Bridge Improvements

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### **Purpose and Need**

The purpose of the project is to address the structural deficiency of the Blue Hill Falls Bridge #5038 and improve public safety within the project limits in a cost-effective manner. A successful project will provide a bridge capable of carrying all legal loads, will not require additional capital improvements for at least 25 years, will achieve a minimum remaining service life of at least 50 years, and will improve site safety for pedestrians and motorists.

The need for the project is because the rating condition for the bridge elements are: 5 (fair) for the concrete superstructure and 4 (poor) for the stacked stone substructure, and 4 (poor) for the concrete deck. Further deterioration of the bridge elements may require a load posting. The bridge spans over a reversing falls that is a local tourist attraction and there are no pedestrian accommodations at the site which creates a site safety hazard.

### **Federal Action**

Federal funding.

### **Definition of Area of Potential Effect (APE)**

The proposed project is located in Blue Hill. The map below shows the project's Area of Potential Effect (APE).

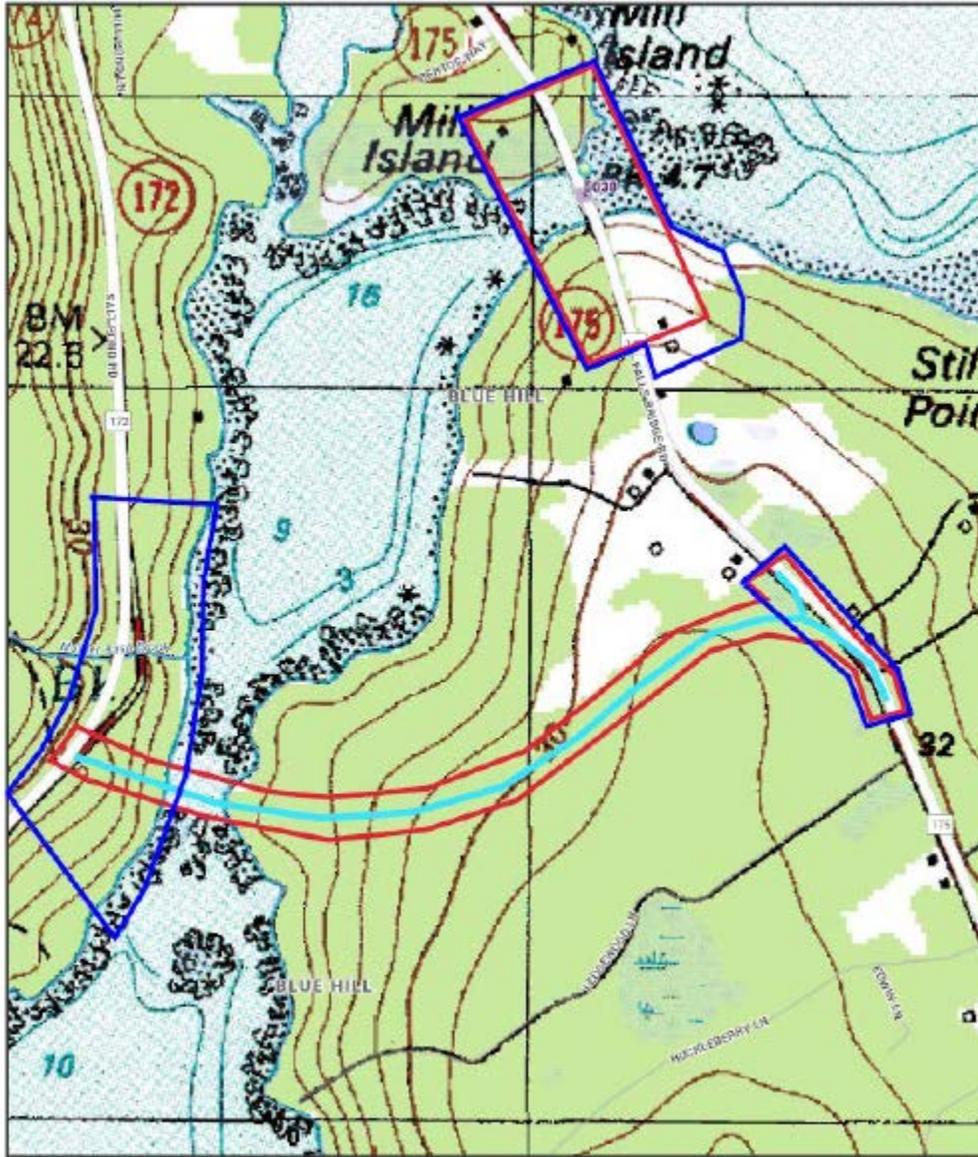


Figure 1. Blue Hill 17712.00 Area of Potential Effect

### **Historic Properties**

The proposed project is located in Blue Hill. The following descriptions of historic properties found within the project area are based on Maine Historic Preservation Commission (MHPC) historic resource forms and reports.

#### Blue Hill Falls Historic District (Various Owners)

*National Register-Eligible*

*Criteria A & C, Architecture, Engineering, Landscape Architecture, Recreation/Culture*

The Blue Hill Falls Historic District contains three historic properties. The district contains Arcady, a 1903 Renaissance Revival-style house with landscaped grounds and high style

outbuildings; Wakonda, a 1904 Queen Anne-style cottage; and the Blue Hill Falls Bridge #5038, a 1926 concrete tied arch. Anne Paul Nevin, widow of famed composer and pianist Ethelbert Nevin, built Arcady as a summer estate and enlisted local architect William Hinkley for the design. Nevin also built Wakonda as a residence for summer guests. The two residences are connected by Route 175 via the Blue Hill Falls Bridge. The period of significance is 1903 to 1968.

Blue Hill Falls Bridge #5038, Falls Bridge Road (State of Maine)

*National Register-Eligible*

*Contributing Resource, Blue Hill Falls Historic District*

*Criterion C, Engineering*

The 1926 Blue Hill Fall Bridge #5038 is a concrete tied arch bridge. It sits on granite ashlar faced concrete abutments with ashlar wingwalls. The bridge is 114' long and 26.5' wide. The arch consists of two parallel ribs that are tied by reinforced concrete girders, which resist the thrust of the arch. An uncommon design element on this bridge is the use of shoes where the ribs tie into the girders. The shoes consist of concrete encased steel castings and a built-up member into which the reinforcing bars of the ribs and girders are tied and the stresses are greatest. The bridge has a concrete balustrade. The bridge was completed under the leadership of Maine State Highway Commission state bridge engineer Llewellyn Edwards. Only four concrete tied arch bridges were constructed in the State of Maine. This bridge is one of two remaining in Maine currently. Its period of significance is 1926 to 1968.

Arcady, 158 Falls Bridge Road (Crocker Nevin)

*National Register-Eligible*

*Contributing Resource, Blue Hill Falls Historic District*

*Criteria A & C, Architecture, Landscape Architecture, Recreation/Culture*

The Arcady estate is centered on a two-story, five-bay Renaissance Revival-style house, fashioned after a Tuscan villa. The house has a stucco exterior, twin exterior chimneys, a two-story loggia facing the front façade, side entrance with projecting arched entry porch, and deep overhanging bracketed eaves. The house faces Blue Hill Bay with a three-tiered lawn sloping away from the front loggia. Each terrace is defined by carved limestone balustrades set to either side of a limestone staircase. The balustrades are adorned with sculpted urns. Several benches and large amphorae are scattered around the terraces. The estate also includes a one-story garage and a guest cottage, both with Renaissance Revival-style elements. Anne Paul Nevins, widow of famed composer and pianist Ethelbert Nevin, built Arcady as a summer estate and enlisted local architect William Hinkley for the design. Its period of significance is 1903 to 1968. Note: The northwest corner of the property has changed and is not reflected in the attached plans. The steps on the northwest corner near the existing guardrail have been removed. From the existing guardrail north approximately 300 feet, the row of trees lining the road have been removed. These actions were completed at the request of the owner. Some trees have been replanted in a row outside of the MaineDOT right-of-way.

Wakonda, 119 Falls Bridge Road (Ann Keating Luskey)

*National Register-Eligible*

*Contributing Resource, Blue Hill Falls Historic District*

*Criteria A & C, Architecture, Recreation/Culture*

The Wakonda property consists of a Queen Anne-style cottage and changing house. The main house is two-stories with a compound roof, scroll-sawn projecting rafter tails, jerkinhead gables, shed dormers, and brick chimney. The house is clad in wood shingles and has low band molding surrounding each window and door casing and a slight bow above each exposed window. It also has a hipped roof wraparound porch. The changing house is two stories tall and also features a jerkinhead roof and is clad in wood shingles. Anne Paul Nevin, widow of famed composer and pianist Ethelbert Nevin, built Wakonda as a residence for summer guests. Its period of significance is 1904 to 1968.

203 Falls Bridge Road (Chris & Paula Niehoff)

*National Register-Eligible*

*Criteria C, Architecture*

The house and barn at 203 Falls Bridge Road are eligible for listing in the National Register under Criterion C for Architecture. The house is an intact example of mid-1800s vernacular architecture with an Italianate-style entry porch. The house retains a high level of integrity with clapboard siding, two-over-one windows, and a granite foundation. It also has a side-ell and engaged upper story screened in sleeping porch. The front entry porch has turned wood columns and railing. A small wood-shingled New England barn is located on the property and a substantial stone wall in the front yard runs parallel to the road. The house at 203 Falls Bridge Road was built by Israel Friend (1808-1865). The Friend family was one of the early settlers of Blue Hill, with Israel's grandfather arriving in Blue Hill in the 1770s from Massachusetts. The period of significance is c.1850 to c.1900

Archeological Resources

*Nevin Site (42.1)*

*National Register-Eligible*

*Criterion D, Prehistoric*

The Nevin Site is a rare Late Archaic Period and Woodland archaeological site that dates from 4,200 to 1,000 years ago. The site is rare as sea level rise has greatly reduced the availability of coastal sites from this timeframe. The site also contains artifacts dating to the Penobscot Nation and pre-European settlement, including the Wabanaki. Further adding to the site's intact nature is that shell fragments in the soil have reduced the acidity of the soil. The site would contribute invaluable information about Late Archaic and Woodland societies, history, and settlement patterns.

*John Roundy House Site (ME 045-005, 42.117)*

*National Register-Eligible*

*Criterion D, Exploration/Settlement*

The John Roundy Site is located west of Route 175 and consists of John Roundy's settlement sites in 1762 and 1763 in Blue Hill. The site includes the sill trenches for 1762 "hut" erected by John Roundy or other early settler Joseph Wood, and John Roundy's 1763 fieldstone house foundation. The site also includes an extensive trash midden. Roundy,

who was active in Blue Hill town governance for many years, remained at this location until 1770 or 1771 when he relocated his family to a recently purchased 80-acre lot on Blue Hill Neck. The site is eligible for listing in the National Register under the Draft Farmstead Context of the State Plan because it represents first-wave English settlement in Blue Hill, was occupied by a single family over a short period of time, and its deposits are intact.

*Luskey Site (42.116)*

*National Register-Eligible*

*Criterion D, Historic-Aboriginal*

The Luskey Site is a multi-component, pre-contact Native American site west of Route 175. The site includes a semi-subterranean house pit/wigwam feature, hearths, trash pits, and post holes. The site was first occupied during the Middle Archaic period with additional artifacts dating to the Moorehead Phase, Susquehanna tradition, and Middle Ceramic period. The site is eligible for the National Register under the Ceramic Period context of the State Plan because its deposits are intact, its components are horizontally separable, and several of its features have yielded charred botanical remains that can be dated by radiocarbon.

**Proposed Alternatives**

No Build

The No Build alternative takes no action and does not meet the purpose and need of the project and was therefore removed from further consideration.

Bypass A

This alternative would reroute Route 175 and construct a new roadway section with a new crossing at Salt Pond. This alternative would provide repairs to the Falls Bridge, including skim coat and patching. MaineDOT would seek a new owner for the Falls Bridge and require a commitment to maintain it following Secretary of the Interior Standards for the Treatment of Historic Properties, and establish use, either as a roadway or pedestrian bridge. The new bridge would be approximately 520' long and the new roadway would be 32' wide. Construction duration would be 18 to 24 months with an estimated construction cost of \$14,400,000.

Rehabilitation A

This alternative would rehabilitate the Falls Bridge. The alternative would retain the existing bridge and roadway width. The roadway profile would be elevated and would raise the bridge 4' to accommodate sea level rise. All work on the Falls Bridge would meet the Secretary of the Interior Standards for the Treatment of Historic Properties and include in-kind replacement of bridge materials. A crash rated rail system would be installed, likely a concrete Texas rail. The rehabilitated bridge would have an estimated 50-year service life. This alternative would have a construction duration of 18 to 24 months. The alternative would require an 18 to 24 months off-site detour or an on-site temporary

bridge. Estimated construction costs would be \$8,100,000, excluding temporary bridge costs of \$800,000.

Rehabilitation B

This alternative would rehabilitate the Falls Bridge and add a 5' sidewalk to the crossing. This alternative would increase the roadway width to 25'. The roadway profile would be elevated and would raise the bridge 4' to accommodate sea level rise. All work on the Falls Bridge would meet the Secretary of the Interior Standards for the Treatment of Historic Properties and include in-kind replacement of bridge materials. A crash rated rail system would be installed. The rehabilitated bridge would have an estimated 50-year service life. The sidewalk would be added via an independent metal pedestrian bridge located to the west of the Falls Bridge. This alternative would have a construction duration of 18 to 24 months. It would require an 18 to 24 months off-site detour or an on-site temporary bridge. Estimated construction costs would be \$8,300,000, excluding temporary bridge costs of \$800,000.

Replacement 1-A

This alternative would replace the existing bridge with an enhanced girder bridge with conventional construction. The new bridge would be 110' long and 30' wide and its profile would be 4' higher than the existing bridge to accommodate sea level rise. It would significantly improve motorist sight lines. The bridge would have a precast arched panel facing. The replacement bridge would have an anticipated service life of 100 years. This alternative would have a total construction duration of 18 to 24 months and require a temporary on-site bridge. Construction cost estimates total \$4,600,000.

Replacement 1-B

This alternative would replace the existing bridge with a metal tied arch bridge with conventional construction. The new bridge would be 110' long and 30' wide and its profile would be 4' higher than the existing bridge to accommodate sea level rise. It would improve motorist sight lines. The replacement bridge would have an anticipated service life of 100 years. This alternative would have a total construction duration of 18 to 24 months. It would require an 18- to 24-month off-site detour or an on-site temporary bridge. Construction cost estimates total \$6,100,000, excluding temporary bridge costs of \$800,000.

Replacement 2-A

This alternative would replace the existing bridge with an enhanced girder bridge using Accelerated Bridge Construction (ABC). The new bridge would be 110' long and 30' wide. It would significantly improve motorist sight lines. The replacement bridge would have an anticipated service life of 100 years. The bridge would have a

precast arched panel facing. The total construction duration for this alternative would be 12 to 24 months with an off-site detour for 50 to 60 days. Construction cost estimates would total \$5,300,000.

Replacement 2-B This alternative would replace the existing bridge with a metal tied arch bridge using ABC. The new bridge would be 110' long and 30' wide. It would improve motorist sight lines. The replacement bridge would have an anticipated service life of 100 years. The total construction duration for this alternative would be 18 to 24 months with an off-site detour for 50 to 60 days. Construction cost estimates would total \$7,000,000.

### **Impacts to Property**

The following addresses potential impacts to properties by each alternative studied as part of this project.

#### Blue Hill Falls Historic District (Various Owners)

*National Register-Eligible*

*Criteria A & C, Architecture, Engineering, Landscape Architecture, Recreation/Culture*

No Build: The No Build alternative would result in **No Historic Properties Affected** to the Blue Hill Falls Historic District. The alternative would take no action and would not affect any historic properties.

Bypass A: This alternative would result in **No Adverse Effect** to the Blue Hill Falls Historic District, contingent on the maintenance of the Falls Bridge, a contributing resource, in perpetuity by a new owner. This alternative would avoid impacts to contributing resources Arcady and Wakonda. This alternative would require a third-party buyer for the Falls Bridge. In order to meet the No Adverse Effect threshold, the buyer would provide a maintenance plan that demonstrates the ability and funding to maintain the bridge in accordance with the Secretary of the Interior's Standards for the Treatment of Historic Properties. Additional consultation would be required to verify that this course of action would occur.

Should this type of buyer not be found, the alternative would result in an **Adverse Effect** on the historic district, as the failed maintenance of the bridge would lead to demolition by neglect.

#### Rehabilitation A:

This alternative would result in an **Adverse Effect** to the Blue Hill Falls Historic District. Clearing, cuts, and proposed guardrail at Wakonda, a contributing resource to the district, would significantly diminish the historic district's integrity of setting and feeling. The use of a temporary on-site bridge, instead of an off-site detour, would lead to additional clearing

at Wakonda. These actions would significantly diminish the historic district's integrity of setting and feeling.

The Blue Hill Falls Bridge rehabilitation would follow the Secretary of the Interior's Standards of for the Treatment of Historic Properties and include the in-kind replacement of reinforced concrete components. Therefore, the bridge's integrity of materials, workmanship, and design would be retained. The selection of a crash rated railing system would adhere to the Standards. A Texas railing system, a concrete rail, would likely be utilized, which would complement, but not replicate, the existing railing.

#### Rehabilitation B:

This alternative would result in an **Adverse Effect** to the Blue Hill Falls Historic District. Clearing, cuts, and proposed guardrail at Wakonda, a contributing resource to the district, would significantly diminish the historic district's integrity of setting and feeling. The removal of significant amounts of vegetation would diminish the integrity of Wakonda. The site has traditionally had a wooded secluded lot and the proposed action would remove much of the existing vegetation between the house and the roadway. The use of a temporary on-site bridge, instead of an off-site detour, would lead to additional clearing at Wakonda. These actions would significantly diminish the historic district's integrity of setting and feeling.

The Blue Hill Falls Bridge rehabilitation would follow the Secretary of the Interior's Standards of for the Treatment of Historic Properties and include the in-kind replacement of reinforced concrete components and construction of a new sidewalk via a pedestrian bridge. Therefore, the bridge's integrity of materials, workmanship, and design would be retained. The selection of a crash rated railing system would adhere to the Standards. A Texas railing system, a concrete rail, would likely be utilized, which would complement, but not replicate, the existing railing. The addition of a sidewalk would also follow the Secretary of Interior's Standards. The metal pedestrian bridge would be an independent structure with a cantilevered concrete extension from the Falls Bridge's abutments for support. The pedestrian bridge would likely be a pony truss bridge with as light a rail system as possible to avoid detracting from the Falls Bridge. The truss would also be a metal truss to further differentiate from the Falls Bridge. Therefore, the bridge's integrity of materials, workmanship, and design would be retained.

#### Replacement 1-A, 1-B:

These alternatives would result in an **Adverse Effect** to the Blue Hill Falls Historic District. These alternatives would remove the Blue Hill Falls Bridge, a contributing resource to the district. This action would significantly diminish the district's integrity of materials, workmanship,

design, feeling, and association. Clearing, cuts, and proposed guardrail at Wakonda, a contributing resource to the district, would significantly diminish the historic district's integrity of setting and feeling. The removal of significant amounts of vegetation would diminish the integrity of Wakonda as the site has traditionally had a wooded secluded lot and the proposed action would remove much of the existing vegetation between the house and the roadway. The use of a temporary on-site bridge would open the entire southeast end of the property to the roadway. These actions would significantly diminish the historic district's integrity of setting and feeling.

Replacement 1-A would utilize an enhanced girder bridge with an arched precast concrete panel facing. This panel would provide continuity between materials from the existing Blue Hill Falls Bridge and the historic district as outlined by the Standards. The use of the facing would minimize the magnitude of the adverse effect on the historic district.

Replacement 1-B would utilize a metal tied arch bridge, which would reduce the magnitude of the adverse effect on the historic district by adding a modern bridge with similar massing and design as the existing Falls Bridge. This type of bridge would provide continuity of design, scale, size, and proportion as outlined in the Standards.

Replacement 2-A, 2-B:

These alternatives would result in an **Adverse Effect** to the Blue Hill Falls Historic District. These alternatives would remove the Blue Hill Falls Bridge, a contributing resource to the district. This action would significantly diminish the district's integrity of materials, workmanship, design, feeling, and association. Clearing, cuts, and proposed guardrail at Wakonda, a contributing resource to the district, would significantly diminish the historic district's integrity of setting and feeling. The removal of significant amounts of vegetation would diminish the integrity of Wakonda. The site has traditionally had a wooded secluded lot and the proposed action would remove much of the existing vegetation between the house and the roadway. These actions would significantly diminish the historic district's integrity of setting, feeling, and design.

Replacement 2-A would utilize an enhanced girder bridge with an arched precast concrete panel facing. This panel would provide continuity between materials from the existing Blue Hill Falls Bridge and the historic district as outlined in the Standards. The use of the facing would minimize the magnitude of the adverse effect on the historic district.

Replacement 2-B would utilize a metal tied arch bridge, which would reduce the magnitude of the adverse effect on the historic district by adding a modern bridge with similar massing and design as the existing Falls

Bridge. This type of bridge would provide continuity of design, scale, size, and proportion as outlined in the Standards.

Blue Hill Falls Bridge #5038, Falls Bridge Road (State of Maine)

*National Register-Eligible*

*Contributing Resource, Blue Hill Falls Historic District*

*Criterion C, Engineering*

No Build: The No Build alternative would result in **No Historic Properties Affected** to the Blue Hill Falls Bridge. The alternative would take no action and would not affect the historic property.

Bypass A: This alternative would result in **No Adverse Effect** to the Falls Bridge. This alternative would require a third-party buyer for the bridge. In order to meet the No Adverse Effect threshold, the buyer would provide a maintenance plan that demonstrates the ability and funding to maintain the bridge in accordance with the Secretary of the Interior's Standards for the Treatment of Historic Properties. Additional consultation would be required to verify that this course of action would occur. Should this type of buyer not be found, the alternative would result in an **Adverse Effect** on the historic district, as the failed maintenance of the bridge would lead to demolition by neglect.

Rehabilitation A:

This alternative would result in **No Adverse Effect** to the Blue Hill Falls Bridge. The Blue Hill Falls Bridge rehabilitation would be completed following the Secretary of Interior's Standards and include the in-kind replacement of the bridge's materials. A Texas railing system would likely be utilized, which is a concrete rail that would complement, but not mimic, the existing railing. Therefore, the bridge's integrity of materials, workmanship, and design would be retained.

Rehabilitation B:

This alternative would result in **No Adverse Effect** to the Blue Hill Falls Historic District. The Blue Hill Falls Bridge rehabilitation would include the in-kind replacement of reinforced concrete components. The addition of a sidewalk would also follow the Secretary of Interior's Standards. The metal pedestrian bridge would be an independent structure with a cantilevered concrete extension from the Falls Bridge's abutments for support. The pedestrian bridge would likely be a pony truss bridge with as light a rail system as possible to avoid detracting from the Falls Bridge. The truss would also be a metal truss to further differentiate from the Falls Bridge. Therefore, the bridge's integrity of materials, workmanship, and design would be retained.

Replacement 1-A, 1-B:

These alternatives would result in an **Adverse Effect** to the Blue Hill Bridge. These alternatives would remove the bridge.

Replacement 2-A, 2-B:

These alternatives would result in an **Adverse Effect** to the Blue Hill Bridge. These alternatives would remove the bridge.

Arcady, 158 Falls Bridge Road (Crocker Nevin)

*National Register-Eligible*

*Contributing Resource, Blue Hill Falls Historic District*

*Criteria A & C, Architecture, Landscape Architecture, Recreation/Culture*

No Build: The No Build alternative would result in **No Historic Properties Affected** to Arcady. The alternative would take no action and would not affect any historic properties.

Bypass A: This alternative would result in **No Historic Properties Affected** to Arcady. This alternative would avoid the property.

Rehabilitation A and B:

These alternatives would result in **No Adverse Effect** to Arcady. The planned cuts, clearing, and guardrails would be located in an area that no longer retains original landscape design elements.

Replacement 1-A, 1-B:

These alternatives would result in **No Adverse Effect** to Arcady. The planned cuts, clearing, and guardrails would be located in an area that no longer retains original landscape design elements.

Replacement 2-A, 2-B:

These alternatives would result in **No Adverse Effect** to Arcady. The planned cuts, clearing, and guardrails would be located in an area that no longer retains original landscape design elements.

Wakonda, 119 Falls Bridge Road (Ann Keating Luskey)

*National Register-Eligible*

*Contributing Resource, Blue Hill Falls Historic District*

*Criteria A & C, Architecture, Recreation/Culture*

No Build: The No Build alternative would result in **No Historic Property Affected** to

Wakonda. The alternative would take no action and would not affect this property.

Bypass A: This alternative would result in **No Historic Properties Affected** to Wakonda. The alternative would avoid the property.

Rehabilitation A & B:

These alternatives would result in an **Adverse Effect** to Wakonda. The proposed project would require clearing and cuts removing large portions of vegetation from the property. These actions would greatly diminish the integrity of setting and feeling. Wakonda, as a rural summer estate, has had a wooded and secluded setting. Use of a temporary on-site bridge, instead of an off-site detour, would increase the amount of clearing at Wakonda and further diminish integrity of setting and feeling.

Replacement 1-A, 1-B: These alternatives would result in an **Adverse Effect** to Wakonda. The proposed project, particularly with the use of a temporary on-site bridge, would require clearing and cuts removing large portions of vegetation from the southeast side of the property. These actions would open much of the property to the roadway and would greatly diminish the integrity of setting and feeling. Wakonda, as a rural summer estate, has had a wooded and secluded setting.

Replacement 2-A, 2-B: These alternatives would result in an **Adverse Effect** to Wakonda. The proposed project would require clearing and cuts removing large portions of vegetation from the property. These actions would greatly diminish the integrity of setting and feeling. Wakonda, as a rural summer estate, has had a wooded and secluded setting.

203 Falls Bridge Road (Chris & Paula Niehoff)  
*National Register-Eligible*  
*Criteria C, Architecture*

No Build: The No Build alternative would result in **No Historic Properties Affected** to 203 Falls Bridge Road. The alternative would take no action and would not affect any historic properties.

Bypass A: This alternative would result in **No Adverse Effect** to 203 Falls Bridge Road. The proposed action avoids any physical impacts to the historic resources. The proposed clearing adjacent to the bypass located just south of the house and barn would not physically impact the resources, including the stone wall. Trees and vegetation between the resources and the planned bypass would create a visual buffer. No work would take place on the road that runs in front of the resources. Therefore, none of the character defining

features of the property would be altered in a way that would diminish the residence's aspects of integrity.

**Rehabilitation A and B:**

This alternative would result in **No Historic Properties Affected** to 203 Falls Bridge Road. This alternative would avoid the property.

**Replacement 1-A, 1-B:**

This alternative would result in **No Historic Properties Affected** to 203 Falls Bridge Road. This alternative would avoid the property.

**Replacement 2-A, 2-B:**

This alternative would result in **No Historic Properties Affected** to 203 Falls Bridge Road. This alternative would avoid the property.

Archaeological Resources

*Nevin Site (42.1)*

*National Register-Eligible*

*Criterion D, Prehistoric*

**No Build:** The No Build alternative would result in **No Historic Property Affected** to the Nevin Site. The alternative would take no action and would not affect any historic properties.

**Bypass A:** These alternatives would result in **No Historic Property Affected** to the Nevin Site. These alternatives would avoid the property.

**Rehabilitation A & B:**

These alternatives would result in **No Historic Property Affected** to the Nevin Site. These alternatives would avoid the property. A knee wall would be constructed bordering the site (Sta. 2+75L) to further prevent construction from affecting the site. Geosynthetic mats, in coordination with MHPC, would be utilized in select locations at this site. Select materials would be placed by hand and not compacted.

**Replacement 1-A, 1-B:**

These alternatives would result in **No Historic Property Affected** to the Nevin Site. These alternatives would avoid the property. A knee wall would be constructed bordering the site (Sta. 2+75L) to further prevent construction from affecting the site. Geosynthetic mats, in coordination with MHPC, would be utilized in select locations at this site. Select materials would be placed by hand and not compacted.

**Replacement 2-A, 2-B:**

These alternatives would result in **No Historic Property Affected** to the Nevin Site. These alternatives would avoid the property. A knee wall would be constructed bordering the site (Sta. 2+75L) to further prevent construction from affecting the site. Geosynthetic mats, in coordination with MHPC, would be utilized in select locations at this site. Select materials would be placed by hand and not compacted.

*John Roundy House Site (ME 045-005, 42.117)*

*National Register-Eligible*

*Criterion D, Exploration/Settlement*

No Build: The No Build alternative would result in **No Historic Property Affected** to the John Roundy House Site. The alternative would take no action and would not affect any historic properties.

Bypass A: This alternative would result in **No Historic Property Affected** to the John Roundy House Site. The alternative would avoid the property.

Rehabilitation A & B:

These alternatives would result in **No Adverse Effect** to the John Roundy House Site. These alternatives would avoid impacting the John Roundy House Site. The use of a temporary on-site bridge for either alternative, however, would result in an **Adverse Effect** to the John Roundy House Site. The route for the temporary bridge would require 300-400 square meters of data collection.

Replacement 1-A, 1-B:

These alternatives would result in an **Adverse Effect** to the John Roundy House Site. The route for the temporary bridge would require 300-400 square meters of data collection.

Replacement 2-A, 2-B:

These alternatives would result in **No Adverse Effect** to the John Roundy House Site. These alternatives would avoid impacting the John Roundy House Site.

*Luskey Site (42.116)*

*National Register-Eligible*

*Criterion D, Historic-Aboriginal*

No Build: The No Build alternative would result in **No Historic Property Affected** to the Luskey Site. The alternative would take no action and would not affect any historic properties.

Bypass A: This alternative would result in **No Historic Property Affected** to the Luskey Site. The alternative would avoid the property.

Rehabilitation A:

This alternative would result in an **Adverse Effect** due cuts and clearing that would disturb of the Luskey Site and would require 200 square meters of data recovery.

Rehabilitation B:

This alternative would result in an **Adverse Effect** due to cuts and clearing that would disturb the Luskey Site and would require 450 square meters of data recovery.

Replacement 1-A, 1-B:

These alternatives would result in an **Adverse Effect** due to the disturbance of the Luskey Site and would require 450 square meters of data recovery.

Replacement 2-A, 2-B:

These alternatives would result in an **Adverse Effect** due to the disturbance of the Luskey Site and would require 450 square meters of data recovery.

### **Determinations of Effect for Each Alternative**

#### No Build

This alternative would result in **No Historic Properties Affected**. The alternative would take no action and would not impact any historic property.

#### Bypass A

This alternative would result in **No Adverse Effect**. This alternative would avoid physical impacts to 203 Falls Bridge Road and would not adversely affect aspects of integrity for which it is considered significant. The alternative would avoid impacts to Arcady, Wakonda, Nevin Site, John Roundy House Site, and Luskey Site. The Falls Bridge would be sold to a third-party buyer who would commit to maintaining the bridge according to the Secretary of the Interior's Standards. Therefore, any maintenance to the bridge would follow the Standards and would not significantly diminish the aspects of integrity of the Blue Hill Falls Historic District or Falls Bridge.

Should a third-party buyer not be able to commit to maintaining the bridge according to the Standards, then the alternative would result in an **Adverse Effect**. The inability to maintain the bridge in accordance with the Standards would lead to diminishment of integrity or demolition by neglect.

### Rehabilitation A

This alternative results in a finding of **Adverse Effect** due to disturbances to the Blue Hill Falls Historic District, Wakonda, and Luskey Site. Wakonda, as a rural summer estate, is characterized by a wooded and secluded setting and this alternative would require large amounts of clearing and cuts and fill at this location. Wakonda is a contributing resource to the Blue Hill Falls Historic District. Disturbances at the Luskey Site would require 200 square meters of data recovery.

The Blue Hill Falls Bridge rehabilitation would follow the Secretary of the Interior's Standards of for the Treatment of Historic Properties and include the in-kind replacement of reinforced concrete components. Therefore, the bridge's integrity of materials, workmanship, and design would be retained. The selection of a crash rated railing system would adhere to the Standards. A Texas railing system would likely be utilized, which is a concrete rail that would complement, but not mimic, the existing railing.

If selected, the use of a temporary on-site bridge, instead of an off-site detour, would result in further clearing at Wakonda and an increased diminishment of integrity of setting and feeling. The use of a temporary on-site bridge would also require 300-400 square meters data collection at the John Roundy House Site. This action would increase the magnitude of the adverse effect.

### Rehabilitation B

This alternative results in a finding of **Adverse Effect** due to disturbances to the Blue Hill Falls Historic District, Wakonda, and Luskey Site. Wakonda, as a rural summer estate, is characterized by a wooded and secluded setting and this alternative would require large amounts of clearing and cuts and fill at this location. Wakonda is a contributing resource to the Blue Hill Falls Historic District. Disturbances at the Luskey Site and would require 450 square meters of data recovery.

The Blue Hill Falls Bridge rehabilitation would follow the Secretary of the Interior's Standards of for the Treatment of Historic Properties and include the in-kind replacement of reinforced concrete components. Therefore, the bridge's integrity of materials, workmanship, and design would be retained. The selection of a crash rated railing system would adhere to the Standards. A Texas railing system, a concrete rail, would likely be utilized, which would complement, but not replicate, the existing railing.

The addition of a sidewalk would also follow the Secretary of Interior's Standards. The metal pedestrian bridge would be an independent structure with a cantilevered concrete extension from the Falls Bridge's abutments for support. The pedestrian bridge would likely be a pony truss bridge with as light a rail system as possible to avoid detracting from the Falls Bridge. The truss would also be a metal truss to further differentiate from the Falls Bridge. Therefore, the bridge's integrity of materials, workmanship, and design would be retained.

If selected, the use of a temporary on-site bridge, instead of an off-site detour, would result in further clearing at Wakonda and an increased diminishment of integrity of setting and feeling. The use of a temporary on-site bridge would also require 300-400 square meters data collection at the John Roundy House Site. This action would increase the magnitude of the adverse effect.

#### Replacement 1-A

This alternative results in a finding of **Adverse Effect** due to the removal of the Falls Bridge and disturbances to Wakonda and Luskey Site. The Falls Bridge and Wakonda are contributing resources to the Blue Hill Falls Historic District. This alternative would significantly diminish the historic district's integrity of materials, workmanship, design feeling, and association. Clearing, cuts, and proposed guardrail at Wakonda would significantly diminish the individual resource's and the historic district's integrity of setting, design, and feeling. The removal of significant amounts of vegetation and addition of guardrail would diminish the integrity of Wakonda. The site has traditionally had a wooded secluded lot and the proposed action would remove much of the existing vegetation between the house and the roadway. Disturbances at the Luskey Site would require 450 square meters of data recovery.

This alternative would utilize an enhanced girder bridge with an arched precast concrete panel facing. This panel would provide continuity between materials from the existing Blue Hill Falls Bridge and the historic district as outlined in the Standards. The use of the facing would minimize the magnitude of the adverse effect on the historic district.

If selected, the use of a temporary on-site bridge would further open the entire southeast end of Wakonda to the roadway and increase the magnitude of the adverse effect. Additionally, the route for the temporary bridge would disturb the John Roundy House Site and require 300-400 square meters of data collection. This action would increase the magnitude of the adverse effect.

#### Replacement 1-B

This alternative results in a finding of **Adverse Effect** due to the removal of the Falls Bridge and disturbances to Wakonda and Luskey Site. The Falls Bridge and Wakonda are contributing resources to the Blue Hill Falls Historic District. This alternative would significantly diminish the historic district's integrity of materials, workmanship, design, feeling, and association. Clearing, cuts, and proposed guardrail at Wakonda would significantly diminish the individual resource's and the historic district's integrity of setting, design, and feeling. The removal of significant amounts of vegetation would diminish the integrity of Wakonda. The site has traditionally had a wooded secluded lot and the proposed action would remove much of the existing vegetation between the house and the roadway. Disturbances at the Luskey Site and would require 450 square meters of data recovery.

The alternative would utilize a metal tied arch bridge, which would reduce the magnitude of the adverse effect on the Blue Hill Falls Historic District, as a bridge with similar design, scale, size, and proportions as the existing bridge would be added.

If selected, the use of a temporary on-site bridge would open the entire southeast end of Wakonda to the roadway, increasing the magnitude of the adverse effect on the resource. The route for the temporary bridge would impede on the John Roundy House Site and would require 300-400 square meters of data collection. This action would increase the magnitude of the adverse effect.

#### Replacement 2-A

This alternative results in a finding of **Adverse Effect** due to the removal of the Falls Bridge and disturbances to Wakonda and Luskey Site. The Falls Bridge and Wakonda are contributing resources to the Blue Hill Falls Historic District. This alternative would significantly diminish the historic district's integrity of materials, workmanship, design, feeling, and association. Clearing, cuts, and proposed guardrail at Wakonda would significantly diminish the individual resources' and the historic district's integrity of setting, design, and feeling. The removal of significant amounts of vegetation would diminish the integrity of Wakonda. The site has traditionally had a wooded secluded lot and the proposed action would remove much of the existing vegetation between the house and the roadway. Disturbances at the Luskey Site would require 450 square meters of data recovery.

This alternative would utilize an enhanced girder bridge with an arched precast concrete panel facing. This panel would provide continuity between materials from the existing Blue Hill Falls Bridge and the historic district as outlined in the Standards. The use of the facing would minimize the magnitude of the adverse effect on the historic district.

#### Replacement 2-B

This alternative results in a finding of **Adverse Effect** due to the removal of the Falls Bridge and disturbances to Wakonda and Luskey Site. The Falls Bridge and Wakonda are contributing resources to the Blue Hill Falls Historic District. This alternative would significantly diminish the historic district's integrity of materials, workmanship, design, feeling, and association. Clearing, cuts, and proposed guardrail at Wakonda would significantly diminish the individual resources' and the historic district's integrity of setting, design, and feeling. The removal of significant amounts of vegetation would diminish the integrity of Wakonda. The site has traditionally had a wooded secluded lot and the proposed action would remove much of the existing vegetation between the house and the roadway. Disturbances at the Luskey Site would require 450 square meters of data recovery.

The alternative would utilize a metal tied arch bridge, which would reduce the magnitude of the adverse effect on the Blue Hill Falls Historic District, as a bridge with similar design, scale, size, and proportions as the existing bridge would be added.

### **Local Involvement**

MaineDOT created a Falls Bridge Advisory Committee with local officials and citizens from Blue Hill and the surrounding area. The meetings occurred bi-monthly beginning in 2017. On May 8, 2017, the MaineDOT presented to the committee about the project's cultural resources (architectural history and archaeology) and the National Historic Preservation Act Section 106 process. The Blue Hill Historical Society and Town of Blue Hill have requested consulting party status.

MaineDOT contacted the four federally recognized Native American tribes in Maine. The Penobscot Nation and Passamaquoddy Tribe replied and requested continued consultation for this project. A Consulting Parties meeting was held on August 22, 2018 and this Draft Determination of Effect was discussed. No concerns were raised at that time. A public meeting was held on August 29, 2018.

### **Attachments**

Kirk Mohny, MHPC, to Julie Senk, MaineDOT, April 6, 2018

Kirk F. Mohny, MHPC, to David Gardner, MaineDOT, April 25, 2017

Phase II Archaeological Testing for the Blue Hill Bridge WIN 17712.00, Blue Hill, Maine, August 2017, "Management Summary."

Kirk F. Mohny, MHPC, to David Gardner, MaineDOT, September 13, 2010