Supplemental Supporting Information for a Finding of Effect

[DRAFT PUBLIC COMMENT COPY]

Project: Milo 25209.00
Scope: Bridge Replacement
Finding of Effect: Adverse Effect

This report describes the Maine Department of Transportation's compliance with Section 106 of the National Historic Preservation Act (36 CFR Part 800). It details the finding of effect to historic properties listed in or eligible for listing in the National Register of Historic Places (NRHP) that are located in the subject project's Area of Potential Effect (APE). This report also assesses how the proposed project may directly or indirectly affect and/or diminish those characteristics and aspects of integrity that qualify a historic property for inclusion in the NRHP. This report is specific to the Section 106 assessment of effects, as opposed to general environmental impacts. Consultation with coordinating agencies and the public is ongoing.

Project Scope

The proposed project consists of the replacement of Canal Bridge #2124, Second West Opening Bridge #2931, Milo West Opening Bridge #2573, and the Henry Butch Heal Jr. Memorial Bridge #2572 that carry Route 6/16 over the Sebec River in Milo.

Purpose and Need

The purpose of this project is to improve vehicle and pedestrian safety and access at the crossing of Route 6 and Sebec River.

The need for this project is due to the deteriorating condition of Canal Bridge #2124, Second West Opening Bridge #2931, Milo West Opening Bridge #2573, and the Henry Butch Heal Jr. Memorial Bridge #2572 and the substandard roadway geometry of Route 6 which results in large vehicles crossing into the opposing lane of traffic. In addition, the lack of shoulders and the existing sidewalks that do not comply with the American with Disabilities Act (ADA) create unsafe conditions for pedestrians and cyclists.

Project Background

Route 6 runs east-west across the state, with its western terminus at Sandy Bay on the Quebec border and the eastern terminus at Vanceboro on the New Brunswick border. In Milo, it carries West Main Street/Main Street and runs through the geographic and commercial center of the town. It is a Corridor Priority 2, minor arterial roadway and sees approximately 6000 vehicles per day with 9% consisting of heavy truck traffic. Four bridges carry Route 6 over the Sebec River, which bisects the town. The bridges are, from west to east: Canal Bridge #2124, Second West Opening Bridge #2931, Milo West Opening Bridge #2573, and the Henry Butch Heal Jr. Memorial Bridge #2572. The bridges are the only crossing point of the Sebec River in Milo, as well as the only point of access to the island located in the middle of the river. There is a significant curve in the roadway as it crosses the island at the northeastern end of Milo West Opening Bridge #2573. The existing horizontal curvature of the corridor is tighter than the minimum allowable radius values resulting in trucks off-tracking into the opposing lane. The existing shoulder width at the curve does not accommodate truck off-tracking, necessitating oncoming traffic to stop when this occurs. Minimum shoulder widths are not provided along any of the bridges and the sidewalks are substandard and do not meet ADA standards.

There are a variety of different structures located adjacent to the bridges. The island located in the Sebec River contains a hydroelectric power station, residences, and commercial properties. Extending off the northwest end of the island and upstream of the bridges is a timber crib dam that also connects to the western abutment of Second West Opening Bridge #2931. The dam was

constructed to help power a mill complex that was located to the southwest along Riverside Street and Cousin Lane. Only one building from the former complex remains. There are aerial utilities located along the downstream side of the bridges. On the east bank of the river there is a park with a boat launch.

Canal Bridge #2124 is a two-span 43' continuous concrete slab structure on concrete abutments and a concrete pier built in 1931. Each span is 20' long and 30' wide with a concrete balustrade rail on the upstream side and a concrete post rail on the downstream side. The slab is in poor condition. Approximately 50% of the bottom face has cracking and staining with concentrated areas of fine cracking and active efflorescence. The substructure is also in poor condition. The abutments and piers have heavy scaling. The concrete on both abutments is overall in poor condition with cracking and spalling throughout. The southwest wingwall has scattered minor to major cracking while the northwest wingwall has rotated and is heavily cracked. The pier is in fair condition with some cracking and spalling. The canal that previously flowed under the bridge has been filled in and no water currently flows under the bridge.

Second West Opening Bridge #2931 is a single span reinforced concrete slab with concrete capped dry laid stone abutments and return walls built in 1924. It is 26' long and 30' wide with a concrete balustrade rail on the upstream side and a solid concrete rail on the downstream side. The superstructure was replaced in 1995. The stone abutments are generally in good condition with scattered voids but no signs of movement.

Milo West Opening Bridge #2573 is a single span, earth filled concrete arch with concrete spandrel walls and a concrete parapet rail built in 1915. It is 70' long and 38' wide and sits on concrete abutments. The arch has isolated fine to minor cracking. The south spandrel wall has a 1/8" wide crack and along the crack are areas of deep scaling. The upstream parapet rail is heavily cracked.

Henry Butch Heal Jr. Memorial Bridge #2572 is a single span, earth filled concrete arch built in 1915. It is 70' long and 38' wide and sits on concrete abutments. In 1971 a built-up steel girder was added to the upstream side to support a sidewalk. A pipe railing with bar fill has replaced the original concrete parapet on the downstream side. The arch underside is in generally good condition. The upstream fascia has cracking, spalling, delamination, and efflorescence staining. The downstream corners of the arch have isolated areas of deep spalling. The steel girder has moderate to heavy deterioration at the deck and stiffener locations. The deck under the sidewalk is in poor condition. The downstream rail has heavy deterioration and section loss. The abutments have minor to moderate scaling throughout with isolated deep scaling.

Proposed Action

The proposed action would replace Canal Bridge #2124, Second West Opening Bridge #2931, Milo West Opening Bridge #2573, and the Henry Butch Heal Jr. Memorial Bridge #2572 with two bridges located upstream of the exiting alignment. The alignment would be a tangent over the river with gradual horizontal curves on each side that would tie into the existing roadway. The intersections of Route 6 with Riverside Street and Elm Street would also be reconstructed. The vertical profile of the bridges would be raised compared to the existing grade to meet hydraulic clearance at the west abutment of the west bridge, which is the controlling location. This alignment would avoid the dam, minimize impacts to private property, and allow for traffic to be maintained on-alignment while the new structures are built upstream. By placing the bridges on a new alignment away from the dam and power station, maintenance would be easier than for the dismissed alternatives. The proposed action would greatly improve vehicular and pedestrian safety, while allowing for multimodal mobility.

An unbalanced two-span bridge would span from the west bank of the river to the island. A single-span bridge would connect the island to the east riverbank. The island would be extended on its upstream side, potentially supported by retaining walls on three sides. The west bridge would have a total length of approximately 335' with spans of 185' and 150'. The bridge would have zero skew and would be unbalanced to avoid impacting the dam. The eastern bridge would be 90' long and be built on a 30° skew. The superstructure of both bridges would consist of six metalized steel girders and a composite 8" deck. They would rest on cast-in-place full-height abutments. The abutments would be mass concrete walls or single column hammerheads.

The roadway would consist of two 12' lanes with 6' shoulders and a 6' sidewalk on the upstream side. The sidewalk would match into existing sidewalks on both sides. The bridges would have an 8" concrete deck with a 3" bituminous wearing surface. Large concrete retaining walls would be tied into the abutments and extend to the island. The exact configuration of the island extension would be assessed further in future phases of the project but preliminary design assumes it would be comprised of cantilever retaining walls supported on sealed concrete resting on bedrock. The retaining walls would be continuous with the east abutment of the west bridge and the west abutment of the east bridge. The project would also include 800' approaches on either side.

In addition to the Canal Bridge #2124, Second West Opening Bridge #2931, Milo West Opening Bridge #2573, and the Henry Butch Heal Jr. Memorial Bridge #2572, three properties would be permanently impacted, two on the west side of the river and one on the east side. On the west side, the new roadway would impact the site of a former blacksmith shop on which there is a small memorial installed by the Milo Historical Society. The building on the adjacent lot would be removed and the memorial will be relocated pending additional coordination with the Milo Historical Society. On the east side, the new roadway would impact the park by removing some of the parking spaces for the park. If necessary, these parking spaces would be relocated. Several utility poles on the north side of Route 6 west of the river would be permanently removed and the utility lines on the poles adjacent to the existing bridges would be reconfigured to allow for demolition activities. Portions of the existing closed drainage system would be abandoned while some sections would be tied into a new system along the proposed curb lines. Buried water and sewer lines that run along Water Street may be impacted by the installation of the abutment on the east side of the river.

The proposed construction cost of the proposed action is $23.73 million and a total project cost of $28.5 million.

Federal Action
Federal funding.

Definition of Area of Potential Effect (APE)
The proposed project is located in Milo, Piscataquis County, Maine. The map below shows the APE.

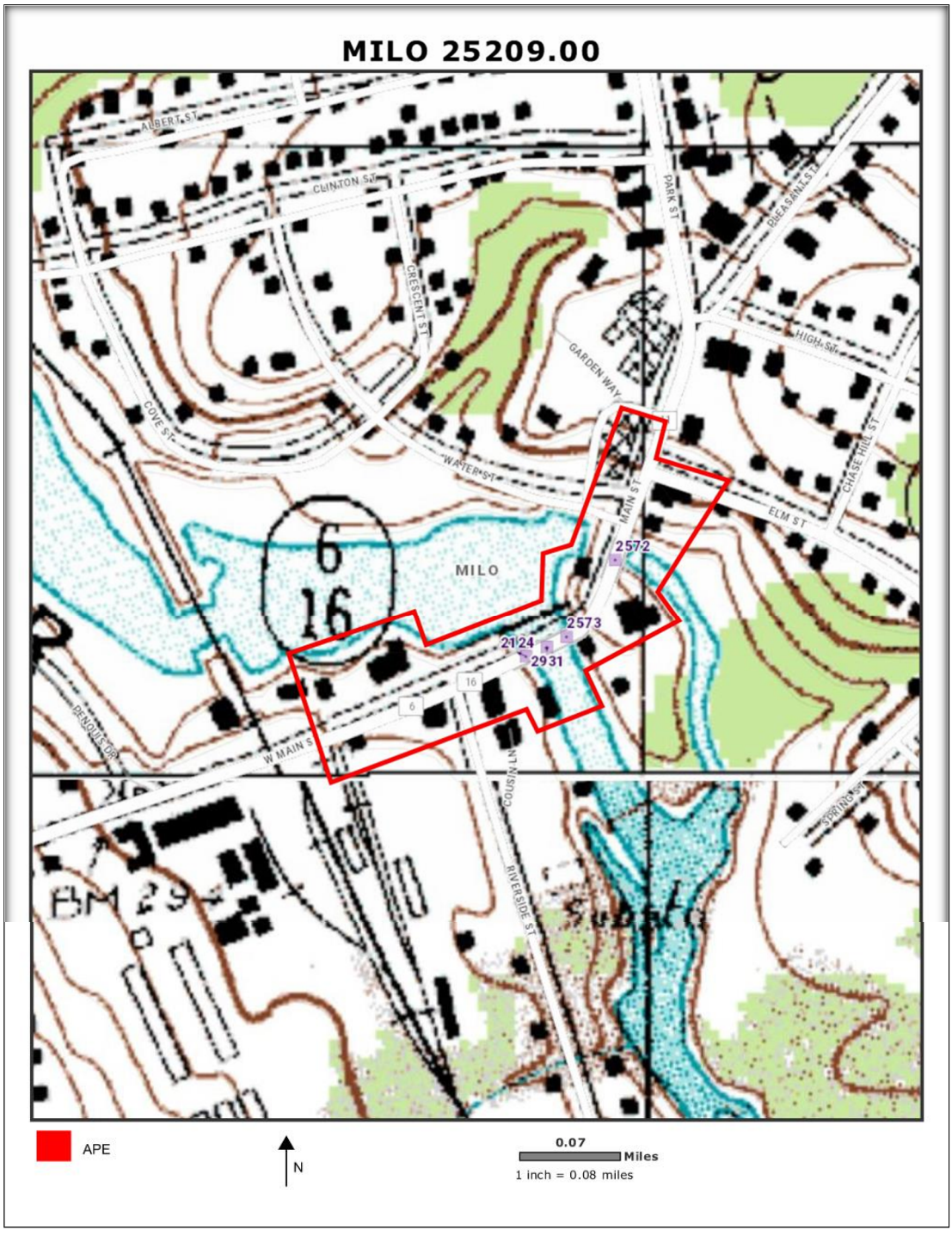


Figure 1. Milo 25209.00 Area of Potential Effect

Historic Properties
The proposed project is located in Milo. The descriptions are based on Maine Historic Preservation Commission (MHPC) forms.

Milo West Opening Bridge #2573 (Maine Department of Transportation; No stationing)
National Register-Eligible
Criterion C, Engineering
The Milo West Opening Bridge #2573 is a good, early example of a concrete spandrel arch bridge. It consists of a single span with concrete paneled parapets and pilasters at the abutment corners. It was built in 1915. The use of reinforced concrete for closed spandrel deck arch bridges was introduced in the U.S. about 1890. Reinforced concrete arch bridges began appearing in Maine about 1902 and were utilized frequently for highway bridges by the 1910s. Milo West Opening Bridge #2573 is one of the few remaining examples from this period. It retains all aspects of integrity, and its period of significance is 1915.

Figure 2. Milo West Opening Bridge #2573

Boston Excelsior Company Store House, 10 Cousins Lane (Cousins, Edwin and Karl; No stationing)
National Register-Eligible
Criterion C, Architecture
The Boston Excelsior Company Store House is as an increasingly rare example of a timber frame industrial building. It first appears on Sanborn maps in 1906 and was likely constructed shortly before that year. The Boston Excelsior Company (BEC) built a large mill on the Sebec River in 1879. The company manufactured excelsior at this location until 1922 when it built a new mill near the railroad station located south of town. Subsequently the mill was purchased by the Milo Textile Company which manufactured high grade machine yarns. That company ceased operations in 1930. The store house sits on the north side of the former BEC campus. It is a 2-story wood frame building, sheathed in clapboards with a side gabled roof. It sits parallel to the western reach of the Sebec River. The foundation is a mix of concrete and dry laid stone that was likely part of sawmill that previously sat on

the site. A concrete arch in the building's foundation allowed water to flow from the now partially filled in canal under the building. The gable front building faces south, with three bays on the north and south elevations and nine bays on the east and west elevations. The building floor plan appears to be open on each story allowing light to pour in from 18 windows. There is a large loading door with ramp on each gable end. A tower projects two stories high on the front elevation. The building features denticulation under the roof eaves and the roof is covered in slate shingles. While it has experienced some loss of integrity of association and setting due to the demolition of the other mill buildings, it retains all other aspects of integrity. Its period of significance is c.1906.

Figure 3. Boston Excelsion Company Store House

<u>Milo Dam (Town of Milo; Sta. 116+00R to 118+20R)</u>
National Register-Eligible
Criteria A and C, Engineering, Industry
The Milo Dam was built by the BEC in 1898 to power their mill. The falls were first dammed c.1823, likely to power saw and grist mills. By the 1850s, an excelsior mill had been built on the west side of the river. The same year the BEC built the new dam, a new electric light plant was also constructed, owned by Julian d'Este, also owner of the BEC. By 1931 the dam was owned by the Milo Light and Power Company. The dam was reconstructed in 1970 after being damaged by storms. The dam is timber cribbing filled with rock. The Milo Dam is eligible as a rare example of a timber crib dam and for its association with local industrial history. While it has experienced some loss of integrity of association and setting due to the demolition of the majority of the associated mill buildings, it retains all other aspects of integrity. Its period of significance is 1898.

Figure 4. Milo Dam

Archaeological Resources
There are no archaeological resources in the project area.

Impacts to Properties
The following addresses potential impacts to properties as a result of the proposed action.

Milo West Opening Bridge #2573 (Maine Department of Transportation; No Stationing)
National Register-Eligible
Criterion C, Engineering
The proposed action would result in an **Adverse Effect** to the Milo West Opening Bridge #2573. In order to meet the purpose and need of the project, the proposed action would remove the bridge to meet current design standards for curve layout and improve vehicular and pedestrian safety. The removal of the Milo West Opening Bridge would result in the loss of all aspects of integrity.

Boston Excelsior Company Store House, 10 Cousins Lane (Cousins, Edwin and Karl; No stationing)
National Register-Eligible
Criterion C, Architecture
The proposed action would result in **No Adverse Effect** to the Boston Excelsior Company Store House. The removal of Canal Bridge #2124, Second West Opening Bridge #2931, Milo West Opening Bridge #2573, and the Henry Butch Heal Jr. Memorial Bridge #2572 and the construction of two new bridges on an upstream alignment would not significantly impact the building's aspects of integrity. All construction would occur outside the boundaries of the property and would not directly impact the resource. The store house was constructed at least ten years before the earliest existing bridge, and over 20 years before the most recently built bridge. Because a crossing would be maintained at a similar location, the loss of the bridges does not represent a change in setting for the store house. Furthermore, the retention of the Milo Dam would help to maintain the building's integrity of setting

and association as the dam is associated with the industrial use of the building. The loss of the bridges would not diminish the store house's integrity of design, materials, workmanship, setting, location, feeling, or association and therefore results in no adverse effect.

Milo Dam (Town of Milo; Sta. 116+00R? to 118+20R)
National Register-Eligible
Criteria A and C, Engineering, Industry
The proposed action would result in **No Adverse Effect** to the Milo Dam. The removal of Canal Bridge #2124, Second West Opening Bridge #2931, Milo West Opening Bridge #2573, and the Henry Butch Heal Jr. Memorial Bridge #2572 and the construction of two new bridges on an upstream alignment would not directly impact the dam. The proposed project was designed to avoid the dam. Work would occur adjacent to the dam but it would not require any contact with the structure. The abutment that the dam ties into would be reduced in height but would remain in place. The dam was constructed nearly 20 years before the earliest existing bridge, and over 30 years before the most recently built bridge. While the loss of the bridges would alter the setting of the dam, the loss does not represent a significant change in setting because a crossing would be maintained adjacent to the dam. The extension of the northern tip of the island would occur north of the dam and would likely be less than 100' long and no wider than the existing formation. The addition of concrete retaining walls does not represent the introduction of a new material as concrete is already used in the existing bridges. These alterations do not greatly diminish the setting of the dam. Further, the integrity of setting has previously been diminished by the loss of the dam's original associated mill buildings. The loss of the bridges would not impact the dam's integrity of design, materials, workmanship, location, feeling, or association and therefore results in no adverse effect.

Archaeological Resources
There are no archaeological resources in the project area.

Avoidance and Minimization Efforts
The MaineDOT considered ways to avoid the removal of Milo West Opening Bridge #2573, including rehabilitation and bypass. However, no option could be found that would meet the purpose and need of the project. The MaineDOT has minimized adverse effects by avoiding impacts to the Milo Dam by choosing an alignment that does not impact the dam. The proposed alignment is located further upstream from the existing bridges, also avoiding any impacts to the BEC Store House located downstream. Additionally, MaineDOT coordinated with the Milo Historical Society and chose a new concrete bridge rail design that is aesthetically similar to the existing rail on the Milo West Opening Bridge #2573.

MaineDOT will post a public notice for the adaptive reuse of the Milo West Opening Bridge #2573.

If no offers of adaptive reuse are received, the MaineDOT will record the Milo West Opening Bridge #2573 using the "Outline Format" narrative of the Maine Historic Engineering Recordation (MHER) recordation standards. The draft Section 106 Memorandum of Agreement, which includes stipulations to take into account the effect of the undertaking on historic properties, is attached for review.

Dismissed Alternatives
Eight additional alternatives were analyzed as part of the preliminary engineering of this project:

No Build: The No Build Alternative does not address the deteriorating structural condition of Canal Bridge #2124, Second West Opening Bridge #2931, Milo West Opening Bridge #2573, and the Henry Butch Heal Jr. Memorial Bridge #2572 and therefore does not meet the purpose and need.

Additionally, the alignment of the bridges creates unsafe conditions for both vehicles and cyclists. The substandard curve layout results in vehicular off-tracking. The sidewalks do not meet ADA standards. The No Build Alternative would not address the alignment or the sidewalks. For these reasons, this alternative does not meet the purpose and need and was dismissed from further consideration.

Bypass: Three bypass alignments were considered, two upstream and one downstream of the existing bridges. None would provide island access and therefore at least one of the existing structures would be rehabilitated to maintain access. Both upstream bypasses would be over a mile long and re-route Route 6 outside of the center of Milo. Each would require at least two bridges, one for a stream crossing and another to cross the Sebec River. The downstream bypass would be approximately half the length of the upstream bypasses and require one bridge to cross the Sebec River. It would not reroute traffic away from downtown Milo, but would instead convert a local road into a Corridor Priority 2 roadway with significant traffic volume. It would require a new crossing at the Canadian Pacific Railway tracks. Due to the construction of a new roadway, the upstream bypasses would require significant amounts of land to be acquired. They would also increase response time for emergency services and pedestrian movement times. The downstream bypass would introduce a new at-grade crossing of the Canadian Pacific Railway tracks and a double turn movement for through traffic on Route 6, which would be difficult for large vehicles to navigate, as well as impacting access to residences along the new route, creating potential safety issues. For these reasons the bypasses were therefore dismissed from consideration.

Alternative 1 – On-Alignment Rehabilitation: This alternative would remove Canal Bridge #2124 and rehabilitate the remaining bridges. Replacement options for Canal Bridge #2124 were not evaluated because the existing alignment is sub-standard and cannot be significantly improved without venturing outside the existing roadway footprint. Canal Bridge #2124 would be decommissioned, and the superstructure and pier would be removed. The abutments would be cut down to at least 4' below the surface of the road and left in place. The concrete return wall on the northwest corner would remain and continue to provide a tie-in point for the dam. Underneath the bridge will be filled in, and riprap would be used to stabilize the upstream side and support the roadway.

Second West Opening Bridge #2931 would be rehabilitated through an in-kind superstructure replacement of the concrete slab. The new structure would maintain the existing span, width, and sidewalk. An integral concrete wearing surface and decorative concrete bridge walls would be incorporated into the replacement.

Milo West Opening Bridge #2573 would be rehabilitated, with the focus on addressing the heavily cracked downstream fascia wall and cracking found throughout the wall and railing systems. The severity of the cracking along the downstream wall would require reconstruction from the top of the arch up. The replacement wall would be constructed in-kind to maintain the look of the original structure and positively connected to the existing arch via drilled and grouted steel reinforcing. In order to replace the wall, the earthen fill would need to be completely removed. To maintain a similar appearance, service life, and maintenance, the upstream wall and return would also be replaced. The arch would be refilled with a granular material. The concrete bridge rail would be replaced with Manual for Assessing Safety Hardware (MASH) compliant railing to meet current design standards. While they would not exactly match the original rail, they would match the proposed railings throughout the rest of the corridor. A new sidewalk would also be installed.

The Henry Butch Heal Jr. Memorial Bridge #2572 would be rehabilitated similar to Milo West Opening Bridge #2573. The downstream wall would be replaced to allow for a MASH compliant railing to be mounted on top of it. The through girder and floorbeams would be repainted. The sidewalk would be patched or reconstructed along the upstream fascia.

The stone and concrete retaining walls on the west side of the island would be rehabilitated. The dry laid stone would be reinforced and the concrete would be replaced. The railings would be replaced with MASH compliant railings that match the proposed bridge railings.

This alternative would not prevent vehicle off-tracking due to the substandard road geometry or correct the substandard sidewalk widths. For these reasons, this alternative does not meet the purpose and need and was dismissed from further consideration.

Alternative 2 – Downstream, Partially Off-Alignment Rehabilitation/Replacement: This alternative would replace Canal Bridge #2124, Second West Opening Bridge #2931, and Milo West Opening Bridge #2573 and rehabilitate and the Henry Butch Heal Jr. Memorial Bridge #2572. The alignment of the western bridges would be altered to soften the horizontal curve and satisfy current design standards and will eliminate vehicle off-tracking. The roadway would be shifted downstream slightly to accommodate the larger horizontal curve and it would have wide shoulders to accommodate multimodal use. The new bridge would be a steel girder with a concrete deck and cast-in-place concrete abutments and wingwalls.

The Henry Butch Heal Jr. Memorial Bridge #2572 would be rehabilitated as outlined in Alternative 1. No widening to accommodate multimodal use would occur.

This alternative would result in misaligned service lives of the structures, which would increase the frequency that work along this corridor would be required, increasing costs and disruption to traffic. The location of the new bridge immediately downstream of the dam would make both structures difficult to access, creating challenges for maintaining both the dam and bridge. This alternative does not meet the purpose and need and it was therefore dismissed from further consideration.

Alternative 2b – Downstream, Partially Off-Alignment Rehabilitation/Replacement: A variation of Alternative 2 would replace the Henry Butch Heal Jr. Memorial Bridge #2572 instead of rehabilitating the structure. The alignment of the new bridge would be shifted slightly towards the powerhouse on the east to accommodate the wider roadway and avoid the Section 4(f)/6(f) property. The bridge would be a single-span steel girder and rest on full-height case-in-place abutments with wingwalls tying into the adjacent retaining walls. It would require the relocation of several utility poles on private right-of-way and a substation on the island, increasing the project costs. The impacts to property, maintenance challenges, long construction duration, and high percentage of temporary costs compared to permanent costs resulted in in its dismissal from further consideration.

Alternative 3 – On-Alignment Replacement: This alternative would replace Canal Bridge #2124, Second West Opening Bridge #2931, Milo West Opening Bridge #2573, and the Henry Butch Heal Jr. Memorial Bridge #2572 with two new structures. Both structures' alignment would be slightly different than the existing to accommodate a wider roadway and avoid impacts to the park on the eastern side of the river. The western structure would be identical to that detailed in Alternative 2. The eastern structure would also be a deck/girder bridge. It would be aligned slightly to the east of the existing bridge. The bridge would have full-height cast-in-place concrete abutments with wingwalls tying into the adjacent retaining wall. This alternative would require locating most of the utility poles along the downstream side of Route 6. Several of these poles appear to be located outside the State ROW and therefore relocation expenses are unknown. A new closed drainage system would also likely need to be installed. Both these factors would add cost to the project. That, along with the challenges presented by constructing new bridges in close proximity to the existing, resulted in this alternative and it was therefore dismissed from further consideration.

Alternative 4 – Downstream, Off-Alignment Replacement: This alternative would replace Canal Bridge #2124, Second West Opening Bridge #2931, Milo West Opening Bridge #2573, and the Henry Butch Heal Jr. Memorial Bridge #2572 with two new bridges located downstream of the existing alignment. A large reverse curve would be constructed in order to avoid the hydroelectric powerhouse on the east side of the island. While not ideal, the alignment meets current design standards. Both structures would be straight, single-span girder bridges. This alternative would require the removal of four buildings/structures in addition to the bridges. It would also require the relocation of several utility poles located on the downstream side of Route 6. Construction would be complicated by the limited usable work area between the existing buildings, roadway, and the river. The numerous impacts, property takings, and undesirable alignment resulted in this alignment and it was therefore dismissed from further consideration.

Alternative 5 – Downstream, Off-Alignment Replacement: This alignment would replace Canal Bridge #2124, Second West Opening Bridge #2931, Milo West Opening Bridge #2573, and the Henry Butch Heal Jr. Memorial Bridge #2572 with two new bridges located downstream of the existing alignment. It would create a double turn movement for through traffic traveling along Route 6 and continuing to Route 11. This movement is difficult for large vehicles and an impediment to traffic flow. The western structure would be a straight single span. The eastern structure would be a curved single span. Both bridges would be steel girder structures. This alternative would require the removal of two buildings/structures in addition to the bridges. It would also require the relocation of several utility poles located on the downstream side of Route 6. Construction would be complicated by the limited usable work area between the existing buildings, roadway, and the river. The numerous impacts, property takings, undesirable alignment, and negatively changed mobility at the new Route 6/Elm Street intersection resulted in this alignment being dismissed from further consideration.

Alternative 6a – Upstream, Off-Alignment Replacement: This alignment would replace Canal Bridge #2124, Second West Opening Bridge #2931, Milo West Opening Bridge #2573, and the Henry Butch Heal Jr. Memorial Bridge #2572 with a new bridge located upstream of the existing alignment. The four-span bridge would be continuous. The end spans would be 125’ long and the interior spans would be 150’ long for a total of approximately 550’. They would rest on cast-in-place full-height abutments. The abutments would be mass concrete walls or single column hammerheads. It would also include 800’ approaches. Access to the island would be maintained by retaining the Henry Butch Heal Jr. Memorial Bridge #2572, which would be rehabilitated as outlined in Alternative 1. The island would only be accessible to southbound traffic due to the tight turn radius required for northbound vehicles. The bridge would only have a service life of approximately 40 years and maintaining access to the island during its replacement would be challenging. Mixing rehabilitation with new construction would also misalign the service lives of the two structures, increasing the frequency that work along this corridor would be required, increasing costs and disruption to traffic. For these reasons this alternative was dismissed from further consideration.

Public Involvement

MaineDOT contacted the four federally recognized tribes in Maine about this project. The Passamaquoddy Tribe, the Houlton Band of Maliseet Indians, and the Penobscot Nation replied with no concerns about the undertaking. The Mi’kmaq Nation did not respond. An updated notification was sent in September 2025 to inform the tribes of the change in scope from bridge improvements to bridge replacements.

The Milo town office and Milo Historical Society (MHS) were contacted via email and asked to comment on knowledge of, or concerns with, historic properties in the area. The MHS requested consulting party status for this project. MaineDOT has shared design plans and information on the historic review with MHS. Consultation is ongoing.

A preliminary public meeting was held in August 2022 via virtual public involvement.

The public involvement process is ongoing.

Proposed Materials
Hot mix asphalt, concrete, steel, steel bridge rail and guardrail, rip rap, loam and seed.

Plans
Milo, Piscataquis County, Canal Bridge, 2nd West Opening Bridge, Milo West Opening Bridge, Henry Butch Heal Jr. Memorial Bridge over Sebec River, Route 6 (West Main Street), Federal Aid Project No. 2520900.

Attachments
J. N. Leith Smith, MHPC, to Julie Senk, MaineDOT, September 30, 2024
Kirk Mohney, MHPC, to Julie Senk, MaineDOT, December 27, 2021
Draft Memorandum of Agreement

STATE OF MAINE
Memorandum

Date: September 30, 2024

To: Julie Senk, Historic Preservation Coordinator, Maine DOT/ENV

From: J. N. Leith Smith, MHPC

Subject: Continued Consultation, Review of PDR Plans

Project: MHPC #1183-21, WIN 25209.00; Milo
Replacement and/or improvement of Sebec River bridges and associated approach roads.

Dear Julie,

Thank you for submitting PDR plans for the above referenced proposed project dated 31 October 2023. To make a final determination of sensitivity for the project area, John Mosher conducted additional documentary research including chains of title to develop a clear understanding of the area's history focusing on specific properties that would be impacted. Mosher determined that the few areas in question have undergone extensive disturbance/modification resulting in a conclusion of low to no sensitivity for pre-contact or post-contact archaeological resources. Mosher's memo is attached. In following the procedures specified in the Federal Highway/MHPC/MDOT programmatic agreement, we **recommend a finding that there will be no archaeological properties affected by the proposed undertaking.**

STATE OF MAINE

MEMORANDUM

December 27, 2021

To: Julie Senk, ENV/Maine Department of Transportation

From: Kirk F. Mohney, State Historic Preservation Officer KFM

Subject: WIN 25209.00; Milo, Bridge Improvements; MHPC #1183-21

In response to your recent request, I have reviewed the information received December 13, 2021 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.

The Maine Historic Preservation Commission (Commission) staff reviewed the subject report, and we agree that the Milo West Opening Bridge (SM #5) and the Boston Excelsior Company (SM #17) are eligible for listing in the National Register of Historic Places.

In addition to the above properties, the Commission believes that the Milo Dam (SM #6) is eligible for listing in the Register under Criterion C, and possibly Criterion A. Although reconstructed c. 1973, it appears that the timber crib structure occupies the same location and is the same type as the dam it replaced. In addition, the structure appears to be one of the two most conspicuous resources associated with the industrial history of this area.

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

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

SPECIFICATIONS

Design: Load and Resistance Factor Design per AASHTO LRFD Bridge Design Specifications, Ninth Edition 2020.

DESIGN LOADING

Live Load ..... HL-93 Modified for Strength I

TRAFFIC DATA

Current (2021) AADT 4960
Future (2041) AADT 5460
DHV - % of AADT 10%
Design Hour Volume 546
Heavy Trucks (% of AADT) 9%
Heavy Trucks (% of DHV) 6%
Directional Distribution (% of DHV) 51%
18 kip Equivalent P 2.0 429
18 kip Equivalent P 2.5 409
Design Speed (mph) 25

HYDROLOGIC DATA

Drainage Area ..... 248.7 sq mi
Design Discharge (Q50) ..... 13,745 cfs
Check Discharge (Q100) ..... 15,205 cfs
West Bridge (Proposed)
- Headwater Elevation (Q1.1) ..... 281.00 ft
- Headwater Elevation (Q10) ..... 283.33 ft
- Headwater Elevation (Q25) ..... 284.13 ft
- Headwater Elevation (Q50) ..... 284.81 ft
- Headwater Elevation (Q100) ..... 285.62 ft
- Discharge Velocity (Q1.1) ..... 1.10 fps
- Discharge Velocity (Q10) ..... 3.12 fps
- Discharge Velocity (Q25) ..... 3.69 fps
- Discharge Velocity (Q50) ..... 3.94 fps
- Discharge Velocity (Q100) ..... 4.27 fps

East Bridge (Proposed)
- Headwater Elevation (Q1.1) ..... 280.77 ft
- Headwater Elevation (Q10) ..... 283.30 ft
- Headwater Elevation (Q25) ..... 284.20 ft
- Headwater Elevation (Q50) ..... 284.90 ft
- Headwater Elevation (Q100) ..... 285.79 ft
- Discharge Velocity (Q1.1) ..... 2.37 fps
- Discharge Velocity (Q10) ..... 1.98 fps
- Discharge Velocity (Q25) ..... 1.73 fps
- Discharge Velocity (Q50) ..... 1.56 fps
- Discharge Velocity (Q100) ..... 1.61 fps

MATERIALS

Concrete (Unless noted otherwise) ..... Class "A"
Concrete (Barriers & Curbs) ..... Class "LP"
Reinforcing Steel:
- Low-Carbon Chrominum ..... ASTM A1035-CS, Grade 100
- Plain Reinforcing Steel ..... ASTM A615/A615M, Grade 60
- Glass Fiber Reinforced Polymer (GFRP) ..... ASTM D7957

Structural Steel
- All materials (Except as Noted) ..... ASTM A709, Grade 50, Metallized
- High Strength Bolts ..... ASTM F3125, Grade A325, Type 1 H.D.G.

BASIC DESIGN STRESSES

Concrete, Class "A" ..... f 'c = 4,000 psi
Concrete, Class "LP" ..... f 'c = 5,000 psi

Reinforcing Steel:
- Low-Carbon Chromium ..... f y = 100,000 psi
- Plain Reinforcing Steel ..... f y = 60,000 psi
- GFRP Fiber Reinforced Polymer
  - Minimum Tensile Strength ..... f fu = 100,000 psi
  - Minimum Elastic Modulus ..... E f = 8,700,000 psi
  - Minimum Nominal Design Tensile Strain ..... e fu = 1.1%

Structural Steel:
- ASTM A709, Grade 50 ..... F y = 50,000 psi
- ASTM F3125, Grade A325 ..... F μ = 120,000 psi

MILO
PISCATAQUIS COUNTY
CANAL BRIDGE
2ND WEST OPENING BRIDGE
MILO WEST OPENING BRIDGE
HENRY BUTCH HEAL JR MEMORIAL BRIDGE
OVER
SEBEC RIVER
ROUTE 6 (WEST MAIN STREET)
FEDERAL AID PROJECT NO. 2520900
PROJECT LENGTH 0.25 mi.
BRIDGE NO. 2124, 2931, 2573, 2572

Final PDR
March 14, 2025

LIST OF DRAWINGS

UTILITIES

Central Maine & Quebec Railway
Charter Communications
Consolidated Communications
Firstlight
Maine Fiber Company
Milo Water & Sewer District
Town of Milo
Versant Power

MAINTENANCE OF TRAFFIC

Maintain two way traffic on the existing bridges.

PROJECT LOCATION	Four Bridges (#2124, #2931, #2573, #2572) carrying Route 6 (West Main Street) over the Sebec River. Latitude: 45°15'02.8"N Longitude: 68°59'18.4"W
OUTLINE OF WORK	Bridge replacement with associated approach work and intersection improvements.

HNTB

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
APPROVED — DATE
COMMISSIONER:
CHIEF ENGINEER:

PROJECT INFORMATION					
PROGRAM	Bridge	SIGNATURE		DATE	
PROJECT MANAGER	Jerry Doolie				
DESIGNER	Josh Olund	P.E. NUMBER			
CONSULTANT	HNTB				
PROJECT RESIDENT					
CONTRACTOR		DATE			
PROJECT COMPLETION DATE					

MILO
MILO ROUTE 6 BRIDGES

TITLE SHEET

SHEET NUMBER
1
OF 12

WIN 025209.00
2520900

Date:3/14/2025
Username:
Division:
Filename:001_Title.dgn

WEST MAIN STREET
CURVE DATA #1
PI = 111+14.70
D = 1°29'59.8"
Δ = 1°05'10.0" Lt.
R = 3819.83'
L = 72.41'
T = 36.21'
E = 0.17'

WEST MAIN STREET
CURVE DATA #2
PI = 112+68.71
D = 8°48'53.0"
Δ = 20°32'44.0" Lt.
R = 650.00'
L = 233.08'
T = 117.81'
E = 10.59'

109+00
To Dover-Foxcroft
110+00
N71°24'27.25"E
111+00
112+00 Route 6/16 (West Main Street)
113+00
114+00
PC = STA. 110+78.49
PCC = STA. 111+50.90
PT = STA. 113+83.98
PC = STA. 11+53.49
PT = STA. 12+3
Proposed Utility Pole (By Others)
Curb Type 1 (Typ.)
Remove Building No.1
Remove (By Others)
Proposed Utility Pole (By Others)
Grade to Drain, Loam, and Seed
119' x 12" UD "C"
17' x 12" UD "C"
32' x 12" UD "C"
74' x 12" UD "C"
30' x 18" RCP
112' x 12" UD "C"
157' x 24" UD "C"
Remove
Crosswalk (Typ.)
Ornamental Light Standard (Typ.)
Remove (By Others)
Remove (By Others)
4:1
3.5:1
6%
7.1%
6:1
0.5%
CLL
CL

PLAN
25 0 25 50
Scale of Feet

Final PDR
March 14, 2025

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

02520900

WIN 025209.00

BRIDGE PLANS

BRIDGE NOS. 2124, 2931, 2573, 2572

	BY	DATE
DESIGNED	J. Doeble	
DETAILED	E. Davidson	03\25
CHECKED-REVIEWED	K. Belisle	03\25
DESIGN2-DET-ILED2	J. Olund	
DESIGN3-DET-ILED3	L. Driscoll	
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CH-NGES		

PROJ. MANAGER

SIGNATURE

P.E. NUMBER

DATE

MILO ROUTE 6 BRIDGES
SEBEC RIVER
PISCATAQUIS COUNTY
MILO

GENERAL PLAN 1

SHEET NUMBER
2
OF 12

HNTB

Filename: 002_General Plan 1.dgn Division: Username: Date:3/14/2025

Filename: 003_GeneralPlan II.dgn Username: Division: Date:3/14/2025

WATER STREET
CURVE DATA #1
PI = 36+43.87
D = 6°01'52.1"
Δ = 15°05'53.9" Lt.
R = 950.00'
L = 250.34'
T = 125.90'
E = 8.31'

WATER STREET
CURVE DATA #2
PI = 38+62.49
D = 76°23'39.7"
Δ = 37°09'29.9" Rt.
R = 75.00'
L = 48.64'
T = 25.21'
E = 4.12'

Temporary Utility Pole (By Others)
Ornamental Light Standard (Typ.)
Proposed Utility Pole (By Others)
Grade to Drain, Loam, and Seed
31" W-Beam Guardrail - Mid-Way Splice Flared Terminal
31" W-Beam Guardrail - Mid-Way Splice
Bridge Transition Type I
℄ Abut. No. 1 Sta. 115+20.00
Limit of Contractor Access (Typ.)
℄ Pier No. 1 Sta. 117+05.00
℄ Abut. No. 2 Sta. 118+55.00
℄ Abut. No. 1 Sta. 119+48.00
Sebec River
Water Street
PT = STA. 113+83.98
185'-0"
150'-0"
FRP Bridge Drain Type E (Typ.)
Route 6/16 (West Main Street)
N49°46'33.28"E
Relocate (By Others)
Crosswalk (Typ.)
R = 40'
R=20'
40' x 30' Opt. III
Sta. 114+70.00 West Main Street = Sta. 13+00.00 Riverside Street
Bridge Transition Type I (Modified) R = 25'
Sta. 12+22.47 Riverside Street = Sta. 1+00.00 Driveway
Heavy Riprap (Typ.)
Existing Stacked Stone Retaining Wall to be Removed to El. 280.00'.
Remove (By Others)
PT = STA. 12+38.88
Adjust Hydrant to Grade (By Others)
Utility Poles To Remain
38' x 30' RCP
R = 40'
N64°55'28.34"E
48" x 12" Opt. III
2+00 R = 30'
148' x 6'UD "B"
156' x 12'UD "C"
N17°45'35.97"W Riverside Street
RIVERSIDE STREET
CURVE DATA #1
PI = 11+96.84
D = 28°38'52.4"
Δ = 24°27'50.7" Lt.
R = 200.00'
L = 85.40'
T = 43.36'
E = 4.65'
PC = STA. 1+99.49
PCC = STA. 2+42.16
3+00
S23°13'08.61"E
PT = STA. 2+58.71
Pole to Remain
Sta. 119+25.00 West Main Street = Sta. 22+00.00 Island Extension
Remove Pavement, Loam, and Seed (Typ.)
Existing Stacked Stone Retaining Wall to be Removed to Bedrock
Remove Trees
44' X 18" Opt. III
88' X 18" Opt. III
Bridge Transition Type I
R = 15'
R = 20'
Remove (By Others)
Pole to Remain
Adjust Hydrant to Grade (By Others)
46' X 18" Opt. III
PT = STA. 37+68.31
PC = STA. 38+37.28
S79°34'02.01"E
38'-00"
34' X 30" Opt. III
30°0'0" Skew
90°-0"
Bridge Transition Type I (Modified) R =15'
PT = STA. 38+85.92
Bridge Transition Type I (Modified) R = 20'
PC = STA. 120+59.38
Remove
Bridge Transition Type I
R= 20'
Flow
N40°13'26.72"W
Remove (By Others)
Pole to Remain
Remove (By Others)
Pole to Remain
Remove (By Others)
Pole to Remain
Remove (By Others)
Pole to Remain

DRIVEWAY
CURVE DATA #1
PI = 2+21.97
D =104°10'29.5"
Δ = 44°27'03.1" Rt.
R = 55.00'
L = 42.67'
T = 22.47'
E = 4.41'

DRIVEWAY
CURVE DATA #2
PI = 2+50.94
D =286°28'44.0"
Δ = 47°24'22.9" Rt.
R = 20.00'
L = 16.55'
T = 8.78'
E = 1.84'

PLAN
25 0 25 50
Scale of Feet

Final PDR
March 14, 2025

HNTB

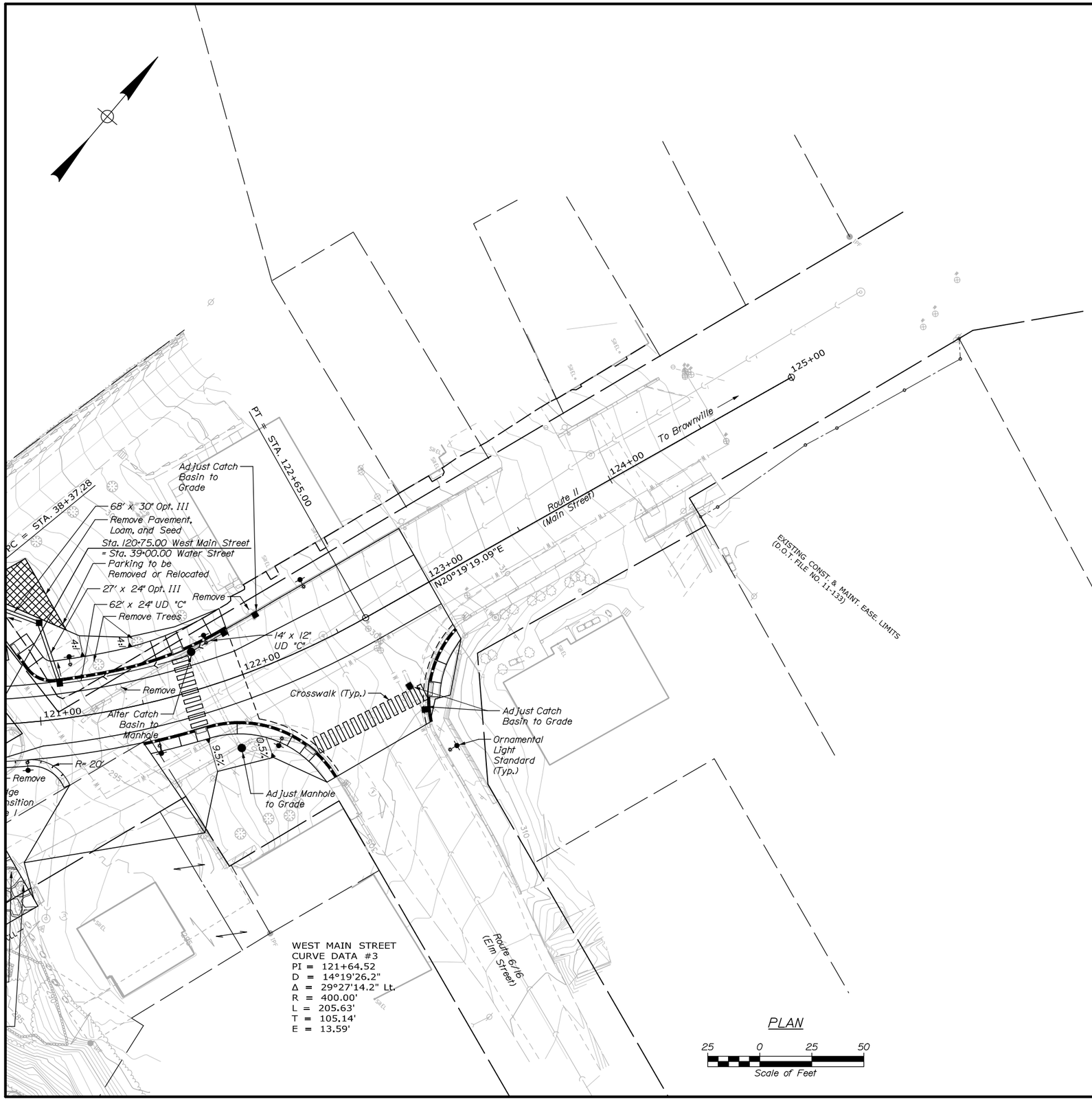
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
02520900
WIN 025209.00
BRIDGE PLANS
BRIDGE NOS. 2124, 2931, 2573, 2572

PROJ. MANAGER	BY	DATE
DESIGN-DETAILED	J. Dostie	03\25
CHECKED-REVIEWED	E. Davidson	K. Belisle 03\25
DESIGN2-DETAILED2	L. Driscoll	J. Olund
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

P.E. NUMBER
SIGNATURE
DATE

MILO ROUTE 6 BRIDGES
SEBEC RIVER
PISCATAQUIS COUNTY
MILO
GENERAL PLAN 2

SHEET NUMBER
3
OF 12



Final PDR
March 14, 2025

HNTB

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

02520900

WIN 025209.00

BRIDGE NOS. 2124, 2931.25/3.25/2

BRIDGE PLANS

PROJ. MANAGER	J. Dostie	BY	DATE
DESIGN-DETAILED	E. Davidson	K. Belisle	03\25
CHECKED-REVIEWED	L. Driscoll	J. Olund	03\25
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

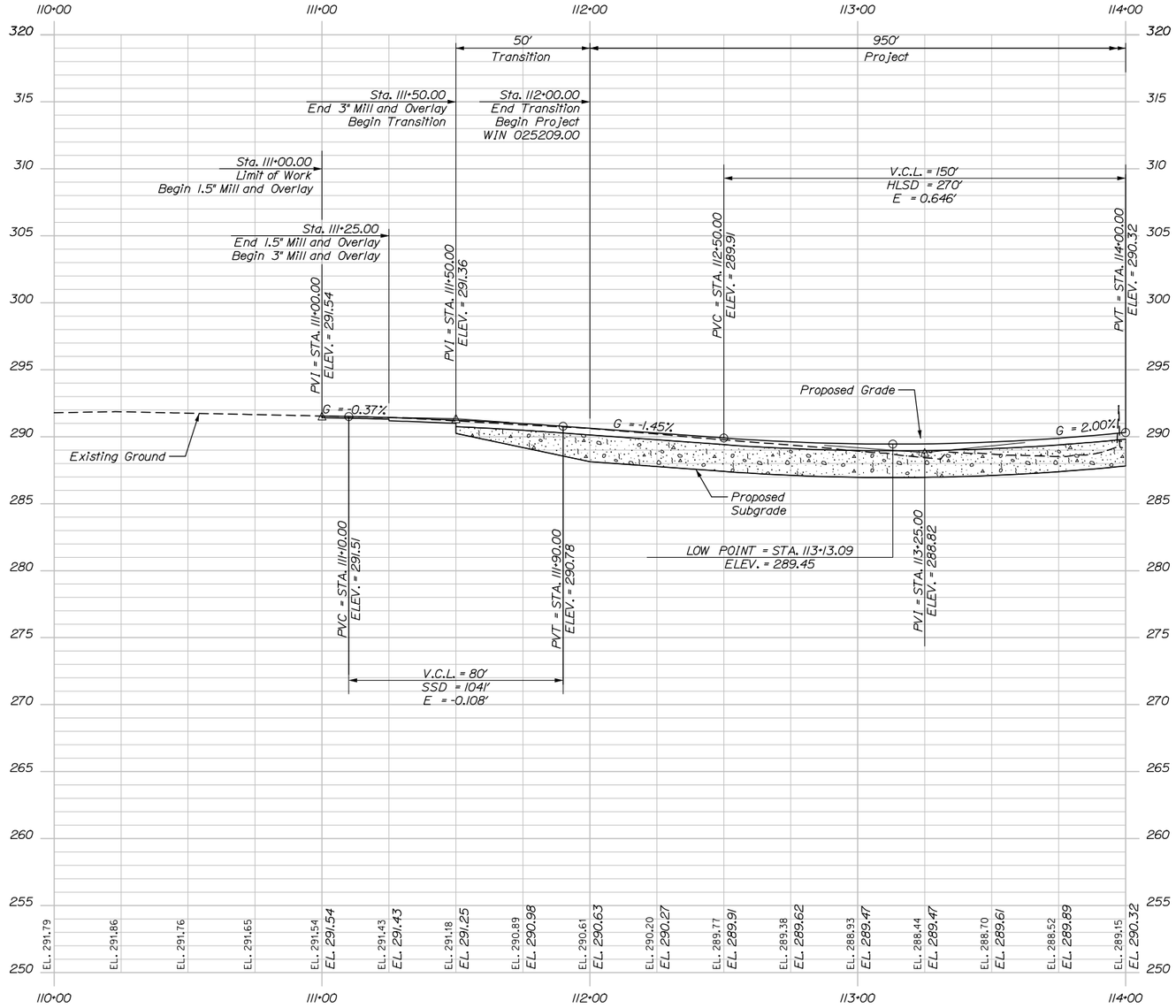
DATE

MILO ROUTE 6 BRIDGES
SEBEC RIVER
PISCATAQUIS COUNTY
MILO

GENERAL PLAN 3

SHEET NUMBER
4
OF 12

Filename: 004_General Plan III.dgn Division: Username: Date:3/14/2025



PROFILE - ROUTE 6

PROFILE

Horiz. 25 0 25 50

Vert. 5 0 5 10

Scale of Feet

Final PDR
March 14, 2025

HNTB

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

02520900

BRIDGE NOS. 2124, 2931, 2573, 2572

WIN 025209.00

BRIDGE PLANS

PROJ. MANAGER	J. Dostie	BY	DATE
DESIGN-DETAILED	E. Davidson	K. Belisle	03\25
CHECKED-REVIEWED	L. Driscoll	J. Olund	03\25
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

MILO ROUTE 6 BRIDGES
SEBEC RIVER
PISCATAQUIS COUNTY
MILO

PROFILE 1

SHEET NUMBER

5

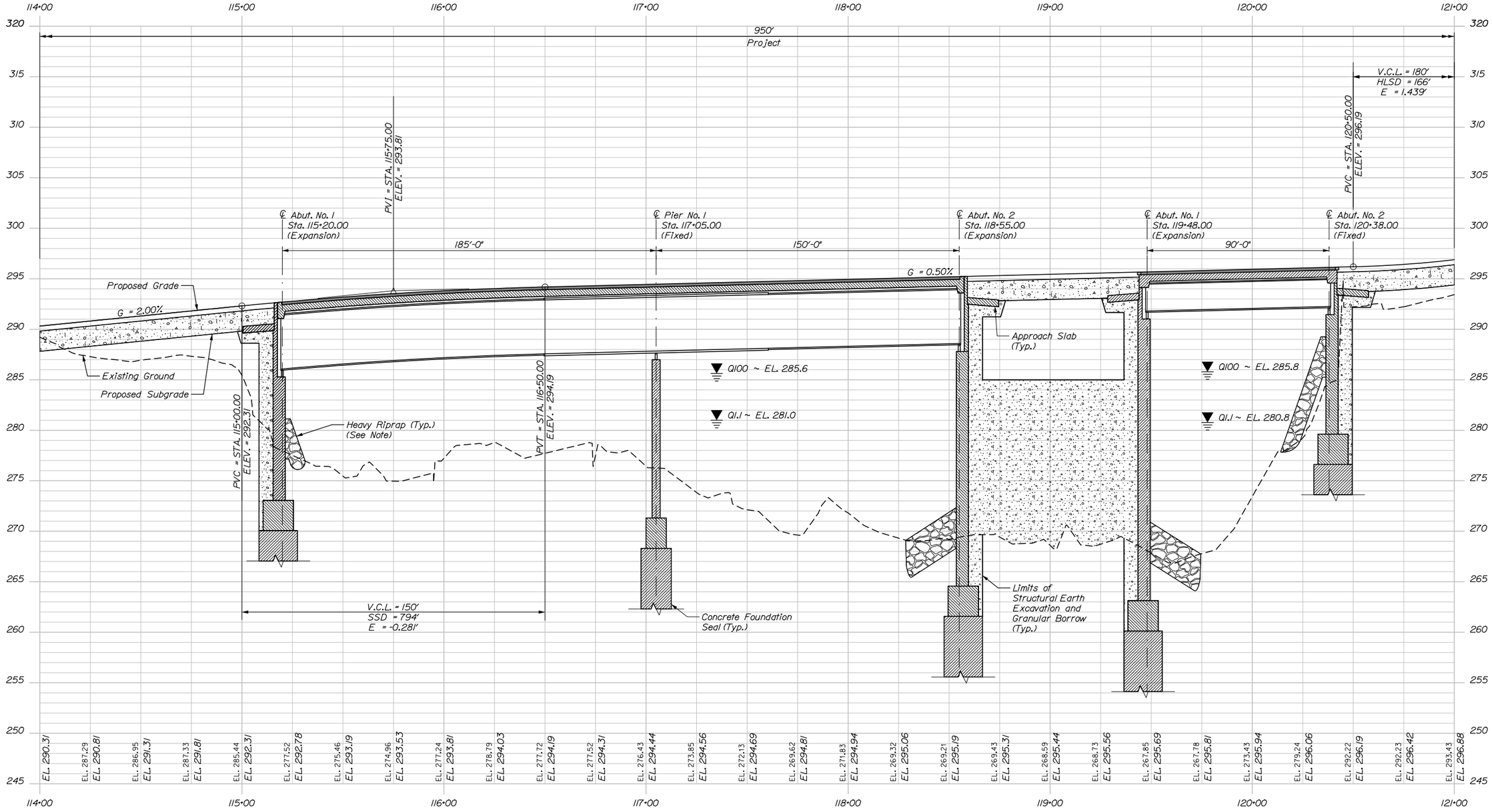
OF 12

Username:

Date:3/14/2025

Division:

Filename: 005_Profile 1.dgn



PROFILE - ROUTE 6

Note: Heavy riprap limits to be determined in final design.

Final PDR
March 14, 2025

PROFILE

Horiz. 25 0 25 50

Vert. 5 0 5 10

Scale of Feet

HNTB

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

02520900

WIN 025209.00

BRIDGE PLANS

BRIDGE NOS. 2124, 2931, 2573, 2572

PROJ. MANAGER	J. Doeble		
DESIGN-DETAILED	E. Davidson	K. Belisle	03\25
CHECKED-REVIEWED	L. Driscoll	J. Olund	03\25
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

MILO ROUTE 6 BRIDGES
SEBEC RIVER
PISCATAQUIS COUNTY
MILO

PROFILE 2

SHEET NUMBER

6

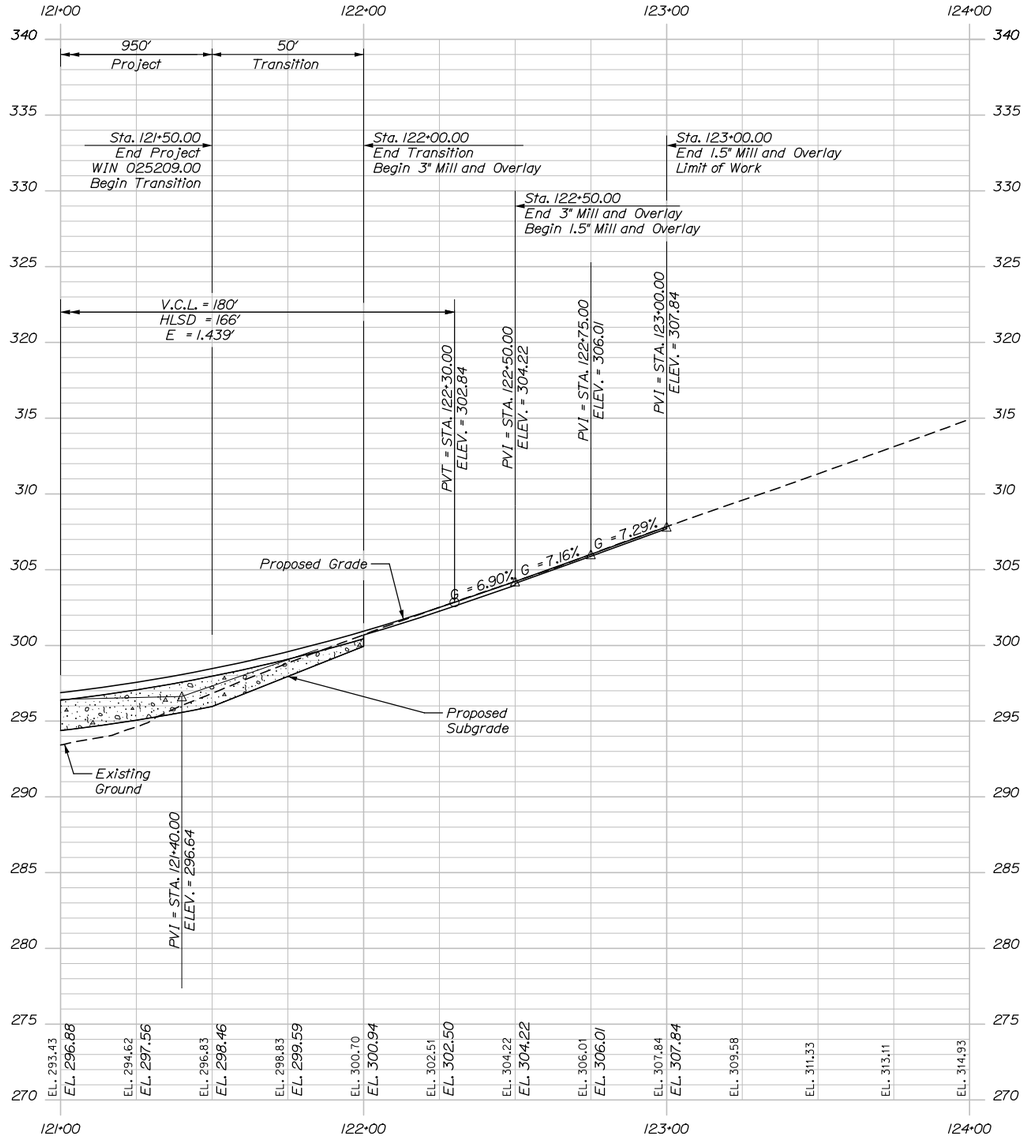
OF 12

Username:

Date:3/14/2025

Division:

Filename: 006_Profile II.dgn



PROFILE - ROUTE 6

PROFILE

Horiz. 25 0 25 50

Vert. 5 0 5 10

Scale of Feet

Final PDR
March 14, 2025

HNTB

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

02520900

WIN 025209.00

BRIDGE NOS. 2124, 2931, 2573, 2572

BRIDGE PLANS

PROJ. MANAGER	J. Dostie	BY	DATE
DESIGN-DETAILED	E. Davidson	K. Belisle	03\25
CHECKED-REVIEWED	L. Driscoll	J. Olund	03\25
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

MILO ROUTE 6 BRIDGES
SEBEC RIVER
PISCATAQUIS COUNTY
MILO

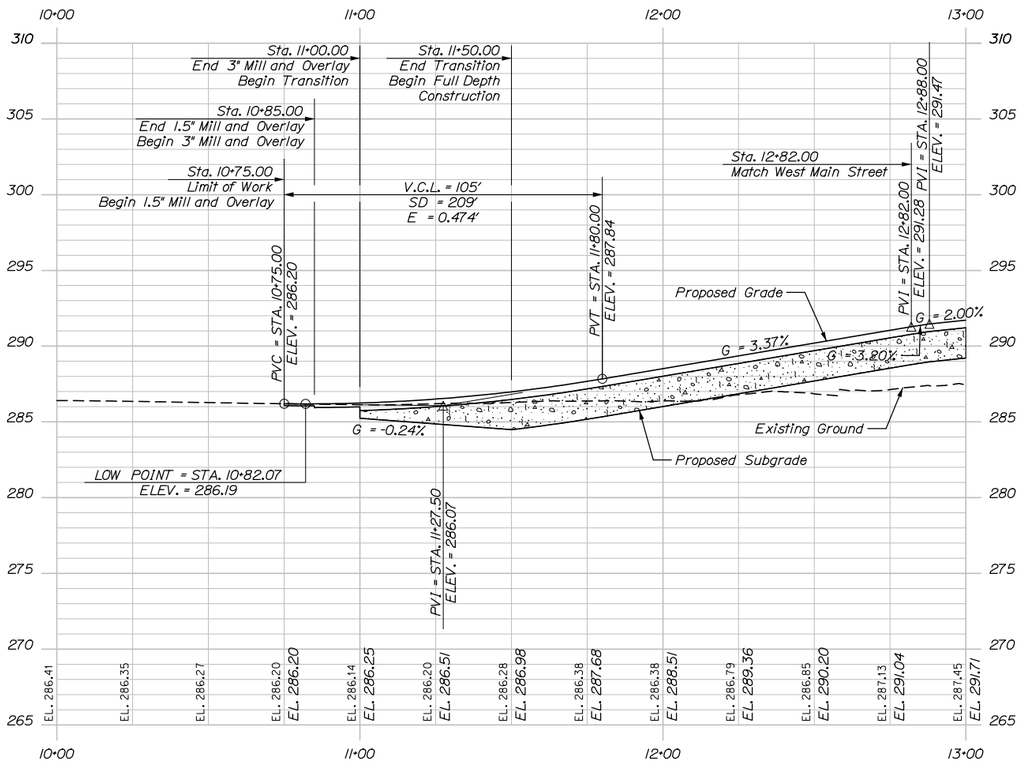
PROFILE 3

SHEET NUMBER

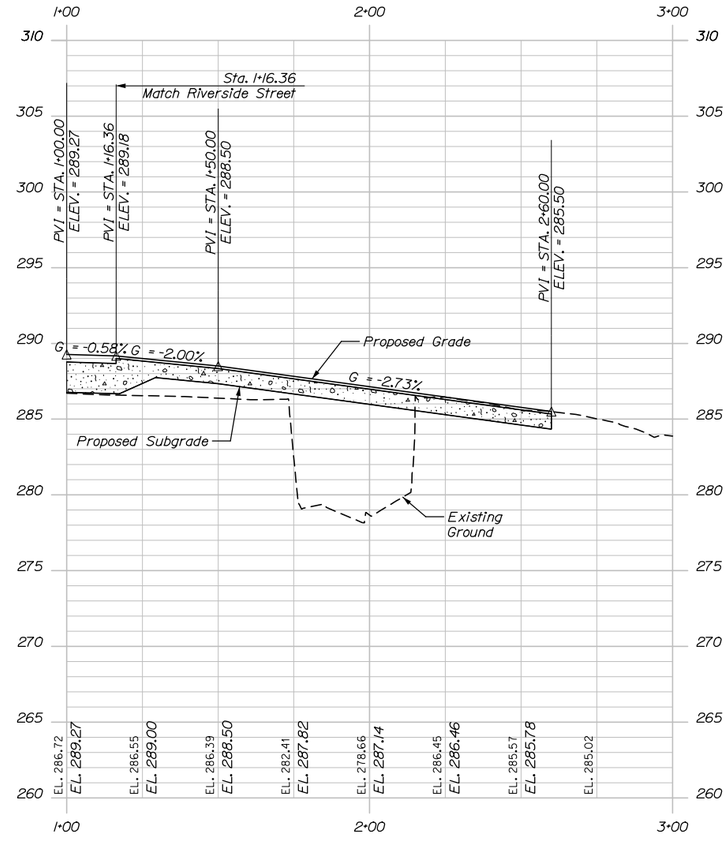
7

OF 12

Filename: 007_Profile III.dgn Division: Username: Date:3/14/2025



RIVERSIDE STREET PROFILE



DRIVEWAY PROFILE

Final PDR
March 14, 2025

PROFILE

Horiz. 25 0 25 50

Vert. 5 0 5 10

Scale of Feet

HNTB

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

02520900

BRIDGE NOS. 2124, 2931, 2573, 2572

WIN 025209.00

BRIDGE PLANS

	BY	DATE
PROJ. MANAGER	J. Doslie	
DESIGN-DETAILED	K. Belisle	03\25
CHECKED-REVIEWED	E. Davidson	03\25
DESIGN2-DETAILED2	L. Driscoll	
DESIGN3-DETAILED3	J. Olund	
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

MILO ROUTE 6 BRIDGES
SEBEC RIVER
PISCATAQUIS COUNTY
MILO

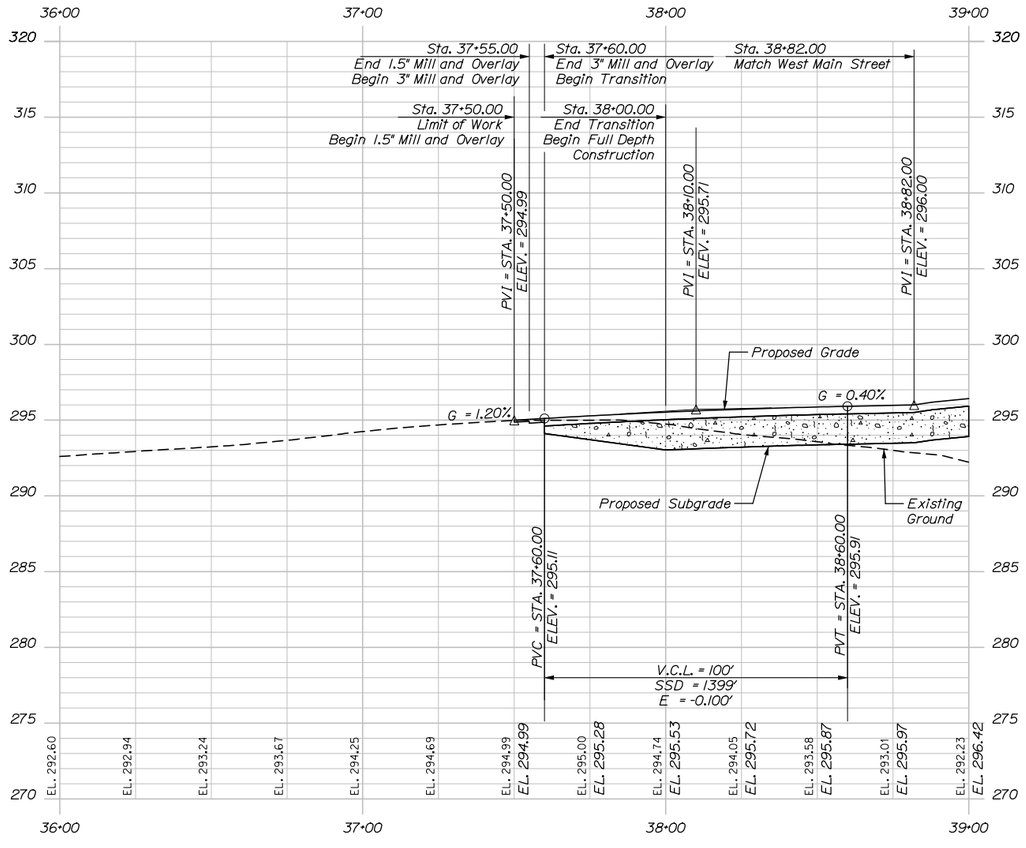
RIVERSIDE STREET AND DRIVEWAY PROFILES

SHEET NUMBER

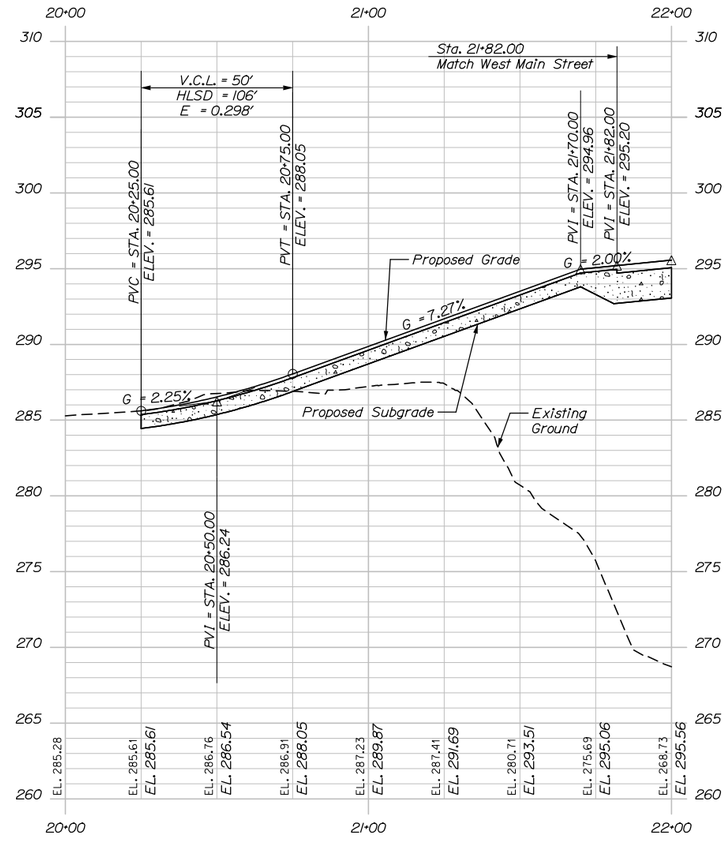
8

OF 12

Filename: 008_ Riverside Street and Island Extension Profile.dgn Username: Division: Date:3/14/2025



WATER STREET PROFILE



ISLAND EXTENSION PROFILE

PROFILE

Horiz. 25 0 25 50

Vert. 5 0 5 10

Scale of Feet

Final PDR
March 14, 2025

HNTB

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

02520900

WIN 025209.00

BRIDGE PLANS

BRIDGE NOS. 2124, 2931.25/3.25/2

PROJ. MANAGER	J. Dostie	BY	DATE
DESIGN-DETAILED	E. Davidson	K. Belisle	03\25
CHECKED-REVIEWED	L. Driscoll	J. Olund	03\25
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

MILO ROUTE 6 BRIDGES
SEBEC RIVER
PISCATAQUIS COUNTY
MILO

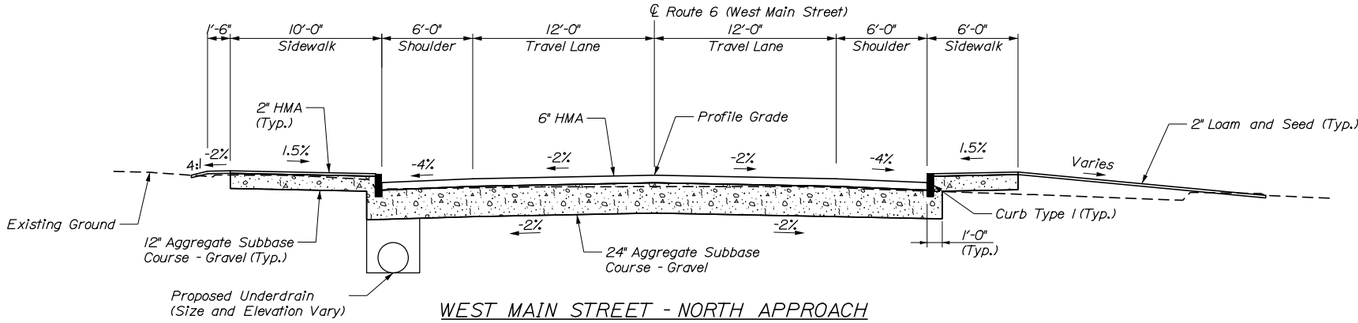
WATER STREET AND ISLAND EXTENSION PROFILES

SHEET NUMBER

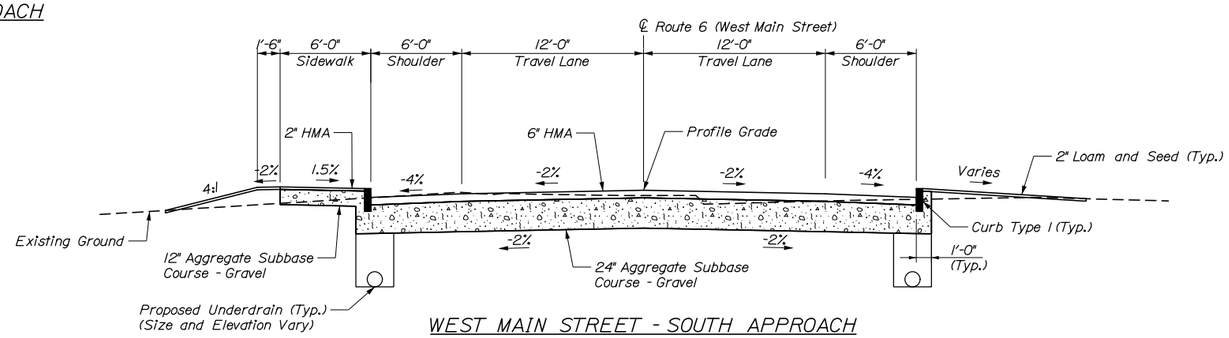
9

OF 12

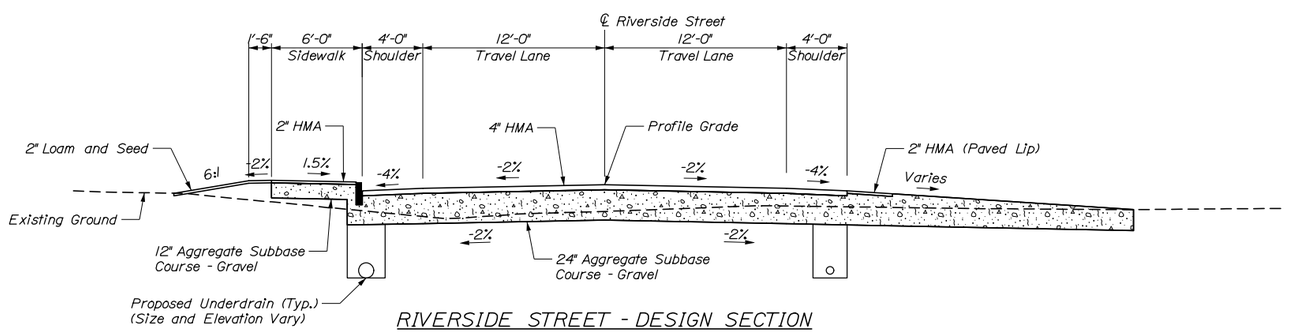
Filename: 009_Water Street and Elm Street Profile.dgn Division: Username: Date:3/14/2025



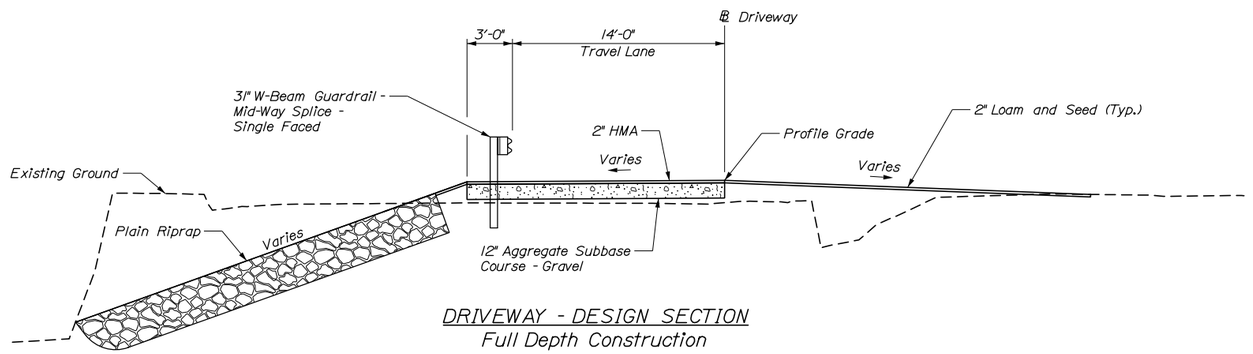
WEST MAIN STREET - NORTH APPROACH
DESIGN SECTION
Full Depth Construction



WEST MAIN STREET - SOUTH APPROACH
DESIGN SECTION
Full Depth Construction



RIVERSIDE STREET - DESIGN SECTION
Full Depth Construction



DRIVEWAY - DESIGN SECTION
Full Depth Construction

Final PDR
March 14, 2025

HNTB

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

02520900

WIN 025209.00

BRIDGE PLANS

BRIDGE NOS. 2124, 2931, 2573, 2572

PROJ. MANAGER	J. Dostie	BY	DATE	
DESIGN-DETAILED	E. Davidson	K. Belisle	03\25	
CHECKED-REVIEWED	L. Driscoll	J. Olund	03\25	
DESIGN2-DETAILED2				
DESIGN3-DETAILED3				
REVISIONS 1				
REVISIONS 2				
REVISIONS 3				
REVISIONS 4				
FIELD CHANGES				

SIGNATURE

P.E. NUMBER

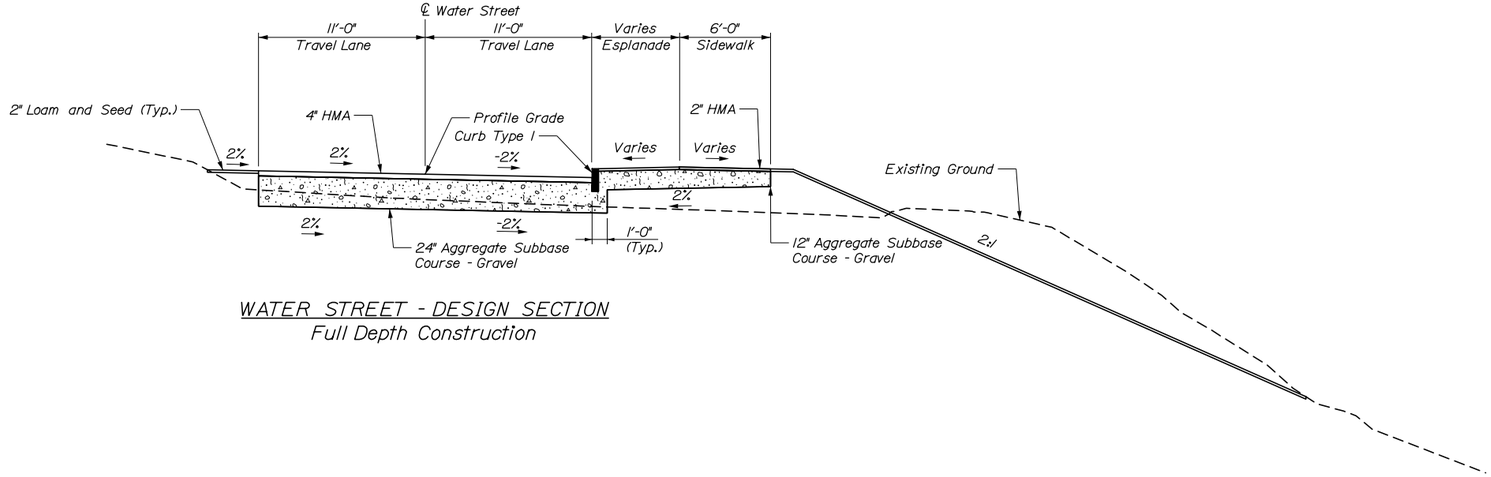
DATE

MILO ROUTE 6 BRIDGES
SEBEC RIVER
PISCATAQUIS COUNTY
MILO

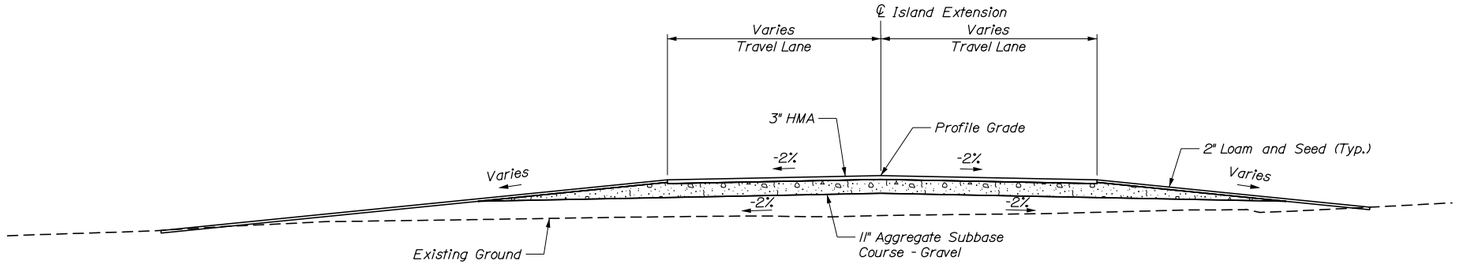
TYPICAL SECTIONS I

SHEET NUMBER
10
OF 12

Filename: 010_Typical Sections 1.dgn Division: Username: Date:3/14/2025



WATER STREET - DESIGN SECTION
Full Depth Construction



ISLAND EXTENSION - DESIGN SECTION
Full Depth Construction

Final PDR
March 14, 2025

HNTB

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

02520900

WIN 025209.00

BRIDGE PLANS

BRIDGE NOS. 2124, 2931, 2573, 2572

PROJ. MANAGER	J. Doskie	BY	DATE
DESIGN-DETAILED	E. Davidson	K. Belisle	03\25
CHECKED-REVIEWED	L. Driscoll	J. Olund	03\25
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

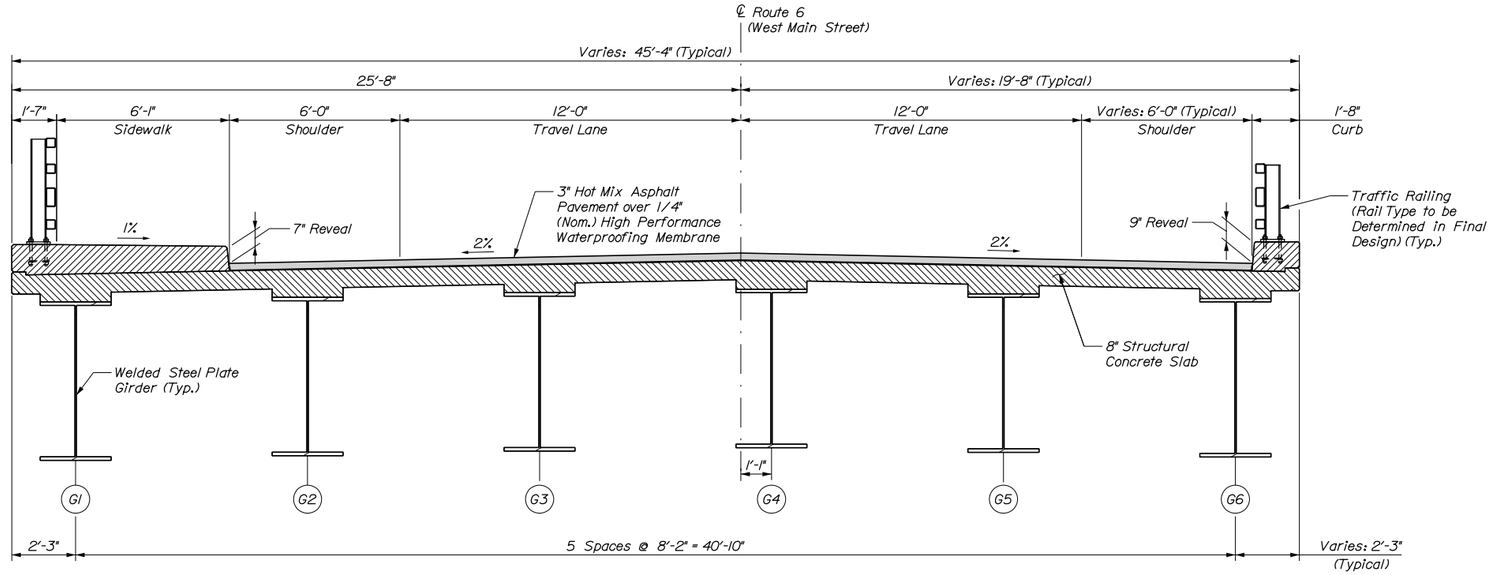
DATE

MILO ROUTE 6 BRIDGES
SEBEC RIVER
PISCATAQUIS COUNTY
MILO

TYPICAL SECTIONS II

SHEET NUMBER
11
OF 12

Filename: 011_Typical Sections II.dgn Division: Username: Date:3/14/2025



PROPOSED TRANSVERSE SECTION

Final PDR
March 14, 2025

HNTB

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

02520900

WIN 025209.00

BRIDGE PLANS

BRIDGE NOS. 2124, 2931, 2573, 2572

PROJ. MANAGER	J. Dostie		
DESIGN-DETAILED	E. Davidson	K. Belisle	03\25
CHECKED-REVIEWED	L. Driscoll	J. Olund	03\25
DESIGN2-DET-ILED2			
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SIGNATURE

P.E. NUMBER

DATE

MILO ROUTE 6 BRIDGES
SEBEC RIVER
PISCATAQUIS COUNTY
MILO

TYPICAL SECTIONS III

SHEET NUMBER
12
OF 12

Filename: 012_Typical Sections III.dgn Division: Username: Date:3/14/2025

MEMORANDUM OF AGREEMENT

BETWEEN THE MAINE DEPARTMENT OF TRANSPORTATION,

AND THE MAINE STATE HISTORIC PRESERVATION OFFICER

REGARDING MAINEDOT WIN 25209.00

MILO WEST OPENING BRIDGE #2573 REPLACEMENT

MILO, PISCATAQUIS COUNTY, MAINE

[DRAFT]

WHEREAS, the Federal Highway Administration (FHWA) plans to fund the Milo West Opening Bridge (#2573) Replacement Project (undertaking) in Milo, Maine, pursuant to the National Historic Preservation Act of 1966, 54 U.S.C. 306101 et seq; and

WHEREAS, the Maine Department of Transportation (MaineDOT) is the "Agency Official" under 23 U.S.C. § 326 CE Assignment MOU who is responsible for ensuring that the undertaking complies with Section 106 of the National Historic Preservation Act (NHPA) ((54 U.S.C. § 306108), as amended, and codified in its implementing regulations, 36 CFR Part 800, as amended (August 5, 2004); and

WHEREAS, the undertaking consists of replacing Milo West Opening Bridge with a steel girder bridge; and

WHEREAS, the MaineDOT has defined the undertaking's area of potential effects (APE) as displayed in Attachment A; and

WHEREAS, the MaineDOT has determined that the undertaking has an adverse effect on the Milo West Opening Bridge, which is a reinforced concrete deck arch bridge that is eligible for listing in the National Register of Historic Places (NRHP), through the removal of the bridge; and

WHEREAS, the MaineDOT has consulted with the Maine State Historic Preservation Officer (Maine SHPO) pursuant to 36 CFR Part 800, the regulations implementing Section 106 of the National Historic Preservation Act (54 U.S.C. § 306108); and

WHEREAS, the MaineDOT has ensured that the significance of the National Register-eligible resource will be captured in compensatory mitigation; and

WHEREAS, the MaineDOT has consulted with the Mi'kmaq Nation, Houlton Band of Maliseet Indians, Passamaquoddy Tribe, and Penobscot Nation of the proposed action in accordance with 36 CFR Section 800.3 (f)(2). Emails were sent to the Tribes on July 6, 2021, in accordance with their preferred method of receiving information from the Department of Transportation. The Houlton Band of Maliseet Indians, Passamaquoddy Tribe, and Penobscot Nation replied with no concerns. The Mi'kmaq Nation did not reply. All federally recognized Maine tribes were renotified of the proposed undertaking and the preferred alternative of bridge replacement on September 5, 2025. The Wampanoag Indian Tribe of Gay Head (Aquinnah) was also included in the September 5, 2025, notification. No other replies have been received to date; and

WHEREAS, in accordance with 36 CFR 800.2(c), the MaineDOT has requested input from consulting parties in a manner that reflects the nature and complexity of the undertaking and its effects on the historic property; and

WHEREAS, in accordance with 36 CFR 800.2(c)(5), the Milo Historical Society requested and received consulting party status and has been provided opportunities to review and comment on the undertaking and its effects on the historic property; and

WHEREAS, in accordance with 36 CFR 800.2(d), the MaineDOT has requested input from the public in a manner that reflects the nature and complexity of the undertaking and its effects on the historic property; and

WHEREAS, in accordance with 36 CFR Section 800.6(a)(1), the MaineDOT has notified the ACHP of the adverse effect determination. The MaineDOT invited the ACHP to consult on XXXX, and the ACHP has chosen *not to/to* participate in the consultation pursuant to 36 CFR Section 800.6(a)(1)(iii); and

NOW, THEREFORE, the MaineDOT and the Maine SHPO agree that the undertaking shall be implemented in accordance with the following stipulations in order to take into account the effect of the undertaking on historic properties.

STIPULATIONS

The MaineDOT shall ensure that the following measures are carried out:

I. Recordation

The Milo West Opening Bridge (#2573) will be recorded using the "Outline Format" narrative of the Maine Historic Engineering Recordation (MHER) recordation standards.

II. Duration

This agreement will be null and void if its terms are not carried out within five (5) years from the date of its execution. Prior to such time, the MaineDOT may consult with the other signatories to reconsider the terms of the agreement and amend it in accordance with Stipulation VII.

III. Post-Review Discoveries

If potential historic properties are discovered or unanticipated effects on historic properties found, the MaineDOT shall consult in accordance with 36 CFR Section 800.6(c)(6). If any unanticipated discoveries of historic properties or archaeological sites are encountered during the implementation of this undertaking, the MaineDOT shall suspend work in the area of the discovery in accordance with MaineDOT's Standard Specification *105.9: Historic and Archaeological Considerations*. In compliance with 36 CFR §800.13, the MaineDOT shall notify within 48 hours the ACHP, the Maine SHPO, and the Mi'kmaq Nation, Houlton Band of Maliseet Indians, Passamaquoddy Tribe, Penobscot Nation, and the Wampanoag Indian Tribe of Gay Head (Aquinnah). The MaineDOT, Maine SHPO, and Tribal representatives, as appropriate, may conduct a joint field review within 72 hours of the notification. The MaineDOT, in consultation with the appropriate parties, will determine an appropriate treatment of the discovery prior to the resumption of construction activities in the area of the discovery.

IV. Discovery of Human Remains

The MaineDOT shall ensure that any human remains and/or grave-associated artifacts encountered during the archaeological investigations are brought to the immediate attention of the Maine SHPO, and any federally recognized Tribes that may attach religious and/or cultural significance to the affected property. Notification will be within 48 hours of the discovery. No activities which might disturb or damage the remains will be conducted until the MaineDOT, in consultation with the appropriate parties, has developed a treatment plan that considers the comments of the appropriate parties. All procedures will follow the guidance outlined in the National Park Service Publication *National Register Bulletin 41: Guidelines for Evaluating and Registering Cemeteries and Burial Places*, taking into account the Native American Graves Protection and Repatriation Act of 1990 (PL 101-601); and

V. Reporting

Each year following the execution of this agreement until it expires or is terminated, the MaineDOT shall provide all parties to this agreement a summary report detailing work undertaken pursuant to its terms. Such report shall include any scheduling changes proposed, any problems encountered, and any disputes and objections received in the MaineDOT's efforts to carry out the terms of this agreement. Failure to provide such summary report may be considered noncompliance with the terms of this MOA; and

VI. Dispute Resolution

Should any signatory party to this agreement object at any time to the manner in which the terms of this MOA are implemented, the MaineDOT shall consult with the objecting signatory party(ies) to resolve the objection. If the MaineDOT determines, within 30 days, that such objection(s) cannot be resolved, the MaineDOT will:

A. Forward all documentation relevant to the dispute to the ACHP in accordance with 36 CFR Section 800.2(b)(2). Upon receipt of adequate documentation, the ACHP shall review and advise the MaineDOT on the resolution of the objection within 30 days. Any comment provided by the ACHP, and all comments from the parties to the MOA, will be taken into account by the MaineDOT in reaching a final decision regarding the dispute.

B. If the ACHP does not provide comments regarding the dispute within 30 days after receipt of adequate documentation, the MaineDOT may render a decision regarding the dispute. In reaching its decision, the MaineDOT will take into account all comments regarding the dispute from the signatory parties to the MOA.

C. The MaineDOT's responsibility to carry out all other actions subject to the terms of this MOA that are not the subject of the objection remain unchanged. The MaineDOT will notify all signatory parties of its decision in writing. The MaineDOT's decision will be final.

The signatory party objection is required to be in regard to this agreement and the manner in which the stipulations to address the undertaking's adverse effects on National Register-eligible or listed historic properties are being carried out. Signatory party objections regarding the Section 106 process (36 CFR 800.3 – 800.6) for the undertaking will not be reevaluated.

VII. Amendments

If any signatory to this MOA, including any invited signatory, determines that its terms will not or cannot be carried out or that an amendment to its terms must be made, that party shall immediately consult with the other parties to develop an amendment to this MOA pursuant to 36 CFR §§800.6(c)(7) and 800.6(c)(8). The amendment will be effective on the date a copy signed by all of the original signatories is filed with the ACHP. If the signatories, including any invited signatory, cannot agree to appropriate terms to amend the MOA, any signatory may terminate the agreement in accordance with Stipulation VIII.

VIII. Termination

If the MOA is not amended following the consultation set out in Stipulation VII it may be terminated by any signatory or invited signatory. Within 30 days following termination, the MaineDOT shall notify the signatories if it will initiate consultation to execute an MOA with the

signatories under 36 CFR §800.6(c)(1) or request the comments of the ACHP under 36 CFR §800.7(a) and proceed accordingly.

IX. Coordination with Other Federal Reviews

In the event that another federal agency not initially a party to or subject to this MOA receives an application for funding/license/permit for the Undertaking as described in this MOA, that agency may fulfill its Section 106 responsibilities by stating in writing it concurs with the terms of this MOA and notifying the MaineDOT, Maine SHPO, and the ACHP that it intends to do so, and adherence to the terms of this MOA.

SIGNATORIES:

Maine Department of Transportation

_____Date_____
Joyce Taylor
P.E., Chief Engineer

Maine State Historic Preservation Officer

_____ Date _____
Kirk Mohney
State Historic Preservation Officer

ATTACHMENT A

MILO 25209.00 APE