Updated 02/21/25

FEDERAL PROJECT
(Locally Administered)

Updated February 21, 2025

BIDDING INSTRUCTIONS – FEDERALLY FUNDED PROJECT

1. Use pen and ink to complete all paper bids.

2. The following documents must be received before the time of the bid opening:
    a) Copy of Notice to Contractors;
    b) Completed Acknowledgement of Bid Amendments form;
    c) Completed Schedule of Items;
    d) Two copies of the completed and signed Contract Agreement, Offer & Award form;
    e) Bid Guaranty (if required); and
    f) Any other certifications or bid requirements listed in the bid documents that are due by bid opening.

3. Include prices for all items in the Schedule of Items (excluding non-selected alternates).

4. Bid Guaranty acceptable forms are:
    a) Completed and signed bid bond modeled after the sample in this package for 5% of the bid amount (the industry standard AIA form is acceptable); or
    b) Official bank check, cashier's check, certified check, U.S. postal money order or negotiable certificate of deposit for 5% of the bid amount.

5. Complete and submit the enclosed DBE Commitment Confirmation Form with your bid. (This requirement applies only to projects with federal funds.)

If you need more information about bid preparation, please call:

Kimberly Morrison *at* **(207) 730-4083**

For complete bidding requirements, refer to Section 102 of the Maine Department of Transportation, Standard Specifications, March 2020 Edition

NOTICE

For security and other reasons, all Bid Packages that are mailed shall be provided in double (one envelope inside the other) envelopes. The *Inner Envelope* shall have the following information provided on it:

Bid Enclosed - Do Not Open
MaineDOT WIN:
Town:
Date of Bid Opening:
Name of Contractor with mailing address and phone number:

In addition to the usual address information, the *Outer Envelope* should have written or typed on it:

Double Envelope: Bid Enclosed
MaineDOT WIN:
Town:
Date of Bid Opening:
Name of Contractor:
This should not be much of a change for those of you who use Federal Express or similar services.

Hand-carried Bids may be in one envelope as before, and should be marked with the following information:

Bid Enclosed: Do Not Open
MaineDOT WIN:
Town:
Name of Contractor:

Note: This document is included as an example. In all cases, the industry standard AIA form is acceptable.

EXAMPLE

BID GUARANTY / BID BOND FORM

KNOW ALL BY THESE PRESENTS THAT_____, of the City/Town of _____and State of_____as Principal, and _____as Surety, a Corporation duly organized under the laws of the State of_____and having a usual place of business in _____and hereby held and firmly bound unto the Municipality of _____in the sum of_____, for payment that Principal and Surety bind themselves, their heirs, executers, administrators, successors and assigns, jointly and severally. The condition of this obligation is that the Principal has submitted to the Municipality of _____, hereafter Municipality, a certain bid, attached hereto and incorporated as a part herein, to enter into a written contract for the construction of_____ _____, and if the Municipality shall accept said bid and the Principal shall execute and deliver a contract in the form attached hereto (properly completed in accordance with said bid) and shall furnish bonds for this faithful performance of said contract, and for the payment of all persons performing labor or furnishing material in connection therewith, and shall in all other respects perform the agreement created by the acceptance of said bid, then this obligation shall be null and void; otherwise it shall remain in full force and effect.

Signed and sealed this_____day of _____20____

WITNESS:	PRINCIPAL:
_____	By_____
_____	By:_____
_____	By:_____
WITNESS	SURETY:
_____	By_____
_____	By:_____

NOTICE

Bidders:

Please use the attached "Request for Information" form to submit questions about this advertised Project. Include additional numbered pages as required.

RFI's may be faxed to (207) 730-4088, Attn.: Kimberly Morrison or submitted by email to Kimberly Morrison at kmorrison@scarboroughmaine.org.

These are the only allowable mechanisms for answering Project specific questions. The Municipality will not be bound to any answers to Project specific questions received during the bidding phase through other processes.

When submitting RFIs by email, please follow the same guidelines as stated on the "Request for Information" form. In the subject line, include the word RFI, the Project name and Work Identification Number (WIN).

RFI No: _____

REQUEST FOR INFORMATION

Date _____ Time _____

Information Requested for:

WIN: _____ Town(s):_____Bid Date: _____

Question(s):_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

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_____

_____

Request by:
Company Name:_____**Phone:(_____)_____**

Email:_____Fax: (_____)_____

Complete this form and transmit to the number listed in the Notice to Contractors.

NOTICE

Disadvantaged Business Enterprise Commitment Confirmation

All Bidders must submit the Commitment Confirmation form with their bid.

The Commitment Confirmation form contains information required by USDOT.

The Commitment Confirmation form must be completed by each Prime Contractor.

A copy of the new Commitment Confirmation form and instructions for completing it are attached.

The DBE Directory can be found on the MaineDOT Website at: https://www.maine.gov/mdot/civilrights/dbe/

Questions about the Directory or this form should be sent to the Civil Rights Office at mary.bryant@maine.gov or by calling 207-624-3056.

Revised: 6/2024

INSTRUCTIONS FOR PREPARING THE MAINEDOT COMMITMENTCONFIRMATION FORM

The Contractor shall extend equal opportunity to MaineDOT certified DBE firms (as listed in MaineDOT's DBE Directory of Certified Businesses) in the selection and utilization of subcontractors and suppliers.

Each prime contractor submitting a bid on a federally funded project must complete each section of the Commitment Confirmation form in its entirety for itself and each subcontractor on that project.

SPECIFIC INSTRUCTIONS FOR COMPLETING THE FORM:

Section A:

1. Insert Contractor Name
2. Insert WIN for the Federal Project bidding on
3. Insert Bid Date
4. Insert Project Location
5. Insert Email address of Contact Person

Section B:

A. Enter each Contractor's and Sub-Contractor's name and address (including zip code) – Prime Contractor's name should be listed in first box of this section; then each additional line would be proposed subcontractors – DBE or NonDBE
B. Enter each Contractor's and Sub-Contractor's annual gross receipts bracket (see the legend on the form)
C. Enter DBE status (DBE or non-DBE) for each contractor/sub-contractor
D. Enter each Contractor's and Sub-Contractor's NAICS (North Amer. Industry Classification System) code (may be more than one) and Scope of Work
E. For each Contractor and Sub-Contractor enter the Race and Gender of the firm's majority owner
F. Enter the Age of each Contractor/Sub-Contractor
G. Enter the Proposed amount of payment (Bid amount) for each Contractor/Sub-Contractor.

Maine Department of Transportation

COMMITMENT CONFIRMATION

Section A. Bidder/Prime Contractor Information.
This section must be completed by the Bidder/Prime Contractor.

1. Prime Contractor Name:		2. Federal Project WIN:		3. Bid Date:	
4. Project Location:		5. Email Address:			

Section B. Commitment Details - Prime Contractor and all Proposed Subcontractor Information is Required in This Section

A. Firm's Name & Address, Including Zip Code Prime must be listed first	B. Annual Gross Receipt Bracket Select 1 to 7*	C. Status DBE or Non-DBE	D. NAICS Code(s) and Scope of Work	E. Race & Gender of each Firm's Majority Owner	F. Age of Each Firm	G. Proposed Amount

***1) Less Than $1M, 2) $1 - $3M, 3) $3 - $6M, 4) $6 - $10M, 5) $10 - $20M, 6) $20 - $50M, 7) Greater Than $50M - More than 5 Subs use a new form**

MaineDOT Use Only:

Form Received: ____/____/____ Verified by: _____

FHWA ☐ FTA ☐ FAA ☐

For a complete list of certified DBE firms please visit: http://www.maine.gov/mdot/civilrights/

Note: This information is required pursuant to 49 CFR §26.11 and is used to track data in all federally funded MaineDOT contracts.

DBE GOAL NOTICE

Maine Department of Transportation
Disadvantaged Business Enterprise Program

Notice is hereby given that in accordance with US DOT regulation 49 CFR Part 26, the Maine Department of Transportation (MaineDOT) has established a Disadvantaged Business Enterprise Program (DBE) for disadvantaged business participation in the federal-aid highway and bridge construction programs; MaineDOT contracts covered by the program include consulting, construction, supplies, manufacturing, and service contracts.

Beginning September 1, 2024, MaineDOT has established an annual DBE participation goal of **1.43%** to be achieved through race/gender neutral means. This goal has been approved by the Federal Highway Administration through August 31, 2027. MaineDOT must meet this goal each federal fiscal year. If the goal is not met, MaineDOT must provide a justification for not meeting the goal and provide a plan to ensure the goal is met, which may include contract goals on certain projects that contractors will be required to meet.

MaineDOT asks all contractors, consultants and subcontractors to seek certified DBE firms for projects and to work to meet the determined 1.43% goal without the need to impose contract goals. DBE firms are listed on the MaineDOT website at:

http://www.maine.gov/mdot/disadvantaged-business-enterprises/pdf/directory.pdf

Interested parties may view MaineDOT's DBE goal setting methodology, also posted on this website. If you have questions regarding this goal or the DBE program you may contact Sherry Tompkins at the Maine Department of Transportation, Civil Rights Office by telephone at (207) 624-3066 or by e-mail at: sherry.tompkins@maine.gov

Maine Department of Transportation Civil Rights Office

Directory of Certified Disadvantaged Business Enterprises

Listing can be found at:

https://www.maine.gov/mdot/civilrights/dbe/

For additional information and guidance contact:

Civil Rights Office at (207) 624-3066

It is the responsibility of the Contractor to access the DBE Directory at this site in order to have the most current listing.

NOTICE TO CONTRACTORS

Sealed Bids addressed to the Town of Scarborough and endorsed on the wrapper "Bids for Eastern Trail Construction in the Municipalities of Scarborough and South Portland" will be received from contractors at the Town of Scarborough Municipal Building, located at 259 U.S. Route 1, Scarborough, ME 04070-0360, at 11:00 o'clock A.M. (prevailing time) on April 17, 2025 and at that time and place publicly opened and read.

The lowest responsive bidder must demonstrate to the Municipality that it is qualified to undertake the work to be considered for the award of this contract. The low bidder must become, or currently be listed, for Bridge Construction prequalification prior to contract award. Current pre-qualification by the Maine Department of Transportation in an appropriate category may fulfill this requirement.

Description: Federal Aid Project No. STP-1942(600), WIN 019426.00 and STP-1942(610), WIN 019426.10

Location: In Cumberland County, project is located between the Nonesuch River adjacent to Desfosses Ave. in Scarborough and extending to the Wainwright Recreational Complex in South Portland.

Outline of Work: Construction of a new recreational trail, construction of a new pedestrian bridge superstructure on existing abutments over the Nonesuch River, construction of a new pedestrian bridge over the CSX railroad tracks, and other incidental work.

The basis of award will be lowest qualifying bid.

For project-specific questions, please fill out the attached RFI Form and email it to Kimberly Morrison at kmorrison@scarboroughmaine.org, with the project name and WIN in the subject line. General questions may be directed to Kimberly Morrison at (207) 730-4088. Bidders shall not contact anyone else for clarification of contract provisions. Questions received after 12:00 noon on the Monday (or if Monday is a state Holiday, Friday) prior to bid opening date will not be answered.

Digital bid documents may be viewed online at https://www.scarboroughmaine.org/departments/purchasing/solicitations. Paper bid documents may be purchased from the municipality between the hours of 7:00 am to 5:00 pm by cash, credit card or check payable to Town of Scarborough, for the price of $10.00 for full-size plans, $5.00 for half-size plans, and $13.00 for the bid book. Payments are non-refundable.

Each Bid must be made upon blank forms provided by the Municipality and must be accompanied by a bid bond of 5% of the bid amount or an official bank check, cashier's check, certified check, certificate of deposit, or United States postal money order for 5% of the bid amount, payable to Town of Scarborough, as a Bid Guaranty. A Contract Performance Surety Bond and a Contract Payment Surety Bond, each for 100% of the Contract price, shall be required of the successful Bidder.

This Contract is subject to all applicable federal laws, as well as Disadvantaged Business Enterprise Program requirements as set forth by the Maine Department of Transportation (MaineDOT).

All work shall be governed by the MaineDOT's Standard Specifications (March 2020) and Standard Details (March 2020), available online: www.maine.gov/mdot/contractors/publications/.

The Municipality reserves the right to reject any or all bids.

Scarborough, Maine
Date: 3/24/2025

Scarborough & South Portland
Win 019426.00 & 019426.10
April 14, 2011
Supersedes August 3, 2004

SPECIAL PROVISION 102.7.3
ACKNOWLEDGMENT OF BID AMENDMENTS

With this form, the Bidder acknowledges its responsibility to check for all Amendments to the Bid Package. For each Project under Advertisement, Amendments are located at http://www.maine.gov/mdot/contractors/ . It is the responsibility of the Bidder to determine if there are Amendments to the Project, to download them, to incorporate them into their Bid Package, and to reference the Amendment number and the date on the form below. The Maine DOT will not post Bid Amendments any later than noon the day before Bid opening without individually notifying all the planholders.

Amendment Number	Date

The Contractor, for itself, its successors and assigns, hereby acknowledges that it has received all of the above referenced Amendments to the Bid Package.

CONTRACTOR

_____ _____
Date Signature of authorized representative

_____
(Name and Title Printed)

SCHEDULE OF BID PRICES
CONTRACT NO. 019426.00
& 019426.10
Scarborough Eastern Trail

Item No	Item Description	Units	Approx. Quantities	Unit Prices in Numbers		Bid Amount in Numbers	
				Dollars	Cents	Dollars	Cents
201.11	Clearing	Acre	3.7				
201.12	Selective Clearing & Thinning	Acre	1				
203.2	Common Excavation	Cubic Yard	1,000				
203.24	Common Borrow	Cubic Yard	12,600				
203.247	Expanded Shale Lightweight Aggregate	Cubic Yard	970				
203.25	Granular Borrow	Cubic Yard	81				
203.35	Crushed Stone 3/4 - Inch	Cubic Yard	1,300				
206.082	Structural Earth Excavation - Major Structures, Plan Quantity	Cubic Yard	110				
304.1	Aggregate Subbase Course - Gravel (Modified)	Cubic Yard	4,500				
403.21	Hot Mix Asphalt, 9.5 mm Nominal Maximum Size	Ton	700				
411.13	Stone Dust Surface Course	Ton	837				

CARRIED FORWARD:

Item No	Item Description	Units	Approx. Quantities	Unit Prices in Numbers		Bid Amount in Numbers	
				Dollars	Cents	Dollars	Cents
			BROUGHT FORWARD:				
501.231	Dynamic Load Testing	Each	3				
501.48	Steel H-beam Piles 74 lb/ft, delivered	Linear Foot	2,200				
501.481	Steel H-beam Piles 74 lb/ft, in place	Linear Foot	2,200				
501.9	Pile Tips	Each	20				
501.91	Pile Splices	Each	20				
501.92	Pile Driving Equipment Mobilization	Lump Sum	1				
502.21	Structural Concrete, Abutments and Retaining Walls	Cubic Yard	3				
502.219	Structural Concrete, Abutments and Retaining Walls (53 CY)	Lump Sum	1				
502.239	Structural Concrete, Piers (58 CY)	Lump Sum	1				
503.12	Reinforcing Steel, Fabricated and Delivered	Pound	12,000				
503.13	Reinforcing Steel, Placing	Pound	12,000				
515.21	Protective Coating for Concrete Surfaces (285 SY)	Lump Sum	1				

CARRIED FORWARD:

Item No	Item Description	Units	Approx. Quantities	Unit Prices in Numbers		Bid Amount in Numbers	
				Dollars	Cents	Dollars	Cents
			BROUGHT FORWARD:				
525.26	Repointing Granite Masonry	Square Foot	200				
528.2	Timber Stream Crossing Bridge - STA 162+90	Lump Sum	1				
528.2	Timber Stream Crossing Bridge - STA 174+25	Lump Sum	1				
528.2	Timber Stream Crossing Bridge - STA 175+90	Lump Sum	1				
528.2	Timber Stream Crossing Bridge - STA 176+25	Lump Sum	1				
530.01	Prefabricated Steel Truss - Nonesuch River	Lump Sum	1				
530.01	Prefabricated Steel Truss - CSX Railway	Lump Sum	1				
603.159	12 inch Culvert Pipe Option III	Linear Foot	24				
603.179	18 inch Culvert Pipe Option III	Linear Foot	246				
603.219	36 inch Culvert Pipe Option III	Linear Foot	352				
606.611	Timber Guardrail	Linear Foot	320				
607.16	Chain Link Fence - 4 foot	Linear Foot	670				

CARRIED FORWARD:

Item No	Item Description	Units	Approx. Quantities	Unit Prices in Numbers		Bid Amount in Numbers	
				Dollars	Cents	Dollars	Cents
			BROUGHT FORWARD:				
607.173	Chain Link Fence - 6 foot - PVC Coated	Linear Foot	2,750				
607.22	Cedar Rail Fence	Linear Foot	2,700				
607.23	Chain Link Fence Gate	Each	5				
607.2325	Pipe Entry Gate	Each	1				
607.2341	Chain Link Fence Sliding Gate	Each	3				
607.34	Bracing Assembly Chain Link Fence	Each	8				
607.35	Bracing Assembly Chain Link Fence - PVC Coated	Each	12				
608.26	Curb Ramp Detectable Warning Field	Square Foot	214				
609.11	Vertical Curb Type 1	Linear Foot	110				
609.12	Vertical Curb Type 1 - Circular	Linear Foot	70				
609.238	Terminal Curb Type 1 - 8 Foot	Each	2				
610.08	Plain Riprap	Cubic Yard	352				

CARRIED FORWARD:

Item No	Item Description	Units	Approx. Quantities	Unit Prices in Numbers		Bid Amount in Numbers	
				Dollars	Cents	Dollars	Cents
			BROUGHT FORWARD:				
610.18	Stone Ditch Protection	Cubic Yard	68				
613.319	Erosion Control Blanket	Square Yard	180				
615.07	Loam	Cubic Yard	234				
618.14	Seeding Method Number 2	Unit	165				
619.1201	Mulch - Plan Quantity	Unit	165				
619.1401	Erosion Control Mix	Cubic Yard	1,590				
620.58	Erosion Control Geotextile	Square Yard	1,140				
620.6	Separation Geotextile	Square Yard	2,000				
621.031	Evergreen Tree (4'-5') Group A	Each	6				
627.75	White or Yellow Pavement & Curb Marking	Square Foot	670				
629.05	Hand Labor, Straight Time	Hour	40				
631.12	All Purpose Excavator (including operator)	Hour	30				

CARRIED FORWARD:

Item No	Item Description	Units	Approx. Quantities	Unit Prices in Numbers		Bid Amount in Numbers	
				Dollars	Cents	Dollars	Cents
			BROUGHT FORWARD:				
631.133	Skid Steer (including operator)	Hour	10				
631.14	Grader (including operator)	Hour	10				
631.171	Truck-Small (including operator)	Hour	10				
631.32	Culvert cleaner (including operator)	Hour	10				
631.36	Foreman	Hour	10				
639.18	Field Office, Type A	Each	1				
641.12	Bench	Each	1				
643.621	Rectangular Rapid Flashing Beacon	Each	2				
645.271	Regulatory, Warning, Confirmation and Route Assembly Sign, Type I	Square Foot	142				
652.33	Drum	Each	20				
652.34	Cone	Each	20				
652.35	Construction Signs	Square Foot	90				

CARRIED FORWARD:

Item No	Item Description	Units	Approx. Quantities	Unit Prices in Numbers		Bid Amount in Numbers	
				Dollars	Cents	Dollars	Cents
			BROUGHT FORWARD:				
652.361	Maintenance of Traffic Control Devices	Lump Sum	1				
652.38	Flaggers	Hour	300				
656.75	Temporary Soil Erosion and Water Pollution Control	Lump Sum	1				
659.1	Mobilization	Lump Sum	1				
677.2	Mechanically Stabilized Earth Retaining Wall	Square Foot	2,850				
841.49	Bollards - Collapsible	Each	20				
			TOTAL:				

CONTRACT AGREEMENT, OFFER & AWARD

AGREEMENT made on the date last signed below, by and between the Municipality of Scarborough, a municipal corporation with its principal administrative offices located at 295 U.S. Route 1, Scarborough, Maine, with a mailing address of PO Box 360, Scarborough, ME 04070-0360, and _____
a corporation or other legal entity organized under the laws of the State of _____, with its principal place of business located at_____
_____.

The Municipality and the Contractor, in consideration of the mutual promises set forth in this Agreement (the "Contract"), hereby agree as follows:

A. The Work.

The Contractor agrees to complete all Work as specified or indicated in the Contract, including Extra Work in conformity with the Contract, **WIN's 019426.00 & 019426.10** for **Construction of a Section of the Eastern Trail** in the Municipalities of **Scarborough and South Portland**, County of **Cumberland**, Maine. The Work includes construction, maintenance during construction, warranty as provided in the Contract, and other incidental work.

The Contractor shall furnish all supervision, labor, equipment, tools, supplies, and materials required to perform the Work. The Contractor further shall be responsible for construction quality control including inspection, testing and documentation, all required documentation at the conclusion of the project, warranting its work and performing all other work indicated in the Contract.

The Municipality shall have the right to alter the nature and extent of the Work as provided in the Contract; payment to be made as provided in the same.

B. Time.

The Contractor agrees to complete all Work, except warranty work, on or before October 31, 2027**.** Furthermore, the Municipality may deduct from money otherwise due the Contractor, not as a penalty, but as Liquidated Damages in accordance with sections 107.7 and 107.8 of the *Maine Department of Transportation (MaineDOT) Standard Specifications (March 2020 Edition)* and related Special Provisions.

C. Price.

The quantities given in the Schedule of Items of the Bid Package will be used as the basis for determining the original Contract amount and for determining the amounts of the required Performance Surety Bond and Payment Surety Bond, and that the amount of this offer is _____

_____

($_____), Performance Bond and Payment Bond each being 100% of the amount of this Contract.

D. Contract.

This Contract, which may be amended, modified, or supplemented in writing only, consists of the Contract documents as defined in the Plans, *MaineDOT Standard Specifications (March 2020 Edition)* and *Standard Details (March 2020 Edition),* as updated through advertisement, Supplemental Specifications, Special Provisions, Contract Agreement; and Contract Bonds. It is agreed and understood that this Contract will be governed by the documents listed above.

E. Certifications.

By signing below, the Contractor hereby certifies that to the best of the Contractor's knowledge and belief:

1. All of the statements, representations, covenants, and/or certifications required or set forth in the Bid and the Bid Documents, including those in the Federal Contract Provisions Supplement, and the Contract are still complete and accurate as of the date of this Agreement.

2. The Contractor knows of no legal, contractual, or financial impediment to entering into this Contract.

3. The person signing below is legally authorized by the Contractor to sign this Contract on behalf of the Contractor and to legally bind the Contractor to the terms of the Contract.

F. Offer.

The undersigned, having carefully examined the site of work, the Plans, *MaineDOT Standard Specifications (March 2020 Edition)* and *Standard Details (March 2020 Edition),* as updated through advertisement, Supplemental Specifications, Special Provisions, Contract Agreement; and Contract Bonds contained herein for construction of:

WIN's 019426.00 & 019426.10 – Construction of a Section of the Eastern Trail in the Municipalities of Scarborough and South Portland, State of Maine,

on which bids will be received until the time specified in the "Notice to Contractors" do(es) hereby bid and offer to enter into this contract to supply all the materials, tools, equipment and labor to construct the whole of the Work in strict accordance with the terms and conditions of this Contract at the unit prices in the attached "Schedule of Items."

The Offeror agrees to perform the work required at the price specified above and in accordance with the bids provided in the attached "Schedule of Items" in strict accordance with the terms of this solicitation, and to provide the appropriate insurance and bonds if this offer is accepted by the Municipality in writing.

The Offeror also agrees:

First: To do any extra work, not covered by the attached "Schedule of Items," which may be ordered by the Project Resident, and to accept as full compensation the amount determined upon a "Force Account" basis as provided in the *MaineDOT Standard Specifications (March 2020 Edition)*, and as addressed in the contract documents.

Second: That the bid bond at 5% of the bid amount or the official bank check, cashier's check, certificate of deposit or U.S. Postal Money Order in the amount given in the "Notice to Contractors" payable to the Municipality of Scarborough and accompanying this bid, shall be forfeited, as liquidated damages, if in case this bid is accepted, and the undersigned shall fail to abide by the terms and conditions of the offer and fail to furnish satisfactory insurance and Contract bonds under the conditions stipulated in the Specifications within 15 days of notice of intent to award the contract.

Third: To begin the Work as stated in Section 107.2 of the *MaineDOT Standard Specifications (March 2020 Edition)* and complete the Work within the time limits given in the Special Provisions of this Contract.

Fourth: The Contractor will be bound to the Disadvantaged Business Enterprise (DBE) Requirements contained in the attached Notice (Additional Instructions to Bidders) and submit a completed Contractor's Disadvantaged Business Enterprise Utilization Plan with their bid.

Fifth: That this offer shall remain open for 30 calendar days after the date of opening of bids.

Sixth: The Bidder hereby certifies, to the best of its knowledge and belief that: The Bidder has not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of competitive bidding in connection with its bid, and its subsequent contract with the Municipality.

IN WITNESS WHEREOF, the Contractor, for itself, its successors and assigns, hereby execute two duplicate originals of this Agreement and thereby binds itself to all covenants, terms, and obligations contained in the Contract Documents.

CONTRACTOR

Date	(Signature of Legally Authorized Representative of the Contractor)
Witness	(Name and Title Printed)

G. Award.

Your offer is hereby accepted. This award consummates the Contract, and the documents referenced herein.

MUNICIPALITY OF SCARBOROUGH

Date	By: Thomas Hall, Town Manager
Witness	

CONTRACT AGREEMENT, OFFER & AWARD

AGREEMENT made on the date last signed below, by and between the Municipality of Scarborough, a municipal corporation with its principal administrative offices located at 295 U.S. Route 1, Scarborough, Maine, with a mailing address of PO Box 360, Scarborough, ME 04070-0360, and _____
a corporation or other legal entity organized under the laws of the State of _____, with its principal place of business located at_____
_____.

The Municipality and the Contractor, in consideration of the mutual promises set forth in this Agreement (the "Contract"), hereby agree as follows:

A. The Work.

The Contractor agrees to complete all Work as specified or indicated in the Contract, including Extra Work in conformity with the Contract, **WIN's 019426.00 & 019426.10** for **Construction of a Section of the Eastern Trail** in the Municipalities of **Scarborough and South Portland**, County of **Cumberland**, Maine. The Work includes construction, maintenance during construction, warranty as provided in the Contract, and other incidental work.

The Contractor shall furnish all supervision, labor, equipment, tools, supplies, and materials required to perform the Work. The Contractor further shall be responsible for construction quality control including inspection, testing and documentation, all required documentation at the conclusion of the project, warranting its work and performing all other work indicated in the Contract.

The Municipality shall have the right to alter the nature and extent of the Work as provided in the Contract; payment to be made as provided in the same.

B. Time.

The Contractor agrees to complete all Work, except warranty work, on or before October 31, 2027**.** Furthermore, the Municipality may deduct from money otherwise due the Contractor, not as a penalty, but as Liquidated Damages in accordance with sections 107.7 and 107.8 of the *Maine Department of Transportation (MaineDOT) Standard Specifications (March 2020 Edition)* and related Special Provisions.

C. Price.

The quantities given in the Schedule of Items of the Bid Package will be used as the basis for determining the original Contract amount and for determining the amounts of the required Performance Surety Bond and Payment Surety Bond, and that the amount of this offer is _____

_____

($_____), Performance Bond and Payment Bond each being 100% of the amount of this Contract.

D. Contract.

This Contract, which may be amended, modified, or supplemented in writing only, consists of the Contract documents as defined in the Plans, *MaineDOT Standard Specifications (March 2020 Edition)* and *Standard Details (March 2020 Edition),* as updated through advertisement, Supplemental Specifications, Special Provisions, Contract Agreement; and Contract Bonds. It is agreed and understood that this Contract will be governed by the documents listed above.

E. Certifications.

By signing below, the Contractor hereby certifies that to the best of the Contractor's knowledge and belief:

1. All of the statements, representations, covenants, and/or certifications required or set forth in the Bid and the Bid Documents, including those in the Federal Contract Provisions Supplement, and the Contract are still complete and accurate as of the date of this Agreement.

2. The Contractor knows of no legal, contractual, or financial impediment to entering into this Contract.

3. The person signing below is legally authorized by the Contractor to sign this Contract on behalf of the Contractor and to legally bind the Contractor to the terms of the Contract.

F. Offer.

The undersigned, having carefully examined the site of work, the Plans, *MaineDOT Standard Specifications (March 2020 Edition)* and *Standard Details (March 2020 Edition),* as updated through advertisement, Supplemental Specifications, Special Provisions, Contract Agreement; and Contract Bonds contained herein for construction of:

WIN's 019426.00 & 019426.10 – Construction of a Section of the Eastern Trail in the Municipalities of Scarborough and South Portland, State of Maine,

on which bids will be received until the time specified in the "Notice to Contractors" do(es) hereby bid and offer to enter into this contract to supply all the materials, tools, equipment and labor to construct the whole of the Work in strict accordance with the terms and conditions of this Contract at the unit prices in the attached "Schedule of Items."

The Offeror agrees to perform the work required at the price specified above and in accordance with the bids provided in the attached "Schedule of Items" in strict accordance with the terms of this solicitation, and to provide the appropriate insurance and bonds if this offer is accepted by the Municipality in writing.

The Offeror also agrees:

First: To do any extra work, not covered by the attached "Schedule of Items," which may be ordered by the Project Resident, and to accept as full compensation the amount determined upon a "Force Account" basis as provided in the *MaineDOT Standard Specifications (March 2020 Edition)*, and as addressed in the contract documents.

Second: That the bid bond at 5% of the bid amount or the official bank check, cashier's check, certificate of deposit or U.S. Postal Money Order in the amount given in the "Notice to Contractors" payable to the Municipality of Scarborough and accompanying this bid, shall be forfeited, as liquidated damages, if in case this bid is accepted, and the undersigned shall fail to abide by the terms and conditions of the offer and fail to furnish satisfactory insurance and Contract bonds under the conditions stipulated in the Specifications within 15 days of notice of intent to award the contract.

Third: To begin the Work as stated in Section 107.2 of the *MaineDOT Standard Specifications (March 2020 Edition)* and complete the Work within the time limits given in the Special Provisions of this Contract.

Fourth: The Contractor will be bound to the Disadvantaged Business Enterprise (DBE) Requirements contained in the attached Notice (Additional Instructions to Bidders) and submit a completed Contractor's Disadvantaged Business Enterprise Utilization Plan with their bid.

Fifth: That this offer shall remain open for 30 calendar days after the date of opening of bids.

Sixth: The Bidder hereby certifies, to the best of its knowledge and belief that: The Bidder has not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of competitive bidding in connection with its bid, and its subsequent contract with the Municipality.

IN WITNESS WHEREOF, the Contractor, for itself, its successors and assigns, hereby execute two duplicate originals of this Agreement and thereby binds itself to all covenants, terms, and obligations contained in the Contract Documents.

CONTRACTOR

Date	(Signature of Legally Authorized Representative of the Contractor)
Witness	(Name and Title Printed)

G. Award.

Your offer is hereby accepted. This award consummates the Contract, and the documents referenced herein.

MUNICIPALITY OF SCARBOROUGH

Date	By: Thomas Hall, Town Manager
Witness	

BOND # _____

SAMPLE

CONTRACT PERFORMANCE BOND

KNOW ALL BY THESE PRESENTS: That_____,
as principal, and_____,
a corporation duly organized under the laws of the State of _____ and having a usual place of business at_____,
as Surety, are held and firmly bound unto the Municipality of _____, Maine, in the sum of _____ **and 00/100 Dollars ($)**, to be paid to said Municipality of _____, Maine or for that payment well and truly to be made, Principal and Surety bind themselves, their heirs, executors and administrators, successors and assigns, jointly and severally by these presents.

The condition of this obligation is such that if the Principal designated as Contractor in the Contract to construct Project Number _____ in the Municipality of _____ promptly and faithfully performs the Contract, then this obligation shall be null and void; otherwise it shall remain in full force and effect.

The Surety hereby waives notice of any alteration or extension of time made by the Municipality of _____, Maine.

Signed and sealed this ..... day of ....., 20….. .

WITNESSES:	SIGNATURES:
	CONTRACTOR:
Signature.....	.....….....
Printed Name.....	Printed Name...……....
	SURETY:
Signature	.....……....
Printed Name.....	Printed Name...……....
SURETY ADDRESS:	MUNICIPALITY:
.....	ADDRESS .....
.....	...…….....
.....	.....……....
TELEPHONE.....	.....……....

SAMPLE

BOND # _____

SAMPLE
CONTRACT PAYMENT BOND

KNOW ALL BY THESE PRESENTS: That_____,
as principal, and_____,
a corporation duly organized under the laws of the State of _____ and having a usual place of business at_____,
as Surety, are held and firmly bound unto the Municipality of _____, Maine, in the sum of _____ **and 00/100 Dollars ($)**, to be paid to said Municipality of _____, Maine or for that payment well and truly to be made, Principal and Surety bind themselves, their heirs, executors and administrators, successors and assigns, jointly and severally by these presents.

The condition of this obligation is such that if the Principal designated as Contractor in the Contract to construct Project Number _____ in the Municipality of _____ promptly satisfies all claims and demands incurred for all labor and material, used or required by him in connection with the work contemplated by said Contract, and fully reimburses the obligee for all outlay and expense that the obligee may incur in making good any default of said Principal, then this obligation shall be null and void; otherwise it shall remain in full force and effect.

A claimant is defined as one having a direct contract with the Principal or with a Subcontractor of the Principal for labor, material or both, used or reasonably required for use in the performance of the contract.

Signed and sealed this ..... day of ...……....., 20 ... .

WITNESSES:	SIGNATURES:
	CONTRACTOR:
Signature.....	.....….....
Printed Name.....	Printed Name...……....
	SURETY:
Signature	....……....
Printed Name.....	Printed Name...……....
SURETY ADDRESS:	MUNICIPALITY:
.....	ADDRESS .....
.....	...……....
.....	.....……....
TELEPHONE.....	.....……....

SAMPLE

"General Decision Number: ME20250030 01/03/2025

Superseded General Decision Number: ME20240030

State: Maine

Construction Type: Heavy

County: Cumberland County in Maine.

HEAVY CONSTRUCTION PROJECTS
Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(1).

If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022:	. Executive Order 14026 generally applies to the contract. . The contractor must pay all covered workers at least $17.75 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2025.
If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022:	. Executive Order 13658 generally applies to the contract. . The contractor must pay all covered workers at least $13.30 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2025.

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at http://www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/03/2025

IRON0007-032 09/16/2024

	Rates	Fringes
IRONWORKER, REINFORCING	$ 31.95	25.00

SUME2014-011 01/30/2017

	Rates	Fringes
CARPENTER	$ 19.51	6.24
ELECTRICIAN	$ 25.24	7.01
IRONWORKER, STRUCTURAL	$ 23.47	11.63
LABORER: Asphalt, Includes Raker, Shoveler, Spreader and Distributor	$ 13.38 **	1.39
LABORER: Common or General	$ 15.82 **	5.16
LABORER: Concrete Worker (includes removing forms, demolition of existing concrete, and pouring, leveling and finishing concrete)	$ 24.35	15.65
LABORER: Pipelayer	$ 21.84	6.42
OPERATOR: Backhoe/Excavator/Trackhoe	$ 19.99	9.96
OPERATOR: Bulldozer	$ 21.06	4.67
OPERATOR: Crane	$ 24.74	8.03
OPERATOR: Loader	$ 21.15	4.33
OPERATOR: Roller	$ 16.61 **	3.44
PAINTER (Brush and Roller)	$ 22.18	6.33
TRUCK DRIVER: Dump Truck	$ 16.21 **	3.27

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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** Workers in this classification may be entitled to a higher minimum wage under Executive Order 14026 ($17.75) or 13658 ($13.30). Please see the Note at the top of the wage determination for more information. Please also note that the minimum wage requirements of Executive Order 14026 are not currently being enforced as to any contract or subcontract to which the states of Texas, Louisiana, or Mississippi, including their agencies, are a party.

Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours

they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at https://www.dol.gov/agencies/whd/government-contracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (iii)).

The body of each wage determination lists the classifications and wage rates that have been found to be prevailing for the type(s) of construction and geographic area covered by the wage determination. The classifications are listed in alphabetical order under rate identifiers indicating whether the particular rate is a union rate (current union negotiated rate), a survey rate, a weighted union average rate, a state adopted rate, or a supplemental classification rate.

Union Rate Identifiers

A four-letter identifier beginning with characters other than ""SU"", ""UAVG"", ?SA?, or ?SC? denotes that a union rate was prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2024. PLUM is an identifier of the union whose collectively bargained rate prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. The date, 07/01/2024 in the example, is the effective date of the most current negotiated rate.

Union prevailing wage rates are updated to reflect all changes over time that are reported to WHD in the rates in the collective bargaining agreement (CBA) governing the classification.

Union Average Rate Identifiers

The UAVG identifier indicates that no single rate prevailed for those classifications, but that 100% of the data reported for the classifications reflected union rates. EXAMPLE: UAVG-OH-0010 01/01/2024. UAVG indicates that the rate is a weighted union average rate. OH indicates the State of Ohio. The next number, 0010 in the example, is an internal number used in producing the wage determination. The date, 01/01/2024 in the example, indicates the date the wage determination was updated to reflect the most current union average rate.

A UAVG rate will be updated once a year, usually in January, to reflect a weighted average of the current rates in the collective bargaining agreements on which the rate is based.

Survey Rate Identifiers

The ""SU"" identifier indicates that either a single non-union rate prevailed (as defined in 29 CFR 1.2) for this classification in the survey or that the rate was derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As a weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SUFL2022-007 6/27/2024. SU indicates the rate is a single non-union prevailing rate or a weighted average of survey data for that classification. FL indicates the State of Florida. 2022 is the year of the survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 6/27/2024 in the example, indicates the survey completion date for the classifications and rates under that identifier.

?SU? wage rates typically remain in effect until a new survey is conducted. However, the Wage and Hour Division (WHD) has the discretion to update such rates under 29 CFR 1.6(c)(1).

State Adopted Rate Identifiers

The ""SA"" identifier indicates that the classifications and prevailing wage rates set by a state (or local) government were adopted under 29 C.F.R 1.3(g)-(h). Example: SAME2023-007 01/03/2024. SA reflects that the rates are state adopted. ME refers to the State of Maine. 2023 is the year during which the state completed the survey on which the listed classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 01/03/2024 in the example, reflects the date on which the classifications and rates under the ?SA? identifier took effect under state law in the state from which the rates were adopted.

WAGE DETERMINATION APPEALS PROCESS

1) Has there been an initial decision in the matter? This can be:

a) a survey underlying a wage determination
b) an existing published wage determination
c) an initial WHD letter setting forth a position on a wage determination matter
d) an initial conformance (additional classification and rate) determination

On survey related matters, initial contact, including requests for summaries of surveys, should be directed to the WHD Branch of Wage Surveys. Requests can be submitted via email to davisbaconinfo@dol.gov or by mail to:

Branch of Wage Surveys
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

Regarding any other wage determination matter such as conformance decisions, requests for initial decisions should be

directed to the WHD Branch of Construction Wage Determinations. Requests can be submitted via email to BCWD-Office@dol.gov or by mail to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2) If an initial decision has been issued, then any interested party (those affected by the action) that disagrees with the decision can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Requests for review and reconsideration can be submitted via email to dba.reconsideration@dol.gov or by mail to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210.

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END OF GENERAL DECISION"

February 21, 2025

SPECIAL PROVISION
SECTION 101
CONTRACT INTERPRETATION

The provisions of Section 101 of the Standard Specifications, "Contract Interpretation," shall apply with the following modifications:

101.2 Definitions.

Chief Engineer.

REPLACE: "The Chief Engineer of the Department."

With: "The Engineer of Record for the Project, Josh Olund, P.E."

Commissioner.

REPLACE: "The Commissioner of Transportation established by 23 MRSA §4205."

With: "Town Manager"

Department.

REPLACE: "The Department of Transportation of the State of Maine, as established by 23 MRSA §4205 et. seq. for the administration of Highway, Bridge, and other Public Works …"

With: "The Municipality of Scarborough, Maine," acting through their Town Manager and this person's duly authorized representatives."

Project Manager.

REPLACE: "The Department's duly authorized representative for overall coordination of the Project."

With: "The Municipality of Scarborough's duly authorized representative for overall coordination of the Project."

Resident.

REPLACE: "The Department's on-site representative."

With: "The Town's on-site representative."

February 21, 2025

SPECIAL PROVISION
SECTION 110
INDEMNIFICATION, BONDING, AND INSURANCE

The provisions of Section 110 of the Standard Specifications, "Indemnification, Bonding, and Insurance," shall apply with the following modifications:

Section 110.1 Indemnification

This Subsection is amended to read as follows:

The Contractor agrees to indemnify, defend, and hold harmless the Maine Department of Transportation (the Department) and the Municipality of Scarborough (the Municipality) and their officers, directors, employees, agents, and consultants from and against all claims, actions, torts, costs, losses, and damages for bodily injury (including sickness, disease, or death) and property damage arising out of or relating to this Contract or the performance of Work by the Contractor, their Subcontractors, subconsultants, engineers, suppliers, any individuals or entities directly or indirectly employed by any of them, or anyone for whose acts any of them may be liable, excepting only claims directly and solely caused by the negligence of the Department or the Municipality. Damages covered include, but are not limited to, all Dispute resolution costs, including court costs, attorney's fees, and the fees of engineers and consultants, arbitrators, and other professionals related to Dispute defense and preparation.

This indemnification obligation shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for the Contractor or any Subcontractor, subconsultant, engineer, supplier, or other individual or entity under Workers' Compensation acts, disability benefit acts, or other employee benefit acts.

December 17, 2010
Supersedes December 30, 2009

SPECIAL PROVISION
SECTION 104
GENERAL RIGHTS AND RESPONSIBILITIES
(Electronic Payroll Submission)
(Payment Tracking)

104.3.8.1 Electronic Payroll Submission The prime contractor and all subcontractors and lower-tier subcontractors will submit their certified payrolls electronically on this contract utilizing the Elation System web based reporting. There is no charge to the contracting community for the use of this service. The submission of paper payrolls will not be allowed or accepted. Additional information can be found at http://www.maine.gov/mdot/contractors/ under the first "Notice".

104.3.8.2 Payment Tracking The prime contractor and all subcontractors and lower-tier subcontractors will track and confirm the delivery and receipt of all payments through the Elation System

Scarborough & South Portland
Eastern Trail
WIN 019426.00 & 019426.10
February 21, 2025

SPECIAL PROVISIONS
SECTION 104
UTILITIES

UTILITY COORDINATION

The Contractor has primary responsibility for coordinating their work with utilities after Contract Award. The Contractor shall communicate directly with the utilities regarding any utility work necessary to maintain the Contractor's schedule and prevent project construction delays. The Contractor shall notify the Resident of any issues.

MEETING

A Preconstruction Utility Conference, as defined in Subsection 104.4.6 of the Standard Specifications **is** required. An additional, separate Preconstruction Utility Conference with Central Maine Power is required, as identified herein.

GENERAL INFORMATION

These Special Provisions outline the arrangements that have been made by the Town for utility and/or railroad work to be undertaken in conjunction with this project. The following list identifies all known utilities or railroads having facilities presently located within or near the limits of this project or intending to install facilities during project construction, unless otherwise provided.

Utility	Aerial	Underground	Railroad
Central Maine Power Company	X	X	
AT&T		X	
Springfield Terminal Railway (CSX)			X
Charter Communications	X		
Firstlight	X		
City of South Portland		X	
Town of Scarborough		X	
Consolidated Communications	X		
Scarborough Fire Department	X		

Temporary utility adjustments are **not** anticipated.

Temporary power outages are anticipated.

Any times and dates mentioned are estimates only and are dependent upon favorable weather, working conditions, and freedom from emergencies. The Contractor shall have no claim against

the Town if they are exceeded. Utility working days are Monday through Friday, conditions permitting.

TELEPHONE NUMBERS FOR NOTIFICATION

The following information is provided to assist the Contractor with contacting utility companies and is a guide only:

Utility	Contact Name	Telephone #
Central Maine Power	Craig Bate	207-578-2062
Springfield Terminal Railway	Mike Sliper	518-767-6081
NNE Passenger Rail Authority	James Russell	207-780-1000 x104
AT&T	Kevin Keady	207-239-2357
Charter Communications	-	207-620-3410
Consolidated Communications	-	207-878-0854
Town of Scarborough	Douglas Howard	207-730-4400
Scarborough Fire Department	Don Mitchell	207-883-2240
City of South Portland	Melissa Hutchins	207-767-7637
Firstlight	Michael Ellingwood	207-333-3471

AERIAL

Charter Communications, Firstlight, Scarborough Fire Department, and Consolidated Communications have aerial utilities within the project limits. No utility conflicts are anticipated within the scope of work planned for this project. Should any conflicts arise, the Contractor must notify the utility as soon as possible.

Central Maine Power (CMP) has aerial lines within the project limits. Relocation of these lines is not anticipated. The Town has an agreement with CMP to work within their corridor under technician supervision. The Contractor should take notice of the Protection of CMP Utility Infrastructure (PCMPUI) document that is within the Special Provisions, for work requirements, technician time/payment, and ancillary requirements.

The Town of Scarborough has executed a license agreement with CMP that outlines the respective rights, responsibilities and obligations between all parties during the construction of the trail, as well as activities related to the Project as a whole. A copy of the project license agreement is appended to this Special Provision. The Contractor is responsible for understanding, following and abiding by the obligations and limitations outlined in the co-location agreement and the PCMPUI document throughout the Project.

The Contractor's proposed construction activities shall be fully coordinated with CMP, as follows:

> Activities Requiring a DNR Period: Construction activities such as pile driving (further than 20-ft from the closest power line), concrete pumping, tree clearing, and the use of other overhead equipment will require the establishment of a Do Not Reclose (DNR)

period and an onsite CMP technician if such equipment has the potential of encroaching within 20-ft of power lines through intentional operations or unintentional equipment failure.

CMP requires a 30-calendar day advanced request by the Contractor to establish a DNR period. Depending on the Contractor's progression of work, this may necessitate several requests.

Activities Requiring De-Energized Lines: Erection of the Prefabricated Steel Trusses will require the adjacent power lines to be de-energized at both the Nonesuch River and CSX Bridge locations. Additionally, pile driving operations that result in pile leads and associated equipment closer than 20-ft horizontally to the closest power line will require power lines to be de-energized. De-energizing the lines at both bridge sites can occur simultaneously, if desired.

Temporary power outages and requests for onsite CMP inspectors will need to be requested well in advance of the planned activities. CMP requires a minimum 120-day advanced notification request for temporary outages and inspectors and recommends 150-days; however, approval is not guaranteed. In addition, the temporary outages will be limited to occur in April/May or September/October timeframe and be restricted to overnight outages between the hours of 8:00PM and 6:00 AM; power will be restored during the daytime. The Contractor may request up to 3-consecutive nights of power outages at each bridge site, for each spring and fall season noted. The Contractor should request additional outage dates as a contingency in the event weather prohibits bridge erection, electrical demands prohibit the outage, or the coordination requirements with CSX at the CSX Railroad crossing cannot be met.

Upon approval of the Contractor's de-energizing request, CMP reserves the right to revoke this request with little advance notice due to any increases in electric demand that can be attributed to unseasonably hot or cold weather and other unforeseen circumstances. The temporary outages should be requested to cover the time (number of consecutive nights) needed to complete critical construction activities with planned rain-out days and the requirements of the railroad identified within this Special Provision. If any temporary outage days are cancelled or construction activities are unable to be completed within the temporary outage window requested by the Contractor, the Contractor will need to submit a new temporary power outage request to complete the work.

Preconstruction Utility Conference and Submittals: At the separate, CMP-specific Preconstruction Utility Conference, the Contractor shall identify their safety personnel and planned precautions when performing work near CMP and Railroad infrastructure to prevent damage and personal injury.

Work on CMP property, or within 20-ft of CMP infrastructure, shall be coordinated ahead of time with CMP. The separate Preconstruction Utility Conference shall be held within 30 calendar days of project award and include the Contractor, Resident, and CMP representatives to discuss construction activities, anticipated equipment, and progression of work.

At this meeting, the Contractor shall submit to the Resident and CMP, for review, a detailed CPM schedule and schematics and/or narratives of the Contractor's planned activities within the CMP right of way. This shall include types of equipment, planned placement of equipment, and offset distances to the nearest power line and include durations for equipment/operations. Within 14-calendar days following this meeting, CMP will review the schedule of activities and identify to the Contractor and Resident the need for DNR periods, power outages, and an onsite technician(s) at their discretion. All costs associated with this meeting, submittal, and coordination efforts will not be made separately and will be considered incidental to related Contract Items.

UNDERGROUND

Central Maine Power Company, AT&T, City of South Portland and Town of Scarborough have underground facilities within the project limits. No utility conflicts are anticipated within the scope of work planned for this project. Should any conflicts arise, the Contractor must notify the utility as soon as possible.

RAILROAD

The Springfield Terminal Railway has an active railroad corridor that crosses the proposed trail alignment and CSX Railways owns and operates an active rail line under a proposed bridge. This rail line has both freight and passenger rail. AMTRAK Downeaster operates on this line at high speeds (70+mph). The Town has an agreement with CSX Railways to work within their corridor under Railroad flagger supervision. The Contractor should take notice of the PRTS document that is within the Special Provisions, for work requirements, train trips per day, flagger time and insurance requirements.

The Town of Scarborough has executed a license agreement with CSX Railways that outlines the respective rights, responsibilities, and obligations between all parties during the construction of the trail, as well as all construction activities related to the Project as a whole. A copy of the project license agreement is appended to this Special Provision. The Contractor is responsible for understanding, following, and abiding by the obligations and limitations outlined in both the co-location agreement and the PRTS throughout the Project.

CSX Railways has a published document outlining guidelines and requirements for projects that involve CSX Railways property. This is the CSX Public Projects Manual (last revised in May 2023). The Contractor shall adhere to the requirements set forth in the CSX Public Projects Manual for work conducted on CSX Railways property. The CSX Public Projects Manual may be accessed at the following web address: https://www.csx.com/index.cfm/library/files/about-

us/property/public-project-manual/. The Contractor's attention is called to the following sections of the CSX Public Projects Manual:

- Construction Submission Criteria
- Insurance Requirements for Public Projects
- Special Provisions for Construction near CSX Property
- Soil and Water Management Policy

The Contractor's proposed construction activities shall be fully coordinated with CSX Railways as outlined below. All plans and supporting calculations shall be designed and sealed by a Professional Engineer licensed in the State of Maine.

General Submission Requirements: The Contractor shall submit all documents related to construction activities with potential to foul the CSX Railway in accordance with Section II of the CSX Construction Submission Criteria document appended to the CSX Public Projects Manual.

Hoisting Operations: The Contractor shall submit a detailed procedure for hoisting operations that have the potential to foul the CSX Railway. The procedure shall adhere to the requirements set forth in Section III of the CSX Construction Submission Criteria document appended to the CSX Public Projects Manual.

Erection Procedure: The Contractor shall submit a detailed procedure for erection of the proposed bridge superstructure. The erection procedure shall adhere to the requirements set forth in Section V of the CSX Construction Submission Criteria document appended to CSX Public Projects Manual.

Temporary Excavation and Shoring: The Contractor shall submit a detailed design and procedure for the installation of any necessary sheeting/shoring system adjacent to the CSX Railway tracks. The design and installation procedure shall adhere to the requirements set forth in Section VI of the CSX Construction Submission Criteria document appended to CSX Public Projects Manual.

Settlement Monitoring During Construction: The Contractor shall develop a program for monitoring settlement of the railroad tracks throughout construction. The monitoring program shall adhere to the requirements set forth in Section VII of the CSX Construction Submission Criteria document appended to CSX Public Projects Manual.

The portion of the bridge that spans over the railroad shall be erected at a date and time agreed to by CSX Railways and Central Maine Power, likely to occur overnight and during the mid-Spring or mid-Fall seasons. Erection of this span will also require a track outage and railroad flagger(s). All cranes, equipment, and construction vehicles are to remain within the CMP and ABCO Rental & Storage right of ways during the erection of the bridge spans.

Special Note to the Contractor

Work required to construct the proposed bridge over the CSX railroad tracks will require coordination with the Springfield Terminal Railway and Central Maine Power Company. This work shall be completed in accordance with the procedures and requirements outlined in this specification and the following appendices thereto:

SAFE PRACTICES AROUND UTILITY FACILITIES

The contractor shall be responsible for complying with M.R.S.A. Title 35-A, Chapter 7-A, Sections 751-761, Overhead High Voltage Line Safety Act. Prior to commencing any work that may come within ten (10) feet of any aerial electrical line, the Contractor shall notify the aerial utilities as per Section 757 of the above act.

DIG SAFE

The Contractor shall be responsible for determining the presence of underground utility facilities prior to commencing any excavating work and shall notify utilities of proposed excavation in accordance with M.R.S.A. Title 23 3360-A, Maine "Dig Safe" System.

UTILITY SIGNING

Any utility working within the construction limits of this project shall ensure that the traveling public is adequately protected at all times. All work areas shall be signed, lighted and traffic flaggers employed as field conditions determine. All traffic controls shall be in accordance with the latest edition of the Manual on Uniform Traffic Control Devices for Streets and Highways, as issued by the Federal Highway Administration. Utility Companies shall use National Cooperative Highway Research Program Report 350 Compliant Signs and Channelization devices as specified by the FHWA with in all MDOT work zones.

THE CONTRACTOR SHALL PLAN AND CONDUCT THEIR WORK ACCORDINGLY

EXHIBIT C

PROTECTION OF RAILROAD TRAFFIC AND STRUCTURES
SPECIAL PROVISIONS

1. GENERAL REQUIREMENTS

Part of the work required by the contract between Agency and the Contractor for the performance of the Project (the "Contract") will be performed within a railroad right of way and/or adjacent to the tracks, telephone, telegraph, signal and electric supply lines of Springfield Terminal Railway Company ("Railroad"), a subsidiary of CSX Transportation. The Contractor agrees to perform all such work in compliance with all of the terms of this Special Provision and all safety rules, regulations, or standards applicable to the Railroad. The Contractor shall be fully responsible for all damages arising from the Contractor's failure to comply with the requirements of these Special Provisions. The Contractor shall be deemed to have included all costs associated with complying with these requirements in the unit prices of the Schedule of Prices and the Proposal.

Additionally, the Contractor shall comply with the current version of the *CSX Special Provisions for Construction Near CSX Property* found in the CSX Public Project Information Manual. In instances where these Special Provisions and the aforementioned CSX Special Provisions conflict, the more stringent requirement shall prevail; where there is a conflict between a general requirement and a specific requirement, the specific requirement shall prevail.

2. AMOUNT OF RAILROAD WORK

The estimated amount of work to be done within 50 feet of the Railroad's track is 2% of the Contract.

3. NUMBER OF TRAINS AND TRAIN SPEED

The Contractor is notified that a maximum speed of 75 mph will be considered as prevailing for the operation of trains of the Railroad at this Project location and that the approximate number of trains per day at the Project is 14.

4. PRIORITY OF RAILROAD OPERATIONS

The train movements of the Railroad, and its lessees and licensees, shall have absolute priority over the performance of the Project within the Railroad right of way. The Contractor hereby agrees that the hours and times of work within the Railroad right of way must be coordinated through the Railroad and that such hours and times are subject to change without prior notice to the Contractor, unless other prior arrangements have been made through the Railroad.

5. AUTHORITY OF RAILROAD TO STOP WORK

If the Contractor fails to comply with the safety terms of these Special Provisions, or if the Railroad determines that the Contractor is using unsafe practices that threaten the safety of rail traffic, rail workers, or the general public, the Railroad shall have the right to immediately order the Contractor to cease work and vacate the Railroad's property. The Railroad agrees to confirm any cessation of work in writing by delivering to the Agency's Construction Manager a completed Stop Work Order form attached as Exhibit A within 24 hours of giving any such order.

The Contractor shall arrange and conduct its work so that there will be no interference with the Railroad's operations, including train, signal, telephone and telegraphic services, or damage to the Railroad's property, or to poles, wires, and other facilities of tenants on the Railroad's property or right-of-way. The Contractor shall store materials so as to prevent trespassers from causing damage to trains or to the Railroad's property. Whenever work is likely to affect the operations or safety of trains, the method of doing such work shall first be submitted to the Railroad's representative for approval, but such approval shall not relieve the Contractor from liability in connection with such work.

If conditions arising from or in connection with the Project require that immediate and unusual provisions be made to protect train operation or the Railroad's property, the Contractor shall make such provision. If the Railroad's representative determines that such provision is insufficient, the Railroad may, at the expense of the Contractor, require or provide such provision as may be deemed necessary, or cause the work to cease immediately.

6. ENTRY UPON RAILROAD PROPERTY

The Railroad hereby agrees to permit the Contractor, together with their subcontractors, suppliers, consultants and engineers (the "Contractor"), to enter upon the Railroad property for the purpose of performing the Project, PROVIDED THAT the Contractor complies with all of the terms of these Special Provisions and all safety requirements and directions of the Railroad's representative.

7. NOTICE REQUIRED BEFORE ENTRY

The Contractor shall not commence any work on the Railroad's property or rights-of-way until it has complied with the following conditions:

A. Notify the Railroad in writing of the date that it intends to commence work on the Project. Such notice must be received by the Railroad at least **14** calendar days in advance of the date the Contractor proposes to begin work on the Railroad's property. The notice must refer to the agreement between Agency and the Railroad for the Project (the "Agreement") by date. Additional notice requirements when flagging/inspection services are required are set forth in Section 21.

B. Obtain authorization from the Railroad's representative to begin work on the Railroad's property, such authorization to include an outline of specific conditions with which it must comply.

C. Obtain from the Railroad the names, address and telephone numbers of the Railroad's

personnel who much receive notice under provisions in the Agreement. Where more than one individual is designated, the area of responsibility of each shall be specified.

8. HAZARDS

The Contractor shall assess to its own satisfaction hazards which may be caused by its operations. At a minimum, the Contractor agrees that the following shall constitute Hazards:

An operating track shall be considered fouled and subject to hazard when any object is brought nearer than 25 feet to the gauge line of the near rail of the track.

A signal line or communication line shall be considered fouled and subject to hazard when any object is brought nearer than 25 feet to any wire or cable.

An electric supply line shall be considered fouled and subject to hazard when any object is brought nearer than 25 feet to any wire of the line.

Cranes, trucks, power shovels or any other equipment shall be considered as fouling and subjecting to hazard a track, signal line, communication or electric supply line when working in such position that failure of equipment, with or without load, could foul the track, signal line, communication or electric supply line.

Railroad operation will be considered subject to hazard when explosives are used in the vicinity of Railroad premises, or during the driving or pulling of sheeting for any footing adjacent to a track, or when erecting structural steel adjacent to a track, or when performing work under, across or adjacent to a track, or when operations involve swinging booms or chutes that could in any way come nearer than 25 feet to the gauge line of the near rail of the track, or when erection or removal of staging, false work or forms fouls a track or wire line.

None of the operations specified as a Hazard above shall be carried on during the approach or passing of a train or without permission from the Railroad and the presence of a Railroad inspector/flagman, unless other prior arrangements have been made through the Railroad.

9. MINIMUM CLEARANCES

During the construction of staging, false work or forms, the Contractor shall at all times maintain a minimum vertical clearance of 22.5 feet above the top of high rail and a minimum side clearance of 10 feet from the gauge line of the near rail where track is tangent. Additional side clearance must be maintained where track is on a curve.

10. COOPERATION AND DELAYS

Contractor shall arrange a schedule with the Railroad for accomplishing stage construction involving work by the Railroad. In arranging its schedule, the Contractor shall ascertain, from the Railroad, the lead time required for assembling crews and materials and shall make due allowance

therefore.

The Contractor may not charge any costs or submit any claims against the Railroad for hinderance or delay caused by railroad traffic; work done by the Railroad or other delay incident to or necessary for safe maintenance of railroad traffic; or for any delays due to compliance with these Special Provisions.

The Contractor shall cooperate with others participating in the construction of the Project to the end that all work may be carried on to the best advantage.

The Contractor understands and agrees that the Railroad does not assume any responsibility for work by others in connection to the Project. The Contractor further understands and agrees that it shall have no claim whatsoever against the Railroad for any inconvenience, delay or additional cost incurred by the Contractor on account of operations by others.

11. WORK PLAN SUBMITTAL AND APPROVAL

The Contractor shall submit in writing to the Railroad's representative and Agency's representative, at least 30 calendar day(s) in advance of the start of the project, an outline of the Contractor's plan for work within the Railroad right of way including, including contemplated method(s) of construction. This plan must meet with the approval of the Railroad's representative and Agency's representative in every respect. If the Contractor contemplates the use of "on the track equipment", it should so state and obtain from the Railroad the conditions pertaining to such operations. All Railroad costs included in this operation will be borne by the Contractor. In a like manner, any of the Contractor's equipment or material on cars for the Project shall be handled in conformance with existing traffic rules, with all costs borne by the Contractor.

Prior to submitting its Proposal, the Contractor shall have ascertained, from the Railroad's representative and from Agency's representative, all information relating to the Railroad's requirements and regulations and all costs in connection with compliance thereto.

The Railroad may require additional construction submittals pending review of the Work Plan. Such submittals may include but are not limited to:

1. Hoisting Operations
2. Demolitions Procedure
3. Erection Procedure
4. Temporary Excavation and Shoring
5. Track Monitoring

Submission requirements and review periods for such submittals will be communicated at the pre-construction utility meeting.

12. WORK FOR THE BENEFIT OF THE CONTRACTOR

No temporary or permanent changes to wire lines or other facilities (other than third-party fiber optic cable transmission systems) on the Railroad's property that are considered necessary to the work are anticipated or shown on the Plans. If any such changes are, or become, necessary in the opinion of the Railroad or Agency, such changes will be covered by the appropriate revisions to the Plans and by preparation of a force account estimate. Such force account estimate may be initiated by either the Railroad or Agency, but must be approved by both the Railroad and Agency. Agency or Contractor shall be responsible for arranging for the relocation of the third-party fiber optic cable transmission systems, at no cost or expense to the Railroad.

Should Agency or Contractor desire any changes in addition to the above, then it shall make separate arrangements with the Railroad for such changes to be accomplished at Agency's or Contractor's expense.

13. HAUL ACROSS RAILROAD

If Contractor desires access across the Railroad's property or tracks at other than an existing and open public road crossing in or incident to construction of the Project, Contractor much first obtain the permission of the Railroad and shall execute a license agreement or right of entry satisfactory to the Railroad, wherein Contractor agrees to bear all costs and liabilities related to such access.

Contractor shall not cross the Railroad's property and tracks with vehicles or equipment of any kind or character, except at such crossing or crossings as may be permitted pursuant to this section.

14. STORAGE OF MATERIALS AND EQUIPMENT

Contractor shall not store its materials or equipment on the Railroad's property or where they may potentially interfere with the Railroad's operations, unless Contractor has received the Railroad representative's prior written permission. Contractor understands and agrees that the Railroad will not be liable for any damage to such materials and equipment from any cause and that the Railroad may move, or require Contractor to move, such material and equipment at Contractor's sole expense. To minimize the possibility of damage to the railroad tracks resulting from the unauthorized use of equipment, all grading or other construction equipment that is left parked near the tracks unattended by watchmen shall be immobilized to the extent feasible so that it cannot be moved by unauthorized persons.

15. EXCAVATIONS

Before excavation for footings adjacent to tracks and/or within the Railroad's right-of-way may commence, whether or not also within the limits of a public highway, plans and calculations for such excavations, prepared by a Professional Engineer authorized to practice in Maine, shall be submitted to the Railroad's representative for review and approval. Unless other prior arrangements have been made, the Railroad shall have 30 calendar days to perform such review and approval and issue written permission to proceed with the excavation. No excavation shall proceed without such permission. If permission is denied, the Railroad shall have an additional 30 calendar days to perform such review of any re-submittal.

At a minimum, excavations must utilize proper bracing, shoring, sheeting or other support, as determined by the Railroad, to support the tracks with railroad traffic. Open excavation shall be suitably planked over when construction operations are not in progress. No excavation work shall be performed by the Contractor within the limits of the Railroad right of way, whether or not also within the limits of a public highway, until the Contractor has ascertained from the Railroad the location of any wires, conduits, pipes, cables or other railroad facilities below the surface of the ground. Damage to any such facilities caused by the failure of the Contractor to ascertain the location of such facilities or by failure to use due care to avoid injury to such facilities shall be at the expense of the Contractor.

16. EQUIPMENT

Equipment of the Contractor shall be in such condition so as to prevent failure that would cause delay in the operation of trains or damage to railroad facilities. Equipment shall not be placed or put in operation adjacent to a track without first obtaining permission of the Railroad. The Railroad agrees that such permission shall not be unreasonably withheld.

17. RAILROAD SERVICES - GENERALLY

When work is to be performed within the Railroad's right-of-way, the Railroad shall provide the services, equipment and materials provided in these Special Provisions including, but not limited to, engineering, flagging, inspection, signal protection and/or relocation, and restoration or replacement of the Railroad's track structure of ballast. Further, if the Railroad determines that the Contractor's operations do not comply with all of the safety requirements of these Special Provisions and all of the Railroad's safety requirements and directions, the Railroad will employ the necessary qualified employees to protect its trains and other facilities. The Contractor shall pay to the Railroad the cost for performing all Railroad Services unless said costs are to be paid by Agency as specified in these Special Provisions.

18. CONSTRUCTION PROCEDURES

A. General

1. Construction work on the Railroad's property shall be subject to the Railroad's inspection and approval.

2. Construction work on the Railroad's property shall be in accord with the Railroad's written outline of specific conditions and with these Special Provisions.

3. Contractor shall observe the terms and rules of the Railroad's Safe Way manual, which Contractor shall be required to obtain from the Railroad, and in accord with any other instructions furnished by the Railroad or the Railroad's representative.

B. Blasting

1. Contractor shall obtain the Railroad's prior written approval for use of explosives on or adjacent to the Railroad's property. If permission for use of explosives is granted, Contractor must comply with the following:

a. Blasting shall be done with light charges under the direct supervision of a responsible officer or employee of Contractor.

b. Electric detonating fuses shall not be used because of the possibility of premature explosions resulting from operation of two-way train radios.

c. No blasting shall be done without the presence of an authorized Railroad representative. At least 10 calendar days' advance notice to the Railroad is required to arrange for the presence of an authorized Railroad representative and any flagging that the Railroad may require.

d. Contractor must have at the Project site adequate equipment, labor and materials, and allow sufficient time, to (i) clean up (at Contractor's expense) debris resulting from the blasting without any delays to trains; and (ii) correct (at Contractor's expense) any track misalignment or other damage to the Railroad's property resulting from the blasting, as directed by the Railroad's representative, without delay to trains. If Contractor's actions result in delay of any trains, including Amtrak passenger trains, Contractor shall bear the entire cost thereof.

e. Contractor shall not store explosives on the Railroad's property.

2. The Railroad's representative will:

a. Determine the approximate location of trains and advise Contractor of the approximate amount of time available for the blasting operation and clean-up.

b. Have the authority to order discontinuance of blasting if, in his or her opinion, blasting is too hazardous or is not in accord with these Special Provisions.

19. MAINTENANCE OF DITCHES ADJACENT TO RAILROAD'S TRACKS

Contractor shall maintain all ditches and drainage structure free of silt or other obstructions that may result from Contractor's operations. Contractor shall provide erosion control measures during construction and use methods that accord with applicable state standard specification for road and bridge construction, including either (1) silt fence; (2) hay or straw barrier; (3) berm or temporary ditches; (4) sediment basin; (5) aggregate check; and (6) channel lining. All such maintenance and repair of damages due to Contractor's operations shall be performed at Contractor's expense.

20. UTILITY FACILITIES ON RAILROAD'S PROPERTY

Agency shall arrange, upon approval from the Railroad, to have any utility facilities on or over the Railroad's property changed as may be necessary to provide required clearances.

21. INSPECTION / FLAGGING

The Railroad has sole authority to determine the need for inspection/flagging required to protect its operations and property. The Railroad shall furnish and assign all inspectors/flaggers for general inspection purposes and for general protection of Railroad property and operations during construction as the Railroad determines are necessary to preserve safety.

(a) Responsibility for Cost. Agency will bear the cost of flagging or inspection (including travel time), or any combination thereof, up to 30 man days of said flagging or inspection. If, in the opinion of the Railroad, further services of a flagger or inspector will be required due to the operations of the Contractor, the services will be furnished and the cost thereof (salary, expenses, insurance, taxes and vacation allowance, etc.) shall be paid to the Railroad by Agency, and will be recovered by Agency from the Contractor.

(b) Terms. The minimum hours per day for the Railroady employees engaged in inspection or flagging services shall be eight (8) hours. Time at rates for straight time, overtime or for deadheading starts in accordance with established practices in effect in the territory in which the Project is located. Information as to these practices should be obtained from the Railroad.

(c) Notice. The Contractor shall notify the Railroad's representative in writing at least **30** calendar days before the Contractor first commences work within 50 feet of the track or that otherwise requires inspection or flagging services so that Railroad can provide these services. Thereafter, following the initial notice, the Contractor shall notify the Railroad's representative in writing at least **10** calendar days before suspending such work, and shall notify the Railroad's representative in writing at least **10** calendar days before resuming such work. Failure to give notice of intent to suspend work shall be cause to charge the Contractor the cost of inspection during the period when work is suspended.

(d) Estimated Cost. The following is an estimate of the cost per day of inspection/flagging necessary for this project. The rates shown include all overhead charges, travel time, deadheading and personal expenses.

Estimated daily rate for four (4) consecutive hours Monday-Friday (straight time): $600

Estimated daily rate for four (4) consecutive hours Saturday, Sunday, Holiday (overtime): $900

Estimated rate for hours worked in excess of eight (8) hours in any one day: $225/hour

Rates charged will be the actual pay rate of the flaggers and inspectors used, plus standard additives, whether that amount is above or below the rate provided in the Estimate. The Railroad agrees to notify Agency is rates used to calculate the above estimates change before the date of

bids are received for this Contract.

(e) Definitions.

Man day (M.D.) - eight (8) consecutive hours or any portion thereof.

Overtime - Each additional hour or fraction thereof consecutive to and beyond the standard man day will count as 3/16 of a man day.

Standard Man Day - Eight (8) consecutive hours, Monday - Friday between the hours of 8:00 a.m. to 4:00p.m. unless otherwise noted and agreed to by all parties.

Travel Time - Time required by flagger and/or inspector to commute between his or her point of headquarters to the project site. This time shall not be included in determining available man days.

22. CLEAN-UP

Contractor, upon completion of the Project, shall remove from the Railroad's property any temporary grade crossings, any temporary erosion control measures used to control drainage, all machinery, equipment, surplus materials, falsework, rubbish, or temporary buildings belonging to Contractor. Contractor, upon completion of the Project, shall leave the Railroad's property in neat condition, satisfactory to the Railroad's representative.

23. OTHER CONTRACTOR RESPONSIBILITIES

The restoring and resurfacing of tracks, if disturbed due to Contractor's operations, shall be at the expense of the Contractor.

Any other changes made or services furnished by the Railroad as a result of the Contractor will be at the Contractor's expense.

24. INDEMNIFICATION

A. Generally. To the maximum extent permitted by applicable law, Contractor shall indemnify, defend, and hold Railroad and its affiliates harmless from and against all claims, demands, payments, suits, actions, judgements, settlements, and damages of every nature, degree, and kind (including direct, indirect, consequential, incidental, and punitive damages), for any injury to or death to any person(s) (including, but not limited to the employees of Railroad, its affiliates, Agency, or Agency's other contractors, if any), for the loss of or damage to any property whatsoever (including but not limited to property owned by or in the care, custody, or control of Railroad, its affiliates, Agency, or Maine DOT's other contractors (if any), and environmental damages and any related remediation brought or recovered against Railroad and its affiliates), arising directly or indirectly from the negligence, recklessness or intentional wrongful misconduct of Contractor, its agents, employees, invitees, or subcontractors in the performance of or in connection with the work or activities incidental thereto, or from their presence on or about

Railroad's property. The foregoing indemnification obligation shall not be limited to the insurance coverage required herein, except to extent required by law or otherwise expressly provided herein.

B. Compliance with Laws. Contractor shall comply with any federal, state, or local laws, statutes, codes, ordinances, rules, and regulations applicable to its work and shall indemnify, defend, and hold Railroad and its affiliates harmless with respect to any fines, penalties, liabilities, or other consequences arising from breaches of this requirement.

C. "Railroad Affiliates". For the purpose of this indemnification provision, Railroad's affiliates include Springfield Terminal Railway Company and all entities, directly or indirectly, owned or controlled by or under common control of Springfield Terminal Railway Company and their respective officers, directors, employees and agents.

D. Notice of Incidents. Contractor shall notify Railroad and Agency promptly of any loss, damage, injury or death arising out of or in connection with its work.

E. Survival. This indemnification provision shall survive the termination or expiration of the Contract.

25. INSURANCE

A. Insurance Policies. To the extent that Contractor is performing work on or about Railroad's property, Contractor shall procure and maintain the following insurance policies:

1. Commercial General Liability coverage at Contractor's sole cost and expense with limits of not less than $5,000,000 in combined single limits for bodily injury and/or property damage per occurrence, and such policy shall name Railroad as an additional insured. The policy shall include endorsement ISO CG 24 17 evidencing that coverage is provided for work within 50 feet of a railroad. If such endorsement is not included, railroad protective liability insurance must be provided as described in item 4 below.

2. Statutory Worker's Compensation and Employers Liability Insurance with limits of not less than $1,000,000, which insurance must contain a waiver of subrogation against Railroad and its affiliates (if permitted by state law).

3. Commercial automobile liability insurance with limits of not less than $1,000,000 combined single limit for bodily injury and/or property damage per occurrence, and such policy shall name Railroad as an additional insured. The policy shall include endorsement ISO CA 20 70 evidencing that coverage is provided for work within 50 feet of a railroad. If such endorsement is not included, railroad protective liability insurance must be provided as described in item 4 below.

4. If either the commercial general liability insurance described in item 1 above or the commercial automobile liability insurance described in item 3 above does not include the referenced endorsement evidencing that coverage is provided for work within 50 feet of a

railroad, then Contractor also shall procure and maintain Railroad Protective Liability Insurance with limited not less than $5,000,000 combined single limit for bodily injury and/or property damage per occurrence and an aggregate annual limit of $10,000,000, which insurance shall satisfy the following additional requirements:

a. The Railroad Protective Insurance Policy must be on the ISO/RIMA Form of Railroad Protective Insurance – Insurance Services Office (ISO) Form CG 00 35.

b. Springfield Terminal Railway Company must be the named insured on the Railroad Protective Insurance Policy.

c. Name and Address of Contractor must appear on the Declaration page.

d. Description of operations must appear on the Declarations page and much match the Project description.

e. Authorized endorsements must include the Pollution Exclusion Amendment – CG 28 31, unless using form CG 00 35 version 96 and later.

f. Authorized endorsements may include:

(i) Broad Form Nuclear Exclusion – IL 00 21
(ii) 30-day Advance Notice of Non-renewal or cancellation
(iii) Required State Cancellation Endorsement
(iv) Quick Reference or Index – CL/IL 240

g. Authorized endorsements may not include:

(i) A Pollution Exclusion Endorsement except CG 28 31
(ii) A Punitive or Exemplary Damages Exclusion
(iii) A "Common Policy Conditions" Endorsement
(iv) Any endorsement that is not named in Section 4 (e) or (f) above
(v) Policies that contain any type of deductible

5. All insurance companies must be A. M. Best rated A- and Class VII or better.

6. The Springfield Terminal Railway Company project number contract number, as applicable, must appear on each Declarations page and/or certificates of insurance.

7. Such additional or different insurance as Railroad may require.

B. Additional Terms.

1. Contractor must submit the original Railroad Protective Liability policy, Certificates of Insurance and all notices and correspondence regarding the insurance policies to:

Springfield Terminal Railway Company
1700 Iron Horse Park
North Billerica, MA 01862

With copy to

Insurance Department
CSX Transportation, Inc.
500 Water Street, C-907
Jacksonville, FL 32202

OR

insurancedocuments@csx.com

2. Neither Agency nor Contractor may begin work on the Project until it has received Railroad's written approval of the required insurance.

26. ROADWAY WORKER SAFETY REGULATION

All Contractors/Subcontractors and individuals must be aware of the Federal Roadway Worker Safety Regulation, CFR 49, Part 214(c), and all Contractor employees designated as Roadway Workers must comply with this regulation. Additional safety requirements can be found here: Safety Requirements – CSX.com.

Requirements will be discussed at the pre-construction utility meeting.

27. FAILURE TO COMPLY

If Agency or Contractor violate or fail to comply with any of the requirements of these Special Provisions, (a) the Railroad may require Agency and/or Contractor to vacate the Railroad's property; (b) the Railroad may withhold monies due to Agency and/or Contractor; (c) the Railroad may request that Agency withhold monies due Contractor; and (d) the Railroad may cure such failure and Agency or Contractor shall reimburse the Railroad for the cost of curing such failure.

Scarborough & South Portland
Eastern Trail
WIN 019426.00 & 019426.10
October 21, 2024

SPECIAL PROVISION
SECTION 105
GENERAL SCOPE OF WORK
(Environmental Requirements)

In Stream Work consists of any activity conducted below the normal high water mark of a river, steam, brook, lake, pond or "Coastal Wetland" areas that are subject to tidal action during the highest tide level for the year which an activity is proposed as identified in the tide tables published by the National Ocean Service. http://www.oceanservice.noaa.gov/

I. In Stream Work shall not be allowed between the dates of October 1 and July 14 **(in stream work is allowed from July 15 to September 30, this is the "In Stream Work window")**

II. The In Stream Work window applies to the following water bodies at the following approximate locations:

1. Nonesuch River crossing at Sta. 100+20
2. Unnamed stream ("A") crossing at Sta. 162+92
3. Unnamed stream ("B") crossing at Sta. 174+25
4. Unnamed stream ("C") crossing at Sta. 175+58
5. Unnamed stream ("C") crossing at Sta. 176+26

III. Approvals:

1. Temporary Soil Erosion and Water Pollution Control Plan

IV. All activities are prohibited below the normal high water mark if outside the prescribed in water work window, except for the following:

1. Work within a cofferdam constructed according to MaineDOT's Standard Specifications and in adherence with the contractors approved "Soil Erosion and Water Pollution Control Plan".

V. No work shall be allowed that completely blocks a river, stream, or brook without providing downstream flow.

NOTE: Regulatory Review and Approval shall be required to modify the existing In Stream Work window. Requests for work window extensions shall be submitted to the Engineer. Approval of request for work window extensions shall not be guaranteed and may result in delays in construction schedule that shall be the sole responsibility of the contractor.

Scarborough & South Portland
Eastern Trail
WIN 019426.00 & 019426.10
October 21, 2024

SPECIAL PROVISION
SECTION 105
GENERAL SCOPE OF WORK
(Limitations of Operations)

The contractor shall adequately sign and secure work areas as necessary to assure the public's safety should a person enter a work area before, during or after work hours.

No lane closures will be allowed on Pleasant Hill Road or Parkway Drive. Shifting of through traffic around work site entrances (2 lanes) will be allowed with appropriate signage and channelization devices. Minimum allowable travel lane and shoulder widths shall be 11-ft and 1-ft, respectively.

Parkway Drive is a privately-owned roadway with an easement through the CMP corridor. Access to Parkway Drive is only permitted from the CMP corridor. Any work adjacent to, and at the edge of, Parkway Drive shall occur within the CMP easement, including any temporary maintenance of traffic needs.

Access on other private ways, such as the Portland Water District Access Road off Highland Ave and the access road along Prout's Pond, will be allowed at all times during construction. Construction access along these private ways is limited to construction vehicles only; personal vehicles are prohibited.

The contractor shall not at any time cross into the Springfield Terminal Railway right of way to access the opposite side of the tracks. The construction site west of the CSX Railroad may be accessed through the ABCO property with a driveway entrance at 98 Pleasant Hill Rd. The Contractor shall notify the property owner, Mark Sanborn, at (207) 650-9506 or mark@abcorental.com a minimum of 14 calendar days ahead such planned access. Construction access through this property is limited to construction vehicles only; personal vehicles are prohibited.

November 10, 2022

SPECIAL PROVISION
SECTION 105
GENERAL SCOPE OF WORK
(Build America, Buy America)

105.11 Other Federal Requirements Amend this section by adding the following:

This special provision was created for the Build America, Buy America Act (BABA) to expand the list of construction materials required to be manufactured in the United States beyond what is currently only required for steel/iron products. The Infrastructure Investment and Jobs Act (IIJA), Public Law No. 117-58 includes the Build America, Buy America Act. The Office of Management and Budget issued memorandum M-22-11 to provide guidance on the law which can be found here:

https://www.whitehouse.gov/wp-content/uploads/2022/04/M-22-11.pdf

All iron/steel, including the iron/steel in construction materials and manufactured products, must satisfy Buy America 23 CFR 635.410 requirements.

All construction materials, as defined in the following, that are permanently incorporated into federal-aid projects shall meet Build America, Buy America requirements.

For the purpose of this Specification, construction materials shall include an article, material, or supply that is or consists primarily of the following.

- Non-ferrous metals,
- Plastic and polymer-based products (including polyvinylchloride, composite building materials, and polymers used in fiber optic cables),
- Glass (including optic glass),
- Lumber, or
- Drywall.

All manufacturing processes for construction materials shall occur within the United States. The category of construction materials excludes cement and cementitious materials, aggregates such as stone, sand, or gravel, or aggregate binding agents or additives.

Due to a nationwide waiver, BABA requirements do not apply to manufactured products for FHWA funded projects. Manufactured products are items that consist of two or more of the listed construction materials that have been combined through a manufacturing process, and items that include at least one of the listed materials combined with a material that is not listed (including steel/iron) through a manufacturing process.

The Contractor shall certify in writing that all permanently incorporated Construction Materials for this contract meet the BABA requirements.

Scarborough & South Portland
Eastern Trail
WIN 019426.00 & 019426.10
October 21, 2024

MaineDOT DBE Project Attainment Target
(PAT) for this Project is 8.6%

The MaineDOT seeks to meet the specified annual Disadvantaged Business Enterprise (DBE) usage goal set out by 49 CFR 26.45 through the efforts of contractors seeking to employ qualified DBE subcontractors. We seek to meet this goal by race neutral means and do not, at this time, use contract specific requirements for each project. We do however, understand the capacity of Maine's DBE community and the unique characteristics a project may have that would differ from the broad annual goal.

Taking this into consideration, the MaineDOT will review each project and develop an anticipated attainment or Project Attainment Target (PAT) based on several factors that are project specific. Those factors include:

- ☐ Scope of Work
- ☐ DBE availability according to Specification Item
- ☐ Geographic location
- ☐ DBE capacity

This PAT is developed to assist contractors to better understand the DBE participation that the MaineDOT can reasonably expect for a specific project. The PAT is NOT a mandate but an assessment of the DBE opportunities that this project could meet or exceed. MaineDOT anticipates that each contractor will make the best effort to reach or exceed the PAT for this project.

SPECIAL PROVISION 105
GENERAL SCOPE OF WORK
Equal Opportunity and Civil Rights
(Disadvantaged Business Enterprises Program)

105.10.1.1 Disadvantaged Business Enterprises Program The Maine Department of Transportation (MaineDOT) has established a Disadvantaged Business Enterprise (DBE) program in accordance with regulations of the United States Department of Transportation (USDOT), 49 CFR Part 26. The MaineDOT receives federal financial assistance from USDOT, and as a condition of receiving this assistance, the Department has signed an assurance that it will comply with 49 CFR Part 26.The MaineDOT is responsible for determining the eligibility of and certifying DBE firms in Maine.

A DBE is defined as a for-profit business that is owned and controlled by one or more socially and economically disadvantaged person(s). For the purpose of this definition:

1. "Socially and economically disadvantaged person" means an individual who is a citizen or lawful permanent resident of the United States and who is Black, Hispanic, Native American, Asian, Female; or a member of another group or an individual found to be disadvantaged by the Small Business Administration pursuant to Section 3 of the Small Business Act.
2. "Owned and controlled" means a business which is:
    a. A sole proprietorship legitimately owned and controlled by an individual who is a disadvantaged person.
    b. A partnership or limited liability company in which at least 51% of the beneficial ownership interests legitimately are held by a disadvantaged person(s).
    c. A corporation or other entity in which at least 51% of the voting interest and 51% of the beneficial ownership interests legitimately are held by a disadvantaged person(s).

The disadvantaged group owner(s) or stockholder(s) must possess control over management, interest in capital, and interest in earnings commensurate with the percentage of ownership. If the disadvantaged group ownership interests are real, substantial and continuing and not created solely to meet the requirements of this program, a firm is considered a bona fide DBE.

105.10.1.2 Commercially Useful Function MaineDOT will count expenditures of a DBE contractor toward DBE goals only if the DBE is performing a commercially useful function on that contract. A DBE performs a commercially useful function when it is responsible for execution of the work of the contract and is carrying out its responsibilities by actually performing, managing, and supervising the work involved. Credit will only be given when the DBE meets all conditions for a CUF. Credit for labor will be in accordance with the responsibilities outlined in the contract. To perform a commercially useful function, the DBE must also be responsible, with respect to materials and supplies used on the Contract, for negotiating price, determining quality and quantity, ordering the materials, and installing (where applicable) and paying for the material itself. To determine whether a DBE is performing a commercially useful function, MaineDOT will evaluate the amount of work subcontracted, industry practices, whether the amount the firm is to be paid under the Contract is commensurate with the work it is actually performing and DBE credit claimed for its performance of the work, and other relevant factors.

Rented equipment used by the DBE must not be rented from the Prime Contractor on a job that the DBE is subcontracted with that Prime Contractor for regular course of business.

A current listing of certified DBEs that may wish to participate in the highway construction program and the scope of work for which they are certified can be found at http://www.maine.gov/mdot/disadvantaged-business-enterprises/pdf/directory.pdf. Credit will be given for the value described by a DBE performing as:

A. A prime contractor; 100% of actual value of work performed by own workforces.
B. An approved subcontractor; 100% of work performed by own workforces.
C. An owner-operator of construction equipment; 100% of expenditures committed.
D. A manufacturer; 100% of expenditures committed. The manufacturer must be a firm that operates or maintains a factory or establishment that produces on the premises the materials or supplies obtained by the Contractor. Brokers and packagers shall not be regarded as manufacturers.
E. A regular dealer; 60% of expenditures committed. A regular dealer is defined as a firm that owns, operates, or maintains a store, warehouse or other establishment in which the materials or supplies required for the performance of the contract are bought, kept in stock, and regularly sold to the public. For purposes of this provision a "Broker" is a DBE that has entered into a legally binding relationship to provide goods or services delivered or performed by a third party. Brokers and packagers shall not be regarded as regular dealers.
F. A bona fide service provider; 100% of reasonable fees or commissions. Eligible services include professional, technical, consultant, or managerial, services and assistance in the procurement of essential personnel, facilities, equipment, materials or supplies required for the performance of the contract. Eligible services also include agencies providing bonding and insurance specifically required for the performance of the contract.
G. A trucking, hauling or delivery operation. 100% of expenditures committed when trucks are owned, operated, licensed and insured by the DBE and used on the contract and, if applicable, includes the cost of the self supplied materials and supplies.100% of expenditures committed when the DBE leases trucks from another DBE firm including an owner-operator. 100% of reasonable fees or commissions the DBE receives as a result of a lease arrangement for trucks from a non-DBE, including an owner-operator.
H. Any combination of the above.

105.10.1.3 Race-neutral Goals The Maine DOT is required to set an annual goal (approved on a three year basis) for DBE participation in Federal-aid projects. In order to fulfill that goal, bidders are encouraged to utilize DBE businesses certified by the MaineDOT. MaineDOT seeks to meet the established DBE goal solely through race-neutral means. *Race-neutral* DBE participation occurs when a DBE is awarded a prime contract through customary competitive procurement procedures, is awarded a subcontract on a contract that does not carry a DBE contract goal, or wins a subcontract from a prime contractor that did not consider its DBE status in making the award. A DBE/subcontractor Utilization Proposed Form is required to be included in bid documents.

MaineDOT will analyze each project and create a Project Availability Target (PAT), based on a number of factors including project scope, available DBE firms, firms certified in particular project work, etc. Each bid will request that the contractor attempt to meet the PAT. This PAT is developed to assist contractors to better understand what the MaineDOT expectations are for a

specific project. The PAT is NOT a mandate but an assessment of what this particular project can bear for DBE participation. The Department anticipates that each contractor will make the best effort to reach or exceed this PAT for the project.

105.10.1.4 Race-conscious Project Goals If it is determined by the Department that the annual DBE goal will not be met through *race-neutral* means, the Department may implement *race-conscious contract goals* on some projects. Race-conscious contract goals are goals that are enforceable by the Department and require that the prime contractor use good faith effort to achieve the goal set by the Department for that particular project. If race conscious means are implemented on a project, the Prime must comply with the requirements of 49 CFR.

At the time of the bid opening, all Bidders shall submit with their bid a Disadvantaged Business Enterprise (DBE) Commitment Form provided by the Department. This form will list the DBE and non-DBE firms that are proposed to be used during the execution of the Work. The list shall show the name of the firm, the item/material/type of work involved and the dollar amount of work to be performed. The dollar total of each commitment shall be totaled and a percentage determined.

If the project goal is not met, acceptable documentation showing all good faith efforts made to obtain participation may be required in order to award the project. Failure to provide the required listing with the dollar participation total or acceptable documentation of good faith efforts to obtain DBE participation within 3 days after the bid opening date will be considered a lack of responsiveness on the part of the low bidder. Rejection of the low bid under these circumstances will require the low bidder to surrender the Proposal Guaranty to the Department. The submission and approval of the above forms does not constitute a formal subcontract.

If for any reason during the progress of the Work the Contractor finds that DBEs included on the list are unable to perform the proposed work, the Contractor, with written release by the committed DBE or approval of the Department, may substitute other DBE firms for those named on the list. If the Contractor is able to clearly document their inability to find qualified substitute firms to meet the project goal, the Contractor may request in writing approval to substitute the DBE with a non-DBE firm. If at any time during the life of the Contract it is determined that the Contractor is not fulfilling the goal or commitment(s) and is not making a good faith effort to fulfill the DBE requirement, the Department may withhold progress payments. If good faith effort is determined by the Department, failure to meet the DBE contract goal will not be a detriment to the bid award. Fulfillment of the goal percentage shall be determined by dividing the dollars committed to the DBEs by the actual contract dollars. These requirements are in addition to all other Equal Employment Opportunity requirements on Federal-aid contracts.

105.10.1.5 Certification of DBE attainment on Contracts The MaineDOT must certify that it has conducted post-award monitoring of all contracts to ensure that DBEs had done the work for which credit was claimed. The certification is for the purpose of ensuring accountability for monitoring which the regulation already requires. The MaineDOT will certify these contracts through review of CUF forms, Elations sub-contract payment tracking as well as occasional on-site reviews of projects and through the project's final closeout documentation provided by our Contracts Section.

105.10.1.6 Bidders' List Survey Pursuant to 49 CFR 26.11 the MaineDOT is required to "create and maintain" a bidders list and gather bidder information on our construction/consultant projects, Contractors will maintain information on all subcontract bids submitted by DBE and Non-DBE firms and provide that information to the Department. The Following information is required:

Firm Name
Firm Address
Firm status (DBE or non-DBE)
Age of firm (years)
And the annual gross receipts amount as indicated by defined brackets, i.e. $500,000 to $800,000, rather than requesting exact figures.

Not only is this information critical in determining the availability of DBE businesses relative to other businesses that do similar work, but the Federal Highway Administration requires that we obtain this information.

Scarborough & South Portland
Eastern Trail
WIN 019426.00 & 019426.10
February 21, 2025

SPECIAL PROVISION
SECTION 107
TIME
(Supplemental Liquidated Damages)
(Contract Time)

The Contractor shall plan the work such that the section of trail located between the east edge of Pleasant Hill Road (approximately STA 138+25) and the end of the project at the Wainwright Recreational Complex will be complete on or before October 31, 2026.

The Contractor will be assessed supplemental liquidated damages at the rate of Five Hundred Dollars ($500.00) per day for every calendar day the noted section of trail is not complete after October 31, 2026. Assessment of supplemental liquidated damages will be in addition to liquidated damages specified in Section 107 of the Standard Specifications.

The Contract Completion Date for this contract is October 31, 2027.

All work schedule changes must be submitted for approval to the Department a minimum of 48 hours prior to the requested change.

Once operations commence, every weekday not worked the Contractor will be charged liquidated damages per Section 107.7.2 of the Standard Specifications, excluding days lost to inclement weather, holidays, and approved absences.

Absences must be requested at least 72 hours in advance and are subject to Town of Scarborough approval based on existing roadway condition, paving deadlines, adherence to schedule, traffic restrictions, detours, etc. The Contractor must assure that the roadway surface and signage are maintained for safe passage of the traveling public during any approved absences. The Contract Completion Date will not be modified due to approved absences.

Scarborough & South Portland
Eastern Trail
WIN 019426.00 & 019426.10
October 24, 2024

SPECIAL PROVISION
SECTION 203
EXPANDED SHALE LIGHTWEIGHT AGGREGATE

203.01 Description: This work shall consist of furnishing, placing, and compacting Expanded Shale Lightweight Aggregate according to the lines and grades shown on the plans and cross sections or as directed by the Resident.

203.02 Materials: The Expanded Shale Lightweight Aggregate shall be manufactured aggregate meeting the requirements of ASTM C330. No by-product slag, cinders or by-products of coal combustion shall be permitted. Expanded Shale Lightweight Aggregate shall be durable and non-corrosive. Expanded Shale Lightweight Aggregate shall have the following physical properties:

Gradation:

Sieve Designation	Percent Passing
1 inch	100
¾ inch	90 - 100
3/8 inch	10 - 50
No. 4	0 – 15
No. 200	0 - 5

Density: The dry, loose density shall be less than 50 pcf.

The maximum in-place compacted density shall not exceed 60 pcf. The minimum compacted dry density shall be equal to 65% relative density as determined by ASTM D4253 and ASTM D4254, or as specified by the Resident.

Strength: The minimum strength of loosely placed material, as determined from drained triaxial tests, shall equal that of a cohesionless soil with an angle of internal friction of 36º. Minimum strength of material compacted to 65% of relative density shall equal that of a cohesionless soil with an angle of internal friction of 40º.

Soundness: The maximum soundness loss shall not exceed 10% when tested, with 5 cycles of magnesium sulfate, in accordance with ASTM C88.

Degradation Resistance: The maximum abrasion and impact loss when tested in accordance with ASTM C131 shall not exceed 40%.

Chlorides: The maximum chloride content shall be 100 ppm when tested in accordance with AASHTO T 104.

203.05 Construction Requirements: Expanded Shale Lightweight Aggregate shall be placed in lifts not to exceed 12 inches loose thickness and compacted using two to four passes of vibratory compaction equipment weighing not more than 12 tons static weight with a single roller, at the direction of the Resident. Density testing shall be made at a minimum frequency of one test per lift or as otherwise specified in the Standard Specifications. The Contractor shall take all necessary precautions during construction activities to prevent or minimize particle degradation.

In confined areas, vibratory plate compactor equipment shall be used (5 hp to 20 hp) with a minimum of two passes in 6-inch lifts for a 5 hp plate and 12-inch lifts for a 20 hp plate.

The Contractor shall take all necessary precautions when working on or adjacent to Lightweight Aggregate to ensure that the material is not over compacted. Construction equipment, other than for placement and compaction, shall not operate on the exposed Lightweight Aggregate.

203.06 Method of Measurement: Expanded Shale Lightweight Aggregate will be measured by the number of cubic yards in place.

203.07 Basis of Payment: The Expanded Shale Lightweight Aggregate will be paid for at the contract unit price per cubic yard which shall be full compensation for all labor, materials, and equipment required to construct the final embankment.

Pay Item	Pay Unit
203.247 Expanded Shale Lightweight Aggregate	Cubic Yard

Scarborough & South Portland
Eastern Trail
WIN 019426.00 & 019426.10
October 21, 2024

SPECIAL PROVISION
SECTION 304
AGGREGATE BASE AND SUBBASE COURSE
(Aggregate)

304.02 Aggregate:

Replace "TYPE D and E will not pass a 6 inch mesh sieve" with:

Oversized stones are stones that will not pass a 100 mm (4 in) square mesh sieve.

304.07 Basis of Payment

Payment will be made under:

Pay Item	Pay Unit
304.10 Aggregate Subbase Course Gravel (Modified)	Cubic Yard

SECTION 401 - HOT MIX ASPHALT PAVEMENT

401.01 Description The Contractor shall furnish a uniformly blended, homogeneous mixture placed as one or more courses of Hot Mix Asphalt Pavement (HMA) on an approved base in accordance with the contract documents and in reasonably close conformity with the lines, grades, thickness, and typical cross sections shown on the plans or established by the Resident. The Department will accept this work under Quality Assurance provisions, in accordance with these specifications and the requirements of Section 106 – Quality, the provisions of AASHTO M 323 except where otherwise noted in sections 401 and 703 of these specifications, and the MaineDOT Policies and Procedures for HMA Sampling and Testing.

401.02 Materials Materials shall meet the requirements specified in Section 700 - Materials:

Asphalt Cement	702.01
Aggregates for HMA Pavement	703.07
RAP for HMA Pavement	703.08
HMA Mixture Composition	703.09

401.03 Composition of Mixtures The Contractor shall compose the Hot Mix Asphalt Pavement with aggregate, Performance Graded Asphalt Binder (PGAB), approved antistrip, warm mix additive, and/or mineral filler if required. HMA shall be designed and tested according to AASHTO R 35 and the volumetric criteria in Table 1. The Contractor shall size, uniformly grade, and combine the aggregate fractions in proportions that provide a mixture meeting the grading requirements of the Job Mix Formula (JMF). Unless otherwise noted in Special Provision 403 - Hot Mix Asphalt Pavement, the design, verification, Quality Control, and Acceptance tests for this mix will be performed at 65 gyrations.

TABLE 1: VOLUMETRIC DESIGN CRITERIA

Design ESAL's (Millions)	**Required Density (Percent of G_{mm})**			**Voids in the Mineral Aggregate (VMA) (Minimum Percent)**					**Voids Filled with Binder (VFB) (Minimum %)**	**Fines/Eff. Binder Ratio**
				Nominal Maximum Aggregate Size (mm)						
	$N_{initial}$	**N_{design}**	**N_{max}**	**25.0**	**19.0**	**12.5**	**9.5**	**4.75**		
< 3.0	≤90.5	96.0	≤98.0	13.0	14.0	15.0	16.0	16.0	65-80*	0.6-1.2
3 to <10	≤89.0									
≥ 10										

*For 9.5 mm nominal maximum aggregate size mixtures, the maximum VFB is 82. For 4.75 mm nominal maximum aggregate size mixtures, the maximum VFB is 84.

The Contractor shall submit a JMF to the Department for each mixture to be supplied. The JMF will be approved by the Department in accordance with the MaineDOT HMA Policies and Procedures for HMA Sampling and Testing Manual. At the time of JMF submittal, the Contractor shall identify and make available the stockpiles of all proposed aggregates at the plant site. There must be a minimum of 150 ton for coarse aggregate stockpiles and 75 ton for fine aggregate stockpiles before the JMF may be submitted. The Contractor shall provide aggregate samples to the Department unless otherwise required. The Contractor shall also make available to the Department the PGAB proposed for use in the mix in sufficient quantity to test the properties of the asphalt and to produce

samples for testing of the mixture. The first day's production shall be monitored, and the approval may be withdrawn if the mixture exhibits undesirable characteristics such as checking, shoving or displacement. The Contractor shall be allowed to submit aim changes for a JMF as outlined in the MaineDOT HMA Policies and Procedures for HMA Sampling and Testing Manual: Mix Design Approval Section.

The Contractor shall submit a new JMF for approval each time a change in material source or materials properties is proposed. The same approval process shall be followed. The cold feed percentage of any aggregate may be adjusted up to 10 percentage points from the amount listed on the JMF, however no aggregate listed on the JMF shall be eliminated. The cold feed percentage for RAP may be reduced up to 10 percentage points from the amount listed on the JMF and shall not exceed the percentage of RAP approved in the JMF or for the specific application under any circumstances.

401.031 Warm Mix Technology The Contractor may place Hot Mix Asphalt Pavement produced with an accepted WMA technology if approved by the Department. Methods or technologies shall generally be at the Contractors option, but will be limited to proven, Agency and Industry accepted practice. Mixture production, placement and volumetric testing details, including temperatures, shall be included in the project specific QCP, and submitted to the Department for approval prior to any work.

401.04 Temperature Requirements The temperature of the mixture shall conform to the tolerances in Table 2 as measured at the truck at the mixing plant and at the paver unless otherwise authorized by the Department.

TABLE 2: ALLOWABLE TEMPERATURE RANGES

PGAB Grade(s)	**Temperature Range (°F)**
PG58-28 / PG64-28	275-325
PG64E-28 / PG70E-28	285-335

401.05 Performance Graded Asphalt Binder The Contractor shall utilize either a PG58-28, PG64-28, PG64E-28, PG70E-28, or other grade as specified in the 403 Special Provision. The Contractor shall utilize a PG64-28 if no liquid grade is specified within the 403 Special Provision.

401.06 Weather and Seasonal Limitations The State is divided into two paving zones as follows:

a. Zone 1 Areas north of US Route 2 from Gilead to Bangor and north of Route 9 from Bangor to Calais.
b. Zone 2 Areas south of Zone 1 including the US Route 2 and Route 9 boundaries.

TABLE 3: SEASONAL AND TEMPERATURE LIMITATIONS

Use	Minimum Ambient Air Temperature	Zone 1 Allowable Placement Dates	Zone 2 Allowable Placement Dates
Surface course (travelway & adjacent shoulders*) less than 1 in. thick placed during conditions defined as "night work"	50°F	June 1 to Saturday following September 1	
Surface course (travelway & adjacent shoulders*) less than 1 in. thick	50°F	May 15 to Saturday following September 15	
Travelway surface course greater than or equal to 1 in. thick	50°F	May 1 to Saturday following October 1	April 15 to Saturday following October 15
HMA for surface course on bridge decks	50°F	May 1 to Saturday following October 1	April 15 to Saturday following October 15
HMA for base or shim course on bridge decks	50°F	April 15 to November 15	
HMA for use other than travelway surface course	40°F	April 15 to November 15	
HMA for curb, driveways, sidewalks, islands, or other incidentals	40°F	N/A	N/A
HMA produced with an approved WMA technology for base or shim course	35°F	April 15 to November 15	
*Adjacent shoulders shall be considered shoulders paved in the same operation as the travelway.			

The ambient air temperature shall be determined by an approved thermometer placed in the shade at the paving location. Unless otherwise specified, the Contractor shall not place Hot Mix Asphalt Pavement on a wet or frozen surface regardless of the ambient air temperature. The Hot Mix Asphalt Pavement produced with an approved WMA technology shall meet the requirements of section 401.04 - Temperature Requirements, unless otherwise approved by the Department. For the purposes of this Section, the traveled way includes truck lanes, ramps, approach roads and auxiliary lanes.

401.07 Hot Mix Asphalt Plant

401.071 General Requirements HMA plants shall conform to AASHTO M 156, Standard Specification for Requirements for Mixing Plants for Hot-Mixed, Hot-Laid Bituminous Paving Mixtures with exception of Section 4.2.1, 4.2.2, 4.3.4, 4.3.5, and 4.12.2.

All HMA plants will be inspected annually by the Department prior to producing HMA for Department projects. The Contractor shall provide the Department at least 72 hours' notice that the plant is ready for inspection. The Contractor shall equip the plant with ladders and platforms that are accessible and safe to obtain samples of PGAB, aggregate and mix from the relevant tanks, collector belts and haul units. Silo storage time of mixtures shall not exceed 36 hours.

401.072 Stockpiles The Contractor shall provide sufficient space for stockpiles and maintain a minimum of supply for 2 days production of all aggregate products used in MaineDOT approved mix designs currently under production. A minimum stockpile supply of 100 ton (70 yards) shall be

maintained at all times. The Contractor shall construct stockpiles to prevent intermingling and to minimize segregation. All stockpiles used in MaineDOT mixes shall be identified with weatherproof signs at least 12" high and 24" wide, with reflective lettering at least 2" high.

401.073 Cold Feeds Cold Feed Bins will have bin dividers to keep aggregate products separated. Adequate means must be provided for obtaining samples of the combined flow of all Cold feed bins.

401.074 Dryer Dryer shall be capable of heating aggregate to required mixing temperature and shall be in good operation and condition. Dryer shall be subject to annual inspection prior to start-up. The Contractor shall dry and heat the aggregates for the HMA to the required temperature, adjusting flames to avoid damaging the aggregates. The Contractor shall provide the Department a minimum period of 72 hours to inspect the dryer and provide at least 24 hours' notice that the dryer is ready for inspection.

401.075 Asphalt Binder The plant shall include a heating system and insulation to maintain the asphalt binder at a uniform temperature for proper mixing and compaction. A thermometer shall be provided in the asphalt binder line. No direct flame may come in contact with tank. A sampling valve shall be provided in the circulation line downstream of any binder additive used unless otherwise approved by the Department. The Contractor shall drain down the asphalt as low as safely possible in any tank that will be switched to a new source or grade prior to adding the new PGAB.

401.076 Additives Additives (WMA, anti-strip, etc.) introduced into the binder at the HMA plant shall be introduced per the supplier's recommendations and shall be approved by the Department. The system for introducing additives shall be interlocked with the aggregate feed or weigh system to maintain correct proportions for all production rates and batch sizes. Additive introduction systems shall be controlled by a proportioning device to the amount required on the JMF plus or minus 0.1% of the target. Additive introduction systems shall
be interlocked with the plant and the recordation (batch tickets or drum recordation) shall display the additive and the weight and percentage added. A means for sampling the PG binder with additive introduced will be provided. The sampling point shall be after the additive is mixed with the PGAB before entering the drum or mixer unit.

401.077 Batch Plants

Hot Bins Hot bins shall provide uniform continuous operation and be in good working condition. The plant shall be able to provide samples of hot bins upon request. Overflow shall be provided for each hot bin. Hot bin gates shall close without leaking. Bin walls must prevent intermingling between bins. Each hot bin shall have low level indicators which will alert the operator when the bin is empty.

Mixer Unit Clearance between blades and liner shall be 1" maximum, unless the aggregate exceeds 1 ¼" then the clearance shall be 1 ½". The spray bar length shall be at least 75% of the mixer length. The mixer unit shall be a twin pug mill-type mixer capable of mixing continuously for at least 45 seconds after all materials have been introduced into the mixer. The blades in the mixer shall be capable of producing a homogenous mixture. If the mixer is not enclosed, it shall be equipped with an adjustable hood to prevent loss of dust by dispersion. The mixer unit shall be subject to annual inspection prior to removal of safety features and being readied for service. The Contractor shall provide the Department the opportunity to inspect the mixer unit prior to the

annual inspection. The Contractor shall provide the Department a minimum period of 72 hours to inspect the mixer unit and provide at least 24 hours' notice that the mixer unit is ready for inspection.

Mineral Filler Mineral filler and fiber shall utilize separate bins and feed systems to store and proportion the required quantity into the mixture. The feed systems shall be accurate to no more than 10% of the required weight with a convenient and accurate means of calibration. Mineral filler and fiber shall be introduced in the weigh hopper and uniformly distributed prior to the injection of the asphalt binder.

Automation The HMA batch plant shall automatically batch, mix and discharges mixes. The batch plant shall accurately proportion the various materials in the proper order by weight. The entire batching and mixing cycle shall be continuous and shall not require any manual operations. The batch plant shall use auxiliary interlock circuits to trigger an audible alarm whenever an error exceeding the acceptable tolerance occurs. Along with the alarm, the printer shall print an asterisk on the delivery slip in the same row containing the out-of-tolerance weight. The automatic proportioning system shall be capable of consistently delivering material within the full range of batch sizes. When RAP is being used, the plant must be capable of automatically compensating for the moisture content of the RAP.

The HMA batch plant shall be operated within the following tolerances:

Each aggregate component	+/- 1.5% cumulative, per bin
Mineral Filler	+/- 0.5%
Bituminous Material	+/- 0.1%
Zero return (aggregate)	+/- 0.5%
Zero Return (AC)	+/- 0.1%
Additives	+/- 0.1%

Recordation All plants shall be equipped with an approved digital recording device. The printer shall mark any weight on the ticket that exceeds tolerance. The delivery slip shall contain information required under Section 108.1.3 - Provisions Relating to Certain Measurements, Mass and paragraphs a, b, and c of Section 401.078.

401.078 Drum Plants

Cold Feeds and Delivery System A scalper screen shall be used to remove oversize material. The accuracy of the belt scale shall be within +/- 1.0% of the actual weight being measured. The plant shall be capable of correcting for aggregate moisture. Mineral filler and fiber shall utilize separate bin(s) and feeder systems to store and proportion the required quantity into the mixture. The feed systems shall be accurate to no more than +/- 10% of the required weight with a convenient and accurate means of calibration. The plant shall be equipped with a single control to change all feed rates. Mineral filler and fiber shall be introduced such that dry mixing is accomplished no less than 18 inches prior to the injection of the asphalt binder. The Contractor shall ensure that the mineral filler does not become entrained in the exhaust stream of the dryer.

Binder System The flow of asphalt binder shall adjust automatically with dry aggregate weights. The Department will conduct an asphalt flow meter check annually and after each change of plant location. The flow meter check must be performed prior to producing mix for Department projects. The plant must be configured to provide a convenient means to check accuracy of the flow meter. The flow meter will be considered accurate if the measured weight is within 1% of actual weight.

Drum Mixer The plant shall be equipped with a diversion system where mix can be diverted at startup/shutdown and any time. The drum mixer shall be subject to annual inspection prior to removal of safety features and being readied for service. The Contractor shall provide the Department a minimum period of 72 hours to inspect the drum mixer while providing at least 72 hours' notice that the drum mixer is ready for inspection.

Recordation An approved automatic ticket printer system shall be used to print delivery slips. The requirements for delivery slips for payment of materials measured by weight, as given in the following Sections, shall be waived: 108.1.3 a., 108.1.3 b., 108.1.3 c., and 108.1.3 d. The automatic printed ticket will be considered as the Weight Certificate. The dry aggregate weights and binder flow shall be recorded as well as mineral filler and all binder additives. The recordation of materials shall be printed a minimum of every ten minutes while in production.

The requirements of Section 108.1.3 f. - Delivery Slips, shall be met by the delivery slip printed by the automatic system, which accompanies each truckload, except for the following changes:

a. The quantity information required shall be individual weights of each batch or total net weigh of each truckload.
b. Signatures (legible initials acceptable) of Weighmaster (required only in the event of a malfunction as described in 401.074 c.).
c. The MaineDOT designation for the JMF.

401.079 Scales and Weight Checks Scales shall meeting the requirements of Section 108 - Payment. The scales shall be inspected and sealed by the State Sealer (or approved alternative) as often as the Department deems necessary to verify their accuracy. Plant scales shall be checked prior to the start of the paving season, and each time a plant is moved to a new location. Subsequent checks will be made as determined by the Resident. The Contractor will have at least ten 50 pound masses for scale testing at batch plants. At Contractor's option, the Contractor can use one single test weight that has been checked on sealed scales. This weight shall be 1,000 lbs. or greater. At least twice during each 5 days of production either of the following checks will be performed:

a. A loaded truck may be intercepted and weighed on a platform scale that has been sealed by the State Sealer of Weights and Measures within the past 12 months. The inspector will notify the producer to take corrective action on any discrepancy over 1.0%. The producer may continue to operate for 48 hours under the following conditions.
    1. If the discrepancy does not exceed 1.5%; payment will still be governed by the printed ticket.
    2. If the discrepancy exceeds 1.5%, the plant will be allowed to operate as long as payment is determined by truck platform scale net weight.

    If, after 48 hours the discrepancy has not been addressed and reduced below 1.0%, then plant operations will cease. Plant operation may resume after the discrepancy has been brought within 1.0%.
b. Where platform scales are not readily available, a check will be made to verify the accuracy and sensitivity of each scale within the normal weighing range and to assure that the interlocking devices and automatic printer system are functioning properly. If platform scales are not readily available, a weight with a known mass-verified and sealed annually by a licensed scale company, may be used by hanging weight from silo or surge hopper, at lower middle and upper third levels upon request to verify scale accuracy.
c. In the event of a malfunction of the automatic printer system, production may be continued without the use of platform truck scales for a period not to exceed the next two working

days, providing total weights of each batch are recorded on weight tickets and certified by a Licensed Public Weighmaster.

401.08 Hauling Equipment Units hauling HMA shall have tight, clean, and smooth metal bodies, which have been thinly coated with a small amount of approved release agent to prevent the mixture from adhering to the bodies. Release agents that dissolve or strip asphalts, including diesel fuel, will not be allowed.

All mix haul units shall have a cover of water repellent material capable of heat retention, which completely covers the mixture. The cover shall be securely fastened on the truck, unless unloading. Haul units shall have an opening on both sides near the midpoint of the body, at least 12 in above the bed, which will accommodate a thermometer stem.

401.09 Pavers The Contractor shall use pavers meeting the requirements of this section unless otherwise authorized by the Department. Pavers shall meet the requirements of Table 4: Paver Requirements.

TABLE 4: PAVER REQUIREMENTS

Use	Paver Requirement
Traveled Way & Auxiliary Lanes	Equipped with a 10 ft minimum main screed with activated extensions. The minimum tractor weight shall be 30,000 pounds.
	Equipped with automatic grade and slope controls that automatically adjust the screed and increase or decrease the layer thickness to compensate for irregularities in the preceding course. The controls shall maintain the proper transverse slope and be readily adjustable so that transitions and superelevated curves can be properly paved. The controls shall operate from a fixed or moving reference such as a grade wire or ski type device (floating beam) with a minimum length of 30 ft, a non-contact grade control with a minimum span of 24 ft, except that a 40 ft reference shall be used on interstate and divided highway projects.
All HMA Placement	Self-contained, self-propelled units of sufficient class and size to place Hot Mix Asphalt Pavement in full lane widths specified in the contract on the main line, shoulder, or similar construction.
	Equipped with a free-floating activated heated main screed with activated extensions. Pavers with extendible screeds shall have auger extensions and tunnel extenders as per the manufacturer's recommendations, a copy of which shall be available if requested.
	Equipped with a receiving hopper with sufficient capacity for a uniform spreading operation and a distribution system to place the mixture uniformly, without segregation in front of the screed.
	Operated in such a manner as to produce a visually uniform surface texture and a thickness within the requirements of Section 401.11 - Surface Tolerances. The screed assembly shall produce a finished surface of the required evenness and texture without tearing, shoving, or gouging the mixture.

The Contractor shall have the paver at the project site sufficiently before the start of paving operations to be inspected and approved by the Department. The Contractor shall repair or replace any paver found worn or defective, either before or during placement, to the satisfaction of the Department. Pavers that produce an unevenly textured or non-uniform mat will be repaired or replaced before continuing to place HMA on MaineDOT projects. On a daily basis, the Contractor shall perform density testing across that mat as detailed in Section 401.191 Quality Control - Method A, B & C.

401.10 Rollers Rollers shall be static steel, pneumatic tire, oscillatory, or approved vibrator type. Rollers shall be in good mechanical condition, capable of starting and stopping smoothly, and be free from backlash when reversing direction. Rollers shall be equipped and operated in such a way as to prevent the picking up of hot mixed material by the roller drums or tires. Crushing of the aggregate or displacement of the HMA during rolling will not be permitted. Any HMA Pavement that becomes loose, broken, contaminated, shows an excess or deficiency of PGAB, or is in any other way defective shall be removed and replaced at no additional cost with fresh material which shall be immediately compacted to conform to the adjacent area.

The Contractor shall repair or replace any roller found to be worn or defective, either before or during placement, to the satisfaction of the Department. Rollers that produce grooved, unevenly textured or non-uniform mat will be repaired or replaced before continuing to place HMA. The type of rollers to be used and their relative position in the compaction sequence shall generally be the Contractor's option unless otherwise specified in the contract, provided specified density is attained and with the following requirements:

a. On variable-depth courses, the first lift of pavement over gravel, reclaimed pavement, on irregular or milled surfaces, or on bridges, at least one roller shall be 16 ton pneumatic-tired. Pneumatic-tired rollers shall be equipped with skirting to minimize the pickup of HMA materials from the paved surface. When required by the Resident, the roller shall be ballasted to 20 ton.
b. Compaction with a vibratory or steel wheel roller shall precede pneumatic-tired rolling, unless otherwise authorized by the Department.
c. Vibratory rollers shall not be operated in the vibratory mode on bridge decks.
d. Any method, which results in cracking or checking of the mat, will be discontinued and corrective action taken.
e. The use of an oscillating steel roller shall be required to compact all mixtures placed on bridge decks.

The maximum operating speed for a steel wheel or pneumatic roller shall not exceed the manufacturer's recommendations, a copy of which shall be available if requested.

401.11 Surface Tolerances The Department will check the following surface tolerances:

a. Longitudinally: The pavement surface profile shall be free of deviations in excess of +/- ¼ inches from the required pavement surface profile grade. To verify the surface tolerance a straight plane shall be established using 16 foot straight edge or a taught string line placed parallel to the direction of travel and checked continuously across the width of the lane.
b. Transversely: The pavement surface profile shall be free of deviations in excess of 0 inches below and ¼ inches above the required cross-sectional profile grade. To verify the surface tolerance a straight plane shall be established using a 10 foot straight edge or taught string line placed perpendicular to the direction of travel and checked continuously along the length of the lane.

The Contractor shall correct defective areas by removing defective work and replacing it with new material as directed by the Department. The Contractor shall furnish a 10 foot straightedge for the Department's use.

401.12 Preparation of Existing Surface The Contractor shall thoroughly clean the surface upon which Hot Mix Asphalt Pavement is to be placed of all objectionable material. When the surface of the existing base or pavement is irregular, the Contractor shall bring it to uniform grade and cross section. All surfaces shall have a tack coat applied prior to placing any new HMA course. Tack coat shall conform to the requirements of Section 409 – Bituminous Tack Coat, Section 702 – Bituminous Material, and all applicable sections of the contract.

401.13 Spreading and Finishing On areas where irregularities or unavoidable obstacles make the use of mechanical spreading and finishing equipment impracticable, the Contractor shall spread, rake, and lute the HMA with hand tools to provide the required compacted thickness. Release agents that dissolve or strip asphalts, including diesel fuel, will not be allowed. On roadways with adjoining lanes carrying traffic, the Contractor shall place each course per the conditions in Table 5, unless otherwise noted by the Department in Section 403 - Hot Mix Asphalt Pavement.

TABLE 5: PLACEMENT CONDITIONS FOR ADJOINING LANES

Depth (at centerline)	**Placement Conditions**
Vertical Longitudinal Joint	
¾" and less (incl. shim)	The Contractor may place the HMA course over the full single travel lane width for each production day.
1" to 1 ¼"	The Contractor may place the HMA course over the full single travel lane width for each production day and will be required to place a matching course of HMA over the adjacent section of travel lane before weekend or holiday suspension.
1 ½" to 2"	The Contractor may place the HMA course over the full single travel lane width for each production day and will be required to place a matching course of HMA over the adjacent section of travel lane before the end of the following calendar day.
Greater than 2"	The Contractor shall place each course over the full width of the traveled way section being paved that day.
Notched-Wedge Longitudinal Joint	
1 ½" to 2"	The Contractor may place the HMA course over the full single travel lane width for each production day and will be required to place a matching course of HMA over the adjacent section of travel lane before weekend or holiday suspension. A maximum unmatched centerline joint length of 0.5 miles will be permitted over the weekend.
Greater than 2"	The Contractor may place the HMA course over the full single travel lane width for each production day and will be required to place a matching course of HMA over the adjacent section of travel lane before the end of the following calendar day.

The Contractor shall place the specified course over the full width of the mainline traveled way being paved, regardless of use, depth, or longitudinal joint type prior to Memorial Day, July 4th, Labor Day, paving suspensions exceeding three days, or other dates as specified by special provision.

The Contractor shall install additional warning signage that clearly defines the centerline elevation differential hazard. Unless otherwise addressed in the contract, the Contractor shall install additional centerline delineation such as a double application of raised pavement markers at 100 foot intervals, or temporary painted line. For any exposed vertical edge between the shoulder and traveled way, at a minimum, the use of temporary painted line, or RPMs placed along the edge of traveled way at 200 foot intervals is required. The Traffic Control Plan shall be amended to include this option and the additional requirements. All signs and traffic control devices will conform to Section 719.01, and Section 652, and will be installed prior to the work, at a maximum spacing of

0.50 mile for the entire length of effected roadway section. If this option is utilized, all additional signing, labor, traffic control devices, or incidentals will not be paid for directly, will be considered incidental to the appropriate 652 items.

401.14 Hot Mix Asphalt Placement on Bridge Decks Hot mix asphalt pavement placed on bridges shall also conform to Section 508.04 and the following requirements.

a. The minimum production and placement temperature for the Hot Mix Asphalt placed over membrane shall conform to the manufacturer's recommendations.
b. The bottom course shall be placed with an approved rubber mounted paver of such type and operated in such a manner that the membrane waterproofing will not be damaged in any way.
c. The top course shall not be placed until the bottom course has cooled sufficiently to provide stability.
d. The Contractor will not be required to cut sample cores from the compacted pavement on the bridge deck, unless otherwise directed by Special Provision.
e. After the top course has been placed, the shoulder areas shall be sealed 3 ft wide with two applications of an emulsified bituminous sealer meeting the requirements of Section 612.03 - Sealing and Section 702.12 - Emulsified Bituminous Sealing Compound. The first application shall be pre-mixed with fine, sharp sand, similar to mortar sand, as needed to fill all voids in the mix in the area being sealed. The second application may be applied without sand. The sealer shall be carried to the curb at the gutter line in sufficient quantity to leave a bead or fillet of material at the face of the curb. The area to be sealed shall be clean, dry and the surface shall be at ambient temperature. The furnishing and applying of the required quantity of sealer for the bridge shoulder areas shall be incidental to placing the hot mix asphalt pavement.
f. The area between the edge of the membrane and the vertical surface shall be completely sealed with hot-applied rubberized asphalt material, meeting the requirements of Type 4 crack seal; shall be applied to form a complete seal between the membrane and the vertical surface and shall extend up the vertical surface to within ½ inch of the top of the HMA wearing surface. This work shall be considered incidental to the contract pavement items unless 508 membrane items are included in the contract.

401.15 Compaction Immediately after the Hot Mix Asphalt Pavement has been spread, struck off, and any surface irregularities adjusted, the Contractor shall thoroughly and uniformly compact the HMA by rolling.

The Contractor shall roll the surface when the mixture is in the proper condition and when the rolling does not cause undue displacement, cracking, or shoving. The Contractor shall prevent adhesion of the HMA to the rollers or vibrating compactors without the use of fuel oil or other petroleum-based release agents. Solvents designed to strip asphalt binders from aggregates will not be permitted as release agents on equipment, tools, or pavement surfaces.

The Contractor shall immediately correct any displacement occurring as a result of the reversing of the direction of a roller or from other causes to the satisfaction of the Department. Any operation other than placement of variable depth shim course that results in breakdown of the aggregate shall be discontinued. Any new pavement that shows obvious cracking, checking, or displacement shall be removed and replaced for the full lane width as directed by the Resident at no cost to the Department.

Along forms, curbs, headers, walls, and other places not accessible to the rollers, the Contractor shall thoroughly compact the HMA with mechanical vibrating compactors. The Contractor shall only use hand tamping in areas inaccessible to all other compaction equipment. On depressed areas, the Contractor may use a trench roller or cleated compression strips under a roller to transmit compression to the depressed area.

Any HMA that becomes unacceptable due to cooling, cracking, checking, segregation or deformation as a result of an interruption in mix delivery shall be removed and replaced with material that meets contract specifications at no cost to the Department.

For all items requiring pavement density testing, the Contractor shall cut 6-inch diameter cores at no additional cost to the Department by the end of the working day following paving. Cores shall be cut such that the nearest edge at least 9 inches from any joint. Pre-testing of the cores will not be allowed. If the Contractor and the Department mutually determine that a core is damaged, the Contractor shall cut new core(s) at the same offset and within 3 ft of the initial sample. The Contractor and the Department will mutually determine if underlying material is adhered to the core and if so will mark the core at the point where sawing is needed. The Department will place the cores in a secure container and the Contractor shall transport the cores to the designated MaineDOT lab. The cores will be saw cut by the Department to remove underlying layers. No recuts are allowed at a test location after the core has been tested.

On all sections of overlay with wearing courses designed to be 1 in or less in thickness, there shall be no pay adjustment for density otherwise noted in Section 403 - Hot Mix Asphalt Pavement. For overlays designed to be 1 in or less in thickness, density shall be obtained by the same rolling train and methods as used on mainline travelway surface courses with a pay adjustment for density, unless otherwise directed by the Department.

There shall be no pay adjustment for density on shoulders unless otherwise noted in Section 403 - Hot Mix Asphalt Pavement. Density for shoulders shall be obtained by the same rolling train and methods as used on mainline travelway, unless otherwise directed by the Department. Efforts to obtain optimum compaction will not be waived by the Department unless it is apparent during construction that local conditions make densification to this point detrimental to the finished pavement surface course.

401.16 Joints The Contractor shall construct wearing course transverse and longitudinal joints in such a manner that minimum tolerances shown in Section 401.11 - Surface Tolerances are met when measured with a straightedge. The paver screed shall maintain a uniform head of HMA during transverse and longitudinal joint construction. The HMA shall be free of segregation and meet temperature requirements outlined in Section 401.04. Transverse joints of the wearing course shall be straight and neatly trimmed. The Contractor may form a vertical face exposing the full depth of the course by inserting a header, by breaking the bond with the underlying course, or by cutting back with hand tools. The Contractor shall apply a coating of emulsified asphalt immediately before paving all joints to the vertical face and 3 in of the adjacent portion of any pavement being overlaid except those formed by pavers operating in echelon. The Contractor shall use an approved spray apparatus designed for covering a narrow surface. The Department may approve application by a brush for small surfaces, or in the event of a malfunction of the spray apparatus, but for a period of not more than one working day.

Where pavement under this contract joins an existing pavement, or when the Department directs, the Contractor shall cut the existing pavement along a smooth line, producing a neat, even, vertical joint. The Department will not permit broken or raveled edges. The cost of all work necessary for the preparation of joints is incidental to related contract pay items. Longitudinal joints shall be generally straight to the line of travel and constructed in a manner that best ensure joint integrity. Methods or activities that prove detrimental to the construction of straight, sound longitudinal joints will be discontinued.

The Contractor may utilize an approved notched wedge joint device on all HMA layers 1 ½ inches in depth or greater. A notched wedge joint shall be constructed as shown in Figure 1 using a device that is attached to the paver screed and is capable of independently adjusting the top and bottom vertical notches.

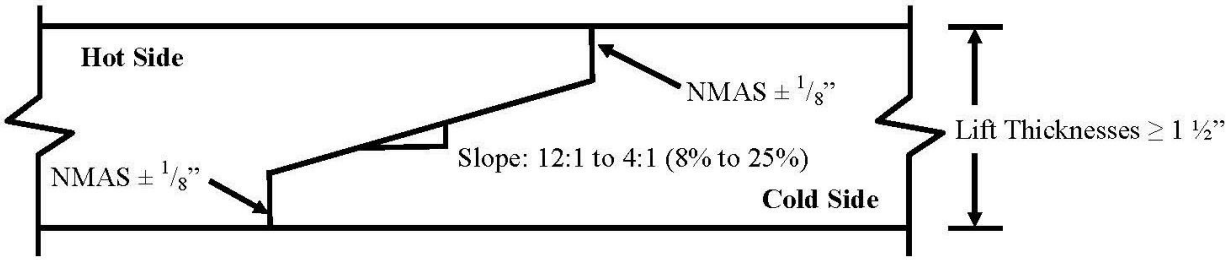


FIGURE 1: Notched Wedge Joint

Notes
1. An emulsified tack coat shall be applied to the vertical edges and the wedge surface so that the total rate is 0.05 G/SY plus the normal specified rate prior to placing the adjacent layer. The Contractor may elect to apply the emulsified tack coat in one or multiple passes.
2. Dimensions shown are compacted depths (after rolling is complete).

The Department reserves the right to have centerline cores cut by the Contractor's QC personnel for informational purposes to monitor the density along the joint. Informational cores at the centerline joint will be taken centered over the tapered part of the wedge joint.

Any notched wedge joint constructed areas that become cracked or broken shall be trimmed back to the limits affected prior to placing the adjoining lane. Any materials that become unbound or separated from the wedge or tapered joint section, or contaminated by materials determined by the Department as being detrimental to the construction of a sound construction joint, shall be removed by sweeping, compressed air and lance, or by hand tools as required. This work, if necessary, will not be paid for directly, but shall be considered incidental to the related contract items.

The Contractor shall apply a coating of emulsified asphalt on the vertical and tapered surface of the longitudinal centerline joint immediately before paving if the notched wedge joint device is used.

The total rate of application shall be 0.050 G/SY plus the normal specified tack coat rate. The Contractor shall use an approved spray apparatus designed for covering a narrow surface. The Department may approve application by a brush for small surfaces.

401.17 Hot Mix Asphalt Documentation The Contractor and the Department shall agree on the amount of Hot Mix Asphalt Pavement that has been placed each day. All delivery slips shall conform to the requirements of 401.078.

401.18 Prepave Meeting Prior to placing any mix, the Department and the Contractor shall hold a Pre-paving conference to discuss the paving schedule, source of mix, type and amount of equipment to be used, sequence of paving pattern, rate of mix supply, random sampling, project lots and sublots and traffic control. A copy of the density QC random numbers to be used on the project shall be provided to the Resident. The Departments' random numbers for Acceptance testing shall be generated and on file with the Resident and the Project Manager. All personnel of the Department and the Contractor who have significant information relevant to the paving items shall attend, including the responsible onsite paving supervisor for the Contractor. The Resident will prepare minutes of the conference and distribute them to all attendees. Any requests to revise the minutes must be made to the Resident within 7 Days of Receipt. These minutes will constitute the final record of the Pre-paving conference. On the first day of paving and whenever there is a change in the onsite paving foreman or paving inspector, the Department and the Contractor shall hold an informal onsite meeting to review the minutes of the Pre-paving conference, Project Specific QCP, Plans, Typicals, Special Provisions and communication process. This meeting shall be held prior to placing any mix and, at minimum, shall occur yearly for multi-year contracts. The onsite paving supervisor, QCT, Superintendent, Resident and/or paving inspector shall attend.

401.19 Contractor Quality Control – Method A, B, C & D
The Contractor shall operate in accordance with the approved Quality Control Plan (QCP) to assure a product meeting the contract requirements. The Contractor shall not begin paving operations until the Department approves the QCP in writing.

401.191 Quality Control The QCP shall meet the requirements of Section 106.6 – Acceptance and this Section. The QCP shall address any items that affect the quality of the Hot Mix Asphalt Pavement, and shall include the following personnel meeting these minimum requirements:

a. QCP Administrator – The QCP Administrator must be a full-time employee of or a consultant engaged by the Contractor or paving subcontractor. The QCP Administrator shall have full authority to institute any and all actions necessary for the successful operation of the QCP. The QCP Administrator (or their designee in the QCP Administrator's absence) shall be available to communicate with the Department at all times.
    - For items accepted under Methods A and B, the QCP Administrator shall be certified as a Quality Assurance Technologist (QAT) by NETTCP.
    - For items accepted under Methods C and D, the QCP Administrator shall be certified by NETTCP as a Quality Assurance Technologist (QAT), Plant Technician, or Paving Inspector.
b. Process Control Technician(s) (PCT) shall utilize test results and other quality control practices to assure the quality of aggregates and other mix components and control proportioning to meet the JMF(s). The PCT shall inspect all equipment used in mixing to assure it is operating properly and that mixing conforms to the mix design(s) and other Contract requirements, and that delivery slips and plant recordation accurately reflects the mix being produced with all the required information. The QCP shall detail how these duties and responsibilities are to be accomplished and documented, and whether more than one PCT is required. The Plan shall include the criteria to be utilized by the PCT to correct or reject unsatisfactory materials. The PCT shall be certified as a Plant Technician by the NETTCP.
c. Quality Control Technician(s) (QCT) shall perform and utilize quality control tests at the job site to assure that delivered materials meet the requirements of the JMF(s). The QCT

shall inspect all equipment utilized in transporting, laydown, and compacting to assure it is operating properly and that all laydown and compaction conform to the Contract requirements. The QCP shall detail how these duties and responsibilities are to be accomplished and documented, and whether more than one QCT is required. The QCP shall include the criteria utilized by the QCT to correct or reject unsatisfactory materials. The QCT shall be certified as a Paving Inspector by the NETTCP.

The QCP shall detail the coordination of the activities of the Plan Administrator, the PCT and the QCT. The Project Superintendent shall be named in the QCP, and the responsibilities for successful implementation of the QCP shall be outlined.

The QCP shall address any items that affect the quality of the Hot Mix Asphalt Pavement including, but not limited to, the following:

a. General Requirements:
    - Job Mix Formulas (JMFs)
    - Name of QCP Administrator, and certification number
    - Description of corrective action process
    - Disposition of defective material
    - A procedure to take immediate possession of acceptance samples once released by MaineDOT and deliver said samples to the designated acceptance laboratory.
b. Process Control Requirements: Each Hot Mix Asphalt plant shall have a Plant Specific Process Control Plan. At minimum the plan shall include:
    - Name of Plant Specific Process Control Technician(s) and certification number(s)
    - Hot mix asphalt plant details
    - Stockpile Management
    - Mixing & transportation
    - Silo management and details
    - A detailed description of RAP processing, stockpiling and introduction into the plant
    - PG Binder management:
        - Tanks and storage (including polymer modified binders if applicable)
        - Binder temperature
        - Sample points
        - Method to ensure mixture contains the specified binder grade
        - Additive introduction details if introduced at the plant
    - Testing and inspection plan for control of aggregates and RAP
    - Mix Testing and inspection plan
c. Quality Control Requirements – Method A & B:
    - Name of Quality Control Technicians(s) and certification number(s)
    - Laydown operations
    - Longitudinal joint construction including the tacking of all joints.
    - Procedures for avoiding paving in inclement weather
    - Compaction of shoulders
    - Methods to ensure that segregation is minimized
    - Procedures to determine the maximum rolling and paving speeds based on best engineering practices and past experience in achieving acceptable pavement smoothness.

- Sequence for paving around drainage structures, under guard rail, around curb, at bridges, intersections, drives and minor approaches to ensure proper compaction, finish, and drainage.
- Type of release agent to be used on haul units, tools and rollers.

d. Quality Control Requirements – Method C and D:
   - Name of QCP Administrator and certification number(s) as specified in Section 401.19.
   - Name of Process Control Technicians(s) and certification number(s).
   - Name of Quality Control Technicians(s) and certification number(s).
   - Anticipated Compaction Temperature Zones for each roller pass during placement.
   - Mix TMD to be used for density gauge setting for method spec density work
   - Procedures for avoiding paving in inclement weather.
   - Type of release agent to be used on haul units, tools and rollers.
   - A note stating that the use of petroleum-based fuel oils, such as diesel or kerosene, or asphalt stripping solvents will not be permitted.

The Contractor shall also supply a Laydown Operation Plan that addresses sequence of work, layout of work, longitudinal joint construction, compaction of shoulders, methods to minimize segregation, and procedures to achieve acceptable pavement smoothness.

For each production day, a summary of each day's results, including a daily paving report, summarizing the mixture type, mixture temperature, equipment used, environmental conditions, and the number of roller passes, shall be recorded and signed by the QCT and presented to the Department's representative by 1 PM the following working day.

Unless otherwise noted in Section 403 – Hot Mix Asphalt Pavement, the Contractor shall submit a modified QC Plan every year detailing, how the mix is to be placed, what equipment is to be used, and what HMA plant is to be used for Items covered under the Plan. All mix designs (JMF) shall be approved and verified by MaineDOT prior to use.

A QCP, certified QC personnel, and a Prepave Meeting shall not be required for Item 403.209 - Hot Mix Asphalt, 9.5 mm Nominal Maximum Size (sidewalks, drives, islands & incidentals) accepted under visual or Method D. An approved JMF shall be provided to the Resident prior to placement.

The Contractor shall certify the mix and the test results for each item by a Certificate of Compliance.

The Contractor shall have a testing lab at the plant site, equipped with all testing equipment necessary to complete the tests in Table 6. The Contractor shall generate QC sampling random numbers for each approved mix design every year. A copy of the random numbers shall be emailed to the QC.mainedot@maine.gov email address and remain on-file (in print) and be available for inspection at the QC laboratory. The Contractor shall sample, test, and evaluate Hot Mix Asphalt Pavement in accordance with the minimum frequencies per each approved mix design.

TABLE 6: MINIMUM QUALITY CONTROL FREQUENCIES

Test or Action	Frequency	Test Method
Temperature of mix	6 per day at street and plant	-
Temperature of mat	4 per day	-
%TMD (In-Place Density - Surface)	1 per 125 ton	AASHTO T 355 or AASHTO T 343
%TMD (In-Place Density - Base)	1 per 250 ton	AASHTO T 355 or AASHTO T 343
Fines / Effective Binder	1 per 500 ton	AASHTO T 312*
Gradation	1 per 500 ton	AASHTO T 30
PGAB Content	1 per 500 ton	AASHTO T 164 or AASHTO T 308
Voids at N_{design}	1 per 500 ton	AASHTO T 312*
VMA at N_{design}	1 per 500 ton	AASHTO T 312*
Rice Specific Gravity	1 per 500 ton	AASHTO T 209
Percent Fractured Particles	1 per 5,000 ton	AASHTO T 335
Flat and Elongated Particles	1 Per 5,000 ton	ASTM D4791
Fine Aggregate Angularity	1 Per 5,000 ton	AASHTO T 304

*Method A and B only

The Contractor shall monitor plant production on each approved mix design using running average of three control charts as specified in Section 106 - Quality. Control limits shall be as noted in Table 7 below. The UCL and LCL, shall not exceed the allowable gradation control points for the particular type of mixture as outlined in Table 1 of Section 703.09.

TABLE 7: CONTROL LIMITS

Property	UCL and LCL
Percent Passing 4.75 mm and larger sieves	Target +/- 4.0
Percent Passing 2.36 mm sieve	Target +/- 2.5
Percent Passing 0.075 mm sieve	Target +/- 1.0
PGAB Content	Target +/- 0.25
VMA at N_{design}	LCL = LSL + 0.2
Voids at N_{design}	JMF Target +/- 1.2
Theoretical Maximum Specific Gravity	JMF Target +/- 0.020

The Contractor shall submit all QC test and inspection reports and updated control charts to the Resident and QC.mainedot@maine.gov by email. The reports and updated control charts shall be signed by the appropriate technician and be submitted to the Department by 1:00 P.M. on the next working day, except when otherwise noted in the QCP and approved by the Department.

The Contractor shall also retain splits of the previous 5 QC tests, with QC results enclosed for random selection and testing by the Department. Test results of splits that do not meet the Dispute Resolution

Variance Limits in Table 18 shall trigger an investigation by the MaineDOT Independent Assurance Unit and may result in that lab losing NETTCP certification and the ability to request a dispute [Section 401.50 - Process for Dispute Resolution].

The Contractor shall make density test results, including randomly sampled densities, available to the Department onsite. Summaries of each day's results, including a daily paving report summarizing the mixture type, mixture temperature, equipment used, environmental conditions, and the number of

roller passes, shall be recorded and signed by the QCT and provided to the QC.mainedot@maine.gov email address and Resident in writing by 1:00 p.m. the next working day. The Contractor shall fill all holes in the pavement resulting from cutting cores by the Contractor or the Department with a properly compacted, acceptable mixture no later than the following working day. Before filling, the Contractor shall carefully clean the holes and apply a coating of emulsified asphalt. The Contractor may only cut additional cores for verification of the densometer, at a rate not to exceed 3 per day or 2 per 1000 ton placed.

If the Contractor's control chart shows the process for a given mix design to be out of control (defined as a single point outside of the control limits on the running average of three chart) on any property listed in Table 7: Control Limits, the Contractor shall notify the Resident of all affected projects in writing of the corrective action by 1:00 PM the next working day. The written description shall detail what action is being taken by the Contractor to bring the property in question back within control limits. Subsequent quality control results are expected to demonstrate an improvement and regression towards the aim. The Department reserves the right to take action, to include cessation of production, in the case of repeated results outside the Table 7 control chart control limits.

On a daily basis, or whenever equipment type or sequence is modified, the Contractor shall perform density testing across the mat being placed, prior to being compacted by equipment at 12 in intervals. If the density values vary by more than 2.0% from the mean, the Contractor shall make adjustments to the screed until the inconsistencies are remedied. Failure to replace or repair defective placement equipment may result in a letter of suspension of work and notification of a quality control violation resulting in possible monetary penalties as governed by Section 106 – Quality.

The Contractor shall cease paving operations whenever one of the following occurs:

a. The quality level for density using all quality control tests for the current Lot is less than 60 PWL.
b. The Coarse Aggregate Angularity or Fine Aggregate Angularity value falls below the requirements of Section 703.07, Table 3: Aggregate Consensus Properties Criteria for the design traffic level.
c. The Flat and Elongated Particles value exceeds 10% by ASTM D4791.
d. There is any visible damage to the aggregate due to over-densification other than on variable depth shim courses.
e. The Contractor fails to follow the approved QCP.

The Contractor shall notify the Resident in writing as to the reason for shutdown, as well as the corrective action, by the end of the workday. Failure to do so will be treated as a second incident under 106.4.6 QCP Non-compliance. The Department will only allow the continuation of paving operations when it is satisfied the corrective action will result in an improvement in results. The Department may require the submittal of a passing verification sample to allow further production. The Department

retains the exclusive right, with the exception of the first day's production of a new JMF, to determine whether the resumption of production involves a significant change to the production process. If the Department so determines, then the current lot will be terminated, a pay factor established, and a new lot will begin.

The Contractor may utilize innovative equipment or techniques not addressed by the Contract documents to produce or monitor the production of the mix, subject to approval by the Department.

401.192 Quality Control for Method D, (sidewalks, drives, islands & incidentals) and visual acceptance items A QCP, certified QC personnel, or Prepave Meeting shall not be required for Item 403.209 - Hot Mix Asphalt, 9.5 mm Nominal Maximum Size (sidewalks, drives, islands & incidentals) accepted under visual or Method D. An approved JMF shall be provided to the Resident prior to placement.

401.20 Acceptance Method A & C These methods utilize Quality Level Analysis and pay factor specifications. For Hot Mix Asphalt Pavement designated for acceptance under Quality Assurance provisions, the Department will sample once per sublot on a statistically random basis, test, and evaluate in accordance with the Acceptance Properties as outlined in Table 8:

TABLE 8: ACCEPTANCE PROPERTIES – METHOD A & C

Properties	**Point of Sampling**	**Test Method**
Gradation	Paver Hopper	AASHTO T 30
PGAB Content	Paver Hopper	AASHTO T 308
% TMD (In-Place Density)	Mat behind all Rollers	AASHTO T 269
Voids at N_{design}	Paver Hopper	AASHTO T 312
VMA at N_{design}	Paver Hopper	AASHTO T 312
Fines to Effective Binder	Paver Hopper	AASHTO T 312
VFB	Paver Hopper	AASHTO T 312

The Department will obtain samples of Hot Mix Asphalt Pavement in conformance with AASHTO R 97, Sampling Asphalt Mixtures, and the MaineDOT Policies and Procedures for HMA Sampling and Testing. The Contractor shall transport the samples in containers provided by the Department to the designated MaineDOT Laboratory within 48 hours except when otherwise noted in the project specific QCP or as directed by the Resident. Failure to deliver an acceptance sample to the designated acceptance laboratory will be considered the second incident under 106.4.6–QCP Non-Compliance.

Target values shall be as specified in the JMF. The Department will withhold reporting of the test results for the Acceptance sample until 7:00 AM, on the second working day of receipt of the sample, or after receipt of the Contractors results of the Acceptance sample split. Upon conclusion of each lot being evaluated under quality level analysis, where there is a minimum of four sublots, results shall be examined for statistical outliers, as stated in Section 106.7.2 - Statistical Outliers.

Lot sizes and sublot sizes shall be determined as outlined in Table 9.

TABLE 9: LOT AND SUBLOT SIZES – METHOD A & C

Lot Size*	Entire production per item per contract per year up to 6000 ton
Maximum Sublot Size – Mix	750 ton
Maximum Sublot Size – Density	Surface Layers – 250 ton Base / Intermediate Layers – 500 ton
Minimum Number of Samples – Mix	Four
Minimum Number of Samples – Density	Five

*General – Lot and Sublot size may be adjusted to accommodate the work scope and schedule, or as otherwise agreed upon at the Prepave Meeting

If there is less than one-half of a sublot remaining at the end of production for the year, then it shall be combined with the previous sublot. If there is more than one-half sublot remaining at the end of production for the year, then it shall constitute the last sublot and shall be represented by test results. If it becomes apparent partway through a Lot that, due to an underrun, there will be insufficient mix quantity to obtain the minimum number of sublots needed, the Resident may adjust the size of the remaining sublots and select new sample locations based on the estimated quantity of material remaining in the Lot. Unanticipated over-runs of up to 1500 ton shall be rolled into the last lot. Cases where the lot is terminated prior to reaching completion shall be handled in accordance with Section 106.7.3 Early Termination of Lots. In cases where density incentive/disincentive provision apply, additional cores shall be taken to attain a minimum of three for the Lot.

Isolated Areas During the course of inspection, should it appear that there is an isolated area that is not representative of the lot based on a lack of observed compactive effort, excessive segregation, a change in process or any other questionable practice, that area may be isolated and tested separately. An area so isolated that has a calculated pay factor below 0.80 for Method A, based on three random tests shall be removed and replaced at the expense of the Contractor for the full lane width and a length not to be less than 150 ft.

TABLE 10: ACCEPTANCE LIMITS – METHOD A & C

Property	**USL and LSL**	
	Method A	**Method C**
Percent Passing 4.75 mm and larger sieves	Target +/- 7%	Target +/- 7%
Percent Passing 2.36 mm to 1.18 mm sieves	Target +/- 4%	Target +/- 5%
Percent Passing 0.60 mm sieve	Target +/- 3%	Target +/- 4%
Percent Passing 0.30 mm to 0.075 mm sieve	Target +/- 2%	Target +/- 2%
PGAB Content	Target +/- 0.4%	Target +/- 0.4%
Voids at N_{design}	4.0% +/- 1.5%	N/A
Fines to Effective Binder	0.9 +/- 0.3	N/A
VMA at N_{design}	LSL from Table 1	N/A
VFB	Table 1 plus a 4% production tolerance for USL	N/A
% TMD (In-place Density)	94.5% +/- 2.5%	94.5% +/- 2.5%

Cease Production The Contractor shall cease paving operations whenever one of the following occurs on a lot in progress:

TABLE 11: CEASE PRODUCTION – METHOD A & C

Property	Percent Within Limits (PWL)	
	Method A	**Method C**
Percent Passing NMAS sieve*	<60 PWL	<60 PWL
Percent Passing 2.36 mm sieve*		
Percent Passing 0.30 mm sieve*		
Percent Passing 0.075 mm sieve*		
PGAB Content		
Voids at N_{design}		N/A
Fines to Effective Binder*		
VMA at N_{design}		
VFB		
% TMD (In-place Density)		<60 PWL

*Paving operations shall not be required to cease if the mean test value is equal to the LSL or USL and s = 0.

In cases where the Contractor is to cease paving operations based upon an Acceptance result or payfactor, the Contractor will submit a corrective action plan to the Department. The Department will only allow the continuation of paving operations when it is satisfied the corrective action will result in an improvement in results. The Department may require the submittal of a passing verification sample to allow further production.

401.201 Pay Adjustment - Method A & C The Department will use the following criteria for pay adjustment at the completion of the Lot using the pay adjustment factors under Section 106.7 - Quality Level Analysis.

Density Upon conclusion of each lot, density results shall be examined for statistical outliers as stated in Section 106.7.2. If the pay factor for Density falls below 0.80, all of the cores will be randomly re-cut by Sublot. A new pay factor will be calculated that combines all initial and retest results. If the resulting pay factor is below 0.80 , the entire Lot shall be removed and replaced with material meeting the specifications at no additional cost to the Department, except that the Department may, when it appears that there is a distinct pattern of defective material, isolate any defective material by investigating each mix sample sublot and require removal of defective mix sample sublots only, leaving any acceptable material in place if it is found to be free of defective material. Pay factors equal to or greater than the reject level will be paid accordingly.

Mix Properties The Department will determine a pay factor (PF) using the applicable Acceptance Limits. If all three pay factors for PGAB Content, VMA at N_{design}, and Voids at N_{design} fall below 0.80 for Method A, then the composite pay factor for PGAB Content, VMA at N_{design}, and Voids at N_{design} shall be 0.50.

The following variables will be used for pay adjustment:

PA = Pay Adjustment
Q = Quantity represented by PF in ton
P = Contract price per ton
PF = Pay Factor

The Department will determine a pay adjustment using Table 12: Pay Adjustment Calculations as follows:

TABLE 12: PAY ADJUSTMENT CALCULATIONS – METHOD A & C

Acceptance Method	Mix Properties / Gradation	Density
Method A	PA = (Voids @ N_d PF - 1.0)(Q)(P)x0.20 + (VMA @ N_d -1.0)(Q)(P)x0.20 + (PGAB Content PF- 1.0)(Q)(P)x0.10	PA = (density PF-1.0)(Q)(P)x0.50
Method C	PA = (% Passing Nom. Max PF-1.0)(Q)(P)x0.05+(% passing 2.36 mm PF-1.0)(Q)(P)x0.05+(%passing 0.30 mm PF-1.0)(Q)(P)x0.05+(%passing 0.075 mm PF-1.0)(Q)(P)x0.10+(PGAB Content PF-1.0)(Q)(P)x0.25	PA = (density PF-1.0)(Q)(P)x0.50

In addition, for 9.5 mm NMAS mixtures the following pay adjustment shall also apply:

The average percent passing for the 0.075 mm sieve shall be evaluated for each Lot. If the average is greater than 6.5%, a pay adjustment according to Table 13 below shall apply in addition to the other pay adjustments for the given method of testing.

TABLE 13: 0.075 MM SIEVE PAY ADJUSTMENT

Average Percent Passing 0.075 mm Sieve	Pay Adjustment
6.6% - 7.0%	-5%
> 7.0%	-10%

The Department shall notify the Contractor whenever the average of at least three samples in a given Lot is greater than 6.5%.

401.21 Acceptance Method B & D Unless otherwise stated in the 403 special provision, the Lot shall be the entire mix quantity per item per contract per year. The Department will sample once per sublot per pay item on a statistically random basis, test, and evaluate in accordance with the Acceptance Properties in Table 14. The Department will obtain samples of Hot Mix Asphalt Pavement in conformance with AASHTO R 97, Sampling Asphalt Mixtures, and the MaineDOT Policies and Procedures for HMA Sampling and Testing. The Contractor shall transport the samples in containers provided by the Department to the designated MaineDOT Laboratory within 48 hours except when otherwise noted in the project specific QCP or as directed by the Resident. Failure to deliver an acceptance sample to the designated acceptance laboratory will be considered the second incident under 106.4.6–QCP Non-Compliance. Target values shall be as specified in the JMF. The Department will withhold reporting of the test results for the Acceptance sample until 7:00 AM, on the second working day of receipt of the sample, or after receipt of the Contractors results of the Acceptance sample split.

TABLE 14: ACCEPTANCE PROPERTIES – METHOD B & D

Properties	Point of Sampling		Test Method
	Method B	Method D	
Gradation	Paver Hopper	Paver Hopper or Truck	AASHTO T 30
PGAB Content	Paver Hopper	Paver Hopper or Truck	AASHTO T 308
% TMD (In-Place Density)	Mat behind all Rollers	Mat behind all Rollers	AASHTO T 269
Voids at N_{design}	Paver Hopper	N/A	AASHTO T 312
VMA at N_{design}	Paver Hopper	N/A	AASHTO T 312
Fines to Effective Binder	Paver Hopper	N/A	AASHTO T 312
VFB	Paver Hopper	N/A	AASHTO T 312

TABLE 15: LOT AND SUBLOT SIZES – METHOD B & D

Lot Size*	Entire mix quantity per item per contract per year	
Maximum Sublot Size – Mix	(Lot size ≤ 1000 tons)	(Lot size > 1000 tons)
	250 ton	750 ton
Sublot Size – Density	125 ton (Max 5 Sublots)	250 ton

*General – Lot and Sublot size may be adjusted to accommodate the work scope and schedule, or as otherwise agreed upon at the Prepave Meeting

If there is less than one-half of a sublot remaining at the end of production for the year, then it shall be combined with the previous sublot. If there is more than one-half sublot remaining at the end of production for the year, then it shall constitute the last sublot.

TABLE 16: ACCEPTANCE LIMITS – METHOD B & D

Property	USL and LSL	
	Method B	Method D
Percent Passing 4.75 mm and larger	Target +/- 7%	Target +/- 7%
Percent Passing 2.36 mm sieve	Target +/- 5%	Target +/- 7%
Percent Passing 1.18 mm sieve	Target +/- 5%	Target +/- 5%
Percent Passing 0.60 mm sieve	Target +/- 4%	Target +/- 4%
Percent Passing 0.30 mm sieve	Target +/- 3%	Target +/- 3%
Percent Passing 0.075 mm sieve	Target +/- 3%	Target +/- 3%
PGAB Content	Target +/- 0.5%	Target +/- 0.5%
Voids at N_{design}	4.0% +/- 2.0%	N/A
Fines to Effective Binder	0.9 +/- 0.3	N/A
VMA at N_{design}	LSL from Table 1	N/A
VFB	Table 1 plus a 4% production tolerance for USL	N/A
% TMD (In-place Density)	94.5% +/- 2.5%	LSL of 92.0%

The Contractor shall cease paving operations whenever two consecutive Method B or D tests fall outside specification limits on the same property. The Contractor will submit a corrective action plan to the Department. The Department will only allow the continuation of paving operations when it is satisfied the corrective action will result in an improvement in results. The Department may require the submittal of a passing verification sample to allow further production.

401.211 Pay Adjustment - Method B & D For items accepted under Method B or D, if the mix is within the tolerances listed in Table 16, the Department will pay the contract unit price, otherwise pay adjustments as shown in Table 17 shall be applied to the quantity of mix represented by the test. The Contractor shall cut one 6 in core per sublot unless otherwise noted in Section 403 - Hot Mix Asphalt Pavement. If the density result is not within the specified limits the disincentive shall apply. If the sublot density is less than 88.5 percent or greater than 99.0 percent of the sublot TMD, two additional cores shall be cut at random locations determined by the Department. If either of the additional cores has a density less than 88.5 percent or greater than 99.0 percent of the sublot TMD, the sublot shall be removed and replaced at no cost to the Department; otherwise, the average of the three cores will be used to determine the sublot pay adjustment.

TABLE 17: PAY ADJUSTMENTS – METHOD B & D

Property	**Method B**		**Method D**	
Percent Passing 2.36 mm sieve	N/A		-2.0%	
Percent Passing 0.30 mm sieve	N/A		-1.0%	
Percent Passing 0.075 mm sieve	-2.0%		-2.0%	
PGAB Content	-5.0%		-5.0%	
Voids at N_{design}	-3.0%		N/A	
% TMD (In-place Density)	91.5% - 91.9% or 97.1% - 97.5%	-5.0%	91.5% - 91.9%	-5.0%
	90.5% - 91.4% or 97.6% - 98.5%	-10.0%	90.5% - 91.4%	-10.0%
	89.5% - 90.4% or 98.6% - 99.0%	-20.0%	89.5% - 90.4%	-20.0%
	88.5% - 89.4%	-30.0%	88.5% - 89.4%	-30.0%
	<88.5% or >99.0%	Reject	<88.5% or >99.0%	Reject

401.30 Method of Measurement The Department will measure Hot Mix Asphalt Pavement by the ton in accordance with Section 108.1 - Measurement of Quantities for Payment.

401.40 Basis of Payment The Department will pay for the work, in place and accepted, in accordance with the applicable sections of this Section, for each type of HMA specified.

The Department will pay for the work specified in Section 401.12, for the HMA used, except that cleaning objectionable material from the pavement and furnishing and applying bituminous material to joints and contact surfaces is incidental.-Payment for this work under the appropriate pay items shall be full compensation for all labor, equipment, materials, and incidentals necessary to meet all related contract requirements, including design of the JMF, implementation of the QCP, obtaining core samples, transporting cores and samples, filling core holes, applying emulsified asphalt to joints, and providing testing facilities and equipment. The Department will make a pay adjustment for quality as specified in Section 401.20 Acceptance Method A & B or 401.21 Acceptance Method C & D.

401.50 Process for Dispute Resolution At the time of Hot-Mix Asphalt sampling, the Department will obtain a split sample of each Acceptance test random sample for possible dispute resolution testing. The Contractor shall also obtain a split sample of the HMA at this same time. If the

Contractor wishes to retain the option of requesting dispute testing of the initial Acceptance sample, the Contractor will test their split of the Acceptance sample in accordance with applicable AASHTO procedure and accepted supplemental practice as described in the Department's HMA Sampling and Testing Policies and Procedures manual. The Contractor shall report their results to the Resident, with a copy to Contractor.mainedot@maine.gov by 7:00 AM, on the second working day from time of QA sampling, otherwise dispute resolution will not be initiated. The Department's dispute resolution split sample will be properly labeled and stored for a period of at least two weeks after it has been reported, or until the sample is tested. The properties eligible for dispute and the respective variances are shown in Table 18.

The Contractor may dispute the Department's Acceptance results and request that the dispute resolution split sample be tested by notifying the Department's Resident and QA Engineer in writing within two working days after the results of the Acceptance test are reported. The following shall be provided in the request:

- Acceptance sample reference number
- The specific test result(s) or property(ies) being disputed, and
- The complete, signed report of the Contractor's testing (In a lab certified by the NETTCP and MaineDOT) of their split of the Acceptance sample indicating that the variances in Table 18 for the specific test result(s) or property(ies) were exceeded.

TABLE 18: DISPUTE RESOLUTION VARIANCE LIMITS

Property	**Method A & B**	**Method C & D***	**Variance Limits**
PGAB Content	Yes	Yes	+/- 0.4%
G_{mb}	Yes	No	+/- 0.030
G_{mm}	Yes	Only if referenced to a Core	+/- 0.020
Voids at N_{design}	Only if G_{mb} or G_{mm} is not disputable	No	+/- 0.8%
VMA at N_{design}	Only if G_{mb} or G_{mm} is not disputable	No	+/- 0.8%
Percent Passing 4.75 mm and larger sieves	No	Yes^	+/- 4.0%
Percent Passing 2.36 mm to 0.60 mm sieves	No	Yes^	+/- 3.0%
Percent Passing 0.30 mm to 0.15 mm sieves	No	Yes^	+/- 2.0 %
0.075 mm sieve	Only for 9.5 mm NMAS mixes	Yes	+/- 0.8%

*****Disputes will not be allowed on Item 403.209

^Disputes will only be allowed on Sieve Sizes used for pay adjustment calculations

The value of any disputed result or property reported for the initial Acceptance sample shall stand if the value reported for the dispute resolution sample is not closer to the value the Contractor reported for their split sample than to the value reported for the initial Acceptance sample. If the value reported for the dispute resolution falls precisely half-way between the other two values the value reported for the dispute resolution will replace the original acceptance value. Otherwise, the

value reported for the dispute resolution sample will replace the value reported for the initial Acceptance sample and will be used to re-calculate any other affected results or properties.

SECTION 402 - PAVEMENT SMOOTHNESS

402.00 Smoothness Projects Projects to have their pavement smoothness analyzed in accordance with this Specification will be so noted in Special Provision 403 - Hot Mix Asphalt Pavement.

402.01 Pavement Smoothness The final pavement surface shall be evaluated for smoothness using a Class I or Class II profiler as defined by ASTM E950 (94). Smoothness measurements will be expressed in terms of the International Roughness Index (IRI) as defined by the World Bank, in units of inches/mile.

402.02 Lot Size Lot size for smoothness will be 3000 lane-feet. A sublot will consist of 50 lane-feet. Partial lots will be included in the previous lot if less than one-half the size of a normal lot. If equal to or greater than one-half the normal lot size, it will be tested as a separate lot.

402.03 Acceptance Testing The Department will conduct Acceptance testing following completion of the surface course. Sections to be excluded from testing include the following:

- Bridge decks and joints (no smoothness measurements will be taken within 100 ft of bridge joints)
- Acceleration and deceleration lanes
- Shoulders and ramps
- Side streets and roads
- Within 100 ft of transverse joints at the beginning and end of the project
- Within 100 ft of railroad crossings
- Urban areas with speed limits of 30 mph or lower

Each lot shall have 2 measurements made in each wheel path. The average of the 4 measurements will determine the smoothness for that lot. The smoothness measurements will be statistically evaluated for pay factors as described in Subsection 106.7 - Quality Level Analysis, using the specification limits shown below.

TABLE 1: ACCEPTANCE LIMITS

Level	**USL**
I	55 in/mile
II	65 in/mile
III	75 in/mile

Computation of Smoothness Pay Adjustment:

PA = (PF-1.0)(Q)(P) where:
Q = Quantity of surface course in the Lot (excluding shoulders, side streets, bridge decks, ramps, acceleration and deceleration lanes)
PF = smoothness pay factor for the Lot
P = Contract unit price for surface pavement
PA = pay adjustment

402.04 Unacceptable Work In the event that any Lot is found to have a pay factor less than 0.80, the Contractor shall take whatever remedial action is required to correct the pavement surface in that Lot at no additional expense to the Department. Such remedial action may include but is not limited to removal and replacement of the unacceptable pavement. In the event remedial action is necessary, the Contractor shall submit a written plan to the Resident outlining the scope of the remedial work. The Resident must approve this plan before the remedial work can begin. Following remedial work, the Lot shall be retested, and will be subject to the specification limits listed above. The resulting pay factor, if within the acceptable range, will be used in the final pay adjustment. The Contractor shall pay the cost of retesting the pavement following corrective action.

Localized surface tolerance defects will be subject to the provisions outlined in Section 401.11 Surface Tolerances.

Payment will be made under:

Pay Item	Pay Unit
402.10 Incentive/Disincentive - Pavement Smoothness	Lump Sum

SECTION 403 - HOT MIX ASPHALT PAVEMENT

403.01 Description This work shall consist of constructing one or more courses of Hot Mix Asphalt pavement on an approved base in accordance with these specifications, and in reasonably close conformity with the lines, grades, thickness and typical cross sections shown on the plans or established. The HMA pavement shall be composed of a mixture of aggregate, filler if required, and asphalt material.

403.02 General The materials and their use shall conform to the requirements of Section 401 - Hot Mix Asphalt Pavement.

403.03 Construction The construction requirements shall be as specified in Section 401 - Hot Mix Asphalt Pavement.

403.04 Method of Measurement Hot mix asphalt pavement will be measured as specified in Section 401.21- Method of Measurement.

403.05 Basis of Payment The accepted quantities of hot mix asphalt pavement will be paid for at the contract unit price per ton for the mixtures, including hot mix asphalt material complete in place. Method A, Method B, Method C and Method D shall be used for acceptance as specified in Section 401 - Hot Mix Asphalt Pavements. (See Complementary Notes, Section 403 - Hot Mix Asphalt Pavement, for Method location).

Payment will be made under:

Pay Item		Pay Unit
403.102	Hot Mix Asphalt Pavement for Special Areas	Ton
403.206	Hot Mix Asphalt, 25 mm Nominal Maximum Size	Ton
403.207	Hot Mix Asphalt, 19.0 mm Nominal Maximum Size	Ton
403.2071	Hot Mix Asphalt, 19.0 mm Nominal Maximum Size (Polymer Modified)	Ton
403.2072	Asphalt Rich Hot Mix Asphalt, 19.0 mm Nominal Maximum Size (Asphalt Rich Base and Intermediate course)	Ton
403.208	Hot Mix Asphalt, 12.5 mm Nominal Maximum Size	Ton
403.2081	Hot Mix Asphalt - 12.5 mm Nominal Maximum Size (Polymer Modified)	Ton
403.209	Hot Mix Asphalt, 9.5 mm Nominal Maximum Size (Sidewalks, Drives, Islands & Incidentals)	Ton
403.210	Hot Mix Asphalt, 9.5 mm Nominal Maximum Size	Ton
403.2101	Hot Mix Asphalt, 9.5 mm Nominal Maximum Size (Polymer Modified)	Ton
403.2104	Hot Mix Asphalt, 9.5 mm Nominal Maximum Size (Thin Lift Surface Treatment)	Ton
403.211	Hot Mix Asphalt, 9.5 mm Nominal Maximum Size (Shimming)	Ton
403.2111	Hot Mix Asphalt, 9.5 mm Nominal Maximum Size (Shimming, Polymer Modified))	Ton
403.212	Hot Mix Asphalt, 4.75 mm Nominal Maximum Size	Ton
403.213	Hot Mix Asphalt, 12.5 mm Nominal Maximum Size (Base and Intermediate Base course)	Ton
403.2131	Hot Mix Asphalt, 12.5 mm Nominal Maximum Size (Base and Intermediate Base course, Polymer Modified)	Ton
403.2132	Asphalt Rich Hot Mix Asphalt, 12.5 mm Nominal Maximum Size (Base and Intermediate Base course)	Ton
403.214	Hot Mix Asphalt, 4.75 Nominal Maximum Size (5/8” Surface Treatment)	Ton

SPECIAL PROVISION
SECTION 403
HOT MIX ASPHALT

Desc. Of Course	Grad Design.	Item Number	Total Thick	No. Of Layers	Comp. Notes
Multi-Use Trail (As Indicated)					
Wearing	9.5 mm	403.210	2”	1/more	1,2,4,10,11,14,16,23
Miscellaneous Areas (As Directed)					
Wearing	9.5 mm	403.210	2” Min	1/more	1,2,4,10,11,14,16

COMPLEMENTARY NOTES

1. The required PGAB for this mixture will meet a **PG 64-28** grading.
2. The incentive/disincentive provisions for density shall not apply. Rollers shall meet the requirements of this special provision. The use of an oscillating steel roller shall be required to compact all mixtures pavements placed on bridge decks.
4. The design traffic level for mix placed shall be 0.3 to <3 million ESALS. The design, verification, Quality Control, and Acceptance tests for this mix will be performed at **65 gyrations**.
10. Section 106.6 Acceptance, (2) Method D.
11. The combined aggregate gradation required for this item shall be classified as a 9.5mm “**fine graded”** mixture, (using the Primary Control Sieve control point) as defined in 703.09.
14. The combined aggregate gradation required for this item shall be classified as a 9.5mm Thin Lift Mixture (TLM) mixture, using the Aggregate Gradation Control Points as defined in 703.09.
16. Compaction of the new Hot Mix Asphalt Pavement will be obtained using a minimal roller train consisting of a **3-5 ton** vibratory roller. Areas less than 2 feet wide shall be compacted with a minimum of a **150 pound** plate compactor. An approved release agent is required to ensure the mixture does not adhere to hand tools, rollers, pavers, and truck bodies. The use of petroleum based fuel oils, or asphalt stripping solvents will not be permitted.
23. HMA Surface mixtures shall be placed with an a track mounted highway class paver with a minimum tractor weight of 28,000 pounds, equipped with a minimum main screed width of eight feet. Placement location, placement width will be as directed, and may vary.

Tack Coat

A tack coat of emulsified asphalt, RS-1 or RS-1h, Item 409.15 shall be applied to any existing pavement at a rate of approximately 0.030 gal/yd², and on milled pavement approximately 0.05 gal/yd² prior to placing a new course. A fog coat of emulsified asphalt shall be applied between shim /base courses and surface course as well as to any bridge membrane prior to the placement of HMA layers at a rate not to exceed 0.030 gal/yd². Cleaning objectionable material from the pavement and furnishing and applying Item 409.15 bituminous materials to joints and contact surfaces is incidental to the contract paving items.

Scarborough & South Portland
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October 21, 2024

SPECIAL PROVISION
SECTION 411
UNTREATED AGGREGATE SURFACE COURSE
(Stone Dust Surface Course)

411.02 Aggregate

Replace this section with the following:

Contractor shall submit sample, gradation information, and source location of the proposed stone dust material to the Owner and Engineer for approval prior to delivering material to the site.

Stone dust material shall consist of hard, durable, uncoated particles of rock free from deleterious substances. The stone dust material shall meet the following gradation requirements:

Sieve Size	Percent Passing by Weight
¼"	100
#10	50-85
#40	20-45
#200	3-1

411.03 Placing

The following sentence is added:

The stone dust surface will be prepared and placed in accordance with Standard Specifications Section 304 and meet compaction requirements of 95% of optimum density (AASHTO T-180).

411.07 Method of Measurement

The following sentence is added:

Aggregate for stone dust surface will be measured by the ton in accordance with Section 108 Payment.

411.08 Basis of Payment

Payment will be made under:

Pay Item		Pay Unit
411.13	Stone Dust Surface Course	TON

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October 21, 2024

SPECIAL PROVISION
SECTION 502
STRUCTURAL CONCRETE
(QC/QA Acceptance Methods)

CLASS OF CONCRETE	ITEM NUMBER	DESCRIPTION	P	METHOD
A	502.21	Structural Concrete, Abutments and Retaining Walls	---	C
A	502.219	Structural Concrete, Abutments and Retaining Walls	$400.00	A
A	502.239	Structural Concrete, Piers	$400.00	A
LP	608.26	Curb Ramp Detectable Warning Field	---	C

P values listed above reflect the price per cubic yard (yd^3) for all pay adjustment purposes.

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October 21, 2024

SPECIAL PROVISION
SECTION 525
GRANITE MASONRY
(Repointing Granite Masonry)

525.01 Description The following paragraph is added:

The work included in this section includes the removal of all loose/deteriorated existing mortar, and the removal of all other foreign or deleterious materials from the existing stone masonry joints and filling voids between existing stone masonry blocks with mortar, and then repointing the joints. The work shall be completed as directed by the Resident.

525.03 General This section is deleted and replaced by the following:

Areas of loose, deteriorated, or otherwise unsound mortar shall be removed from the existing stone masonry joints and voids behind the face of the masonry to sound material, as directed by the Resident. All other foreign or deleterious materials, including, but not limited to, soil and vegetation (roots, grass, bushes, trees, etc.) shall also be removed from the existing stone masonry joints and voids behind the face of the masonry, as directed by the Resident. Removals shall be completed using air tools, hand tools, or other methods approved by the Resident that will not damage or destabilize the existing stones. The Contractor shall sequence and complete the work in a manner than ensures that at least 50% of the mortar joint beneath each stone remains intact at all times.

The existing stone masonry joints and voids behind the face of the masonry shall be cleaned prior to placing any mortar to remove any dirt, loose stones, aggregate or other debris that would inhibit the proper adhesion of the repair materials. Cleaning shall be completed using compressed air, pressure washing, hand tools or other methods approved by the Resident to ensure a clean bond surface is achieved. The Contractor shall use great care to avoid damaging or otherwise destabilizing existing stones.

Sections 525.04 through 525.05 These sections are deleted and not replaced.

525.06 Mortar The following paragraph is added:

The mortar shall be mixed to a relatively stiff consistency such that it can be pushed into the existing stone masonry joints and into any voids behind the face of masonry as far as practical using small tools, without self-leveling, with the goal of placing mortar a minimum of 12 inches behind the face of the stone masonry. Pumping of mortar into joints/voids is not required.

525.08 Joints The following paragraph is added:

The face of joints shall be repointed to match the finish of existing pointing on the structure. After repointing is completed, all surfaces within the working areas that will be exposed in the final condition shall be cleaned of loose material and mortar stains.

A trial application of the proposed pointing shall be completed and approved by the Resident a minimum of 10 days prior to the start of repointing work.

525.09 Method of Measurement The following paragraphs are added:

Repointing Granite Masonry shall be measured for payment by the square foot area, satisfactorily installed and accepted in the final condition.

525.10 Basis of Payment This Subsection is amended by the addition of the following:

The unit price of Repointing Granite Masonry shall be full compensation for all labor, equipment, scaffolding, materials, and other incidentals necessary to remove existing mortar and all other foreign or deleterious materials from the existing stone masonry joints and voids behind the face of the masonry, for the resetting of stones as necessary, for the temporary support of stones as necessary, and for the installation and repointing of new mortar.

Payment will be made under:

Pay Item		Pay Unit
525.26	Repointing Granite Masonry	Square Foot

SPECIAL PROVISION
SECTION 528
(Timber Stream Crossing Bridge)

528.01 Description This work shall consist of detailing, furnishing, fabricating, transporting, framing, and placing or erecting lumber or structural timber; installing hardware; and applying preservative treatment.

528.02 Materials Materials shall meet the following requirements:

(a) Structural Steel Shapes shall meet the requirements of Subsection 713.01.

(b) Unless otherwise specified, bolts, studs, threaded rods, nuts, and washers shall conform to the requirements of *ASTM A 307,* Grade A. Carbon steel nuts (unless otherwise specified) shall conform to the requirements of *ASTM A 563* and *ASTM A 563 M*.

(c) Nails and spikes shall conform to the requirements of *ASTM F 1667*.

(d) Lag screws shall be of low to medium carbon steel and shall be of good commercial quality.

(e) Unless otherwise specified, all steel hardware and fabricated materials shall be galvanized in accordance with the requirements of *AASHTO M 111* or *AASHTO M 232*, whichever is applicable.

(f) Structural lumber and timber shall conform to the species and stress-grades specified on the Plans, shall be acceptable to the Engineer, and meet the following requirements.

(1) Grading. Structural lumber and timber shall be graded in accordance with the requirements of *AASHTO M 168*. Lumber ordered in multiple lengths shall be graded after having been cut to length.

(2) Moisture Content. The maximum moisture content of treated lumber and timber material prior to treatment shall be 19%. Material treated with water-borne preservatives in accordance with *AWPA Standards* shall be dried after treatment to a moisture content not exceeding 19% and shall be maintained at a moisture content of 19% or less until it is incorporated into the work.

(3) Minimum Stress Requirements. Unless otherwise specified in the Contract, lumber and timber shall meet the allowable unit stress requirements for No. 1 Grade or better material as specified in the *AASHTO LRFD Bridge Design Specifications*.

(4) Lumber Dimensions.

(i) Full-Sawn Lumber. Minimum full-sawn lumber sizes are nominal dimension sawn sizes after seasoning. Pieces shall be sawn to obtain the full nominal dimensions

specified with only occasional slight variation permitted. Thickness and width dimensions are somewhat variable depending upon the sawmill equipment used.

(ii) Rough-Sawn Lumber. Rough dry-sized lumber is minimally 1/8 inch larger in each dimension than standard (seasoned) dressed-sized lumber. Thickness and width dimensions are somewhat variable depending upon the sawmill equipment used.

(iii) Dressed Lumber. Dressed lumber sizes are the finished planed dimensions of material after seasoning. Minimum net finished dimensions for dressed lumber shall be 1/2 inch less than nominal dimension, except that the minimum net width of dressed lumber exceeding 6 inches shall be 3/4 inch less than nominal dimension.

(5) Lumber Finish. Lumber finishes shall be as specified per the requirements of *AASHTO M 168* for manufacturing classifications, e.g., Rough Lumber or Dressed (Surfaced) Lumber.

(6) Soundness. Lumber material shall be sound and free from any incipient or advanced form of decay.

(7) Preservative Treatment. Preservative treatment of lumber and timber materials shall conform to the requirements of Subsection 708.05.

528.03 General Fabrication Requirements Unless otherwise specified, all material shall be fabricated prior to preservative treatment.

Dimensions and bolt hole locations of prefabricated material shall be within a tolerance of 1/16 inch of the details specified.

528.04 Drawings Unless otherwise specified, as soon as practical after award of the Contract, the Contractor shall prepare and submit Working Drawings for timber in accordance with Subsection 105.7.

528.05 Storage Timber and lumber materials stored on the site shall be kept in orderly piles, open stacked, and on supports that provide at least 12 inches of ground clearance. For outside storage, the ground area in the vicinity of the material shall be cleared of grass, weeds, and rubbish. Treated timber shall be stacked together, with no separation between the tiers and courses. Free circulation of air shall be provided between the pile and the ground.

Timber and lumber shall be stored under cover. The covering shall adequately protect these materials from direct and blowing rain or snow while providing for full circulation of air and adequate drainage.

All timber and lumber shall meet the moisture requirements of Subsection 528.02 before being incorporated into the work.

Fabricated material shall be stored in a manner that will prevent dimensional changes in the members prior to assembly.

528.06 Handling Materials shall be carefully handled to avoid damaging the edges or surface and to keep them clean.

Materials shall be picked up or moved with slings or other devices that will not damage or mar the surface. Peavies, cant hooks, timber dogs, or other pointed tools will not be permitted.

Cranes, lifting devices, and other equipment for all structural timber erection shall be of adequate design and capacity to safely erect, align, and secure all members and components in their final positions without damage. The Contractor is solely responsible for the methods and equipment employed for the erection of the structural timber members.

528.07 Framing Timber and lumber shall be accurately cut and framed to a close fit in such a manner that the joints will have full and even bearing over the entire contact surface. Except as indicated in the Contract, shimming will not be permitted in making joints, and open joints will not be accepted. Nails and spikes shall be driven with the heads set flush with the surface of the wood. Except as directed by the Engineer, structure framing and boarding shall be constructed square, plumb, and straight.

When permitted by the Engineer, forms or temporary braces may be attached to treated material. Upon removal, any holes, cuts, or abrasions shall be treated in accordance with Subsection 528.11.

528.08 Connections

(a) Holes for Bolts, Dowels, Rods, and Lag Screws. Holes for metal round drift-bolts or dowels shall be bored with a bit 1/16 inch less in diameter than the drift-bolt or dowel to be used.

Holes for machine bolts shall be bored with a bit the same diameter as the bolt.

Holes for round wood dowels or trunnels shall be bored with a bit the same diameter as the dowel.

Holes for rods shall be bored with a bit 1/16 inch greater in diameter than the rod.

Lead holes for lag screws, wood screws and spikes shall conform to requirements specified within the latest edition of the *AITC Timber Construction Manual*.

(b) Bolts and Washers. A washer of the size and type specified shall be used under all bolt heads and nuts that would otherwise come in contact with wood.

All nuts shall be effectively locked after they have been finally tightened.

528.09 Plank Flooring Plank material shall be of dimension lumber of the grade specified.

Unless otherwise specified, all material shall be surfaced four sides (S4S).

Plank floors shall consist of a single thickness of dimension lumber planks supported by stringers or floor beams. The planks shall be laid heart side down, with 3/8 inch openings between them. Each plank shall be securely fastened to each supporting member. The planks shall be carefully graded as to thickness and so laid that no two adjacent planks vary in thickness by more than 1/16 inch. Unless otherwise specified, the lengths of transverse planks on stringers shall be full width of the designed cross-section.

528.10 Sawn Lumber Stringers Stringers shall be sized at bearings and shall be placed in position so that knots near edges will be in the compression portions of the stringers.

Cross-bridging between stringers shall be neatly and accurately framed and securely toe-nailed with at least two nails in each end. All cross-bridging members shall have full bearing at each end against the sides of stringers. Unless otherwise specified, cross-bridging shall be placed at the center of each span.

528.11 Preservative Treatment Timber and lumber shall be pressure treated utilizing Micronized Copper Quaternary (MCQ) preservative treatment. Treatment shall be applied to a total absorption of 0.4 pounds per cubic foot of wood.

(a) Treatment of Cuts, Abrasions and Holes. Cuts, abrasions, and holes bored after treatment shall be treated with two coats of copper naphthenate solution. Cuts and abrasions shall be carefully trimmed prior to treatment. Holes left unfilled shall be filled with wooden plugs treated with copper naphthenate solution.

(b) Temporary Attachments. Holes remaining after the removal of nails and spikes used to attach temporary forms or bracing to treated material shall be filled by driving galvanized nails or spikes flush with the surface or plugging the holes with wooden plugs treated with copper naphthenate solution.

528.12 Method of Measurement Timber Stream Crossing Bridges shall be measured as a unit including detailing, fabricating, furnishing, and installing timber crossings as shown on the Plans or as ordered.

528.13 Basis of Payment The installed and accepted quantity of Timber Stream Crossing Bridge will be paid for at the Contract Lump Sum (LS) price, complete and in place. Such payment shall be considered full compensation for detailing, fabricating, furnishing, transporting, handling, placing or erecting, and treating the material specified, including all hardware and timber connectors; for providing all falsework, forms, bracing, sheeting, or other timber used for erection purposes; and for furnishing all labor, tools, equipment, and incidentals necessary to complete the work.

Payment will be made under:

Pay Item	Pay Unit
528.20 Timber Stream Crossing Bridge – STA 162+90	Lump Sum
528.20 Timber Stream Crossing Bridge – STA 174+25	Lump Sum
528.20 Timber Stream Crossing Bridge – STA 175+60	Lump Sum
528.20 Timber Stream Crossing Bridge – STA 176+25	Lump Sum

SPECIAL PROVISION
SECTION 530
(Prefabricated Steel Truss Bridge)

530.01 Description Work under this item shall be in conformance with the applicable portions of Section 504 of the Standard Specifications. The work under this specification shall include furnishing and installing a Prefabricated Bridge Superstructure, including bridge bearings, anti-climb shields, and other incidentals, as shown on the Plans. The bridge superstructure shall be fully engineered according to the requirements contained herein. All necessary work and incidental items required to complete the installation, connections to the substructure (including bearings and anchor rods), and electrical grounding shall be included in this work.

The Prefabricated Bridge Superstructure shall meet the design and manufacturing requirements of the latest versions and interim revisions of the AASHTO LRFD Bridge Design Specifications for Highway Bridges, AASHTO Guide Specifications for Design of Pedestrian Bridges, and State of Maine Department of Transportation Standard Specifications for Highways and Bridges, except as otherwise specified on the Plans or as stated below.

530.02 Materials

Steel

- All truss members shall be high strength, low alloy, atmospheric corrosion-resistant steel (weathering steel) meeting the requirements of Standard Specification 713.01. The minimum thickness of all structural steel members shall be 5/16" nominal.
- All structural steel field connections shall be bolted with high strength bolts. High strength bolts, nuts, and plain hardened washers shall conform to the requirements of Standard Specification 713.02.
- Anchor rods and nuts shall conform to ASTM F1554 with a minimum yield strength of 55 ksi. Anchor rods shall be supplied with 2 heavy hex nuts and 2 hardened washers and unless otherwise specified the anchor rods shall have a 90 degree bend with a 150 mm (6 inch) minimum leg length at the lower end. The anchor rods, nuts and hardened washers shall be hot-dipped galvanized to ASTM A 153. After galvanizing, the nuts shall be retapped oversize by an amount appropriate to the nut size.

Timber Decking

- Timber decking shall be No. 1 grade Southern Yellow Pine planks. Decking shall be treated utilizing Micronized Copper Quaternary (MCQ) preservative treatment. Decking shall be treated to a total absorption of 0.4 pounds per cubic foot of wood.

Anti-Climb Shield

- The anti-climb shield shall be manufactured by one of the following methods with steel conforming to ASTM A1011 or ASTM A1008 and A1001/A1011M with minimum yield strength of 50 ksi:
  - Furnace butt welded, continuous welded

  - Cold rolled and electric resistance welded
  - Seamless
- The chain link fabric shall be 9-gauge steel, zinc coated conforming to AASHTO M 181 Type 1 Class D (ASTM A 392), aluminum-coated conforming to AASHTO M181 Type II (ASTM A 491), or 6-gauge aluminum alloy conforming to AASHTO M 181 Type III (ASTM F1183). Chain-link fabric shall be knuckled on top and bottom. The size of the wire mesh shall be a maximum of 2 inch. Wire ties shall be standard round 9-gauge zinc or aluminum coated steel or 6-gauge aluminum alloy conforming to ASTM F626.
- Hardware shall be hot dipped galvanized in accordance with AASHTO M 232 (ASTM A 153) or AASHTO M 298 Class 50 (ASTM B 695 Class 50).

530.03 Construction Requirements

530.031 Qualification of Fabricator Bridge(s) shall be fabricated by a fabricator who is currently certified by the American Institute of Steel Construction to have the personnel, organization, experience, capability and commitment to produce fabricated structural steel for Major Steel Bridges with Fracture Critical Endorsement as set forth in the AISC Certification Program. Quality control shall be in accordance with procedures outlined for AISC certification.

Qualified suppliers must have at least 5 years of experience fabricating these type structures. Pre-approved Manufacturers:

1. CONTECH Bridge Solutions Inc.
   9025 Centre Point Drive, Suite 400
   West Chester, OH 45069

2. Big R Bridge
   PO Box 1290
   Greeley, CO 80632

3. Or approved equal

Qualifications of suppliers shall be submitted for approval prior to starting all work. The Contractor shall provide the following information for any proposed supplier:

- Product Literature
- All documentation to ensure the proposed substitution will be in compliance with these specifications. This shall include:
  - Representative design calculations
  - Representative drawings
  - Splicing and erection procedures
  - Warranty information
  - Inspection and Maintenance procedures
  - AISC Shop Certification
  - Welder Qualifications

- Proposed suppliers must have at least five (5) years experience designing and fabricating these type structures and a minimum of five (5) successful bridge projects, of similar construction, each of which has been in service at least three (3) years. List the location, bridge size, owner, and a contact for reference for each project.

The Engineer will evaluate and verify the accuracy of the submittal prior to approval. If the Engineer determines that the qualifying criteria have not been met, the Contractor's proposed supplier shall be rejected. The Engineer's ruling will be final.

530.032 Bridge Requirements The bridge length(s) shall be as shown on the Plans (straight line horizontal dimensions) and shall be as measured from centerline of bearing to centerline of bearing. The overall bridge length(s) shall be designed to fit within the proposed substructure units and shall provide adequate tolerance for thermal movement. Bridge width shall be 10'-0" measured between the inside face of the railings at deck level. The following provisions also apply:

- The Nonesuch River Bridge shall be designed as a half-through truss with one diagonal per panel. All vertical members shall be plumb. The bridge shall be fabricated with the top chord cambered along a circular arch. The bridge top and bottom chords shall have a vertical camber dimension at midspan equal to 100% of the full dead load deflection plus 2 ½ inches.
- The CSX Railway Bridge shall be designed as a through truss with one diagonal per panel. All vertical members shall be plumb. The bridge shall be fabricated with a camber that meets profile requirements and provides a continuous circular arching appearance from abutment to abutment under full dead load deflection.
- The CSX Railway Bridge shall be detailed with anti-climb shields provided at each corner of the protective screening, as shown on the plans. The anti-climb shields shall project perpendicularly from the bridge to deter pedestrians from climbing on the outside of the bridge along the protective screening. The anti-climb shields shall be a minimum of 2’-9” wide and 5’-0” tall.
- The bridges shall be designed utilizing a nested floor beam (floor beam to fit within the trusses) as shown on the Plans.
- Timber decking shall be orientated with the centerline of the board perpendicular to the bridge centerline.
- The distance from the top of the deck to the top and bottom truss members shall be determined by the bridge manufacturer based upon structural and/or shipping requirements. Structure depths and corresponding bridge seat elevations are assumed, as shown on the Plans. Adjustments shall be made to bearing seat elevations to accommodate the superstructure if actual dimensions vary. Adjustments of more than six (6) inches require the permission of the Resident.
- All members of the vertical trusses (top and bottom chords, verticals and diagonals) shall be fabricated from structural steel shapes or square and/or rectangular structural steel tubing. Other structural members and bracing shall be fabricated from structural steel shapes or square and rectangular structural steel tubing. To provide lateral support

for the top flange of open shape stringers (w-shapes or channels), a minimum of one stiffener shall be provided in each stringer at every floor beam location.

- Safety rails and steel toe plates shall be placed as shown on the bridge typical section and shall be fastened to the truss by welding or with two carriage bolts, galvanized in accordance with ASTM A 153, at each support location. All rails shall be placed so as to prevent a 4″ sphere from passing through the truss. Rails shall be placed on the inside of the structure and shall have their ends sealed and ground smooth so as to produce no sharp edges. The safety rail system shall be designed for an infill loading of 200 pounds, applied horizontally at right angles, to a one square foot area at any point in the system. Steel toe plates shall be a minimum of 4 inches high.
- Expansion joints/sliding plates shall be provided at both ends of each bridge span to provide a uniform, even transition between spans and from the bridge surface onto the bridge approaches.

530.033 Design Requirements The bridge structures and bearings shall be designed and signed by a Professional Engineer licensed in accordance with the State of Maine Regulations. Design shall meet the requirements of the latest versions and interim revisions of the AASHTO LRFD Bridge Design Specifications, and AASHTO Specifications for Design of Pedestrian Bridges. Sawn lumber shall be designed in accordance with the latest version of ANSI/AF&PA NDS, "National Design Standard for Wood Construction", as published by the American Forest & Paper Association. The following design requirements shall also apply:

The minimum thickness of all steel components shall be 5/16".

Design Loads:

- Pedestrian Loads: Pedestrian loading shall consist of a minimum of live load 90 pounds per square foot uniformly.
- Vehicle Loads:H-10 Truck.
- Concentrated Loads: A concentrated load of 1000 pounds placed on any area 2.5 ft x 2.5 ft square.
- The timber decking shall be designed for a minimum 100psf live load.
- The anti-climb shields shall be designed for a 300 pound vertical load and a 20psf lateral pressure. Both loads shall be assumed to act simultaneously and may both be considered live loads.

Deflection:

- Vertical Deflection
    - Vertical deflection of the main trusses due to service pedestrian live load shall not exceed 1/360 of the span.
    - The deflection of the floor system members (floor beams and stringers) due to service pedestrian live load shall not exceed 1/360 of their respective spans.

- The horizontal deflection of the structure due to lateral wind loads shall not exceed 1/360 of the span under a 35 PSF wind load applied to the horizontal projected area of the truss.

Welding

- Welding of bridge structure shall conform to Section 504 Structural Steel, AWS D1.l for tubular members, and ANSI/AASHTO/AWS D1.5 Bridge welding code for structural steel members with the following additional requirements:
- All fracture critical members shall be identified on Plans and Shop Drawings. Fracture critical members shall be welded in conformance with the minimum preheat and interpass temperatures specified in Tables 12.4 or 12.5 of AWS D1.5, or 200 degrees Fahrenheit provided wall thickness of members are ¾" or less. Filler metals shall meet the requirements of Tables 4.1,4.2, or 4.3 of AWS D1.5.
- Welding using the GMAW process with a single gas or gas mixture containing less than 80 percent Argon shall be considered a short-circuiting process and shall not be used in bridge components with calculated stresses.
- All non-destructive testing of welds shall conform to the requirements of Section 6, AWS D1.5 with the exception of complete groove welds in tubular butt joints. These welds shall be non-destructively tested in accordance with AWS Dl .1, Section 6.18.
- Welders shall be properly accredited operators, each of whom shall submit certification of satisfactorily passing AWS standard qualification tests for all positions with unlimited thickness of base metal, have a minimum of 6 months experience in welding tubular structures and have demonstrated the ability to make uniform sound welds of the type required.

530.034 Fabrication Unless addressed in this Special Provision, all structural steel and fabrication shall be in accordance with applicable sections of Standard Specifications 504 Structural Steel and 713.02 High Strength Bolts.

All splices, shop welds or otherwise shall not be placed within 15 feet of the midspan.

When the collection of water inside a structural tube is a possibility, either during construction or during service, the tube shall be provided with a drain hole at its lowest point to let water out.

Wood decking shall be placed tight together with no gaps. Fasteners shall be carriage bolts installed in predrilled holes and shall be galvanized in accordance with ASTM A 153. Powder actuated fasteners will not be allowed. A minimum of two fasteners shall be installed at either end of every plank. Planks shall also receive a minimum of one interior connection bolt at a stringer location approximately near the center of the bridge width.

530.035 Finishes To aid in providing a uniformly "weathered" appearance, all exposed surfaces of steel shall be blast cleaned in accordance with Steel Structures Painting Council Surface Preparation Specifications No. 7 Brush-Off Blast Cleaning, SSPC-SP7 latest edition. Exposed surfaces of steel shall be defined as those surfaces seen from the deck and from outside

of the structure. Stringers, floor beams, lower brace diagonals and the inside face of the truss below deck and bottom face of the bottom chord need not be blasted.

530.04 Submittals The Contractor shall submit electronic copies of Shop Drawings and Design Computations for the pedestrian bridges showing all details for the bridge fabrication to the Resident for review and approval. The shop drawings and design computations shall be prepared and stamped by a professional engineer licensed in the State of Maine. The calculations shall include all design information necessary to determine the structural adequacy of the bridge.

The following documentation shall also be submitted:

- The Contractor shall submit specifications for all materials and installation instructions.
- The Contractor shall submit the manufacturer's recommended maintenance program.
- The Contractor shall submit welding specification procedures for approval.
- The Contractor shall submit Certified Mill Test Reports (CMTR) indicating chemical and physical properties for all materials (including Charpy V-Notch test reports as required).
- The Contractor shall submit a detailed erection plan for review and approval. The erection plan shall identify proposed crane models and locations, pick weights, attachment points, and all other information deemed pertinent and relevant to the safe completion of the bridge erection.
- The Contractor shall require the supplier to provide a construction advisor to assist the Contractor in the onsite construction of the bridge. The actual construction of the bridge is the responsibility of the Contractor.
- The Contractor shall provide electrical grounding details in accordance with these special provisions.

530.05 Delivery and Erection Delivery of the bridge shall be arranged by the supplier and Contractor. The Contractor shall notify and coordinate delivery and erection of the bridge with the Resident, CMP, CSX Railway, and NNEPRA, as appropriate.

The bridge may need to be partially assembled on site to minimize the weight and size of each piece being erected in order to minimize the size of the crane required for erection. The proposed method of bridge assembly and erection, as well as a detailed erection plan showing proposed equipment size, location, pick weight, etc., shall be prepared by a professional engineer licensed in the state of Maine and submitted to the Resident for approval.

530.06 Electrical Grounding The Contractor shall ground each bridge span (3 locations) in accordance with the attached details and the Contractor-submitted plan. The attached Grounding Report shall be completed by the Contractor and submitted to the Resident for CMP's records.

530.07 Quality Assurance Inspections The Engineer, Owner or an independent inspector representing the Owner, will inspect various phases of the work to verify that work is in accordance with these specifications. Inspection of the work in the shop shall occur at up to three

(3) different phases of the manufacturing. The final inspection shall be prior to shipping. The Fabricator/Contractor shall provide certifications prior to shipping of the structure to the site.

The Fabricator/Contractor shall facilitate the inspection as required, allowing adequate time for inspections and providing access to the work together with all necessary safety equipment needed by the inspector to perform the inspections. The Fabricator/Contractor shall furnish and maintain in working order all equipment and instruments that are necessary to inspect all phases of the work.

530.08 Warranty The bridge manufacturer shall warranty their steel structure(s) to be free of design, material and workmanship defects for a period of ten years from the date of delivery. Wood decking and wood attachments shall carry a ten-year warranty against rot, termite damage, or fungal decay.

530.09 Method of Measurement Prefabricated Bridge Superstructure shall be measured as a unit including designing, fabricating, and installing a bridge superstructure as shown on the Plans or as ordered. The prefabricated bridge shall include all bridge bearings, anchor rods, attachments, hardware, and other incidentals required for complete installation of the Prefabricated Bridge Superstructure

530.10 Basis of Payment The installed and accepted Prefabricated Bridge Superstructure will be paid for at the contract lump sum price, complete in place. Such payment shall be considered full compensation for fabrication, shop drawings, coordination, delivery, erection of the prefabricated bridge, and electrical grounding, including all materials, labor, equipment, and incidentals required to complete the work.

Payment will be made under:

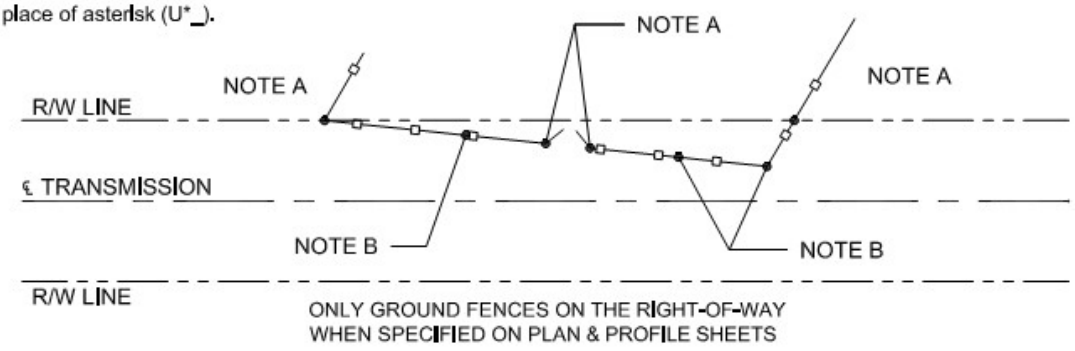
Pay Item		Pay Unit
530.01	Prefabricated Steel Truss Bridge, In Place – Nonesuch River	Lump Sum
530.01	Prefabricated Steel Truss Bridge, In Place – CSX Railway	Lump Sum

CU Function:
U_TL69 for 35kV & 46kV,
U_TG69 for 69kV thru 344kV,
U_T345 for 345kV & greater.

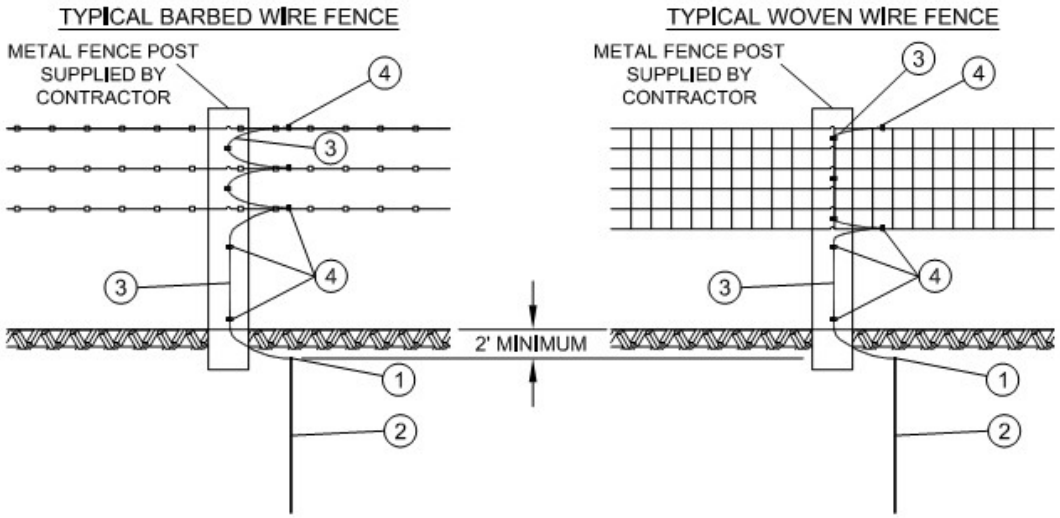
For correct CU:
substitute 2 for NYSEG,
3 for CMP or 4 for RG&E
In place of asterisk (U*_).

BILL OF MATERIAL — CU Type: UC_SHLDO

ITEM NO.	QTY	UOM	GLOBAL IUSA MID	CU: U*CT-TG-06-001
1	1	ST	30925441	CLAMP GRND FOR 5/8 IN ROD
2	1	ST	30923789	ROD GROUND CWLD 5/8 X 8 FT NO THREADS
3	10	FT	30924223	WIRE 1C # 2 CWLD SOL BARE
4	7	ST	30926045	CONN VICE TAP WO SPCR PLATE



ONLY GROUND FENCES ON THE RIGHT-OF-WAY
WHEN SPECIFIED ON PLAN & PROFILE SHEETS



NOTE A: GROUND FENCE WHEN ENTERING AND LEAVING RIGHT-OF-WAY AND BOTH SIDES OF ANY BREAK POINT (SUCH AS A GATE). BOND GATES TO ADJACENT POSTS WITH BRAIDED GROUND STRAP.

NOTE B: GROUND FENCE AT 300' INTERVALS. IF MORE THAN ONE CIRCUIT, GROUND AT 200' INTERVALS.

Contact Engineering Standards - Transmission for the creation of new standards and CUs.

Drawing Scale: not to scale

THIS IS A COMPUTER GENERATED DRAWING - DO NOT REVISE MANUALLY

ANSI A 8-1/2" X 11"

IBERDROLA USA

IBERDROLA USA TRANSMISSION CONSTRUCTION STANDARDS MANUAL

TRANSMISSION GROUNDING
NON-ELECTRIC FENCES
ON TRANSMISSION RIGHT-OF-WAY

Revision 01
DATE 11/10/2015

Drwn. By:	Date Dr.:	Checked By:	Date Ck.:	Approved By:	Date App.:	
L.A. Best	5/4/2015	Gauvin/Becken/Hart	11/10/2015	Barry R. Hart	11/10/2015	TM2.23.TG-06-001

Sheet 1

THIS IS A COMPUTER GENERATED DRAWING - DO NOT REVISE MANUALLY

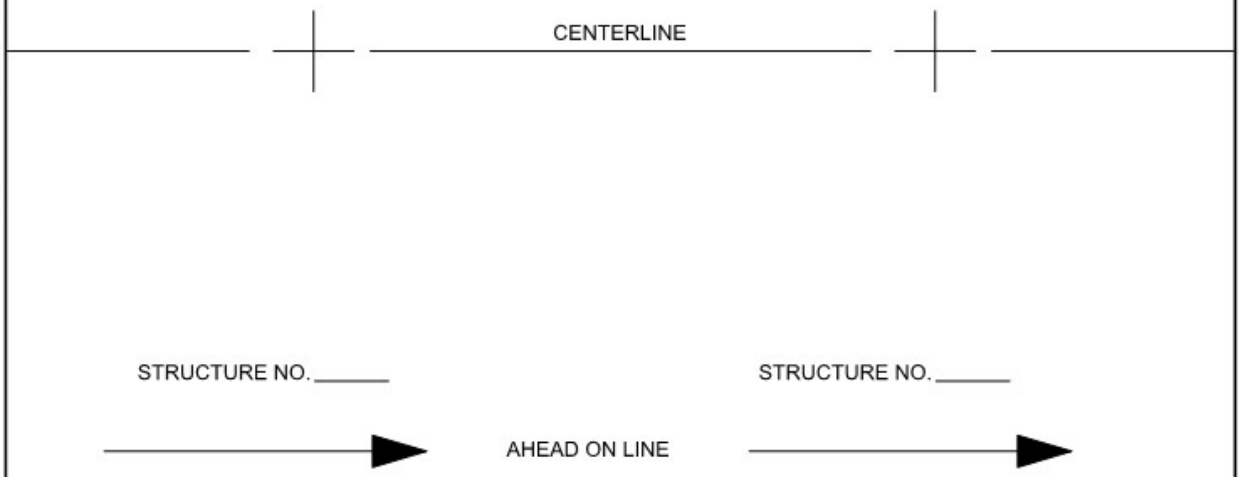
ANSI A 8-1/2" X 11"

FENCE GROUNDING REPORT

LINE SECTION NAME:	STRUCTURE NO'S:
CONTRACTOR:	WEEK ENDING:

APPROX STATION OF FENCE	NUMBER OF GROUNDS INSTALLED	DATE GROUNDING COMPLETED	COMMENTS

SKETCH PLAN VIEW OF STRUCTURES



SHOW FENCE AND GROUNDING IN RELATION TO THE TRANSMISSION LINE.

SHOW DISTANCES.

CONTRACTOR SIGNATURE:	DATE:

Contact Processes & Technologies - Network Standardization & Maintenance -
Electric Transmission Standards for the creation/revision of transmission standards & CUs.

Drawing Scale: NTS

AVANGRID

ELECTRIC TRANSMISSION CONSTRUCTION STANDARDS MANUAL

GROUNDING
FENCE GROUNDING REPORT
FOR TRANSMISSION PROJECTS

Revision 01
DATE 12/04/2017

Drwn. By:	Date Dr.:	Checked By:	Date Ck.:	Approved By:	Date App.:	TM2.23.TG-09-003	Sheet 1
D. Carrier	10/17/2017	NYSEG/CMP/RGE/UI	12/04/2017	Ben N. Shepard	12/04/2017		

Scarborough & South Portland
Eastern Trail
WIN 019426.00 & 019426.10
October 21, 2024

SPECIAL PROVISION
SECTION 606
GUARDRAIL
(Timber Guardrail)

606.01 Description:

Replace this section with the following:

This work shall consist of furnishing and installing timber guardrail at locations shown on the plans and in reasonably close conformity with the lines, grades, and details shown on the plans.

606.02 Materials:

Replace this section with the following:

All lumber shall conform to Voluntary Product Standards PS-70 and be certified according to applicable standard grading and dressing rules and shall bear the official grade and/or trademark of the association under whose rules it is produced.

A. Wood: All wood shall be #2 Southern Yellow Pine (Southern Pine Inspection Bureau Grade), or approved equal. All wood shall be new, solid, sound and surface dry with a maximum moisture content of 19 percent. All wood shall be clearly marked with the official grading information.

B. Fasteners: Carriage bolts shall be hot dipped galvanized steel or stainless steel and shall conform to the requirements of ANSI-B18.5 for round head, square neck bolts and to ASTM- A307. Washers shall be plain steel and shall conform to the requirements of ANSI-B18.22.1. Nuts shall be hex nuts conforming to the requirements of ANSI-B18.22.2.

C. Treatment: All wood shall be 0.40 lbs per cubic foot pressure treated with Alkaline Copper Quaternary (ACQ).

606.09 Basis of Payment:

Payment will be made under:

Pay Item		Pay Unit
606.611	Timber Guardrail	Linear Foot

Scarborough & South Portland
Eastern Trail
WIN 019426.00 & 019426.10
October 21, 2024

SPECIAL PROVISION
SECTION 607
FENCES
(Pipe Entry Gate)

607.01 Description:

The following paragraphs are added:

This work shall also consist of installing a pipe entry gate in reasonably close conformity with the lines and grades as shown on the Plans or as approved by the Resident.

The installation shall include the assembly and erection of all parts and materials complete at the locations as shown on the Plans or as approved by the Resident.

607.02 Materials:

The following sentences are added:

Pipe entry gate and associated hardware shall be galvanized steel as specified in AASHTO M181 and shall be galvanized in accordance with the applicable requirements of ASTM A153.

607.06 Method of Measurement: Pipe Entry Gate will be measured by each unit of the kind specified and installed.

607.07 Basis of Payment: Pipe Entry Gate will be paid for at the Contract price each, complete in place, which payment shall be compensation for furnishing and installing pipe entry gates and all necessary hardware, excavation and concrete.

Gate connection to proposed fence will not be measured separately for payment, but shall be incidental to the gate work.

Payment will be made under:

Pay Item		Pay Unit
607.2325	Pipe Entry Gate	Each

Scarborough & South Portland
Eastern Trail
WIN 019426.00 & 019426.10
October 21, 2024

SPECIAL PROVISION
SECTION 607
FENCES
(Chain Link Fence Sliding Gate)

607.01 Description:

The following paragraphs are added:

This work shall also consist of furnishing and installing a chain link fence sliding gate, 4' tall and 12' wide in reasonably close conformity with the lines and grades as shown on the Plans or as approved by the Resident.

The installation shall include the assembly and erection of all parts and materials complete at the locations as shown on the Plans or as approved by the Resident.

607.06 Method of Measurement: Chain Link Fence Sliding Gate will be measured by each unit of the kind specified and installed.

607.07 Basis of Payment: Chain Link Fence Sliding Gate will be paid for at the Contract price each, complete in place, which payment shall be compensation for furnishing and installing chain link fence sliding gate and all necessary hardware, excavation and concrete.

Gate connection to proposed fence will not be measured separately for payment, but shall be incidental to the gate work.

Payment will be made under:

Pay Item		Pay Unit
607.2341	Chain Link Fence Sliding Gate	Each

SPECIAL PROVISION
SECTION 641
REST AREA FACILITIES
(Bench)

Description

Work under this item shall consist of furnishing and installing benches, concrete footings, and mounting to concrete footings at a location along the trail by Prout's pond. The exact location of the bench shall be determined by the Resident.

Materials

1. Bench: Benches shall be 6' wide and installed with pressure treated timber slats on a black cast iron frame.

2. Fasteners: Carriage bolts, threaded rod, and metal straps shall be galvanized steel and shall conform to the requirements of ANSI-B18.5 for round head, square neck bolts and shall conform to ASTM-A307. Washers shall be plain steel and shall conform to the requirements of ANSI-B18.22.1. Nuts shall be steel hex nuts conforming to the requirements of ANSI-B18.22.2.

3. Concrete: Class A: Shall conform to MEDOT Section 502.05. Construction Methods: Benches will be installed as indicated on the contract drawings in conformance with the manufacturer's recommendations.

Method of Measurement

This item shall be measured for payment by the actual number of "Benches" installed or where indicated on the plans or ordered by the Engineer.

Basis of Payment

Payment for this item shall be at the contract unit price bid per each "Bench" complete in place, which price shall include all materials, equipment, tools, and labor incidental to or necessary for the satisfactory installation of the benches.

Payment will be made under:

Pay Item	Pay Unit
641.12 Bench	Each

October 25, 2024

SPECIAL PROVISION
SECTION 643
TRAFFIC SIGNALS
(Rectangular Rapid Flashing Beacon Assembly)

Amend Standard Specification Section 643 - Traffic Signals as follows:

Add the following to the end of Section 643.01, Description:

This work shall consist of furnishing and installing Rectangular Rapid Flashing Beacons (RRFBs), signage, and associated equipment and appurtenances, in accordance with these specifications and in conformity with the lines, grades, and dimensions shown on the Plans or established herein.

Add the following Section 643.025, Assembly:

RRFBs and signs for each crosswalk shall meet the latest version of the Manual on Uniform Traffic Control Devices (MUTCD) Chapter 4L – Rectangular Rapid-Flashing Beacons.

The following are also required in addition to:

1. Each RRFB Assembly shall include equipment visible for each direction of vehicular traffic unless otherwise shown on the plans. The equipment shall include two W11-2 signs (one to be a mirrored image for the left side of the road), two W16-7P signs, and two RRFB units.
2. A small light directed at and visible to pedestrians in the crosswalk shall be installed integral to the RRFB to give confirmation that the RRFB is in operation.
3. RRFB must operate between the temperatures of -40° F to +176° F.
4. W11-2 and W16-7P signs shall be MUTCD compliant and fluorescent yellow-green.
    a. Signs shall be sheet aluminum and meet requirements of Section 645 for Type II regulatory, warning, and route marker assembly signage.
5. Pedestrian activated pushbuttons shall be used.
6. Communication between the devices shall be Spread Spectrum Wireless or direct wire as shown on plans.
7. Each assembly shall have two LED lights mounted to each pole for pedestrian vertical illuminance. One light shall be aimed at the detectable warning field and the other toward the center of the travel lane. Additional requirements for the pedestrian lights are as follows:
    a. They shall activate in conjunction with the RRFB
    b. They shall activate when less than 10 lux of ambient light is present and shall not illuminate when the ambient light is equal to or greater than 10 lux
    c. They shall provide vertical illuminance of 20 lux across the entire crosswalk, measured at a height of 5 feet from the road surface
    d. They shall be housed in their own IP66 minimum rated enclosures
    e. They shall be adjustable for 120 degrees horizontally and vertically
8. Each pole shall be outfitted with an 85-watt solar panel, a NEMA 4X aluminum pole mount cabinet, and a 105 Amp-hour absorbent glass mat lead acid battery.

9. The pole shall be a 4-inch inner diameter ASTM A53 Schedule 40 galvanized steel. A cap to make the pole watertight shall be provided at the top of the pole.
10. Each support pole shall be installed with a square aluminum pedestal base with grounding lug.
11. The pole and pedestal base shall conform to the latest edition of "AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals" and National Cooperative Highway Research Program Report 350.
12. All equipment shall be securely attached to the pole with sufficient banding or fasteners.
13. All wiring shall be located inside the pole to the maximum extent possible.

Add the following to the end of Section 643.18, Method of Measurement:

Rectangular Rapid Flashing Beacon Assembly will be measured for payment by each installation complete in place.

Add the following to the end of Section 643.19, Basis of Payment:

Rectangular Rapid Flashing Beacon Assembly will be paid for at the Contract unit price by each. Payment will be full compensation for furnishing all materials including, but not limited to, the RRFB LED-arrays, LED vertical illuminance, controller cabinet, pole and breakaway device, wiring, fasteners, pedestrian push button, signs, solar panel, battery, wireless spread spectrum communication, and all appurtenances and incidentals required for a complete and functioning system. Wiring, grounding, and associated electrical work and materials shall be incidental. Foundations shall be paid for under applicable Section 626 pay items.

Payment will be made under:

Pay Item		Pay Unit
643.621	Rectangular Rapid Flashing Beacon Assembly	Each

SPECIAL PROVISION
SECTION 652
MAINTENANCE OF TRAFFIC

Approaches. Approach signing shall include the following signs at a minimum. Field conditions may warrant the use of additional signs as determined by the Resident.

Road Work Next X* Miles
Road Work 500 Feet (Ahead)
End Road Work

Work Areas. At each work site, signs and channelizing devices shall be used as directed by the Resident.

Signs include:

Road Work XXXX[1].
One Lane Road Ahead
Flagger Sign

Other typical signs include:

Be Prepared to Stop
Low Shoulder
Bump
Pavement Ends

The above lists of Approach signs and Work Area signs are representative of the contract requirements. Other sign legends may be required.

Unless otherwise defined in Special Provision 105/107 or submitted and approved in the Traffic Control Plan, the following shall apply:

- The Contractor shall conduct their operations in such a manner that the roadway will not be restricted to one lane for more than 2,500 feet at each work area and no more than 4,000 feet for paving and milling work areas.
- Where more than one work area restricts traffic to one lane operation, these work areas shall be separated by at least 1 mile of two-way operation.

Temporary Centerline A temporary centerline shall be placed each day on all new pavement to be used by traffic. The temporary centerline, when specified of reflectorized traffic paint, shall conform to the standard marking patterns used for permanent markings. Failure to apply a temporary centerline daily will result in a Traffic Control Violation and suspension of paving operations until temporary markers are applied to all previously placed pavement.

[1] "Road Work Ahead" to be used in short duration operations and "Road Work xx feet" to be used in stationary operations as directed by the Resident.

Scarborough & South Portland
Eastern Trail
WIN 019426.00 & 019426.10
October 21, 2024

SPECIAL PROVISION
SECTION 841
BOLLARDS
(Collapsible)

841.01 Description: This work shall consist of furnishing and installing all materials and equipment
necessary for the assembly, delivery, and installation of the collapsible bollards, in accordance with these specifications, as shown on the plans, and as directed by the Resident.

Collapsible bollards shall be Traffic Guard, LLC Double Post Collapsible Bollards or approved equal.

842.02 Materials: Each bollard shall be supplied with two padlocks. All padlocks shall be Master Lock commercial grade-all weather locks. All padlocks shall be installed and locked after installation and the keys provided to the Resident.

842.05 Construction Method: Bollards shall be located per the plans and installed with manufacturer's recommendations.

842.06 Method of Measurement: Collapsible bollards will be measured for payment by each unit satisfactorily constructed, installed, and accepted. Excavation and concrete will not be measured for payment but shall be incidental to the work under this item.

842.07 Basis of Payment: Collapsible bollards shall be paid for at the contract unit price per each, which shall be full compensation for all materials, labor, and incidentals required to complete the work.

Payment will be made under:

Pay Item		Pay Unit
841.49	Bollard - Collapsible	Each

November 07, 2024
Supersedes January 19, 2024

2020 STANDARD DETAIL UPDATES

Standard Details and Standard Detail updates are available at:
http://maine.gov/mdot/contractors/publications/standarddetail/

Detail #	Description	Revision Date
502(19)	Bridge Drains	3/17/2023
502(15)	Bridge Drains	3/17/2023
502(20)	Bridge Drains	3/17/2023
502(23)	Bridge Drains	3/17/2023
502(24)	Bridge Drains	3/17/2023
502(25)	Bridge Drains	3/17/2023
502(26)	Bridge Drains	3/17/2023
504(07)	Diaphragm & Crossframe Notes	3/17/2023
507(20)	Steel Approach Railing 3-Bar	2/11/2021
507(21)	Steel Approach Railing 3-Bar	2/11/2021
507(22)	Steel Approach Railing 3-Bar	2/11/2021
507(23)	Steel Approach Railing 3-Bar	2/11/2021
507(27)	Steel Approach Railing	2/11/2021
526(01)	Portable Concrete Barrier	1/14/2021
526(01A)	Portable Concrete Barrier	1/14/2021
526(01B)	Portable Concrete Barrier	1/14/2021
526(02)	Portable Concrete Barrier	1/14/2021
526(02A)	Portable Concrete Barrier	1/14/2021
526(03)	Portable Concrete Barrier	1/14/2021
526(04)	Portable Concrete Barrier	1/14/2021
526(04A)	Portable Concrete Barrier	1/14/2021
526(04B)	Portable Concrete Barrier	1/14/2021
526(05)	Permanent Concrete Barrier	3/17/2023
526(21)	Permanent Concrete Barrier	3/17/2023
526(22)	Concrete Transition Barrier	3/17/2023
526(38)	Concrete Transition Barrier	3/17/2023
526(39)	Texas Classic Rail	3/17/2023
526(55)	Texas Classic Rail	3/17/2023

603(10)	Concrete Pipe Ties	6/10/2021
605(01)	Underdrain	7/8/2022
605(01)	Underdrain Notes	7/8/2022
606(17)	Midway Splice Guardrail Transition	6/10/2022
606(23)	Standard Bridge Transition – Type “1”	2/11/2021
606(24)	Standard Bridge Transition – Type “1A”	2/11/2021
608(02)	Detectable Warnings	6/10/2021
609(09)	Precast Concrete Vertical Curb	2/11/2021
627(07)	Crosswalk	2/22/2022
627(08)	Crosswalk	2/22/2022
643(11)	ATCC Cabinet	12/14/2020
801(11)	Pedestrian Ramp Notes	11/20/2023
801(12)	Pedestrian Ramp Requirements	11/20/2023
801(13)	Ramp Length Table	11/20/2023
801(14)	Parallel Pedestrian Ramp	11/20/2023
801(15)	Perpendicular Pedestrian Ramp – Option 1	11/20/2023
801(16)	Parallel Pedestrian Ramp – Option 2A	11/20/2023
801(17)	Perpendicular Pedestrian Ramp – Option 2A	11/20/2023
801(18)	Parallel Pedestrian Ramp – Option 2B	11/20/2023
801(19)	Perpendicular Pedestrian Ramp – Option 2B	11/20/2023
801(20)	Parallel Pedestrian Ramp – Option 3	11/20/2023
801(21)	Perpendicular Pedestrian Ramp – Option 3	11/20/2023
801(22)	Side Street Pedestrian Ramp	11/20/2023
801(23)	Parallel Pedestrian Ramp – Esplanade	11/20/2023
801(24)	Perpendicular Pedestrian Ramp – Esplanade	11/20/2023
801(25)	Island Crossings	11/20/2023
801(26)	Blended Transition	11/20/2023
801(26)	Blended Transition	1/19/2024
801(27)	Pedestrian Ramp Adjacent to Driveway or Entrance	11/20/2023
802(05)	Roadway Culvert End Slope Treatment	1/03/2017
802(05)	Roadway Culvert End Slope Treatment	11/01/2024

SUPPLEMENTAL SPECIFICATIONS
(Corrections, Additions, & Revisions to Standard Specifications – March 2020)

SECTION 101
CONTRACT INTERPRETATION

101.2 Definitions

Construction Easement revise this definition by removing it in its entirety and replace with; **"A right acquired by the Department for a specific use of private property outside of the established Right-of-Way. Examples include but are not limited to Drainage Easements, Construction and Maintenance Easements, and Slope Easements. Construction Easement areas, including Temporary Construction Limits and Temporary Road Limits, outside of the Right-of-Way remain private property. No use other than to access and perform the specified work activity is permitted without written permission of the owner."**

Construction Limit Line Remove this definition in its entirety.

Holidays Amend this paragraph by adding "**Juneteenth**" between 'Memorial Day' and 'Independence Day'.

Plans Revise this paragraph by removing "**Standard Details, Supplemental Standard Details**" from the first sentence.

Project Limits Revise this definition by removing it in its entirety and replacing it with: **"Areas within the Right-of-Way, Construction Easements, or Temporary Construction Limits shown on the Plans or otherwise indicated in the Contract. If no Project Limits are indicated in the Contract, the Project Limits shall be determined by the Department. For a related Maine statute, see 23 MRSA § 653. "**

Right-Of-Way Revise this definition by removing it in its entirety and replacing it with: **"The area of land, property, or interest therein, acquired for or devoted to the Project or other purposes. Portions of the Right-of-Way may be used for storage of materials and equipment and the location of engineering facilities, subject to written approval by the Department."**

Amend this Section by adding the following two definitions (that replace Construction Limit Line);

Temporary Construction Limits The area within which the Contractor may access and perform the Physical Work and outside of which Work may not be performed without written authorization by the property owner.

Temporary Road Limits The area within which the Contractor may construct and maintain a temporary detour for maintenance of traffic.

SECTION 102
BIDDING

102.11 Bid Responsiveness Revise the paragraph that states "The Bid is not signed by a duly authorized representative of the Bidder." So that it reads:

"**The Bid is not signed by a duly authorized representative of the Bidder.**

- **Properly submitted electronic bids meet this requirement.**
- **Paper bids must include at least one signed copy of the Contract Agreement Offer & Award form**."

SECTION 103
AWARD AND CONTRACTING

103.3.1 Qualification Requirement for Award Revise this subsection so that it reads:

"**103.3.1 Qualification Requirement for Award If the Notice to Contractors lists a Prequalification requirement, the Apparent Successful Bidder must successfully complete the Prequalification process as a condition of Award. The Apparent Successful Bidder who does not already hold an Annual Prequalification shall have 21 days to provide the Department with their Prequal documents or the Department may move on to the next low bidder."**

SECTION 104
GENERAL RIGHTS AND RESPONSIBILITIES

104.2.1 Furnishing of Right-of-Way Revise this subsection by removing it in its entirety and replace with the new subsection:

"104.2.1 Furnishing of Property Rights The Department will secure all necessary rights to real property within the Project Limits shown on the Right-of-Way Plans that are provided with the Bid Documents. For related provisions, see Sections 104.3.2 – Furnishing of Other Property Rights, Licenses and Permits and 105.4.5 - Maintenance of Existing Structures. For related definitions, see Construction Easements and Right-of-Way."

104.3.2 Furnishing of Other Property Rights, Licenses and Permits Revise this subsection by replacing "104.2.1 Furnishing of Right-of-Way" with "**104.2.1 Furnishing of Property Rights".**

SECTION 105
GENERAL SCOPE OF WORK

105.10.2 Requirements Applicable to All Contracts Under section A, number 2, in the first sentence of the first paragraph, revise this Section by replacing the word "handicap" in two places with the word "disability" so it now reads:

"2) The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, State that all qualified applicants will receive consideration for employment without regard to race, color, sexual orientation, religious creed, sex, national origin, ancestry, age, physical disability, or mental disability."

SECTION 106
QUALITY

106.6 Acceptance Revise this Subsection by replacing the paragraph beginning with "Acceptance of Hot Mix Asphalt Pavement will be based" with:

"Acceptance of Hot Mix Asphalt Pavement will be based on Method A or C Statistical Acceptance, or Method B or D Acceptance as specified. The method of acceptance for each item is defined in Special Provision, Section 403, Hot Mix Asphalt Pavement. When items of Hot Mix Asphalt Pavement are not so designated, Method A will be utilized whenever there are more than 1000 tons per Hot Mix Asphalt Pavement item, and Method B will be utilized when there are less than or equal to 1000 tons per Hot Mix Asphalt Pavement item."

Revise Subsection "B" by removing it and replacing it with:

"B. Items not designated for Statistical Acceptance will utilize Method B or D Acceptance testing to validate the quality of the material incorporated into the Project. For material paid under Item 403.209 – Method D, or designated to be visually accepted, the Contractor shall provide the Department with a Certification Letter that indicates that the material supplied complies with the Specifications. Test results representative of the certified material shall be attached to the letter.

The Department will randomly sample and test the certified Material for properties noted in Table 1 of Section 502 - Structural Concrete or Table 14 of Section –401.21 Acceptance Method B & D. Material will be subject to rejection as noted in Structural Concrete Section 502.195 - Quality Assurance Method C Concrete or Hot Mix Asphalt, Section 401.2022 Pay Adjustment – Method B & D."

106.7.1 Standard Deviation Method Revise 106.7.1, subsection H by removing the following from the first paragraph:

"Method B: PF = [70 + (Quality Level * 0.33)] * 0.01"

106.9.1 Warranty by Contractor Revise the third paragraph of this section so that it reads:

"**For a related provision regarding obligations regarding plantings, see section 621.36 – Maintenance Period.** "

SECTION 107
TIME

107.3.1 General Amend this paragraph by adding "**Juneteenth**" between 'Patriot's Day' and 'the Friday after Thanksgiving'.

SECTION 108
PAYMENT

108.2.3 Mobilization Payments Replace Standard Specification 108.2.3 – Mobilization Payments with the following:

"**108.2.3 Mobilization Payments "Mobilization" includes the mobilization and demobilization of all resources as many times as necessary during the Work.**

Percent Mobilization Bid will be determined by taking the amount Bid for Mobilization and dividing by the Total Contract Amount less Mobilization. Mob/(Total Contract – Mob).

Payment will be made at the following intervals:

% Mobilization Bid	% Mobilization Paid at Contract Award	% Mobilization Paid after the Department determines 50% of the work is Complete	% Mobilization Paid at Final Acceptance
10% or less	50%	50%	
More than 10% to 15%	33%	33%	34%
More than15% to 20%	25%	25%	50%
More than 20% to 30%	15%	15%	70%
Greater than 30%	10%	10%	80%

108.3 Retainage Revise the third paragraph of this section so that it reads:

"Upon Final Acceptance, and determination by the department that there are no claims either by or on the Contractor or Subcontractors; no over payments by the department; no LDs due; and no disincentives due, the Department will reduce Retent to 1% of the original Contract Award amount, or $100,000, whichever is less, as it deems desirable and prudent."

108.4.1 Price Adjustment for Hot Mix Asphalt Revise this section by removing it in its entirety and replacing it with the following:

"108.4.1 Price Adjustment for Hot Mix Asphalt: For each Contract, a price adjustment for performance graded binder will be made for the following pay items, when the total quantity of Hot Mix Asphalt included in these items is in excess of 500 tons, based on the estimated quantities of these items at the time of bid.

Item 403.102	**Hot Mix Asphalt – Special Areas**
Item 403.207	**Hot Mix Asphalt - 19 mm**
Item 403.2071	**Hot Mix Asphalt - 19 mm (Polymer Modified)**
Item 403.2072	**Hot Mix Asphalt - 19 mm (Asphalt Rich Base)**
Item 403.208	**Hot Mix Asphalt - 12.5 mm**
Item 403.2081	**Hot Mix Asphalt - 12.5 mm (Polymer Modified)**
Item 403.2084	**Hot Mix Asphalt - 12.5 mm (Highly Modified HiMAP)**
Item 403.209	**Hot Mix Asphalt - 9.5 mm (sidewalks, drives, & incidentals)**
Item 403.210	**Hot Mix Asphalt - 9.5 mm**
Item 403.2101	**Hot Mix Asphalt - 9.5 mm (Polymer Modified)**
Item 403.2104	**Hot Mix Asphalt - 9.5 mm (Thin Lift Surface Treatment)**
Item 403.21041	**Hot Mix Asphalt - 9.5 mm (Polymer Modified Thin Lift Surface Treatment)**
Item 403.211	**Hot Mix Asphalt – Shim**
Item 403.2111	**Hot Mix Asphalt – Shim (Polymer Modified)**
Item 403.212	**Hot Mix Asphalt - 4.75 mm (Shim)**
Item 403.213	**Hot Mix Asphalt - 12.5 mm (base and intermediate course)**
Item 403.2131	**Hot Mix Asphalt - 12.5 mm (base and intermediate course Polymer Modified)**
Item 403.2132	**Hot Mix Asphalt - 12.5 mm (Asphalt Rich Base and intermediate course)**
Item 403.301	**Hot Mix Asphalt (Asphalt Rubber Gap-Graded)**
Item 461.13	**Light Capital Pavement**
Item 461.210	**9.5 mm HMA - Paver Placed Surface**
Item 461.2101	**Hot Mix Asphalt - 9.5 mm (Polymer Modified)**
Item 461.216	**Hot Mix Asphalt (Shim)**
Item 462.30	**Ultra-Thin Bonded Wearing Course**
Item 462.301	**Polymer Modified Ultra-Thin Bonded Wearing Course**

Price adjustments will be based on the variance in costs for the performance graded binder component of hot mix asphalt. They will be determined as follows:

The quantity of hot mix asphalt for each pay item will be multiplied by the performance graded binder percentages given in the table below times the difference in price between the base price and the period price of asphalt cement. Adjustments will be made upward or downward, as prices increase or decrease.

Item 403.102–6.2%
Item 403.207–5.2%
Item 403.2071–5.2%
Item 403.2072–5.8%
Item 403.208–5.6%
Item 403.2081–5.6%
Item 403.2084 – 6.2%
Item 403.209–6.2%
Item 403.210–6.2%
Item 403.2101–6.2%
Item 403.2104–6.2%
Item 403.21041–6.2%
Item 403.211–6.2%
Item 403.2111–6.2%
Item 403.212–6.8%
Item 403.213–5.6%
Item 403.2131–5.6%
Item 403.2132–6.2%
Item 403.301–6.2%
Item 461.13–6.7%
Item 461.210 – 6.4%
Item 461.2101 – 6.4%
Item 461.216 – 6.7%
Item 462.30–0.0021 tons/SY
Item 462.301–0.0021 tons/SY"

SECTION 110
INDEMNIFICATION, BONDING, AND INSURANCE

110.3.9 Administrative & General Provisions Amend this subsection by adding "**Automobile Liability**" under letter A) Additional Insured to the list of exceptions.

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SECTION 206
STRUCTURAL EXCAVATION

206.01 Description – *Structural Earth Excavation, Below Grade* delete the entire sentence and replace with "**shall consist of the removal of excavation required for unknown or unanticipated subsurface condition. See 206.04 – Method of Measurement for pay limits**."

206.04 Method of Measurement – Drainage and Minor Structures Paragraph 1, sentence 2, delete the remainder of the sentence beginning with "….provided the maximum allowable…"And replace with: **"….in accordance with the following limits:"**

- **Vertical pay limits:**
  - **Below a plane parallel with and 12 inches below the bottom of the drainage or minor structure or**
  - **Below the excavation limits shown in the Bid Documents; whichever is greater.**

- **Horizontal pay limits – The maximum allowable horizontal dimensions shall not exceed those bounded by vertical surfaces 18 inches outside the base, or extreme limits of, the structure, and to the vertical neat lines of underdrain trenches, as shown in the Contract Documents.**

SECTION 401
HOT MIX ASPHALT PAVEMENT

401.19 Contractor Quality Control Amend this Section by adding the following to the end:
"Failure to comply with the approved QCP will result in work suspension and pay reductions as outlined in Section 106.4.6. The Quality Control Plan Value shall be the total bid value for all items covered by the QCP as identified in Special Provision 403."

SECTION 501
FOUNDATION PILES

501.05 Method of Measurement
c. Piles in Place Revise the third paragraph by replacing the "10" with "20" so that it reads:

Unused pile cutoffs **20** feet or more in length, except those required to accommodate the Contractor's construction method, as discussed herein, will remain the property of the Department and will be stored at a bridge maintenance yard nearest the project. Hauling and unloading of piles will be done by the Contractor or by the Department, depending upon availability of services.

SECTION 502
STRUCTURAL CONCRETE

502.09 Forms and Falsework Amend this subsection by adding the subsection title "**502.10 Placing Concrete**" after section "D" Removal of Forms and False work" and after the paragraph beginning with "2. Forms and False work, including blocking…". So that a new subsection starts and reads:

"**502.10 Placing Concrete**

A. **General Concrete shall not be placed until forms** …."

502.1701 Quality Control, Method A and B Revise this Section so that the first paragraph and the first sentence of the second paragraph read:

"**502.17 Quality Control The Contractor shall control the quality of the concrete through testing, inspection, and practices which shall be described in the QCP, sufficient to assure a product meeting the Contract requirements. The QCP shall meet the requirements of Section 106, Quality, and this specification. No work under this item shall proceed until the QCP is submitted to and approved by the Department. Failure to comply with the approved QCP will result in work suspension and pay reductions as outlined in Section 106.4.6. The Quality Control Plan Value shall be the total bid value for all cast-in-place items covered by the QCP, using the P value listed in Special Provision 502. If no P value is listed, a value of $350, or bid value per cubic yard, whichever is less, shall be used.**

502.1701 Quality Control, Method A and B The QCP shall address all elements that affect the quality of the structural concrete including, but not limited to, the following: "

Section 502.1701, Quality Control, Revise Table 4 of this Subsection by removing it in its entirety and replacing it with:

TABLE 4
METHOD A & B MINIMUM QUALITY CONTROL TESTING REQUIREMENTS *

TEST	TEST METHOD	SAMPLING LOCATION	FREQUENCY
Gradation	AASHTO T-27 & T-11	Stockpile	One set per proposed grading before production. One set every 100 yd^3 (Min. 1 set per month)
Organic Impurities	AASHTO T-21	Stockpile	**Once per fine aggregate per year ****
% Absorption	AASHTO T-84 & T-85	Stockpile	Once per aggregate per year
Specific Gravity	AASHTO T-84 & T-85	Stockpile	Once per aggregate per year
Total Moisture in Aggregate	AASHTO T-255	Stockpile	One set per day's production

Free Water and Aggregate Wt.	N/A		One per day's production
% Entrained Air	AASHTO T-152	On Project	On first two loads and every third load thereafter provided consistent results are achieved
Compressive Strength	AASHTO T-22	On Project	One set per sublot
Compressive Strength	AASHTO T-22 @ 7days	On Project	One set per sublot

* Additional QC testing will be required any time a process change occurs during a placement, including changes in type or dosage of admixture. Additional testing shall include, but is not limited to, entrained air testing.

**** If the color produced is a laboratory designation Plate III, then the fine aggregate shall be tested once per month.**

502.18, Method of Measurement, Revise Subsection 'F' by removing the word 'transverse' so that it reads: "**Saw cut grooving of concrete wearing surfaces, complete and accepted, will be measured for payment as one lump sum**."

502.19, Basis of Payment, Revise the third paragraph by removing the word 'transverse' so that it reads: "**Saw cut grooving of concrete wearing surfaces will be paid for at the Contract Lump Sum Price, which shall be payment for furnishing all materials, labor, and equipment, including depth gauges and all incidentals, to satisfactorily complete the work."**
(Also see 535.24 and 535.25 for related changes)

SECTION 503
REINFORCING STEEL

Section 503.07 Splicing Revise this section by removing the table and following footnote and replacing them with:

Minimum Lap Splice Length (inches)									
	Bar Size								
Bar Type	#3	#4	#5	#6	#7	#8	#9	#10	#11
Plain or Galvanized	16	20	24	29	38	47	59	72	85
Epoxy or Dual Coated	17	24	36	43	56	71	88	107	128
Stainless	19	24	30	36	47	59	73	89	107
Low-carbon Chromium	24	32	39	47	63	78	97	119	142

"**The minimum lap splice lengths in the table above are based on the parameters below. When any of these parameters are altered, appropriate minimum lap splice lengths will be as shown on the Plans.**

- **Normal weight concrete**
- **Minimum 28-day concrete compressive strength from 4,000 psi to 10,000 psi**
- **Class B tension lap splice**
- **Minimum center-to-center spacing between bars of 6 inches**
- **Minimum clear cover of 2 inches**
- **Nominal reinforcing steel yield strengths**
  - **Low-carbon Chromium = 100 ksi**
  - **Stainless = 75 ksi**
  - **All others = 60 ksi**
- **Reinforcement with yield strengths greater than 75 ksi shall have beam transverse reinforcement and column ties provided over the required lap splice length in accordancewith the current edition of the AASHTO LRFD Bridge Design Specifications**

When lap splices are placed horizontally in an element where the concrete depth below the splice will be 12 inches, or more, the indicated lap splice lengths shall be multiplied by a factor of 1.3."

SECTION 506
SHOP APPLIED PROTECTIVE COATING – STEEL

506.13 Surface Preparation Amend this section by adding this paragraph to the end:

"**Steel shall meet the requirements of SSPC SP8 Pickling prior to being immersed in the zinc tanks. Verification of the surface preparation shall be included in the QC documentation**."

SECTION 523
BEARINGS

523.051 Protective Coating Revise this subsection by removing the paragraph beginning with "Anchor rods shall be galvanized…" and replacing with:

"**Anchor rods shall be galvanized. When anchor rods are designated to secure bare unpainted steel or painted steel, a dielectric coating (epoxy or bituminous type coatings are acceptable) shall be applied to the anchor rod and/or adjacent steel to prevent contact between galvanized surfaces and painted or unpainted steel."**

523.22 Fabrication Amend this subsection by adding the following: "**Elastomeric Bearings shall be fabricated in accordance with AASHTO M251."**

SECTION 526
CONCRETE BARRIER

Amend this section by deleting it in its entirety and replacing it with:

"**526.01 Description This work shall consist of the furnishing, constructing, erecting, setting, resetting, and removal of concrete barrier and associated elements in accordance with these specifications, the Standard Details, and the lines and grades shown on the Plans or established by the Resident.**

The types of concrete barrier are designated as follows:

Portable Concrete Barrier Type I Double faced removable barrier in accordance with the Standard Details.

Permanent Concrete Barrier Type II Double faced barrier as shown on the Plans.

Permanent Concrete Barrier Type IIIa Single faced barrier 32 inches high in accordance with the Standard Details or as shown on the Plans.
Permanent Concrete Barrier Type IIIb Single faced barrier 42 inches high in accordance with the Standard Details or as shown on the Plans.

Permanent Concrete Transition Barrier Barrier of various heights joining steel bridge rail to steel guardrail in accordance with the Standard Details or as shown on the Plans.

Permanent Texas Classic Rail Barrier Traffic rail or sidewalk rail, in accordance with the Standard Details or as shown on the Plans.

526.02 Materials

a. Concrete Concrete for barriers, both permanent and portable, shall have a design strength of 5,000 psi.

For cast-in-place barrier: The concrete shall be Class LP, in accordance with Standard Specification Section 502, Structural Concrete.

For precast barrier: The concrete shall meet the requirements of Standard Specification 712.061, Structural Precast Concrete Units, except that the stripping strength for precast barriers is 4,000 psi.

b. Reinforcing Steel Reinforcing steel shall meet the requirements of Section 503, Reinforcing Steel.

c. Structural Steel Plates and barrier connections shall meet the requirements specified in Standard Specification 504 - Structural Steel and shall be hot dip galvanized after fabrication in accordance with Standard Specification 506, Shop Applied Protective Coating – Steel

d. Bolts Bolts shall meet the requirements specified in Section 713.02, High Strength Bolts.

e. Connecting Pins for Portable Concrete Barrier Portable concrete barriers must be connected using a 1- inch diameter pin. The connecting pin must be smooth, not deformed, i.e., reinforcing bar may not be used, and shall meet the strength requirements of ASTM A449 steel. Materials with greater strength may be used with the approval of the Department.

f. Anchor Pins for Portable Concrete Barrier Anchoring to concrete or asphalt will be required when specified on the Plans. When required, portable concrete barriers must be anchored using a 1 ½ - inch diameter anchor pin. The anchor pin must be smooth, not deformed, i.e., reinforcing bar may not be used, and shall meet the strength requirements of ASTM A36 steel. Materials with greater strength may be used with the approval of the Department.

g. Device Crashworthiness MaineDOT is transitioning to MASH2016 criteria for Portable Concrete Barrier on the following schedule:

New Portable Concrete Barrier shall be crash tested and/or evaluated to MASH2016 criteria.

Current Portable Concrete Barrier in useful serviceable condition that is successfully tested to NCHRP Report 350 or MASH2009 criteria may be utilized through December 31, 2029.

Other current Portable Concrete Barrier that is deemed acceptable by the Department may be utilized on projects off the National Highway System through December 31, 2024.

526.03 Construction Requirements

Cast-in-place barriers shall be fabricated in accordance with Standard Specification Section 502, Structural Concrete. Precast barriers shall be fabricated in accordance with Standard Specification 534, Precast Structural Concrete.

Concrete finish for permanent barrier shall be rubbed as defined in Standard Specification Section 502, Structural Concrete, 502.13 D2 or an approved equal.

Portable concrete barrier shall be generally free from fins and porous areas and shall present a neat and uniform appearance.

Permanent barrier shall have a protective coating applied in accordance with Standard Specification Section 515, Protective Coating for Concrete Surfaces.

Reflective delineators for concrete median barrier shall meet the requirements of Special Provision 645, Highway Signing.

Preformed Joint Filler shall meet the requirements specified in Subsection 705.01, Preformed Expansion Joint Filler.

Permissible dimensional tolerances for all concrete barriers shall be as follows:

a. Cross-sectional dimensions shall not vary from design dimensions by more than ¼ inch. The vertical centerline shall not be out of plumb by more than ¼ inch.

b. Longitudinal dimensions shall not vary from the design dimensions by more than ¼ inch per 10 feet of barrier section and shall not exceed ¾ inches per section.

c. Location of anchoring holes shall not vary by more than ½ inch from the dimensions shown in the concrete barrier details on the Plans.

d. Surface straightness shall not vary more than ¼ inch under a 10-foot straightedge.

e. The barrier shall have no significant cracking. Significant cracking is defined as fractures or cracks passing through the section, or any continuous crack extending for a length of 12 inches or more, regardless of position in the section.

<u>526.04 Method of Measurement</u> Permanent Concrete Barrier Type II, IIIa, IIIb, Texas Classic Rail, and Precast Median Barrier will be measured for payment by lump sum, complete in place.

Portable concrete barrier, both anchored and unanchored will be measured for payment by lump sum. Lump sum measurement will include verification of the installation and removal of all portable concrete at the completion of the Contractor's operations.

The Contractor shall replace sections of portable concrete barrier, including anchored barrier damaged by the traveling public when directed by the Resident. Replacement sections will be measured for payment in accordance with Standard Specification 109.7, Equitable Adjustments to Compensation and Time.

Transition barrier will be measured by each, complete in place.

526.05 Basis of Payment The accepted quantities of Concrete Barrier Type II, IIIa, IIIb, Texas Classic Rail, and Precast Median Barrier will be paid for at the Contract lump sum price for the type specified, complete in place.

The accepted quantities of Portable Concrete Barrier Type I, both anchored and unanchored will be paid for at the Contract lump sum price. Such payment shall be full compensation for furnishing all materials, assembling, moving, resetting, transporting, temporarily storing, removing barrier, furnishing new parts as necessary, and all incidentals necessary to complete the work.

Portable barrier shall become the property of the Contractor upon completion of the use of the barrier on the project and shall be removed from the project site by the Contractor.

Transition barrier will be paid for at the Contract price each, complete in place.

The accepted quantity of all types of concrete barrier, whether portable or permanent, will be paid for at the lump sum or per each price, as applicable, which payment shall be full compensation for all materials, including reinforcing steel, protective coating, reflective delineators, steel plates and hardware, equipment, labor and incidentals required, as necessary, to complete the work.

Payment will be made under:

	Pay Item	Pay Unit
526.301	Portable Concrete Barrier, Type I	Lump Sum
526.304	Portable Concrete Barrier, Anchored Type I	Lump Sum
526.312	Permanent Concrete Barrier Type II	Lump Sum
526.321	Permanent Concrete Barrier Type IIIa	Lump Sum
526.323	Texas Classic Rail	Lump Sum
526.331	Permanent Concrete Barrier Type IIIb	Lump Sum
526.34	Permanent Concrete Transition Barrier	Each
526.502	Precast Concrete Median Barrier	Lump Sum”

SECTION 527
ENERGY ABSORBING UNIT

527.02 Materials Amend this section by deleting it in its entirety and replacing it with:

"**MaineDOT is transitioning to MASH2016 criteria for Work Zone Traffic Control Devices on the following schedule:**

Portable Crash Cushions will be crash tested and/or evaluated to MASH2016 criteria by January 1, 2030. Current Category 3 devices in useful serviceable condition that are successfully tested to NCHRP Report 350 or MASH2009 criteria may be utilized through December 31, 2029.

Work Zone Crash Cushions shall be selected from the Department's Qualified Products List of Crash Cushions/Impact Attenuators or approved equal."

SECTION 535
PRECAST, PRESTRESSED CONCRETE SUPERSTRUCTURE

535.22 Tolerances Amend this section by deleting it in its entirety and replacing it with:
"**Product dimensional tolerances shall be in conformance with the latest edition of PCI MNL-135, Tolerance Manual for Precast and Prestressed Concrete Construction, as applicable to the particular product (e.g., slab, I-girder, box beam), the Plans, and this Specification. Use Box Beam fabrication tolerances for voided or solid slab beams and use Double Tee tolerances for NEXT beams. In case of dispute, the Fabrication Engineer shall determine the allowable tolerance.**"

535.24 Installation of Slabs, Beams, and Girders Revise the 5th paragraph by replacing "6.0 and 9.0" to "5.0 and 8.0" so it reads: **"Ready mixed grout shall achieve a design compressive strength of 6,000 psi at 28 days, have an entrained air content of between 5.0 and 8.0 percent, be non-shrink, flowable, and contain a non-shrink additive listed on the Department QPL for expansive cements."**

535.25, Installation of Precast/Prestressed Deck Panels Revise the 2nd paragraph by replacing "6.0 and 9.0" to "5.0 and 8.0" so it reads: **"Ready mixed grout shall achieve a design compressive strength of 6,000 psi at 28 days, have an entrained air content of between 5.0 and 8.0 percent, be non-shrink, flowable, and contain a non-shrink additive listed on the Department QPL for expansive cements."**

SECTION 606
GUARDRAIL

Amend this section by replacing it with the following:

606.01 Description This work shall consist of furnishing and installing guardrail components in accordance with these specifications and in reasonably close conformity with the lines and grades shown on the plans or as established. Guardrail is designated as:

31" W-Beam Guardrail - Mid-Way Splice
Galvanized steel w-beam, 8" wood or composite offset blocks, galvanized steel posts
Thrie Beam
Galvanized steel thrie beam, 8" wood or composite offset blocks, galvanized steel posts

Median guardrail shall consist of two beams of the above types, mounted on single posts.

Bridge mounted guardrail shall consist of furnishing all labor, materials, and equipment necessary to install guardrail as shown on the plans. This work shall also include drilling for and installation of offset blocks if specified, and incidental hardware necessary for satisfactory completion of the work.

Remove and Reset and Remove, Modify, and Reset guardrail shall consist of removing the existing designated guardrail and resetting in a new location as shown on the plans or directed by the Resident. Remove, Modify, and Reset guardrail and Modify guardrail include the following guardrail modifications: Removing plate washers at all posts, except at anchorage assemblies as noted on the Standard Details, adding offset blocks, and other modifications as listed in the Construction Notes or General Notes. Modifications shall conform to the guardrail Standard Details.

Bridge Connection shall consist of the installation and attachment of beam guardrail to the existing bridge. This work shall consist of constructing a concrete end post or modifying an existing end post as required, furnishing, and installing a terminal connector, necessary hardware, and incidentals required to complete the work as shown on the plans. Bridge Transition shall consist of a bridge connection and furnishing and installing guardrail components as shown in the Standard Details.

606.02 Materials Materials shall meet the requirements specified in the following Sections of Division 700 - Materials:

Timber Preservative	708.05
Metal Beam Rail	710.04
Guardrail Posts	710.07
Guardrail Hardware	710.08

Guardrail components shall meet the applicable standards of "A Guide to Standardized Highway Barrier Hardware" prepared and approved by the AASHTO-AGC-ARTBA Joint Cooperative Committee, Task Force 13 Report.

Posts for underdrain delineators shall be "U" channel steel, 8 ft long, 2 ½ lb/ft minimum and have 3/8-inch round holes, 1-inch center to center for a minimum distance of 2 ft from the top of the post.

Reflectorized Flexible Guardrail Markers shall be mounted on all guardrails. A marker shall be mounted onto guardrail posts at the flared guardrail terminal end point and tangent point, both at the leading and trailing ends of each run of guardrail. The marker's flexible posts shall be gray with either silver-white or yellow reflectors (to match the edge line striping) at the tangents, red at leading ends, and green at trailing ends. Whenever the guardrail terminal is not flared, markers will only be required at the terminal end point. These shall be red or green as appropriate. Markers shall be installed on the protected side of guardrail posts unless otherwise approved by the Resident. Reflectorized flexible guardrail markers shall be from the Department's Qualified Products List of Delineators. The marker shall be gray, flexible, durable, and of a non-discoloring material to which 3-inch by 9-inch reflectors shall be applied, and capable of recovering from repeated impacts and meeting MASH 16 requirements. Reflective material shall meet the requirements of Section 719.01 for ASTM D 4956 Type III reflective sheeting. The marker shall be secured to the guardrail post with two fasteners, as shown in the Standard Details.

Reflectorized beam guardrail reflectors shall be mounted on all "w" beam guardrail and shall be either the "butterfly" type or linear delineation system panels. "Butterfly" or linear delineation panels shall be installed at approximately 62.5 foot intervals on tangents (after every tenth post) and 31.25 feet on curves (after every fifth post), and shall be centered on the guardrail beam. On Divided highways, the left-hand delineators shall be yellow and the right-hand delineators shall be silver/ white. On two-way directional highways, the right-hand side will have silver / white reflectors and no reflectorized delineator used on the left. Delineators shall have reflective sheeting that meets or exceeds the requirements of Section 719.01.

"Butterfly" reflectors shall be fabricated from high-impact, ultraviolet & weather resistant thermoplastic. Aluminum, galvanized metal or other materials shall not be used. Reflective sheeting will be applied to only one side of the delineator facing the direction of traffic and shall be centered vertically on the guardrail beam as shown in the Standard Detail 606(7).

Linear delineation system panels shall be 1.5 inches wide by approximately 11 inches nominal length, with a minimum of 5 raised lateral ridges spaced at approximately 2.25 inches. The height of each ridge shall be 0.34 inches with a 45 degree profile and a 0.28 inches radius at the top. Sheeting shall be laminated to thin gauge aluminum with a pre-applied adhesive tape on the back. Panels shall not be installed over seams or bolt heads and shall be centered horizontally on the guardrail beam; linear delineation panels shall be attached to only one guardrail beam. The guardrail beam surface shall be cleaned and prepared according to the manufacturer's instructions. Air temperature and guardrail surface temperature must be a minimum of 50 degrees F (10 C) with rising temperature at the time of installation.

Exact locations of the either the "butterfly" type or the linear delineation panels shall be approved by the Resident prior to installation.

Single wood post shall be of cedar, white oak, or tamarack, well-seasoned, straight, and sound and have been cut from live trees. The outer and inner bark shall be removed, and all knots trimmed flush with the surface of the post. Posts shall be uniform taper and free of kinks and bends.

Single steel post shall conform to the requirements of Section 710.07 b.

Single steel pipe post shall be galvanized, seamless steel pipe conforming to the requirements of ASTM A120, Schedule No. 40, Standard Weight.

Acceptable multiple mailbox assemblies shall be listed on the Department's Qualified Products List and shall be MASH 16 tested and approved.

Flared and Tangent w-beam guardrail terminals and guardrail offset blocks shall be from the Department's Qualified Products List. Flared terminals shall be installed with a 4 ft offset as shown in the Manufacturer's installation instructions.

Anchorage assemblies used to anchor trailing ends, radius guardrail, or other ends not exposed to traffic shall meet the applicable standards of "A Guide to Standardized Highway Barrier Hardware" prepared and approved by the AASHTO-AGC-ARTBA Joint Cooperative Committee, Task Force 13 Report, Drawing SEW02a.

Existing materials damaged or lost during adjusting, removing and resetting, or removing, modifying, and resetting, shall be replaced by the Contractor without additional compensation. Existing guardrail posts and guardrail beams found to be unfit for reuse shall be replaced when directed by the Resident.

606.03 Posts Posts for guardrail shall be set plumb in holes or they may be driven if suitable driving equipment is used to prevent battering and distorting the post. When posts are driven through pavement, the damaged area around the post shall be repaired with approved bituminous patching. Damage to lighting and signal conduit and conductors shall be repaired by the Contractor.

When set in holes, posts shall be on a stable foundation and the space around the posts, backfilled in layers with suitable material, thoroughly tamped.

The reflectorized flexible guardrail markers shall be set plumb with the reflective surface facing the oncoming traffic. Markers shall be installed on the protected side of guardrail posts. Markers, which become bent or otherwise damaged, shall be removed and replaced with new markers.

Single wood posts shall be set plumb in holes and backfilled in layers with suitable material, thoroughly tamped. The Resident will designate the elevation and shape of the top. The posts, that are not pressure treated, shall be painted two coats of good quality oil base exterior house paint.

Single steel posts shall be set plumb in holes as specified for single wood posts or they may be driven if suitable driving equipment is used to prevent battering and distorting the post.

Additional bolt holes required in existing posts shall be drilled or punched, but the size of the holes shall not exceed the dimensions given in the Standard Details. Metal around the holes shall be thoroughly cleaned and painted with two coats of approved aluminum rust resistant paint. Holes shall not be burned.

606.04 Rails Brackets and fittings shall be placed and fastened as shown on the plans. Rail beams shall be erected and aligned to provide a smooth, continuous barrier. Beams shall be lapped with the exposed end away from approaching traffic.

End assemblies shall be installed as shown on the plans and shall be securely attached to the rail section and end post.

All bolts shall be of sufficient length to extend beyond the nuts but not more than ½ inch. Nuts shall be drawn tight.

Additional bolt holes required in existing beams shall be drilled or punched, but the size of the holes shall not exceed the dimensions given in the Standard Details. Metal around the holes shall be thoroughly cleaned and painted with two coats of approved aluminum rust resistant paint. Holes shall not be burned.

606.045 Offset Blocks The same offset block material is to be provided for the entire project unless otherwise specified.

606.05 Shoulder Widening At designated locations the existing shoulder of the roadway shall be widened as shown on the plans. All grading, paving, seeding, and other necessary work shall be in accordance with the Specifications for the type work being done.

606.06 Mail Box Post Single wood post shall be installed at the designated location for the support of the mailbox. The multiple mailbox assemblies shall be installed at the designated location in accordance with the Standard Details and as recommended by the Manufacturer. Attachment of the mailbox to the post will be the responsibility of the home or business owner.

606.07 Abraded Surfaces All galvanized surfaces of new guardrail and posts, which have been abraded so that the base metal is exposed, and the threaded portions of all fittings and fasteners and cut ends of bolts shall be cleaned and painted with two coats of approved rust resistant paint.

606.08 Method of Measurement Guardrail will be measured by the linear foot from center to center of end posts along the gradient of the rail except where end connections are made to masonry or steel structures, in which case measurement will be as shown on the plans. When connected to radius rail, measurement will be to the end of the last tangent beam.

Guardrail terminal, reflectorized flexible guardrail marker, terminal end, anchorage assembly, bridge transition, bridge connection, multiple mailbox post, and single post will be measured by each unit of the kind specified and installed.

Widened shoulder will be measured as a unit of grading within the limits shown on the plans.

Excavation in solid rock for placement of posts will be paid under force account unless otherwise indicated in the Bid Documents.

Reflectorized beam guardrail reflectors ("butterfly" type or linear delineation system panels) when identified by pay item, will be measured for payment by each.

606.09 Basis of Payment The accepted quantities of guardrail will be paid for at the contract unit price per linear foot for the type specified, complete in place. Reflectorized beam guardrail ("butterfly"-type) delineators will not be paid for directly but will be considered incidental to guardrail items. Reflectorized flexible guardrail marker, terminal end, anchorage assembly, bridge transition, bridge connection, multiple mailbox post, and single post will be paid for at the contract unit price each for the kind specified complete in place.
Guardrail terminals will be paid for at the contract price each, complete in place which price shall be full payment for furnishing and installing all components including the terminal section, posts, offset blocks, "w" beam, cable foundation posts, plates and for all incidentals necessary to complete the installation within the limits as shown on the Standard Details or the Manufacturer's installation instructions. Pay limits for a flared terminal will be 37.5 feet. Pay limits for a tangent terminal will be 50 feet. Each guardrail terminal will be clearly marked with the Manufacturer's name and model number to facilitate any future needed repair. Such payment shall also be full compensation for furnishing all material, excavating, backfilling holes, assembling, and all incidentals necessary to complete the work, except that for excavation for posts or anchorages in solid ledge rock, payment will be made under 109.7.5 – Force Account. Type III Retroreflective Adhesive Sheeting shall be applied to the approach buffer end sections and sized to substantially cover the end section. On all roadways, the ends shall be marked with alternating black and retroreflective yellow stripes. The stripes shall be 3 in wide and sloped down at an angle of 45 degrees toward the side on which traffic is to pass the end section. Guardrail terminals shall also include a set of installation drawings supplied to the Resident.

Anchorages to bridge end posts will be part of the bridge work. Connections thereto will be considered included in the unit bid price for guardrail.

Guardrail to be placed on a radius of curvature of 150 ft or less will be paid for under the designated radius pay item for the type guardrail being placed.

Widened shoulder will be paid for at the contract unit price each complete in place and will be full compensation for furnishing and placing, grading and compaction of aggregate subbase and any required fill material.

Adjust guardrail will be paid for at the contract unit price per linear foot and will be full compensation for adjusting to grade. Payment shall also include adjusting guardrail terminals where required.

Modify guardrail will be paid for at the contract unit price per linear foot and will be full compensation for furnishing and installing offset blocks, additional posts, and other specified modifications; removing, modifying, installing, and adjusting to grade existing posts and beams; removing plate washers and backup plates, and all incidentals necessary to complete the work. Payment shall also include removing and resetting guardrail terminals where required.

Remove and Reset guardrail will be paid for at the contract unit price per linear foot and will be full compensation for removing, transporting, storing, reassembling all parts, necessary cutting, furnishing new parts when necessary, reinstalling at the new location, and all other incidentals necessary to complete the work. Payment shall also include removing and resetting guardrail terminals when required.

Remove, Modify, and Reset guardrail will be paid for at the contract unit price per foot and will be full compensation for the requirements listed in Modify guardrail and Remove and Reset guardrail.

Bridge Connections will be paid for at the contract unit price each. Payment shall include, attaching the connection to the endpost including furnishing and placing concrete and reinforcing steel necessary to construct new endposts if required, furnishing and installing the terminal connector, and all miscellaneous hardware, labor, equipment, and incidentals necessary to complete the work.

Bridge Transitions will be paid for at the contract unit price each. Payment shall include furnishing and installing the thrie beam or “w”-beam terminal connector, doubled beam section, and transition section, where called for, posts, hardware, precast concrete transition curb, and any other necessary materials and labor, including the bridge connection as stated in the previous paragraph.

No payment will be made for guardrail removed, but not reset and all costs for such removal shall be considered incidental to the various contract pay items.

Reflectorized beam guardrail reflectors (“butterfly” type and the linear delineation panels) will not be paid for directly but will be considered incidental to all new guardrail items. The Contractor shall furnish and install either the “butterfly” type or linear delineation panels, at its discretion, for new guardrail items.

Reflectorized beam guardrail reflectors (either “butterfly” type or linear delineation system panels) will be paid for under the applicable pay items for installation in conjunction with Adjust, Modify, Remove and Reset, Remove Modify and Reset guardrail items. The accepted quantity of “butterfly” type or linear delineation system panels will be paid for at the contract unit price each for all work and materials furnished to install, complete in place, including all incidentals necessary to complete the work.

Payment will be made under:

Pay Item		Pay Unit
606.1301	31” W-Beam Guardrail - Mid-Way Splice – Single Faced	Linear Foot
606.1302	31” W-Beam Guardrail - Mid-Way Splice – Double Faced	Linear Foot
606.1303	31” W-Beam Guardrail - Mid-Way Splice, 15’ Radius and Less	Linear Foot
606.1304	31” W-Beam Guardrail - Mid-Way Splice, Over 15’ Radius	Linear Foot
606.1305	31” W-Beam Guardrail - Mid-Way Splice Flared Terminal	Each
606.1306	31” W-Beam Guardrail - Mid-Way Splice Tangent Terminal	Each
606.1307	Bridge Transition (Asymmetrical) – Type IA	Each
606.1721	Bridge Transition - Type I	Each
606.1722	Bridge Transition - Type II	Each
606.1731	Bridge Connection - Type I	Each
606.1732	Bridge Connection - Type II	Each
606.178	Guardrail Beam	Linear Foot
606.25	Terminal Connector	Each
606.257	Terminal Connector - Thrie Beam	Each
606.259	Anchorage Assembly	Each
606.265	Terminal End-Single Rail - Galvanized Steel	Each
606.266	Terminal End-Single Rail - Corrosion Resistant Steel	Each
606.275	Terminal End-Double Rail - Galvanized Steel	Each
606.276	Terminal End-Double Rail - Corrosion Resistant Steel	Each
606.352	Reflectorized Beam Guardrail Delineators (“Butterfly” type)	Each
606.3521	Linear Delineation System Panel	Each
606.353	Reflectorized Flexible Guardrail Marker	Each
606.354	Remove and Reset Reflectorized Flexible Guardrail Marker	Each
606.356	Underdrain Delineator Post	Each
606.358	Guardrail, Modify	Linear Foot
606.362	Guardrail, Adjust	Linear Foot
606.365	Guardrail, Remove, Modify, and Reset	Linear Foot
606.366	Guardrail, Remove and Reset	Linear Foot
606.367	Replace Unusable Existing Guardrail Posts	Each
606.3671	Replace Unusable Offset Blocks	Each
606.47	Single Wood Post	Each
606.48	Single Galvanized Steel Post	Each
606.50	Single Steel Pipe Post	Each
606.51	Multiple Mailbox Support	Each
606.568	Guardrail, Modify - Double Rail	Linear Foot
606.63	Thrie Beam Rail Beam	Linear Foot
606.64	Guardrail Thrie Beam - Double Rail	Linear Foot
606.65	Guardrail Thrie Beam - Single Rail	Linear Foot
606.66	Terminal End Thrie Beam	Each
606.70	Transition Section - Thrie Beam	Each
606.71	Guardrail Thrie Beam - 15 ft radius and less	Linear Foot
606.72	Guardrail Thrie Beam - over 15 ft radius	Linear Foot

606.73	Guardrail Thrie Beam - Single Rail Bridge Mounted	Linear Foot
606.74	Guardrail - Single Rail Bridge Mounted	Linear Foot
606.753	Widen Shoulder for Low Volume Guardrail End	Each
606.754	Widen Shoulder for Flared Guardrail Terminal	Each
606.78	Low Volume Guardrail End	Each
606.80	Buried-in-Slope Guardrail End	Each

SECTION 608
SIDEWALKS

Section 608.022Detectable Warning Materials Standard Revise this section by removing the last sentence of this section beginning with "Concrete…" and replacing it with "**Concrete shall meet the requirements of Section 608.021, Sidewalk Materials, of this specification or may be a prepackaged concrete mix from the Department's Qualified Products List (QPL).**"

SECTION 609
CURB

Remove this section in its entirety and replace with the following:

609.01 Description Construct or reset curb, gutter, or combination curb and gutter, paved ditch, and paved flume. The types of curb are designated as follows:

Type 1 - Stone curbing of quarried granite stone
Type 2 – Concrete Curbing
Type 3 - Bituminous curbing
Type 5 - Stone edging of quarried granite stone

609.02 Materials Except as provided below, the materials used shall meet the requirements of the following Sections of Division 700 - Materials:

Portland Cement and Portland Pozzolan Cement	701.01
Water	701.02
Air Entraining Chemical Admixture	701.03
Fine Aggregate for Concrete	703.01
Coarse Aggregate for Concrete	703.02
Joint Mortar	705.02
Reinforcing Steel	709.01
Stone Curbing and Edging	712.04
Epoxy Resin	712.35
Hot Mix Asphalt Curbing	712.36
Structural Precast Concrete Units (Concrete Curb)	712.061

The Contractor shall submit a concrete mix design for the Portland Cement Concrete to the Resident, for the uses specified below or in accordance with the Contract Documents.

Circular curb, terminal sections and transition sections shall be in reasonably close conformity with the shape and dimensions shown on the Plans and to the applicable material requirements herein for the type of curb specified.

Dowels shall be reinforcing steel deformed bars.

Concrete for Slipform Concrete Curb shall meet the requirements below:

a. Class A, with the exception that permeability requirements shall be waived.
b. Entrained air content of Slipform Concrete Curb shall be 4.0% to 7.0%
c. Concrete temperature, prior to discharge, shall not exceed 90 F.
d. Proposed mix designs may contain polypropylene fibers.
e. Partially discharged loads may be retempered with water provided the maximum water to cement ratio is not exceeded.

609.03 Vertical Stone Curb, Terminal Section and Transition Sections and Portland Cement Concrete Curb, Terminal Sections and Transition Sections

a. Installation The curb stone shall be set on a compacted foundation so that the front top arris line conforms to the lines and grades required. The foundation shall be prepared in advance of setting the stone by grading the proper elevation and shaping to conform as closely as possible to the shape of the bottom of the stone. The required spacing between stones shall be assured by the use of an approved spacing device to provide an open joint between stones of at least ¼ inch and no greater than ⅝ inch.

b. Backfilling All remaining spaces under the curb shall be filled with approved material and thoroughly hand tamped so the stones will have a firm uniform bearing on the foundation for the entire length and width. Any remaining excavated areas surrounding the curb shall be filled to the required grade with approved materials. This material shall be placed in layers not exceeding 8 inches in depth, loose measure and thoroughly tamped.

When backfill material infiltrates through the joints between the stones, small amounts of joint mortar or other approved material shall be placed in the back portion of the joint to prevent such infiltrating.

c. Protection The curb shall be protected and kept in good condition. All exposed surfaces smeared or discolored shall be cleaned and restored to a satisfactory condition or the curb stone removed and replaced.

d. Curb Inlets Curb placed adjacent to curb inlets shall be installed with steel dowels cemented into each stone with epoxy grout as shown in the Standard Details.

The epoxy grout shall be used in accordance with the manufacturer's instructions. The grout shall be forced into the hole, after which the dowel shall be coated with grout for one-half its length and inserted into the grout filled hole. The hole shall be completely filled with grout around the dowel. All tools and containers must be clean before using.

The Contractor may elect to substitute concrete to backfill Stone Curbing or Stone Edging at their option. If the concrete backfill option is elected, the Concrete Fill shall meet the requirements of 609.02. The Contractor shall submit a concrete design for the Portland Cement Concrete, with a minimum designated compressive strength of 3000 PSI meeting the requirements of Class S or Class Fill Concrete. The Contractor may elect to choose a Prepackaged Concrete Mix from the Departments Qualified Products list (QPL). Concrete backfill shall be completed in conformance with a Department supplied concrete backfill detail.

609.04 Bituminous Curb

a. Preparation of Base Before placing the curb, the foundation course shall be thoroughly cleaned of all foreign and objectionable material. String or chalk lines shall be positioned on the prepared base to provide guidelines. The foundation shall be uniformly painted with tack coat at a rate of 0.04 to 0.14 gal/yd^2.

b. Placing The curb shall be placed by an approved power operated extruding type machine using the shape mold called for. A tight bond shall be obtained between the base and the curb. The Resident may permit the placing of curbing by other than mechanical curb placing machines when short sections or sections with short radii are required. The resulting curbing shall conform in all respects to the curbing produced by the machine.

c. When required, the curb shall be painted and coated with glass beads in accordance with Section 627 - Pavement Marking. Curb designated to be painted shall not be sealed with bituminous sealing compound.

d. Acceptance Curb may be accepted or rejected based on appearance concerning texture, alignment, or both. All damaged curb shall be removed and replaced at the Contractor's expense.

e. Polyester fibers shall be uniformly incorporated into the dry mix at a rate of 0.25 percent of the total batch weight. Certification shall be provided from the supplier with each shipment meeting the following requirements:

Average Length	0.25 inches ± 0.005
Average Diameter	0.0008 inches ± 0.0001
Specific Gravity	1.32-1.40
Melting Temperature	480 °F Minimum

609.05 Slipform Concrete Curb

a. Preparation of Base Before placing the curb, the foundation course shall be thoroughly cleaned of all foreign and objectionable material. The Contractor shall not place Slipform Concrete Curb on a wet or frozen foundation. The foundation (HMA or concrete) may be in a Saturated Surface Dry condition, but no standing water shall be allowed. String or chalk lines shall be positioned on the prepared foundation to provide guidelines. Prior to placing the curb, the foundation shall be uniformly coated with an epoxy resin adhesive that meets the requirements of AASHTO M 235, Type I, II, III, IV or V and has been tested by AASHTO Product Evaluation & Audit Solutions. The Contractor shall submit the epoxy resin adhesive that they propose to utilize with the concrete mix design. The epoxy resin adhesive must be approved prior to placement and used in accordance with manufacturer's recommendations.

b. Placing Concrete shall be placed with an approved Slipform machine that will produce a finished product according to the design specified in the Plans. For cold weather slip forming, the outside temperature must be at least 36°F and rising. The curb shall be placed on a firm, uniform foundation, shall conform to the section profile specified in the Plans, and shall match the appropriate grade. Expansion joints shall be placed in the curb where it meets rigid structures such as but not limited to building foundations, catch basin headers or fire hydrants. Contraction joints will be placed at 10-foot intervals using sawing methods, which shall cut 1 to 3 inches into the concrete. Contraction joints shall be cut between 1 and 7 days after placement of the concrete. Joints shall be constructed perpendicular to the subgrade and match other joints in roadways, sidewalks, or other structures when applicable.

c. Curing and Sealing Proper curing shall be provided using either a combination curing/sealing compound spray that meets ASTM 1315 Type 1-Class A, or a curing compound spray that meets ASTM 309 Type 1-D – Class A. Curing may also be accomplished by the methods specified in Standard Specification Section 502.14, Curing Concrete.

If a combination curing/sealing compound spray is not used, a separate sealing compound from the MaineDOT Qualified Products List for a Type 1c sealer shall be applied after the concrete has cured.

d. Protection Slipform curb must be adequately protected after placement. The concrete shall be allowed to cure for at least 72 hours. During cold weather conditions, when temperatures drop below the required temperature of 36°F after placement, curbing shall be protected by concrete blankets or a combination of plastic sheeting and straw. After any placement of Slipform curb, regardless of weather conditions, the placed curb shall be adequately protected by traffic control devices as necessary.

e. Marking When required, the curb shall be painted and coated with glass beads in accordance with Section 627 - Pavement Marking. Curb designated to be painted shall not be sealed unless a combination curing/sealing compound is used.

f. Acceptance Curb shall be accepted or rejected based on finish, alignment, entrained air content, and compressive strength. Concrete Quality Control and Acceptance

shall be done in accordance with Standard Specification Section 502, Method C. All damaged curb shall be removed and replaced at the Contractor's expense.

609.06 Stone Edging The curb shall be installed, backfilled and protected in accordance with Section 609.03, except as follows:

a. Slope The edging shall be set on a slope as shown on the Plans or as directed.

b. Joints Joints shall be open and not greater than 1½ inch in width.

609.07 Stone Bridge Curb

a. Installation Each stone and the bed upon which it is to be placed shall be cleaned and thoroughly wetted with water before placing the mortar for bedding and setting the stone. The stone shall be set on a fresh bed of joint mortar and well bedded before the mortar has set so that the front top arris line conforms to the line and grade required. Whenever temporary supporting wedges or other devices are used in setting the stones, they shall be removed before the mortar in the bed has become set, and the holes left by them shall be filled with mortar. Concrete behind the stones shall not be placed until the stones have been in place at least two days. Bedding and pointing mortar for joints shall be cured as required under Section 502 - Structural Concrete.

b. Joints Vertical joints shall be ½ inch in width plus or minus ⅛ inch. Whenever possible, the face and top of the joint shall be pointed with joint mortar to a depth of 1½ inch, before the bedding mortar has set. Joints which cannot be so pointed, shall be prepared for pointing by raking them to a depth of 1½ inch before the mortar has set. Joints not pointed at the time the stone is laid shall be thoroughly wetted with clean water and filled with mortar. The mortar shall be well driven into the joint and finished with an approved pointing tool, flush with the pitch line of the stones.

609.08 Resetting Stone or Portland Cement Concrete Curb, Including Terminal Sections and Transitions

The curb shall be installed, backfilled and protected in accordance with Section 609.03, except as follows:

a. Removal of Curbing The Contractor shall carefully remove and store curb specified on the Plans or designated for resetting. Curb damaged or destroyed, because of the Contractor's operations or because of their failure to store and protect it in a manner that would prevent its loss or damage, shall be replaced with curbing of equal quality at the Contractor's expense.

b. Cutting and Fitting Cutting or fitting necessary in order to install the curbing at the locations directed shall be done by the Contractor.

609.09 Method of Measurement Curb, both new and reset, will be measured by the linear foot along the front face of the curb at the elevation of the finished pavement, complete in place and accepted. Curb inlets at catch basins, including doweling, will not be measured for payment but shall be considered included in the cost of the catch basin. New transition sections and terminal curb will be measured by the unit. Reset transition sections and terminal curb will be included in the measurement for resetting curb.

Concrete Slipform Curb and terminal ends will be measured by the linear foot along the front face of the curb at the elevation of the finished pavement, complete in place and accepted.

609.10 Basis of Payment The accepted quantities of curbing will be paid for at the contract unit price per linear foot for each kind and type of curbing as specified.

Payment for terminal curb shall include only that portion of the curbing modified for installation at ends of curb runs shown in the Standard Details. Curb adjacent to terminal ends shall be paid for at the contract unit price per linear foot for the type of curb installed.

Vertical Curb Type 1 is required to have a radius of 60 feet or less, will be paid for as Vertical Curb Type 1 - Circular.

Curb, Type 5 required to have a radius of 30 feet or less will be paid for as Curb Type 5 - Circular.

There will be no separate payment for concrete fill, mortar, reinforcing steel, anchors, tack coat, drilling for and grouting anchors, pointing and bedding of curbing, and for cutting and fitting, but these will be considered included in the work of the related curb.

Removal of existing curb and necessary excavation for installing new or reset curbing will not be paid for directly but shall be considered to be included in the appropriate new or reset curb pay item. Base and Subbase material will be paid for under Section 304 - Aggregate Base and Subbase Course. Backing up bituminous curb is incidental to the curb items. Loam, as directed, will be paid under 615 – Loam.

Payment will be made under:

	Pay Item	Pay Unit
609.11	Vertical Curb Type 1	Linear Foot
609.12	Vertical Curb Type 1 - Circular	Linear Foot
609.13	Vertical Bridge Curb Type 1	Linear Foot
609.131	Vertical Bridge Curb Type 1A	Linear Foot
609.132	Vertical Bridge Curb Type 1B	Linear Foot
609.142	Vertical Bridge Curb Type 1B - Circular	Linear Foot
609.15	Sloped Curb Type 1	Linear Foot
609.151	Sloped Curb Type 1 - Circular	Linear Foot
609.161	Concrete Slipform Curb – Vertical Type 2	Linear Foot
609.21	Concrete Slipform Curb Type 2	Linear Foot

609.219	Concrete Slipform Terminal End Type 2	Linear Foot
609.23	Terminal Curb Type 1	Each
609.234	Terminal Curb Type 1 - 4 foot	Each
609.237	Terminal Curb Type 1 - 7 foot	Each
609.2371	Terminal Curb Type 1 - 7 foot – Circular	Each
609.238	Terminal Curb Type 1 - 8 foot	Each
609.26	Curb Transition Section B Type 1	Each
609.31	Curb Type 3	Linear Foot
609.34	Curb Type 5	Linear Foot
609.35	Curb-Type 5 - Circular	Linear Foot
609.38	Reset Curb Type 1	Linear Foot
609.39	Reset Curb Type 2	Linear Foot
609.40	Reset Curb Type 5	Linear Foot

SECTION 610
STONE FILL, RIPRAP, STONE BLANKET, AND STONE DITCH PROTECTION

610.02 Materials Amend this subsection by adding the following to the end of the material list:
"**Stone Ditch Protection 703.29"**

SECTION 618
SEEDING

618.08 Mulching Revise this Section so that the third sentence reads: "Mulch for Seeding Method Number 1 shall only be cellulous fiber mulch Section 619.04 **(b)** or straw mulch Section 619.04 (**a**)."

SECTION 619
MULCH

619.03 General Amend this Section by adding the following sentence to the end: **"Straw mulch shall be used in all wetland areas."**

SECTION 626
FOUNDATIONS, CONDUIT, AND JUNCTION BOXES FOR HIGHWAY SIGNING, LIGHTING, AND SIGNALS

Section 626.021 Miscellaneous Materials Revise this section by removing the fourth paragraph beginning with " All Concrete for concrete encasement…" and replace it with "**All concrete for concrete encasement of conduit shall be Class S or Class Fill concrete in accordance with the applicable requirements of Section 502 – Structural Concrete, or a Prepackaged Concrete Mix from the Department's Qualified Products List (QPL).**"

Section 626.031Conduit Revise the fifth paragraph beginning with "After the trench has been…" by removing the last sentence beginning with "Where concrete encasement…" and replacing it with **"Where concrete encasement is required around the conduit, the concrete shall meet Class S, Class Fill in accordance with the applicable requirements of Section 502 – Structural Concrete, or a Prepackaged Concrete Mix from the Department's Qualified Products List (QPL)."**

626.034 Concrete Foundations Revise this Section by changing '626.037' to '**626.036**' in the Second Paragraph which begins with "Foundations shall consist of cast-in-place…".

Revise the 10th paragraph beginning with "Before placing concrete, the required elbows…" by removing "…**in accordance with Standard Specification 633**."

626.036 Precast Foundations Revise the last sentence of paragraph one so that it reads: "**Construction of precast foundations shall conform to the Standard Details and all requirements of 712.061**."

SECTION 627
PAVEMENT MARKINGS

627.02 Materials Amend this section by adding the following to the existing Specification:

"When pavement marking paint must be applied on pavement with an air temperature between 35 ºF and 50 ºF, a low temperature waterborne paint may be used upon the Department's approval as noted below.

The Contractor shall submit the following information for Department review and approval at least 10 calendar days prior to application:

The manufacturer and product name of the low temperature waterborne paint

The manufacturer's technical product data sheets

The product's SDS sheets

All required and recommended application specifications for the product

The manufacturer's requirements for temperature, surface preparation, paint thickness and the bead application shall be followed. No additional payment will be made for the use of low temperature waterborne paint. "

627.06 Application Revise this subsection by replacing the paragraph beginning with " On other final pavement markings…" with the following:
"On other final pavement markings and on curb, where the paint is applied by hand painting or spraying, application shall be one uniform covering coat at least 16 mils thick. Before the paint has dried, the glass beads shall be applied by a pressure system that will force the glass beads onto the undried paint as uniformly as possible.

Painted lines and markings shall be applied in accordance with the manufacturer's published recommendations. These recommendations will be supplied to the Resident prior to installation."

Revise this subsection by replacing the paragraph beginning with " If the final reflectivety values are less…" with the following:

The final reflectivity will be acceptable if 90 percent or more of the painted pavement lines and markings meet the specified minimum value. If less than 90 percent of the painted pavement lines and markings meet the specified minimum final reflectivity values, the Contractor shall repaint those areas not meeting required reflectivity at no cost to the Department.

If, after repainting, analysis of the final reflectivity values results in the need for a second repainting, the Contractor will submit in writing a plan of action to meet the reflectivity minimums prior to continuing any work. Once the plan has been reviewed and approved by the Department, the Contractor shall reapply at no cost to the Department.

SECTION 637
DUST CONTROL

Revise this section by removing it in its entirety.

SECTION 643
TRAFFIC SIGNALS

643.021 Materials Amend this subsection by adding the following at the end:

"**MaineDOT is transitioning to MASH2016 criteria for Work Zone Traffic Control Devices on the following schedule:**

Temporary Traffic Control Signals will be crash tested and/or evaluated to MASH2016 criteria by January 1, 2030. Current Category 4 devices in useful serviceable condition that are successfully tested to NCHRP Report 350 or MASH2009 criteria may be utilized through December 31, 2029."

643.023 Traffic Signal Structures Remove the third paragraph and replace it with the following:

"**Traffic signal support structures shall be classified as Fatigue Category III if they are located on roads with a speed limit of 35 mph or less, Fatigue Category II if they are located on roads with a speed limit of greater than 35 mph, and Fatigue Category I if noted on the Contract Plans. Fatigue Importance Factors shall be as specified in Table 11.6-1 (Fatigue Importance Factors). Fatigue analyses are not required for span-wire (strain) pole traffic signal support structures with heights of 55 feet or less unless required by the current edition of AASHTO "LRFD Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals".**

643.09 Service Connection Revise this subsection by removing the paragraph that begins with "Traffic signal services shall have…".

And by removing the paragraphs beginning with " A service ground rod shall be installed…" and "A total of 4, 10' service…" and replace them with "**A total of 4, 10' service ground rods shall be installed and properly connected together on the outside of the cabinet foundation. One ground rod shall be located at each corner and shall be either flush or slightly below finished grade. The connection between the ground rod and the ground wire shall be an exothermic connection such as a Cadweld. The ground wire from the interconnected ground rods shall be routed through a conduit in the foundation and into the base of the cabinet**".

SECTION 645
HIGHWAY SIGNING

Section 645.023 Sign Support Structures. Under letter "c.", revise the fifth paragraph beginning with "In addition to the required details…" by removing the words "**and foundation**" from the 5th sentence.

Section 645.08 Method of Measurement. Revise the second paragraph beginning with "Bridge-type, cantilever and…" by removing the words "**including the foundation**" .

Section 645.09 Basis of Payment. Revise the third paragraph beginning with "The accepted bridge-type, cantilever and…" by removing the word "**foundation**" from the second sentence. Add the following sentence to the end of the paragraph "**Conduits, Junction Boxes, and Foundations will be paid for under Section 626.**"

SECTION 652
MAINTENANCE OF TRAFFIC

652.2.5 Portable Changeable Message Sign Revise the fifth paragraph so it reads:

"The control system shall include a display screen upon which messages can be reviewed before being displayed on the message sign. The control system shall be capable of maintaining memory when power is unavailable. Messages must be changeable with either a portable electronic device like a notebook computer or an on-board keypad. The controller shall have the capability to store a minimum of 200 user-defined and 200 pre-programmed messages. Controller and battery compartments shall be enclosed in lockable, weather-tight boxes. The cabinet shall be locked at all times that the Contractor is not actively changing the message. The Contractor shall change the password for the controller prior to stationing the PCMS and shall provide the password to the Resident. The password shall be unique per PCMS and secure and shall not be written anywhere in, on, around, or stored in the PCMS."

Amend this Section by adding the following new subsection:

"**652.2.6 Device Crashworthiness MaineDOT is transitioning to MASH2016 criteria for Work Zone Traffic Control Devices on the following schedule:**

Category 1 (Cones, Drums, Tubular Markers, Flexible Delineators, and similar devices that have little chance if causing windshield penetration, tire damage, or other significant effect on the control or trajectory of a vehicle) – All Category 1 devices will be manufacturer self-certified as MASH2016 by January 1, 2025. Current Category 1 devices in useful serviceable condition that are not self-certified as MASH2016 compliant may be utilized through December 31, 2024.

Category 2 (Barricades, Portable Sign Supports, Category 1 devices with attachments, and similar devices that are not expected to produce significant vehicular velocity change but may be otherwise hazardous) – All Category 2 devices will be crash tested and/or evaluated to MASH2016 criteria by January 1, 2025. Current Category 2 devices in useful serviceable condition that are successfully tested to NCHRP Report 350 or MASH2009 criteria may be utilized through December 31, 2024.

Category 3 (Portable Concrete Barrier, Portable Crash Cushions, Truck Mounted Attenuators, Category 2 devices weighing more than 100 pounds, and similar devices that are expected to produce significant vehicular velocity change or other harmful reactions) – All Category 3 devices will be crash tested and/or evaluated to MASH2016 criteria by January 1, 2030. Current Category 3 devices in useful serviceable condition that are successfully tested to NCHRP Report 350 or MASH2009 criteria may be utilized through December 31, 2029. (See Standard Specification 526 for additional Portable Concrete Barrier information).

Category 4 (Trailer Mounted Devices: Arrow Boards, Temporary Traffic Control Signals, Area Lighting, Portable Changeable Message Sign, and other similar devices.) – All Category 4 devices will be crash tested and/or evaluated to MASH2016 criteria by January 1, 2030. Current Category 4 devices in useful serviceable condition that are successfully tested to NCHRP Report 350 or MASH2009 criteria may be utilized through December 31, 2029."

652.3.3 Submittal of Traffic Control Plan Amend this section by adding:

"n. A security plan for any PCMS shall be included. The Contractor shall provide a plan for secure access to the PCMS and protection from unauthorized users. The plan shall have details on securing the cabinets via a lock and password from unauthorized users, password changing protocols, and where the access information will be kept so it can be used in the event of emergency. The Contractor shall not Identify or store passwords in the TCP."

652.4 Flaggers Revise the first paragraph of this section so that it reads:

"The Contractor shall furnish flaggers as required by the TCP or as otherwise specified by the Resident. All flaggers must have successfully completed a flagger test approved by the Department and administered by a Department-approved Flagger-Certifier who is employing that flagger. All flaggers must carry an official certification card with them while flagging that has been issued by their employer."

SECTION 681
PRECAST AGGREGATE-FILLED, CONCRETE BLOCK GRAVITY WALL

681.08 Basis of Payment Amend this section by adding the Item Number "**681.10**' in front of the item "Precast Aggregate-Filled Concrete Block Gravity Wall" at the end of the section.

SECTION 701
STRUCTURAL CONCRETE RELATED MATERIAL

701.01 Portland Cement and Portland Pozzolan Cement Amend the first sentence of Paragraph 3 by adding "**or Type 1L Portland Limestone cement**" so that it reads:
"**A Type IP (MS) Portland-pozzolan cement (blended hydraulic cement with moderate sulfate resistance) or Type 1L Portland Limestone cement meeting the requirements of AASHTO M 240, may be used instead of Type II or where Type I Portland cement, meeting the requirements of AASHTO M 85, is allowed**."

SECTION 703
AGGREGATES

Add the following to Section 703 - Aggregates

703.01 Fine Aggregate for Concrete Fine aggregate for concrete shall consist of natural sand or, when approved by the Resident, other inert materials with similar characteristics or combinations thereof, having strong, durable particles. Fine aggregate from different sources of supply shall not be mixed or stored in the same pile nor used alternately in the same class of construction or mix without permission of the Resident.

All fine aggregate shall be free from injurious amounts of organic impurities. Should the fine aggregate, when subjected to the colorimetric test for organic impurities, AASHTO T 21, produce a color darker than the reference standard color solution (laboratory designation Plate III), the fine aggregate shall be rejected.

Fine aggregate shall have a sand equivalent value of not less than 75 when tested in accordance with AASHTO T 176.
Fine aggregate sources shall meet the Alkali Silica Reactivity (ASR) requirements of Section 703.0201.

The fineness modulus shall not be less than 2.26 or more than 3.14. If this value is exceeded, the fine aggregate will be rejected unless suitable adjustments are made in proportions of coarse and fine aggregate. The fineness modulus of fine aggregate shall be determined by adding the cumulative percentages of material by weight retained on the following sieves: Nos. 4, 8, 16, 30, 50, 100 and dividing by 100.

Fine aggregate, from an individual source when tested for absorption as specified in AASHTO T 84, shall show an absorption of not more than 2.3 percent.

Sieve Designation	Percentage by Weight Passing Square Mesh Sieves
⅜ inch	100
No. 4	95-100
No. 8	80-100
No. 16	50-85
No. 30	25-60
No. 50	10-30
No. 100	2-10
No. 200	0-5.0

703.02 Coarse Aggregate for Concrete Coarse aggregate for concrete shall consist of crushed stone or gravel having hard, strong, durable pieces, free from adherent coatings and of which the composite blend retained on the ⅜ inch sieve shall contain no more than 15 percent, by weight of flat and elongated particles when performed in accordance with test method ASTM D 4791, Flat Particles, Elongated Particles, or Flat and Elongated Particles in Coarse Aggregate, using a dimensional ratio of 1:5.

The coarse aggregate from an individual source shall have an absorption no greater than 2.0 percent by weight determined in accordance with AASHTO T 85 modified for weight of sample.

The composite blend shall have a Micro-Deval value of 18.0 percent or less as determined by AASHTO T 327 or not exceed 40 percent loss as determined by AASHTO T 96.

Coarse aggregate sources shall meet the Alkali Silica Reactivity (ASR) requirements of Section 703.0201.

Coarse aggregate shall conform to the requirements of the following table for the size or sizes designated and shall be well graded between the limits specified.

Sieve Designation	Percentage by Weight Passing Square Mesh Sieves			
Grading	A	AA	S	LATEX
Aggregate Size	1 inch	¾ inch	1½ inch	½ inch
2 inch			100	
1½ inch	100		95-100	
1 inch	95-100	100	-	
¾ inch	-	90-100	35-70	100
½ inch	25-60	-	-	90-100
⅜ inch	-	20-55	10-30	40-70
No. 4	0-10	0-10	0-5	0-15
No. 8	0-5	0-5	-	0-5
No. 16	-	-	-	-
No. 50	-	-	-	-
No. 200	0 - 1.5	0 - 1.5	0 - 1.5	0 - 1.5

703.0201 Alkali Silica Reactive Aggregates All coarse and fine aggregates proposed for use in concrete shall be tested for Alkali Silica Reactivity (ASR) potential under AASHTO T 303 (ASTM C 1260), Accelerated Detection of Potentially Deleterious Expansion of Mortar Bars Due to Alkali-Silica Reaction, prior to being accepted for use. Acceptance will be based on testing performed by an accredited independent lab submitted to the Department. Aggregate submittals will be required on a 5-year cycle, unless the source or character of the aggregate in question has changed within 5 years from the last test date.

As per AASHTO T 303 (ASTM C 1260): Use of a particular coarse or fine aggregate will be allowed with no restrictions when the mortar bars made with this aggregate expand less than or equal to 0.10 percent at 30 days from casting. Use of a particular coarse or fine aggregate will be classified as potentially reactive when the mortar bars made with this aggregate expand greater than 0.10 percent at 30 days from casting. Use of this aggregate will only be allowed with the use of cement-pozzolan blends and/or chemical admixtures that result in mortar bar expansion of less than 0.10 percent at 30 days from casting as tested under ASTM C 1567.

Acceptable pozzolans and chemical admixtures that may be used when an aggregate is classified as potentially reactive include, but are not limited to the following:

a. Class F Coal Fly Ash meeting the requirements of AASHTO M 295
b. Ground Granulated Blast Furnace Slag (Grade 100 or 120) meeting the requirements of AASHTO M 302
c. Densified Silica Fume meeting the requirements of AASHTO M 307
d. Lithium-based admixtures
e. Metakaolin

Pozzolans or chemical admixtures required to offset the effects of potentially reactive aggregates will be incorporated into the concrete at no additional cost to the Department.

703.05 Aggregate for Sand Leveling Aggregate for sand leveling shall be sand of hard durable particles free from vegetable matter, lumps or balls of clay and other deleterious substances. The aggregate shall meet the grading requirements of the following table.

Sieve Designation	Percentage by Weight Passing Square Mesh Sieves
⅜ inch	85-100
No. 200	0-5.0

703.06 Aggregate for Base and Subbase The following shall apply to Sections (a.) and (c.) below. The material shall have a Micro-Deval value of 25.0 or less as determined by AASHTO T 327. If the Micro- Deval value exceeds 25.0, the Washington State Degradation DOT Test Method T113, Method of Test for Determination of Degradation Value (January 2009 version) shall be performed, except that the test shall be performed on the portion of the sample that passes the ½ in sieve and is retained on the No. 10 sieve. If the material has a Washington Degradation value of less than 15, the material shall be rejected.
The material used in Section (b.) below shall have a Micro-Deval value of 25.0 or less as determined by AASHTO T 327. If the Micro-Deval value exceeds 25.0 the material may be used if it does not exceed 25 percent loss on AASHTO T 96, Resistance to Degradation of Small-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine.

Recycled Asphalt Pavement (RAP) shall not be used for or blended with aggregate base or subbase.

a. Aggregate for base, Type A and B shall be crushed ledge or crushed gravel of hard durable particles free from vegetable matter, lumps or balls of clay and other deleterious substances. The gradation of the part that passes a 3 inch sieve shall meet the grading requirements of the following table:

Sieve Designation	Percentage by Weight Passing Square Mesh Sieves	
	Type A	Type B
½ inch	45-70	35-75
¼ inch	30-55	25-60
No. 40	0-20	0-25
No. 200	0-6.0	0-6.0

At least 50 percent by weight of the material retained on the No. 4 sieve shall have at least one fractured face as tested by AASHTO T 335.

Type A aggregate for base shall only contain particles of rock that will pass the 2 inch square mesh sieve.

Type B aggregate for base shall only contain particles of rock that will pass the 4 inch square mesh sieve.

b. Aggregate for base, Type C shall be crushed ledge or crushed gravel of hard durable particles free from vegetable matter, lumps or balls of clay and other deleterious substances. The material shall meet the grading requirements of the following table:

Sieve Designation	Percentage by Weight Passing Square Mesh Sieves
	Type C
4 inches	100
3 inches	90-100
2 inches	75-100
1 inch	50-80
½ inch	30-60
No. 4	15-40
No. 200	0-6.0

At least 50 percent by weight of the material coarser than the No. 4 sieve shall have at least one fractured face as tested by AASHTO T 335.

c. Aggregate for subbase shall be sand or gravel of hard durable particles free from vegetable matter, lumps or balls of clay and other deleterious substances. The gradation of the part that passes a 3 inch sieve shall meet the grading requirements of the following table:

Sieve Designation	Percentage by Weight Passing Square Mesh Sieves	
	Type D	Type E
½ in	35-80	
¼ inch	25-65	25-100
No. 40	0-30	0-50
No. 200	0-7.0	0-7.0

Type D aggregate for subbase gravel may contain up to 50 percent by weight Recycled Concrete Aggregate (RCA). When RCA is used, the portion of the resulting blend of gravel and RCA retained on a ½" square mesh sieve shall contain a total of no more than 5 percent by weight of other recycled materials such as brick, concrete masonry block, or asphalt pavement as determined by visual inspection.

RCA shall be substantially free of wood, metal, plaster, and gypsum board as defined in Note 9 in Section 7.4 of AASHTO M 319. RCA shall also be free of all substances that fall under the category of solid waste or hazardous materials.

Aggregate for subbase shall not contain particles of rock which will not pass the 6 inch square mesh sieve.

703.08 Recycled Asphalt Pavement Recycled asphalt pavement shall consist of salvaged asphalt materials from milled pavements or production waste that has been processed before use to meet the requirements of the job mix formula. It shall be free of winter sand, granular fill, construction debris, or other materials not generally considered asphalt pavement.

703.081 RAP for Asphalt Pavement Recycled Asphalt Pavement (RAP) may be introduced into hot-mix asphalt pavement at percentages approved by the Department according to the MaineDOT Policies and Procedures for HMA Sampling and Testing.

If approved by the Department, the Contractor shall provide documentation stating the source, test results for average residual asphalt content, and stockpile gradations showing RAP materials have been sized to meet the maximum aggregate size requirements of each mix designation. The Department will obtain samples for verification and approval prior to its use.

The maximum allowable percent of RAP shall be determined by the asphalt content, the percent passing the 0.075 mm sieve, the ratio between the percent passing the 0.075 mm sieve and the asphalt content, and Coarse Micro-Deval loss values as tested by the Department.

The maximum percentage of RAP allowable shall be the lowest percentage as determined according to Table 4 below:

Classification	Maximum RAP Percentage Allowed	Asphalt content standard deviation	Percent passing 0.075 mm sieve standard deviation	Percent passing 0.075 mm sieve / asphalt content ratio	Residual aggregate M-D loss value
Class III	**10%**	**≤ 1.0**	**N/A**	**≤ 4.0**	**≤ 18**
Class II	**20%**	**≤ 0.5**	**≤ 1.0**	**≤ 2.8**	
Class I	**30%**	**≤ 0.3**	**≤ 0.5**	**≤ 1.8**	

Table 4: Maximum Percent RAP According to Test Results

The Department will monitor RAP asphalt content and gradation during production by testing samples from the stockpile at approximately 15,000 T intervals (in terms of mix production). The allowable variance limits (from the numerical average values used for mix designs) for this testing are determined based upon the maximum allowable RAP percentage and are shown below in Table 5.

Table 5: RAP Verification Limits

Classification	Asphalt content (compared to aim)	Percent passing 0.075 mm sieve (compared to aim)
Class III	± 1.5	± 2.0
Class II	± 1.0	± 1.5
Class I	± 0.5	± 0.7

For specification purposes, RAP will be categorized as follows:

Class III – A maximum of 10.0 percent of Class III RAP may be used in any base, intermediate base, surface, or shim mixture. A maximum of 20.0 percent of Class III RAP may be used in hand-placed mixes for item 403.209.

Class II – A maximum of 20.0 percent Class II RAP in any base, binder, surface, or shim course.

Class I – A maximum of 20.0 percent Class I RAP may be used in any base, intermediate base, surface, or shim mixture without requiring a change to the specified asphalt binder. A maximum of 30.0 percent Class I RAP may be used in in any base or intermediate base mixture provided that a PG 58-28 or PG 58-34 asphalt binder is used. A maximum of 30.0 percent Class I RAP may be used in any surface or shim mixture provided that PG 58-34 asphalt binder is used. Mixtures exceeding 20.0 percent Class I RAP must be evaluated and approved by the Department.

The Contractor may use up to two different RAP sources in any one mix design. The total RAP percentage of the mix shall not exceed the maximum allowed for the highest classification RAP source used (i.e. if a Class I & Class III used, total RAP must not exceed 30.0%). The blended RAP material must meet all the requirements of the classification for which the RAP is entered (i.e. 10% Class III with 20% Class I, blend must meet Class I criteria). The Department may take belt cuts of the blended RAP to verify the material meets these requirements. If the Contractor elects to use more than one RAP source in a design, the Contractor shall provide an acceptable point of sampling blended RAP material from the feed belt.

In the event that RAP source or properties change, the Contractor shall notify the Department of the change and submit new documentation stating the new source or properties a minimum of 72 hours prior to the change to allow for obtaining new samples and approval.

SECTION 709
REINFORCING STEEL AND WELDED STEEL WIRE FABRIC

709.01 Reinforcing Steel Remove the second paragraph of Section 709.01 of the standard specification beginning with "Low-Carbon, Chromium,…" and replace with the following:

" Low-carbon, chromium, reinforcing steel shall be deformed bars conforming to the requirements of ASTM A1035. Bars shall be Grade 100 and alloy Type CS unless otherwise specified on the Plans. "

SECTION 710
FENCE AND GUARDRAIL

710.06 Fence Posts and Braces Revise the first Paragraph so that it reads:

"Wood posts shall be of cedar, white oak, or tamarack or other AWPA approved species, of the diameter or section and length shown on the plans."

Remove the fourth paragraph which starts " That portion of wood posts…".

Revise the paragraph beginning with "Braces shall be of spruce, eastern hemlock … so that it now reads:

"Braces shall be of spruce, eastern hemlock, Norway pine, pitch pine, or tamarack timbers or other AWPA approved species, or spruce, cedar, tamarack or other AWPA approved species round posts of sufficient length to make a diagonal brace between adjacent posts. All wood posts and braces shall be pressure-treated in accordance with AASHTO M 133 and AWPA U1, UC4A Commodity Specification B: Posts. "

710.07 Guardrail Posts Revise this section so that the first sentence of section a. reads:

"a. Wood posts shall be of Norway pine, southern yellow pine, pitch pine, Douglas fir, red pine, white pine, or eastern hemlock or other AWPA approved species."

Revise the next paragraph so that it reads:

Wood posts and offset brackets shall be preservative treated in accordance with the requirements of AASHTO M 133 and AWPA U1, UC4A Commodity Specification B: Posts.

710.08 Guardrail Hardware Revise this subsection by replacing "**AASHTO M 298**" with "**ASTM B695**"

SECTION 711
MISCELLANEOUS BRIDGE MATERIAL

711.06 Stud Shear Connector Anchors and Fasteners Amend this section by deleting it in its entirety and replacing it with:
"Shear connectors shall meet the dimensional tolerances of Figure 9.1 of the ANSI/AASHTO/AWS D1.5 Bridge Welding Code (D1.5 Code). Shear connectors, anchors and fasteners shall meet the material requirements of Section 9 of the D1.5 Code. Shear connectors shall meet the mechanical property requirements of Table 9.1, Type B of the D1.5 Code. Anchors and fasteners shall meet the mechanical property requirements of Table 9.1 of the D1.5 Code, Type A."

SECTION 712
MISCELLANEOUS HIGHWAY MATERIAL

712.061 Structural Precast Units Amend this section by adding the following sentence to the end of the first paragraph of the Construction subsection:

"Facilities certified by NPCA or PCI shall provide to the Fabrication Engineer a copy of their annual audit to include deficiency reports and corrective actions."

Revise this section by changing the letter "b" of ASTM C1611 of the Concrete Testing subsection so that it reads:

"**b. Air content shall be 5.0% to 8.0%**."

SECTION 713
STRUCTURAL STEEL AND RELATED MATERIAL

Section 713.02 High Strength Bolts
Revise the second sentence of this subsection so that it reads "**Nuts shall meet the requirement ofASTM A563**". Revise the third sentence of this subsection so that it reads "**Circular and beveled washers shall conform to the requirement of ASTM F436**".

SECTION 718
TRAFFIC SIGNALS MATERIAL

718.03 Signal Mounting Amend the paragraph beginning with "All trunions, brackets and…" by adding "**For polycarbonate signal heads with more than 3 sections or requiring mounting extensions greater than 12 inches in length, reinforcing plates shall be used to reinforce the housings at the point of attachment.**" to the end of the paragraph.

718.08 Controller Cabinet Revise this subsection by replacing the paragraph beginning with "The cabinet shall be supplied with LED light panels…" on or about page 7-66 with "**The cabinet shall be supplied with white LED light panels which shall automatically illuminate via a door open switch whenever one of the four main cabinet doors are opened for the ground mount cabinet or two main doors for the side of pole cabinet. The ground mounted cabinet shall contain four LED light panels per side totaling eight panels for the cabinet; one panel each at the top and bottom portion of the front side and back side on the Control side and Power/Auxiliary side of the cabinet. Each light panel shall produce a minimum of 250 lumens for a total minimum lumen output of 2000 lumens with all eight panels illuminated. The minimum output per side would be 1000 lumens. The LED panels shall be protected by a clear shatterproof shield. The side of pole mounted cabinet shall contain four light panels; one at the top of the rack assembly and one at the bottom rack assembly on each side of the cabinet.**

A second door open status switch per door shall activate a controller input to log a report event that one of the doors was opened. All door open status switches shall be connected to the same controller input. For the ground mount cabinet, there shall be two switches on each of the four main doors. For the side-of-pole mount cabinet, there shall be two switches on each of the two main doors."

Revise this subsection by replacing the paragraph beginning with "The cabinet shall be supplied with a generator panel …" on or about page 7-68 with:

"The cabinet shall be supplied with a generator panel. The generator panel shall consist of a manual transfer switch and a twist-lock connector for generator hookup. The transfer switch knob and twist-lock connector shall be located inside a stainless steel enclosure with a separate lockable door accessed with a Corbin #2 key. The unit shall be mounted on the left, exterior of the control side wall of the ground mount cabinet a minimum of 36" above the surrounding grade and on the lower left side of the pole mounted cabinet. The generator transfer switch shall be a Reliance C30A1N Signa Series or approved equal. "

Revise this subsection by removing the following from the paragraph beginning with "The ground mounted cabinet shall be supplied and installed with an electric service meter socket trim and electrical service disconnect switch …" on or about page 7-69: **"(removed: thus preventing that space from being used either by equipment supplied as part of the project, or future equipment that would be installed in the rack system. Joe indicated that he would add this language to the detail so it is covered.)".**

Revise this subsection by replacing the following in the paragraph beginning with "The Contractor shall reconfigure the default user name…" on or around page 7-70; "MaineDOT IT" with "**MaineDOT Traffic Division**".

In the paragraph beginning with "Tests shall be conducted by the contractor…" on or around page 7-73, amend this subsection by removing **"in the state of Maine and"** after "The facility shall be".

Amend this Section by adding the following subsection:

718.13 Field Monitoring Unit (FMU) This item of work shall conform to this specification. This item shall consist of furnishing and installing a Field Monitoring Unit (FMU) and software, as well as all needed accessories required for a full and complete installation, including but not limited to power adapters, Ethernet cables, and interface cables, as described herein.

Where applicable, communications from MaineDOT's cloud-based Central Management System (CMS) to the on-street traffic signal controllers shall be made through fiber optic interconnect cable connected back to existing internet connections and/or the Field Monitoring Unit (FMU). The Contractor shall furnish and install all materials necessary for a complete and operational fiber optic interconnection to all project intersections as shown on the plans. All connections to the CMS cloud-based system shall be via a secure VPN network.

The FMU shall be the only remote connection device used by isolated intersections to connect to the cloud-based system. All connections shall be encrypted VPN tunnels. The Contractor shall coordinate all configuration settings with MaineDOT IT and the Engineer.

The FMU central web based interface shall be a separate element from the CMS.

MATERIALS: The materials for this work shall conform to the following requirements:

1. The work under this item specifies the requirements for the FMU. The FMU shall operate independent of the brand/type of intersection controller deployed in the ATC traffic cabinet.

2. The FMU shall conform to the following requirements:
    2.1 The FMU shall function correctly between -34 degrees C and +74 degrees C.
    2.2 The FMU shall be provided with appropriately rated connectors that allows the FMU to be exchanged by unplugging connectors, without tools.
    2.3 The FMU shall monitor and log all ATC Controller and ATC cabinet faults and or alarms.
    2.4 The FMU shall be wired directly to the ATC cabinet.
    2.5 The FMU shall have an internal cellular modem running at 4G LTE.
        2.5.1 The Cellular modem shall be designed to be replaced / upgraded to 5G service when available.
    2.6 The FMU shall incorporate an integrated GPS and cell modem.
    2.7 The configuration of the FMU shall be accomplished by accessing the internal web server with a browser. It shall be possible to configure the FMU without any special software.

2.8 The FMU shall be powered via a standard 120V input power.

2.9 The FMU shall allow for the routing of the controller configuration packets to and from the controller (either by Ethernet or serial communications) for any type of controller utilized by the MaineDOT. In this way it shall be possible to configure the controller and utilize the controller specific software to interrogate the controller, and the FMU shall provide the communications pipe which allows this to be accomplished.

2.10 The FMU shall, within the size limitations above, include a battery and battery charging/monitoring circuit, to allow the FMU to function correctly even when all power to the intersection has failed. The battery shall continue to power the FMU for a minimum of 5 hours after all power has failed to the intersection.

2.11 The FMU shall incorporate an integrated GPS which will allow the FMU to geo-locate itself on the FMU management software map, without configuration.

2.12 The FMU shall operate without requiring a static IP address. The only configuration required at the FMU is to enter the URL of where the FMU management software is hosted.

2.13 In the event that the cell service is interrupted or is not available, the FMU shall store any events that occur in internal memory and forward these events automatically to the FMU management software when the cell service is restored. In this way, a complete record of events at the device can be maintained even if cell service is interrupted for a period. The system will store 5000 events.

2.14 The FMU shall utilize HTTP and HTTPS protocols, and XML data structures, for communication with the FMU management software. In this way the data will be open for future expansion and competition. The use of secret proprietary protocols is not permitted.

2.15 The FMU shall include Ethernet communications via an Ethernet Port with RJ45 connector.

2.16 The FMU shall include weather proof antennas.

3. **Map Display FMU Management Software**

3.1 The FMU shall include a scrollable, zoomable map display, with the intersections and other monitored devices shown as representative icons on the map. The map shall include the ability to see the intersections using Google Streetview.

3.2 The alarm status of the intersection shall be clearly indicated on the icon on the map, so that the user can see at a glance which intersections are in alarm.

3.3 The map display shall also include a list of intersections, with the number and priority of alarms indicated on the list. Intersections in high priority alarm shall be moved to the top of the list, followed by medium priority, low priority and then finally by intersections not in alarm.

3.4 The icons shall change to be able to clearly indicate if an intersection is offline.

3.5 Clicking on the icon on the map shall expose a box with the current parameters of the intersection shown.

3.6 The default map display position and zoom shall be configurable by user, so that the user's view will default to show the intersections that the user is responsible for managing.

3.7 The map view shall have the ability to show Google traffic overlays on the map.

4. **Intersection Detail Display FMU Management Software**

4.1 It shall be possible to drill down, either from the map icon or from the list, to a device level detail for the intersection, which as a minimum shall display the following parameters:

4.1.1 The alarm status, with priority indicated, and a text description of the alarm (if an alarm is present for this device).

4.1.2 The time since the last communication with the device

4.1.3 The following parameters (real time now values, minimum for the day values, maximum for the day values, and average for the day values)

4.1.3.1 The AC mains voltage (value)

4.1.3.2 The battery back-up voltage (value)

4.1.3.3 The cabinet temperature (value)

4.1.3.4 The cabinet humidity (value)

4.1.3.5 The presence of AC power (OK or Fail)

4.1.3.6 The flashing status of the intersection (OK or Flashing)

4.1.3.7 Stop Time status (OK or Stop Time Active)

4.1.3.8 The cabinet door status (Open or Closed)

4.1.3.9 The intersection fan status (Fan On or Fan off)

4.1.4 It shall be possible to view graphs of each of the value parameters in graphical form, over the recent two-week period. This includes real time graphs of:

4.1.4.1 The AC mains voltage

4.1.4.2 The battery back-up voltage

4.1.4.3 The cabinet temperature

4.1.4.4 The cabinet humidity

5. **Diagnostics and Log Display FMU Management Software**

5.1 From the device level detail within the FMU management software, it shall be possible to drill down to get the raw data; the error logs; and the communications logs to allow a technician to fault-find problems.

5.2 It shall be possible to filter the logs by Device; by Device Type and/or by Group as well as between dates.

5.3 It shall be possible to print these selected logs to a local printer or a PDF file.

5.4 It shall be possible to export these logs to Excel on the local computer for further analysis.

6. **Alarms FMU Management Software**

6.1 The FMU management software shall have a comprehensive alarm generation capability

6.2 It shall be possible to configure alarms to be generated on any parameter becoming out of tolerance, including analog values, digital values and enumerated values.

6.3 Alarms shall be configurable to be of Low, High or Critical Priority.

6.4 The alarm priority shall be displayed throughout the FMU management software, on all displays, using color codes such as red-critical; yellow – high; and amber-low to indicate the priority of the alarm.

6.5 The current active alarms shall be accessible for view via an expandable window, to see which alarms are active and when the alarm occurred. The highest priority alarms shall rise to the top of the list.

7. **Alerts FMU Management Software**

7.1 The FMU management software shall have comprehensive alerting capability, to enable the response personnel to be notified when an abnormal situation has occurred.

7.2 It shall be possible to configure alerts to one or more personnel for each alarm. This will cause, as selected, an SMS and/or an email to be sent to the person when an alarm occurs.

7.3 The alert shall be configurable to optionally send via email and/or via SMS a message when an alarm clears.

7.4 The intention is that the FMU management software provides the alerts to the user in near real time. The SMS and email shall be issued within 30 seconds of the occurrence of event which results in an alert being issued.

8. **Hosting and Connectivity and Service FMU / FMU Management Software**

8.1 The contractor shall supply the FMU with the FMU manufacturers 10 year options for Connectivity and Service, as part of the purchase price. The Connectivity and Service agreement shall include at a minimum:

8.1.1 Cellular Connectivity

8.1.2 No cellular overage charges

8.1.3 Extended warranty on the hardware for the period of the Connectivity and Service Agreement

8.1.4 Over-the-air software updates

8.1.5 Over-the-air security updates

8.1.6 Future Connected Vehicles Service

SECTION 720
STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS

720.12 Wood Sign Posts Revise the first sentence so that it reads:

Wood sign posts shall be rectangular, straight and sound timber, cut from live growing native spruce, red pine, hemlock, cedar trees or other AWPA approved species, free from loose knots or other structurally weakening defects of importance, such as shake or holes or heart rot.

Revise the third paragraph that starts with “When pressure treated…” so that it reads:

All sign posts shall be pressure-treated in accordance with AASHTO M 133 and AWPA Standard U1, UC4A, Commodity Specification A: Sawn Products.

APPENDIX A TO DIVISION 100

SECTION 1 - BIDDING PROVISIONS

A. Federally Required Certifications By signing and delivering a Bid, the Bidder certifies as provided in all certifications set forth in this Appendix A - Federal Contract Provisions Supplement including:

- Certification Regarding No Kickbacks to Procure Contract as provided on this page 1 below.
- Certification Regarding Non-collusion as provided on page 1 below.
- Certification Regarding Non-segregated Facilities as provided by FHWA Form 1273, section III set forth on page 21 below.
- "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion" as provided by FHWA Form 1273, section XI set forth on page 32 below.
- "Certification Regarding Use of Contract Funds for Lobbying" as provided by FHWA Form 1273, section XII set forth on page 35 below.

Unless otherwise provided below, the term "Bidder", for the purposes of these certifications, includes the Bidder, its principals, and the person(s) signing the Bid. Upon execution of the Contract, the Bidder (then called the Contractor) will again make all the certifications indicated in this paragraph above.

CERTIFICATION REGARDING NO KICKBACKS TO PROCURE CONTRACT Except expressly stated by the Bidder on sheets submitted with the Bid (if any), the Bidder hereby certifies, to the best of its knowledge and belief, that it has not:

(A) employed or retained for a commission, percentage, brokerage, contingent fee, or other consideration, any firm or person (other then a bona fide employee working solely for me) to solicit or secure this contract;

(B) agreed, as an express or implied condition for obtaining this contract, to employ or retain the services of any firm or person in connection with carrying out the contract, or;

C) paid, or agreed to pay, to any firm, organization, or person (other than a bona fide employee working solely for me) any fee, contribution, donation, or consideration of any kind for, or in connection with, procuring or carrying out the contract;

By signing and submitting a Bid, the Bidder acknowledges that this certification is to be furnished to the Maine Department of Transportation and the Federal Highway Administration, U.S. Department of Transportation in connection with this contract in anticipation of federal aid highway funds and is subject to applicable state and federal laws, both criminal and civil.

CERTIFICATION REGARDING NONCOLLUSION Under penalty of perjury as provided by federal law (28 U.S.C. §1746), the Bidder hereby certifies, to the best of its knowledge and belief, that:

the Bidder has not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of competitive bidding in connection with the Contract.

For a related provisions, see Section 102.7.2 (C) of the Standard Specifications - "Effects of Signing and Delivery of Bids" - "Certifications", Section 3 of this Appendix A entitled "Other Federal Requirements" including section XI - "Certification Regarding Debarment, Suspension, Ineligibility, and Voluntary Exclusion" and section XII. - "Certification Regarding Use of Contract Funds for Lobbying."

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B. Bid Rigging Hotline To report bid rigging activities call: **1-800-424-9071**

The U.S. Department of Transportation (DOT) operates the above toll-free "hotline" Monday through Friday, 8:00 a.m. to 5:00 p.m., eastern time. Anyone with knowledge of possible bid rigging, bidder collusion, or other fraudulent activities should use the "hotline" to report such activities.

The "hotline" is part of the DOT's continuing effort to identify and investigate highway construction contract fraud and abuse and is operated under the direction of the DOT Inspector General. All information will be treated confidentially and caller anonymity will be respected.

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SECTION 2 - FEDERAL EEO AND CIVIL RIGHTS REQUIREMENTS

Unless expressly otherwise provided in the Bid Documents, the provisions contained in this Section 2 of this "Federal Contract Provisions Supplement" are hereby incorporated into the Bid Documents and Contract.

A. Nondiscrimination & Civil Rights - Title VI The Contractor and its subcontractors shall not discriminate on the basis of race, color, national origin, or sex in the performance of this Contract. The Contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT assisted contracts. Failure by the Contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the Department deems appropriate. The Contractor and subcontractors shall comply with Title VI of the Civil Rights Act of 1964, as amended, and with all State of Maine and other Federal Civil Rights laws.

For related provisions, see Subsection B - "Nondiscrimination and Affirmative Action - Executive Order 11246" of this Section 2 and Section 3 - Other Federal Requirements of this "Federal Contract Provisions Supplement" including section II - "Nondiscrimination" of the "Required Contract Provisions, Federal Aid Construction Contracts", FHWA-1273.

B. Nondiscrimination and Affirmative Action - Executive Order 11246 Pursuant to Executive Order 11246, which was issued by President Johnson in 1965 and amended in 1967 and 1978, this Contract provides as follows.

The Contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these specifications shall be

based upon its efforts to achieve maximum results from its actions. The Contractor shall document these efforts fully, and shall implement affirmative action steps at least as extensive as the following:

Ensure and maintain a working environment free of harassment, intimidations, and coercion at all sites, and in all facilities at which the Contractor's employees are assigned to work. The Contractor, where possible, will assign two or more women to each construction project. The Contractor shall specifically ensure that all forepersons, superintendents, and other on-site supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.

Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the Contractor or its union have employment opportunities available, and to maintain a record of the organization's responses.

Maintain a current file of the names, addresses and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the union or, if referred, not employed by the Contractor, this shall be documented in the file with the reason therefore, along with whatever additional actions the Contractor may have taken.

Provide immediate written notification to the Department's Civil Rights Office when the union or unions with which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or woman sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Design-Builder's efforts to meet its obligations.

Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the Department of Labor. The Contractor shall provide notice of these programs to the sources compiled under B above.

Disseminate the Contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EEO obligation; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.

Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring,

assignment, layoff, termination, or other employment decisions including specific review of these items with on-site supervisory personnel such as Superintendents, General Forepersons, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.

Disseminate the Contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the Contractor's EEO policy with other Contractor's and Subcontractors with whom the Contractor does or anticipates doing business.

Direct its recruitment efforts, both orally and written to minority, female and community organizations, to schools with minority and female students and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later that one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the Contractor shall send written notification to organizations such as the above describing the openings, screenings, procedures, and test to be used in the selection process.

Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer and vacation employment to minority and female youth, both on the site and in other areas of a Contractor's workforce.

Validate all tests and other selection requirements.

Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.

Ensure that seniority practices, job classifications, work assignments and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the Contractor's obligations under these specifications are being carried out.

Ensure that all facilities and company activities are non segregated except that separate or single-user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.

Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction Contractor's and suppliers, including circulation of solicitations to minority and female Contractor associations and other business associations.

Conduct a review, at least annually, of all supervisors' adherence to and performance under the Contractor's EEO policies and affirmative action obligations.

C. Goals for Employment of Women and Minorities Per Executive Order 11246, craft tradesperson goals are 6.9% women and .5% minorities employed. However, goals may be adjusted upward at the mutual agreement of the Contractor and the Department. Calculation of these percentages shall not include On-the-Job Training Program trainees, and shall not include clerical or field clerk position employees.

For a more complete presentation of requirements for such Goals, see the federally required document "Goals for Employment of Females and Minorities" set forth in the next 6 pages below.

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Start of GOALS FOR EMPLOYMENT OF FEMALES AND MINORITIES
Federally Required Contract Document

§60-4.2 Solicitations

(d) The following notice shall be included in, and shall be part of, all solicitations for offers and bids on all Federal and federally assisted construction contracts or subcontracts in excess of $10,000 to be performed in geographical areas designated by the Director pursuant to §60-4.6 of this part (see 41 CFR 60-4.2(a)):

Notice of Requirement for Affirmative Action to Ensure Equal Opportunity (Executive Order 11246)

1. The Offeror's or bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Specifications" set forth herein.

2. The goals and timetables for minority and female participation, expressed in percentage terms for the Contractor's aggregate work force in each trade on all construction work in the covered area, are as follows:

Goals for female participation in each trade 6.9%

Goals for minority participation for each trade
Maine
001 Bangor, ME 0.8%
Non-SMSA Counties (Aroostook, Hancock, Penobscot, Piscataquis, Waldo, Washington)

002 Portland-Lewiston, ME
SMSA Counties: 4243 Lewiston-Auburn, ME 0.5%
(Androscoggin)

6403 Portland, ME 0.6%
(Cumberland, Sagadahoc)

Non-SMSA Counties: 0.5%
(Franklin, Kennebec, Knox, Lincoln, Oxford, Somerset, York)

These goals are applicable to all the Contractor's construction work (whether or not it is Federal or federally assisted) performed in the covered area. If the contractor performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the contractor also is subject to the goals for both its federally involved and non federally involved construction.

The contractor's compliance with the Executive Order and the regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a), and its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be in violation of the contract, the Executive Order and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The Contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs within 10 working days of award of any construction subcontract in excess of $10,000 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address and telephone number of the subcontractor, employer identification number of the subcontractor, estimated dollar amount of the subcontract; estimated started and completion dates of the subcontract; and the geographical area in which the subcontract is to be performed.

4. As used in this Notice, and in the Contract resulting from this solicitation, the "covered area" is (insert description of the geographical areas where the contract is to be performed giving the state, county and city, if any).

STANDARD FEDERAL EQUAL EMPLOYMENT OPPORTUNITY CONSTRUCTION CONTRACT SPECIFICATIONS (EXECUTIVE ORDER 11246)

1. As used in these specifications:

   a. "Covered area" means the geographical area described in the solicitation from which this contract resulted;

   b. "Director" means Director, Office of Federal Contract Compliance Programs, United States Department of Labor, or any person to whom the Director delegates authority;

   c. "Employer identification number" means the Federal Social Security number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department form 941;

   d. "Minority" includes:
      (i) Black (all persons having origins in any of the Black African racial groups not of Hispanic origin);

(ii) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish Culture or origin, regardless of race);

(iii) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and

(iv) American Indian or Alaskan Native (all persons having origins in any of the original peoples of the North America and maintaining identifiable tribal affiliations through membership and participation or community identification).

2. Whenever the Contractor, or any subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of $10,000 the provisions of these specifications and the Notice which contains the applicable goals for minority and female participation and which is set forth in the solicitations from which this contract resulted.

3. If the contractor, is participating (pursuant to 41 CFR 60-4.5) in a Hometown Plan approved by the U.S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Contractors must be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each Contractor or Subcontractor participating in an approved Plan is individually required to comply with its obligations under the EEO clause, and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other Contractors for Subcontractors toward a goal in an approved Plan does not excuse any covered Contractor's or Subcontractor's failure to take good faith efforts to achieve the Plan goals and timetables.

4. The Contractor shall implement the specific affirmative action standards provided in paragraphs 7 a. through p. of these specifications. The goals set forth in the solicitation from which this contract resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the Contractor should reasonably be able to achieve in each construction trade in which it has employees in contractors performing construction work in geographical areas where they do not have a Federal or federally assisted construction contract shall apply the minority and female goals established for the geographical areas where the work is being performed. Goals are published periodically in the Federal Register in notice form and such notices may be obtained from any Office of Federal Contract Compliance Programs office or from Federal procurement contracting officers. The Contractor is expected to make substantially uniform progress in meeting its goals in each craft during the period specific.

5. Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the Contractor has a collective bargaining agreement, to refer either minorities or women shall excuse the Contractor's obligations under these specifications, Executive Order 11246, or the regulations promulgated pursuant, thereto.

6. In order for the non working training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees must be employed by the Contractor during the training period, and the Contractor must have made a commitment to employ the

apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor.

7. The Contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. The Contractor shall document these efforts fully, and shall implement affirmative action steps at least as expensive as the following:

   a. Ensure and maintain a working environment free of harassment, intimidation, coercion at all sites, and in all facilities at which the Contractor's employees are assigned to work. The Contractor, when possible, will assign two or more women to each construction project. The Contractor shall specifically ensure that all foremen, superintendents, and other on-site supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.

   b. Establish and maintain a current list of minority and female recruitment sources provide written notification to minority and female recruitment sources and to community organizations when the Contractor or its unions have employment opportunities available, and maintain a record of the organization's responses.

   c. Maintain a current file of the names, addresses and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment sources or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the union or, if referred, not employed by the Contractor, this shall be documented in the file with the reason therefore, along with whatever additional actions the Contractor may have taken.

   d. Provide immediate written notification to the Director when the union or unions with which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or woman sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.

   e. Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the Department of Labor. The Contractor shall provide notice of these programs to the sources complied under 7b above.

   f. Disseminate the Contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EEO obligations; by including in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific

review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.

g. Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination or other employment decisions including specific review of these items with on-site supervisory personnel such as Superintendents, General Foremen, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.

h. Disseminate the Contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the Contractor's EEO policy with other Contractors and Subcontractors with whom the Contractor does or anticipates doing business.

i. Direct its recruitment, efforts, both oral and written, to minority, female and community organizations, to schools with minority and female students and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month other training by any recruitment source, the Contractor shall send written notification to organizations such as the above, describing prior to the date for the acceptance of applications for apprenticeship or the openings, screening procedures, and tests to be used in the selection process.

j. Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer and vacation employment to minority and female youth both on site and in other areas of a Contractor's work force.

k. Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR Part 60-3.

l. Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.

m. Ensure that seniority practices, job classifications, work assignments and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the Contractor's obligations under these specifications are being carried out.

n. Ensure that all facilities and company activities are non segregated except that separate or single-user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.

o. Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction contractors and suppliers, including circulation of

solicitation to minority and female contractor associations and other business associations.

p. Conduct a review, at least annually, of all supervisor's adherence to and performance under the Contractor's EEO policies and affirmative action obligations.

8. Contractors are encouraged to participate in voluntary associations which assist in fulfilling one or more of their affirmative action obligations (7 a through p.). The efforts of a contractor association, joint contractor-union, contractor-community, or other similar group of which the contractor is a member and participant, may be asserted as fulfilling any one or more of its obligations under 7 a through p. of these specifications provided that the contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program and reflected in the Contractor's minority and female work force participation, makes a good faith effort to meet its individual goals and timetables, and can provide access to documentation which demonstrates the effectiveness of actions take on behalf of the Contractor. The obligation to comply, however, is the Contractor's and failure of such a group to fulfill an obligation shall not be a defense for the Contractor's noncompliance.

9. A single goal for minorities and a separate single goal for women have been established. The Contractor, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both make and female, and all women, both minority and non-minority. Consequently, the Contractor may be in violation of the Executive Order if a particular group is employed in a substantially disparate manner (for example, specific minority group of women is underutilized.)

10. The Contractor shall not use the goals and timetables or affirmative action even through the Contractor has achieved its goals for women generally, the Contractor may be in violation of the Executive Order if standards to discriminate against any person because of race, color, religion, sex, or national origin.

11. The Contractor shall not enter into any Subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246.

12. The Contractor shall carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspension, termination and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementation regulations by the Office of Federal Contract Compliance Programs. Any Contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246, as amended.

13. The Contractor, in fulfilling its obligations under these specifications, shall implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph 7 of these specifications, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Contractor fails to comply with the

requirements of the Executive Order, the implementing regulations, or these specifications, the Director shall proceed in accordance with 41 CFR 60-4.6.

14. The Contractor shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by the Government and to keep records. Records shall at least include for each employee the name, address, telephone numbers, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (e.g. mechanic, apprentice, trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and location sat which the work was performed. Records be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, contractors shall not be required to maintain separate records.

15. Nothing herein provided shall be construed as a limitation upon the application of other laws which establish different standards of compliance or upon the application of requirements for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

End of GOALS FOR EMPLOYMENT OF FEMALES AND MINORITIES
Federally Required Contract Document

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D. Section '**D Disadvantaged Business Enterprise (DBE) Requirements**' is removed in its entirety. The DBE material is in:

Section 105.10 EQUAL OPPORTUNITY AND CIVIL RIGHTS.

SECTION 3 - OTHER FEDERAL REQUIREMENTS

Unless expressly otherwise provided in the Bid Documents, the provisions contained in this Section 3 of this "Federal Contract Provisions Supplement" are hereby incorporated into the Bid Documents and Contract.

A. Buy America

If the cost of products purchased for permanent use in this project which are manufactured of steel, iron or the application of any coating to products of these materials exceeds 0.1 percent of the contract amount, or $2,500.00, whichever is greater, the products shall have been manufactured and the coating applied in the United States. The coating materials are not subject to this clause, only the application of the coating. In computing that amount, only the cost of the product and coating application cost will be included.

Ore, for the manufacture of steel or iron, may be from outside the United States; however, all other manufacturing processes of steel or iron must be in the United States to qualify as having been manufactured in the United States.

United States includes the 50 United States and any place subject to the jurisdiction thereof.

Products of steel include, but are not limited to, such products as structural steel, piles, guardrail, steel culverts, reinforcing steel, structural plate and steel supports for signs, luminaries and signals.

Products of iron include, but are not limited to, such products as cast iron grates.

Application of coatings include, but are not limited to, such applications as epoxy, galvanized and paint.

To assure compliance with this section, the Contractor shall submit a certification letter on its letterhead to the Department stating the following:

> "This is to certify that products made of steel, iron or the application of any coating to products of these materials whose costs are in excess of $2,500.00 or 0.1 percent of the original contract amount, whichever is greater, were manufactured and the coating, if one was required, was applied in the United States."

B. Materials

a. Convict Produced Materials References: 23 U.S.C. 114(b)(2), 23 CFR 635.417

Applicability: FHWA's prohibition against the use of convict material only applies to Federal-aid highways. Materials produced after July 1, 1991, by convict labor may only be incorporated in a Federal-aid highway construction project if: 1) such materials have been produced by convicts who are on parole, supervised release, or probation from a prison; or 2) such material has been produced in a qualified prison facility, e.g., prison industry, with the amount produced during any 12-month period, for use in Federal-aid projects, not exceeding the amount produced, for such use, during the 12-month period ending July 1, 1987.

Materials obtained from prison facilities (e.g., prison industries) are subject to the same requirements for Federal-aid participation that are imposed upon materials acquired from other sources. Materials manufactured or produced by convict labor will be given no preferential treatment.

The preferred method of obtaining materials for a project is through normal contracting procedures which require the contractor to furnish all materials to be incorporated in the work. The contractor selects the source, public or private, from which the materials are to be obtained (23 CFR 635.407). Prison industries are prohibited from bidding on projects directly (23 CFR 635.112e), but may act as material supplier to construction contractors.

Prison materials may also be approved as State-furnished material. However, since public agencies may not bid in competition with private firms, direct acquisition of materials from a prison industry for use as State-furnished material is subject to a public interest finding with the Division Administrator's concurrence (23 CFR 635.407d). Selection of materials produced by convict labor as State-furnished materials for mandatory use should be cleared prior to the submittal of the Plans Specifications & Estimates (PS&E).

b. Patented/Proprietary Products References: 23 U.S.C. 112, 23 CFR 635.411

FHWA will not participate, directly or indirectly, in payment for any premium or royalty on any patented or proprietary material, specification, or process specifically set forth in the plans and specifications for a project, unless:

- the item is purchased or obtained through competitive bidding with equally suitable unpatented items,
- the STA certifies either that the proprietary or patented item is essential for synchronization with the existing highway facilities or that no equally suitable alternative exists, or
- the item is used for research or for a special type of construction on relatively short sections of road for experimental purposes. States should follow FHWA's procedures for "Construction Projects Incorporating Experimental Features" (expermnt.htm) for the submittal of work plans and evaluations.

The primary purpose of the policy is to have competition in selection of materials and allow for development of new materials and products. The policy further permits materials and products that are judged equal may be bid under generic specifications. If only patented or proprietary products are acceptable, they shall be bid as alternatives with all, or at least a reasonable number of, acceptable materials or products listed; and the Division Administrator may approve a single source if it can be found that its utilization is in the public interest.

Trade names are generally the key to identifying patented or proprietary materials. Trade name examples include 3M, Corten, etc. Generally, products identified by their brand or trade name are not to be specified without an "or equal" phrase, and, if trade names are used, all, or at least a reasonable number of acceptable "equal" materials or products should be listed. The licensing of several suppliers to produce a product does not change the fact that it is a single product and should not be specified to the exclusion of other equally suitable products.

c. State Preference References: 23 U.S.C. 112, 23 CFR 635.409

Materials produced within Maine shall not be favored to the exclusion of comparable materials produced outside of Maine. State preference clauses give particular advantage to the designated source and thus restrict competition. Therefore, State preference provisions shall not be used on any Federal-aid construction projects.

This policy also applies to State preference actions against materials of foreign origin, except as otherwise permitted by Federal law. Thus, States cannot give preference to in-State material sources over foreign material sources. Under the Buy America provisions, the States are permitted to expand the Buy America restrictions provided that the STA is legally authorized under State law to impose more stringent requirements.

d. State Owned/Furnished/Designated Materials References: 23 U.S.C. 112, 23 CFR 635.407

Current FHWA policy requires that the contractor must furnish all materials to be incorporated in the work, and the contractor shall be permitted to select the sources from which the materials are to be obtained. Exceptions to this requirement may be made when there is a definite finding, by MaineDOT and concurred in by Federal Highway Administration's (FHWA) Division Administrator, that it is in the public interest to require the contractor to use materials furnished by the MaineDOT or from sources designated by MaineDOT. The exception policy can best be understood by separating State-furnished materials into the categories of manufactured materials and local natural materials.

Manufactured Materials When the use of State-furnished manufactured materials is approved based on a public interest finding, such use must be made mandatory. The optional use of State-furnished manufactured materials is in violation of our policy prohibiting public agencies from competing with private firms. Manufactured materials to be furnished by MaineDOT must be acquired through competitive bidding, unless there is a public interest finding for another method, and concurred in by FHWA's Division Administrator.

Local Natural Materials When MaineDOT owns or controls a local natural materials source such as a borrow pit or a stockpile of salvaged pavement material, etc., the materials may be designated for either optional or mandatory use; however, mandatory use will require a public interest finding (PIF) and FHWA's Division Administrator's concurrence.

In order to permit prospective bidders to properly prepare their bids, the location, cost, and any conditions to be met for obtaining materials that are made available to the contractor shall be stated in the bidding documents.

Mandatory Disposal Sites Normally, the disposal site for surplus excavated materials is to be of the contractor's choosing; although, an optional site(s) may be shown in the contract provisions. A mandatory site shall be specified when there is a finding by MaineDOT, with the concurrence of the Division Administrator, that such placement is the most economical or that the environment would be substantially enhanced without excessive cost. Discussion of the mandatory use of a disposal site in the environmental document may serve as the basis for the public interest finding.

Summarizing FHWA policy for the mandatory use of borrow or disposal sites:

- mandatory use of either requires a public interest finding and FHWA's Division Administrator's concurrence,
- mandatory use of either may be based on environmental consideration where the environment will be substantially enhanced without excessive additional cost, and
- where the use is based on environmental considerations, the discussion in the environmental document may be used as the basis for the public interest finding.

Factors to justify a public interest finding should include such items as cost effectiveness, system integrity, and local shortages of material.

C. Standard FHWA Contract Provisions - FHWA 1273

Unless expressly otherwise provided in the Bid Documents, the following "Required Contract Provisions, Federal Aid Construction Contracts", FHWA-1273, are hereby incorporated into the Bid Documents and Contract.

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Cargo Preference Act : Contractor and Subcontractor Clauses. "Use of United States-flag vessels: The contractor agrees—"(1) To utilize privately owned United States-flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to this contract, to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels."(2) To furnish within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, 'on-board' commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (1) of this section to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Division of National Cargo, Office of Market Development, Maritime Administration, Washington, DC 20590."(3) To insert the substance of the provisions of this clause in all subcontracts issued pursuant to this contract."(Reorganization Plans No. 21 of 1950 (64 Stat. 1273) and No. 7 of 1961 (75 Stat. 840) as amended by Pub. L. 91-469 (84 Stat. 1036) and Department of Commerce Organization Order 10-8 (38 FR 19707, July 23, 1973)) [42 FR 57126, Nov. 1, 1977]

The Cargo Preference Act requirements apply to materials or equipment that are acquired for a specific Federal-aid highway project. In general, the requirements are not applicable to goods or materials that come into inventories independent of an FHWA funded-contract. For example, the requirements would not apply to shipments of Portland cement, asphalt cement, or aggregates, as industry suppliers and contractors use these materials to replenish existing inventories. In general, most of the materials used for highway construction originate from existing inventories and are not acquired solely for a specific Federal-aid project. However, if materials or equipment are acquired solely for a Federal-aid project, then the Cargo Preference Act requirements apply."

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Start of FHWA 1273 REQUIRED CONTRACT PROVISIONS
FEDERAL-AID CONSTRUCTION CONTRACTS (As revised through October 23, 2023)

REQUIRED CONTRACT PROVISIONS
FEDERAL-AID CONSTRUCTION CONTRACTS

I. General
II. Nondiscrimination
III. Non-segregated Facilities
IV. Davis-Bacon and Related Act Provisions
V. Contract Work Hours and Safety Standards Act Provisions
VI. Subletting or Assigning the Contract
VII. Safety: Accident Prevention
VIII. False Statements Concerning Highway Projects
IX. Implementation of Clean Air Act and Federal Water Pollution Control Act
X. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion
XI. Certification Regarding Use of Contract Funds for Lobbying
XII. Use of United States-Flag Vessels:

ATTACHMENTS

A. Employment and Materials Preference for Appalachian Development Highway System or Appalachian Local Access Road Contracts (included in Appalachian contracts only)

I. GENERAL

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under title 23, United States Code, as required in 23 CFR 633.102(b) (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services). 23 CFR 633.102(e).

The applicable requirements of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider. 23 CFR 633.102(e).

Form FHWA-1273 must be included in all Federal-aid design-build contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services) in accordance with 23 CFR 633.102. The design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Contracting agencies may reference Form FHWA-1273 in solicitation-for-bids or request-for-proposals documents, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract). 23 CFR 633.102(b).

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract. 23 CFR 633.102(d).

3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.

4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. 23 U.S.C. 114(b). The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors. 23 U.S.C. 101(a).

II. NONDISCRIMINATION (23 CFR 230.107(a); 23 CFR Part 230, Subpart A, Appendix A; EO 11246)

The provisions of this section related to 23 CFR Part 230, Subpart A, Appendix A are applicable to all Federal-aid construction contracts and to all related construction subcontracts of $10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR Part 60, 29 CFR Parts 1625-1627, 23 U.S.C. 140, Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), and related regulations including 49 CFR Parts 21, 26, and 27; and 23 CFR Parts 200, 230, and 633.

The contractor and all subcontractors must comply with: the requirements of the Equal Opportunity Clause in 41 CFR 60-1.4(b) and, for all construction contracts exceeding $10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR Part 60, and 29 CFR Parts 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with 23 U.S.C. 140, Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), and Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), and related regulations including 49 CFR Parts 21, 26, and 27; and 23 CFR Parts 200, 230, and 633.

The following provision is adopted from 23 CFR Part 230, Subpart A, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements.

1. Equal Employment Opportunity: Equal Employment Opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (*see* 28 CFR Part 35, 29 CFR Part 1630, 29 CFR Parts 1625-1627, 41 CFR Part 60 and 49 CFR Part 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140, shall constitute the EEO and specific affirmative action standards for the contractor's project activities under this contract. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR Part 35 and 29 CFR Part 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the contract. 23 CFR 230.409 (g)(4) & (5).

b. The contractor will accept as its operating policy the following statement:

> "It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, sexual orientation, gender identity, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and/or on-the-job training."

2. EEO Officer: The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program and who must be assigned adequate authority and responsibility to do so.

3. Dissemination of Policy: All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action or are substantially involved in such action, will be made fully cognizant of and will implement the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer or other knowledgeable company official.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minorities and women.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

4. Recruitment: When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minorities and women in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minorities and women. To meet this requirement, the contractor will identify sources of potential minority group employees and establish with such identified sources procedures whereby minority and women applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, the contractor is expected to observe the provisions of that agreement to the extent that the system meets the contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal nondiscrimination provisions.

c. The contractor will encourage its present employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such applicants will be discussed with employees.

5. Personnel Actions: Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to ensure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action

within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

6. Training and Promotion:

a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs (i.e., apprenticeship and on-the-job training programs for the geographical area of contract performance). In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of employees who are minorities and women and will encourage eligible employees to apply for such training and promotion.

7. Unions: If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. 23 CFR 230.409. Actions by the contractor, either directly or through a contractor's association acting as agent, will include the procedures set forth below:

a. The contractor will use good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.

b. The contractor will use good faith efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the contracting agency and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

8. Reasonable Accommodation for Applicants / Employees with Disabilities: The contractor must be familiar with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established thereunder. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.

9. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment: The contractor shall not discriminate on the grounds of race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.

a. The contractor shall notify all potential subcontractors, suppliers, and lessors of their EEO obligations under this contract.

b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.

10. Assurances Required:

a. The requirements of 49 CFR Part 26 and the State DOT's FHWA-approved Disadvantaged Business Enterprise (DBE) program are incorporated by reference.

b. The contractor, subrecipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate, which may include, but is not limited to:
(1) Withholding monthly progress payments;
(2) Assessing sanctions;
(3) Liquidated damages; and/or
(4) Disqualifying the contractor from future bidding as non-responsible.

c. The Title VI and nondiscrimination provisions of U.S. DOT Order 1050.2A at Appendixes A and E are incorporated by reference. 49 CFR Part 21.

11. Records and Reports: The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number and work hours of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women.

b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on Form FHWA-1391. The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

III. NONSEGREGATED FACILITIES

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of more than $10,000. 41 CFR 60-1.5.

As prescribed by 41 CFR 60-1.8, the contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, sexual orientation, gender identity, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location under the contractor's control where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

IV. DAVIS-BACON AND RELATED ACT PROVISIONS

This section is applicable to all Federal-aid construction projects exceeding $2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size), in accordance with 29 CFR 5.5. The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. 23 U.S.C. 113. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. 23 U.S.C. 101. Where applicable law requires that projects be treated as a project on a Federal-aid highway, the provisions of this subpart will apply regardless of the location of the project. Examples include: Surface Transportation Block Grant Program projects funded under 23 U.S.C. 133 [excluding recreational trails projects], the Nationally Significant Freight and Highway Projects funded under 23 U.S.C. 117, and National Highway Freight Program projects funded under 23 U.S.C. 167.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 “Contract provisions and related matters” with minor revisions to conform to the FHWA-1273 format and FHWA program requirements.

1. Minimum wages (29 CFR 5.5)

a. *Wage rates and fringe benefits.* All laborers and mechanics employed or working upon the site of the work (or otherwise working in construction or development of the project under a development statute), will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of basic hourly wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics. As provided in paragraphs (d) and (e) of 29 CFR 5.5, the appropriate wage determinations are effective by operation of law even if they have not been attached to the contract. Contributions made or costs reasonably anticipated for bona fide fringe benefits under the Davis-Bacon Act (40 U.S.C. 3141(2)(B)) on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph 1.e. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics must be paid the appropriate wage rate and fringe benefits on the wage determination for the classification(s) of work actually performed, without regard to skill, except as provided in paragraph 4. of this section. Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: *Provided,* That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classifications and wage rates conformed under paragraph 1.c. of this section) and the Davis-Bacon poster (WH–1321) must be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

b. *Frequently recurring classifications.* (1) In addition to wage and fringe benefit rates that have been determined to be prevailing under the procedures set forth in 29 CFR part 1, a wage determination may contain, pursuant to § 1.3(f), wage and fringe benefit rates for classifications of laborers and mechanics for which conformance requests are regularly submitted pursuant to paragraph 1.c. of this section, provided that:

(i) The work performed by the classification is not performed by a classification in the wage determination for which a prevailing wage rate has been determined;

(ii) The classification is used in the area by the construction industry; and

(iii) The wage rate for the classification bears a reasonable relationship to the prevailing wage rates contained in the wage determination.

(2) The Administrator will establish wage rates for such classifications in accordance with paragraph 1.c.(1)(iii) of this section. Work performed in such a classification must be paid at no less than the wage and fringe benefit rate listed on the wage determination for such classification.

c. *Conformance.* (1) The contracting officer must require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract be classified in conformance with the wage determination. Conformance of an additional classification and wage rate and fringe benefits is appropriate only when the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(ii) The classification is used in the area by the construction industry; and

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) The conformance process may not be used to split, subdivide, or otherwise avoid application of classifications listed in the wage determination.

(3) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken will be sent by the contracting officer by email to *DBAconformance@dol.gov*. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30–day period that additional time is necessary.

(4) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer will, by email to *DBAconformance@dol.gov*, refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30–day period that additional time is necessary.

(5) The contracting officer must promptly notify the contractor of the action taken by the Wage and Hour Division under paragraphs 1.c.(3) and (4) of this section. The contractor must furnish a written copy of such determination to each affected worker or it must be posted as a part of the wage determination. The wage rate (including fringe benefits where appropriate) determined pursuant to paragraph 1.c.(3) or (4) of this section must be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

d. *Fringe benefits not expressed as an hourly rate.* Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor may either pay the benefit as stated in the wage determination or may pay another bona fide fringe benefit or an hourly cash equivalent thereof.

e. *Unfunded plans.* If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, *Provided,* That the Secretary of Labor has found, upon the written request of the contractor, in accordance with the criteria set forth in § 5.28, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

f. *Interest.* In the event of a failure to pay all or part of the wages required by the contract, the contractor will be required to pay interest on any underpayment of wages.

2. Withholding (29 CFR 5.5)

a. *Withholding requirements.* The contracting agency may, upon its own action, or must, upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor so much of the accrued payments or advances as may be considered necessary to satisfy the liabilities of the prime contractor or any subcontractor for the full amount of wages and monetary relief, including interest, required by the clauses set forth in this section for violations of this contract, or to satisfy any such liabilities required by any other Federal contract, or federally assisted contract subject to Davis-Bacon labor standards, that is held by the same prime contractor (as defined in § 5.2). The necessary funds may be withheld from the contractor under this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract that is subject to Davis-Bacon labor standards requirements and is held by the same prime contractor, regardless of whether the other contract was awarded or assisted by the same agency, and such funds may be used to satisfy the contractor liability for which the funds were withheld. In the event of a contractor's failure to pay any laborer or mechanic, including any apprentice or helper working on the site of the work all or part of the wages required by the contract, or upon the contractor's failure to submit the required records as discussed in paragraph 3.d. of this section, the contracting agency may on its own initiative and after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

b. *Priority to withheld funds.* The Department has priority to funds withheld or to be withheld in accordance with paragraph

2.a. of this section or Section V, paragraph 3.a., or both, over claims to those funds by:

(1) A contractor's surety(ies), including without limitation performance bond sureties and payment bond sureties;

(2) A contracting agency for its reprocurement costs;

(3) A trustee(s) (either a court-appointed trustee or a U.S. trustee, or both) in bankruptcy of a contractor, or a contractor's bankruptcy estate;

(4) A contractor's assignee(s);

(5) A contractor's successor(s); or

(6) A claim asserted under the Prompt Payment Act, 31 U.S.C. 3901–3907.

3. Records and certified payrolls (29 CFR 5.5)

a. *Basic record requirements* (1) *Length of record retention.* All regular payrolls and other basic records must be maintained by the contractor and any subcontractor during the course of the work and preserved for all laborers and mechanics working at the site of the work (or otherwise working in construction or development of the project under a development statute) for a period of at least 3 years after all the work on the prime contract is completed.

(2) *Information required.* Such records must contain the name; Social Security number; last known address, telephone number, and email address of each such worker; each worker's correct classification(s) of work actually performed; hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in 40 U.S.C. 3141(2)(B) of the Davis-Bacon Act); daily and weekly number of hours actually worked in total and on each covered contract; deductions made; and actual wages paid.

(3) *Additional records relating to fringe benefits.* Whenever the Secretary of Labor has found under paragraph 1.e. of this section that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in 40 U.S.C. 3141(2)(B) of the Davis-Bacon Act, the contractor must maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits.

(4) *Additional records relating to apprenticeship.* Contractors with apprentices working under approved programs must maintain written evidence of the registration of apprenticeship programs, the registration of the apprentices, and the ratios and wage rates prescribed in the applicable programs.

b. *Certified payroll requirements* (1) *Frequency and method of submission.* The contractor or subcontractor must submit weekly, for each week in which any DBA- or Related Acts-covered work is performed, certified payrolls to the contracting agency. The prime contractor is responsible for the submission of all certified payrolls by all subcontractors. A contracting agency or prime contractor may permit or require contractors to submit certified payrolls through an electronic system, as long as the electronic system requires a legally valid electronic signature; the system allows the contractor, the contracting agency, and the Department of Labor to access the certified payrolls upon request for at least 3 years after the work on the prime contract has been completed; and the contracting agency or prime contractor permits other methods of submission in situations where the contractor is unable or limited in its ability to use or access the electronic system.

(2) *Information required.* The certified payrolls submitted must set out accurately and completely all of the information required to be maintained under paragraph 3.a.(2) of this section, except that full Social Security numbers and last known addresses, telephone numbers, and email addresses must not be included on weekly transmittals. Instead, the certified payrolls need only include an individually identifying number for each worker (*e.g.,* the last four digits of the worker's Social Security number). The required weekly certified payroll information may be submitted using Optional Form WH–347 or in any other format desired. Optional Form WH–347 is available for this purpose from the Wage and Hour Division website at *https://www.dol.gov/sites/dolgov/files/WHD/legacy/files/wh347/.pdf* or its successor website. It is not a violation of this section for a prime contractor to require a subcontractor to provide full Social Security numbers and last known addresses, telephone numbers, and email addresses to the prime contractor for its own records, without weekly submission by the subcontractor to the contracting agency.

(3) *Statement of Compliance.* Each certified payroll submitted must be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor, or the contractor's or subcontractor's agent who pays or supervises the payment of the persons working on the contract, and must certify the following:

(i) That the certified payroll for the payroll period contains the information required to be provided under paragraph 3.b. of this section, the appropriate information and basic records are being maintained under paragraph 3.a. of this section, and such information and records are correct and complete;

(ii) That each laborer or mechanic (including each helper and apprentice) working on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in 29 CFR part 3; and

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification(s) of work actually performed, as specified in the applicable wage determination incorporated into the contract.

(4) *Use of Optional Form WH–347.* The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH–347 will satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(3) of this section.

(5) *Signature.* The signature by the contractor, subcontractor, or the contractor's or subcontractor's agent must be an original handwritten signature or a legally valid electronic signature.

(6) *Falsification.* The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under 18 U.S.C. 1001 and 31 U.S.C. 3729.

(7) *Length of certified payroll retention.* The contractor or subcontractor must preserve all certified payrolls during the course of the work and for a period of 3 years after all the work on the prime contract is completed.

c. *Contracts, subcontracts, and related documents.* The contractor or subcontractor must maintain this contract or subcontract and related documents including, without limitation, bids, proposals, amendments, modifications, and extensions. The contractor or subcontractor must preserve these contracts, subcontracts, and related documents during the course of the work and for a period of 3 years after all the work on the prime contract is completed.

d. *Required disclosures and access* (1) *Required record disclosures and access to workers.* The contractor or subcontractor must make the records required under paragraphs 3.a. through 3.c. of this section, and any other documents that the contracting agency, the State DOT, the FHWA, or the Department of Labor deems necessary to determine compliance with the labor standards provisions of any of the applicable statutes referenced by § 5.1, available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and must permit such representatives to interview workers during working hours on the job.

(2) *Sanctions for non-compliance with records and worker access requirements.* If the contractor or subcontractor fails to submit the required records or to make them available, or refuses to permit worker interviews during working hours on the job, the Federal agency may, after written notice to the contractor, sponsor, applicant, owner, or other entity, as the case may be, that maintains such records or that employs such workers, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available, or to permit worker interviews during working hours on the job, may be grounds for debarment action pursuant to § 5.12. In addition, any contractor or other person that fails to submit the required records or make those records available to WHD within the time WHD requests that the records be produced will be precluded from introducing as evidence in an administrative proceeding under 29 CFR part 6 any of the required records that were not provided or made available to WHD. WHD will take into consideration a reasonable request from the contractor or person for an extension of the time for submission of records. WHD will determine the reasonableness of the request and may consider, among other things, the location of the records and the volume of production.

(3) *Required information disclosures.* Contractors and subcontractors must maintain the full Social Security number and last known address, telephone number, and email address of each covered worker, and must provide them upon request to the contracting agency, the State DOT, the FHWA, the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or other compliance action.

4. Apprentices and equal employment opportunity (29 CFR 5.5)

a. *Apprentices* (1) *Rate of pay.* Apprentices will be permitted to work at less than the predetermined rate for the work they perform when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship (OA), or with a State Apprenticeship Agency recognized by the OA. A person who is not individually registered in the program, but who has been certified by the OA or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice, will be permitted to work at less than the predetermined rate for the work they perform in the first 90 days of probationary employment as an apprentice in such a program. In the event the OA or a State Apprenticeship Agency recognized by the OA withdraws approval of an apprenticeship program, the contractor will no longer be permitted to use apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(2) *Fringe benefits.* Apprentices must be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringe benefits must be paid in accordance with that determination.

(3) *Apprenticeship ratio.* The allowable ratio of apprentices to journeyworkers on the job site in any craft classification must not be greater than the ratio permitted to the contractor as to the entire work force under the registered program or the ratio applicable to the locality of the project pursuant to paragraph 4.a.(4) of this section. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated in paragraph 4.a.(1) of this section, must be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under this section must be paid not less than the applicable wage rate on the wage determination for the work actually performed.

(4) *Reciprocity of ratios and wage rates.* Where a contractor is performing construction on a project in a locality other than the locality in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyworker's hourly rate) applicable within the locality in which the construction is being performed must be observed. If there is no applicable ratio or wage rate for the locality of the project, the ratio and wage rate specified in the contractor's registered program must be observed.

b. *Equal employment opportunity.* The use of apprentices and journeyworkers under this part must be in conformity with

the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

c. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. 23 CFR 230.111(e)(2). The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeyworkers shall not be greater than permitted by the terms of the particular program.

5. Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract as provided in 29 CFR 5.5.

6. Subcontracts. The contractor or subcontractor must insert FHWA-1273 in any subcontracts, along with the applicable wage determination(s) and such other clauses or contract modifications as the contracting agency may by appropriate instructions require, and a clause requiring the subcontractors to include these clauses and wage determination(s) in any lower tier subcontracts. The prime contractor is responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in this section. In the event of any violations of these clauses, the prime contractor and any subcontractor(s) responsible will be liable for any unpaid wages and monetary relief, including interest from the date of the underpayment or loss, due to any workers of lower-tier subcontractors, and may be subject to debarment, as appropriate. 29 CFR 5.5.

7. Contract termination: debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

8. Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract as provided in 29 CFR 5.5.

9. Disputes concerning labor standards. As provided in 29 CFR 5.5, disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

10. Certification of eligibility. a. By entering into this contract, the contractor certifies that neither it nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of 40 U.S.C. 3144(b) or § 5.12(a).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of 40 U.S.C. 3144(b) or § 5.12(a).

c. The penalty for making false statements is prescribed in the U.S. Code, Title 18 Crimes and Criminal Procedure, 18 U.S.C. 1001.

11. Anti-retaliation. It is unlawful for any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, or to cause any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, any worker or job applicant for:

a. Notifying any contractor of any conduct which the worker reasonably believes constitutes a violation of the DBA, Related Acts, this part, or 29 CFR part 1 or 3;

b. Filing any complaint, initiating or causing to be initiated any proceeding, or otherwise asserting or seeking to assert on behalf of themselves or others any right or protection under the DBA, Related Acts, this part, or 29 CFR part 1 or 3;

c. Cooperating in any investigation or other compliance action, or testifying in any proceeding under the DBA, Related Acts, this part, or 29 CFR part 1 or 3; or

d. Informing any other person about their rights under the DBA, Related Acts, this part, or 29 CFR part 1 or 3.

V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

Pursuant to 29 CFR 5.5(b), the following clauses apply to any Federal-aid construction contract in an amount in excess of $100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchpersons and guards.

1. Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek. 29 CFR 5.5.

2. Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph 1. of this section the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages and interest from the date of the underpayment. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or

mechanic, including watchpersons and guards, employed in violation of the clause set forth in paragraph 1. of this section, in the sum currently provided in 29 CFR 5.5(b)(2)* for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph 1. of this section.

* $31 as of January 15, 2023 (See 88 FR 88 FR 2210) as may be adjusted annually by the Department of Labor, pursuant to the Federal Civil Penalties Inflation Adjustment Act of 1990.

3. Withholding for unpaid wages and liquidated damages

a. *Withholding process.* The FHWA or the contracting agency may, upon its own action, or must, upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor so much of the accrued payments or advances as may be considered necessary to satisfy the liabilities of the prime contractor or any subcontractor for any unpaid wages; monetary relief, including interest; and liquidated damages required by the clauses set forth in this section on this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract subject to the Contract Work Hours and Safety Standards Act that is held by the same prime contractor (as defined in § 5.2). The necessary funds may be withheld from the contractor under this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract that is subject to the Contract Work Hours and Safety Standards Act and is held by the same prime contractor, regardless of whether the other contract was awarded or assisted by the same agency, and such funds may be used to satisfy the contractor liability for which the funds were withheld.

b. *Priority to withheld funds.* The Department has priority to funds withheld or to be withheld in accordance with Section IV paragraph 2.a. or paragraph 3.a. of this section, or both, over claims to those funds by:

(1) A contractor's surety(ies), including without limitation performance bond sureties and payment bond sureties;

(2) A contracting agency for its reprocurement costs;

(3) A trustee(s) (either a court-appointed trustee or a U.S. trustee, or both) in bankruptcy of a contractor, or a contractor's bankruptcy estate;

(4) A contractor's assignee(s);

(5) A contractor's successor(s); or

(6) A claim asserted under the Prompt Payment Act, 31 U.S.C. 3901–3907.

4. Subcontracts. The contractor or subcontractor must insert in any subcontracts the clauses set forth in paragraphs 1. through 5. of this section and a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor is responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs 1. through 5. In the event of any violations of these clauses, the prime contractor and any subcontractor(s) responsible will be liable for any unpaid wages and monetary relief, including interest from the date of the underpayment or loss, due to any workers of lower-tier subcontractors, and associated liquidated damages and may be subject to debarment, as appropriate.

5. Anti-retaliation. It is unlawful for any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, or to cause any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, any worker or job applicant for:

a. Notifying any contractor of any conduct which the worker reasonably believes constitutes a violation of the Contract Work Hours and Safety Standards Act (CWHSSA) or its implementing regulations in this part;

b. Filing any complaint, initiating or causing to be initiated any proceeding, or otherwise asserting or seeking to assert on behalf of themselves or others any right or protection under CWHSSA or this part;

c. Cooperating in any investigation or other compliance action, or testifying in any proceeding under CWHSSA or this part; or

d. Informing any other person about their rights under CWHSSA or this part.

VI. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System pursuant to 23 CFR 635.116.

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the contracting agency. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635.116).

a. The term “perform work with its own organization” in paragraph 1 of Section VI refers to workers employed or leased by the prime contractor, and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions: (based on longstanding interpretation)

(1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;
(2) the prime contractor remains responsible for the quality of the work of the leased employees;

(3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and

(4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the contract as a whole and in general are to be limited to minor components of the overall contract. 23 CFR 635.102.

2. Pursuant to 23 CFR 635.116(a), the contract amount upon which the requirements set forth in paragraph (1) of Section VI is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. Pursuant to 23 CFR 635.116(c), the contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the contracting agency has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract. (based on long-standing interpretation of 23 CFR 635.116).

5. The 30-percent self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements. 23 CFR 635.116(d).

VII. SAFETY: ACCIDENT PREVENTION

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR Part 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract. 23 CFR 635.108.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR Part 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704). 29 CFR 1926.10.

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, Form FHWA-1022 shall be posted on each Federal-aid highway project (23 CFR Part 635) in one or more places where it is readily available to all persons concerned with the project:

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 11, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined under this title or imprisoned not more than 5 years or both."

IX. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT (42 U.S.C. 7606; 2 CFR 200.88; EO 11738)

This provision is applicable to all Federal-aid construction contracts in excess of $150,000 and to all related subcontracts. 48 CFR 2.101; 2 CFR 200.327.

By submission of this bid/proposal or the execution of this contract or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, subcontractor, supplier, or vendor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401-7671q) and the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251-1387). Violations must be reported to the Federal Highway Administration and the Regional Office of the Environmental Protection Agency. 2 CFR Part 200, Appendix II.

The contractor agrees to include or cause to be included the requirements of this Section in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements. 2 CFR 200.327.

X. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost $25,000 or more – as defined in 2 CFR Parts 180 and 1200. 2 CFR 180.220 and 1200.220.

1**. Instructions for Certification – First Tier Participants:**

a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.

b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this covered transaction. The prospective first tier participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective first tier participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction. 2 CFR 180.320.

c. The certification in this clause is a material representation of fact upon which reliance was placed when the contracting agency determined to enter into this transaction. If it is later determined that the prospective participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the contracting agency may terminate this transaction for cause of default. 2 CFR 180.325.

d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances. 2 CFR 180.345 and 180.350.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180, Subpart I, 180.900-180.1020, and 1200. “First Tier Covered Transactions” refers to any covered transaction between a recipient or subrecipient of Federal funds and a participant (such as the prime or general contract). “Lower Tier Covered Transactions” refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). “First Tier Participant” refers to the participant who has entered into a covered transaction with a recipient or subrecipient of Federal funds (such as the prime or general contractor). “Lower Tier Participant” refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

f. The prospective first tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction. 2 CFR 180.330.

g. The prospective first tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the $25,000 threshold. 2 CFR 180.220 and 180.300.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. 2 CFR 180.300; 180.320, and 180.325. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. 2 CFR 180.335. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the System for Award Management website (https://www.sam.gov/). 2 CFR 180.300, 180.320, and 180.325.

i. Nothing contained in the foregoing shall be construed to require the establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of the prospective participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

j. Except for transactions authorized under paragraph (f) of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default. 2 CFR 180.325.

* * * * *

2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – First Tier Participants:

a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:

(1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency, 2 CFR 180.335;.

(2) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property, 2 CFR 180.800;

(3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (a)(2) of this certification, 2 CFR 180.700 and 180.800; and

(4) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default. 2 CFR 180.335(d).

(5) Are not a corporation that has been convicted of a felony violation under any Federal law within the two-year period preceding this proposal (USDOT Order 4200.6 implementing appropriations act requirements); and

(6) Are not a corporation with any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability (USDOT Order 4200.6 implementing appropriations act requirements).

b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant should attach an explanation to this proposal. 2 CFR 180.335 and 180.340.

* * * * *

3. **Instructions for Certification - Lower Tier Participants:**

(Applicable to all subcontracts, purchase orders, and other lower tier transactions requiring prior FHWA approval or estimated to cost $25,000 or more - 2 CFR Parts 180 and 1200). 2 CFR 180.220 and 1200.220.

a. By signing and submitting this proposal, the prospective lower tier participant is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances. 2 CFR 180.365.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180, Subpart I, 180.900 – 180.1020, and 1200. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations. “First Tier Covered Transactions” refers to any covered transaction between a recipient or subrecipient of Federal funds and a participant (such as the prime or general contract). “Lower Tier Covered Transactions” refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). “First Tier Participant” refers to the participant who has entered into a covered transaction with a recipient or subrecipient of Federal funds (such as the prime or general contractor). “Lower Tier Participant” refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated. 2 CFR 1200.220 and 1200.332.

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the $25,000 threshold. 2 CFR 180.220 and 1200.220.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the System for Award Management website (https://www.sam.gov/), which is compiled by the General Services Administration. 2 CFR 180.300, 180.320, 180.330, and 180.335.

h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily

excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment. 2 CFR 180.325.

* * * * *

4. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Participants:

a. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals:

(1) is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency, 2 CFR 180.355;

(2) is a corporation that has been convicted of a felony violation under any Federal law within the two-year period preceding this proposal (USDOT Order 4200.6 implementing appropriations act requirements); and

(3) is a corporation with any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability. (USDOT Order 4200.6 implementing appropriations act requirements)

b. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant should attach an explanation to this proposal.

* * * * *

XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts which exceed $100,000. 49 CFR Part 20, App. A.

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

3. The prospective participant also agrees by submitting its bid or proposal that the participant shall require that the language of this certification be included in all lower tier subcontracts, which exceed $100,000 and that all such recipients shall certify and disclose accordingly.

XII. USE OF UNITED STATES-FLAG VESSELS:

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, or any other covered transaction. 46 CFR Part 381.

This requirement applies to material or equipment that is acquired for a specific Federal-aid highway project. 46 CFR 381.7. It is not applicable to goods or materials that come into inventories independent of an FHWA funded-contract.

When oceanic shipments (or shipments across the Great Lakes) are necessary for materials or equipment acquired for a specific Federal-aid construction project, the bidder, proposer, contractor, subcontractor, or vendor agrees:

1. To utilize privately owned United States-flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to this contract, to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels. 46 CFR 381.7.

2. To furnish within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, ‘on-board’ commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (b)(1) of this section to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Office of Cargo and Commercial Sealift (MAR-620), Maritime Administration, Washington, DC 20590. (MARAD requires copies of the ocean carrier's (master) bills of lading, certified onboard, dated, with rates and charges. These bills of lading may contain business sensitive information and therefore may be submitted directly to MARAD by the Ocean Transportation Intermediary on behalf of the contractor). 46 CFR 381.7.

ATTACHMENT A - EMPLOYMENT AND MATERIALS PREFERENCE FOR APPALACHIAN DEVELOPMENT HIGHWAY SYSTEM OR APPALACHIAN LOCAL ACCESS ROAD CONTRACTS (23 CFR 633, Subpart B, Appendix B)
This provision is applicable to all Federal-aid projects funded under the Appalachian Regional Development Act of 1965.

1. During the performance of this contract, the contractor undertaking to do work which is, or reasonably may be, done as on-site work, shall give preference to qualified persons who regularly reside in the labor area as designated by the DOL wherein the contract work is situated, or the subregion, or the Appalachian counties of the State wherein the contract work is situated, except:

a. To the extent that qualified persons regularly residing in the area are not available.

b. For the reasonable needs of the contractor to employ supervisory or specially experienced personnel necessary to assure an efficient execution of the contract work.

c. For the obligation of the contractor to offer employment to present or former employees as the result of a lawful collective bargaining contract, provided that the number of nonresident persons employed under this subparagraph (1c) shall not exceed 20 percent of the total number of employees employed by the contractor on the contract work, except as provided in subparagraph (4) below.

2. The contractor shall place a job order with the State Employment Service indicating (a) the classifications of the laborers, mechanics and other employees required to perform the contract work, (b) the number of employees required in each classification, (c) the date on which the participant estimates such employees will be required, and (d) any other pertinent information required by the State Employment Service to complete the job order form. The job order may be placed with the State Employment Service in writing or by telephone. If during the course of the contract work, the information submitted by the contractor in the original job order is substantially modified, the participant shall promptly notify the State Employment Service.

3. The contractor shall give full consideration to all qualified job applicants referred to him by the State Employment Service. The contractor is not required to grant employment to any job applicants who, in his opinion, are not qualified to perform the classification of work required.

4. If, within one week following the placing of a job order by the contractor with the State Employment Service, the State Employment Service is unable to refer any qualified job applicants to the contractor, or less than the number requested, the State Employment Service will forward a certificate to the contractor indicating the unavailability of applicants. Such certificate shall be made a part of the contractor's permanent project records. Upon receipt of this certificate, the contractor may employ persons who do not normally reside in the labor area to fill positions covered by the certificate, notwithstanding the provisions of subparagraph (1c) above.

5. The provisions of 23 CFR 633.207(e) allow the contracting agency to provide a contractual preference for the use of mineral resource materials native to the Appalachian region.

6. The contractor shall include the provisions of Sections 1 through 4 of this Attachment A in every subcontract for work which is, or reasonably may be, done as on-site work.

U.S. Department of Transportation (U.S. DOT)

Federal Highway Administration – Standard Title VI / Nondiscrimination Assurances

DOT Order No. 1050.2A

The **Town of Scarborough** (the Recipient) **AGREES THAT**, as a condition of receiving Federal financial assistance from the U.S. Department of Transportation (U.S. DOT) through the Federal Highway Administration (FHWA), it is subject to and will comply with the following:

Statutory/Regulatory Authorities

- Title VI of the Civil Rights Act of 1964 (42 U.S.C. §2000d et seq., 78 stat. 252), (prohibits discrimination on the basis of race, color, national origin);
- 49 C.F.R. Part 21 (entitled Nondiscrimination In Federally-Assisted Programs Of The Department Of Transportation—Effectuation Of Title VI Of The Civil Rights Act Of 1964);
- 28 C.F.R. section 50.3 (U.S. Department of Justice Guidelines for Enforcement of Title VI of the Civil Rights Act of 1964);

The preceding statutory and regulatory citations hereinafter are referred to as the "Acts" and "Regulations," respectively.

General Assurances

In accordance with the Acts, the Regulations, and other pertinent directives, circulars, policy, memoranda, and/or guidance, the Recipient hereby gives assurance that it will promptly take any measures necessary to assure that:

No person in the United States shall, on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity," for which the Recipient receives Federal financial assistance from the U.S. DOT, including the FHWA.

The Civil Rights Restoration Act of 1987 clarified the original intent of Congress, with respect to Title VI and other Nondiscrimination requirements (The Age Discrimination Act of 1975, and Section 504 of the Rehabilitation Act of 1973), by restoring the broad, institutional-wide scope and coverage of these nondiscrimination statutes and requirements to include all programs and activities of the Recipient, so long as any portion of the program is Federally assisted.

Specific Assurances

More specifically, and without limiting the above general Assurance, the Recipient agrees with and gives the following Assurances with respect to its federally assisted programs:

1. The Recipient agrees that each "activity," "facility," or "program," as defined in §§ 21.23 (b) and 21.23 (e) of 49 C.F.R. § 21 will be (with regard to an "activity facilitated, or will be (with regard to a "facility operated, or will be (with regard to a "program conducted in compliance with all requirements imposed by, or pursuant to the Acts and the Regulations.
2. The Recipient will insert the following notification in all solicitations for bids, Requests For Proposals for work, or material subject to the Acts and the Regulations made in connection with all Federal Highway Programs and, in adapted form, in all proposals for negotiated agreements regardless of funding source:

The Town of Scarborough, in accordance with the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252, 42 U.S.C. §§ 2000d to 2000d-4) and the Regulations, hereby notifies all bidders that it will affirmatively assure that any contract entered into pursuant to this advertisement, disadvantaged business enterprises will be afforded full opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, or national origin in consideration for an award.

3. The Recipient will insert the clauses of Appendix A and E of this Assurance in every contract or Agreement subject to the Acts and the Regulations.

4. If applicable, the Recipient will insert the clauses of Appendix B of this Assurance, as a covenant running with the land, in any deed from the United States effecting or recording a transfer of real property, structures, use, or improvements thereon or interest therein to a Recipient.
5. That where the Recipient receives Federal financial assistance to construct a facility, or part of a facility, the Assurance will extend to the entire facility and facilities operated in connection therewith.
6. That where the Recipient receives Federal financial assistance in the form, or for the acquisition of real property or an interest in real property, the Assurance will extend to rights to space on, over, or under such property.
7. If applicable, the Recipient will include the clauses set forth in Appendix C and Appendix D of this Assurance, as a covenant running with the land, in any future deeds, leases, licenses, permits, or similar instruments entered into by the Recipient with other parties:
    a. for the subsequent transfer of real property acquired or improved under the applicable activity, project, or program; and
    b. for the construction or use of, or access to, space on, over, or under real property acquired or improved under the applicable activity, project, or program.
8. That this Assurance obligates the Recipient for the period during which Federal financial assistance is extended to the program, except where the Federal financial assistance is to provide, or is in the form of, personal property, or real property, or interest therein, or structures or improvements thereon, in which case the Assurance obligates the Recipient, or any transferee for the longer of the following periods:
    a. the period during which the property is used for a purpose for which the Federal financial assistance is extended, or for another purpose involving the provision of similar services or benefits; or
    b. the period during which the Recipient retains ownership or possession of the property.
9. The Recipient will provide for such methods of administration for the program as are found by the Secretary of Transportation or the official to whom he/she delegates specific authority to give reasonable guarantee that it, other recipients, sub-recipients, sub-grantees, contractors, subcontractors, consultants, transferees, successors in interest, and other participants of Federal financial assistance under such program will comply with all requirements imposed or pursuant to the Acts, the Regulations, and this Assurance.
10. The Recipient agrees that the United States has a right to seek judicial enforcement with regard to any matter arising under the Acts, the Regulations, and this Assurance.

By signing this ASSURANCE, the Recipient also agrees to comply (and require any sub-recipients, sub-grantees, contractors, successors, transferees, and/or assignees to comply) with all applicable provisions governing the FHWA access to records, accounts, documents, information, facilities, and staff. You also recognize that you must comply with any program or compliance reviews, and/or complaint investigations conducted by the FHWA. You must keep records, reports, and submit the material for review upon request to the FHWA, or their designees in a timely, complete, and accurate way. Additionally, you must comply with all other reporting, data collection, and evaluation requirements, as prescribed by law or detailed in program guidance.

The Recipient gives this ASSURANCE in consideration of and for obtaining any Federal grants, loans, contracts, agreements, property, and/or discounts, or other Federal and Federal financial assistance extended after the date hereof to the recipients by the U.S. Department of Transportation. This ASSURANCE is binding on the Recipient, other recipients, sub-recipients, sub-grantees, contractors, subcontractors and their subcontractors', transferees, successors in interest, and any other participants in it programs. The person signing below is authorized to sign this ASSURANCE on behalf of the Recipient.

DATED 2/26/18

By _____
Thomas J. Hall, Town Manager
Town of Scarborough

Encl.: Appendices A and E

APPENDIX A TO THE TITLE VI ASSURANCES

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "contractor agrees as follows:

1. **Compliance with Regulations:** The contractor (hereinafter includes consultants) will comply with the Acts and the Regulations relative to Nondiscrimination in Federally-assisted programs of the U.S. Department of Transportation, **Federal Highway Administration**, as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.

2. **Nondiscrimination:** The contractor, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor will not participate directly or indirectly in the discrimination prohibited by the Acts and the Regulations as set forth in Appendix E, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 CFR Part 21.

3. **Solicitations for Subcontracts, Including Procurements of Materials and Equipment:** In all solicitations, either by competitive bidding, or negotiation made by the contractor for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subcontractor or supplier will be notified by the contractor of the contractor's obligations under this contract and the Acts and the Regulations relative to Non-discrimination on the grounds of race, color, or national origin.

4. **Information and Reports:** The contractor will provide all information and reports required by the Acts, the Regulations and directives issued pursuant thereto and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Recipient or the **Federal Highway Administration**, to be pertinent to ascertain compliance with such Acts, Regulations, and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish the information, the contractor will so certify to the Recipient or the **Federal Highway Administration**, as appropriate, and will set forth what efforts it has made to obtain the information.

5. **Sanctions for Noncompliance:** In the event of a contractor's noncompliance with the Non-discrimination provisions of this contract, the Recipient will impose such contract sanctions as it or the **Federal Highway Administration**, may determine to be appropriate, including, but not limited to:
    a. withholding payments to the contractor under the contract until the contractor complies; and/or
    b. cancelling, terminating, or suspending a contract, in whole or in part.

Incorporation of Provisions: The contractor will include the provisions of paragraphs one through six in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations and directives issued pursuant thereto. The contractor will take action with respect to any subcontract or procurement as the Recipient or the **Federal Highway Administration**, may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the contractor becomes involved in, or is threatened with litigation by a subcontractor, or supplier because of such direction, the contractor may request the Recipient to enter into any litigation to protect the interests of the Recipient. In addition, the contractor may request the United States to enter into the litigation to protect the interests of the United States.

APPENDIX E TO THE TITLE VI ASSURANCES

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "contractor agrees to comply with the following non-discrimination statutes and authorities; including but not limited to:

Pertinent Non-Discrimination Authorities:

- Title VI of the Civil Rights Act of 1964 (42 U.S.C. §2000d et seq., 78 stat. 252), (prohibits discrimination on the basis of race, color, national origin); and 49 CFR Part 21.
- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 U.S.C. §4601), (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal programs and projects);
- Federal Highway Act of 1973, (23 U.S.C. §324 et seq.), (prohibits discrimination on the basis of sex);
- Section 504 of the Rehabilitation Act of 1973, (29 U.S.C. §794 et seq.), as amended, (prohibits discrimination on the basis of disability); and 49 CFR Part 27;
- The Age Discrimination Act of 1975, as amended, (42 U.S.C. §6101 et seq.), (prohibits discrimination on the basis of age);
- Airport and Airway Improvement Act of 1982, (49 U.S.C. §471, Section 47123), as amended, (prohibits discrimination based on race, creed, color, national origin, or sex);
- The Civil Rights Restoration Act of 1987, (PL 100-209), (Broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, The Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms "programs or activities" to include all of the programs or activities of the Federal recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);
- Titles II and III of the Americans with Disabilities Act, which prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 U.S.C. §§12131-12189) as implemented by Department of Transportation regulations at 49 C.F.R. Parts 37 and 38;
- The Federal Aviation Administration's Non-discrimination statute (49 U.S.C. §47123) (prohibits discrimination on the basis of race, color, national origin and sex);
- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which assures discrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations;
- Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of limited English proficiency (LEP). To assure compliance with Title VI, you must take reasonable steps to assure that LEP persons have meaningful access to your programs (70 Fed. Reg. at 74087 to 74100);
- Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating of sex in education programs or activities (20 U.S.C. 1681 et seq.).

Locally Administered Project
Environmental Summary Sheet

WIN: 19426.00 & .10 **Date Submitted: 3/4/2025**
Town: Scarborough, South Portland
ENV Team Leader: Danielle Tetreau
ENV Field Contact: Locally Administered

NEPA Complete: 10/22/2018 **Letter 11 Submitted: 10/22/2018**
Programmatic CE: 771.117.c.3 **Re-evaluated: 5/14/2024**

Section 106
Review complete: SHPO Concurrence - No Adverse Effect 5/22/2015, Re-concurrence: 5/14/2024
Historic Properties Present: Boston & Maine Railroad

Section 4(f) and 6(f)

Section 4(f)	Section 6(f)
Review Complete No use	Not Applicable

Maine Department of Inland Fisheries and Wildlife Essential Habitat
Not Applicable Timing Window: Not Applicable

Section 7
Species of Concern:
Atlantic salmon: No effect, no in-water work
Northern long-eared bat: may affect, not likely to adversely affect.
See SP 105 for environmental requirements

Essential Fish Habitat
Review Complete – No effect

Stormwater Review
Review Complete – Construction General Permit required. MS4 - >1 acre disturbance triggers BMPs
General Standard required with >5 acre developed area or >1 acre new impervious

Hazardous Waste Review
Complete - General Note for Hazardous Waste

State and Federal Permits
Letter 12 submitted 2/5/2025
Copies of approvals submitted 2/5/2025

NOTE: Local Town/Municipality is responsible for obtaining and providing copies of Maine Department of Environmental Protection and Army Corps of Engineers Permits.

Special Provisions Required

Standard Specification 656-Erosion Control Plan	N/A☐	Applicable☒
General Note for Hazardous Waste	N/A☐	Applicable☒
Special Provision 105-Environmental Requirements	N/A☐	Applicable☒
Special Provision 656-Minor Soil Disturbance	N/A☒	Applicable☐
Special Provision 203-Dredge Spec	N/A☒	Applicable☐
Special Provision 203-Hazardous Waste	N/A☒	Applicable☐

Comments:

**All approvals based on plans/scope as of: 5/4/2022*

Scarborough-South Portland
WIN# 19426.00 & .10
3/4/2025

SPECIAL PROVISION SECTION 105
GENERAL SCOPE OF WORK
(Environmental Requirements – Federal Consultation)

I. To avoid and minimize potential effects to endangered bat species all work must comply with the following:

A. Tree clearing shall not be allowed when bats may be active within the project area: April 15 – October 31 (***Clearing is allowed November 1 – April 14***).

B. If tree clearing is not expected to be complete by April 15, 2025 additional coordination will be needed and the Town or it's designated representative must contact the MaineDOT Environmental (ENV) Office by April 1.

C. If the Contractor witnesses a bat (dead or alive), any activities that may injure any live bats must cease immediately and must contact the ENV Office for further coordination. Dead and/or injured bats will be collected by a MaineDOT Biologist for further investigation or transfer to a veterinarian. Work in the vicinity of the live/dead bat sighting will not resume until the ENV Office or project resident confirms it is acceptable to do so.

II. To protect migratory birds pursuant to the Migratory Bird Treaty Act of 1918:

A. If the Contractor observes an active bird nest within the project limits, any activities that may disturb the nest or injure birds (i.e., nesting adults, chicks, eggs) must cease immediately, and the Contractor shall contact the ENV Office for further coordination.

III. Approvals and Special Conditions:

A. Conditions of the Maine Army Corps of Engineers General Permit shall apply to this project.

B. Conditions of the Maine Natural Resources Protection Act Individual Permit (L-28061-DN-EN-FN) shall apply to this project (see permit and conditions in the contract document).

C. Soil Erosion and Water Pollution Control Plan (SEWPCP) to be approved by the Town's environmental compliance contact.

SOUTH PORTLAND AND SCARBOROUGH
EASTERN TRAIL
WIN 19426.00

GENERAL NOTE

As part of the project, a railroad overpass is to be constructed. During excavation activities, coal ash maybe encountered. This material is identified as being fine grained black material. This material, if encountered, must be reused on-site as fill material. If the material cannot be reused on site, the contractor is responsible for obtaining all approvals or permits and any required analytical results for proper disposal at a licensed MDEP facility. The Phase I environmental site assessment also indicated petroleum releases adjacent to the project, in particular the vicinity of an industrial park located south of the project. The scope of work suggests this contamination maybe adjacent to any work areas. However, the contractor shall employ appropriate health and safety measures to protect its workers against hazards associated with working near coal ash and petroleum impacted soils. If the Contractor encounters additional evidence of soil or groundwater contamination such as petroleum product, the Contractor shall secure the excavation, stop work in the contaminated area, and immediately notify the Resident. The Resident shall contact the Maine Department of Environmental Protection at 800-482-0777. Work may only continue with authorization from the Resident.

The U.S. Army Corps of Engineers is reissuing this permit with updated dates. The updated permit will be added to the contract through a contract modification, at no added cost to the project, once it is received

REPLY TO ATTENTION OF

DEPARTMENT OF THE ARMY
NEW ENGLAND DISTRICT, CORPS OF ENGINEERS
696 VIRGINIA ROAD
CONCORD, MASSACHUSETTS 01742-2751

MAINE GENERAL PERMIT (GP)
AUTHORIZATION LETTER AND SCREENING SUMMARY

WILLIAM REICHL
TOWN OF SCARBOROUGH
P.O. BOX 360
SCARBOROUGH, MAINE 04070-0360

CORPS PERMIT # NAE-2015-02314
CORPS GP ID# 18-695
STATE ID# NRPA

DESCRIPTION OF WORK:
Place temporary and permanent fill below the ordinary high water mark of four unnamed streams and in adjacent freshwater wetlands between the Wainwright Recreation Complex off Highland Avenue at South Portland, Maine south to Black Point Road at Scarborough, Maine in order to connect portions of the Eastern Trail, a multi-purpose recreational trail that extends from Calais to Kittery, Maine. This work will result in approximately 15,750 s.f. of permanent and 4,350 s.f. of temporary wetland impact and 4,350 s.f. of
Project Description Continued on Page 2

LAT/LONG COORDINATES : 43.606617° N -70.291188° W USGS QUAD: PROUTS NECK, ME

I. CORPS DETERMINATION:
Based on our review of the information you provided, we have determined that your project will have only minimal individual and cumulative impacts on waters and wetlands of the United States. **Your work is therefore authorized by the U.S. Army Corps of Engineers under the Federal Permit, the Maine General Permit (GP).** http://www.nae.usace.army.mil/Portals/74/docs/regulatory/StateGeneralPermits/ME/Maine_General_Permit_2015.pdf

You must perform the activity authorized herein in compliance with all the terms and conditions of the GP [including any attached Additional Conditions and any conditions placed on the State 401 Water Quality Certification including any required mitigation]. Please review the enclosed GP carefully, including the GP conditions beginning on page 5, to familiarize yourself with its contents. You are responsible for complying with all of the GP requirements; therefore you should be certain that whoever does the work fully understands all of the conditions. You may wish to discuss the conditions of this authorization with your contractor to ensure the contractor can accomplish the work in a manner that conforms to all requirements.

If you change the plans or construction methods for work within our jurisdiction, please contact us immediately to discuss modification of this authorization. This office must approve any changes before you undertake them.

Condition 38 of the GP (page 16) provides one year for completion of work that has commenced or is under contract to commence prior to the expiration of the GP on October 13, 2020. You will need to apply for reauthorization for any work within Corps jurisdiction that is not completed by October 13, 2021.

This authorization presumes the work shown on your plans noted above is in waters of the U.S. Should you desire to appeal our jurisdiction, please submit a request for an approved jurisdictional determination in writing to the undersigned.

No work may be started unless and until all other required local, State and Federal licenses and permits have been obtained. **This includes but is not limited to a Flood Hazard Development Permit issued by the town if necessary.**

II. STATE ACTIONS: PENDING [X], ISSUED [ ], DENIED [ ] DATE_____

APPLICATION TYPE: PBR: X , TIER 1:____, TIER 2 :____, TIER 3:____, LURC: ____ DMR LEASE: ____ NA: ____

III. FEDERAL ACTIONS:

JOINT PROCESSING MEETING: 12/13/18 LEVEL OF REVIEW: CATEGORY 1:____ CATEGORY 2: X

AUTHORITY (Based on a review of plans and/or State/Federal applications): SEC 10_____, 404 X 10/404_____, 103_____

EXCLUSIONS: The exclusionary criteria identified in the general permit do not apply to this project.

FEDERAL RESOURCE AGENCY OBJECTIONS: EPA NO, USF&WS NO, NMFS NO

If you have any questions on this matter, please contact my staff at 207-623-8367 at our Augusta, Maine Project Office. In order for us to better serve you, we would appreciate your completing our Customer Service Survey located at http://corpsmapu.usace.army.mil/cm_apex/f?p=136:4:0

Jay L. Clement
JAY L. CLEMENT
SENIOR PROJECT MANAGER
MAINE PROJECT OFFICE

3/29/19
LINDSEY E. LEFEBVRE DATE
CHIEF, PERMITS & ENFORCEMENT BRANCH
REGULATORY DIVISION

Project Description Continued from Page 1

forested wetland clearing. This work is shown on the attached plans entitled "TOWN OF SCARBOROUGH, EASTERN TRAIL CONNECTOR, SCARBOROUGH TO SOUTH PORTLAND, MAINE" in 43 sheets dated "09/18" and five sheets revised "12/18".

PLEASE NOTE THE FOLLOWING CONDITIONS FOR DEPARTMENT OF THE ARMY GENERAL PERMIT NO. NAE-2015-02314

1. This authorization requires you to 1) notify us before beginning work so we may inspect the project, and 2) submit a Compliance Certification Form. You must complete and return the enclosed Work Start Notification Form(s) to this office at least two weeks before the anticipated starting date. You must complete and return the enclosed Compliance Certification Form within one month following the completion of the authorized work and any required mitigation (but not mitigation monitoring, which requires separate submittals).

2. The permittee shall assure that a copy of this permit is at the work site whenever work is being performed and that all personnel performing work at the site of the work authorized by this permit are fully aware of the terms and conditions of the permit. This permit, including its drawings and any appendices and other attachments, shall be made a part of any and all contracts and sub-contracts for work which affects areas of Corps of Engineers' jurisdiction at the site of the work authorized by this permit. This shall be done by including the entire permit in the specifications for the work. If the permit is issued after construction specifications but before receipt of bids or quotes, the entire permit shall be included as an addendum to the specifications. The term "entire permit" includes permit amendments. Although the permittee may assign various aspects of the work to different contractors or sub-contractors, all contractors and sub-contractors shall be obligated by contract to comply with all environmental protection provisions of the entire permit, and no contract or sub-contract shall require or allow unauthorized work in areas of Corps of Engineers jurisdiction.

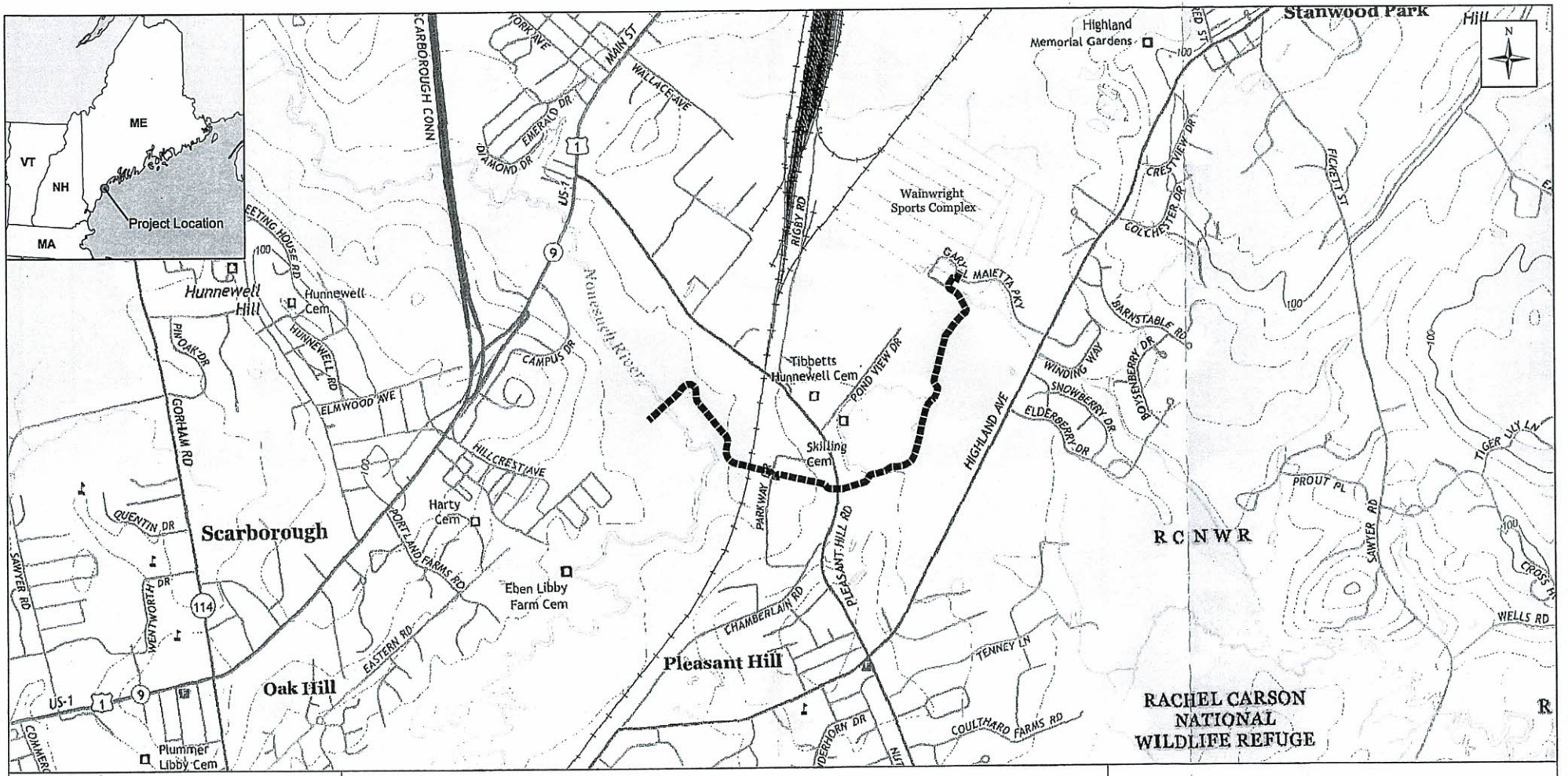
3. Adequate sedimentation and erosion control devices, such as geotextile silt fences or other devices capable of filtering the fines involved, shall be installed and properly maintained to minimize impacts during construction. These devices must be removed upon completion of work and stabilization of disturbed areas. The sediment collected by these devices must also be removed and placed upland, in a manner that will prevent its later erosion and transport to a waterway or wetland.

4. All exposed soils resulting from the construction will be promptly seeded and mulched in order to achieve vegetative stabilization.

5. All areas of temporary fill shall be restored to their original contour and character upon completion of the work.

6. In water work shall be conducted between July 15 and September 30 of any year in order to minimize potential impacts to aquatic resources and local water quality.

7. All tree cutting shall occur between October 16 and April 19 of any year to the maximum extent practicable and no tree cutting shall occur between June 1 and July 31 of any year to minimize potential impacts to federally threatened northern long-eared bats.



Prepared For:

HNTB

Prepared By:

NewEarth
ECOLOGICAL CONSULTING, LLC

Legend

Eastern Trail Alignment

0 0.5 1 Miles

Figure 1. Site Location and Topography

Eastern Trail Connector Project, Scarborough to South Portland, Maine

Source: United States Geological Survey, Prouts Neck Quadrangle, 2014

Date: 8/17/2018

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

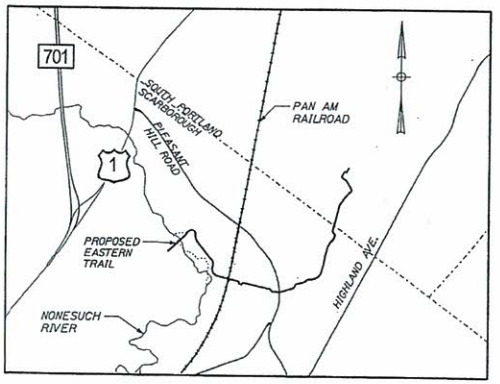
SCARBOROUGH AND SOUTH PORTLAND
CUMBERLAND COUNTY

STP-1942600 & STP-1942610

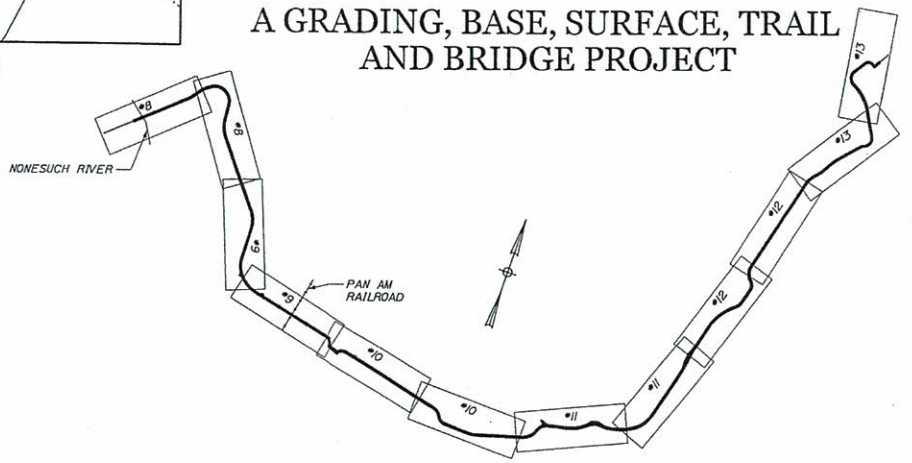
EASTERN TRAIL:
MULTI-USE RECREATIONAL
TRAIL DEVELOPMENT

PROJECT LENGTH : 1.6 mi.

A GRADING, BASE, SURFACE, TRAIL AND BRIDGE PROJECT



LOCATION MAP
N.T.S.



LAYOUT PLAN

500 0 500 1000
Scale of Feet

INDEX OF SHEETS

Title Sheet 1
General Notes and Quantities 2
Typical Sections 3
Boring Logs 4
Trail Details 5-6
Sign Details and Summary 7
Trail Plans 8-13
Nonesuch River Crossing Details 14-21
Pan Am Railroad Crossing Details 22-40
Pleasant Hill Road Crossing Plan 41
Portland Water District Access Road Crossing Plan 42
Wainwright Complex Crossing Plan 43

FINAL PIC
OCTOBER 26, 2018

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

APPROVED | DATE

COMMISSIONER:

CHIEF ENGINEER:

PROJECT INFORMATION

PROGRAM	MULTIMODAL		
PROJECT MANAGER	BRIAN NICHOLS	SIGNATURE	
DESIGNER	TIM COTE, PE	P.E. NUMBER	
CONSULTANT	HNTB		
PROJECT RESIDENT			
CONTRACTOR			
PROJECT COMPLETION DATE		DATE	

TOWN OF SCARBOROUGH
EASTERN TRAIL CONNECTOR
SCARBOROUGH TO SOUTH PORTLAND, MAINE

TITLE SHEET

SHEET NUMBER
1
OF 43

GENERAL NOTES

1. ALL WORK TO BE DONE UNDER THIS CONTRACT SHALL BE GOVERNED BY THE "STATE OF MAINE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS, NOVEMBER 2014 EDITION" AND "STATE OF MAINE DEPARTMENT OF TRANSPORTATION STANDARD DETAILS, NOVEMBER 2014 EDITION". EXCEPT AS MODIFIED BY THE CONTRACT DOCUMENTS.

2. ALL TREES, BRUSH, VEGETATION, STUMPS, AND OTHER ITEMS SHALL BE REMOVED FROM THE AREA. ALL DEBRIS SHALL BE REMOVED AND DISPOSED OF IN ACCORDANCE WITH STATE AND LOCAL REGULATIONS AND CODES.

3. INFORMATION REGARDING THE LOCATION OF EXISTING UTILITIES HAS BEEN BASED UPON AVAILABLE INFORMATION AND MAY BE INCOMPLETE, AND WHERE SHOWN ON THE PLANS SHOULD BE CONSIDERED APPROXIMATE. THE LOCATION OF ALL EXISTING UTILITIES SHOULD BE CONFIRMED PRIOR TO BEGINNING CONSTRUCTION. PRIOR TO ANY DIGGING, THE CONTRACTOR SHALL CONTACT "DIG SAFE" AT1-800-344-7233 TO DETERMINE LOCATIONS OF EXISTING UNDERGROUND UTILITIES.

4. THE UTILITIES IN THIS CONTRACT ARE AS FOLLOWS
   - AT&T
   - CENTRAL MAINE POWER
   - PAN AM RAILROAD
   - CHARTER COMMUNICATIONS
   - CONSOLIDATED COMMUMINICATIONS
   - OXFORD NETWORKS
   - TOWN OF SCARBOROUGH
   - CITY OF SOUTH PORTLAND

5. UNLESS DIRECTED BY THE RESIDENT, ALL DISTURBED AREAS SHALL RECEIVE A MINIMUM OF 2" LOAM OR 4" OF EROSION CONTROL MIX AND BE SEEDED WITH METHOD #2. MULCH SHALL BE APPLIED IN AREAS SEEDED.

6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION LAYOUT AND STAGING.

7. PLACE A 2 FT. WIDE STRIP OF TEMPORARY EROSION CONTROL BLANKET ALONG THE TOP OF ALL RIPRAP SLOPES.

8. DO NOT EXCAVATE FOR AGGREGATE SUBBASE COURSE WHERE EXISTING MATERIAL IS SUITABLE AS DETERMINED BY THE RESIDENT.

9. CLEARING SHALL BE 5' FROM TOE OF SLOPES OR AS SHOWN ON THE PLANS UNLESS OTHERWISE DIRECTED BY THE RESIDENT.

10. THE LOCATION AND EXTENT OF CEDAR RAIL FENCE IS SHOWN FOR ESTIMATING PURPOSES. THE FINAL LOCATION AND QUANTITY SHALL BE DETERMINED BY THE RESIDENT.

11. BOLLARDS, CEDAR RAIL FENCE, AND TIMBER GUARDRAIL SHALL BE INSTALLED AT LEAST 10' FROM THE EDGE OF ROADWAY.

12. EXISTING CULVERTS TO REMAIN SHALL BE CLEANED AS DIRECTED BY THE RESIDENT. PAYMENT WILL BE MADE UNDER ITEM 631.32 CULVERT CLEANER (INCLUDING OPERATOR)

13. ALL WASTE MATERIAL NOT USED ON THE PROJECT SHALL BE DISPOSED OF OFF THE PROJECT IN WASTE AREAS APPROVED BY THE RESIDENT.

14. INLETS AND OUTLETS OF ALL PROPOSED CULVERTS SHALL BE RIPRAPPED IN ACCORDANCE WITH THE MAINE STANDARD DETAILS UNLESS OTHERWISE NOTED ON THE PLANS OR AS DIRECTED BY THE RESIDENT.

15. ANY DAMAGE TO THE SLOPES CAUSED BY THE CONTRACTOR'S EQUIPMENT, PERSONNEL, OR OPERATION SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE TO THE SATISFACTION OF THE RESIDENT.

16. NO SEPARATE PAYMENT FOR SUPERINTENDENT OR FOREMAN WILL BE MADE FOR THE SUPERVISION OF EQUIPMENT BEING PAID FOR UNDER THE EQUIPMENT RENTAL ITEMS.

17. UNDETERMINED LOCATIONS SHALL BE DETERMINED BY THE RESIDENT.

18. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE MAINE DEPARTMENT OF TRANSPORTATION'S BEST MANAGEMENT PRACTICES FOR EROSION AND SEDIMENTATION CONTROL, FEBRUARY, 2008. PAYMENT WILL BE MADE UNDER ITEM 656.75 "TEMPORARY SOIL EROSION AND WATER POLLUTION CONTROL, LUMP SUM."

19. THE PROJECT GEOTECHNICAL REPORT TITLED: XXXX, DATED XX, 2018 BY R.W. GILLESPIE MAY BE ACCESSED AT THE TOWN OF SCARBOROUGH WEBSITE.

20. WHERE TYPICAL SECTION CALL-OUTS ARE DESIGNATED ON THE TRAIL PLANS THE LIMITS SHALL BE CONSIDERED APPROXIMATE. THE LIMIT AND TYPE OF TYPICAL SECTION TO BE USED MAY BE CHANGED BASED ON EXISTING CONDITIONS AS DIRECTED BY THE RESIDENT.

21. QUANTITIES INCLUDED FOR PAY ITEMS MEASURED AND PAID FOR BY LUMP SUM ARE ESTIMATED QUANTITIES AND ARE PROVIDED BY THE TOWN OF SCARBOROUGH FOR INFORMATIONAL PURPOSES ONLY. LUMP SUM PAY ITEMS WILL BE PAID FOR AT THE CONTRACT BID AMOUNT, WITH NO ADDITION OR REDUCTION IN PAYMENT TO THE CONTRACTOR IF THE ACTUAL FINAL QUANTITIES ARE DIFFERENT FROM THE PROVIDED ESTIMATED QUANTITIES, EXCEPT AS FOLLOWS:

   A. IF A LUMP SUM PAY ITEM IS ELIMINATED, THE REQUIREMENTS OF STANDARD SPECIFICATIONS SECTION 109.2, ELIMINATION OF ITEMS WILL TAKE PRECEDENCE.

   B. IF OTHER CONTRACT DOCUMENTS SPECIFICALLY ALLOW A CHANGE IN PAYMENT FOR LUMP SUM PAY ITEM, THOSE REQUIREMENTS WILL BE FOLLOWED.

   C. IF A DESIGN CHANGE RESULTS IN CHANGES TO ESTIMATED QUANTITIES FOR LUMP SUM PAY ITEMS, PRICE AND ADJUSTMENTS WILL BE MADE IN ACCORDANCE WITH STANDARD SPECIFICATIONS SECTION 109.7. EQUITABLE ADJUSTMENTS TO COMPENSATION AND TIME.

22. FOR EASEMENTS, CONSTRUCTION LIMITS AND RIGHT-OF-WAY LINES, REFER TO THE RIGHT OF WAY MAP.

23. PROTECTIVE COATING FOR CONCRETE SURFACES SHALL BE APPLIED TO THE FOLLOWING AREAS:
   -ALL EXPOSED SURFACES OF CONCRETE PIERS
   -TOP OF ABUTMENT BACKWALLS AND TO ONE FOOT BELOW THE TOP OF BACKWALLS ON THE BACK SIDE
   -EXPOSED SURFACES OF ABUTMENTS AND WINGWALLS

24. PROJECT INFORMATION REFERRED TO BELOW MAY ALSO BE ACCESSED AT THE FOLLOWING TOWN OF SCARBOROUGH WEB ADDRESS: HTTP://WWW.SCARBOROUGHMAINE.ORG/DEPARTMENTS/FINANCE/PURCHASING

25. GEOTECHNICAL INFORMATION FURNISHED OR REFERRED TO IN THIS PLAN SET IS FOR THE USE OF BIDDERS AND THE CONTRACTOR. NO ASSURANCE IS GIVEN THAT THE INFORMATION OR INTERPRETATIONS WILL BE REPRESENTATIVE OF ACTUAL SUBSURFACE CONDITIONS AT THE CONSTRUCTION SITE. THE TOWN OF SCARBOROUGH WILL NOT BE RESPONSIBLE FOR THE BIDDER'S OR CONTRACTOR'S INTERPRETATIONS OF, OR CONCLUSIONS DRAWN FROM THE GEOTECHNICAL INFORMATION. THE BORING LOGS CONTAINED IN THE PLAN SET PRESENT FACTUAL AND INTERPRETIVE SUBSURFACE INFORMATION COLLECTED AT DISCRETE LOCATIONS. DATA PROVIDED MAY NOT BE REPRESENTATIVE OF THE SUBSURFACE CONDITIONS BETWEEN THE BORING LOCATIONS.

FINAL PIC
OCTOBER 26, 2018

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-1942600 & STP-1942610

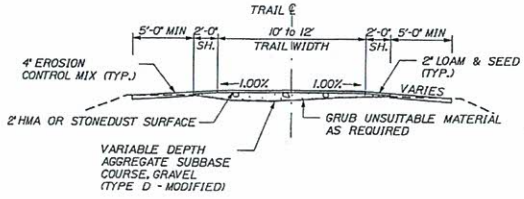
WIN
19426.00 & 019426.10 HIGHWAY PLANS

PROJ. MANAGER	T. COTE	BY	DATE
DESIGN-DETAIL01	CHRISTOPHER J. OLIVO	-	09/18
DESIGN-DETAIL02	J. OLIVO	-	SIGNATURE
DESIGN-DETAIL03	-	-	-
REVISION 1	-	-	P.E. NUMBER
REVISION 2	-	-	-
REVISION 3	-	-	-
REVISION 4	-	-	DATE
FIELD CHANGES	-	-	-

TOWN OF SCARBOROUGH
EASTERN TRAIL CONNECTOR
SCARBOROUGH TO SOUTH PORTLAND, MAINE

GENERAL NOTES AND QUANTITIES

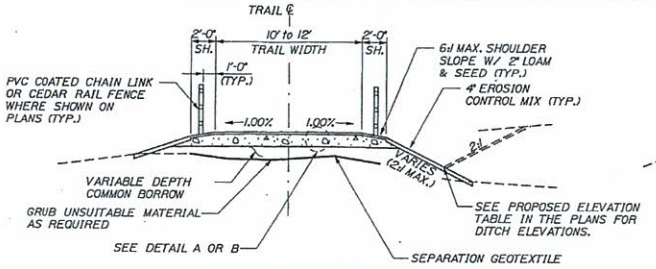
SHEET NUMBER
2
OF 43



TYPICAL SECTION A

N.T.S

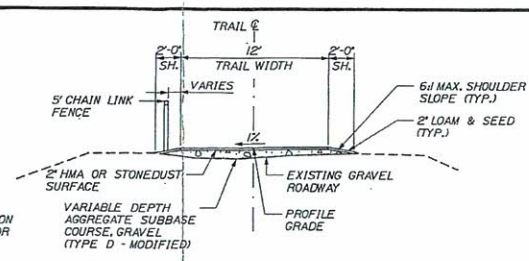
STA. 99+25 TO STA. 100+00
STA. 100+36 TO STA. 101+00
STA. 128+50 TO STA. 137+50
STA. 138+50 TO STA. 142+50
STA. 162+00 TO STA. 173+00
STA. 178+00 TO STA. 181+00



TYPICAL SECTION B

N.T.S

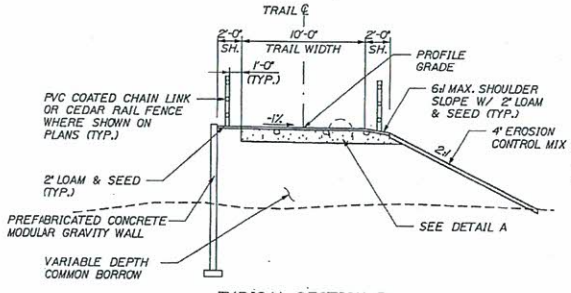
STA. 103+00 TO STA. 116+50
STA. 142+50 TO STA. 145+00
STA. 173+00 TO STA. 178+00



TYPICAL SECTION C - PROUT'S POND

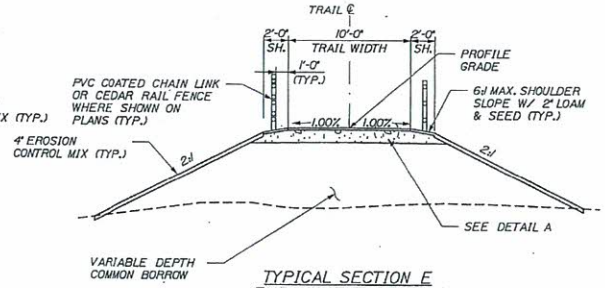
N.T.S

STA. 145+00 TO STA. 161+10



TYPICAL SECTION D EMBANKMENT SECTION W/ RETAINING WALL

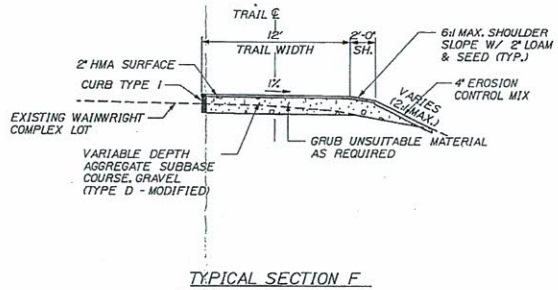
STA. 124+62 TO STA. 126+50
N.T.S



TYPICAL SECTION E EMBANKMENT SECTION

N.T.S

STA. 101+00 TO 103+00
STA. 116+50 TO 122+42



TYPICAL SECTION F WAINWRIGHT FACILITY

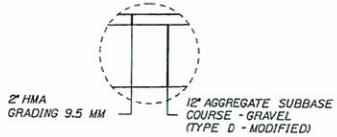
N.T.S

STA. 181+00 TO STA. 182+75

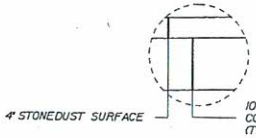
TRAIL SURFACE MATERIAL TABLE

SURFACE MATERIAL	STATION BEGIN		STATION END
STONEDUST	99+25	TO	100+00
PAVEMENT	100+36	TO	122+42
PAVEMENT	124+62	TO	126+50
STONEDUST	128+50	TO	137+50
STONEDUST	138+50	TO	142+00
PAVEMENT	142+00	TO	146+00
STONEDUST	146+00	TO	161+10
STONEDUST	162+00	TO	165+50
PAVEMENT	165+50	TO	182+75

NOTE: ROADWAY CROSSING APPROACHES SHALL BE PAVED AS SHOWN ON THE CROSSING PLANS.



DETAIL A



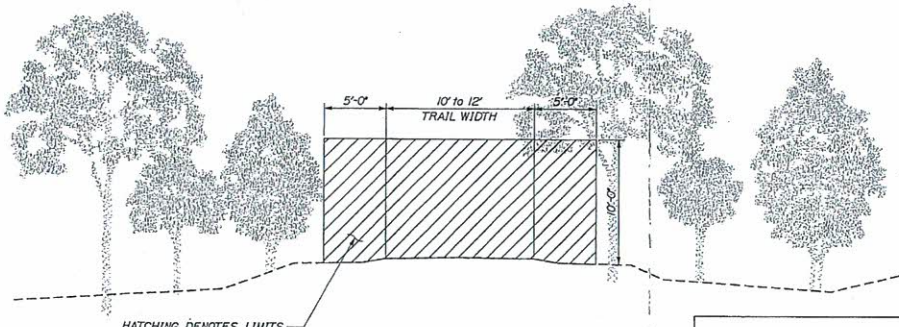
DETAIL B

TYPICAL SECTION NOTES:

1. SHOULDERS SHALL BE LOAMED AND SEEDED AFTER PLACEMENT OF THE TRAIL SURFACE.

2. FOR SWALE INVERT ELEVATIONS, SEE PROFILE DRAWINGS AND ELEVATION TABLES SHOWN ON THE PLANS.

3. FOR TYPICAL SECTION B, SEPARATION GEOTEXTILE FABRIC SHALL BE USED IN AREAS WHERE THE TRAIL PASSES THROUGH WET AREAS TO AVOID THE NEED FOR MUCK EXCAVATION. FINAL DETERMINATION OF PLACEMENT LOCATIONS WILL BE DETERMINED BY THE RESIDENT.



TYPICAL CLEARING LIMITS DETAIL

N.T.S

NOTE:
1. CONTRACTOR IS RESPONSIBLE FOR LIMBING OVERHANGING VEGETATION TO THE HEIGHT INDICATED ON THE DETAIL. PAYMENT WILL BE UNDER ITEM 201.12, SELECTIVE CLEARING AND THINNING.

FINAL PIC
OCTOBER 26, 2018

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-1942600 & STP-1942610

WIN
19426.00 & 019426.10 HIGHWAY PLANS

		BY	DATE
PROJ. MANAGER	T. COTE		
DESIGN-DETAILED	C.MINGS		
CHECKED-REVIEWED	L. DRISCOLL	J. OLIVO	
DESIGN-DETAILED2	J. OLIVO	-	-
DESIGN-DETAILED3	-	-	-
REVISIONS 1	-	-	-
REVISIONS 2	-	-	-
REVISIONS 3	-	-	-
REVISIONS 4	-	-	-
FIELD CHANGES	-	-	-

SIGNATURE

P.E. NUMBER

DATE

TOWN OF SCARBOROUGH
EASTERN TRAIL CONNECTOR
SCARBOROUGH TO SOUTH PORTLAND, MAINE

TRAIL TYPICAL SECTIONS

SHEET NUMBER
3
OF 43

PROJ. MANAGER	T. COTE		
DESIGN-DETAILED	CHRISTIE		
CHECKED-REVIEWED	L. DRISCOLL	J. OLIND	
DESIGNED-DETAILED	J. OLIND	-	
REVISIONS 1	-		
REVISIONS 2	-		
REVISIONS 3	-		
REVISIONS 4	-		
FIELD CHANGES	-		

DATE	-	
P.E. NUMBER	-	
	-	-
SIGNATURE	-	
		J. OLIND
DATE	09\18	BY

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-19426\00 & STP-19426\10

WIN
19426.00 & 019426.10 HIGHWAY PLANS

BORING LOGS

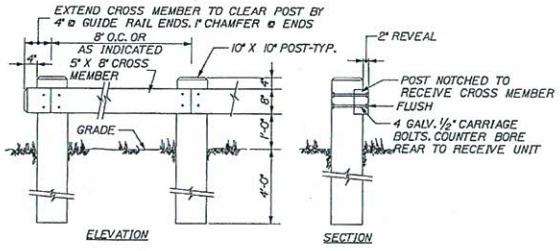
TOWN OF SCARBOROUGH
EASTERN TRAIL CONNECTOR
SCARBOROUGH TO SOUTH PORTLAND, MAINE

SHEET NUMBER 4 OF 43

FINAL PIC
OCTOBER 26, 2018

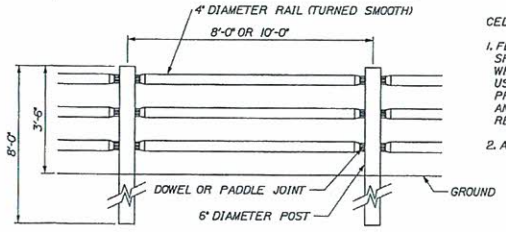
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FINAL PIC
OCTOBER 26, 2018



NOTES:
1. ALL WOOD IS TO BE PRESSURE TREATED ACQ TIMBERS.

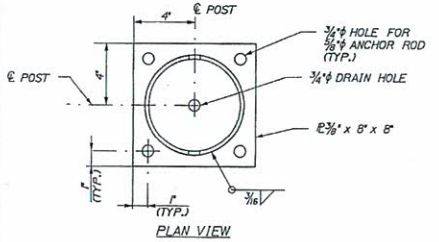
TIMBER GUARDRAIL
N.T.S.



CEDAR RAIL FENCE NOTES:

1. FENCE SHALL BE INSTALLED IN THE SHOULDER WHERE NOTED ON PLANS OR WHERE DIRECTED BY THE RESIDENT. USE OF FENCE IS INTENDED FOR PROTECTION OF SLOPES 2:1 OR GREATER AND HIGHER THAN 5' IN HEIGHT AND TO RESTRICT ACCESS WHERE NECESSARY.
2. ALL WOOD IS TO BE WHITE CEDAR.

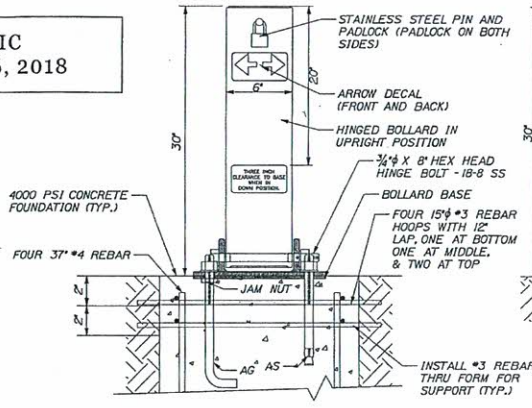
CEDAR RAIL FENCE
N.T.S.



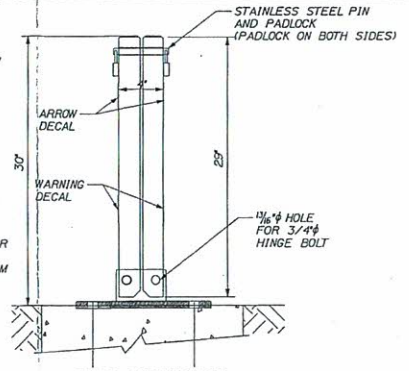
CEDAR RAIL FENCE POST ANCHORAGE NOTES:

1. ANCHORAGES FOR CEDAR RAIL FENCE SHALL BE USED WHERE EXISTING CONCRETE OR GRANITE CULVERTS LIMIT RAIL POST EMBEDMENT TO THREE FEET OR LESS.
2. STEEL PLATE SHALL CONFORM TO ASTM A36. STEEL PIPE SHALL CONFORM TO ASTM A500, CLASS B.
3. BOLTS FOR SECURING RAILING POSTS TO ANCHORAGE SHALL BE 5/8" DIAMETER CONFORMING TO ASTM A307 OR ASME B18.2.1, GRADE 5. ANCHOR RODS SHALL CONFORM TO ASTM F1554, GRADE 55.
4. ALL ASSEMBLIES AND HARDWARE SHALL BE HOT DIP GALVANIZED IN ACCORDANCE WITH ASTM A153 AND ASTM A123 AS APPLICABLE.
5. ANCHOR RODS SHALL BE DRILLED AND GROUTED INTO THE EXISTING CONCRETE USING A MATERIAL LISTED ON THE MAINEDOT QUALIFIED PRODUCTS LIST OF EPOXY ANCHORING MATERIALS. THE DEPTH OF EMBEDMENT SHALL BE SUFFICIENT TO DEVELOP THE FULL YIELD STRENGTH OF THE ROD.
6. ANCHORAGES SHALL BE SHIMMED AS NEEDED TO ALLOW THE RAILING POST TO BE INSTALLED PLUMB.
7. THE FABRICATION AND INSTALLATION OF ANCHORAGES, DRILLING AND GROUTING ANCHOR RODS, SHIMMING, AND INSTALLING FENCE POSTS SHALL BE INCIDENTAL TO THE CEDAR RAIL FENCE PAY ITEM.

CEDAR RAIL FENCE POST ANCHORAGE DETAIL
N.T.S.



FRONT ELEVATION
N.T.S.



SIDE ELEVATION
N.T.S.

COLLAPSABLE BOLLARD NOTE:

DOUBLE HINGED COLLAPSIBLE BOLLARDS AS MANUFACTURED BY:

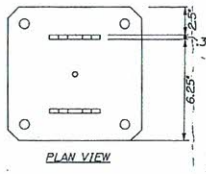
TRAFFIC GUARD LLC MODEL #DHB

CHOICE OF ANCHORAGE SYSTEMS:

"A5" - 3/4"ϕ X 10" EXPANSION ANCHOR ASTM SS316 HILTI KWIK BOLT II CATALOG #00045490 WITH HEX HEAD NUT AND TYPE "A" FLAT WASHER. INSTALL PER SPECIFICATION AND AS NOTED.

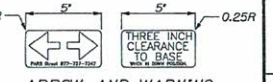
"A5" - 3"#4"ϕ X 12" ASTM A36 L-HOOK ANCHOR BOLT WITH HEX HEAD NUT AND TYPE "A" FLAT WASHER, ALL H.D. GALVANIZED. INSTALL PER SPECIFICATION AND AS NOTED.

OR APPROVED EQUAL

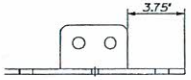


PLAN VIEW

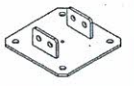
COLLAPSIBLE BOLLARD DETAIL
N.T.S.



ARROW AND WARNING DECALS
N.T.S.

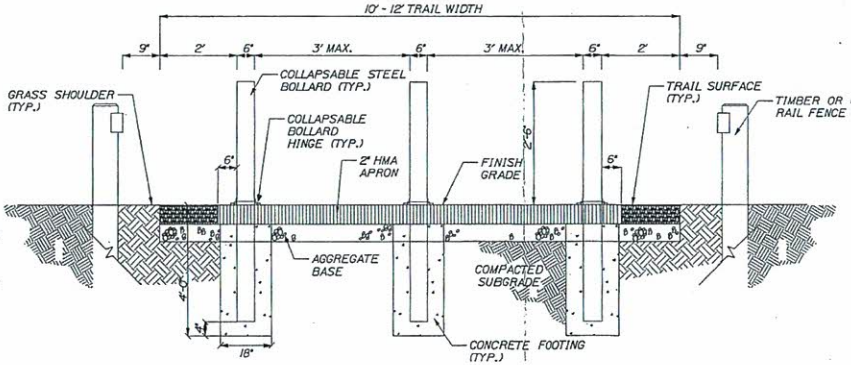


ELEVATION VIEW



ISOMETRIC VIEW

BASE
N.T.S.



COLLAPSIBLE BOLLARDS
N.T.S.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
STP-1942600 & STP-1942610
WIN
19426.00 & 019426.10 HIGHWAY PLANS

	T. COTE	BT	DATE	SIGNATURE
PROJ. MANAGER			09/18	
DESIGN-DETAILED	C.HINKLE			
DESIGN-DETAILED1	J. QUAD		-	-
DESIGN-DETAILED2	J. QUAD		-	-
DESIGN-DETAILED3	-		-	-
REVISIONS 1	-		-	-
REVISIONS 2	-		-	-
REVISIONS 3	-		-	-
REVISIONS 4	-		-	-
FIELD CHANGES	-		-	-

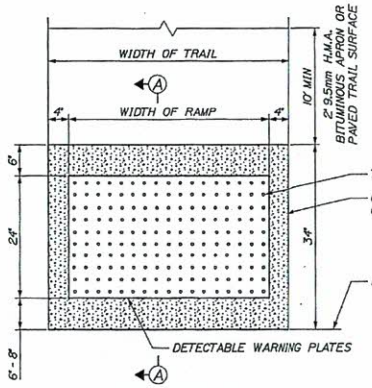
P.E. NUMBER
DATE

TOWN OF SCARBOROUGH
EASTERN TRAIL CONNECTOR
SCARBOROUGH TO SOUTH PORTLAND, MAINE

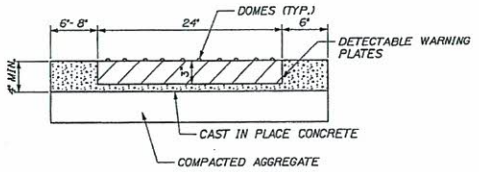
TRAIL DETAILS I

SHEET NUMBER
5
OF 43

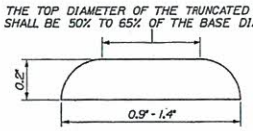
FINAL PIC
OCTOBER 26, 2018



PLAN VIEW OF
DETECTABLE WARNING AND WELL



SECTION A-A



ELEVATION VIEW OF
TRUNCATED DOME

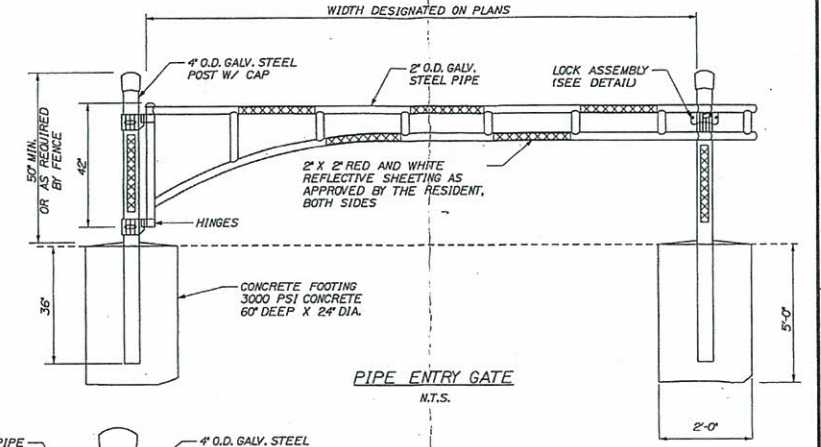
NOTE:
1. ALL DETECTABLE WARNING AREAS SHALL START 6' FROM THE FLOW LINE OF THE CURB AND BE 24" IN DEPTH AND COVER THE COMPLETE WIDTH OF THE TRAIL.

2. DETECTABLE WARNINGS REQUIRED AT STREET CROSSINGS.

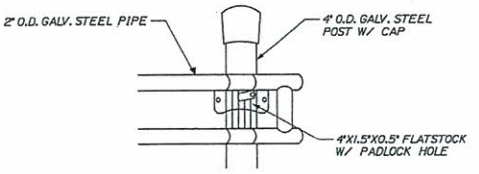
3. SEE SPECIAL PROVISION 608, CURB RAMP DETECTABLE WARNING FIELD FOR CONSTRUCTION REQUIREMENTS.

4. DOMES SHALL BE EQUALLY SPACED IN BOTH DIRECTIONS 1.6' TO 2.4'.

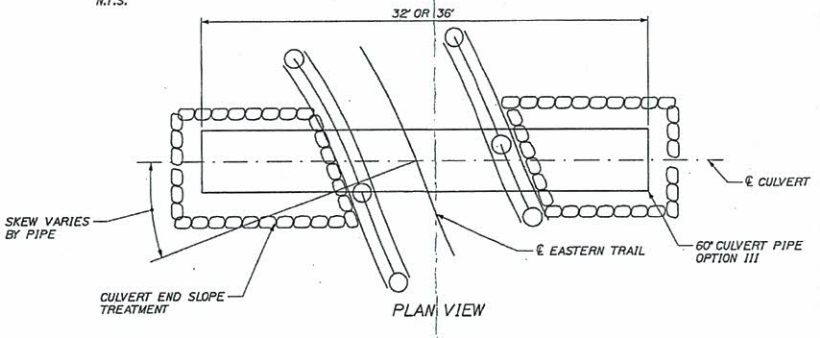
DETECTABLE WARNING FIELD DETAILS
N.T.S.



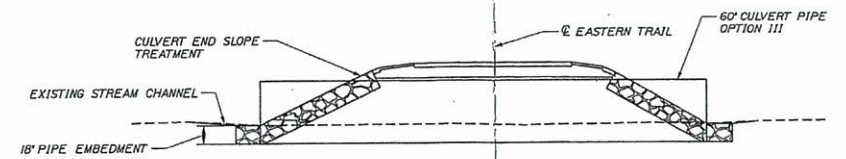
PIPE ENTRY GATE
N.T.S.



LOCK ASSEMBLY
N.T.S.



PLAN VIEW



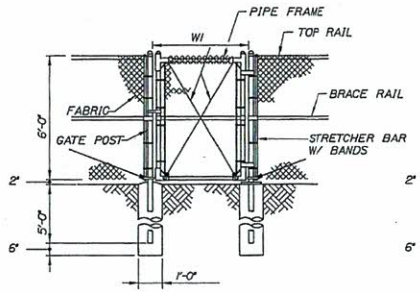
SECTION VIEW

STREAM CROSSING DETAIL

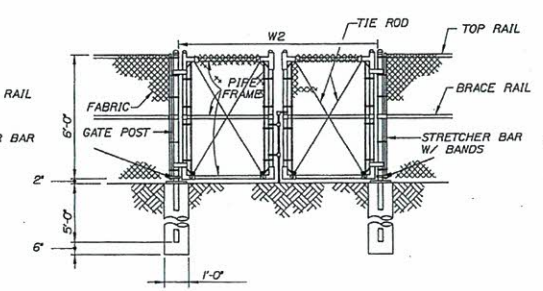
STREAM CROSSING NOTES:
1. THE LOCATIONS OF THE STREAM CROSSINGS ARE:

STATION 162+92 (52' SKEW)
STATION 174+25
STATION 175+58 (70' SKEW)
STATION 176+26 (74' SKEW)

2. CULVERT END SLOPE TREATMENT SHALL BE INSTALLED ACCORDING TO MAINEDOT STANDARD DETAIL 802(05)



SINGLE GATE



DOUBLE GATE

GATE WIDTH		GATE POST O.D.
W1	W2	
TO 6'	TO 12'	3"
6' TO 12'	12' TO 24'	4"
12' TO 18'	24' TO 36'	6"

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
STP-1942600 & STP-1942610
WIN
19426.00 & 019426.10 HIGHWAY PLANS

PROJ. MANAGER	T. COTE	BY	DATE	
DESIGN-DETAILED	C.Hinds		09'18	SIGNATURE
CHECKED-REVIEWED	L. DRISCOLL	J. OLIVO		
DESIGN-DETAILED2	J. OLIVO	-	-	P.E. NUMBER
DESIGN-DETAILED3	-	-	-	
REVISIONS 1	-	-	-	
REVISIONS 2	-	-	-	
REVISIONS 3	-	-	-	DATE
REVISIONS 4	-	-	-	
FIELD CHANGES	-	-	-	

TOWN OF SCARBOROUGH
EASTERN TRAIL CONNECTOR
SCARBOROUGH TO SOUTH PORTLAND, MAINE

TRAIL DETAILS II

SHEET NUMBER
6
OF 43

REGULATORY SIGNS

SIGN DESIGNATION		(A)	(B)
SIGN NUMBER		R1-1	R5-3
LEGEND		STOP	NO MOTOR VEHICLES
COLOR	BACKGROUND	RED	WHITE
	COPY	WHITE	BLACK
SIGN DIMENSION	WIDTH, INCHES	18	24
	HEIGHT, INCHES	18	24
AREA PER SIGN (SF)		2.25	4
NUMBER OF SIGNS		8	8
TOTAL AREA (SF)		18	32

GUIDE SIGNS

SIGN DESIGNATION		(C)	(D)
SIGN NUMBER		D11-1	M7-5
LEGEND		ET EastDust Gateway	
COLOR	BACKGROUND	TO BE SUPPLIED BY ETMD	GREEN
	COPY		WHITE
SIGN DIMENSION	WIDTH, INCHES		12
	HEIGHT, INCHES		9
AREA PER SIGN (SF)			0.75
NUMBER OF SIGNS		9	3
TOTAL AREA (SF)			2.25

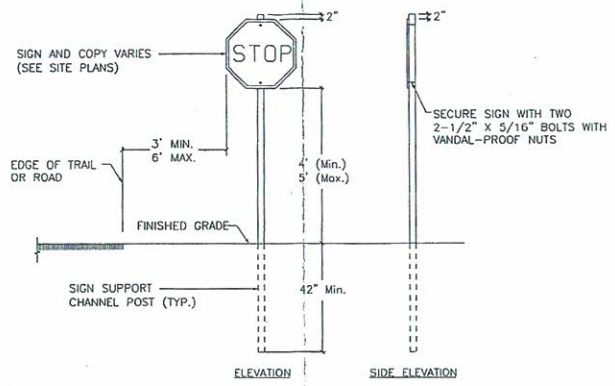
WARNING SIGNS

SIGN DESIGNATION		(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)
SIGN NUMBER		W11-15	W16-7pL	W7-5	W3-1	W1-2R	W1-2L	W1-3R	W1-3L
LEGEND									
COLOR	BACKGROUND	YELLOW	YELLOW	YELLOW	YELLOW	YELLOW	YELLOW	YELLOW	YELLOW
	COPY	BLACK	BLACK	BLACK	BLACK	BLACK	BLACK	BLACK	BLACK
SIGN DIMENSION	WIDTH, INCHES	30	24	18	18	18	18	18	18
	HEIGHT, INCHES	30	12	18	18	18	18	18	18
AREA PER SIGN (SF)		6.25	2	2.25	2.25	2.25	2.25	2.25	2.25
NUMBER OF SIGNS		8	8	3	1	3	2	4	2
TOTAL AREA (SF)		50	16	6.75	2.25	6.75	5	10	5

NOTES:
1. ALL SIGNS SHALL BE TYPE 1. REFER TO SECTION 645 FOR NUMBER AND TYPE.

2. THE ORDER SHALL BE AS NOTED ON THE PLANS.

3. SIGN POSTS WITHIN 10' OF A LOCAL ROAD SHALL BE COMPLIANT WITH BREAKAWAY STANDARDS.



TRAIL SIGN
N.T.S.

FINAL PIC
OCTOBER 26, 2018

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-1942600 & STP-1942610

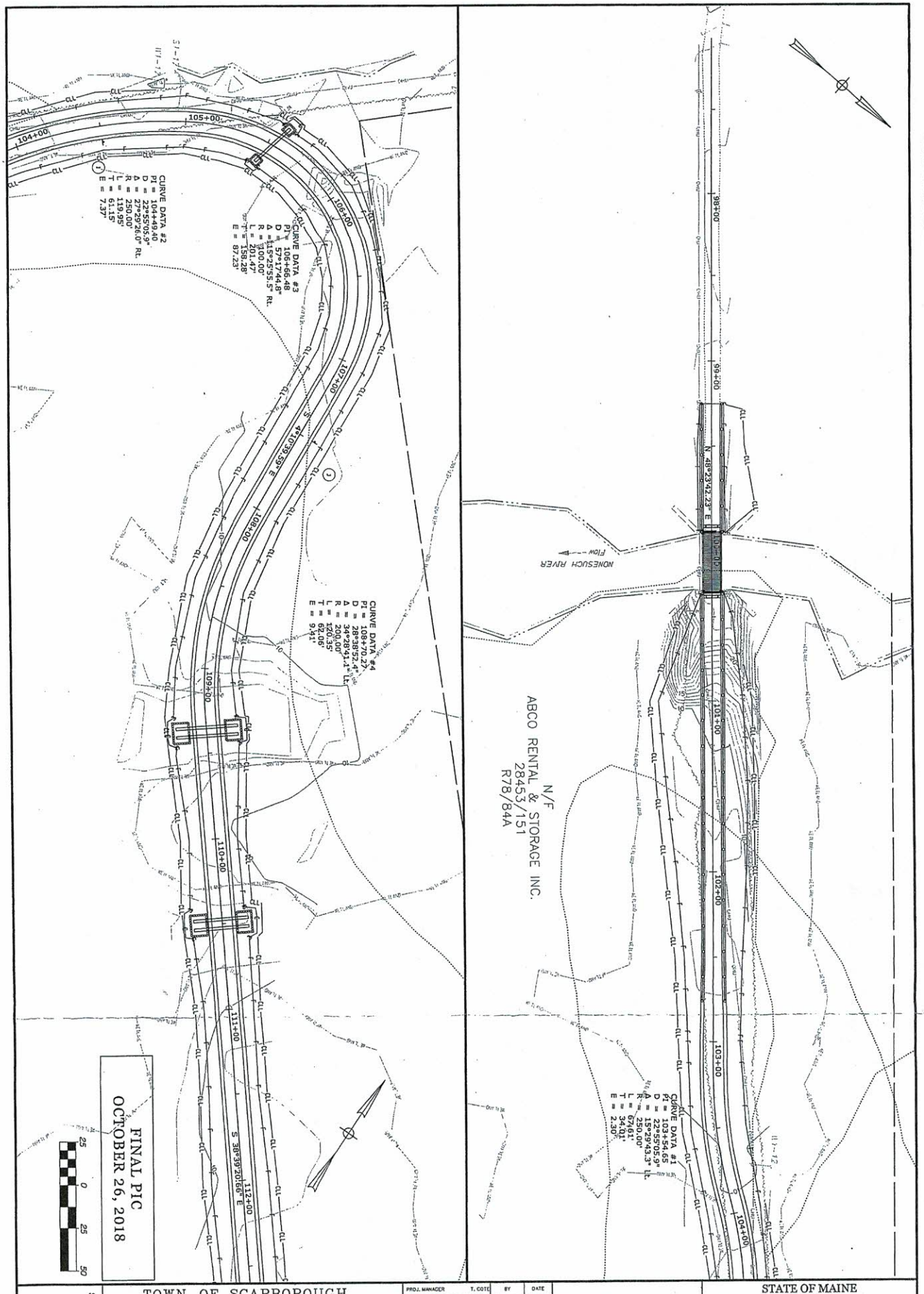
WIN
19426.00 & 019426.10 HIGHWAY PLANS

PROJ. MANAGER	T. COTE	BY	DATE	
DESIGN-DETAILED	C.Mitnick		09/18	SIGNATURE
DESIGN-DETAILED2	T. RUSSELL	J. DUMO	-	-
DESIGN-DETAILED3	L. DUMO	-	-	P.E. NUMBER
DESIGN-DETAILED4	-	-	-	-
REVISIONS 1	-	-	-	-
REVISIONS 2	-	-	-	DATE
REVISIONS 3	-	-	-	-
REVISIONS 4	-	-	-	-
FIELD CHANGES	-	-	-	-

TOWN OF SCARBOROUGH
EASTERN TRAIL CONNECTOR
SCARBOROUGH TO SOUTH PORTLAND, MAINE

SIGN DETAILS AND SUMMARY

SHEET NUMBER
7
OF 43



TOWN OF SCARBOROUGH
EASTERN TRAIL CONNECTOR
SCARBOROUGH TO SOUTH PORTLAND, MAINE

TRAIL PLAN 1

PROJ. MANAGER	T. COTE	BY	DATE
DESIGN-DETAILED	C.Helmick		09\18
CHECKED-REVIEWED	L. DRISCOLL	J. OLUND	-
DESIGN2-DETAILED2	J. OLUND	-	-
DESIGN3-DETAILED3	-	-	-
REVISIONS 1	-		-
REVISIONS 2	-		-
REVISIONS 3	-		-
REVISIONS 4	-		-
FIELD CHANGES	-		-

SIGNATURE

P.E. NUMBER

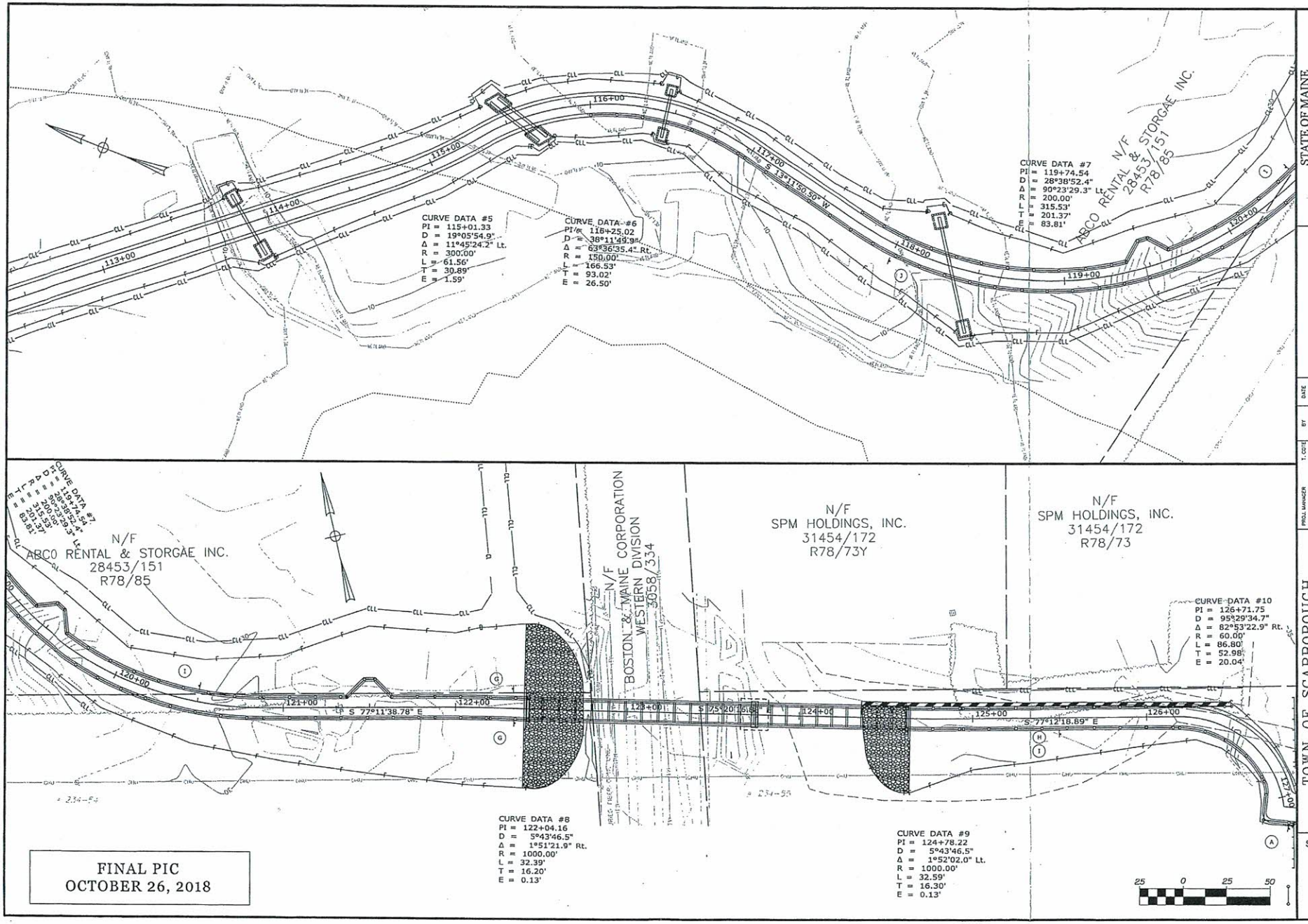
DATE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-1942600 & STP-1942610

WIN
19426.00 & 019426.10 HIGHWAY PLANS

SHEET NUMBER 8 OF 43



FINAL PIC
OCTOBER 26, 2018

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-1942600 & STP-1942610

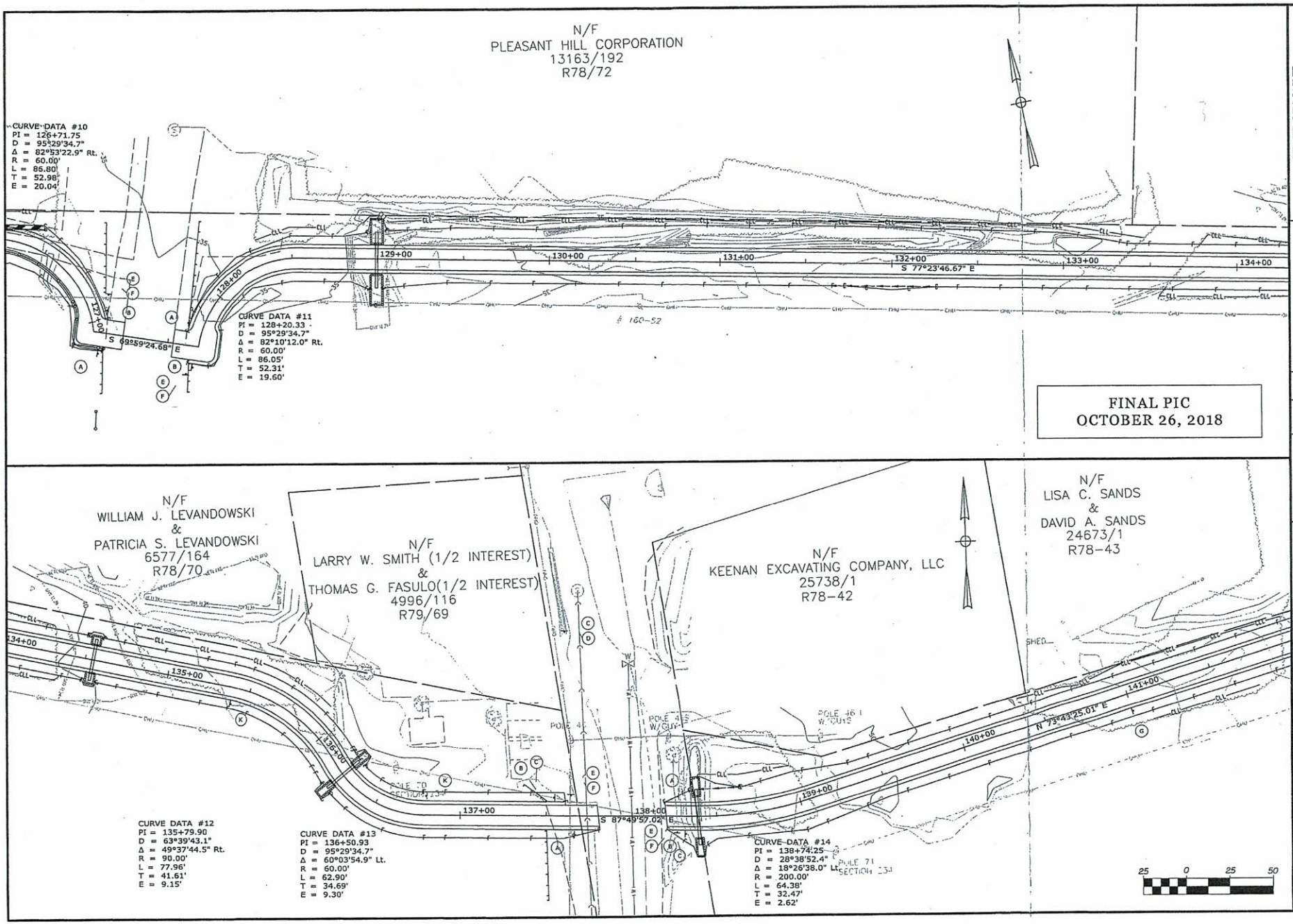
WIN
19426.00 & 019426.10 HIGHWAY PLANS

PROJ. MANAGER	T. COTE	BY	DATE	
DESIGN-DETAILED	C.Patrick		09/18	SIGNATURE
CHECKED-REVIEWED	L. DRISCOLL	J. OLIND	-	
DESIGN-DETAILED2	J. OLIND	-	-	P.E. NUMBER
DESIGN-DETAILED3	-	-	-	
REVISIONS 1	-	-	-	
REVISIONS 2	-	-	-	DATE
REVISIONS 3	-	-	-	
REVISIONS 4	-	-	-	
FIELD CHANGES	-	-	-	

TOWN OF SCARBOROUGH
EASTERN TRAIL CONNECTOR
SCARBOROUGH TO SOUTH PORTLAND, MAINE

TRAIL PLAN 2

SHEET NUMBER
9
OF 43



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-1942600 & STP-1942610

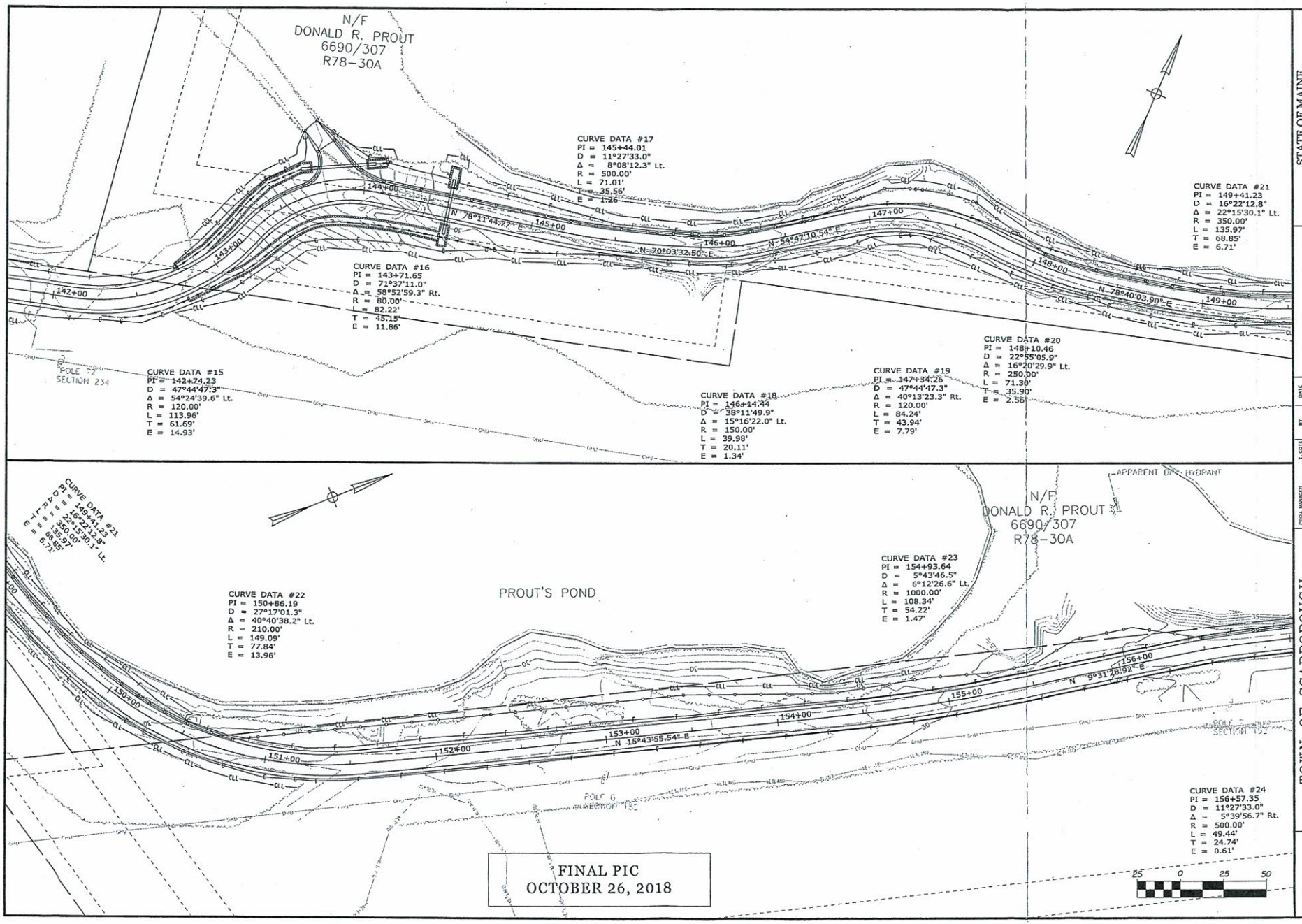
WIN
19426.00 & 019426.10 HIGHWAY PLANS

PROJ. MANAGER	T. COTE	BY	DATE	
DESIGN-DETAILED	CHHeb		09\18	
CHECKED-REVIEWED	L. DISCOLL	J. OLIVO		SIGNATURE
DESIGN-DETAILED	J. OLIVO	-	-	
REVISIONS 1	-	-	-	P.E. NUMBER
REVISIONS 2	-	-	-	
REVISIONS 3	-	-	-	
REVISIONS 4	-	-	-	DATE
FIELD CHANGES	-	-	-	

TOWN OF SCARBOROUGH
EASTERN TRAIL CONNECTOR
SCARBOROUGH TO SOUTH PORTLAND, MAINE

TRAIL PLAN 3

SHEET NUMBER
10
OF 43



FINAL PIC
OCTOBER 26, 2018

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-1942600 & STP-1942610

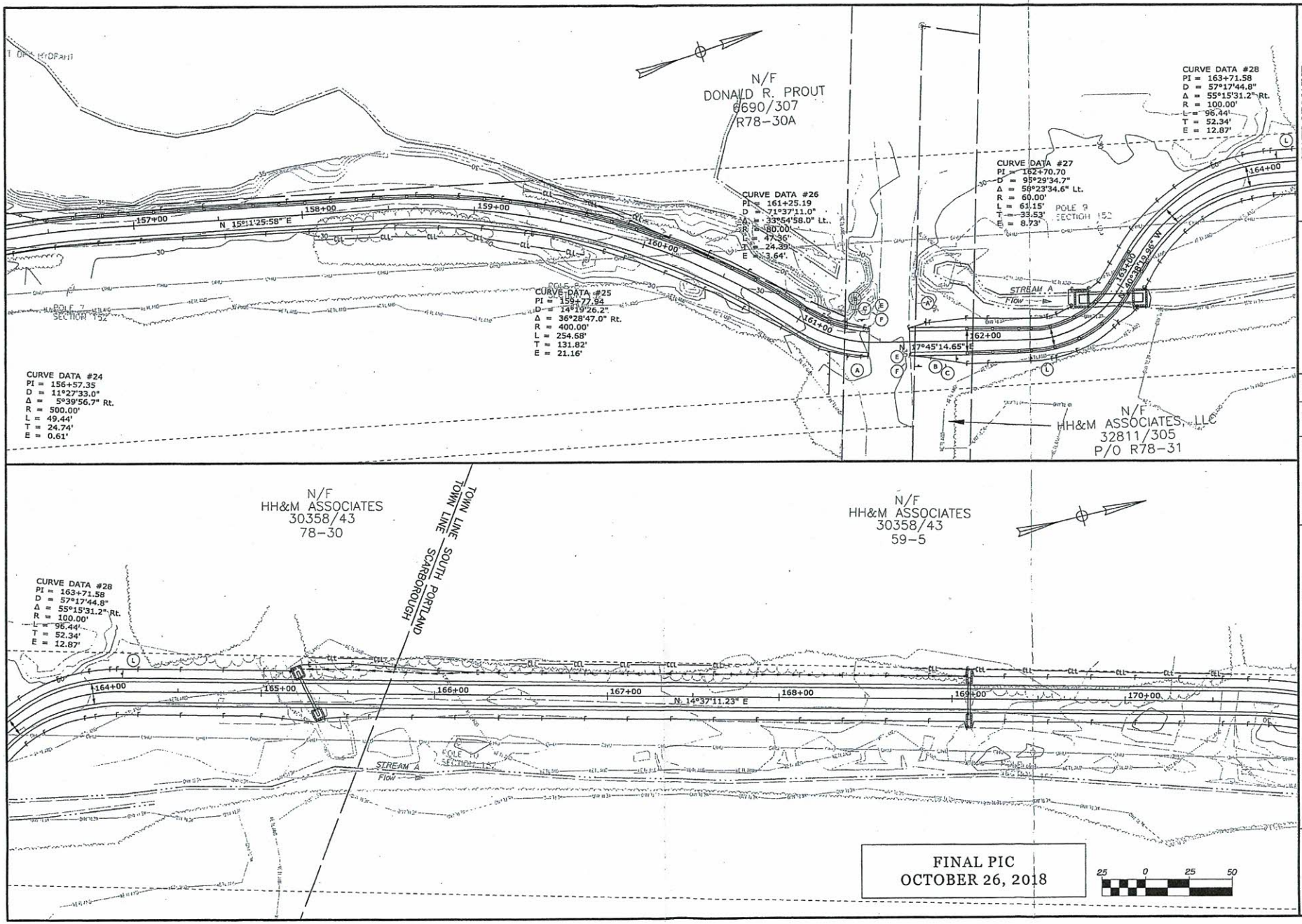
WIN
19426.00 & 019426.10 HIGHWAY PLANS

PROJ. MANAGER	T. COTE	BY	DATE
DESIGN-DETAILED	C.HERRICK	DWB	
DESIGN-DETAILED	C.HERRICK	J. RUBO	- - SIGNATURE
DESIGN-DETAILED	J. RUBO	-	- -
DESIGN-DETAILED	-	-	- - P.E. NUMBER
REVISIONS 1	-	-	- -
REVISIONS 2	-	-	- -
REVISIONS 3	-	-	- - DATE
FIELD CHANGES	-	-	- -

TOWN OF SCARBOROUGH
EASTERN TRAIL CONNECTOR
SCARBOROUGH TO SOUTH PORTLAND, MAINE

TRAIL PLAN 4

SHEET NUMBER
11
OF 43



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-1942600 & STP-1942610

WIN
19426.00 & 019426.10 HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER	T. COTE	
DESIGN-DETAILED	C.Minnick	09/18
CHECKED-REVIEWED	L.BISSELL	J. CLUKEY
DESIGN-DETAILED	J. CLUKEY	-
CHECKED-REVIEWED	-	-
REVISIONS 1	-	-
REVISIONS 2	-	-
REVISIONS 3	-	-
REVISIONS 4	-	-
FIELD CHANGES	-	-

SIGNATURE

P.E. NUMBER

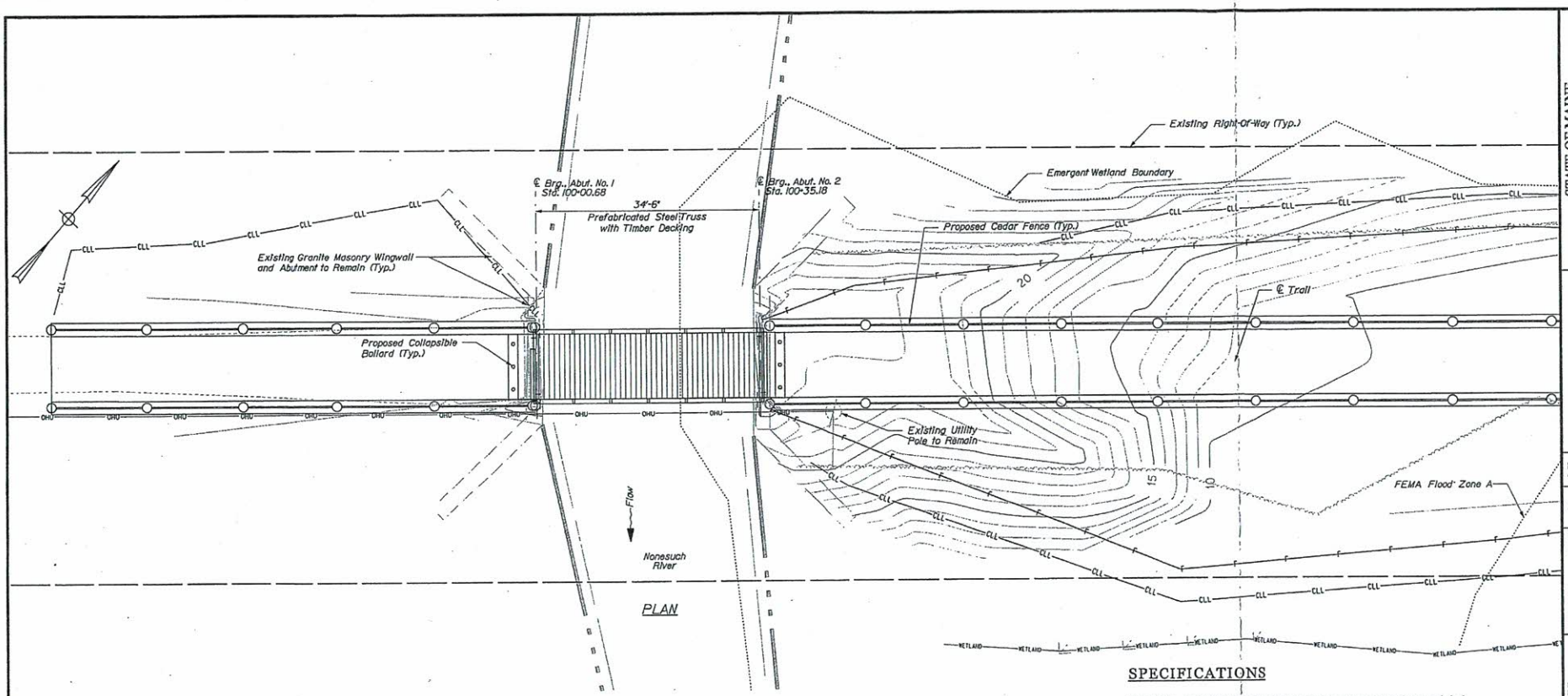
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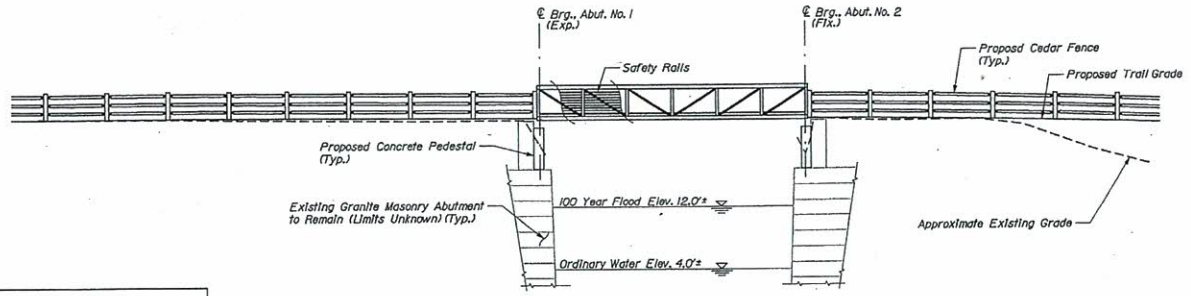
TOWN OF SCARBOROUGH
EASTERN TRAIL CONNECTOR
SCARBOROUGH TO SOUTH PORTLAND, MAINE

TRAIL PLAN 5

SHEET NUMBER
12
OF 43

TOWN OF SCARBOROUGH
EASTERN TRAIL CONNECTOR
SCARBOROUGH TO SOUTH PORTLAND, MAINE
TRAIL PLAN 6
SHEET NUMBER 13 OF 43
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
STP-1942600 & STP-1942610
WIN 19426.00 & 019426.10 HIGHWAY PLANS
FINAL PIC
OCTOBER 26, 2018
N/F
HH&M ASSOCIATES
30358/43
60-3
N/F
CITY OF SOUTH PORTLAND
14483/294
56-4D
PAVED DRIVE
PAVED PARKING
STREAM A
STREAM B
STREAM C
TYPICAL SECTION A
TYPICAL SECTION B
TYPICAL SECTION C
CURVE DATA #29
CURVE DATA #30
CURVE DATA #31
CURVE DATA #32
CURVE DATA #33
CURVE DATA #34
CURVE DATA #35
CURVE DATA #36





SPECIFICATIONS

DESIGN: AASHTO LRFD Bridge Design Specifications, Eighth Edition 2017.

AASHTO LRFD Guide Specification for Design of Pedestrian Bridges and Interim Specifications through 2015.

DESIGN LOADING

Live Load: 90 p.s.f. (Pedestrian only) or H10 vehicle

MATERIALS

Concrete (Unless noted otherwise) ..... Class "A"
Reinforcing Steel ..... ASTM A615, Grade 60
Structural Steel ..... ASTM A709, Grade 50W (Unpainted)
Timber ..... Southern Yellow Pine, No. 1

BASIC DESIGN STRESSES

Concrete, Class "A" ..... f'c = 4,000 psi
Reinforcing Steel, ASTM A615, Grade 60 ..... fy = 60,000 psi
Structural Steel:
ASTM A709, Grade 50W ..... Fy = 50,000 psi
ASTM F3125, Grade A325, Type 3 ..... Fu = 120,000 psi

UTILITIES

Central Maine Power

FINAL PIC
OCTOBER 26, 2018

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-1942600 & STP-1942610

WIN
19426.00 & 019426.10 BRIDGE PLANS

PROJ. MANAGER	T. COTE	BY	DATE	
DESIGNED-DETAILED	BJO	FEB	09/18	SIGNATURE
CHECKED-REVIEWED	GLS	AJS	09/18	
DESIGN-DETAILED	J. OLIND	-	-	P.E. NUMBER
DESIGN-DETAILED	-	-	-	
REVISIONS 1	-	-	-	DATE
REVISIONS 2	-	-	-	
REVISIONS 3	-	-	-	
REVISIONS 4	-	-	-	
FIELD CHANGES	-	-	-	

TOWN OF SCARBOROUGH
EASTERN TRAIL CONNECTOR
SCARBOROUGH TO SOUTH PORTLAND, MAINE

NONESUCH RIVER
PLAN & ELEVATION

SHEET NUMBER
14
OF 43

PREFABRICATED STEEL TRUSS NOTES:

1. All construction, handling, assembly, and installation of the Prefabricated Steel Truss shall be in accordance with Special Provisions 104 and 504, and in accordance with the manufacturers recommendations, as applicable.

2. No reductions in live load intensity shall be taken in the design of the Prefabricated Steel Truss.

3. Design and detailing of bridge superstructure, bearings, anchorages, and sliding plate expansion joints shall be completed by the bridge fabricator. Payment shall be considered incidental to Item 504.01, Prefabricated Steel Truss - Nonesuch River.

GENERAL CONSTRUCTION NOTES:

1. Plans for the existing bridge abutments are not available.

2. Adjustments shall be made by the Contractor to the bearing seat elevations to accommodate the actual superstructure dimensions. Adjustments outside the limits on the plans require approval by the Engineer.

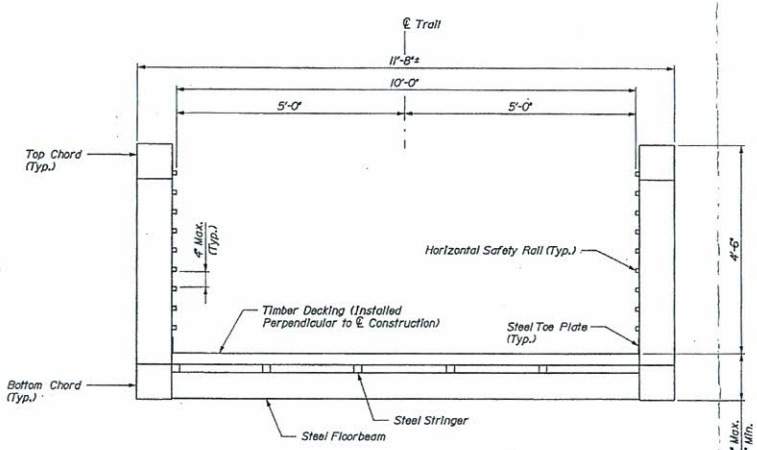
3. Existing abutment dimensions and locations provided on the Plans are approximate and shall be field verified and submitted by the Contractor prior to the start of construction and bridge fabrication.

4. All dimensions marked "±" are approximate or subject to change based on the fabricators bridge design. The Contractor shall plan and coordinate their work accordingly.

5. Fabrication, delivery, drilling and grouting, and placement of reinforcing steel shall be incidental to Item 502.21, Structural Concrete Abutments and Retaining Walls.

6. The proposed cedar fence rails shall extend over the backwall as needed to ensure a gap no larger than 4" exists between the approach fence and bridge safety rail. At the Contractors option, alternate means of achieving this result may be submitted for approval.

7. Warp trail surface to match proposed bridge surface.



PREFABRICATED STEEL TRUSS SECTION

FINAL PIC
OCTOBER 26, 2018

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-19426OO & STP-1942610

WIN
19426.00 & 019426.10 BRIDGE PLANS

	PROJ. MANAGER	T. COTE	BY	DATE
	DESIGN-DETAILED	JKD	FEB	09/18
	CHECKED-REVIEWED	QLS	ACS	09/18
	DESIGN-DETAILED	J. OLINO	-	-
	DESIGN-DETAILED	-	-	-
	REVISIONS 1	-	-	-
	REVISIONS 2	-	-	-
	REVISIONS 3	-	-	-
	REVISIONS 4	-	-	-
	FIELD CHANGES	-	-	-

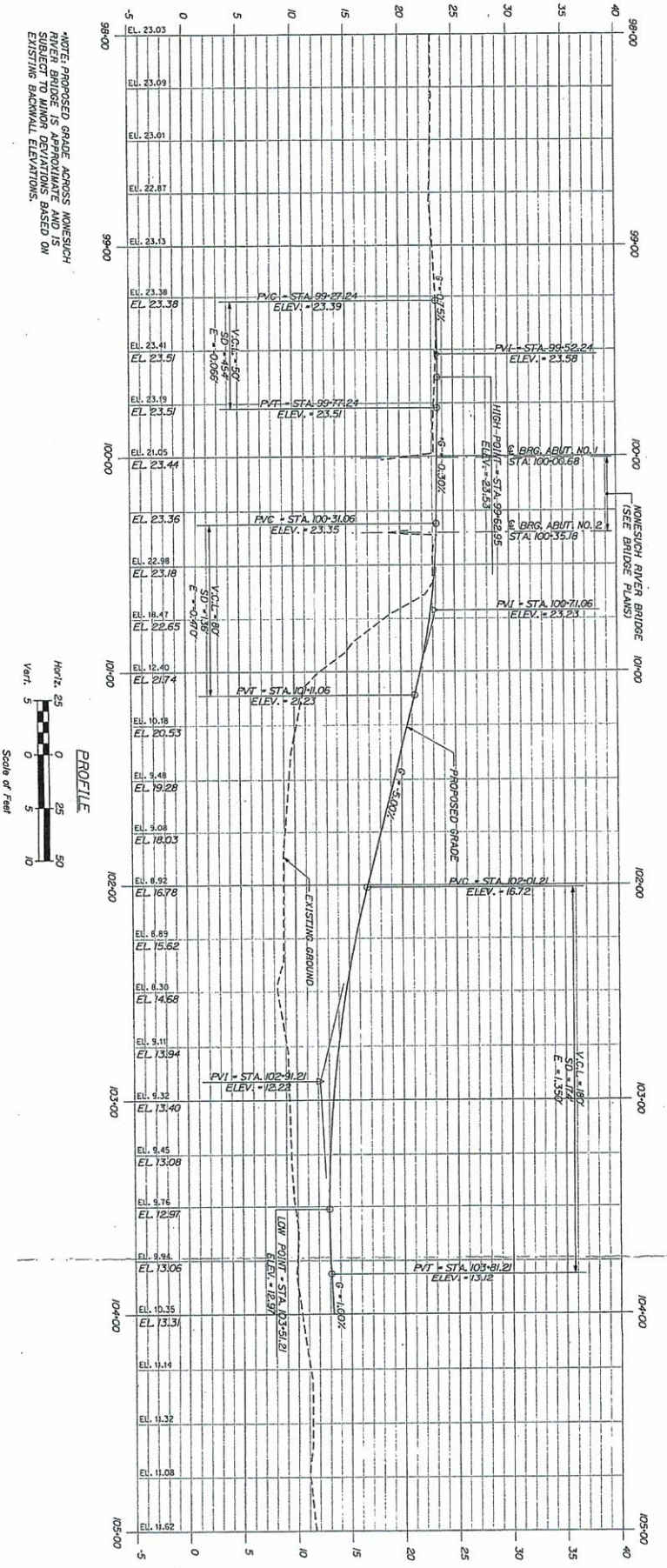
SIGNATURE

P.E. NUMBER

DATE

TOWN OF SCARBOROUGH
EASTERN TRAIL CONNECTOR
SCARBOROUGH TO SOUTH PORTLAND, MAINE
NONESUCH RIVER
GENERAL NOTES & DETAILS

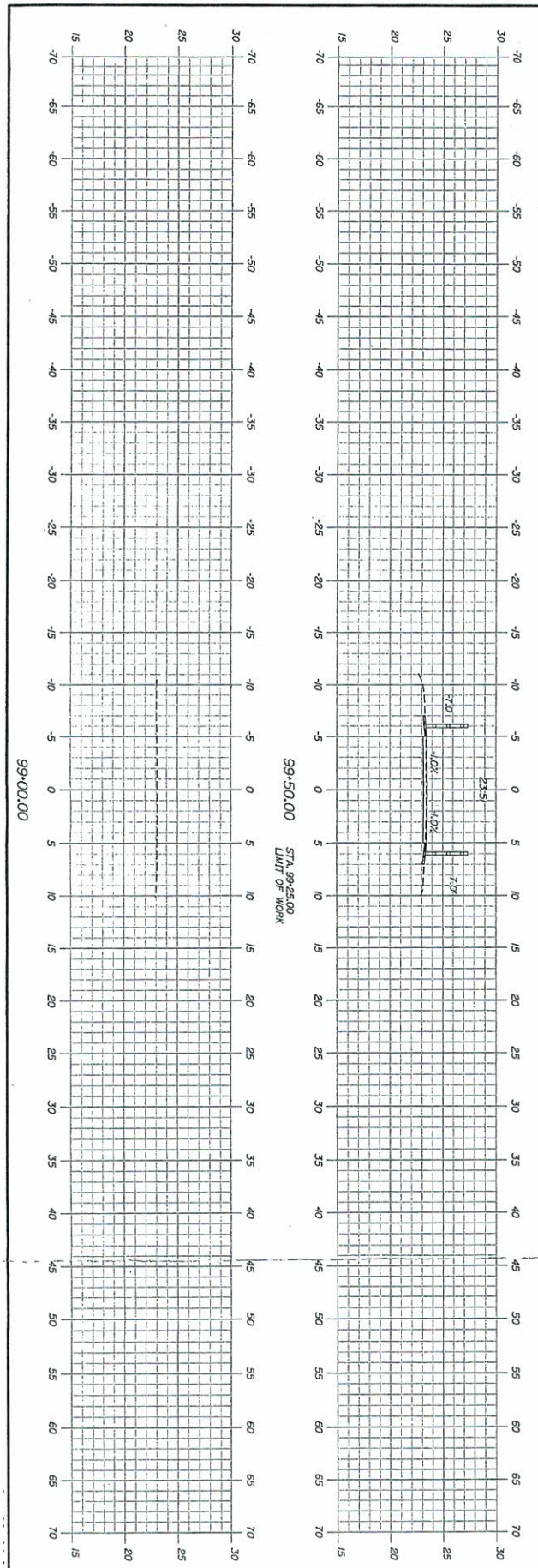
SHEET NUMBER
15
OF 43



FINAL PIC
OCTOBER 26, 2018

SHEET NUMBER 16 OF 43	TOWN OF SCARBOROUGH EASTERN TRAIL CONNECTOR SCARBOROUGH TO SOUTH PORTLAND, MAINE NONESUCH RIVER CROSSING PROFILE	PROJ. MANAGER T. COTE; BY; DATE DESIGN-DETAILED C.Helmick 09\18 CHECKED-REVIEWED L. DRISCOLL J. OLIVO DESIGN2-DETAILED2 J. OLIVO - - DESIGN3-DETAILED3 - - - REVISIONS 1 - - - REVISIONS 2 - - - REVISIONS 3 - - - REVISIONS 4 - - - FIELD CHANGES - - - SIGNATURE P.E. NUMBER DATE	STATE OF MAINE DEPARTMENT OF TRANSPORTATION STP-1942600 & STP-1942610 WIN 19426.00 & 019426.10 HIGHWAY PLANS

Filename- Asect_Nonesuch.dgn Division- Username- Date-10/26/2018



FINAL PIC
OCTOBER 26, 2018

TOWN OF SCARBOROUGH
EASTERN TRAIL CONNECTOR
SCARBOROUGH TO SOUTH PORTLAND, MAINE

NONESUCH RIVER CROSSING
CROSS SECTIONS

	T. COTE	BY	DATE
PROJ. MANAGER			
DESIGN-DETAILED	C.Helmick		09\18
CHECKED-REVIEWED	L. DRISCOLL	J. OLUND	-
DESIGN2-DETAILED2	J. OLUND	-	-
DESIGN3-DETAILED3	-	-	-
REVISIONS 1	-		-
REVISIONS 2	-		-
REVISIONS 3	-		-
REVISIONS 4	-		-
FIELD CHANGES	-		-

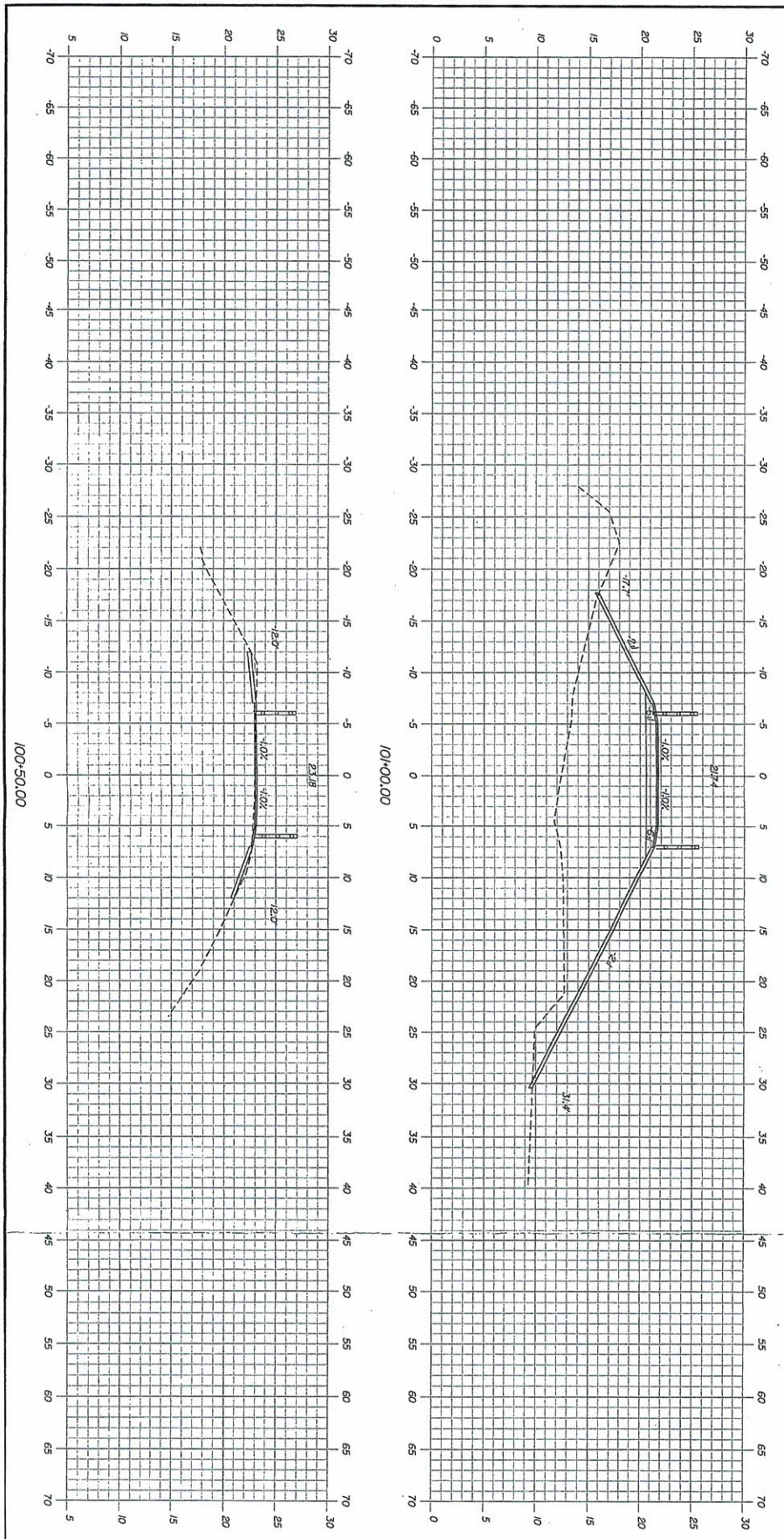
SIGNATURE
P.E. NUMBER
DATE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-1942600 & STP-1942610

WIN
19426.00 & 019426.10 HIGHWAY PLANS

SHEET NUMBER 17 OF 43



FINAL PIC
OCTOBER 26, 2018

TOWN OF SCARBOROUGH
EASTERN TRAIL CONNECTOR
SCARBOROUGH TO SOUTH PORTLAND, MAINE

NONESUCH RIVER CROSSING
CROSS SECTIONS

	PROJ. MANAGER	T. COTE	BY	DATE
DESIGN-DETAILED	C.Hetrick			09\18
CHECKED-REVIEWED	L. DRISCOLL	J. OLUND		
DESIGN2-DETAILED2	J. OLUND	-	-	-
DESIGN3-DETAILED3	-	-	-	-
REVISIONS 1	-		-	-
REVISIONS 2	-		-	-
REVISIONS 3	-		-	-
REVISIONS 4	-		-	-
FIELD CHANGES	-		-	-

SIGNATURE

P.E. NUMBER

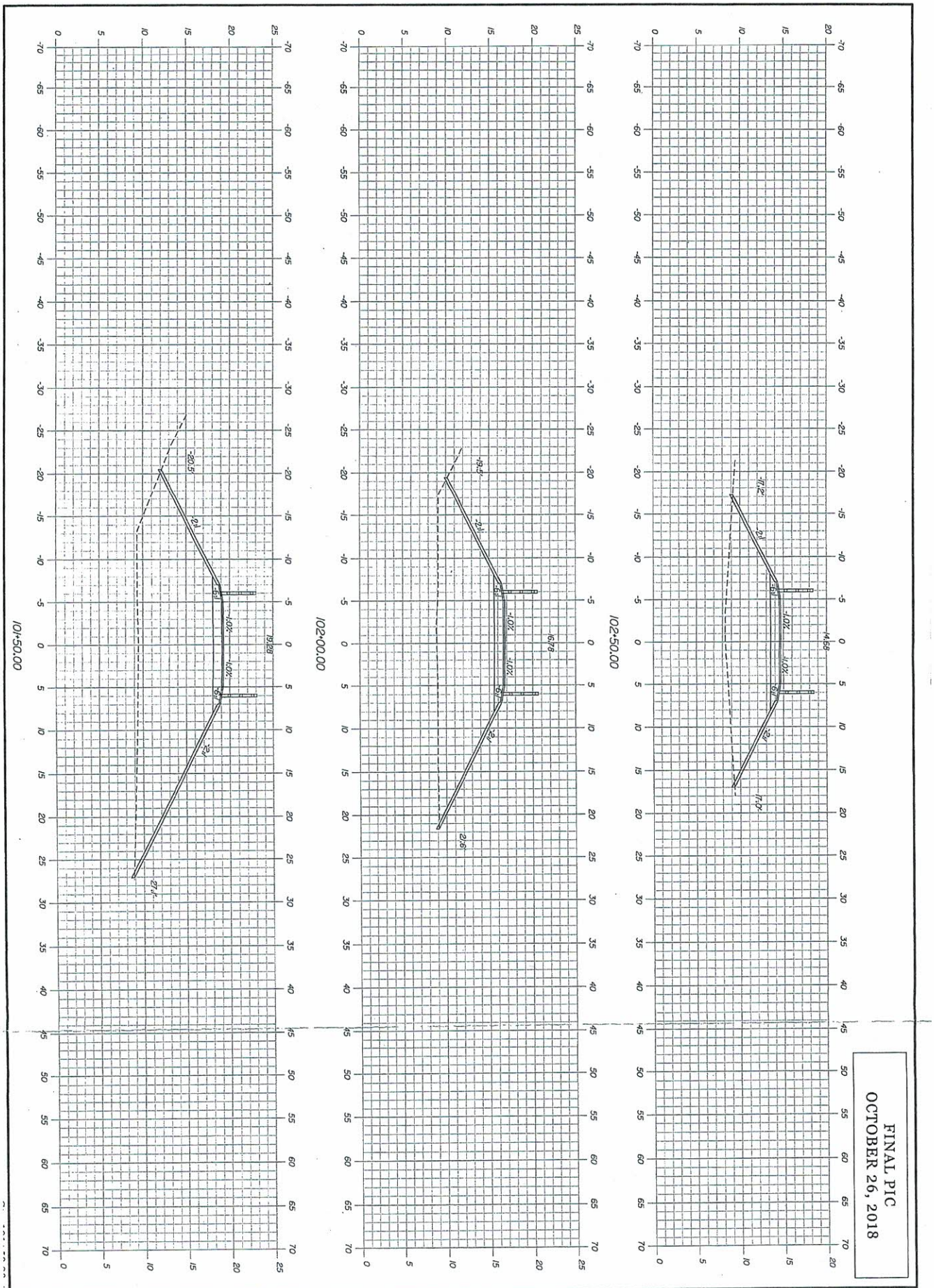
DATE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-1942600 & STP-1942610

WIN
19426.00 & 019426.10 HIGHWAY PLANS

SHEET NUMBER 18 OF 43



FINAL PIC
OCTOBER 26, 2018

PROJ. MANAGER	T. COTE	BY	DATE
DESIGN-DETAILED	C.Helmick		09\18
CHECKED-REVIEWED	L. DRISCOLL	J. OLUND	
DESIGN2-DETAILED2	J. OLUND	-	-
DESIGN3-DETAILED3	-	-	-
REVISIONS 1	-		-
REVISIONS 2	-		-
REVISIONS 3	-		-
REVISIONS 4	-		-
FIELD CHANGES	-		-

SIGNATURE

P.E. NUMBER

DATE

TOWN OF SCARBOROUGH
EASTERN TRAIL CONNECTOR
SCARBOROUGH TO SOUTH PORTLAND, MAINE

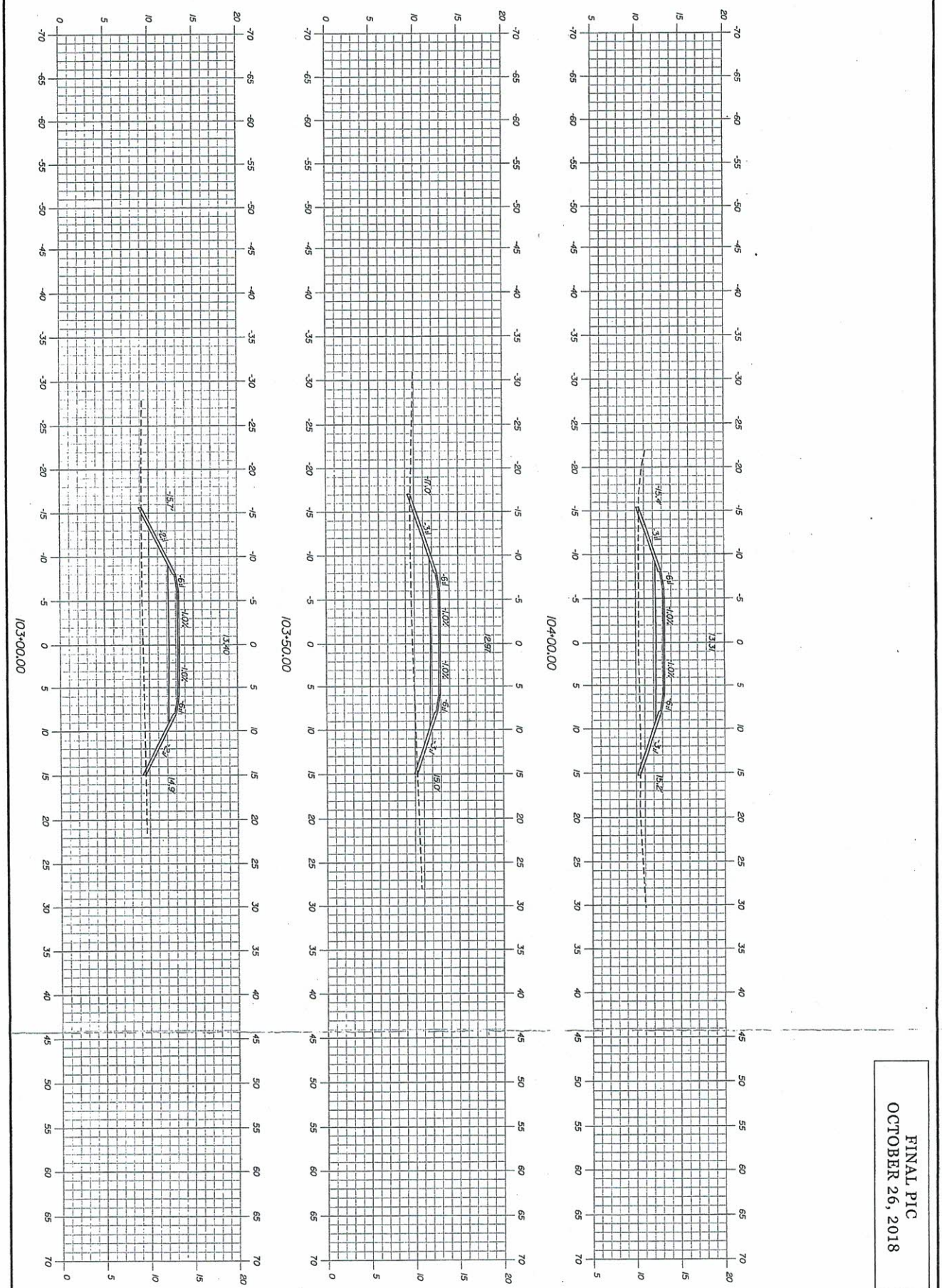
NONESUCH RIVER CROSSING CROSS SECTIONS

SHEET NUMBER 19 OF 43

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

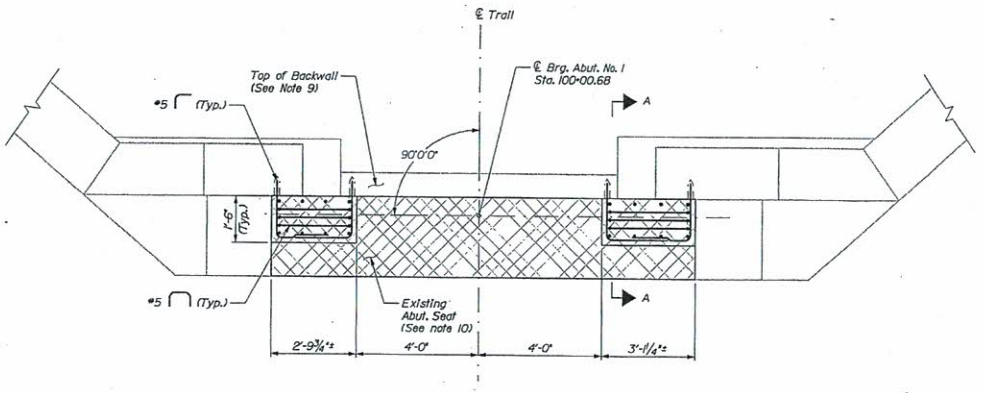
STP-1942600 & STP-1942610

WIN
19426.00 & 019426.10 HIGHWAY PLANS



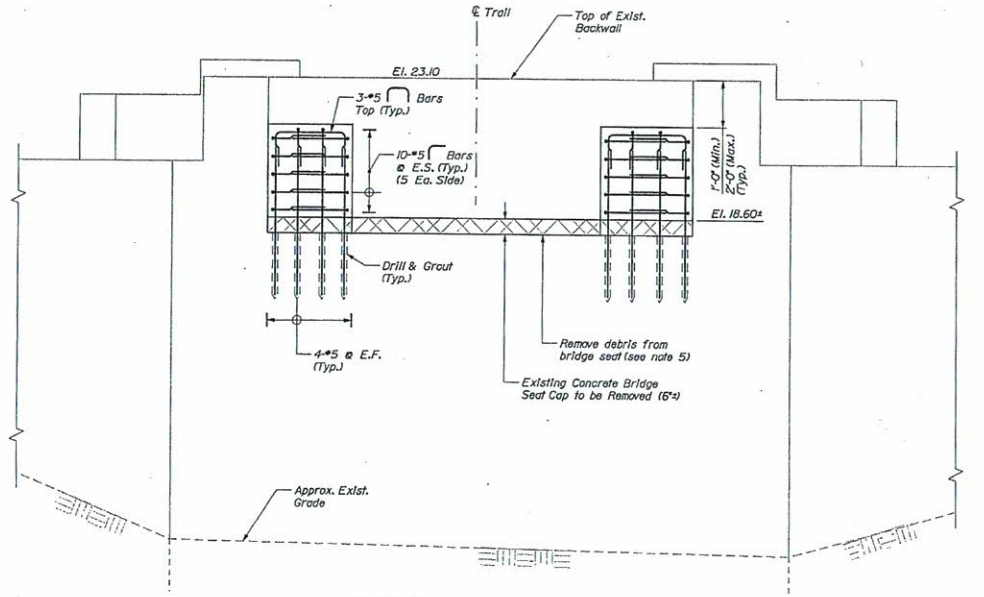
FINAL PIC
OCTOBER 26, 2018

SHEET NUMBER 20 OF 43	TOWN OF SCARBOROUGH EASTERN TRAIL CONNECTOR SCARBOROUGH TO SOUTH PORTLAND, MAINE NONESUCH RIVER CROSSING CROSS SECTIONS	PROJ. MANAGER: T. COTE; DESIGN-DETAILED: C.Helmick; CHECKED-REVIEWED: L. DRISCOLL; DESIGN2-DETAILED2: J. OLUND; DESIGN3-DETAILED3: -; REVISIONS 1: _; REVISIONS 2: _; REVISIONS 3: _; REVISIONS 4: _; FIELD CHANGES: _ BY: J. OLUND DATE: 09/18	SIGNATURE P.E. NUMBER DATE	STATE OF MAINE DEPARTMENT OF TRANSPORTATION STP-1942600 & STP-1942610 WIN 19426.00 & 019426.10 HIGHWAY PLANS



ABUTMENT NO. 1 - PLAN

(Abut. No. 2 Similar)



ABUTMENT NO. 1 - ELEVATION

(Abut. No. 2 Similar)

NOTES:

1. Abutment geometry shown is approximate and is based on limited field measurements and survey. Prior to commencing the design of the Prefabricated Steel Truss, or preparation of any shop drawings associated with construction of this bridge, the Contractor shall verify and adjust, as appropriate, all abutment elevations, dimensions, and abutment geometry with respect to the Trail Baseline and Profile. Payment for efforts associated with this survey will not be made separately and will be considered incidental to related Contract Items.

2. All concrete shall be Class A, and shall be paid under Item 502.21, Structural Concrete, Abutments and Retaining Walls.

3. All exposed edges of concrete shall be chamfered 3/4".

4. Where drilling and grouting of reinforcing steel is specified, the anchoring material shall be one of the products listed on the Maine Department of Transportation Qualified Products List of Chemical Anchoring Materials. Installation shall be in accordance with the manufacturer's recommendations. Embedment depth shall be the greater of 1'-0 horizontally, 2'-0" vertically or manufacturer recommendations to fully develop the bars to full yield strength. Drilled and grouted bars shall have 4" cover to existing faces.

5. Prior to the start of abutment modifications, the existing granite masonry surfaces shall be thoroughly cleaned of all dirt, debris, and foreign material by pressure washing or other method deemed suitable by the Resident. This work shall be considered incidental to Item 502.21, Structural Concrete, Abutments and Retaining Walls.

6. All existing masonry surfaces to receive new concrete shall be coated with an epoxy bonding agent listed on the Maine Department of Transportation Qualified Products List.

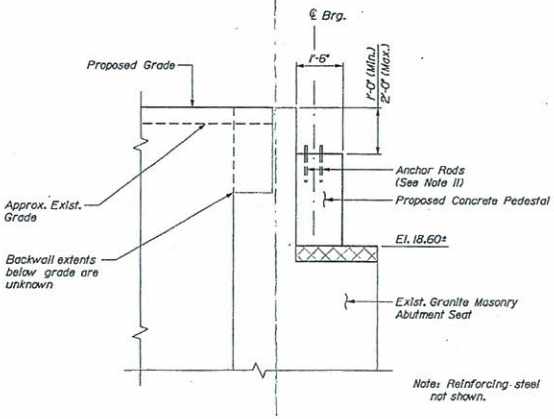
7. Areas of the mortar in the existing granite abutment shall be repaired as directed by the Resident. This work shall be completed in accordance with Item 525.26, "Repointing Granite Masonry." An estimate of 300-sf of repair per abutment is included in the Estimated Quantities table; the actual amount will vary and will be determined by the Resident in the field.

8. All reinforcing steel shall be uncoated and have a minimum cover of 2" unless otherwise noted. Fabrication, delivery, and placement of reinforcing steel shall be incidental to Item 502.21 "Structural Concrete Abutments and Retaining Walls".

9. The Contractor shall provide a smooth surface at the top of backwall with no more than 1/4" in variation. This shall be completed by grinding, cutting or other approved method. Payment will be considered incidental to related Contract Items.

10. Payment for all existing concrete removal shall be incidental to Item 502.21, Structural Concrete, Abutments and Retaining Walls.

11. Anchor rods locations, sizes, and installation requirements shall be coordinated by the Contractor with the Prefabricated Steel Truss Manufacturer.



SECTION A-A

FINAL PIC
OCTOBER 26, 2018

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-1942600 & STP-1942610

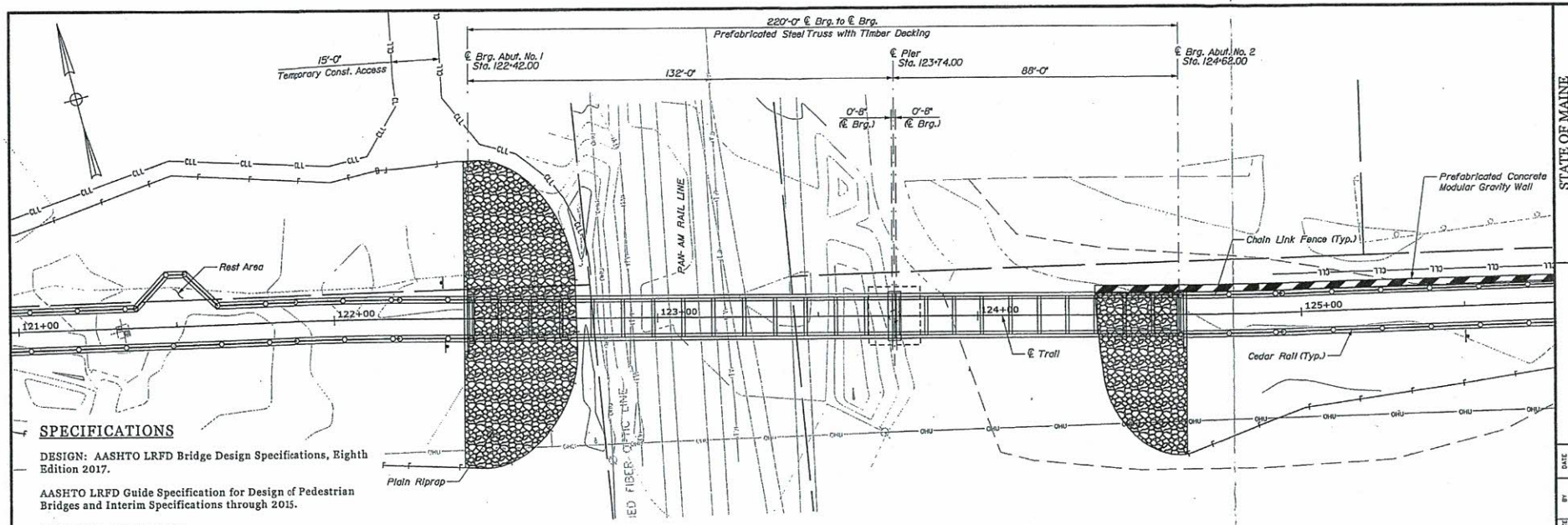
WIN
19426.00 & 019426.10 BRIDGE PLANS

	T. COTE	BY	DATE
PROJ. MANAGER			09/18
DESIGNED/REVISED	JKD	PRS	09/18
DESIGN-DETAILED	G.S.	J.S.	SIGNATURE
DESIGN-DETAILED	J. OLIND	-	-
DESIGN-DETAILED	-	-	P.E. NUMBER
REVISIONS 1	-	-	-
REVISIONS 2	-	-	-
REVISIONS 3	-	-	DATE
REVISIONS 4	-	-	-
FIELD CHANGES	-	-	-

TOWN OF SCARBOROUGH
EASTERN TRAIL CONNECTOR
SCARBOROUGH TO SOUTH PORTLAND, MAINE

NONESUCH RIVER
ABUTMENT NO. 1

SHEET NUMBER
21
OF 43



SPECIFICATIONS

DESIGN: AASHTO LRFD Bridge Design Specifications, Eighth Edition 2017.

AASHTO LRFD Guide Specification for Design of Pedestrian Bridges and Interim Specifications through 2015.

DESIGN LOADING

Live Load: 90 p.s.f. (Pedestrian only) or H10 vehicle

MATERIALS

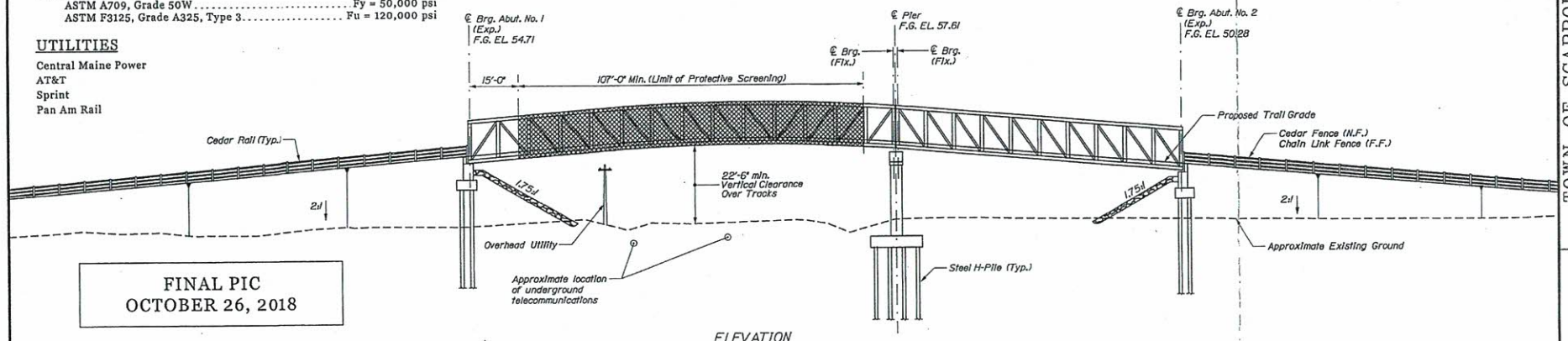
Concrete (Unless noted otherwise)..... Class "A"
Reinforcing Steel..... ASTM A615, Grade 60
Structural Steel..... ASTM A709, Grade 50W (Unpainted)
Timber..... Southern Yellow Pine, No. 1

BASIC DESIGN STRESSES

Concrete, Class "A"..... f'c = 4,000 psi
Reinforcing Steel, ASTM A615, Grade 60..... fy = 60,000 psi
Structural Steel:
ASTM A709, Grade 50W..... Fy = 50,000 psi
ASTM F3125, Grade A325, Type 3..... Fu = 120,000 psi

UTILITIES

Central Maine Power
AT&T
Sprint
Pan Am Rail



FINAL PIC
OCTOBER 26, 2018

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-1942600 & STP-1942610

WIN
19426.00 & 019426.10 BRIDGE PLANS

PROJ. MANAGER	T. COTE	BY	DATE
DESIGN-DETAILED	JCO	PJG	09/18
DESIGN-CHECKED	C.S.	M.S.	
DESIGN-DETAILED	C.OLINO	-	-
DESIGN-DETAILED	-	-	-
REVISIONS 1	-	-	-
REVISIONS 2	-	-	-
REVISIONS 3	-	-	-
REVISIONS 4	-	-	-
FIELD CHANGES	-	-	-

SIGNATURE

P.E. NUMBER

DATE

TOWN OF SCARBOROUGH
EASTERN TRAIL CONNECTOR
SCARBOROUGH TO SOUTH PORTLAND, MAINE

PAN AM RAILROAD
PLAN & ELEVATION

SHEET NUMBER
22
OF 43

PREFABRICATED BRIDGE NOTES:

1. All construction, handling, assembly, and installation of the Prefabricated Steel Truss shall be in accordance with Special Provisions 104 and 504, and in accordance with the manufacturers recommendations, as applicable.

2. No reductions in live load intensity shall be taken in the design of the Prefabricated Steel Truss.

3. Design and detailing of bridge superstructure, bearings, anchorages, and sliding plate expansion joints shall be completed by the bridge fabricator. Payment shall be considered incidental to Item 504.01, Prefabricated Steel Truss - Pan Am Railroad.

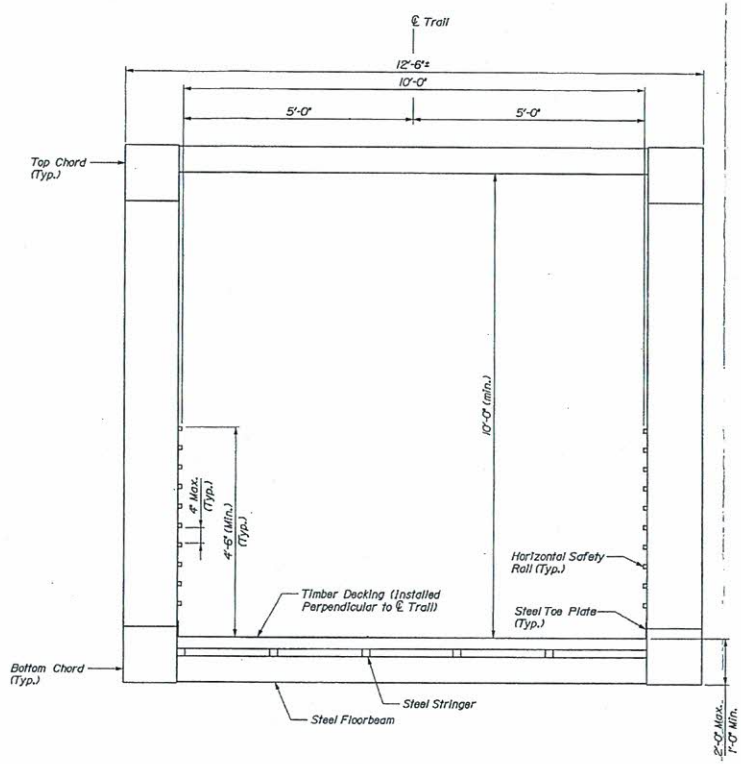
GENERAL CONSTRUCTION NOTES:

1. Proposed concrete bridge seat elevations are detailed based on a 24-inch depth from the top of deck to bottom of bottom chord, and a 6-inch height. Adjustments shall be made by the Contractor to the bearing seat elevations to accommodate the actual superstructure and bearing dimensions within the limits shown.

2. All dimensions marked "±" are approximate or subject to change based on the fabricators bridge design. The Contractor shall plan and coordinate their work accordingly.

3. The proposed cedar fence rails shall extend over the backwall as needed to ensure a gap no larger than 4" exists between the approach fence and bridge safety rail. At the Contractors option, alternate means of achieving this result may be submitted for approval.

4. Warp trail surface to match proposed bridge surface.



PREFABRICATED STEEL TRUSS SECTION

FINAL PIC
OCTOBER 26, 2018

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-1942600 & STP-1942610

WIN
19426.00 & 019426.10 BRIDGE PLANS

PROJ. MANAGER	T. COTE	BY	DATE
DESIGN-DETAILED	JKO	PEB	09/18
CHECKED-REVIEWED	Q.S	AES	09/18
DESIGN-DETAILED	J. OLIND	-	-
DESIGN-DETAILED	-	-	-
REVISIONS 1	-	-	-
REVISIONS 2	-	-	-
REVISIONS 3	-	-	-
REVISIONS 4	-	-	-
FIELD CHANGES	-	-	-

SIGNATURE

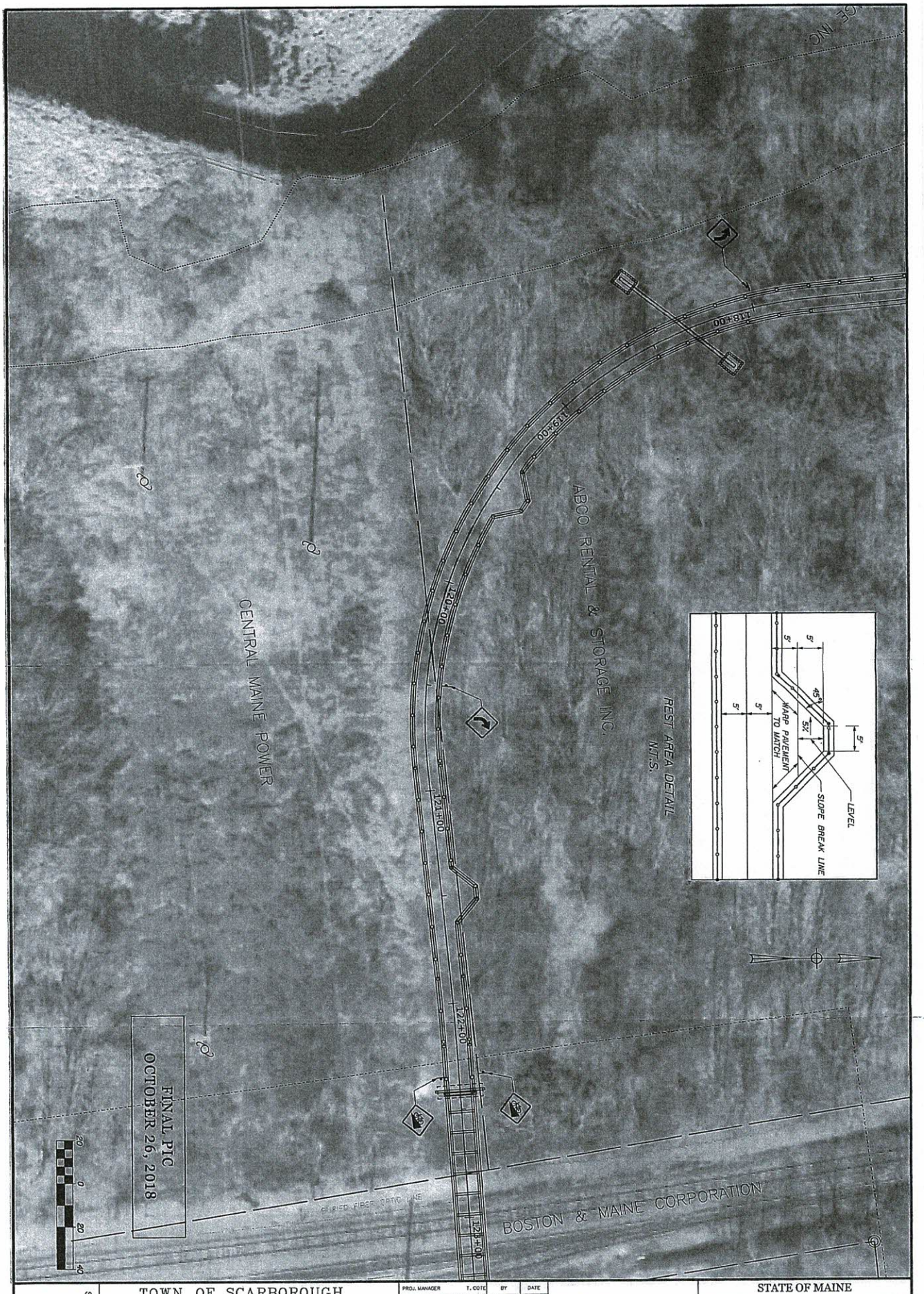
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TOWN OF SCARBOROUGH
EASTERN TRAIL CONNECTOR
SCARBOROUGH TO SOUTH PORTLAND, MAINE

PAN AM RAILROAD
GENERAL NOTES & DETAILS

SHEET NUMBER
23
OF 43



TOWN OF SCARBOROUGH
EASTERN TRAIL CONNECTOR
SCARBOROUGH TO SOUTH PORTLAND, MAINE

PAN AM RAILROAD
CROSSING PLAN I

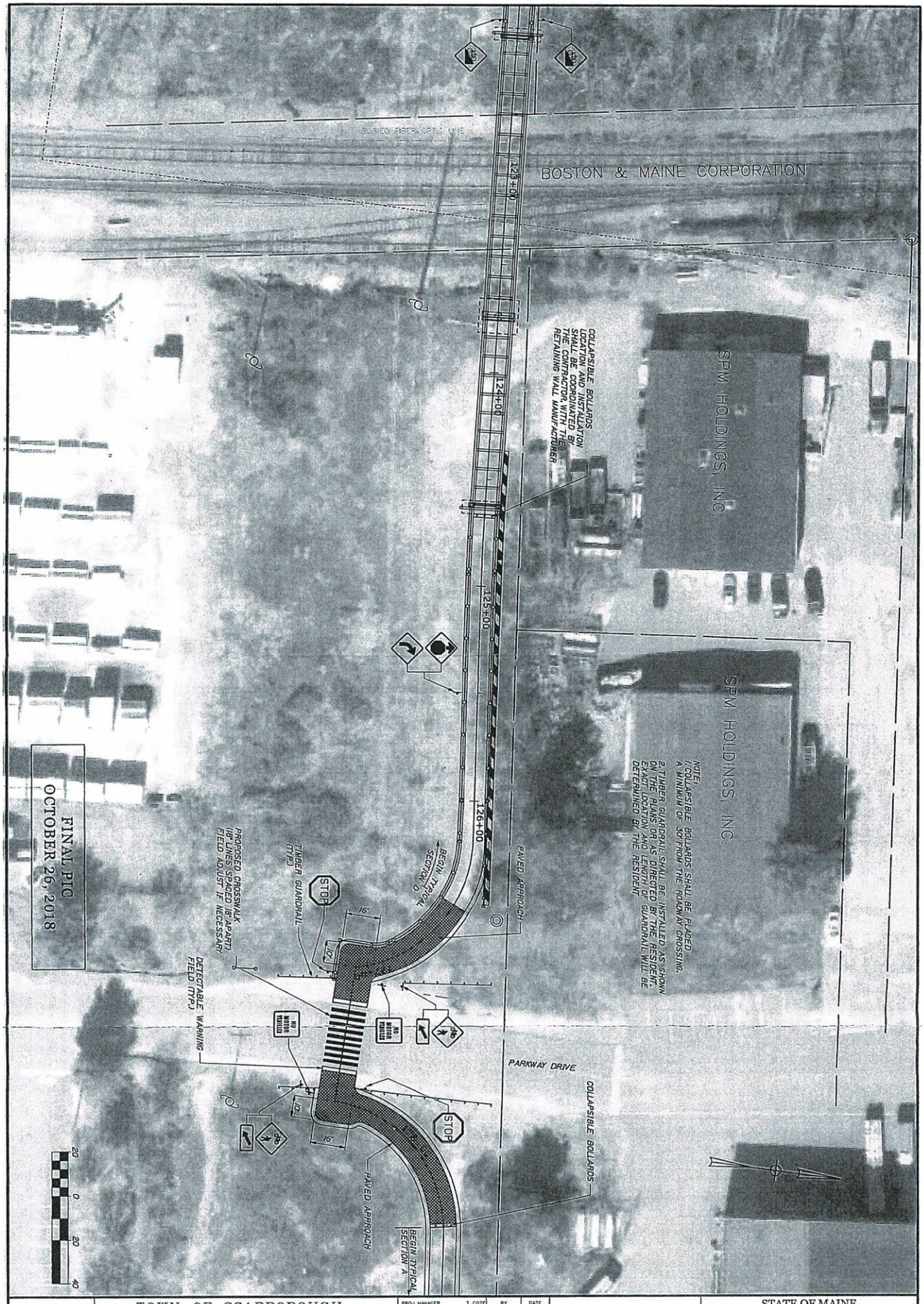
PROJ. MANAGER	T. COTE	BY	DATE	
DESIGN-DETAILED	C.Helmick		09\18	
CHECKED-REVIEWED	L. DRISCOLL	J. OLUND		SIGNATURE
DESIGN2-DETAILED2	J. OLUND	-	-	
DESIGN3-DETAILED3	-	-	-	P.E. NUMBER
REVISIONS 1	-		-	
REVISIONS 2	-		-	
REVISIONS 3	-		-	DATE
REVISIONS 4	-		-	
FIELD CHANGES	-		-	

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-1942600 & STP-1942610

WIN
19426.00 & 019426.10 HIGHWAY PLANS

SHEET NUMBER
24
OF 43



FINAL PIC
OCTOBER 26, 2018

SHEET NUMBER 25 OF 43

TOWN OF SCARBOROUGH
EASTERN TRAIL CONNECTOR
SCARBOROUGH TO SOUTH PORTLAND, MAINE

PAN AM RAILROAD CROSSING PLAN II

PROJ. MANAGER	T. COTE	BY	DATE
DESIGN-DETAILED	C.Helmick		09\18
CHECKED-REVIEWED	L. DRISCOLL	J. OLUND	
DESIGN2-DETAILED2	J. OLUND	-	-
DESIGN3-DETAILED3	-	-	-
REVISIONS 1	-		-
REVISIONS 2	-		-
REVISIONS 3	-		-
REVISIONS 4	-		-
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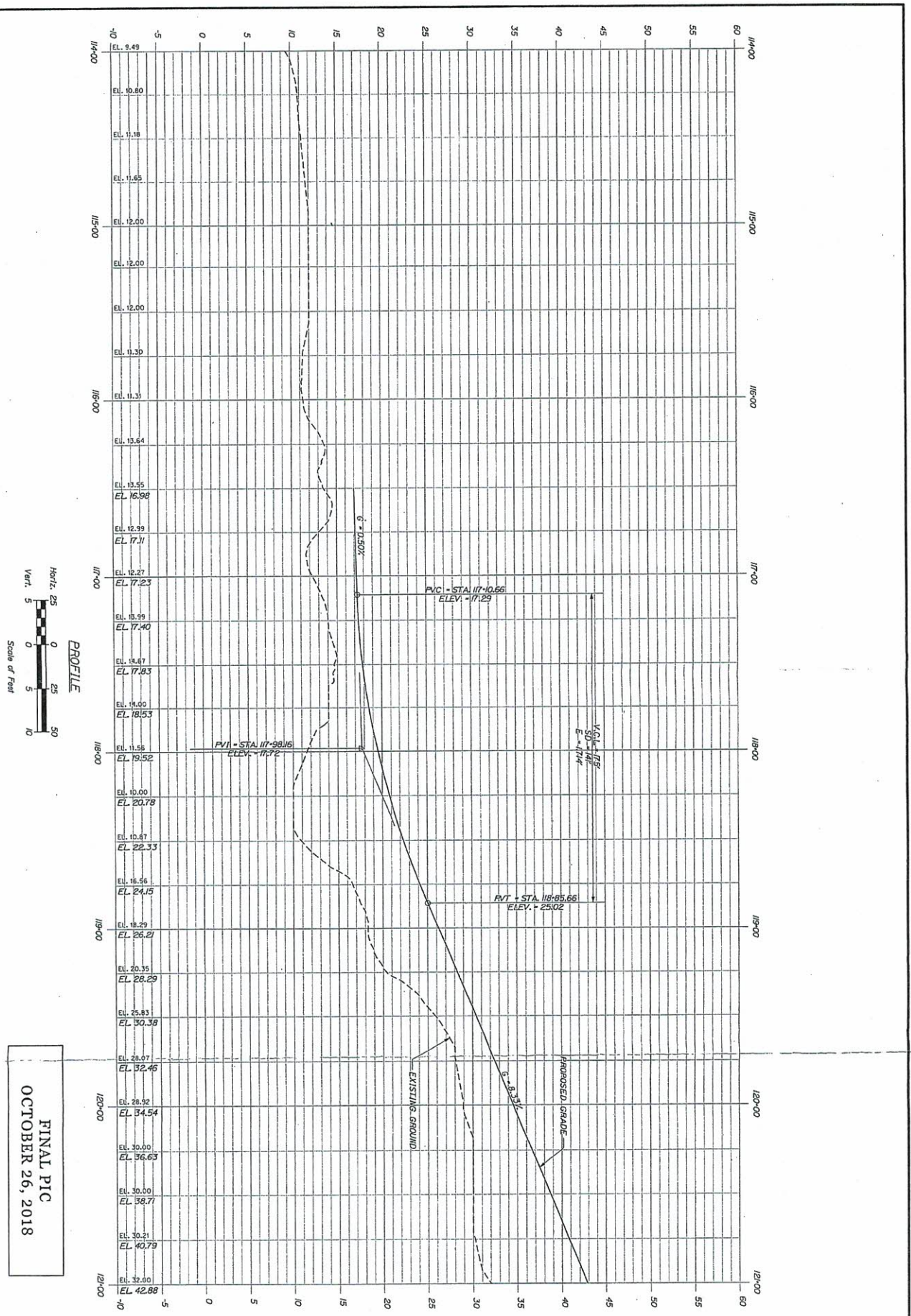
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DATE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-1942600 & STP-1942610

WIN
19426.00 & 019426.10 HIGHWAY PLANS



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OCTOBER 26, 2018

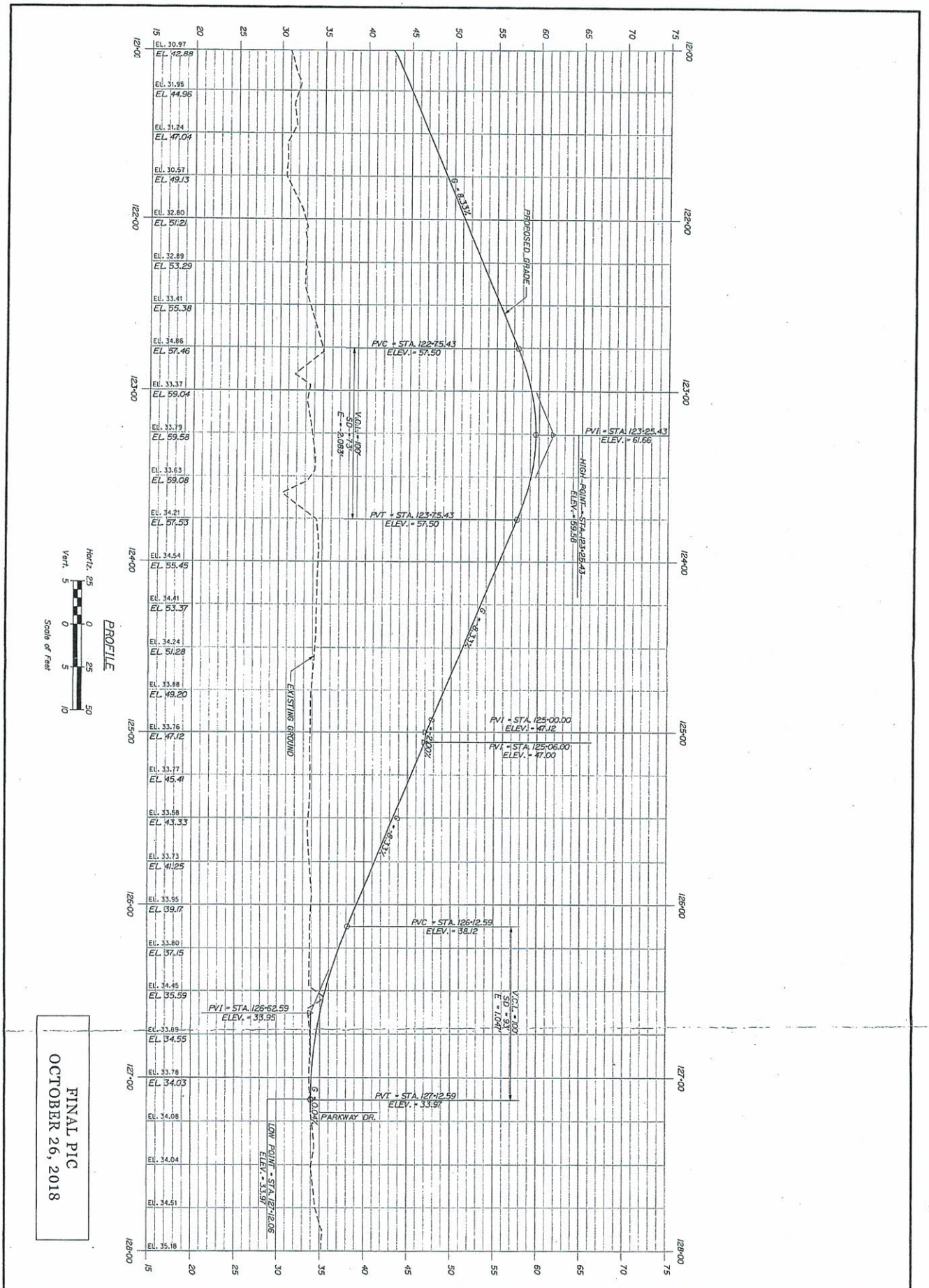
TOWN OF SCARBOROUGH EASTERN TRAIL CONNECTOR SCARBOROUGH TO SOUTH PORTLAND, MAINE	PROJ. MANAGER	T. COTE	BY / DATE
	DESIGN-DETAILED	C.Helmick	09\18
	CHECKED-REVIEWED	L. DRISCOLL	J. OLUND
	DESIGN2-DETAILED2	J. OLUND	-
	DESIGN3-DETAILED3	-	-
	REVISIONS 1	-	-
	REVISIONS 2	-	-
	REVISIONS 3	-	-
	REVISIONS 4	-	-
	FIELD CHANGES	-	-

SIGNATURE
P.E. NUMBER
DATE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
STP-1942600 & STP-1942610
WIN
19426.00 & 019426.10 HIGHWAY PLANS

PAN AM RAILROAD
PROFILE I

SHEET NUMBER 26 OF 43



FINAL PIC
OCTOBER 26, 2018

TOWN OF SCARBOROUGH
EASTERN TRAIL CONNECTOR
SCARBOROUGH TO SOUTH PORTLAND, MAINE

PAN AM RAILROAD
PROFILE II

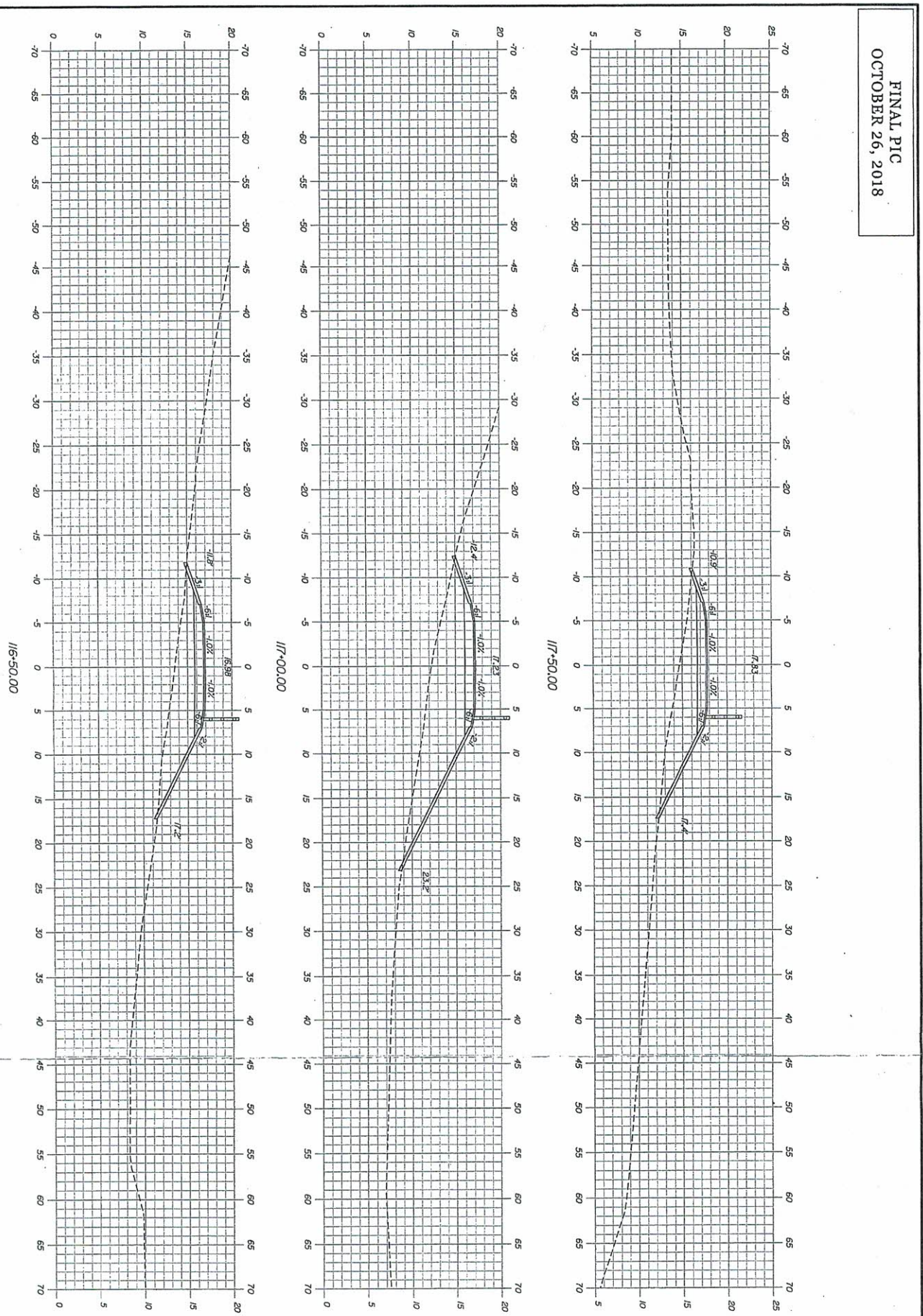
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DESIGN-DETAILED	C.Helmick		09\18
CHECKED-REVIEWED	L. DRISCOLL	J. OLUND	
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REVISIONS 2	_		_
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SIGNATURE
P.E. NUMBER
DATE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
STP-1942600 & STP-1942610
WIN
19426.00 & 019426.10 HIGHWAY PLANS

SHEET NUMBER 27 OF 43

FINAL PIC
OCTOBER 26, 2018



PROJ. MANAGER	T. COTE	BY	DATE
DESIGN-DETAILED	C.Helmick		09\18
CHECKED-REVIEWED	L. DRISCOLL	J. OLUND	
DESIGN2-DETAILED2	J. OLUND	-	-
DESIGN3-DETAILED3	-	-	-
REVISIONS 1	_		-
REVISIONS 2	_		-
REVISIONS 3	_		-
REVISIONS 4	_		-
FIELD CHANGES	_		-

SIGNATURE

P.E. NUMBER

DATE

TOWN OF SCARBOROUGH
EASTERN TRAIL CONNECTOR
SCARBOROUGH TO SOUTH PORTLAND, MAINE

PAN AM RAILROAD CROSS SECTIONS

SHEET NUMBER 28 OF 43

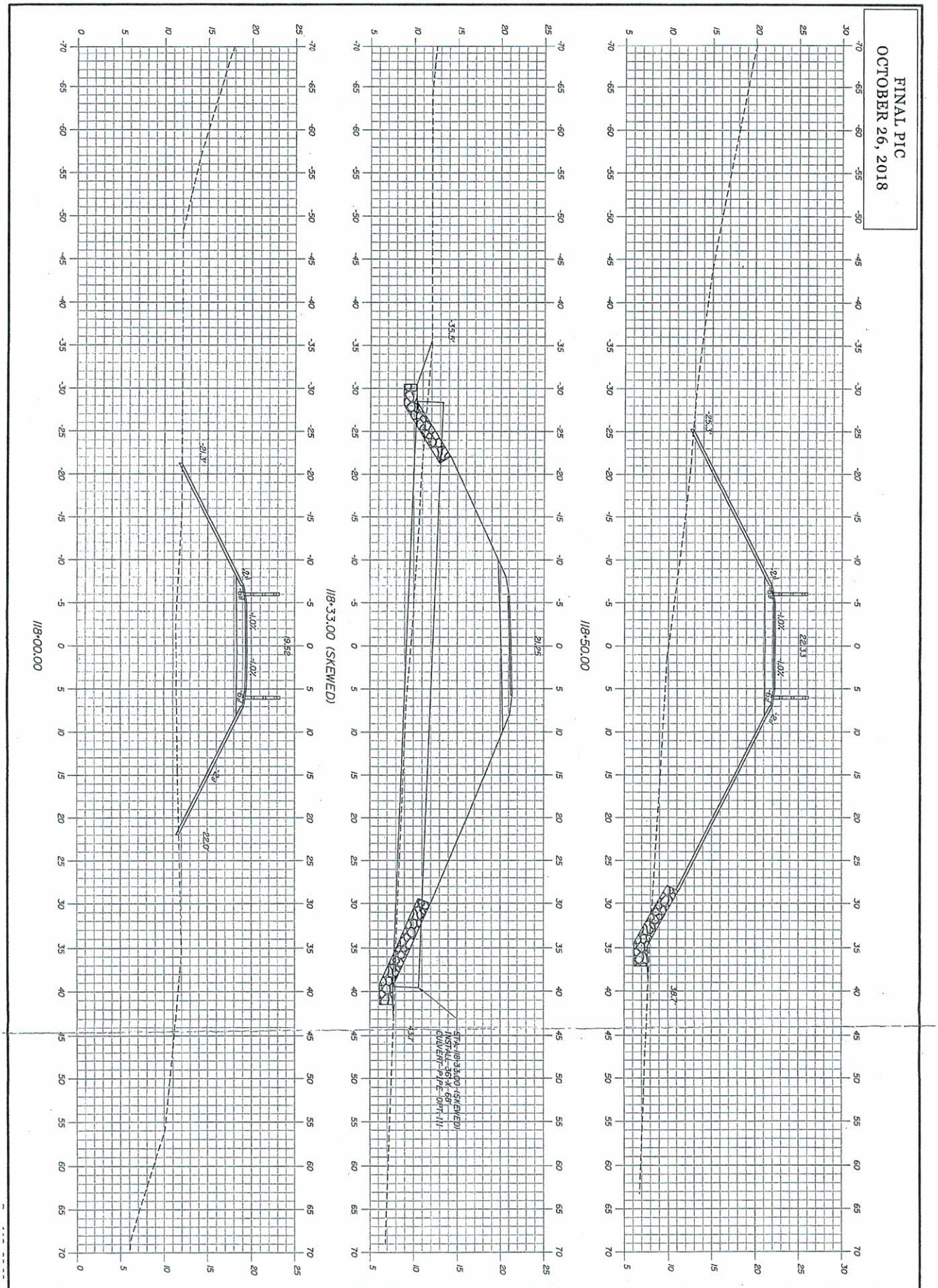
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-1942600 & STP-1942610

WIN
19426.00 & 019426.10

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FINAL PIC
OCTOBER 26, 2018



TOWN OF SCARBOROUGH
EASTERN TRAIL CONNECTOR
SCARBOROUGH TO SOUTH PORTLAND, MAINE
PAN AM RAILROAD
CROSS SECTIONS

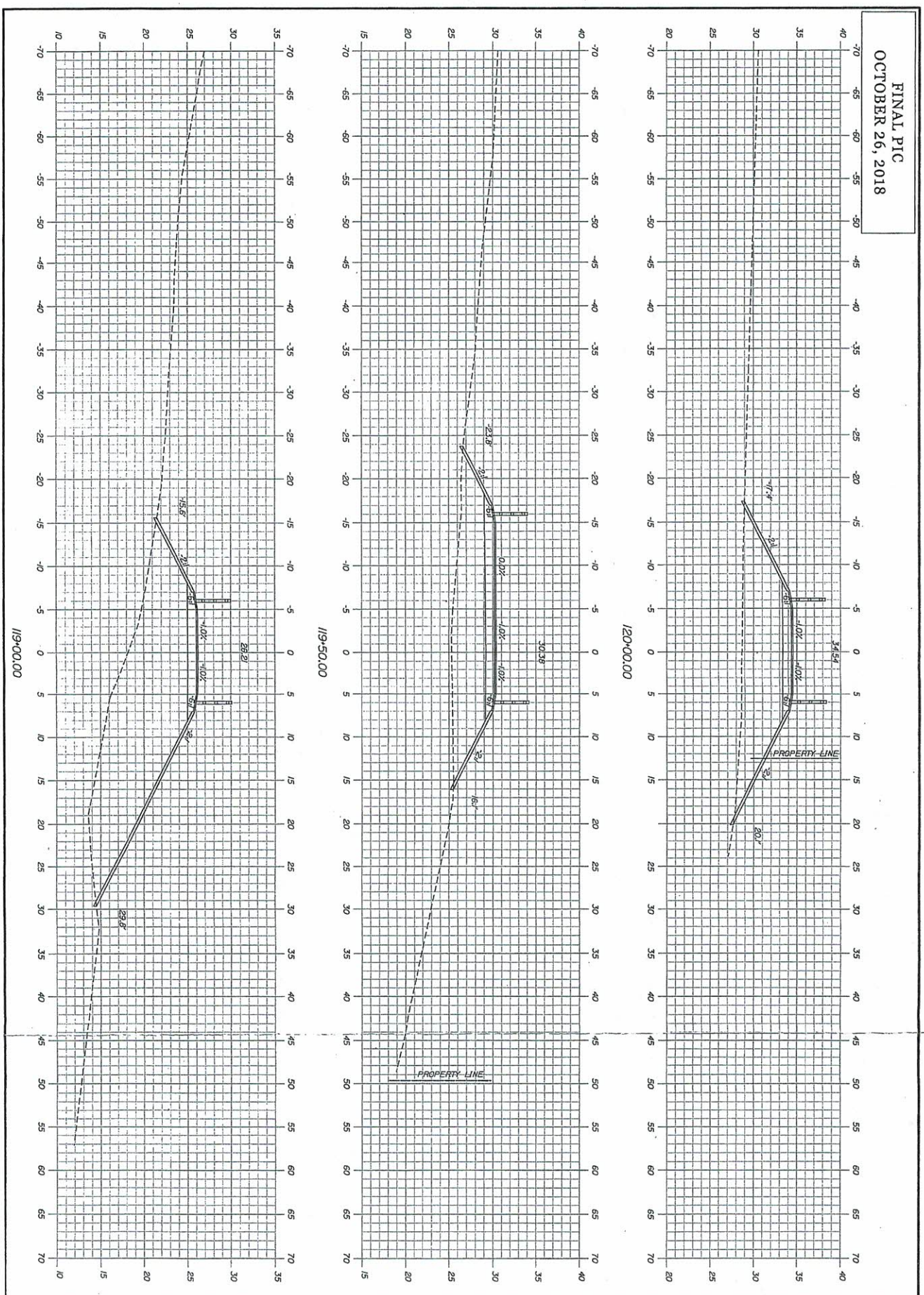
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CHECKED-REVIEWED	L. DRISCOLL	J. OLUND	
DESIGN2-DETAILED2	J. OLUND	"	"
DESIGN3-DETAILED3	"	"	"
REVISIONS 1	_	_	_
REVISIONS 2	_	_	_
REVISIONS 3	_	_	_
REVISIONS 4	_	_	_
FIELD CHANGES	_	_	_

SIGNATURE
P.E. NUMBER
DATE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
STP-1942600 & STP-1942610
WIN
19426.00 & 019426.10

SHEET NUMBER 29 OF 43

FINAL PIC
OCTOBER 26, 2018



TOWN OF SCARBOROUGH
EASTERN TRAIL CONNECTOR
SCARBOROUGH TO SOUTH PORTLAND, MAINE

PAN AM RAILROAD CROSS SECTIONS

	PROJ. MANAGER	T. COTE	BY	DATE
	DESIGN-DETAILED	C.Hetrick		09\18
	CHECKED-REVIEWED	L. DRISCOLL	J. OLUND	
	DESIGN2-DETAILED2	J. OLUND	-	-
	DESIGN3-DETAILED3	-	-	-
	REVISIONS 1	-		-
	REVISIONS 2	-		-
	REVISIONS 3	-		-
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SIGNATURE
P.E. NUMBER
DATE

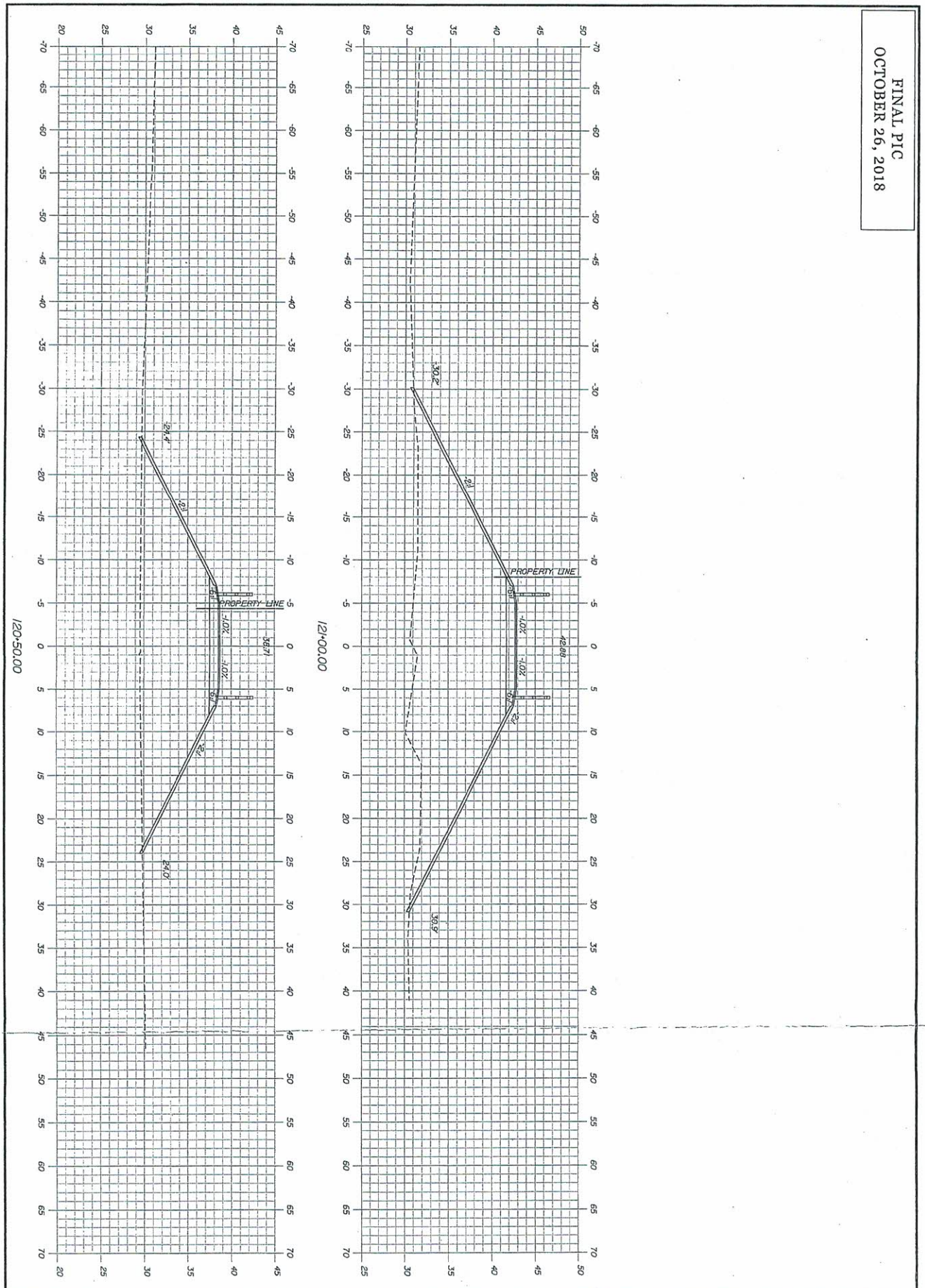
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-1942600 & STP-1942610

WIN
19426.00 & 019426.10

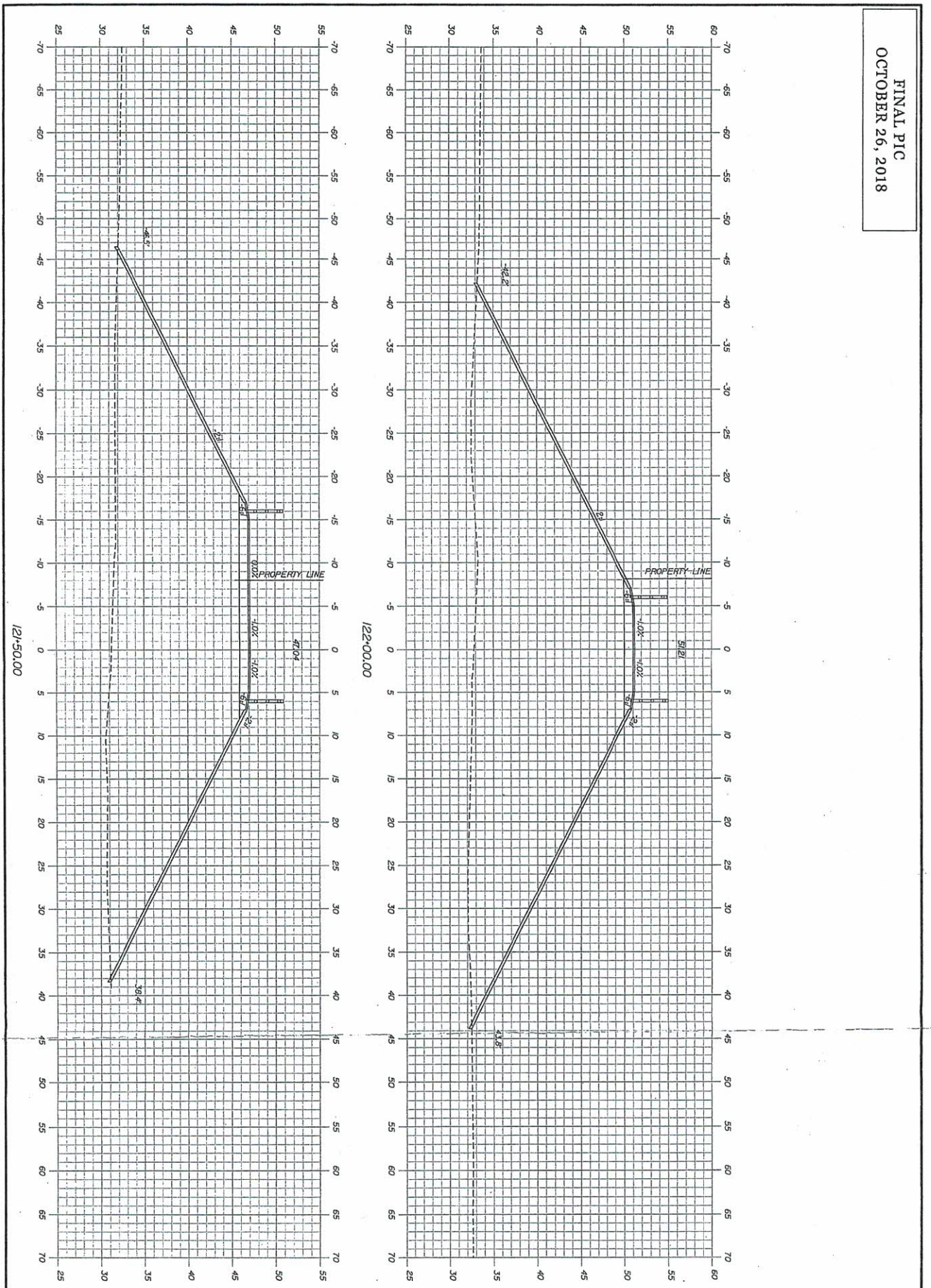
SHEET NUMBER 30 OF 43

FINAL PIC
OCTOBER 26, 2018



SHEET NUMBER 31 OF 43	TOWN OF SCARBOROUGH EASTERN TRAIL CONNECTOR SCARBOROUGH TO SOUTH PORTLAND, MAINE PAN AM RAILROAD CROSS SECTIONS	PROJ. MANAGER: T. COTE; BY: ; DATE:			STATE OF MAINE DEPARTMENT OF TRANSPORTATION STP-1942600 & STP-1942610 WIN 19426.00 & 019426.10
		DESIGN-DETAILED: C.Helmick; BY: ; DATE: 09\18			
		CHECKED-REVIEWED: L. ORSCOLL; BY: J. OLUND; DATE:			
		DESIGN2-DETAILED2: J. OLUND; BY: -; DATE: -			
		DESIGN3-DETAILED3: -; BY: -; DATE: -			
		REVISIONS 1: -; BY: -; DATE: -		SIGNATURE	
		REVISIONS 2: -; BY: -; DATE: -		P.E. NUMBER	
		REVISIONS 3: -; BY: -; DATE: -		DATE	
		REVISIONS 4: -; BY: -; DATE: -			
		FIELD CHANGES: -; BY: -; DATE: -			

FINAL PIC
OCTOBER 26, 2018



TOWN OF SCARBOROUGH
EASTERN TRAIL CONNECTOR
SCARBOROUGH TO SOUTH PORTLAND, MAINE

PAN AM RAILROAD
CROSS SECTIONS

PROJ. MANAGER	T. COTE	BY	DATE
DESIGN-DETAILED	C.Helmick		09'18
CHECKED-REVIEWED	L. DRISCOLL	J. OLUND	-
DESIGN2-DETAILED2	J. OLUND	-	-
DESIGN3-DETAILED3	-	-	-
REVISIONS 1	_		_
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FIELD CHANGES	_		_

SIGNATURE

P.E. NUMBER

DATE

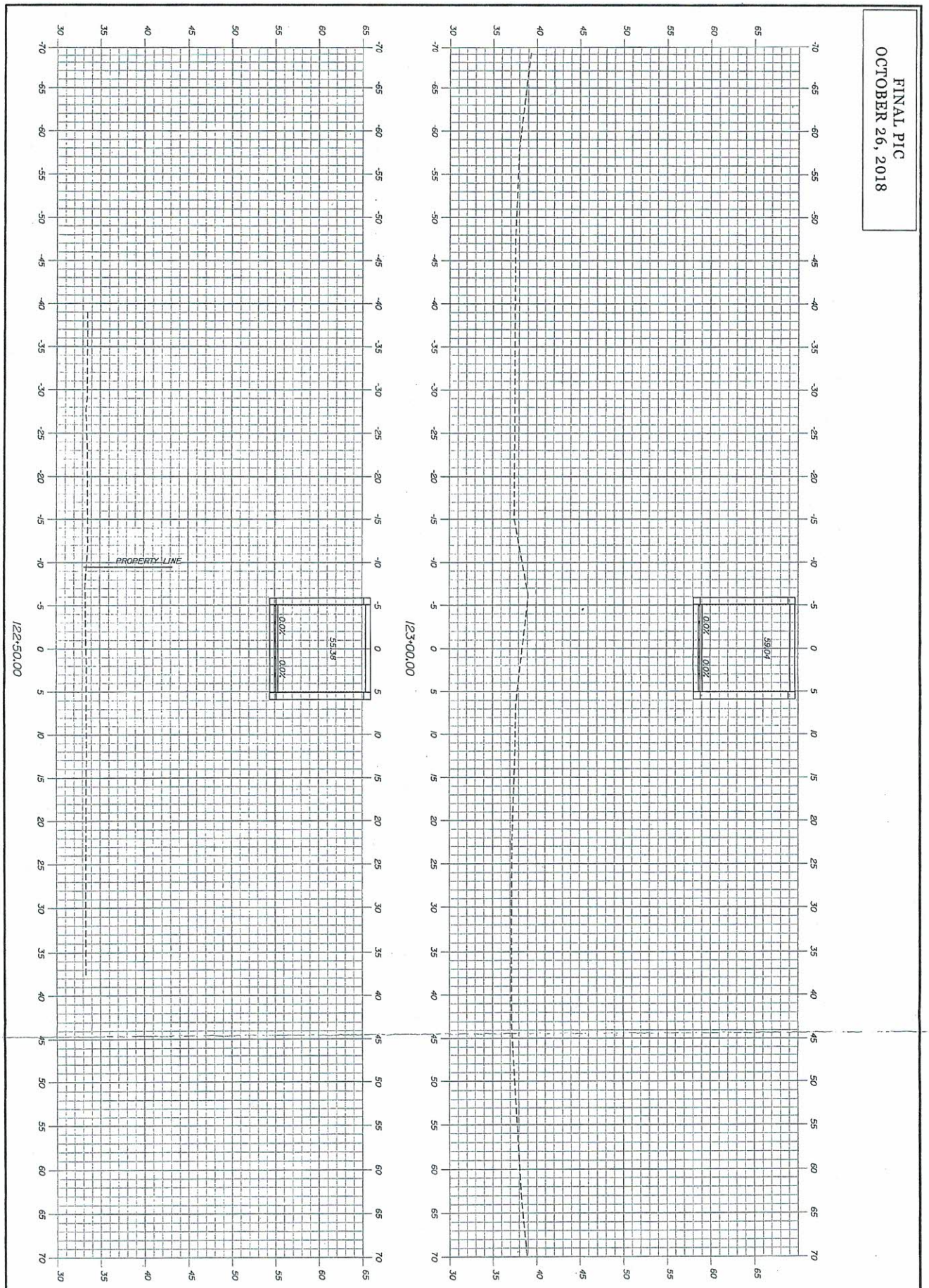
SHEET NUMBER 32 OF 43

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-1942600 & STP-1942610

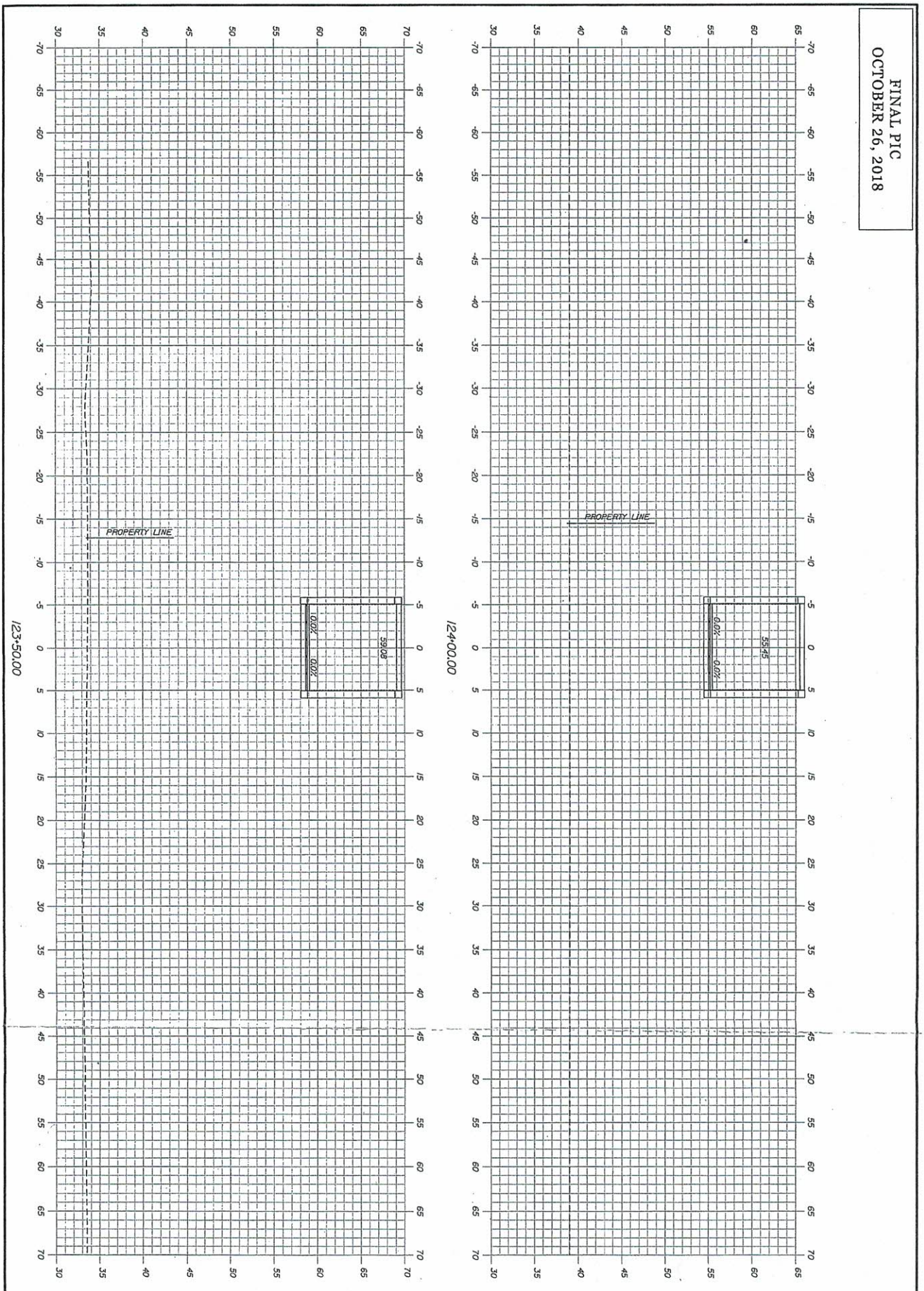
WIN
19426.00 & 019426.10

FINAL PIC
OCTOBER 26, 2018



TOWN OF SCARBOROUGH EASTERN TRAIL CONNECTOR SCARBOROUGH TO SOUTH PORTLAND, MAINE PAN AM RAILROAD CROSS SECTIONS	PROJ. MANAGER: T. COTE; BY; DATE DESIGN-DETAILED: C.Helmick; 09\18 CHECKED-REVIEWED: L. DRISCOLL; J. OLUND DESIGN2-DETAILED2: J. OLUND DESIGN3-DETAILED3 REVISIONS 1 REVISIONS 2 REVISIONS 3 REVISIONS 4 FIELD CHANGES SIGNATURE P.E. NUMBER DATE	STATE OF MAINE DEPARTMENT OF TRANSPORTATION STP-1942600 & STP-1942610 WIN 19426.00 & 019426.10
SHEET NUMBER 33 OF 43		

FINAL PIC
OCTOBER 26, 2018



SHEET NUMBER 34 OF 43

TOWN OF SCARBOROUGH
EASTERN TRAIL CONNECTOR
SCARBOROUGH TO SOUTH PORTLAND, MAINE

PAN AM RAILROAD
CROSS SECTIONS

		BY	DATE
PROJ. MANAGER	T. COTE		
DESIGN-DETAILED	C.Helmick		09\18
CHECKED-REVIEWED	L. DRISCOLL	J. OLUND	-
DESIGN2-DETAILED2	J. OLUND	-	-
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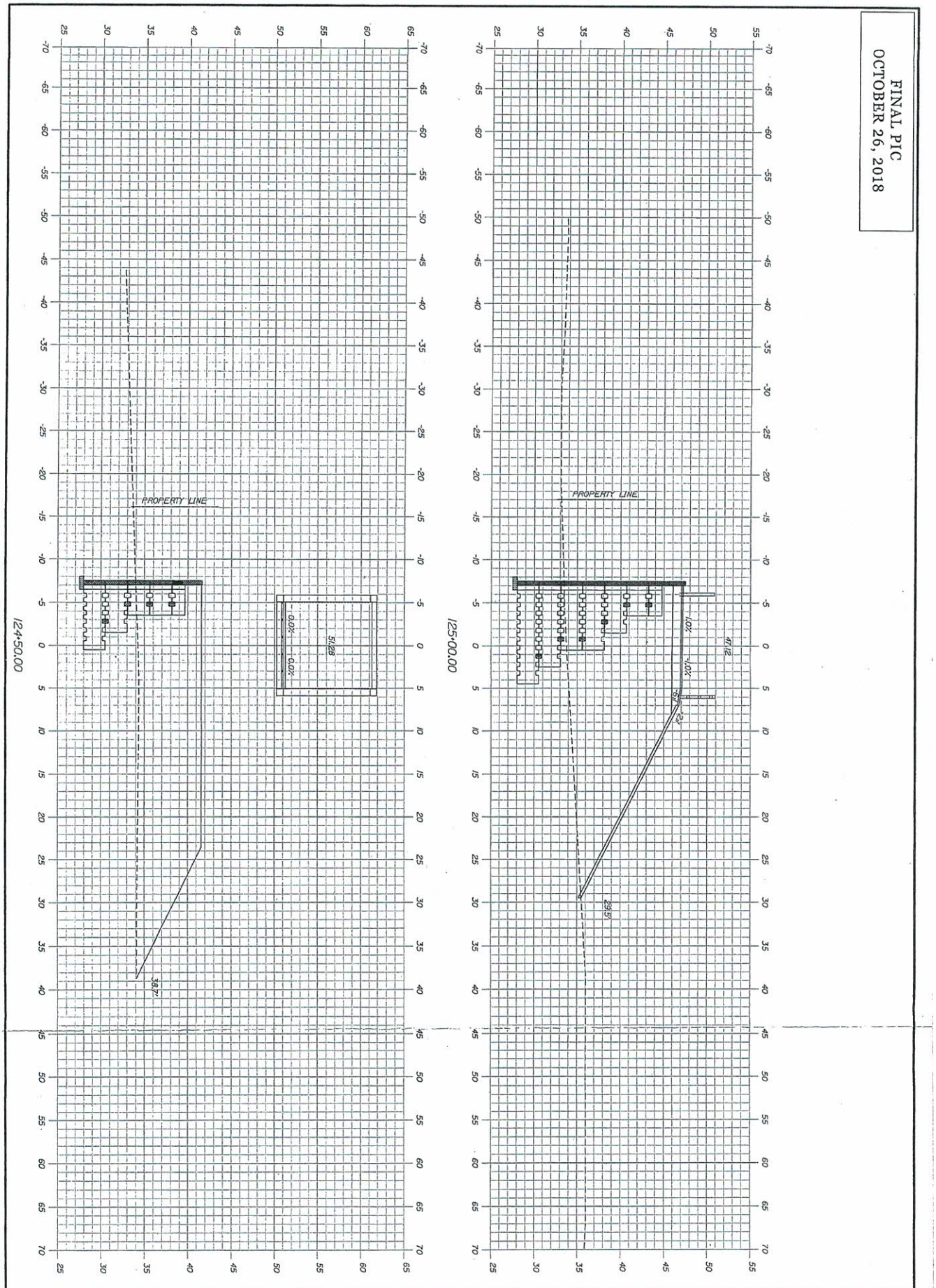
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STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-1942600 & STP-1942610

WIN
19426.00 & 019426.10

FINAL PIC
OCTOBER 26, 2018



TOWN OF SCARBOROUGH
EASTERN TRAIL CONNECTOR
SCARBOROUGH TO SOUTH PORTLAND, MAINE
PAN AM RAILROAD
CROSS SECTIONS

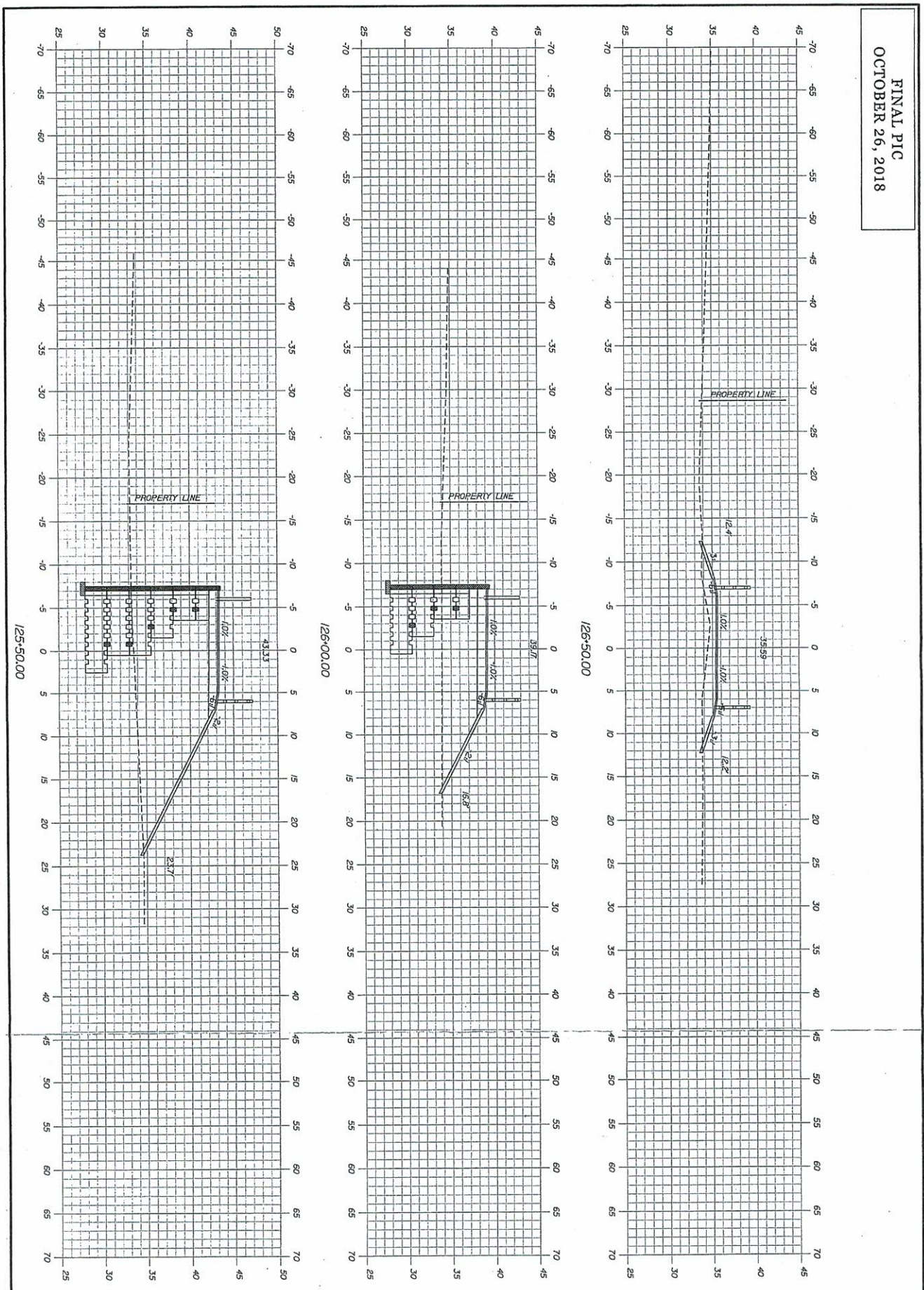
SHEET NUMBER 35 OF 43

PROJ. MANAGER	T. COTE	BY	DATE
DESIGN-DETAILED	C.Helmick		09\18
CHECKED-REVIEWED	L. DRISCOLL	J. OLIVO	
DESIGN2-DETAILED2	J. OLIVO	"	"
DESIGN3-DETAILED3	"	"	"
REVISIONS 1	_		_
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FIELD CHANGES	_		_

SIGNATURE
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DATE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
STP-1942600 & STP-1942610
WIN
19426.00 & 019426.10

FINAL PIC
OCTOBER 26, 2018



TOWN OF SCARBOROUGH
EASTERN TRAIL CONNECTOR
SCARBOROUGH TO SOUTH PORTLAND, MAINE

PAN AM RAILROAD
CROSS SECTIONS

SHEET NUMBER 36 OF 43

PROJ. MANAGER	T. COTE	BY	DATE
DESIGN-DETAILED	C.Helmick		09\18
CHECKED-REVIEWED	L. DRISCOLL	J. OLUND	-
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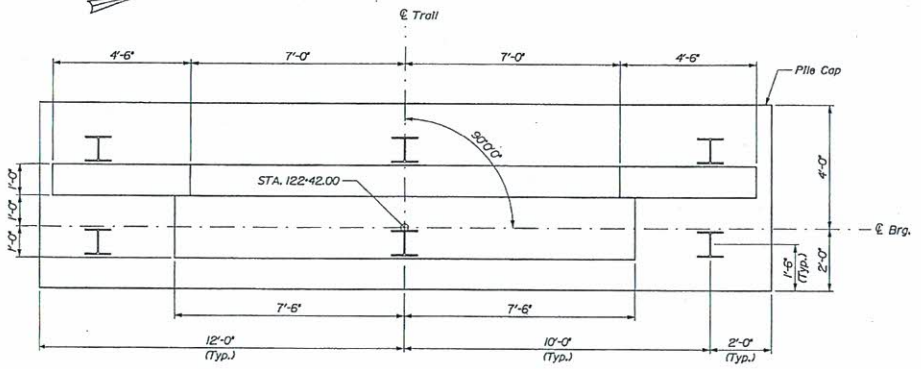
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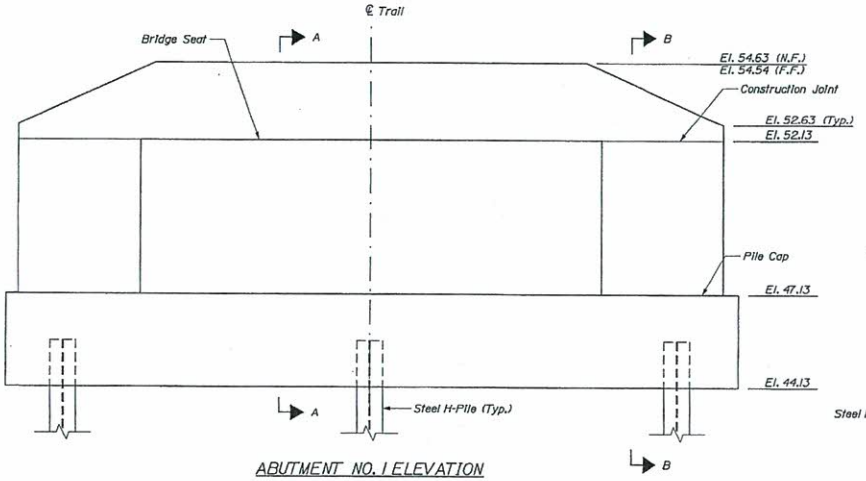
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-1942600 & STP-1942610

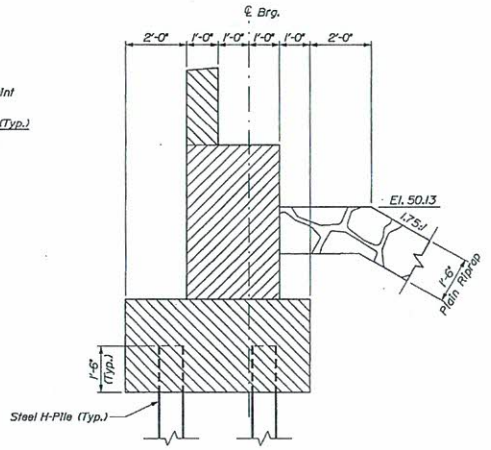
WIN
19426.00 & 019426.10



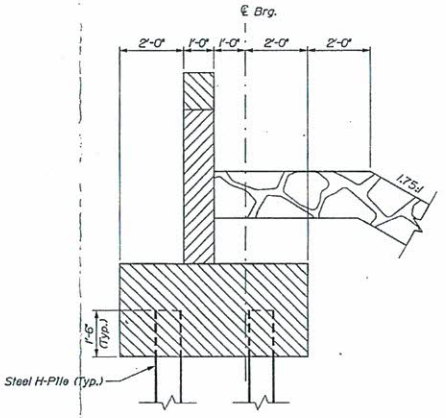
ABUTMENT NO. 1 PLAN



ABUTMENT NO. 1 ELEVATION



SECTION A-A



SECTION B-B

ABUTMENT NOTES

1. Reinforcing steel shall have a minimum concrete cover of 2 inches in the walls and 3 inches in the footings unless otherwise noted.

2. Place 4-in. diameter drains in the breastwall and wingwalls at 10-ft maximum spacing. The exact location will be determined by the Resident.

3. Cover joints where waterstops are not required in accordance with Standard Details Section 502.

4. Construct French Drains behind the abutments and wingwalls in accordance with Standard Specifications Section 512, French Drains.

PILE NOTES

1. The maximum factored pile load is XX kips (including XX kips allowed for downdrag).

2. H-pile material shall be ASTM A 572, Grade 50.

3. Estimate of piles required:

Abutment No. 1:	6 ~ HP XXxXX @ XX feet
Abutment No. 2:	6 ~ HP XXxXX @ XX feet
Pier No. 1:	10 ~ HP XXxXX @ XX feet

4. All piles shall be equipped with a pile tip in accordance with Standard Specifications Section 501.048, Prefabricated Pile Tips.

5. The Contractor shall perform and submit a wave equation analysis for review and acceptance by the Resident. The maximum allowable driving stress is 0.90 times Fy. The submittal analyses shall include the proposed stopping criteria based on the wave equation analysis and the proposed driving system. The stopping criteria shall include the blows per inch and the number of 1-in. intervals at which pile installation may be terminated. The cost of performing the wave equation analysis will be considered incidental to Item No. 501.92, Pile Driving Equipment Mobilization.

6. The Contractor shall perform 3 dynamic load test(s) to confirm the ultimate capacity of the piles, one at each substructure. The required nominal resistance for the pile is the factored axial pile load divided by a resistance factor of 0.65 per LRFD Specifications. The dynamic test shall be performed on the first plumb production pile driven at each substructure location.

FINAL PIC
OCTOBER 26, 2018

HNTB

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-1942600 & STP-1942510

WIN
19426.00 & 019426.10 BRIDGE PLANS

	T. COTE	BY	DATE
PROJ. MANAGER			
DESIGN-DETAILED	JKO	RSB	09/18
DESIGN-DETAILED	D.S.	AKS	09/18
DESIGN-DETAILED	J. OLIVE	-	-
DESIGN-DETAILED	-	-	-
REVISIONS 1	-	-	-
REVISIONS 2	-	-	-
REVISIONS 3	-	-	-
REVISIONS 4	-	-	-
FIELD CHANGES	-	-	-

SIGNATURE

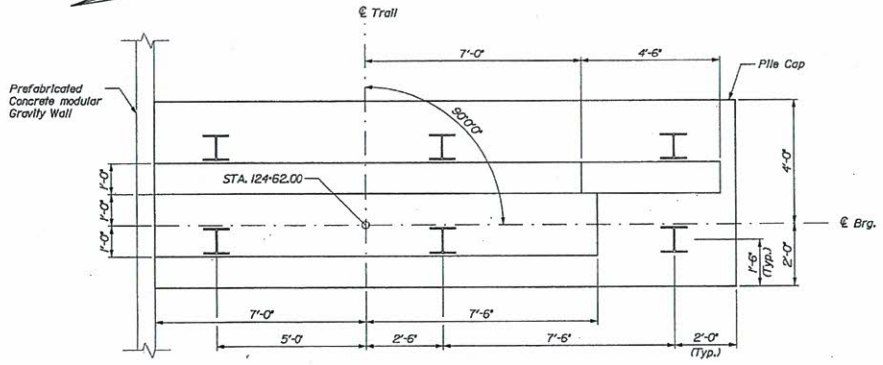
P.E. NUMBER

DATE

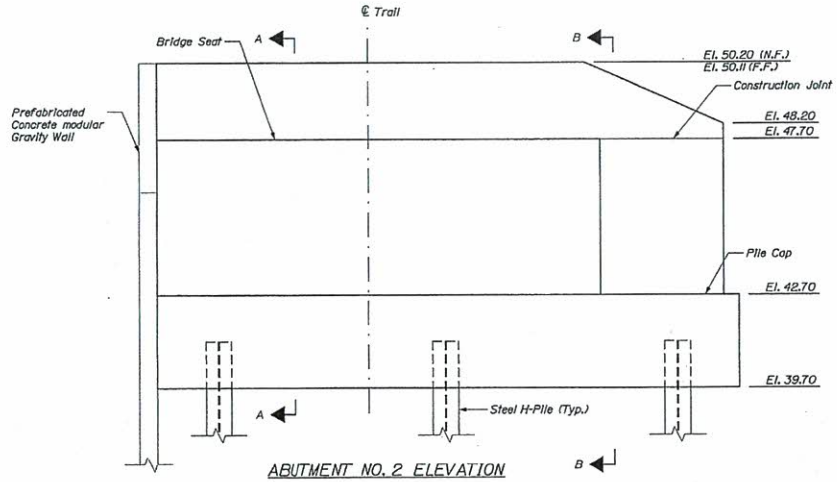
TOWN OF SCARBOROUGH
EASTERN TRAIL CONNECTOR
SCARBOROUGH TO SOUTH PORTLAND, MAINE

PAN AM RAILROAD
ABUT. NO. 1 PLAN & ELEV.

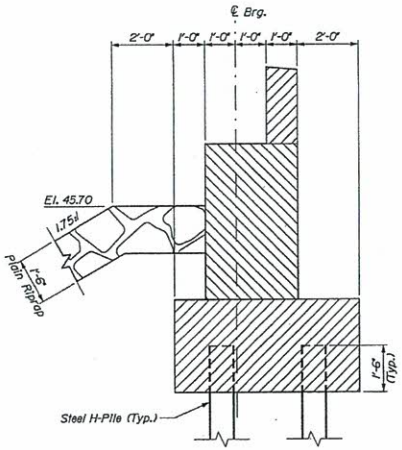
SHEET NUMBER
37
OF 43



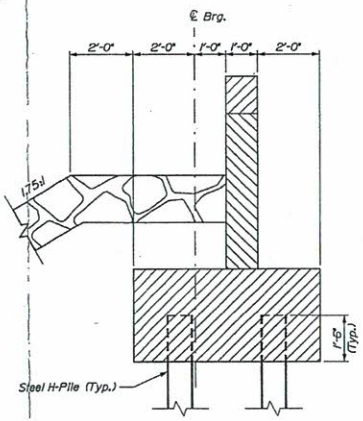
ABUTMENT NO. 2 PLAN



ABUTMENT NO. 2 ELEVATION



SECTION A-A



SECTION B-B

FINAL PIC
OCTOBER 26, 2018

HNTB

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-1942600 & STP-1942610

WIN
19426.00 & 0198426.10 BRIDGE PLANS

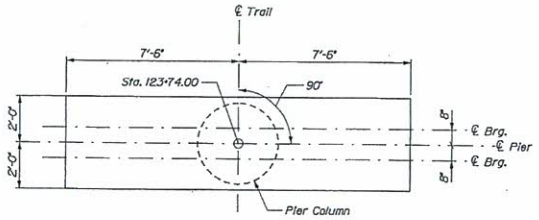
	PROJ. MANAGER	T. COTE	BY	DATE
	DESIGN DETAILER	JKO	PEB	09/18
	CHECKED BY	JKO	AES	09/18
	DESIGNED BY (AUTO)	J. OUND		SIGNATURE
	DESIGN DETAILED BY (AUTO)	-	-	-
	REVISIONS 1	-	-	P.E. NUMBER
	REVISIONS 2	-	-	-
	REVISIONS 3	-	-	-
	REVISIONS 4	-	-	DATE
	FIELD CHANGES	-	-	-

TOWN OF SCARBOROUGH
EASTERN TRAIL CONNECTOR
SCARBOROUGH TO SOUTH PORTLAND, MAINE

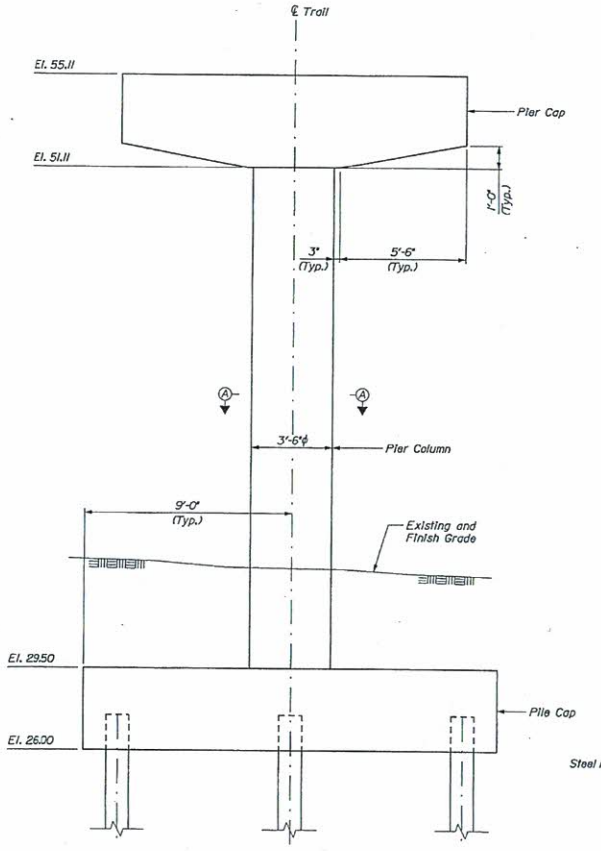
PAN AM RAILROAD
ABUT. NO. 2 PLAN & ELEV.

SHEET NUMBER
38
OF 43

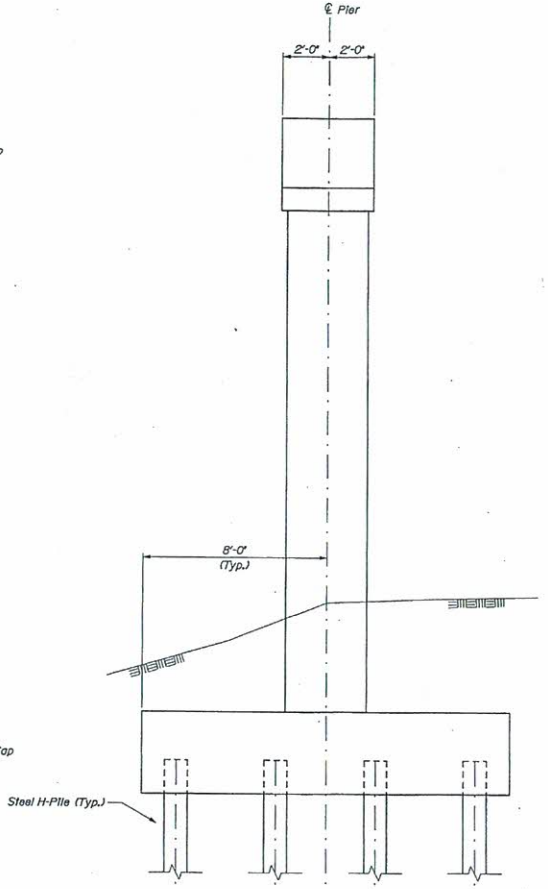
FINAL PIC
OCTOBER 26, 2018



PLAN



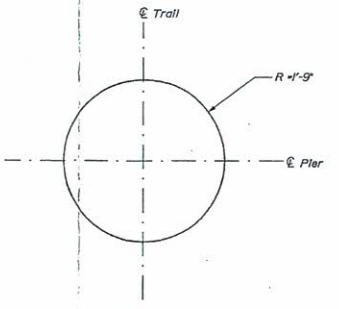
ELEVATION



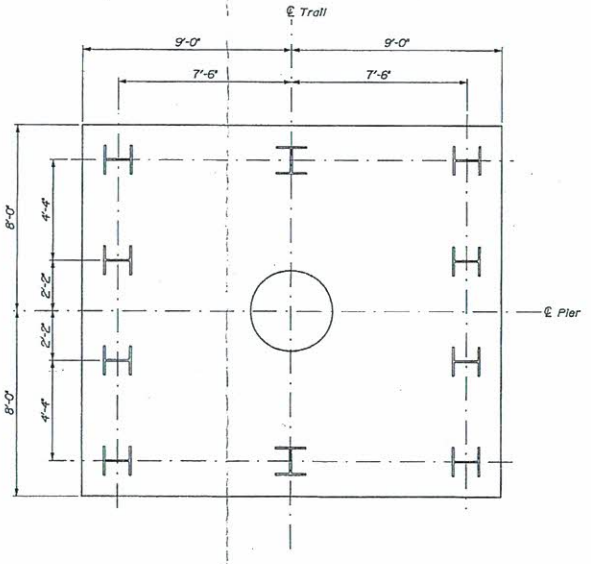
SIDE ELEVATION

PIER NOTES:

1. Reinforcing steel shall have a minimum concrete cover of 3 inches unless otherwise noted.



SECTION A-A



PILE CAP PLAN

HNTB

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-1942600 & STP-1942610

WIN
19426.00 & 019426.10 BRIDGE PLANS

	PROJ. MANAGER	T. COTE	BY	DATE
	DESIGN-DETAILED	JMD	FEB	09/18
	DESIGN-CHECKED	JMD	AES	09/18
	DESIGN-DETAILED	J. CLUKO	-	-
	DESIGN-DETAILED	-	-	-
	REVISIONS 1	-	-	-
	REVISIONS 2	-	-	-
	REVISIONS 3	-	-	-
	FIELD CHANGES	-	-	-

SIGNATURE

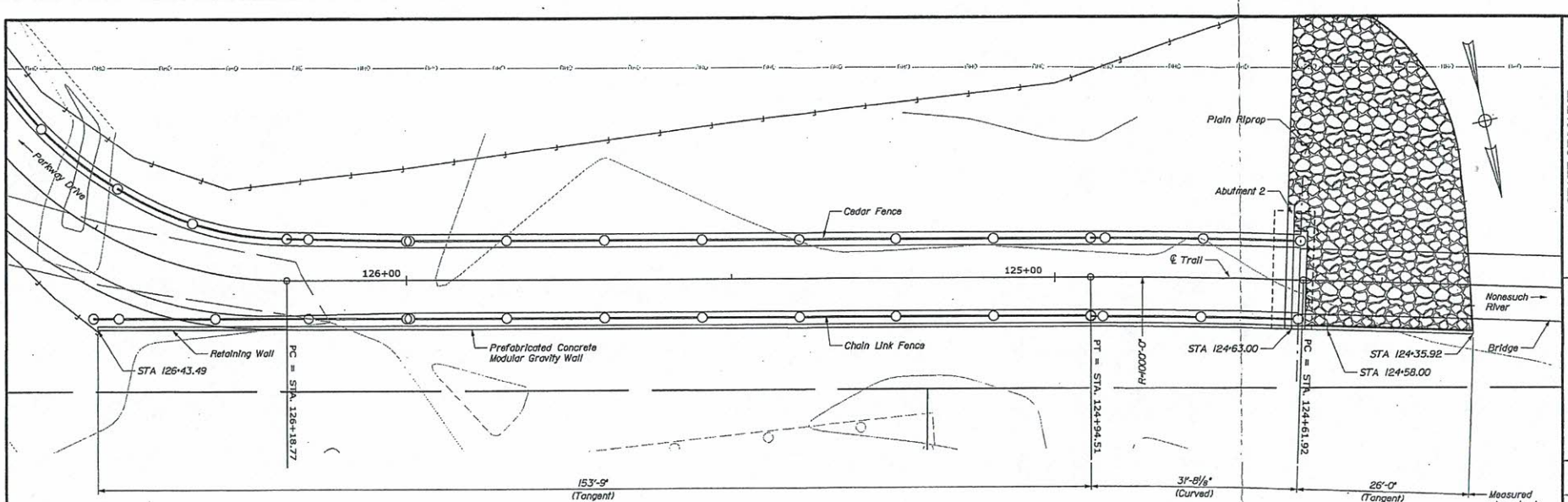
P.E. NUMBER

DATE

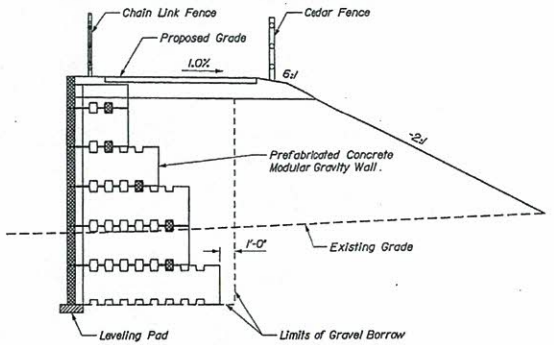
TOWN OF SCARBOROUGH
EASTERN TRAIL CONNECTOR
SCARBOROUGH TO SOUTH PORTLAND, MAINE

PAN AM RAILROAD
PIER PLAN & ELEVATION

SHEET NUMBER
39
OF 43



PLAN



TYPICAL WALL SECTION
(Looking Upstation)

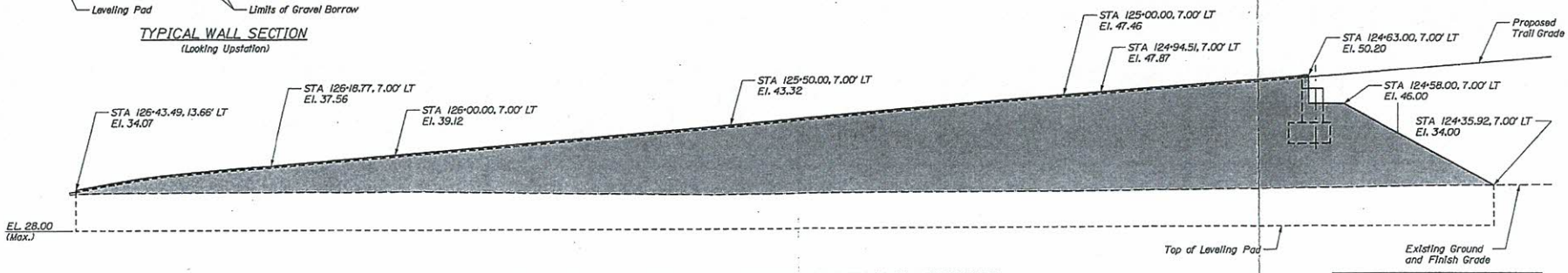
PREFABRICATED CONCRETE MODULAR GRAVITY WALL NOTES:

1. The Contractor shall provide a Prefabricated Concrete Modular Gravity (PCMG) Wall in accordance with Section 674. The PCMG Wall shall be designed and stamped by a Registered Professional Engineer and the design shall be submitted to the Resident for review. Plan details are shown for estimating purposes only.

2. The PCMG Wall shall be selected from the MaineDOT Qualified Products List for Retaining All Systems, Approved Wall Systems Meeting Standard Specifications Section 674.

3. The factored bearing pressure for PCMG Walls shall not exceed the factored bearing resistance of XX ksf for the strength limit state. The factored bearing pressure for the service limit state shall not exceed the factored bearing resistance of XX ksf.

4. Payment for any temporary sheeting or shoring necessary for excavation and installation of the PCMG Wall will be considered incidental to Item 674.10, Prefabricated Concrete Modular Gravity Wall.



PREFABRICATED CONCRETE MODULAR GRAVITY WALL ELEVATION

FINAL PIC
OCTOBER 26, 2018

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-1942600 & STP-1942510

WIN
19426.00 & 019426.10 BRIDGE PLANS

	T. COTE	BY	DATE
PROJ. MANAGER			
DESIGN-DETAILED	JKD	FEB	09/18
CHECKED-REVIEWED	GLS	AES	09/18
DESIGN-DETAILED	J. OLIVO	-	-
RE-DESIGN-DETAILED	-	-	-
REVISIONS 2	-	-	-
REVISIONS 3	-	-	-
REVISIONS 4	-	-	-
FIELD CHANGES	-	-	-

SIGNATURE

P.E. NUMBER

DATE

TOWN OF SCARBOROUGH
EASTERN TRAIL CONNECTOR
SCARBOROUGH TO SOUTH PORTLAND, MAINE

PAN AM RAILROAD
RETAINING WALL

SHEET NUMBER
40
OF 43

TOWN OF SCARBOROUGH
EASTERN TRAIL CONNECTOR
SCARBOROUGH TO SOUTH PORTLAND, MAINE
PLEASANT HILL ROAD
CROSSING PLAN
SHEET NUMBER 41 OF 43
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
STP-19426OO & STP-194261O
WIN 19426.00 & 019426.10 HIGHWAY PLANS
PROJ. MANAGER T. COTE
DESIGN-DETAILED C.Hathaway 05\18
CHECKED-REVIEWED L.Bridgwell L.BLUND
DESIGNATED L.BLUND - -
DESIGNATED - - -
REVISIONS 1 - - -
REVISIONS 2 - - -
REVISIONS 3 - - -
REVISIONS 4 - - -
FIELD CHANGES - - -
SIGNATURE P.E. NUMBER DATE
FINAL PIC
OCTOBER 26, 2018
CENTRAL MAINE POWER
KEENAN EXCAVATING COMPANY, LLC
LISA C.
DAVID A.
WILLIAM J. LEVANDOWSKI
PATRICIA S. LEVANDOWSKI
LARRY W. SMITH
THOMAS G. FASULO
PLEASANT HILL RD.
INSTALL W/ RECTANGULAR RAPID FLASHING BEACONS
INSTALL W/ RECTANGULAR RAPID FLASHING BEACONS
STOP
STOP
BEGIN TYPICAL SECTION A
PAVED APPROACH
PAVED APPROACH
BEGIN TYPICAL SECTION A
TIMBER GUARDRAIL (TYP.)
DETECTABLE WARNING FIELD (TYP.)
PROPOSED CROSSWALK (REPAINTED AS PART) FIELD ADJUST IF NECESSARY
COLLAPSIBLE BOLLARDS (TYP.)
138+00
139+00
137+00
136+00
135+00
NOTE:
1. COLLAPSIBLE BOLLARDS SHALL BE PLACED A MINIMUM OF 10' FROM THE ROADWAY CROSSING.
2. TIMBER GUARDRAIL SHALL BE INSTALLED AS SHOWN ON THE PLANS OR AS DIRECTED BY THE RESIDENT. EXACT LOCATION AND LENGTH OF GUARDRAIL WILL BE DETERMINED BY THE RESIDENT
20 0 20 40



TOWN OF SCARBOROUGH
EASTERN TRAIL CONNECTOR
SCARBOROUGH TO SOUTH PORTLAND, MAINE

PWD ACCESS ROAD
CROSSING PLAN

PROJ. MANAGER	T. COTE	BY	DATE
DESIGN-DETAILED	C.Helmick		09\18
CHECKED-REVIEWED	L. DRISCOLL	J. OLUND	
DESIGN2-DETAILED2	J. OLUND	-	-
DESIGN3-DETAILED3	-	-	-
REVISIONS 1	-		-
REVISIONS 2	-		-
REVISIONS 3	-		-
REVISIONS 4	-		-
FIELD CHANGES	-		-

SIGNATURE

P.E. NUMBER

DATE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-1942600 & STP-1942610

WIN
19426.00 & 019426.10 HIGHWAY PLANS

SHEET NUMBER
42
OF 43

TOWN OF SCARBOROUGH

EASTERN TRAIL CONNECTOR
SCARBOROUGH TO SOUTH PORTLAND, MAINE

WAINWRIGHT COMPLEX
CROSSING PLAN

SHEET NUMBER 43 OF 43

PROJ. MANAGER	T. COTE	BY	DATE
DESIGN-DETAILED	C.Hamlyn		05\18
CHECKED-RETAILED	L. DISCOLL	L. OLUND	-
DESIGN-DETAILED2	-	-	-
DESIGN3-DETAILED3	-	-	-
REVISIONS 1	-	-	-
REVISIONS 2	-	-	-
REVISIONS 3	-	-	-
REVISIONS 4	-	-	-
FIELD CHANGES	-	-	-

SIGNATURE — P.E. NUMBER — DATE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-19426OO & STP-19426I0

WIN
19426.00 & 019426.10 HIGHWAY PLANS

FINAL PIC
OCTOBER 26, 2018

REMOVE EXISTING SIDEWALK AND INSTALL CROSSING TO MEET ADA GUIDELINES

184+00

183+00

182+00

181+00

180+00

179+00

178+00

STOP

STOP

100'

BEGIN TYPICAL SECTION F

GARY L VALETTA WAY

CITY OF SOUTH PORTLAND

PAVED APPROACH

TIMBER GUARDRAIL

PROPOSED CROSSWALK (EXACT LOCATION AND LAYOUT SHALL BE FIELD ADJUSTED AS NECESSARY)

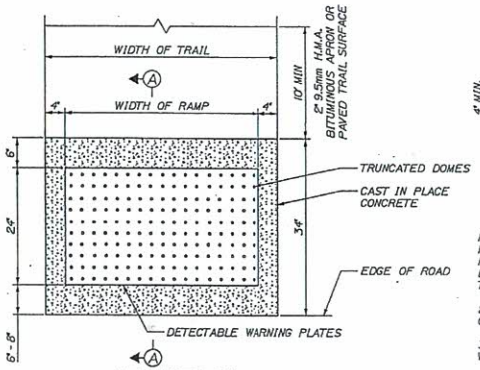
DETECTABLE WARNING FIELD (TYP.)

COLLAPSIBLE BOLLARDS

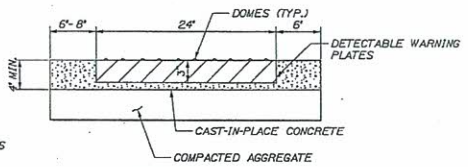
NOTE:
1. COLLAPSIBLE BOLLARDS SHALL BE PLACED A MINIMUM OF 30' FROM THE ROADWAY CROSSING.
2. TIMBER GUARDRAIL SHALL BE INSTALLED AS SHOWN ON THE PLANS OR AS DIRECTED BY THE RESIDENT. EXACT LOCATION AND LENGTH OF GUARDRAIL WILL BE DETERMINED BY THE RESIDENT.

10 0 10 20

Trainline - 6102 Trainline complex crossing | Management
Date: 10/ 29/ 2018



PLAN VIEW OF DETECTABLE WARNING AND WELL



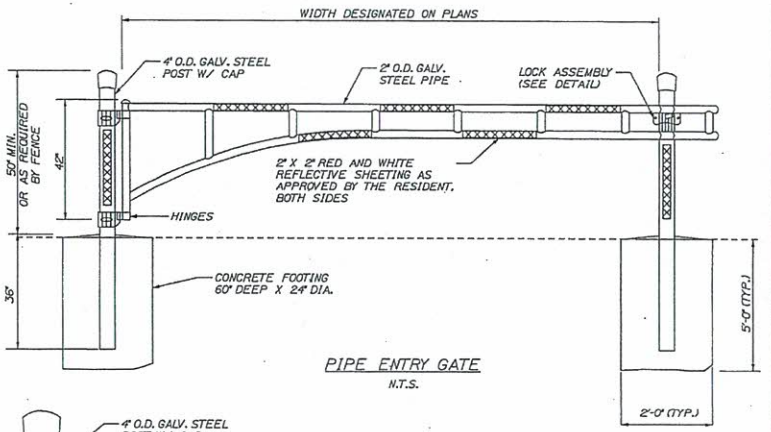
SECTION A-A

NOTE:
1. ALL DETECTABLE WARNING AREAS SHALL START 6' FROM THE FLOW LINE OF THE CURB AND BE 24" IN DEPTH AND COVER THE COMPLETE WIDTH OF THE TRAIL.

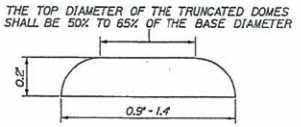
2. DETECTABLE WARNINGS REQUIRED AT STREET CROSSINGS.

3. SEE SPECIAL PROVISION 608, CURB RAMP DETECTABLE WARNING FIELD FOR CONSTRUCTION REQUIREMENTS.

4. DOMES SHALL BE EQUALLY SPACED IN BOTH DIRECTIONS 1.6" TO 2.4".

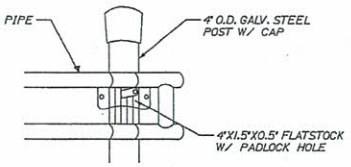


PIPE ENTRY GATE
N.T.S.



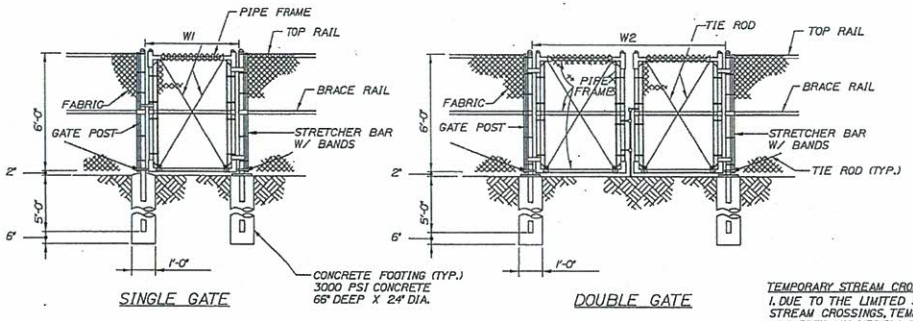
ELEVATION VIEW OF TRUNCATED DOME

DRAFT PS&E PLANS
February 8, 2019



LOCK ASSEMBLY
N.T.S.

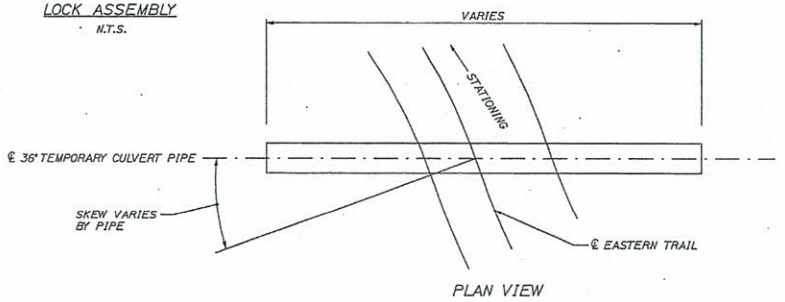
DETECTABLE WARNING FIELD DETAILS
N.T.S.



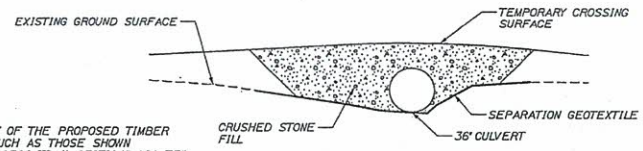
SINGLE GATE

DOUBLE GATE

GATE WIDTH		GATE POST O.D.
W1	W2	
TO 6'	TO 12'	3"
6' TO 12'	12' TO 24'	4"
12' TO 18'	24' TO 36'	6"



PLAN VIEW



ELEVATION
(NORMAL TO STREAM; SKEW NOT SHOWN)

TEMPORARY STREAM CROSSING NOTES:

1. DUE TO THE LIMITED STRUCTURAL CAPACITY OF THE PROPOSED TIMBER STREAM CROSSINGS, TEMPORARY CROSSINGS, SUCH AS THOSE SHOWN CONCEPTUALLY HEREIN, SHALL BE USED TO ACCESS TRAIL SECTIONS LOCATED BETWEEN STREAMS FOR THE PURPOSE OF CLEARING, GRUBBING, TRAIL CONSTRUCTION, AND OTHER ACTIVITIES NECESSITATING CROSSING THE STREAMS WITH HEAVY EQUIPMENT.

2. TEMPORARY STREAM CROSSING DETAILS PROVIDED ARE CONCEPTUAL ONLY; THE CONTRACTOR SHALL SUBMIT ACTUAL TEMPORARY CROSSING DETAILS FOR APPROVAL.

3. PAYMENT FOR INSTALLATION AND REMOVAL OF TEMPORARY STREAM CROSSINGS WILL NOT BE MADE SEPARATELY AND WILL BE CONSIDERED INCIDENTAL TO RELATED CONTRACT ITEMS, INCLUDING TEMPORARY CULVERTS, CRUSHED STONE FILL, SEPARATION GEOTEXTILE, AND OTHER APPROVED MATERIALS AS WELL AS ALL LABOR AND EQUIPMENT NECESSARY TO COMPLETE THE WORK.

TEMPORARY CROSSING DETAIL
TEMPORARY STREAM CROSSINGS ARE LOCATED AT THE FOLLOWING APPROXIMATE STATIONS:

STATION 162+92
STATION 174+25
STATION 175+58
STATION 176+26

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
STP-1942600 & STP-1942610
WIN 19426.00 & 019426.10 HIGHWAY PLANS

PROJ. MANAGER	BILL REDIX	BY	DATE
DESIGN-DETAILED	C. DRISCOLL	P. Bishop	01/18
CHECKED-REVIEWED	C. DRISCOLL	J. Blunt	01/18
DESIGN2-DETAILED1	-	-	-
DESIGN3-DETAILED3	-	-	-
REVISIONS 1	-	-	-
REVISIONS 2	-	-	-
REVISIONS 3	-	-	-
REVISIONS 4	-	-	-
FIELD CHANGES	-	-	-

SIGNATURE

P.E. NUMBER

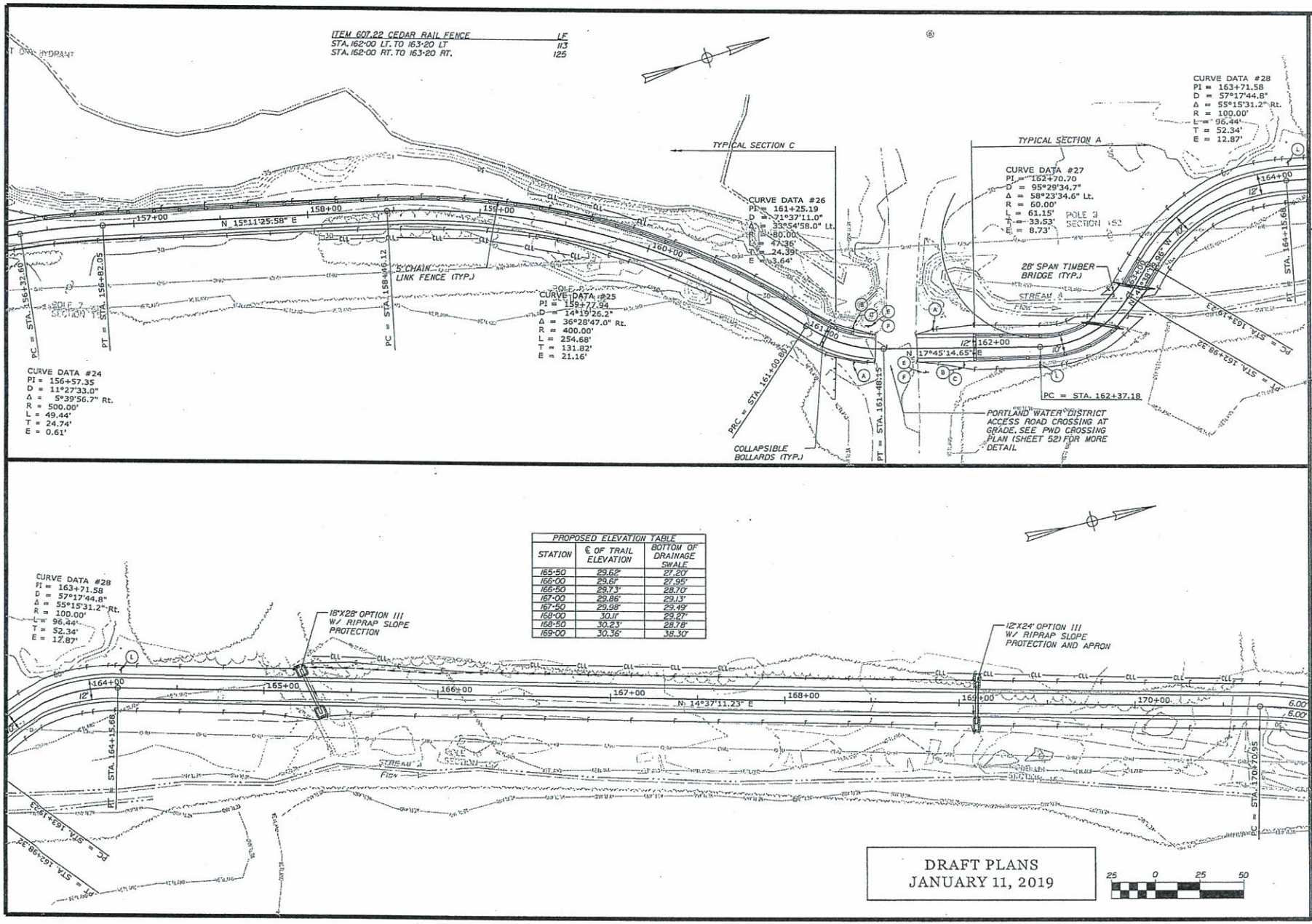
DATE

TOWN OF SCARBOROUGH
EASTERN TRAIL CONNECTOR
SCARBOROUGH TO SOUTH PORTLAND, MAINE

TRAIL DETAILS II

SHEET NUMBER
13
OF 66

Filename: 013_TrailDetails II.dgn Division: Username: Date: 2/8/2019



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-1942600 & STP-19426I0

WIN
19426.00 & 019426.10 HIGHWAY PLANS

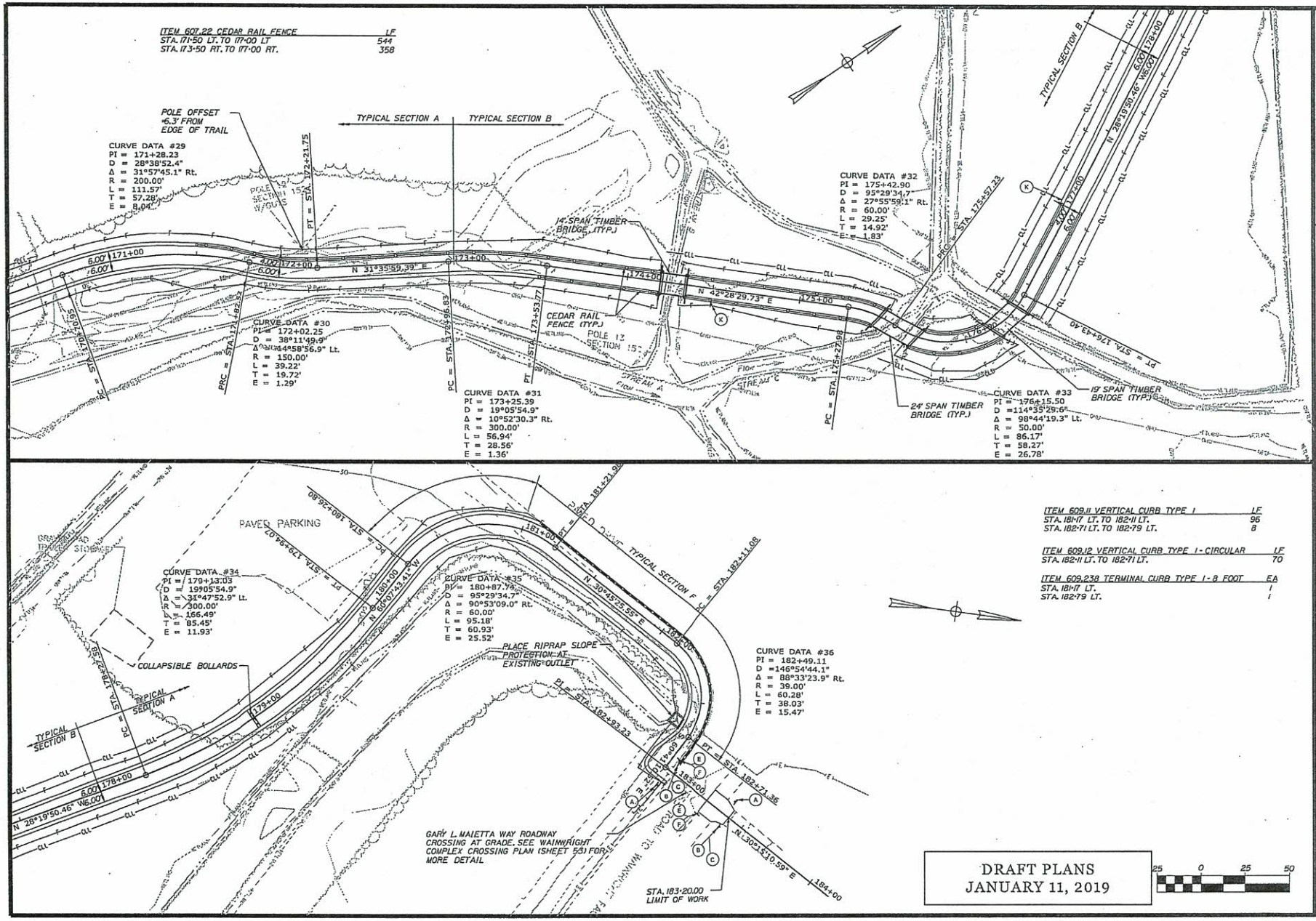
PROJ. MANAGER	BILL REICHL	BY	DATE	
DESIGN-DETAILER	C.Hancock	P. Bishop	12/18	SIGNATURE
CHECKED-REVIEWED	L. PRICOLI	J. Ouellette	12/18	
DESIGN-DETAILER	-	-	-	P.E. NUMBER
REVISIONS 1	-	-	-	
REVISIONS 2	-	-	-	
REVISIONS 3	-	-	-	DATE
REVISIONS 4	-	-	-	
TRAIL PLANNER	-	-	-	

TOWN OF SCARBOROUGH
EASTERN TRAIL CONNECTOR
SCARBOROUGH TO SOUTH PORTLAND, MAINE

TRAIL PLAN 5

SHEET NUMBER
19
OF 65

Date:1/11/2019 Username: Division: Filename: 019_Trail\Plan05.dgn



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
STP-1942600 & STP-1942610
WIN 19426.00 & 019426.10 HIGHWAY PLANS

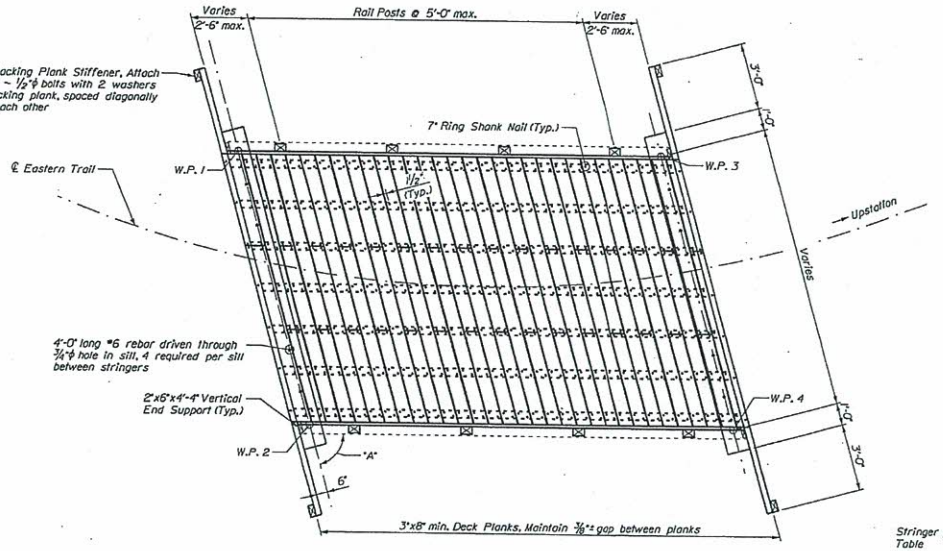
	PROJ. MANAGER	BILL RICKER		
	DESIGN-DETAILED	C.Phillips	BY	DATE
	CHECKED-DETAILED	L. BROOKS	P. Bolton	01/18
	DESIGN-DETAILED	J. Dodd	J. Dodd	01/18
	REVISIONS 1	-	-	SIGNATURES
	REVISIONS 2	-	-	
	REVISIONS 3	-	-	P.E. NUMBER
	REVISIONS 4	-	-	
	FIELD CHANGES	-	-	DATE

TOWN OF SCARBOROUGH
EASTERN TRAIL CONNECTOR
SCARBOROUGH TO SOUTH PORTLAND, MAINE

TRAIL PLAN 6

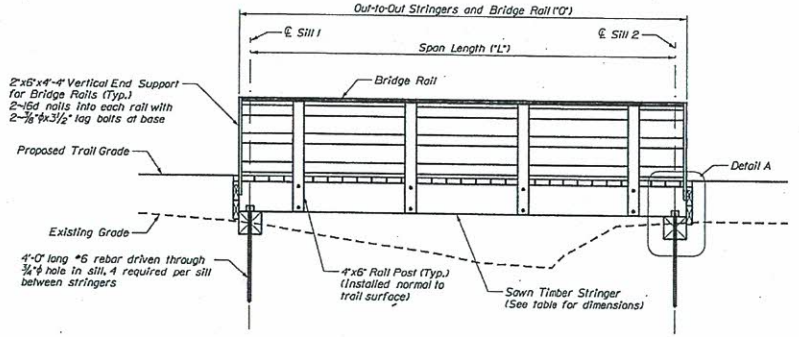
SHEET NUMBER
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OF 65

Date: 1/11/2019 Username: Division: Filename: 020_TrailPlan06.dgn



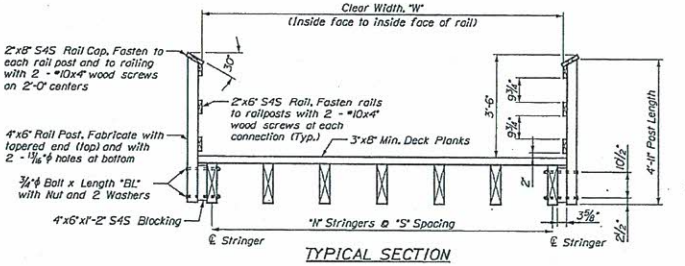
PLAN

(Trail bridge at station 176+25 shown, others similar)

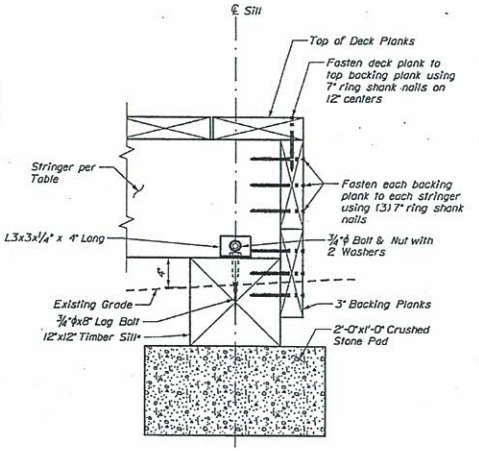


ELEVATION

(Skew not shown)



TYPICAL SECTION



DETAIL A

TIMBER SILL CONNECTION DETAIL

(Rebar drift pin not shown for clarity)
*Timber sill can be either 12"x12" solid sawn or built-up 2"x12", 3"x12", 4"x12", and 6"x12" treated members.

NOTES:

1. Fasten deck planks to stringers with two rows of ⅝"ϕx7" ring shank nails per plank at each stringer. Alternate centers.

2. Splice rails at posts. Rails shall be continuous for two post spaces. Do not locate more than one rail splice at any one bridge rail post.

3. Prebore lag bolt holes using two diameters, one for the shank and one for the threads. The lead hole for the shank is to be 1/16" larger than the shank diameter and is to be bored to the depth of penetration of the shank. The lead hole for the threaded portion is to be 70% of the bolt diameter as shown on the Plans and is to be bored at least to the length of the threads. Do not drive lag bolts with a hammer.

Bridge	WP1 (Sta. & Offset)	WP2 (Sta. & Offset)	WP3 (Sta. & Offset)	WP4 (Sta. & Offset)	L (Span Length)	O (Out-to-Out)	W (Clear Width)	A (Skew Angle)	N (# of Stringers)	S (Stringer Spacing)	Stringer Size	BL (Bolt Length)
Sta. 162+90.00	Sta. 162+69.57 6.06' Left	Sta. 162+80.89 5.83' Right	Sta. 163+01.15 8.04' Left	Sta. 163+07.16 7.17' Right	28'-0"	29'-1¾"	14'-0"	60°	8	1'-10⅜"	6"x16"	15"
Sta. 174+25.00	Sta. 174+19.44 5.13' Left	Sta. 174+19.44 7.13' Right	Sta. 174+33.44 5.13' Left	Sta. 174+33.44 7.13' Right	14'-0"	15'-0"	12'-0"	90°	7	1'-10⅝"	4"x12"	13"
Sta. 175+60.00	Sta. 175+48.67 4.95' Left	Sta. 175+44.63 7.10' Right	Sta. 175+73.65 4.75' Left	Sta. 175+68.59 6.85' Right	24'-0"	25'-0½"	12'-0"	105°	7	1'-10⅛"	6"x14"	15"
Sta. 176+25.00	Sta. 176+13.34 4.58' Left	Sta. 176+18.82 6.81' Right	176+34.57 5.32' Left	176+35.54 7.32' Right	19'-0"	20'-0½"	12'-0"	75°	7	1'-10⅝"	4"x16"	13"

DRAFT PLANS
JANUARY 11, 2019

HNTB

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
STP-1942600 & STP-1942610
WIN
19426.00 & 019426.10
BRIDGE PLANS

PROJ. MANAGER	BILL REICH	BY	DATE
DESIGN-DETAILED	CHRIS	P. Bibbo	1/18
DESIGN-CHECKED	MICHAEL	J. Blake	1/18
DESIGN-DETAILED 2		-	-
DESIGN-DETAILED 3		-	-
REVISIONS 1		-	-
REVISIONS 2		-	-
REVISIONS 3		-	-
REVISIONS 4		-	-
FIELD CHANGES		-	-

SIGNATURE

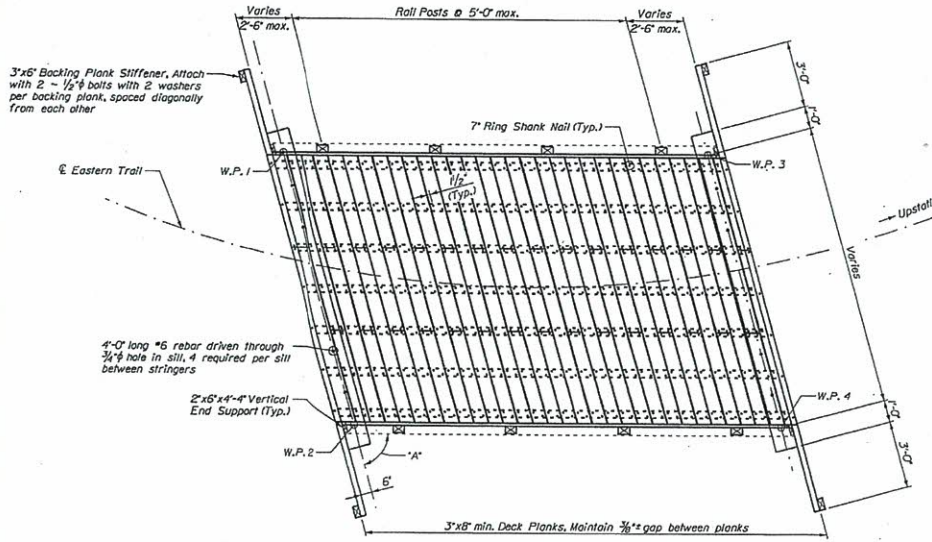
P.E. NUMBER

DATE

EASTERN TRAIL CONNECTOR
SCARBOROUGH · CUMBERLAND
TIMBER TRAIL BRIDGE
DETAILS

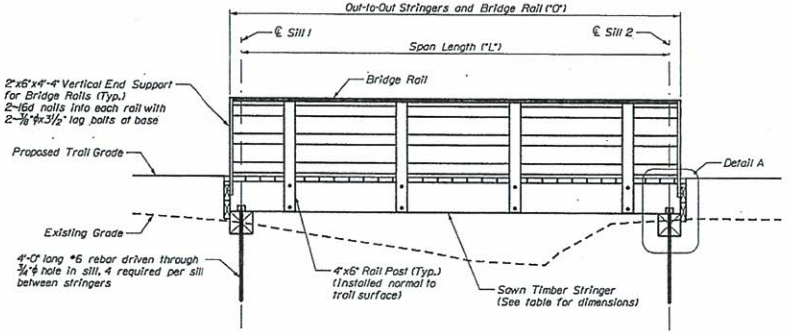
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OF 65

Date: 1/11/2019 Username: Division: Filename: 00X_Timber Bridge.dgn



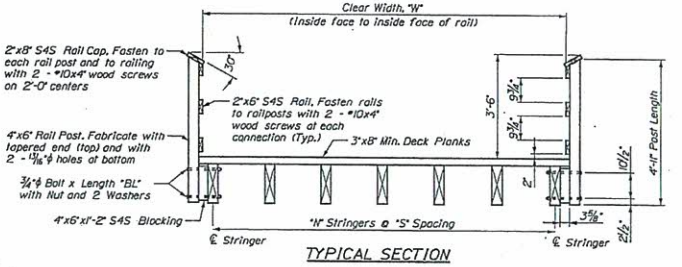
PLAN

(Trail bridge at station 176+25 shown, others similar)

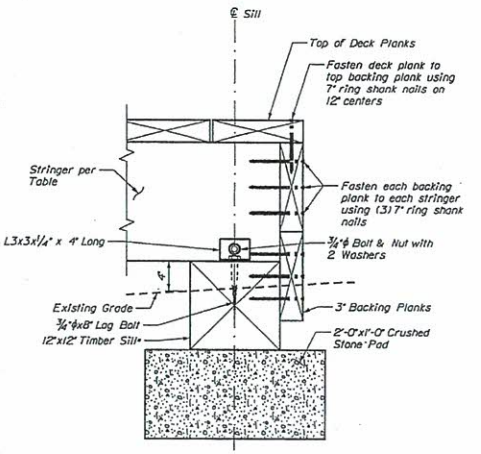


ELEVATION

(Skew not shown)



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TIMBER SILL CONNECTION DETAIL

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NOTES:

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DRAFT PLANS
JANUARY 11, 2019

HNTB

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-1942600 & STP-1942610

WIN 19426.00 & 019426.10 BRIDGE PLANS

	PROJ. MANAGER	BILL REDKA	BY	DATE
	DESIGN-DETAILED	C.Hendrick	P. Bibby	12/18
	CHECKED-REVIEWED	C.Mitchell	J. Ebert	12/18
	DESIGN-DETAILED	-	-	-
	REVISIONS 1	-	-	-
	REVISIONS 2	-	-	-
	REVISIONS 3	-	-	-
	REVISIONS 4	-	-	-
	FIELD CHANGES	-	-	-

SIGNATURE

P.E. NUMBER

DATE

EASTERN TRAIL CONNECTOR
SCARBOROUGH CUMBERLAND

TIMBER TRAIL BRIDGE DETAILS

SHEET NUMBER
X
OF 65

Date: 1/11/2019
Username:
Division:
Filename: 00X_Timber Bridge.dgn

STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION
17 STATE HOUSE STATION AUGUSTA, MAINE 04333-0017

DEPARTMENT ORDER

IN THE MATTER OF

TOWN OF SCARBOROUGH	) STORMWATER MANAGEMENT LAW
Scarborough & South Portland	) NATURAL RESOURCES PROTECTION ACT
Cumberland County	) FRESHWATER WETLAND ALTERATION
EASTERN TRAIL CONNECTOR	) ACTIVITY ADJACENT
L-28061-NJ-D-N (approval)	) WATER QUALITY CERTIFICATION
L-28061-TE-E-N (approval)	)
L-28061-2F-F-N (approval)	) FINDINGS OF FACT AND ORDER

Pursuant to the provisions of 38 M.R.S. §§ 480-A–480-JJ, 38 M.R.S. § 420-D, Section 401 of the Federal Water Pollution Control Act (33 U. S. C. § 1341), and Chapters 310, 315, and 500 of Department rules, the Department of Environmental Protection (Department) has considered the application of TOWN OF SCARBOROUGH (applicant) with the supportive data, agency review comments, and other related materials on file and FINDS THE FOLLOWING FACTS:

1. PROJECT DESCRIPTION:

A. Summary: The Town of Scarborough, in cooperation with the City of South Portland, the Maine Department of Transportation (MDOT) and the Eastern Trail Management District proposes to construct a stormwater management system for 1.6 miles of non-motorized pedestrian/bike path between the northern end of the existing Eastern Trail on the south side of the Nonesuch River in Scarborough to the southern end the Eastern Trail segment in the Wainwright recreation field complex in South Portland. The proposed trail will have either a paved or stone dust surface depending on the location and will be 10 feet wide to 12 feet wide paved or stone dust trail, that will include permanently maintained two-foot-wide loamed and seeded trail shoulders. The proposed trail adds approximately 2.15 acres of new developed area of which 1.62 is new impervious area. A two-foot-wide grassed shoulder on each side of the trail will be regularly mowed and maintained for public safety, accounting for 31,670 sf (0.73 acres) of the proposed trail.

The trail will follow the existing ground surface with the exception of the proposed bridge to cross the Nonesuch River that will utilize the existing abandoned railroad bridge abutments, the proposed bridge over the Pan Am Railway corridor, stream crossings and in wetlands where the trail will be elevated two feet above existing grade. The applicant submitted a Notice of Intent (NOI #80172) to comply with the standards and requirements of the Maine Construction General Permit which was accepted by the Department on Augusta 5,2024.

The project is shown on set of plans, the first of which is titled “Town of Scarborough Eastern Trail Connector, Scarborough to South Portland, Maine,” prepared by State of Maine Department of Transportation, and dated October 26, 2018. The project site starts near the northeast end of Desfosses Avenue in the Town of Scarborough, crosses

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Parkway Drive, and Pleasant Hill Road and ends near Gary L. Maietta Way in the City of South Portland.

The applicant is seeking approval to fill 21,200 square feet (0.46 acres) of forested and scrub shrub freshwater wetland and to temporarily impact 7,050, square feet (0.16 acres) for construction to be restored under the Natural Resources Protection Act (NRPA) as part of the proposed project. The Department accepted a NRPA Permit by Rule Notification Form (PBR #80173) on August 5,2024 pursuant to Chapter 305 Permit by Rule Standards Section 10 (06-096 Ch. 305, § 10, last amended June 8, 2012) for stream crossings associated with the proposed project.

C. Current Use of the Site: The proposed trail begins at an abandoned railroad bed, that crosses the Nonesuch River threads through a mixed mature forest with forested wetlands, over the Pan Am rail line, then follows an existing cleared transmission line corridor to Pleasant Hill Road. The proposed trail continues along in the transmission line corridor for approximately 400 feet then shifts onto an existing gravel road along the southern perimeter of Prout's Pond, which is a manmade pond. The trail crosses a stream and follows a narrow, cleared power line corridor adjacent to the same stream, crosses two other streams and a wetland and continues through a short section of forest. The proposed trail traverses existing lawn area that is part of the Wainwright Sports Complex and then ties into the existing trail at Gary L. Maietta Way.

2. STORMWATER STANDARDS:

The proposed project includes approximately 2.15 acres of new developed area of which 1.62 of is new impervious area. It lies within the watershed of the Nonesuch River, considered an Urban Impaired stream, and the Spurwink River. The applicant submitted a stormwater management plan based on the Basic and General Standards contained in Department Rules, Chapter 500. The proposed stormwater management system consists of 51 segments of four-inch erosion control mix blankets at a minimum five-foot width applied to all new trail side slopes.

A. Basic Standards:

(1) Erosion and Sedimentation Control: The applicant submitted an Erosion and Sedimentation Control Plan that is based on the performance standards contained in Appendix A of Chapter 500 and the Best Management Practices outlined in the Maine Erosion and Sediment Control BMPs, which were developed by the Department. This plan and plan sheets containing erosion control details were reviewed by, and revised in response to the comments of the Bureau of Land Resources (BLR).

Erosion control details will be included on the final construction plans and the erosion control narrative will be included in the project specifications to be provided to the construction contractor.

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(2) Inspection and Maintenance: The applicant submitted a maintenance plan that addresses both short and long-term maintenance requirements. This plan was reviewed by, and revised in response to the comments of, BLR. The maintenance plan is based on the standards contained in Appendix B of Chapter 500. The Town of Scarborough and the City of South Portland will be responsible for the maintenance of the trail and its associated stormwater management system within their respective town and city.

(3) Housekeeping: The proposed project will comply with the performance standards outlined in Appendix C of Chapter 500.

Based on BLR's review of the erosion and sedimentation control plan and the maintenance plan, the Department finds that the proposed project meets the Basic Standards contained in 500(4)(B).

B. General Standards:

The applicant's stormwater management plan includes general treatment measures that will mitigate for the increased frequency and duration of channel erosive flows due to runoff from smaller storms, provide for effective treatment of pollutants in stormwater, and mitigate potential temperature impacts. Portions of the trail are over existing gravel road, are considered linear portions of the project or are wetland road crossing therefore meet exceptions under Chapter 500 Section 4(C)(5) that are not required to provide stormwater runoff treatment. Other portions of the project are requesting Department approval under Chapter 500 Section 4(C)(3)(e) for innovative treatment measures that may be either proprietary or non-proprietary, and must provide at least as much pollutant removal as listed treatment measures and as much channel protection and temperature control unless otherwise unnecessary as determined by the Department. Utilizing erosion control mix blankets, the applicant is proposing to treat stormwater runoff from 88.6% of the impervious area and 90.2% of the developed area.

The stormwater management system proposed by the applicant was reviewed by, and revised in response to comments from, BLR. Based on the designs and details included in HNTB Project Correspondence with the subject, “Eastern Trail Scarborough to South Portland Stormwater Management Law Permit Application Supplemental Information,” dated December 17, 2024, the proposed alternative treatment measures for the proposed stormwater management system are acceptable and in accordance with the Chapter 500 General Standards.

Based on the stormwater system’s design and BLR’s review, the Department finds that the applicant has made adequate provision to ensure that the proposed project will meet the Basic and General Standards contained in Chapter 500.

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3. EXISTING SCENIC, AESTHETIC, RECREATIONAL OR NAVIGATIONAL USES:

The Natural Resources Protection Act (NRPA), in 38 M.R.S. §480-D(1), requires the applicant to demonstrate that the proposed project will not unreasonably interfere with existing scenic, aesthetic, recreational and navigational uses.

In accordance with Chapter 315, *Assessing and Mitigating Impacts to Scenic and Aesthetic Uses* (06-096 C.M.R. Chapter 315, effective June 29, 2003), the applicant submitted a copy of the Department's Visual Evaluation Field Survey Checklist as Appendix A to the application along with a description of the property and the proposed project. The applicant also submitted several photographs of the proposed project site and surroundings. Department staff visited the project site on June 25, 2010.

The project's proposed wetland impacts are located in scrub shrub wetlands where the trees are routinely cut as maintenance of the power line corridor and forested wetlands, which are not scenic resources visited by the general public, in part, for the use, observation, enjoyment, and appreciation of its natural and cultural visual qualities. A short section of the proposed trail would be visible from the Nonesuch River where the trail crosses the river and emerges from the woods onto the cleared transmission line corridor which is approximately 200 feet from the channel of the Nonesuch River. The elevation of the bottom of the proposed bridge over the Nonesuch River will be almost nine feet above the approximate 100-year flood elevation of the river; this will allow small boats, canoes, and kayaks to continue to pass under the proposed bridge.

The Department determined that based on the nature of the proposed project and its location, there are no existing recreational or navigational uses of the resource that would be unreasonably impacted.

The Department finds that the proposed activity will not unreasonably interfere with existing scenic, aesthetic, recreational or navigational uses of the forested and scrub shrub wetlands.

4. SOIL EROSION:

The NRPA, in 38 M.R.S. §480-D(2), requires the applicant to demonstrate that the proposed project will not cause unreasonable erosion of soil or sediment nor unreasonably inhibit the natural transfer of soil from the terrestrial to the marine or freshwater environment.

The applicant has provided an erosion and sedimentation control narrative and plans that show the details and locations of the erosion controls which were included in the project submittals as part of the Stormwater Management Basic Standards. The finished surface of the trail will be a bituminous pavement in the location where grades exceed three

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percent and where the trail passes through the Nonesuch River floodplain to minimize erosion potential. This information was reviewed and found acceptable.

The Department finds that the activity will not cause unreasonable erosion of soil or sediment nor unreasonably inhibit the natural transfer of soil from the terrestrial to the marine or freshwater environment.

5. HABITAT CONSIDERATIONS:

The NRPA, in 38 M.R.S. §480-D(3), requires the applicant to demonstrate that the proposed project will not unreasonably harm significant wildlife habitat, freshwater wetland plant habitat, threatened or endangered plant habitat, aquatic or adjacent upland habitat, travel corridor, freshwater, estuarine, or marine fisheries or other aquatic life.

According to the Department's Geographic Information System (GIS) database there are no mapped Essential or Significant Wildlife Habitats located in the location of the proposed trail. The Nonesuch River and the wetlands associated with it are mapped Tidal Waterfowl and Wading Bird Habitat (TWWH), which is Significant Wildlife Habitat as defined by the NRPA Chapter 335. The applicant minimized impacts to the TWWH by relocating the proposed trail 75 feet away from the Nonesuch River and its associated wetlands.

A portion of the Central Maine Power utility corridor but outside of the project footprint has been mapped as New England Cottontail Habitat which is listed as a Maine endangered species. In 2018, A biologist from the Maine Department of Inland Fisheries and Wildlife (MDIFW) made field visits to the project location to determine the suitability of the project area as New England Cottontail (NEC) habitat. During the previous review of the project in 2018, MDIFW found that the transmission line corridor east of the Pan Am Railway line is suitable for NEC in summer when the herbaceous vegetation is providing cover, but is not suitable in the winter. In its response to the field visit, MDIFW stated that overall, they are not overly concerned about the direct impact of the project on the NEC. The applicant minimized impacts to NEC habitat in the transmission line corridor by locating the trail along the north side of the transmission line corridor adjacent commercial development; by utilizing the north side of the corridor whereby NEC are more likely to avoid. Impacts were further minimized in the NEC habitat by following existing grade which reduces the width required to be cleared.

The Department finds that the activity will not unreasonably harm any significant wildlife habitat, freshwater wetland plant habitat, threatened or endangered plant habitat, aquatic or adjacent upland habitat, travel corridor, freshwater, estuarine or marine fisheries or other aquatic life.

6. WATER QUALITY CONSIDERATIONS:

The applicant proposes to use common borrow, gravel, stone dust or bituminous pavement, loam, and erosion control mix to construct the majority of the proposed trail

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with the exception of the two bridges. These materials used as proposed are not likely to create any erosion or sedimentation problems that would reduce water quality.

The Department does not anticipate that the proposed project will violate any state water quality law, including those governing the classification of the State's waters.

7. WETLANDS AND WATERBODIES PROTECTION RULES:

The applicant is seeking approval to fill 21,200 square feet (0.46 acres) of forested and scrub shrub freshwater wetland and to temporarily impact 7,050, square feet (0.16 acres) under the Natural Resources Protection Act (NRPA) as part of the proposed project.

The *Wetlands and Waterbodies Protection Rules*, 06-096 C.M.R. Chapter 310 (last amended January 26, 2009), interpret and elaborate on the Natural Resources Protection Act criteria for obtaining a permit. The rules guide the Department in its determination of whether a project's impacts would be unreasonable. A proposed project would generally be found to be unreasonable if it would cause a loss in the wetland area, functions and values and there is a practicable alternative to the project that would be less damaging to the environment. Each application for a NRPA permit that involves a freshwater wetland alteration must provide an analysis of alternatives in order to demonstrate that a practicable alternative does not exist. A copy of this Order must be included or referenced with payment submittal.

A. Avoidance. An applicant must submit an analysis of whether there is a practicable alternative to the project that would be less damaging to the environment and this analysis is considered by the Department in its assessment of the reasonableness of any impacts. The applicant submitted an alternatives analysis for the proposed project completed by HNTB Corporation and dated July 2024. The purpose of the project is to create a non-motorized, four season, multi-use trail that completes the connection between the existing Eastern Trail segments at the Nonesuch River and the Wainwright field complex. The applicant's planning efforts for the trail location included several evaluations of numerous designs and configurations that would meet the design criteria and safety requirements, and that would also avoid and minimize natural resource impacts, as well as be an off-road trail in a natural setting. The applicant evaluated seventeen different possible trail segments; of these, ten segments did not meet the overall project purpose and were dismissed. The remaining seven segments were used to develop and evaluate nineteen alignments; two alignments met the project purpose and criteria and were advanced through a detailed analysis. The no-action alternative was reviewed and discarded because it did not meet the purpose and need of the project. Trail alignment "M" which included a segment of trail along Highland Avenue was examined; this alignment would have reduced wetland impacts however Highland Avenue is a busy roadway which posed an unacceptable safety risk to some user modes, abilities, and demographics, and would not provide the natural setting desired by the project. Trail alignment "L," which is the alignment for the proposed project, provides the trail users with a safe, Americans with Disabilities Act compliant, four season, off-road route

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suitable for all user modes, abilities, and demographics, within a natural setting and therefore was selected as the preferred alternative.

B. Minimal Alteration. In support of an application and to address the analysis of the reasonableness of any impacts of a proposed project, an applicant must demonstrate that the amount of freshwater wetland to be altered will be kept to the minimum amount necessary for meeting the overall purpose of the project. The applicant minimized wetland impacts by siting the overall trail location to avoid wetlands, by reusing the existing old railroad bridge abutments to cross the Nonesuch River thereby avoiding additional wetland impacts that would be required to cross in a different location, by narrowing the trail to ten feet wide where the trail crosses wetlands and streams, by aligning the trail to leave a minimum of a 25-foot setback to streams where constraints allowed, by utilizing the existing gravel road around Prout's Pond to minimize impacts to wetlands associated with a different alignment in this segment, by following the existing grades where possible to reduce the width of the side slopes of the trail, by using culverts at all wetland crossings to maintain hydrologic connectivity, by embedding culverts to prevent hanging outlets, and by aligning the trail to minimize stream impacts at stream crossings.

C. Compensation. In accordance with Chapter 310 §5(C)(6)(a)(ii), compensation is required to achieve the goal of no net loss of wetland functions and values because the project alters greater than 15,000 square feet of freshwater wetland, which is the threshold over which compensation is generally required. The applicant proposes to mitigate for the lost wetland functions and values by making a payment to the In-Lieu Fee (ILF) program of the Maine Natural Resource Conservation Fund (MNRCF).

The wetlands proposed to be impacted are classified as palustrine forest and managed palustrine scrub-shrub wetlands. The principal functions of the wetlands impacted are flood alteration, sediment-toxicant retention, and wildlife habitat. The wetlands providing these primary functions mostly occur in depressions, abut impervious surfaces and sources of sediment and toxin input, are well vegetated, have somewhat constricted outflow that allows for water retention and removal of pollutants.

The applicant proposes to make a contribution into the In-Lieu Fee program of the Maine Natural Resource Conservation Program in the amount of $127,412.00. Prior to the start of construction, the applicant must submit a payment in the amount of $127,412.00, payable to "Treasurer, State of Maine," and directed to the attention of the In-Lieu Fee Program Administrator at 17 State House Station, Augusta, Maine 04333.

The Department finds that the applicant has avoided and minimized freshwater wetland impacts to the greatest extent practicable, and that the proposed project represents the least environmentally damaging alternative that meets the overall purpose of the project provided prior to construction, the applicant submits the In-Lieu Fee payment as described above.

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7. OTHER CONSIDERATIONS:

The Department finds, based on the design, proposed construction methods, and location, the proposed project will not inhibit the natural transfer of soil from the terrestrial to the marine environment, will not interfere with the natural flow of any surface or subsurface waters, and will not cause or increase flooding. The proposed project is not located in a coastal sand dune system, is not a crossing of an outstanding river segment, and does not involve dredge spoils disposal or the transport of dredge spoils by water.

BASED on the above findings of fact, and subject to the conditions listed below, the Department makes the following conclusions pursuant to 38 M.R.S. § 420-D, and Chapters 500 of the Department's rules:

A. The applicant has made adequate provision to ensure that the proposed project will meet the Chapter 500 Basic Standards for: (1) erosion and sediment control; (2) inspection and maintenance; (3) housekeeping; and (4) grading and construction activity.

B. The applicant has made adequate provision to ensure that the proposed project will meet the Chapter 500 General Standards.

BASED on the above Findings of Fact, and subject to the conditions listed below, the Department makes the following conclusions pursuant to 38 M.R.S. §§ 480-A–480-JJ, Chapters 310, 315 and 335 of the Department's rules and Section 401 of the Federal Water Pollution Control Act:

A. The proposed activity will not unreasonably interfere with existing scenic, aesthetic, recreational or navigational uses.

B. The proposed activity will not cause unreasonable erosion of soil or sediment.

C. The proposed activity will not unreasonably inhibit the natural transfer of soil from the terrestrial to the marine or freshwater environment.

D. The proposed activity will not unreasonably harm any significant wildlife habitat, freshwater wetland plant habitat, threatened or endangered plant habitat; aquatic or adjacent upland habitat, travel corridor, freshwater, estuarine, or marine fisheries or other aquatic life provided prior to construction, the applicant submits the In-Lieu Fee payment as described in Finding 6.

E. The proposed activity will not unreasonably interfere with the natural flow of any surface or subsurface waters.

F. The proposed activity will not violate any state water quality law including those governing the classification of the State's waters.

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G. The proposed activity will not unreasonably cause or increase the flooding of the alteration area or adjacent properties.

H. The proposed activity is not on or adjacent to a sand dune.

I. The proposed activity is not on an outstanding river segment as noted in 38 M.R.S. § 480-P.

THEREFORE, the Department APPROVES the above noted application of TOWN OF SCARBOROUGH for stormwater management and wetlands alteration to construct the Eastern Trail Connector project as described herein, SUBJECT TO THE FOLLOWING CONDITIONS, and all applicable standards and regulations:

1. The Standard Conditions of Approval, a copy attached.

2. In addition to any specific erosion control measures described in this or previous orders, the applicant shall take all necessary actions to ensure that its activities or those of its agents do not result in noticeable erosion of soils or fugitive dust emissions on the site during the construction and operation of the project covered by this approval.

3. Severability. The invalidity or unenforceability of any provision, or part thereof, of this License shall not affect the remainder of the provision or any other provisions. This License shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.

4. Prior to the start of construction, the applicant shall submit a payment in the amount of $127,412.00, payable to "Treasurer, State of Maine", to the attention of the In-Lieu Fee Program Administrator at 17 State House Station, Augusta, Maine 04333. A copy of this Order shall be included or referenced with payment submittal.

THIS APPROVAL DOES NOT CONSTITUTE OR SUBSTITUTE FOR ANY OTHER REQUIRED STATE, FEDERAL OR LOCAL APPROVALS NOR DOES IT VERIFY COMPLIANCE WITH ANY APPLICABLE SHORELAND ZONING ORDINANCES.

DONE AND DATED IN AUGUSTA, MAINE, THIS 3rd DAY OF FEBRUARY, 2025.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: _____
For: Melanie Loyzim, Commissioner

PLEASE NOTE THE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES.

AJS/L28061DNENFN/ATS#92817,92818,92910

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STORMWATER STANDARD CONDITIONS

STRICT CONFORMANCE WITH THE STANDARD AND SPECIAL CONDITIONS OF THIS APPROVAL IS NECESSARY FOR THE PROJECT TO MEET THE STATUTORY CRITERIA FOR APPROVAL

Standard conditions of approval. Unless otherwise specifically stated in the approval, a department approval is subject to the following standard conditions pursuant to Chapter 500 Stormwater Management Law.

(1) Approval of variations from plans. The granting of this approval is dependent upon and limited to the proposals and plans contained in the application and supporting documents submitted and affirmed to by the permittee. Any variation from these plans, proposals, and supporting documents must be reviewed and approved by the department prior to implementation. Any variation undertaken without approval of the department is in violation of 38 M.R.S. §420-D(8) and is subject to penalties under 38 M.R.S. §349.

(2) Compliance with all terms and conditions of approval. The applicant shall submit all reports and information requested by the department demonstrating that the applicant has complied or will comply with all terms and conditions of this approval. All preconstruction terms and conditions must be met before construction begins.

(3) Advertising. Advertising relating to matters included in this application may not refer to this approval unless it notes that the approval has been granted WITH CONDITIONS, and indicates where copies of those conditions may be obtained.

(4) Transfer of project. Unless otherwise provided in this approval, the applicant may not sell, lease, assign, or otherwise transfer the project or any portion thereof without written approval by the department where the purpose or consequence of the transfer is to transfer any of the obligations of the developer as incorporated in this approval. Such approval may only be granted if the applicant or transferee demonstrates to the department that the transferee agrees to comply with conditions of this approval and the proposals and plans contained in the application and supporting documents submitted by the applicant. Approval of a transfer of the permit must be applied for no later than two weeks after any transfer of property subject to the license.

(5) Time frame for approvals. If the construction or operation of the activity is not begun within four years, this approval shall lapse and the applicant shall reapply to the department for a new approval. The applicant may not begin construction or operation of the project until a new approval is granted. A reapplication for approval may include information submitted in the initial application by reference. This approval, if construction is begun within the four-year time frame, is valid for seven years. If construction is not completed within the seven-year time frame, the applicant must reapply for, and receive, approval prior to continuing construction.

(6) Certification. Contracts must specify that "all work is to comply with the conditions of the Stormwater Permit." Work done by a contractor or subcontractor pursuant to this approval may not begin before the contractor and any subcontractors have been shown a copy of this approval with the conditions by the permittee, and the permittee and each contractor and subcontractor has certified, on a form provided by the department, that the approval and conditions have been received and read, and that the work will

Maine DEP Watermark

be carried out in accordance with the approval and conditions. Completed certification forms must be forwarded to the department.

(7) Maintenance. The components of the stormwater management system must be adequately maintained to ensure that the system operates as designed, and as approved by the Department. If maintenance responsibility is to be transferred from the permittee to another entity, a transfer request must be filed with the Department which includes the name and contact information for the person or entity responsible for this maintenance. The form must be signed by the responsible person or agent of the responsible entity.

(8) Recertification requirement. Within three months of the expiration of each five-year interval from the date of issuance of the permit, the permittee shall certify the following to the department.

(a) All areas of the project site have been inspected for areas of erosion, and appropriate steps have been taken to permanently stabilize these areas.

(b) All aspects of the stormwater control system are operating as approved, have been inspected for damage, wear, and malfunction, and appropriate steps have been taken to repair or replace the system, or portions of the system, as necessary.

(c) The stormwater maintenance plan for the site is being implemented as approved by the Department, and the maintenance log is being maintained.

(d) All proprietary systems have been maintained according to the manufacturer's recommendations. Where required by the Department, the permittee shall execute a 5-year maintenance contract with a qualified professional for the coming 5-year interval. The maintenance contract must include provisions for routine inspections, cleaning and general maintenance.

(e) The Department may waive some or all of these recertification requirements on a case-by-case basis for permittees subject to the Department's Multi-Sector General Permit ("MSGP") and/or Maine Pollutant Discharge Elimination System ("MEPDES") programs where it is demonstrated that these programs are providing stormwater control that is at least as effective as required pursuant to this Chapter.

(9) Transfer of property subject to the license. If any portion of the property subject to the license containing areas of flow or areas that are flooded are transferred to a new property owner, restrictive covenants protecting these areas must be included in any deeds or leases, and recorded at the appropriate county registry of deeds. Also, in all transfers of such areas and areas containing parts of the stormwater management system, deed restrictions must be included making the property transfer subject to all applicable terms and conditions of the permit. These terms and conditions must be incorporated by specific and prominent reference to the permit in the deed. All transfers must include in the restrictions the requirement that any subsequent transfer must specifically include the same restrictions unless their removal or modification is approved by the Department. These restrictions must be written to be enforceable by the Department, and must reference the permit number.

(10) Severability. The invalidity or unenforceability of any provision, or part thereof, of this permit shall not affect the remainder of the provision or any other provisions. This permit shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.

November 16, 2005 (revised August 15, 2015)

Maine DEP Watermark

Natural Resources Protection Act (NRPA)
Standard Conditions

THE FOLLOWING STANDARD CONDITIONS SHALL APPLY TO ALL PERMITS GRANTED UNDER THE NATURAL RESOURCES PROTECTION ACT, 38 M.R.S. § 480-A ET SEQ., UNLESS OTHERWISE SPECIFICALLY STATED IN THE PERMIT.

A. Approval of Variations From Plans. The granting of this permit is dependent upon and limited to the proposals and plans contained in the application and supporting documents submitted and affirmed to by the applicant. Any variation from these plans, proposals, and supporting documents is subject to review and approval prior to implementation.

B. Compliance With All Applicable Laws. The applicant shall secure and comply with all applicable federal, state, and local licenses, permits, authorizations, conditions, agreements, and orders prior to or during construction and operation, as appropriate.

C. Erosion Control. The applicant shall take all necessary measures to ensure that his activities or those of his agents do not result in measurable erosion of soils on the site during the construction and operation of the project covered by this Approval.

D. Compliance With Conditions. Should the project be found at any time, not to be in compliance with any of the Conditions of this Approval, or should the applicant construct or operate this development in any way other the specified in the Application or Supporting Documents, as modified by the Conditions of this Approval, then the terms of this Approval shall be considered to have been violated.

E. Time frame for approvals. If construction or operation of the activity is not begun within four years, this permit shall lapse and the applicant shall reapply to the Board for a new permit. The applicant may not begin construction or operation of the activity until a new permit is granted. Reapplications for permits may include information submitted in the initial application by reference. This approval, if construction is begun within the four-year time frame, is valid for seven years. If construction is not completed within the seven-year time frame, the applicant must reapply for, and receive, approval prior to continuing construction.

F. No Construction Equipment Below High Water. No construction equipment used in the undertaking of an approved activity is allowed below the mean high water line unless otherwise specified by this permit.

G. Permit Included In Contract Bids. A copy of this permit must be included in or attached to all contract bid specifications for the approved activity.

H. Permit Shown To Contractor. Work done by a contractor pursuant to this permit shall not begin before the contractor has been shown by the applicant a copy of this permit.

Revised September 2016

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DEP INFORMATION SHEET

Appeals to the Board of Environmental Protection

Date: November 2024 Contact: Clerk.BEP@maine.gov or (207) 314-1458

SUMMARY

This document provides information regarding a person's rights and obligations in filing an administrative or judicial appeal of: (1) a final license decision made by the Commissioner of the Department of Environmental Protection ("DEP"); or (2) an insurance claim-related decision ("Clean-up and Response Fund decision") made by the Commissioner or the Office of State Fire Marshal pursuant to 38 M.R.S. § 568-A.

Except as explained below, there are two methods available to an aggrieved person seeking to appeal a license decision made by the Commissioner or a Clean-up and Response Fund decision: (1) an administrative appeal before the Board of Environmental Protection ("Board"); or (2) a judicial appeal before Maine's Superior Court. An aggrieved person seeking review of a license decision or Clean-up and Response Fund decision made by the Board may seek judicial review in Maine's Superior Court.

An appeal of a license decision made by the DEP Commissioner or the Board regarding an application for an expedited wind energy development (35-A M.R.S. § 3451(4)), a general permit for an offshore wind energy demonstration project (38 M.R.S. § 480-HH(1)), or a general permit for a tidal energy demonstration project (38 M.R.S. § 636-A) must be taken to the Supreme Judicial Court sitting as the Law Court.

I. ADMINISTRATIVE APPEALS TO THE BOARD

LEGAL REFERENCES

A person filing an appeal with the Board should review the applicable rules and statutes, including the DEP's Chapter 2 rule, *Processing of Applications and Other Administrative Matters* (06-096 C.M.R. ch. 2); Organization and Powers, 38 M.R.S. §§ 341-D(4) and 346; and the Maine Administrative Procedure Act, 5 M.R.S. § 11001.

DEADLINE TO SUBMIT AN APPEAL TO THE BOARD

Within 30 calendar days of the date of: (1) a final license decision of the Commissioner; or (2) a Clean-up and Response Fund decision, an aggrieved person may appeal to the Board for review of that decision. "Aggrieved person" means any person whom the Board determines may suffer a particularized injury as a result of a Commissioner's license decision or a Clean-up and Response Fund decision. A complete appeal must be received by the Board no later than 5:00 p.m. on the 30th calendar day of the decision being appealed. With limited exception, untimely appeals will be dismissed.

HOW TO SUBMIT AN APPEAL TO THE BOARD

An appeal to the Board may be submitted via postal mail or electronic mail (e-mail) and must contain all signatures and required appeal contents. An electronic filing must contain the scanned original signature of the appellant(s). The appeal documents must be sent to the following address.

Chair, Board of Environmental Protection
c/o Board Clerk
17 State House Station
Augusta, ME 04333-0017
Clerk.BEP@maine.gov

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The DEP may also request the submittal of the original signed paper appeal documents when the appeal is filed electronically. The risk of material not being received in a timely manner is on the sender, regardless of the method used.

At the time an appeal is filed with the Board, the appellant must send a copy of the appeal to: (1) the Commissioner of the DEP (Maine Department of Environmental Protection, 17 State House Station, Augusta, Maine 04333-0017); (2) the licensee, if the appellant is not the licensee; and (3) if a hearing was held on the application, any intervenors in that hearing proceeding. For appeals of Clean-up and Response Fund decisions made by the State Fire Marshal, the appellant must also send a copy of the appeal to the State Fire Marshal. **Please contact the Board Clerk at clerk.bep@maine.gov or DEP staff at 207-287-7688 with questions or for contact information regarding a specific license or Clean-up and Response Fund decision.**

REQUIRED APPEAL CONTENTS

A written appeal must contain the information specified in Chapter 2, section 23(B) or section 24(B), as applicable, at the time the appeal is submitted. **Please carefully review these sections of Chapter 2**, which is available online at https://www.maine.gov/sos/cec/rules/06/chaps06.htm, or contact the Board Clerk to obtain a copy of the rule. Failure to comply with the content of appeal requirements may result in the appeal being dismissed pursuant to Chapter 2, section 23(C) or section 24(C).

OTHER CONSIDERATIONS IN APPEALING A DECISION TO THE BOARD

1. *Be familiar with the administrative record.* Generally, the record on which the Board decides an appeal is limited to the record prepared by the agency in its review of the application, any supplemental evidence admitted to the record by the Board Chair and, if a hearing is held on the appeal, additional evidence admitted during the hearing. A person who seeks to appeal a decision to the Board is encouraged to contact the DEP (or State Fire Marshal for Clean-up and Response Fund decisions made by that agency) to inspect the record before filing an appeal.

2. *Be familiar with the applicable rules and laws.* An appellant is required to identify the licensing criterion or standard the appellant believes was not satisfied in issuing the decision, the bases of the objections or challenges, and the remedy sought. Prior to filing an appeal, review the decision being appealed to identify the rules and laws that are applicable to the decision. An appellant may contact the DEP or Board staff with any questions regarding the applicable rules and laws or the appeal procedure generally.

3. *The filing of an appeal does not operate as a stay to any decision.* If a license has been granted and it has been appealed, the license normally remains in effect pending the processing of the appeal. Unless a separate stay of the decision is requested and granted (*see* Chapter 2, section 23(M)), the licensee may proceed with an approved project pending the outcome of the appeal. Any activity initiated in accordance with the approved license during the pendency of the appeal comes with the risk of not knowing the outcome of the appeal, including the possibility that the decision may be reversed or modified by the Board.

4. *Alternative dispute resolution.* If the appeal participants agree to use mediation or another form of alternative dispute resolution ("ADR") to resolve the appeal and so notify the Board, the Board will not hear the matter until the conclusion of that effort, provided the participants engaged in the alternative dispute resolution demonstrate satisfactory progress toward resolving the issues. *See* Chapter 2, section 23(H) or contact the Board Executive Analyst (contact information below) for more information on the ADR provision.

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WHAT TO EXPECT ONCE YOU FILE A TIMELY APPEAL WITH THE BOARD

The Board will acknowledge receipt of each appeal and develop a service list of appeal participants and any interested persons for use in the appeal proceeding. Electronic mail (e-mail) is the preferred method of communication during an appeal proceeding; however, the Board reserves the right to require paper copies of all filings. Once the Board Chair rules on the admissibility of all proposed supplemental evidence, the licensee (if the licensee is not the appellant) may respond to the merits of the appeal. Instructions specific to each appeal will be provided in correspondence from the Board Executive Analyst or Board Chair. Generally, once all filings in an appeal proceeding are complete, the DEP staff will assemble a packet of materials for the Board (Board packet), including a staff recommendation in the form of a proposed Board Order. Once available, appeal participants will receive a copy of the Board packet and an agenda with the meeting location and start time. Once finalized, the meeting agenda will be posted on the Board's webpage https://www.maine.gov/dep/bep/index.html. Appeals will be considered based on the administrative record on appeal and oral argument at a regular meeting of the Board. *See* Chapter 2, Section 23(I). The Board may affirm all or part of the decision under appeal; affirm all or part of the decision under appeal with modifications, or new or additional conditions; order a hearing to be held as expeditiously as possible; reverse the decision under appeal; or remand the decision to the Commissioner or State Fire Marshal, as applicable, for further proceedings.

II. JUDICIAL APPEALS

The filing of an appeal with the Board is not a prerequisite for the filing of a judicial appeal. Maine law generally allows aggrieved persons to appeal final license decisions to Maine's Superior Court (*see* 38 M.R.S. § 346(1); Chapter 2; 5 M.R.S. § 11001; and M.R. Civ. P. 80C). A judicial appeal by a party to the underlying proceeding must be filed with the Superior Court within 30 days of receipt of notice of the Board's or the Commissioner's decision. For any other aggrieved person, an appeal must be filed within 40 days of the date the decision was rendered. An appeal to court of a license decision regarding an expedited wind energy development, a general permit for an offshore wind energy demonstration project, or a general permit for a tidal energy demonstration project may only be taken directly to the Maine Supreme Judicial Court. *See* 38 M.R.S. § 346(4), the Maine Administrative Procedure Act, statutes governing a particular license decision, and the Maine Rules of Civil Procedure for substantive and procedural details applicable to judicial appeals.

ADDITIONAL INFORMATION

If you have questions or need additional information on the appeal procedure, for administrative appeals contact the Board Clerk at clerk.bep@maine.gov or 207-287-2811 or the Board Executive Analyst at bill.hinkel@maine.gov or 207-314-1458, or for judicial appeals contact the court clerk's office in which the appeal will be filed.

Note: This information sheet, in conjunction with a review of the statutory and rule provisions referred to herein, is provided to help a person to understand their rights and obligations in filing an administrative or judicial appeal, and to comply with notice requirements of the Maine Administrative Procedure Act, 5 M.R.S. § 9061. This information sheet is not intended to supplant the parties' obligations to review and comply with all statutes and rules applicable to an appeal and insofar as there is any inconsistency between the information in this document and the applicable statutes and rules, the relevant statutes and rules apply.

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