Supplemental Supporting Information for a Finding of Effect

Project: Milo 22627.00
Scope: Bridge Replacement
Finding of Effect: **Adverse Effect**

Purpose and Need

The purpose of the project is to provide a safe crossing for all manner of vehicles, including passenger vehicles, heavy trucks, and recreational vehicles, over the Pleasant River in Milo.

The need for this project is that the existing bridge is ending its useful life, structurally deficient, fracture critical, and does not meet current Federal or State roadway and bridge design standards.

The Pleasant River Bridge #3244 is a Warren through truss located on Pleasant Street, a highway corridor priority 4 roadway. The bridge carries the Maine Interconnected Trail System Route 82/83 managed by the Maine Snowmobile Association and the Maine Bureau of Parks and Lands over the Pleasant River. The bridge's superstructure is in poor condition, the substructure is in fair condition, and the paint system is in poor condition. The 22' roadway is substandard for a priority 4 roadway and the guardrail is not crashworthy. The vertical clearance is 15', which is the minimum for vertical clearance; however, the top portals have collision damage. Pleasant Street currently has an Annual Average Daily Traffic (AADT) of 990. Eight percent of the AADT consist of heavy trucks, which is approximately 79 heavy trucks per day, including logging trucks. The bridge no longer rates for HL-93 loads or Maine legal loads.

Proposed Action

The proposed action (Alternative 2a – Off Alignment Replacement) would replace the existing Pleasant River Bridge #3244 with a 345' steel plate girder bridge located approximately 75' upstream of the existing bridge. The bridge would carry 11' travel lanes and 6' shoulders for a 34' roadway width. It would be 2 spans and have a steel rail mounted on concrete brush curb. The bridge typical section would hold a superelevation of 2% over the length of the bridge. The bridge would be supported by concrete abutments and a concrete pier. The pier would be a mass concrete wall pier founded on piles to accommodate ice and scour. The roadway would be realigned to make Pleasant Street to Lakeview Road a through movement and Medford Road would be aligned to intersect with Pleasant Street and Lakeview Road at a 90 degree angle. Construction would occur over two construction seasons beginning in 2021. Estimated construction costs for this alternative are $6.8 million with life cycle costs estimated at $5.6 million.

Federal Action

Federal funding.

Definition of Area of Potential Effect (APE)

The proposed project is located in Milo. The map below shows the APE.

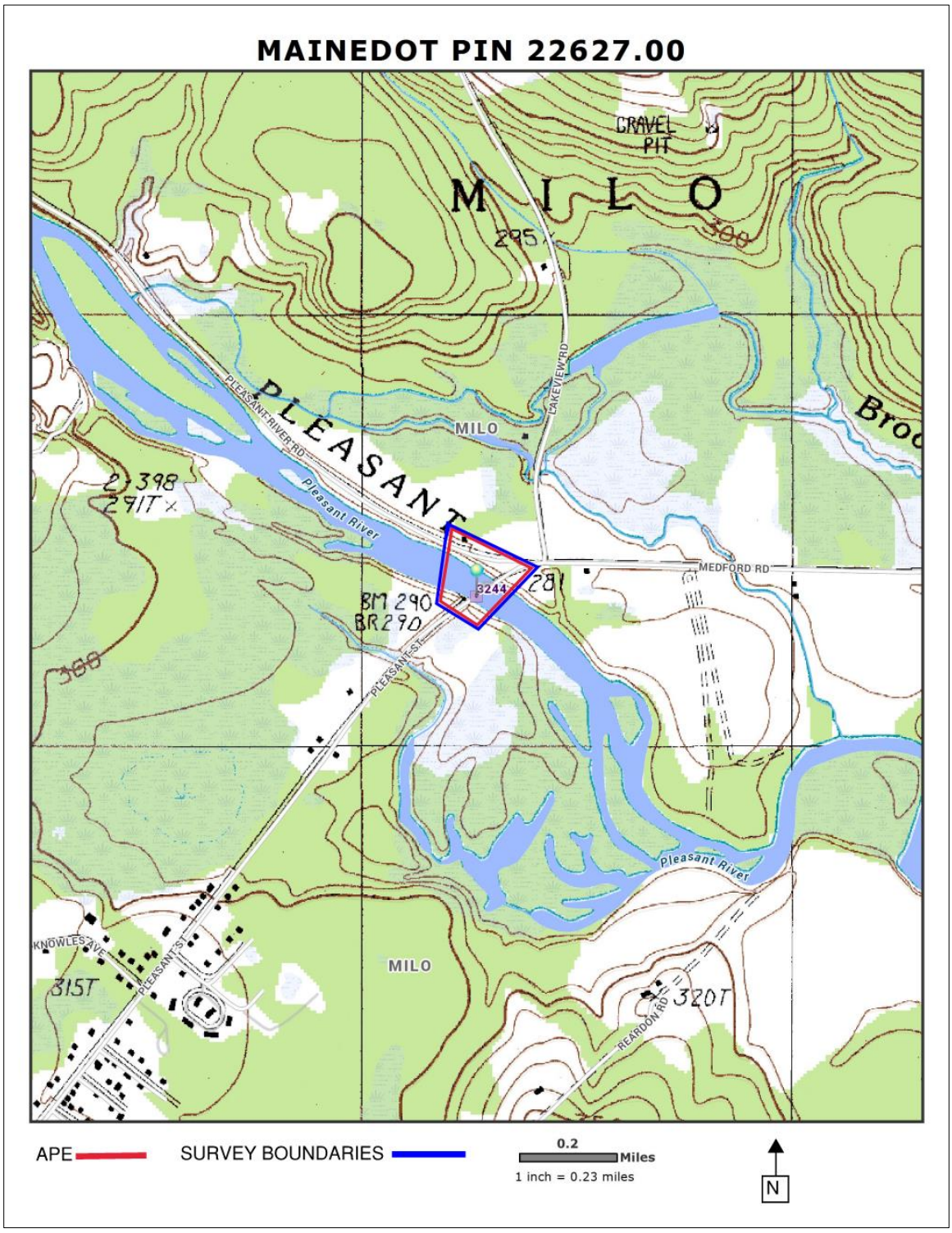


Figure 1. Milo 22627.00 Area of Potential Effect

Historic Properties
The proposed project is located in Milo. The following descriptions of historic properties found within the project area are based on Maine Historic Preservation Commission (MHPC) survey forms.

Pleasant River Bridge #3244, Pleasant Street over Pleasant River (MaineDOT, 17+00R to 20+50R)
National Register-Eligible
Criterion C, Engineering
The Pleasant River Bridge #3244 is a two-span Warren through truss that sits on concrete abutments with a single concrete pier. It is 309' long and 23' wide. It has a 20% skew and the chords consist of built-up sections composed of channels and plates and the verticals and diagonals are rolled sections. The portal bracing and upper lateral bracing is built-up and the floorbeams and stringers are rolled sections. The bridge is an excellent example of the Warren truss type, particularly because of the increasing rarity of these truss bridges in the State of Maine. The period of significance is 1936.

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

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

Pleasant River Bridge #3244, Pleasant Street over Pleasant River (MaineDOT, 17+00R to 20+50L)
National Register-Eligible
Criterion C, Engineering
The proposed action would result in an **Adverse Effect** to the Pleasant River Bridge #3244. The proposed action would result in the removal and demolition of the resource.

Archaeological Resources
No archaeological properties would be affected by the proposed undertaking.

Avoidance and Minimization Efforts
The MaineDOT completed all possible planning efforts related to avoidance and minimization, including evaluating alternatives that would avoid taking the Pleasant River Bridge #3244. However, alternatives analysis revealed that no avoidance alternative would successfully meet the project's purpose and need.

Dismissed 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.

Rehabilitation 1

Rehabilitation 1 would rehabilitate the existing bridge and construct a separate recreational vehicle bridge upstream. The additional bridge would carry a 10' lane to accommodate recreational vehicle traffic, such as snowmobiles and ATVs. The separate bridge would carry the Maine Interconnected Trail System Route 82/83. The recreational vehicle bridge would add an additional structure for maintenance to the MaineDOT system, which is currently underfunded. Also, this alternative would not meet the project's purpose and need because it would not improve site safety by retaining the existing bridge with substandard width and minimum vertical clearance. Therefore, this alternative was dismissed early in the planning phase because it is not prudent to add another structure, while maintaining a substandard truss bridge, to an underfunded system. This alternative would have higher costs than the preferred alternative due to the addition of the separate structure and approaches.

Rehabilitation 2

Rehabilitation 2 would rehabilitate the existing bridge and add a cantilevered extension for the use of recreational vehicles. This alternative would have removed recreational vehicles from the existing bridge's travel lanes by constructing an extension outboard of the truss chords. The extension would require strengthening the truss significantly. It would require challenging connections to the truss. This alternative was dismissed early in the planning phase because it would not improve site safety by retaining a bridge with substandard width and minimum vertical clearance and thus would not meet the project's purpose and need. It would also result in higher costs than the preferred alternative due to the addition of the cantilevered extension, widened approaches, extension of existing substructure units, and an unknown amount of structural strengthening to the existing truss.

Alternative 1a

Alternative 1a (rehabilitation with a lightweight concrete deck) would include a deck replacement with an 8" concrete deck and 1" integral wearing surface for a total thickness of 9". The deck would be constructed with lightweight concrete made composite with the floorbeams and stringers. The alternative would also include new plate covers on the top and bottom of the floorbeams and painting the superstructure. Additional steel repair, such as member strengthening and isolated rivet replacement, might be needed as part of paint preparation. A crashworthy bridge rail system would be installed, which would narrow the travel way to 21'. The

abutments would require full concrete surface repair and the pier would require repair to the concrete cap. A temporary work trestle downstream would facilitate repairs to the pier, floorbeams, and truss members. Traffic would be maintained on-site through construction. Approach work would be minimal, but would include realigning Pleasant Street, Lakeview Road, and Medford Road to improve traffic movements and improve site safety. The project would utilize a temporary bridge for traffic maintenance. Construction costs for this alternative are estimated at $7.4 million with a 50-year life cycle cost of $9.5 million. This alternative was dismissed from consideration because it would not meet the purpose and need for the following reasons: it would decrease the roadway width to 21' and would retain the existing clearance which is not adequate for heavy truck traffic. Thus this alternative would not improve site safety or meet current standards for a priority 4 roadway. Additionally, life cycles for this alternative are significantly higher than the preferred alternative.

Alternative 1b

Alternative 1b (rehabilitation with concrete deck) would include a deck replacement with a 7" concrete deck and a 1" integral wearing surface for a total thickness of 8". The deck would be constructed with normal weight concrete made composite with floorbeams and stringers. The alternative would also include new plate covers on the top and bottom of the floorbeams and painting the superstructure. Additional steel repair, such as member strengthening and isolated rivet replacement, might be needed as part of paint preparation. A crashworthy bridge rail system would be installed, which would narrow the travel way to 21'. A temporary work trestle downstream would facilitate repairs to the pier, floorbeams, and truss members. Traffic would be maintained on-site through construction. Approach work would be minimal, but would include realigning Pleasant Street, Lakeview Road, and Medford Road to improve traffic movements and improve site safety. The project would utilize a temporary bridge for traffic maintenance. Construction costs for this alternative are estimated at $7.3 million with a 50-year life cycle cost of $9.4 million. This alternative was dismissed from consideration because it would not meet the purpose and need for the following reasons: it would decrease the roadway width to 21' and would retain the existing clearance which is not adequate for heavy truck traffic. Thus this alternative would not improve site safety or meet current standards for a priority 4 roadway. Additionally, life cycles for this alternative are significantly higher than the preferred alternative.

Alternative 2b

Alternative 2b would consist of an on-alignment replacement, placed directly upstream of the existing bridge. The alternative

would include 11' travel lanes, 6' shoulders for a 34' roadway width. The 345' replacement bridge would consist of 2 spans and be composed of steel plate girders with steel bridge rail mounted on concrete brush curb. This alternative would match the existing alignment south of the bridge with a normal crown across the bridge. Approach work north of the bridge would include realigning Pleasant Street, Lakeview Road, and Medford Road to improve traffic movements and site safety. This alternative would require a single-lane temporary bridge and temporary traffic signals to maintain traffic during construction. This alternative was dismissed from consideration due to costs and impacts associated with the use of a temporary bridge and greater impacts to utilities, as well as a preference to spend funding on permanent infrastructure rather than temporary works.

Public Involvement

MaineDOT contacted the four federally-recognized Native American tribes in Maine. The Penobscot Tribe and Passamaquoddy Tribe replied with no concerns about the undertaking. The Houlton Band of Maliseets and the Aroostook Band of Micmacs did not respond to the request. All Tribes were notified in January 2020 of the proposed replacement. The Houlton Band of Maliseets and Passamaquoddy Tribe replied with no concerns to the updated information.

No official Section 106 consulting parties were received for this project. The Town was notified of the project and asked to provide any information on historic resources within the project area in 2015 and 2017. A preliminary public meeting was held on April 11, 2018. At that time the Pleasant River Bridge was not considered to be eligible for listing in the National Register of Historic Places. It was subsequently determined to be eligible for listing during MaineDOT's Metal Truss Re-evaluation of 2019, which serves as a supplement to the MaineDOT Historic Bridge Survey of 2004. The public was informed of the bridge's status as a National Register-eligible resource during an informational public meeting held on July 23, 2019. Rehabilitation and replacement options were discussed in detail at that time. Members of the public expressed concern over the existing narrow bridge width, lack of accommodations for snowmobiles and ATVs, and the expected life expectancy of 50 years. Several members also expressed a preference for replacement rather than rehabilitation. Property owners located northeast and northwest of the bridge were in attendance and stated they have no concerns regarding property impacts.

A public notice was placed and the Determination of Eligibility and Effects was sent to the Town and posted on the MaineDOT website. No comments were received during the comment period.

Proposed Materials

Steel plate girders, concrete, hot mix asphalt, steel railing.

Plans
Milo, Piscataquis County, Pleasant River Bridge over Pleasant River, Federal Aid Project No. 2262700, MaineDOT, September 10, 2019.

Attachments
Art Spiess, MHPC, to Julie Senk, MaineDOT, August 29, 2018.

Attachments
Art Spiess, MHPC, to Julie Senk, MaineDOT, August 29, 2018.
Kirk Mohney, MHPC, Concur, August 1, 2019.

STATE OF MAINE
Memorandum

Date: July 25, 2019

To: Kirk F. Mohney, MHPC
From: Julie Senk, Maine DOT/ENV
Subject: Section 106 review, additional information
Project: Milo 22627.00, MHPC 1576-15
Scope: Bridge Improvements

This memo is in response to the Maine Historic Preservation Commission's request for additional information regarding the subject project dated November 14, 2017.

In concert with this project and others with similar conditions, MaineDOT undertook a reevaluation of all the metal truss bridges in its system that were previously determined not eligible for listing in the National Register during the 2004 historic bridge survey. The results of that re-examination are that all 32 remaining truss bridges in the MaineDOT network are eligible for listing in the National Register of Historic places, including Pleasant River Bridge #3244 in Milo.

The Pleasant River Bridge #3244 is eligible for listing under Criterion C for its statewide significance in Engineering due to the rarity of metal truss bridges in the MaineDOT system and because it represents the distinctive characteristics of a Warren truss. The historic bridge re-evaluation was concurred with by MHPC on June 7, 2019.

CONCUR

Kirk F. Mohney 8/1/19

Kirk F. Mohney, Date
State Historic Preservation Officer

MAINE HISTORIC PRESERVATION COMMISSION
55 CAPITOL STREET
65 STATE HOUSE STATION
AUGUSTA, MAINE
04333

PAUL R. LEPAGE
GOVERNOR

KIRK F. MOHNEY
DIRECTOR

August 29, 2018

To: Ms. Julie Senk, MDOT/ESD

From: Arthur Spiess, Senior Archaeologist

Subject: WIN 22627.00, Milo, Pleasant River bridge, MHPC # 1576-15

We have completed archaeological testing for the Pleasant River bridge. John Mosher's end of fieldwork report is attached. We found plenty of "archaeology," but contexts were disturbed (plowzone) or age was not significant (20th century building foundation). Of course we will finish a full report, but that will be sometime this winter. I am asking Heather Dutton to submit a bill for "end of fieldwork" for $20,000.00. (And we did use up the field budget – this project was well and completely tested because of the proximity of known sites beforehand.)

None of the known sites or new sites within the APE are NR eligible.

It is extremely unlikely that a significant archaeological site would be affected by this project, in our opinion. 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."

PHONE: (207) 287-2132

FAX: (207) 287-2335

Memorandum
To: Art Spiess and Leith Smith
From: John Mosher
Date: August 27, 2018
RE: End of Field, Pleasant River Bridge Replacment, Milo (WIN 22627)

On 11 July 2018 MHPC archaeologists completed Phase I survey and Phase II testing in advance of the proposed replacement of Bridge #3244 carrying Pleasant Street over the Pleasant River in Milo, Maine. The current structure is a steel thru truss erected on concrete abutments and piers in 1936. The proposed APE begins about 320m southwest of the southern bridge abutment, extends up to 50m on either side of the current alignment, and includes a possible redesign/enlargement of the Pleasant River Road-Lake View Road-Medford Road intersection. The entire project area was considered sensitive for pre-contact Native American archaeological sites due to 1: the presence of well-drained, elevated landforms overlooking canoe-navigable water, 2: numerous meander scars or overflow channels with elevated landforms, and 3: the close proximity of previously identified pre-contact archaeological sites. Nineteenth-century maps of the Pleasant River Bridge area show no standing structures within the project APE, though they do indicate that original bridge alignment was upstream of the current and crossed the River in front of the residence of Andre Bouchard (Figure 1).

Andre Bouchard Property, NW corner

Andre and Theresa Bouchard own 125 acres of farmland between Pleasant River Road and Lakeview Road at the northwest corner of the bridge. The proposed APE extends into the Bouchard's alfalfa field where a 2011 archaeological survey conducted by Dr. Gary Shaffer of the NRCS identified fragments of19th-century ceramic wares, but no pre-contact Native American artifacts during surface inspection (Shaffer and Spiess 2011). We excavated 29 shovel tests pits on three linear transects and recovered a waterworn piece of Kineo rhyolite in deep plow zone soils and in association with 19th- and 20th-century historic materials (Figure 2) Unworked Kineo rhyolite cobbles and broken 'flakes' are present along the river bank and in the cobble/pebble fraction of outwash sediments identified in several tests. Beneath plowzone soils are about 20 to 40cm of yellow brown fine sandy loam on outwash sand and gravel. No further archaeology is recommended.

Dana Perkins Sr. Property, NW corner

Mr. Perkins owns a narrow stretch of river bank between the 19th-century bridge alignment, the current bridge, and Pleasant River Road. During the initial bridge check for WIN 22627 in 2017, MHPC staff found a possible worked cobble or hammer stone of Kineo rhyolite in a shovel test located adjacent to the bridge abutment on Perkins property. The location is designated site 107.18 in the State Survey.

During Phase I survey we excavated three linear transects of shovel tests on the river bank between the abutments and another about 35m from the break in slope at the intersection of Pleasant River Road and Pleasant Street (Figure 3). The latter transect found deep fill deposits emplaced during

1936 bridge construction. The remaining transects identified calcined bone and a waterworn Kineo rhyolite retouched flake or biface preform in plow zone soils with historic artifacts. Bracketing tests around the find yielded no additional pre-contact material, suggesting that it may have been washed in by flood waters. Shovel tests placed around the 2017 STP yielding the possible worked cobble, identified a mix of natural cobble lag and cobble fill eroding from the abutment. No other unequivocal pre-contact artifacts were recovered. The worked cobble may represent an entirely eroded archaeological site or perhaps it arrived in a load of fill from another location. No additional archaeology is recommended.

Dana Perkins Sr. Property, NE corner

Perkins owns a 2-acre parcel at the northeast corner of the bridge where his house and garage are situated. Because the parcel lies within a flood zone, Perkins was required to erect both structures on 10ft posts. During the process of obtaining permission to test the property, Mr. Perkins informed us that he was told by the Town of Milo that 'years ago' there had been a building on the property near the break in slope and that the town and or previous landowners used to dump trash near the bridge abutment. Nineteenth-century county maps do not show a structure on the Perkins property, nor do the Schoodic 1947, Schoodic 1949, Milo North 1978 or Milo North 1988 topographic sheets. Thus, the structure must have been short lived.

Subsurface testing of the Perkins property was conducted with 12 shovel test pits and a one-meter-square test unit distributed on three transects (Figure 4). This work failed to identify pre-contact Native American artifacts, but it did confirm the presence of an historic structure that probably predated the publication of the 1947 Schoodic Topographic map. Nails and spikes recovered from the shovel test were of the wire variety and the insulation of wool. Copious amounts of plaster would suggest the building may have been more substantial than a barn or storage shed. The structure was at least 14m by 6m in plan, based on the dimensions of the rectangular depression where the majority of the artifacts were recovered. No additional archaeology is recommended.

Louis Ritter Property, NE corner

The Ritter parcel is located at the intersection of Lakeview and Medford Roads and is about 100 acres in size. Within or adjacent to the APE is a possible meander scar or overflow channel that continues onto the Bouchard property, north of the alfalfa field.

We excavated three transects of shovel tests at 5m intervals on the Ritter property (Figure 5). The first transect tests the area between Lakeview Road and the meander. Transects 2 and 3 test the road side and field overlooking the north side of the meander. These tests did not yield pre-contact Native American artifacts, but two deeply buried organic samples from the north side of the meander may be useful for directly dating the formation of the flood plain. No additional archaeology is necessary within the APE on the Ritter property.

Dana Perkins, Sr., Property, SE corner

The Perkins property at the southeast corner of the bridge is about 100 acres in size, with considerable frontage on the Pleasant River. While the immediate shoreline consists of eroded

gravel bar, the break in slope appears to be fairly level, elevated, well drained, and canoe accessible. A previous landowner and/or the Milo Water District installed electric and sewer, as well as gravel roads for a possible development project. Most of these improvements lie well outside the 50m APE.

Four transects of shovel tests were arrayed roughly parallel with the river bank at 5m intervals (Figure 6). Most of the shovel tests revealed about 50cm of Holocene alluvium on top of coarse sand or gravelly outwash. Several shovel tests in the western corner of the parcel below the bridge approach identified very disturbed deposits, culminating in the discovery of a buried manhole cover in test T3STP1. Upon obtaining an electronic copy of the 1936 bridge plans, we learned that there was a preexisting sewer line extending from the Perkins property to the bridge approach of the 19th-century alignment. Outside of the disturbed area a single flake was recovered from test T1STP4. Bracketing tests placed around the unit did not yield further evidence of pre-contact use of the immediate river bank.

A fifth transect of 5 STPS was used to test and elevated landform at the base of the toe slope of the bridge approach. Test T5STP2 produced a complete stemmed biface of Kineo rhyolite that is believed to be either Terminal Archaic or Ceramic Period in age, based on stem morphology. Three bracketing tests placed at 2m intervals around the unit did not yield additional pre-contact artifacts. No further testing within the project APE is recommended for the Perkins property.

State (or Town) Property, SW corner

Either the State of Maine or town of Milo owns the triangular wedge of land between the current and former bridge crossings. The riverbank here is elevated about 1 to 1.5m above the Pleasant River during low water typical of July. Prior to subsurface testing we mapped and photographed the remains of the 19th-century abutment, but did not look for the sewer line that should have been located about 40 to 50m southwest of the break in slope.

Three transects of shovel tests were arrayed at 5m intervals between the two bridge approaches (Figure 7). Soil profiles revealed fill and plowzone soils with historic artifacts to about 40cmbs, followed by about 20cm of yellow brown B-horizon soil and gravelly outwash. Two shovel tests produced flaked-stone biface preforms and flakes. Two of three bracketing tests placed around unit T2STP3 were also positive for pre-contact artifacts. The site was assigned the number 107.20 in the State Survey.

During Phase II testing six one-meter-square units were placed adjacent to the Phase I shovel tests yielding pre-contact artifacts. These yielded a small number of Kineo rhyolite and quartz flakes in plow zone soils, but did not reveal potential features, temporally diagnostic artifacts, or artifact concentrations. Site 107.20 is not NR eligible under any context of the State Plan. No further archaeology is necessary.

Kuchinski Property SW corner

Sheila Kuchinksi owns 100-acres of pasture and wood lot at the southwest corner of bridge, though her extensive river frontage lies well outside the project APE. A meander scar situated about 100m northeast of the residence may have attracted pre-contact Native American settlement on its western margin where the terrain is elevated.

We excavated three shovel test pits within 10m of the road edge along the break in slope of the meander scar (Figure 8). Soil profiles revealed a thin A-horizon soil with associated albic, about 10cm of yellow brown fine sandy loam, beneath which is gravelly outwash and or till. Shovel tests 2 (T1STP2) and 3 (T2STP2), yielded a couple Kineo rhyolite flakes and 19th-century ceramics from the interface of the Albic and B-horizon soils. The site is assigned 107.19 in the State Survey.

During Phase II testing we excavated three transects of shovel tests at 5m intervals, three one-meter squares, and several bracketing shovel tests. Phase I shovel tests 1 and 2 were incorporated into Transect 1. None of the additional STPS on T1 yielded pre-contact artifacts, though the two one-meter-square test units each produced a couple of weathered flakes in albic soil. Shovel tests on T2 yielded a couple of possible flakes, while from T3 tests we recovered a few 19th-century ceramics, brick fragments, bottle caps, and the like. The historic artifacts do not represent a potentially significant archaeological site. Testing of site 107.19 did not identify temporally diagnostic stone tools or ceramics or reveal features yielding calcined bone, charred botanical remains, or any other material. Site 107.19 is not NR eligible under any context of the State Plan. No further archaeology is necessary.

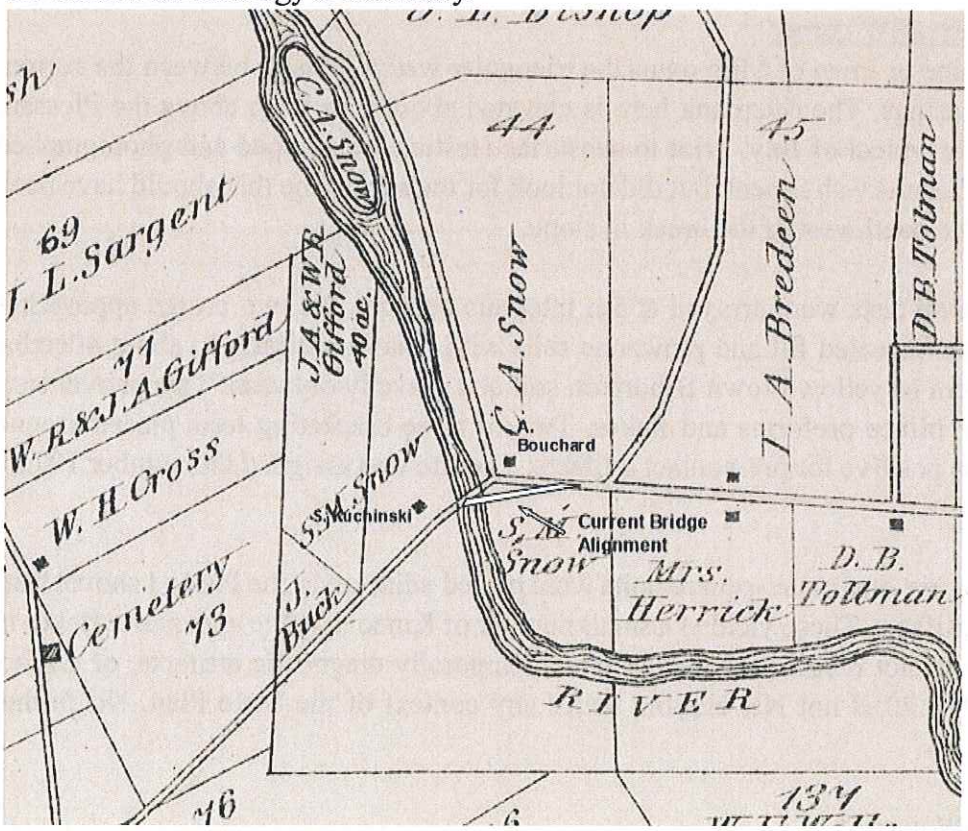


Figure 1. Location of the Bouchard and Kuchinski houses and Bridge #3244 on the 1871 Atlas of Piscataquis County

Figure 2. Location of STPS in Bouchard alfalfa field.

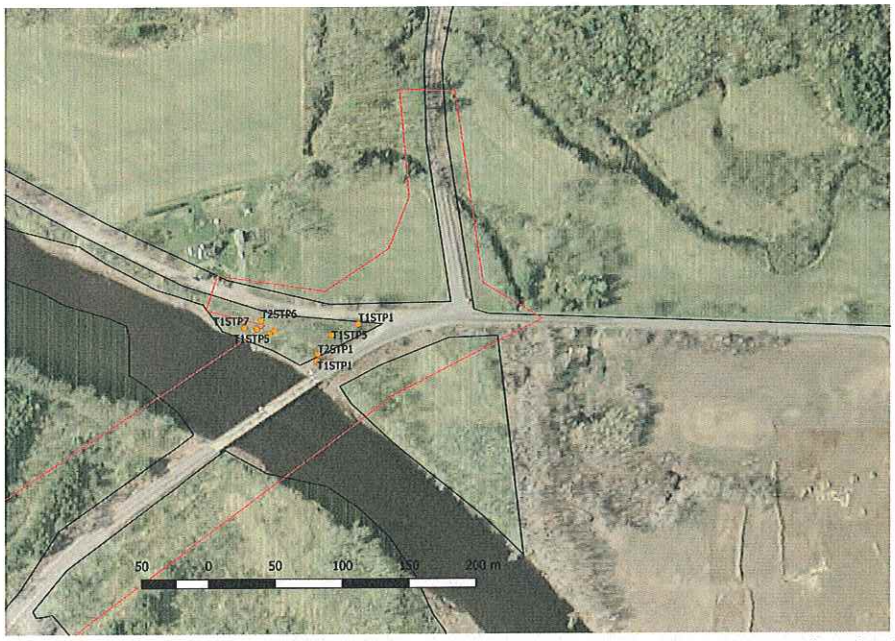


Figure 3. Location of GPS recorded STPS on Dana Perkins property, NW corner of Bridge #3244

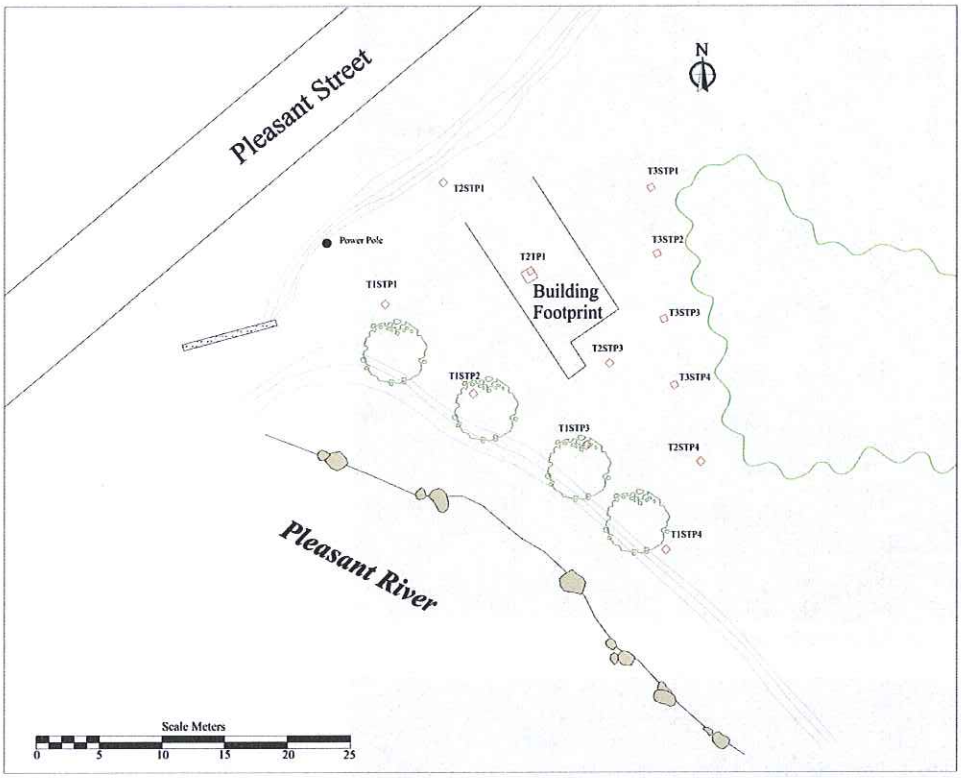


Figure 4. Location of shovel tests and building footprint on Dana Perkins house lot parcel, northeast corner of bridge #3244

Figure 5. Location of STPS on Ritter property, NE corner of Bridge #3244

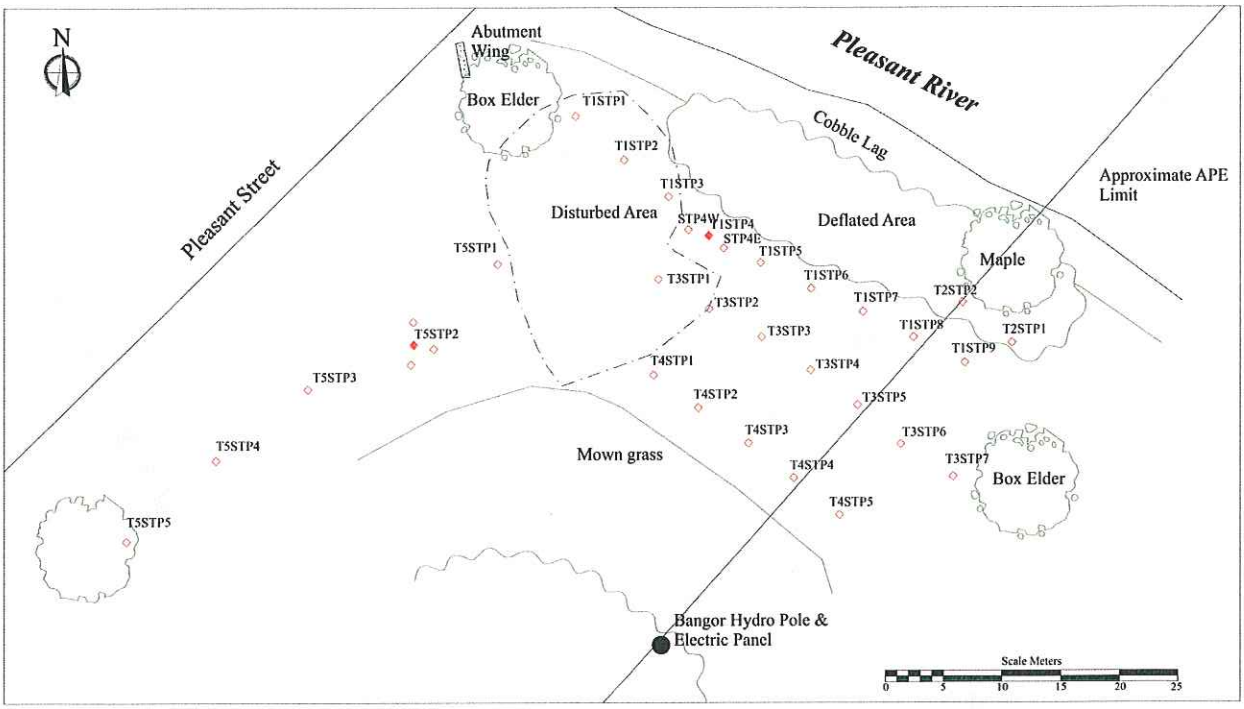


Figure 6. Location of STPS on Dana Perkins property, SE corner of Bridge #3244

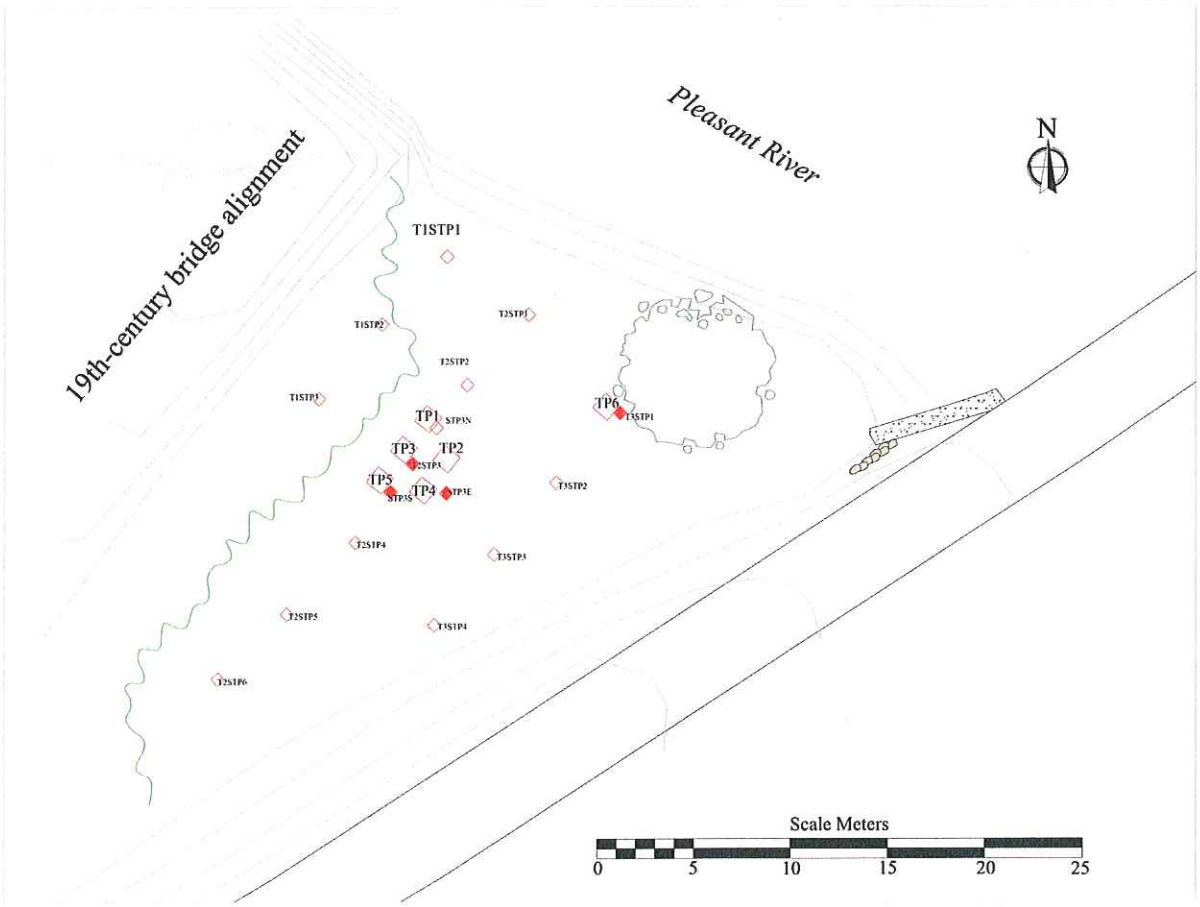


Figure 7. Location of STPs and test units on State or Town property, SW corner of Bridge #3244.

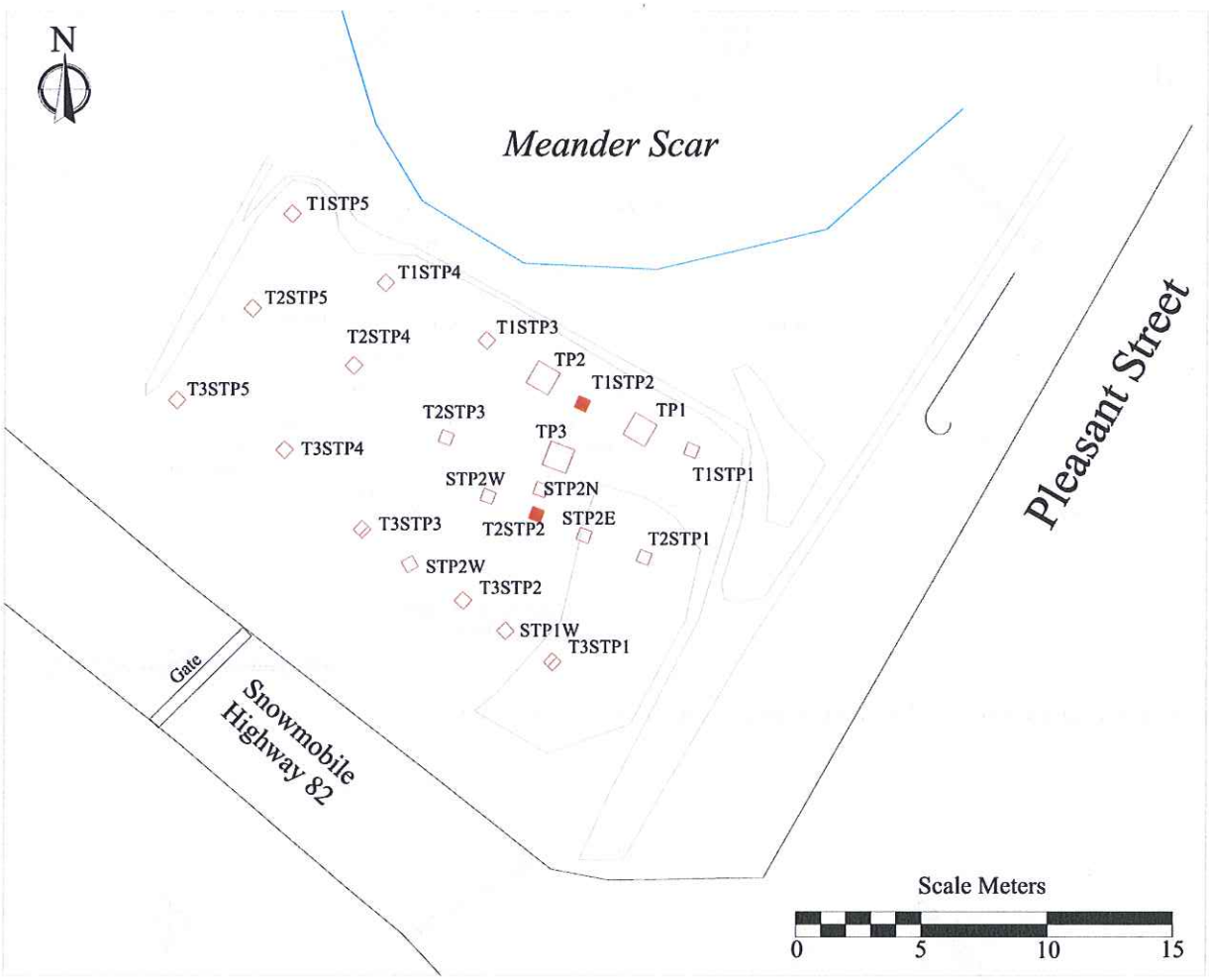


Figure 8. Location of STPS and test units on Sheila Kuchinski property, SW corner of Bridge #3244

Plan Impacts Complete
January 8, 2020

FIELD ENTRANCE
CURVE DATA #1
PI = 400+36.43
D = 28°38'52.4"
Δ = 6°58'42.3" Rt.
R = 200.00'
L = 24.36'
T = 12.19'
E = 0.37'

PC = STA. 400+24.24
PT = STA. 400+48.59
PC = STA. 400+66.27
PT = STA. 401+13.33

FIELD ENTRANCE
CURVE DATA #2
PI = 400+96.21
D =190°59'09.4"
Δ = 89°52'46.7" Rt.
R = 30.00'
L = 47.06'
T = 29.94'
E = 12.38'

FIELD ENTRANCE
CURVE DATA #3
PI = 402+47.80
D =190°59'09.4"
Δ = 59°35'05.3" Lt.
R = 30.00'
L = 31.20'
T = 17.18'
E = 4.57'

PLEASANT STREET
CURVE DATA #2
PI = 11+46.12
D = 1°23'50.8"
Δ = 4°03'54.5" Lt.
R = 4100.00'
L = 290.90'
T = 145.51'
E = 2.58'

PRC = STA. 12+16.51
PT = STA. 402+61.82
PC = STA. 402+30.62

SHEILA L. KUCHINSKI

S 60°58'29.02" E
S 53°59'46.70" E
S 35°52'59.95" W

R=25'
R=5'
65°00'38"
77°41'21"
R=15'
R=15'

Remove Utility Pole (By Others)
Remove and Reset Sign
Remove and Reset Mailbox
Remove Utility Pole (By Others)
Proposed Utility Pole (By Others)
Remove Utility Pole (By Others)
Remove Existing Pavement, 2" Loam and Seed (Typ.)
36' X 15" C.P. Opt. I
Proposed Utility Pole (By Others)
Remove Utility Pole (By Others)
Proposed Utility Pole (By Others)
Remove Existing Guardrail (Typ.)
Remove Utility Pole (By Others)
Sta. 14+00.00 Pleasant Street ℄
= Sta. 402+81.89 Field Entrance ℄

31" W-Beam Guardrail - Mid-Way Splice Flared Terminal (Typ.)
31" W-Beam Guardrail - Mid-Way Splice (Typ.)

PLEASANT STREET
CURVE DATA #3
PI = 14+69.01
D = 5°58'05.9"
Δ = 20°57'05.8" Rt.
R = 960.00'
L = 351.05'
T = 177.51'
E = 16.27'

Pleasant Street

15+00
14+00
13+00
12+00
11+00
10+00
9+00
8+00

60°19'29"
N 37°08'22.51" E
To Route 6/11/16

R=10'
Anchorage Assembly
Remove Utility Pole (By Others)
Proposed Utility Pole (By Others)
Match Existing Gravel Shoulder

PC = STA. 8+75.47
PRC = STA. 10+00.61

SHEILA L. KUCHINSKI

WILLARD I. STANCHFIELD
WILMA J. STANCHFIELD

WILLARD I. STANCHFIELD
WILMA J. STANCHFIELD

DANA E. PERKINS, SR

PLEASANT STREET
CURVE DATA #1
PI = 9+38.04
D = 1°23'50.8"
Δ = 1°44'55.7" Rt.
R = 4100.00'
L = 125.14'
T = 62.58'
E = 0.48'

PLAN

25 0 25 50
Scale of Feet

HNTB

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-2262(700)

WIN 022627.00

BRIDGE PLANS

BRIDGE NO. 3244

	BY	DATE
PROJ. MANAGER	A. Lothe	
DESIGN-DETAILED	C. Helmick	11\19
CHECKED-REVIEWED	L. Driscoll	11\19
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

PLEASANT RIVER BRIDGE
PLEASANT RIVER PISCATIQUIS
MILO

GENERAL PLAN 1

SHEET NUMBER
3
OF 54

Filename: 003_BDPlan_01.dgn Division: Username: Date:1/10/2020

Plan Impacts Complete
January 8, 2020

PLEASANT RIVER ROAD
CURVE DATA #1
PI = 200+99.78
D = 4°46'28.7"
Δ = 7°38'30.1" Lt.
R = 1200.00'
L = 160.05'
T = 80.14'
E = 2.67'

SHEILA L. KUCHINSKI

ANDRE P. BOUCHARD
THERESA R. BOUCHARD

201+00
To Brownville

PT = STA. 201+79.69

76°26'28"

202+00

Pleasant River Road

S 75°00'28.26" E

203+00

PLEASANT RIVER RD.
CURVE DATA #2
PI = 203+89.79
D = 76°23'39.7"
Δ = 40°37'03.1" Rt.
R = 75.00'
L = 53.17'
T = 27.76'
E = 4.97'

PC = STA. 203+62.04

PT = STA. 204+15.21

R=50'

R=25'

R=20

204+00

89°50'05"

S 60°58'29.02" E

400+00

PC = STA. 400+24.24

PT = STA. 400+48.59

PC = STA. 400+66.27

PT = STA. 401+13.33

401+00

S 35°52'59.95" W

3/4" W-Beam Guardrail - Mid-Way Splice Flared Terminal (Typ.)

3/4" W-Beam Guardrail - Mid-Way Splice (Typ.)

Proposed Utility Pole (By Others)

℄ Brg. Abut. 1
Sta. 16+75.50

℄ Brg. Pier 1
Sta. 18+48.00

172'-6"

172'-6"

Remove Utility Poles (By Others)

Proposed Utility Pole (By Others)

DANA E. PERKINS, SR
Low Volume End

Proposed Utility Pole (By Others)

℄ Brg. Abut. 2
Sta. 20+20.50

Remove Utility Pole (By Others)

Steel Approach Railing (Typ.)

25'0"0" (Typ.)

15+00

16+00

17+00

18+00

19+00

20+00

21+00

22+00

BB-MPR-201

Pleasant Street

N 55°46'29.57" E

BB-MPR-203

Bridge Transition Type I (Typ.)

Proposed Utility Pole (By Others)

Pleasant River Flow

Heavy Riprap (Typ.)

Proposed Utility Pole (By Others)

DANA E. PERKINS, SR

BB-MPR-103

BB-MPR-102

BB-MPR-101

BB-MPR-103A

Remove and Reset Sign

Remove Existing Guardrail (Typ.)

Remove Utility Pole (By Others)

Remove Existing Pavement, 2" Loam and Seed (Typ.)

Remove Existing Bridge

Remove Existing Substructures to 2'-0" below stream bed

Remove Utility Pole (By Others)

Temporary Utility Pole (By Others)

Remove Utility Pole (By Others)

PLEASANT STREET
CURVE DATA #3
PI = 14+69.01
D = 5°58'05.9"
Δ = 20°57'05.8" Rt.
R = 960.00'
L = 351.05'
T = 177.51'
E = 16.27'

PT = STA. 16+42.55

Remove Utility Pole (By Others)

Sta. 21+23.49 Pleasant Street ℄
= Sta. 204+31.26 Pleasant River Road ℄

PLAN
25 0 25 50
Scale of Feet

PLAN
25 0 25 50
Scale of Feet

DANA E. PERKINS, SR

HNTB

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-2262(700)

WIN 022627.00

BRIDGE NO. 3244

BRIDGE PLANS

	BY	DATE
PROJ. MANAGER	A. Lothe	
DESIGN-DETAILED	P. Bishop	11\19
CHECKED-REVIEWED	R. Hanf	11\19
DESIGN2-DETAILED2	C. Helmick	
DESIGN3-DETAILED3	L. Driscoll	
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

PLEASANT RIVER BRIDGE
PLEASANT RIVER
MILO PISCATIQUIS

GENERAL PLAN 2

SHEET NUMBER
4
OF 54

Filename: 004_BDPlan_02.dgn Division: Username: Date:1/10/2020

Plan Impacts Complete
January 8, 2020

Proposed Utility Pole (By Others)
PT = STA. 204+15.21
PC = STA. 22+60.38
Pleasant Street
Temporary Utility Pole (By Others)
Remove and Reset Sign
Remove Utility Pole (By Others)
Service Utility Pole (By Others)
DANA E. PERKINS, SR
Remove and Reset Sign
Sta. 23+50.47 Pleasant Street/Lakeview Road ℄
= Sta. 106+63.61 Medford Road ℄
PLEASANT STREET/
LAKEVIEW ROAD
CURVE DATA #4
PI = 24+85.09
D = 16°22'12.8"
Δ = 65°24'08.2" Lt.
R = 350.00'
L = 399.52'
T = 224.71'
E = 65.92'
ANDRE P. BOUCHARD
THERESA R. BOUCHARD
R=45'
R=90'
N 48°58'19.62" W
Remove Sign
32" X 15" C.P. Opt I
Remove and Reset Mailbox
90°00'00"
R=50'
106+00
Riprap Downspout
Lakeview Road
PT = STA. 26+59.90
Proposed Utility Pole (By Others)
Remove Utility Pole (By Others)
Remove and Reset Sign
PT = STA. 106+44.91
Proposed Utility Pole (By Others)
25+00
Medford Road
105+00
Remove and Reset Sign
Remove Utility Pole (By Others)
Remove Existing Pavement 2" Loam and Seed (Typ.)
76" X 36" C.P. Opt. III (Remove Exist. Culvert)
Remove and Reset Sign
Proposed Utility Pole (By Others)
Reset From Sta. 24+50± Rt.
26+00
27+00
N 9°37'38.60" W
28+00
To Schoodic Lake
Proposed Utility Pole (By Others)
Remove Utility Pole (By Others)
Match Existing Gravel Shoulder (Typ.)
MEDFORD ROAD
CURVE DATA #2
PI = 105+28.96
D = 15°54'55.8"
Δ = 38°24'53.0" Rt.
R = 360.00'
L = 241.37'
T = 125.42'
E = 21.22'
LOUIS W. RITTER
PC = STA. 104+03.54
104+00
Proposed Utility Pole (By Others)
Remove Utility Pole (By Others)
N 87°23'12.59" W
PC = STA. 27+17.71
LAKEVIEW ROAD
CURVE DATA #5
PI = 28+03.86
D = 7°54'10.3"
Δ = 13°33'11.2" Rt.
R = 725.00'
L = 171.50'
T = 86.15'
E = 5.10'
PT = STA. 28+89.20
Match Existing Gravel Shoulder (Typ.)
PT = STA. 103+28.89
103+00
MEDFORD ROAD
CURVE DATA #1
PI = 102+57.46
D = 0°34'22.6"
Δ = 0°49'06.8" Rt.
R = 10000.00'
L = 142.87'
T = 71.43'
E = 0.26'

PLAN
25 0 25 50
Scale of Feet

HNTB

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
STP-2262(700)
WIN 022627.00
BRIDGE NO. 3244
BRIDGE PLANS

PROJ. MANAGER	A. Lothel	BY	DATE
DESIGN-DETAILED	C. Helmick	P. Bishop	11\19
CHECKED-REVIEWED	L. Driscoll	R. Hanf	11\19
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

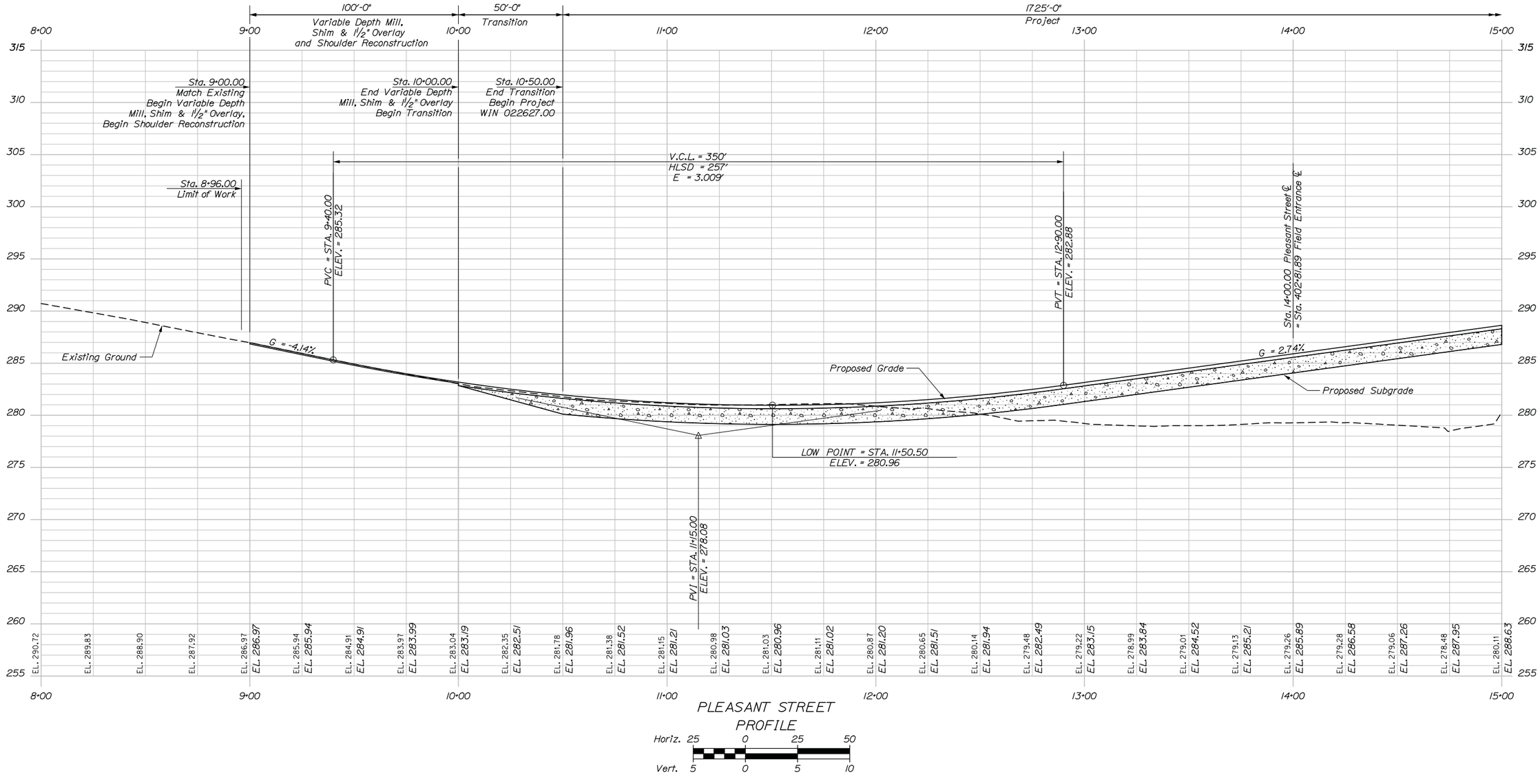
SIGNATURE
P.E. NUMBER
DATE

PLEASANT RIVER BRIDGE
PLEASANT RIVER PISCATIQUIS
MILO
GENERAL PLAN 3

SHEET NUMBER
5
OF 54

Username:
Division:
Date:1/10/2020
Filename: 005_BDPlan_03.dgn

Plan Impacts Complete
January 8, 2020



PLEASANT STREET
PROFILE

Horiz. 25 0 25 50
Vert. 5 0 5 10
Scale of Feet

HNTB

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-2262(700)

WIN 022627.00

BRIDGE NO. 3244

BRIDGE PLANS

PROJ. MANAGER	A. Lothel	BY	DATE
DESIGN-DETAILED	C. Helmick	P. Bishop	11\19
CHECKED-REVIEWED	L. Driscoll	R. Hanf	11\19
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

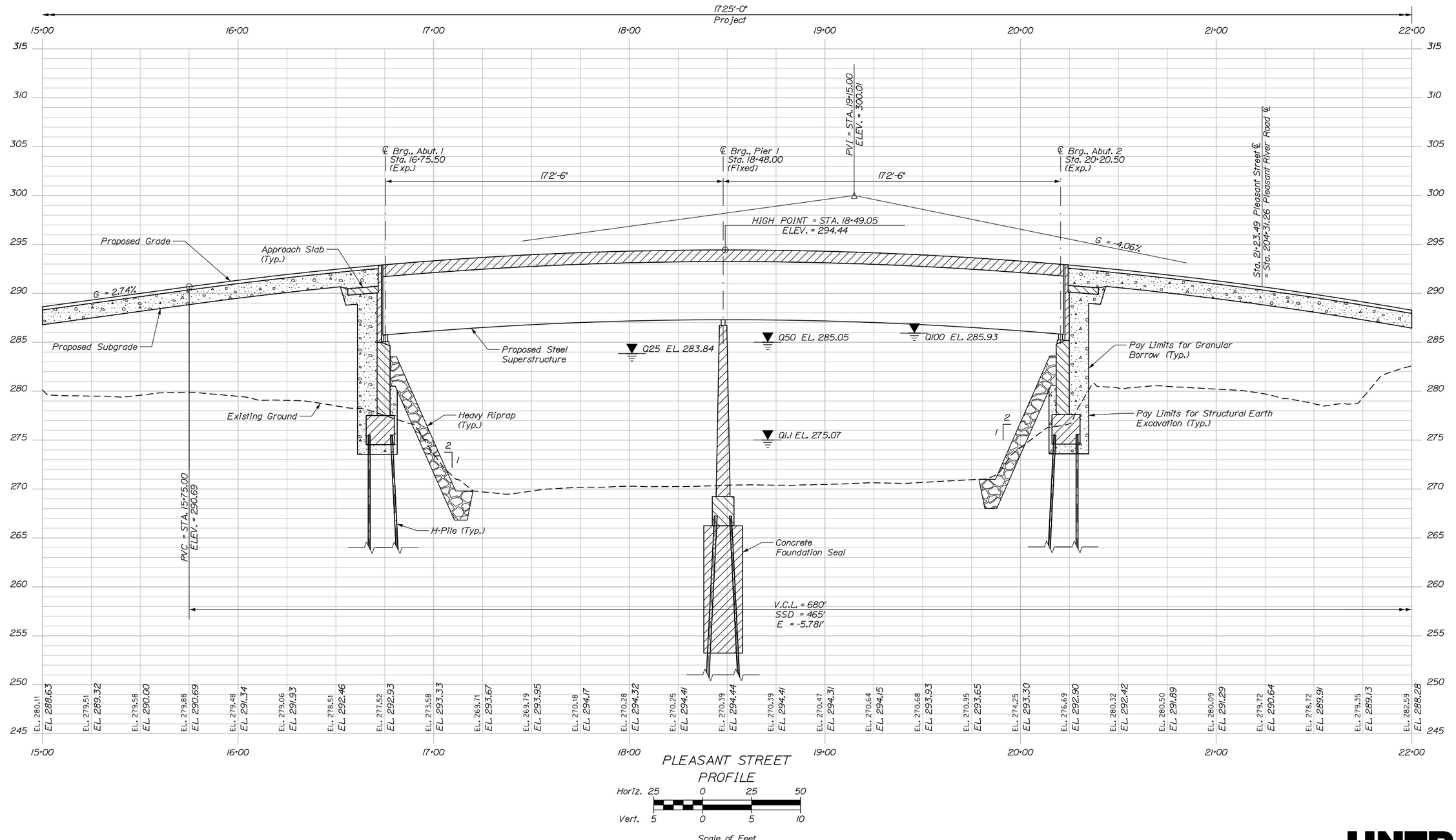
PLEASANT RIVER BRIDGE
PLEASANT RIVER
PISCATIQUIS
MILO

PROFILE 1

SHEET NUMBER
6
OF 54

Username:
Division:
Date:1/10/2020
Filename: 006_Profile_01.dgn

Plan Impacts Complete
January 8, 2020



PLEASANT STREET
PROFILE

Horiz. 25 0 25 50
Vert. 5 0 5 10
Scale of Feet

HNTB

Username:
Division:
Date:1/10/2020
Filename: 007_Profile_02.dgn

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-2262(700)

WIN
022627.00

BRIDGE NO. 3244

BRIDGE PLANS

PROJ. MANAGER	A. Lothel	BY	DATE
DESIGN-DETAILED	C. Hemick	P. Bishop	11\19
CHECKED-REVIEWED	L. Driscoll	R. Hanf	11\19
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

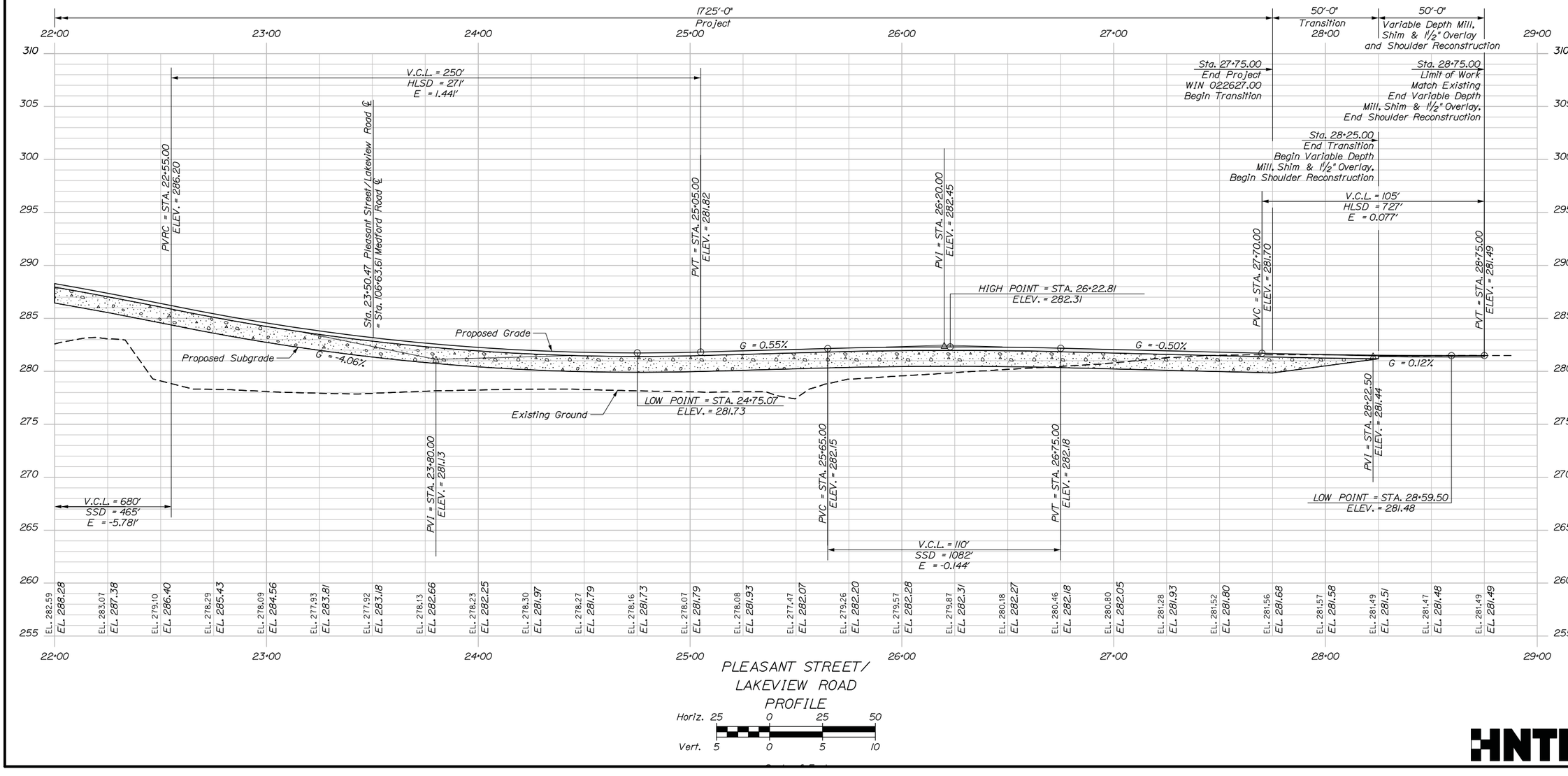
DATE

PLEASANT RIVER BRIDGE
PLEASANT RIVER PISCATIQUIS
MILO

PROFILE 2

SHEET NUMBER
7
OF 54

Plan Impacts Complete
January 8, 2020



PLEASANT STREET/
LAKEVIEW ROAD
PROFILE

Horiz. 25 0 25 50
Vert. 5 0 5 10

HNTB

Username:
Division:
Date:1/10/2020
Filename: 008_Profile_03.dgn

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-2262(700)

WIN 022627.00

BRIDGE NO. 3244

BRIDGE PLANS

PROJ. MANAGER	A. Lothel	BY	DATE
DESIGN-DETAILED	C. Helmick	P. Bishop	11\19
CHECKED-REVIEWED	L. Driscoll	R. Hanf	11\19
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

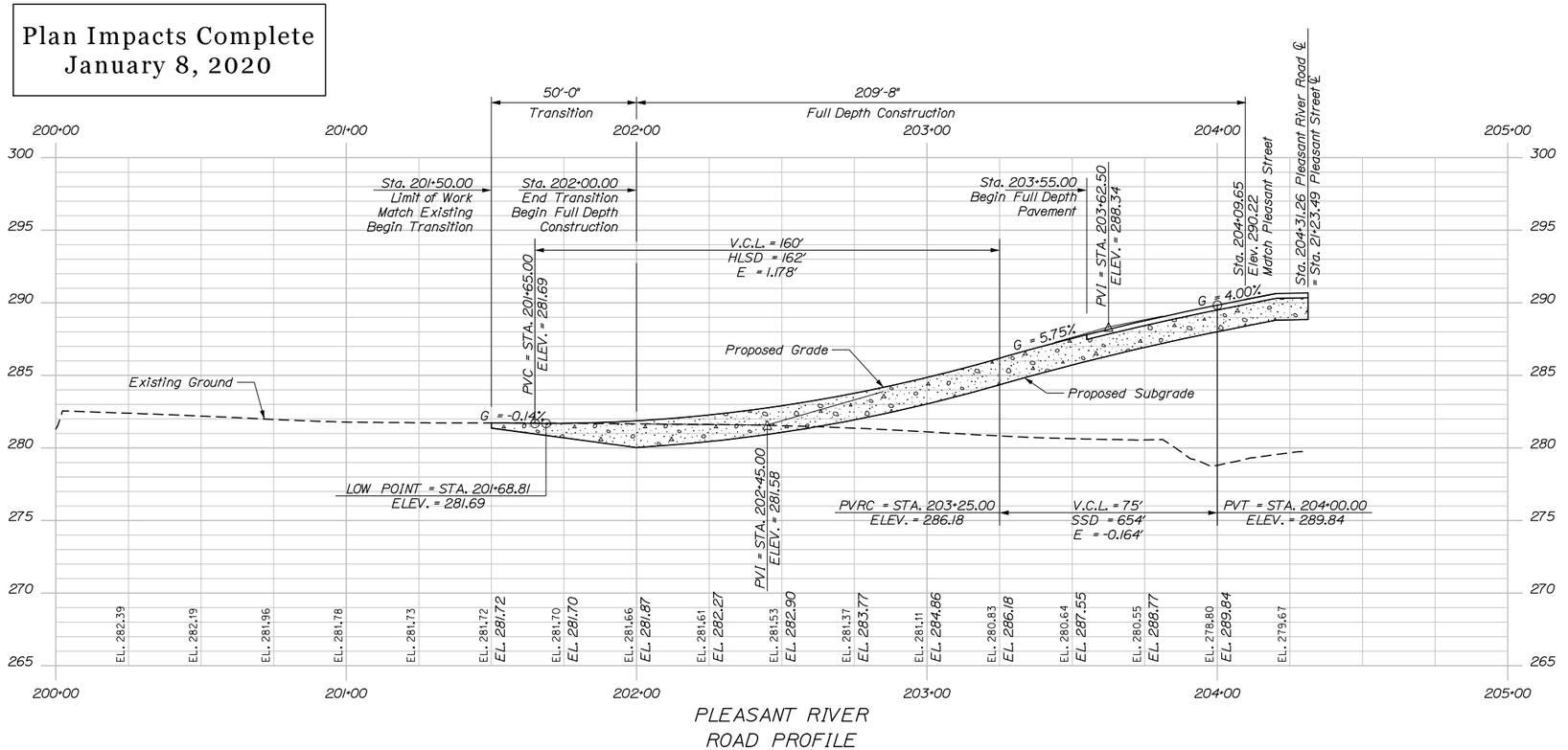
DATE

PLEASANT RIVER BRIDGE
PLEASANT RIVER
MILO PISCATIQUIS

PROFILE 3

SHEET NUMBER
8
OF 54

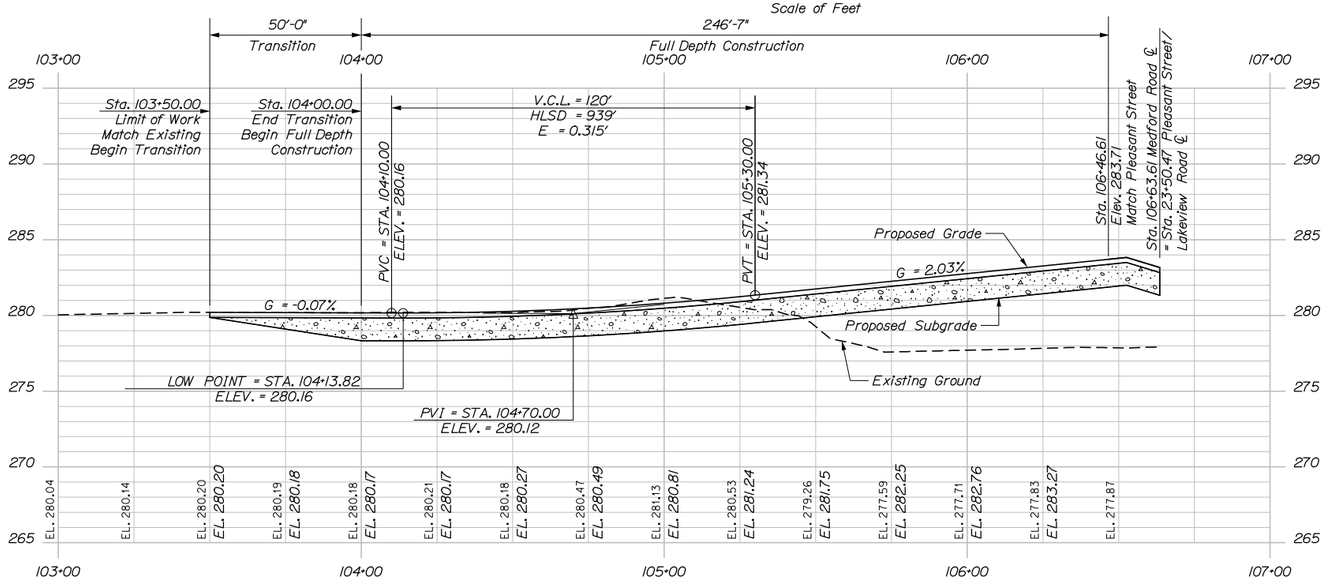
Plan Impacts Complete
January 8, 2020



PLEASANT RIVER
ROAD PROFILE

Horiz. 25 0 25 50
Vert. 5 0 5 10

Scale of Feet



MEDFORD ROAD
PROFILE

Horiz. 25 0 25 50
Vert. 5 0 5 10

Scale of Feet

HNTB

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-2262(700)

WIN 022627.00

BRIDGE NO. 3244

BRIDGE PLANS

		DATE
PROJ. MANAGER	A. Lothe	
DESIGN-DETAILED	C. Helmick	P. Bishop 11\19
CHECKED-REVIEWED	L. Driscoll	R. Hanf 11\19
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

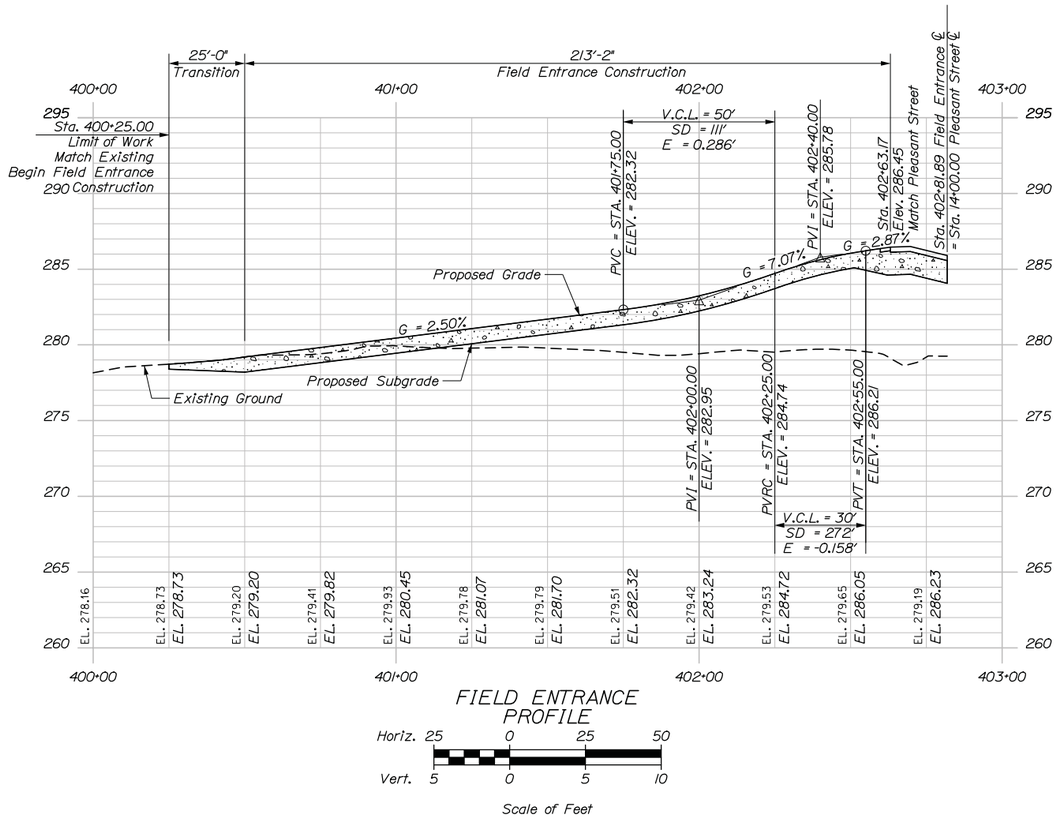
PLEASANT RIVER BRIDGE
PLEASANT RIVER
PISCATIQUIS
MILO

PROFILE 4

SHEET NUMBER
9
OF 54

Filename: 009_Profile_04.dgn Division: Username: Date:1/10/2020

Plan Impacts Complete
January 8, 2020



FIELD ENTRANCE PROFILE

Horiz. 25 0 25 50

Vert. 5 0 5 10

Scale of Feet

Date:1/10/2020

Username:

Division:

Filename: 010_Profile_05.dgn

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-2262(700)

WIN 022627.00

BRIDGE NO. 3244 BRIDGE PLANS

PROJ. MANAGER	A. Lothel	BY	DATE
DESIGN-DETAILED	C. Helmick	P. Bishop	11\19
CHECKED-REVIEWED	L. Driscoll	R. Hanf	11\19
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

PLEASANT RIVER BRIDGE
PLEASANT RIVER
MILO PISCATIQUIS

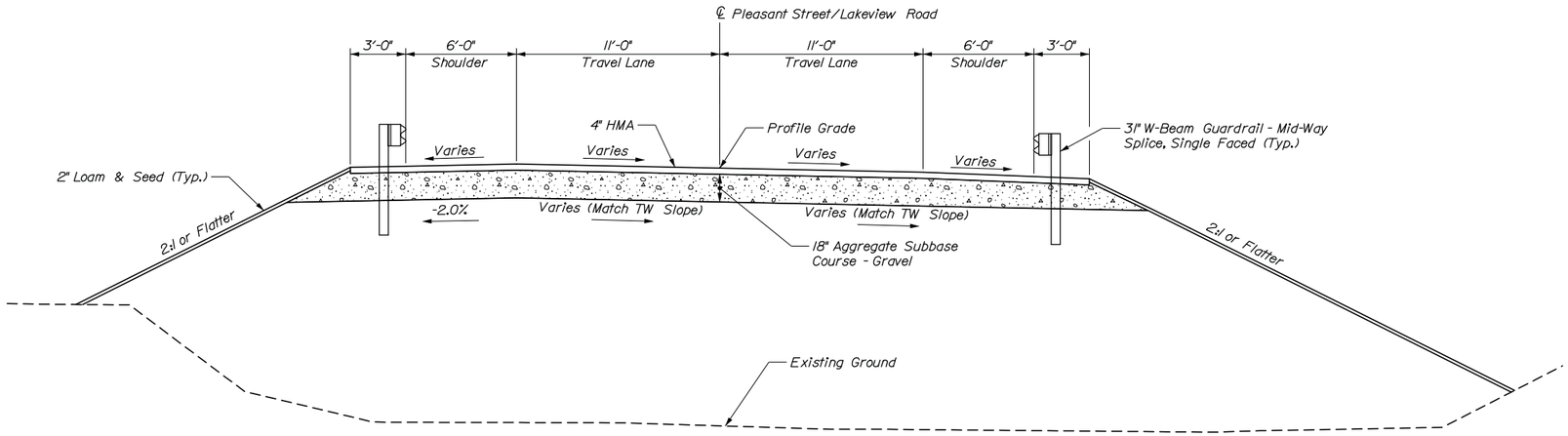
PROFILE 5

SHEET NUMBER

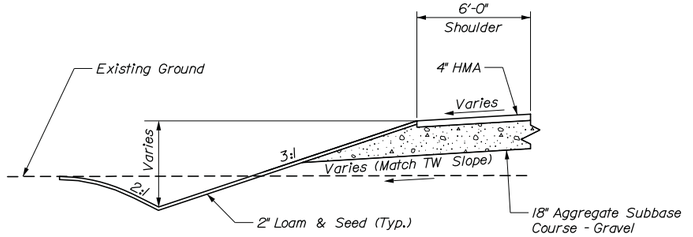
10

OF 54

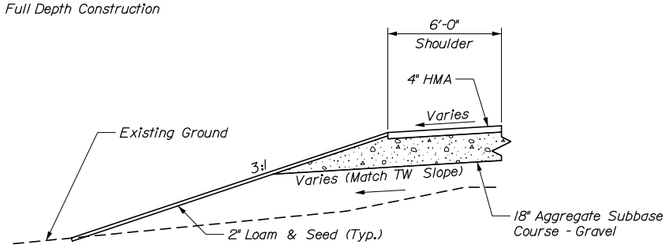
HNTB



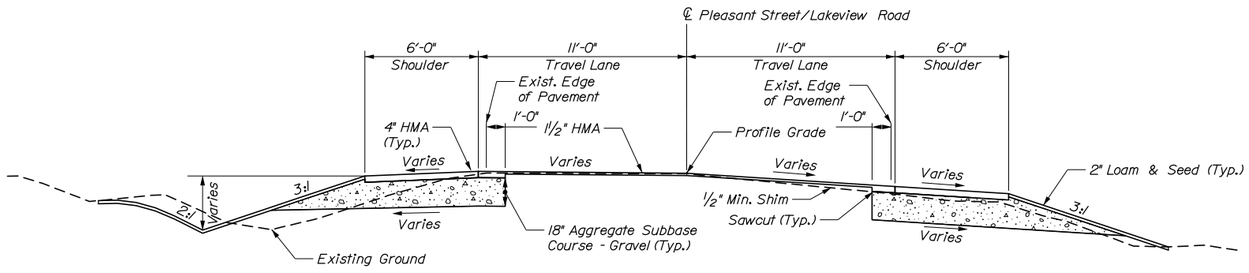
PLEASANT STREET/LAKEVIEW ROAD
DESIGN SECTION
Full Depth Construction



TYPICAL DITCH SECTION
Without Guardrail



TYPICAL EMBANKMENT SECTION
Without Guardrail



PLEASANT STREET/LAKEVIEW ROAD
DESIGN SECTION
Shoulder Construction With
Variable Depth Mill, Shim & 2" Overlay

Plan Impacts Complete
January 8, 2020

Pleasant Street/Lakeview Road Superelevation Table				
Lt. Shoulder	Lt. Travelway	Station	Rt. Travelway	Rt. Shoulder
Match Existing		9+00.00	Match Existing	
-4.0%	-2.0%	9+25.00	-3.9%	-4.0%
-4.0%	-2.0%	9+50.00	-3.0%	-4.0%
-4.0%	-2.0%	9+75.00	-2.0%	-4.0%
↓	↓	-	↓	↓
-4.0%	-2.0%	12+00.00	-2.0%	-4.0%
-4.0%	-0.8%	12+25.00	-2.0%	-4.0%
-4.0%	0.5%	12+50.00	-2.0%	-4.0%
-4.0%	1.7%	12+75.00	-2.0%	-4.0%
-3.0%	3.0%	13+00.00	-3.0%	-4.0%
-2.0%	4.2%	13+25.00	-4.2%	-4.2%
↓	↓	-	↓	↓
-2.0%	4.2%	16+00.00	-4.2%	-4.2%
-2.0%	3.1%	16+25.00	-3.1%	-4.0%
-2.0%	2.0%	16+50.00	-2.0%	-4.0%
N/A	2.0%	16+75.00	-2.0%	-4.0%
N/A	2.0%	17+00.00	-2.0%	N/A
↓	↓	-	↓	↓
N/A	2.0%	20+00.00	-2.0%	N/A
-4.0%	2.0%	20+25.00	-2.0%	N/A
-4.0%	2.0%	20+50.00	-2.0%	-4.0%
-4.0%	1.2%	20+75.00	-1.2%	-4.0%
-4.0%	0.4%	21+00.00	-0.4%	-4.0%
-4.0%	-0.4%	21+25.00	0.4%	-4.0%
-4.0%	-1.2%	21+50.00	1.2%	-4.0%
-4.0%	-2.0%	21+75.00	2.0%	-4.0%
-4.0%	-2.8%	22+00.00	2.8%	-4.0%
-4.0%	-3.6%	22+25.00	3.6%	-3.0%
-4.4%	-4.4%	22+50.00	4.4%	-2.0%
-5.2%	-5.2%	22+75.00	5.2%	-2.0%
-6.0%	-6.0%	23+00.00	6.0%	-2.0%
↓	↓	-	↓	↓
-6.0%	-6.0%	26+00.00	6.0%	-2.0%
-4.6%	-4.6%	26+25.00	4.6%	-2.0%
-4.0%	-3.3%	26+50.00	3.3%	-3.0%
-4.0%	-1.9%	26+75.00	1.9%	-4.0%
-4.0%	-0.5%	27+00.00	0.5%	-4.0%
-4.0%	0.9%	27+25.00	-0.9%	-4.0%
-4.0%	2.2%	27+50.00	-2.2%	-4.0%
-4.0%	2.2%	27+75.00	-3.6%	-4.0%
-4.0%	2.2%	28+00.00	-5.0%	-5.0%
-4.0%	0.9%	28+25.00	-6.4%	-6.4%
-4.0%	-0.5%	28+50.00	-7.7%	-7.7%
Match Existing		28+75.00	Match Existing	

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-2262(700)

WIN 022627.00

BRIDGE NO. 3244

BRIDGE PLANS

PROJ. MANAGER	A. Lothel		
DESIGN-DETAILED	C. Helmick	P. Bishop	11\19
CHECKED-REVIEWED	L. Driscoll	R. Hanf	11\19
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

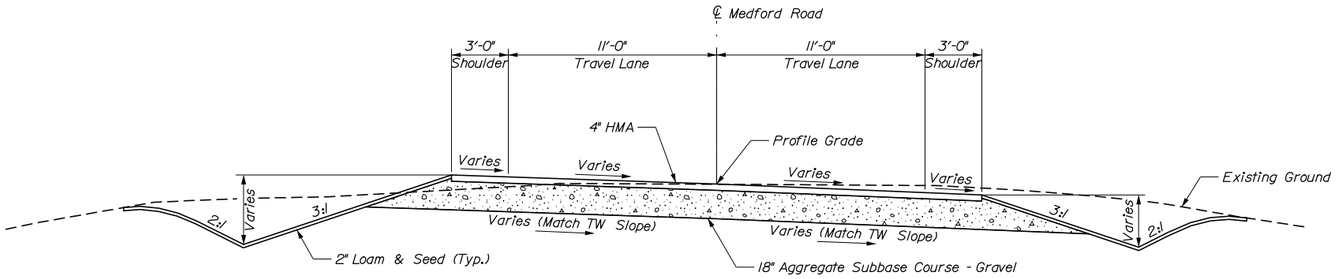
PLEASANT RIVER BRIDGE
PLEASANT RIVER
PISCATIQUIS
MILO

TYPICAL SECTIONS 1

SHEET NUMBER
11
OF 54

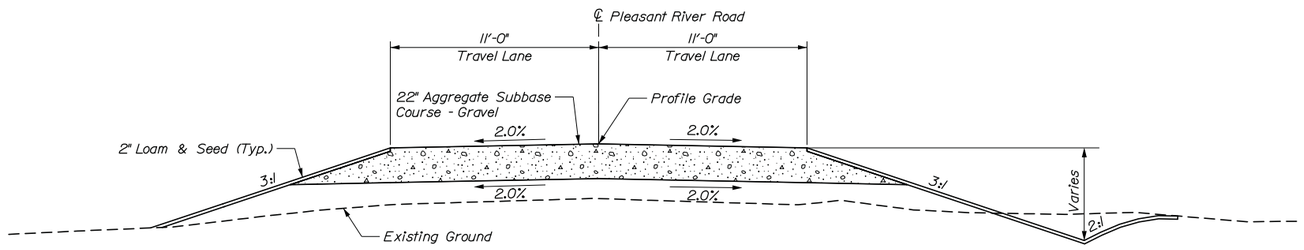
HNTB

Username:
Date:1/10/2020
Division:
Filename: 011_Typical Sections.dgn



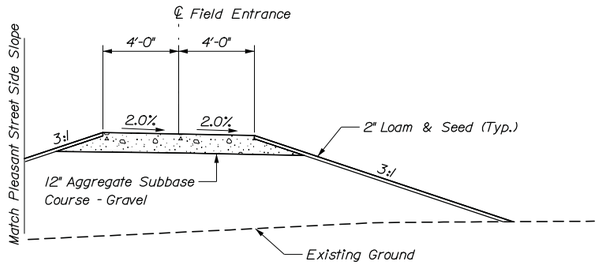
MEDFORD ROAD DESIGN TYPICAL SECTION

Medford Road Superelevation Table				
Lt. Shoulder	Lt. Travelway	Station	Rt. Travelway	Rt. Shoulder
Match Existing		103+50.00	Match Existing	
-2.4%	-2.4%	103+75.00	-4.1%	-4.1%
-1.0%	-1.0%	104+00.00	-4.1%	-4.1%
0.4%	0.4%	104+25.00	-4.1%	-4.1%
1.8%	1.8%	104+50.00	-4.1%	-4.1%
3.2%	3.2%	104+75.00	-4.1%	-4.1%
4.6%	4.6%	105+00.00	-4.6%	-4.6%
↓	↓	-	↓	↓
4.6%	4.6%	106+00.00	-4.6%	-4.6%
3.5%	3.5%	106+25.00	-3.5%	-3.5%



Pleasant River Road Superelevation Table		
Lt. Travelway	Station	Rt. Travelway
Match Existing	201+50.00	Match Existing
-2.0%	201+75.00	-2.0%
↓	-	↓
-2.0%	203+25.00	-2.0%
-2.0%	203+50.00	0.0%
-2.0%	203+75.00	2.0%
-3.4%	204+00.00	3.8%

PLEASANT RIVER ROAD DESIGN SECTION



FIELD ENTRANCE DESIGN SECTION

Plan Impacts Complete
January 8, 2020

HNTB

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-2262(700)

WIN 022627.00

BRIDGE NO. 3244

BRIDGE PLANS

PROJ. MANAGER	A. Lothel	BY	DATE
DESIGN-DETAILED	C. Hehmick	P. Bishop	11\19
CHECKED-REVIEWED	L. Driscoll	R. Hanf	11\19
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

PLEASANT RIVER BRIDGE
PLEASANT RIVER
PISCATIQUIS
MILO

TYPICAL SECTIONS 2

SHEET NUMBER
12
OF 54

Username:
Division:
Date:1/10/2020
Filename: 012_Typical Sections.dgn