

Updated 9/6/2024

FEDERAL PROJECT

BIDDING INSTRUCTIONS

FOR ALL PROJECTS:

1. Use pen and ink to complete all paper Bids.
2. As a minimum, the following must be received prior to the time of Bid opening:

For a Paper Bid:

- a) a copy of the Notice to Contractors, b) the completed Acknowledgement of Bid Amendments form, c) the completed Schedule of Items, d) two copies of the completed and signed Contract Offer, Agreement & Award form, e) a Bid Guaranty, (if required), and f) any other certifications or Bid requirements listed in the Bid Documents as due by Bid opening.

For an Electronic Bid:

NOTE: Not all projects accept Electronic Bids. Please review the Notice to Contractors and see if it specifically states that Electronic Bids will be accepted.

- a) a completed Bid using Expedite® software and submitted via the Bid Express™ web-based service, b) an electronic Bid Guaranty (if required) or a faxed copy of a Bid Bond (with original to be delivered within 72 hours), and c) any other Certifications or Bid requirements listed in the Bid Documents as 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) a properly completed and signed Bid Bond on the Department's prescribed form (or on a form that does not contain any significant variations from the Department's form as determined by the Department) for 5% of the Bid Amount or
 - b) an Official Bank Check, Cashier's Check, Certified Check, U.S. Postal Money Order or Negotiable Certificate of Deposit in the amount stated in the Notice to Contractors or
 - c) an electronic bid bond submitted with an electronic bid.
5. If a paper Bid is to be sent, "FedEx First Overnight" delivery is suggested as the package is delivered directly to the DOT Headquarters Building located at 16 Child Street in Augusta. Other means, such as U.S. Postal Service's Express Mail has proven not to be reliable.

IN ADDITION, FOR FEDERAL AID PROJECTS:

6. Complete the DBE Proposed Utilization form, and submit with your bid. If you are submitting your bid electronically, you must FAX the form to (207) 624-3431. This is a curable defect.

*If you need further information regarding Bid preparation, call the DOT
Contracts Section at (207) 624-3410.*

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

NOTICE

The Maine Department of Transportation is attempting to improve the way Bid Amendments/Addendums are handled and allow for an electronic downloading of bid packages from our website, while continuing to maintain an optional plan holders list.

Prospective bidders, subcontractors or suppliers who wish to download a copy of the bid package and receive a courtesy notification of project specific bid amendments must fill out the on-line plan holder registration form and provide an email address to the MDOT Contracts mailbox at: MDOT.contracts@maine.gov. Each bid package will require a separate request.

Additionally, interested parties will be responsible for reviewing and retrieving the Bid Amendments from our web site, and acknowledging receipt and incorporating those Bid Amendments in their bids using the Acknowledgement of Bid Amendment Form.

The downloading of bid packages from the MDOT website is not the same as providing an electronic bid to the Department. Electronic bids must be submitted via <http://www.BIDX.com>. For information on electronic bidding contact Rebecca Snowden at rebecca.snowden@maine.gov or Guy Berthiaume at guy.berthiaume@maine.gov.

NOTICE

For security and other reasons, all Bid Packages which 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

PIN:

Town:

Date of Bid Opening:

Name of Contractor with mailing address and telephone number:

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

Double Envelope: Bid Enclosed

PIN:

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

PIN:

Town:

Name of Contractor:

October 16, 2001

STATE OF MAINE DEPARTMENT OF TRANSPORTATION
Bid Guaranty-Bid Bond Form

KNOW ALL MEN 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 Treasurer of

the State of Maine in the sum of _____, for payment which Principal and Surety bind

themselves, their heirs, executors, administrators, successors and assigns, jointly and severally.

The condition of this obligation is that the Principal has submitted to the Maine Department of

Transportation, hereafter Department, a certain bid, attached hereto and incorporated as a

part herein, to enter into a written contract for the construction of _____

_____ and if the Department 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:

WITNESS

PRINCIPAL:

By _____

By: _____

By: _____

SURETY:

By _____

By: _____

Name of Local Agency: _____

NOTICE

Bidders:

Please use the attached “Request for Information” form when submitting questions concerning specific Contracts that have been advertised for Bid, include additional numbered pages as required. RFI’s may be faxed to 207-624-3431, submitted electronically through the Departments web page of advertised projects by selecting the RFI tab on the project details page or via e-mail to RFI-Contracts.MDOT@maine.gov.

These are the only allowable mechanisms for answering Project specific questions. Maine DOT 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 and include the word “RFI” along with the Project name and Identification number in the subject line.

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.

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.

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) 624-3056

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

Vendor Registration

Prospective Bidders must register as a vendor with the Department of Administrative & Financial Services if the vendor is awarded a contract. Vendors will not be able to receive payment without first being registered. Vendors/Contractors will find information and register through the following link –

<http://www.maine.gov/purchases/venbid/index.shtml>

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)

STATE OF MAINE DEPARTMENT OF TRANSPORTATION NOTICE TO CONTRACTORS

Sealed Bids addressed to the Maine Department of Transportation, Augusta, Maine 04333 and endorsed on the wrapper "Bids for Babsons Bridge #5244 Replacement in the town of **MT. DESERT**" will be received from contractors at the Reception Desk, MaineDOT Building, Capitol Street, Augusta, Maine, until 11:00 o'clock A.M. (prevailing time) on November 13, 2024 and at that time and place, publicly opened and read. Bids will be accepted from all bidders. The lowest responsive bidder must have completed, or successfully complete, a bridge prequalification or project specific prequalification to be considered for the award of this contract. **We now accept electronic bids for bid packages posted on the bidx.com website. Electronic bids do not have to be accompanied by paper bids. Please note: The Department will accept a facsimile of the bid bond; however, the original bid bond must then be received at the MDOT Contract Section within 72 hours of the bid opening. Until further notice, dual bids (one paper, one electronic) will be accepted, with the paper copy taking precedence.**

Description: Maine Federal Aid Project No. 2351500 WIN 023515.00

Location: In Hancock County, Babsons bridge is located on Sound Drive/Route 198 over Meadow Brook approximately 0.5 of a mile southerly of the town line.

Scope of Work: Babsons Bridge #5244 Replacement plus other incidental work.

For general information regarding Bidding and Contracting procedures, contact George Macdougall at (207) 624-3410. Our webpage at <http://www.maine.gov/mdot/contractors/> contains a copy of the Schedule of Items, Plan Holders List, written portions of bid amendments, drawings, bid results and an electronic form for RFI submittal. For Project-specific information fax all questions to **Project Manager Denver Small** at (207) 624-3431, use electronic RFI form or email questions to RFI-Contracts.MDOT@maine.gov, project name and identification number should be in the subject line. Questions received after 12:00 noon of Monday (or if that Monday is a state holiday, Friday) prior to bid date will not be answered. Bidders shall not contact any other Departmental staff for clarification of Contract provisions, and the Department will not be responsible for any interpretations so obtained. TTY users call Maine Relay 711.

Bid Documents, specifications and bid forms can be viewed and obtained digitally at no cost at <http://www.maine.gov/mdot/contractors/>. They may be purchased from the Department between the hours of 7:00 a.m. to 3:30 p.m. by cash, credit card (Visa/Mastercard) or check payable to Treasurer, State of Maine sent to Maine Department of Transportation, **Attn.: Mailroom**, 24 Child Street, Augusta, Maine 04333-0016. They also may be purchased by telephone at (207) 624-3536 between the hours of 7:00 a.m. to 3:30 p.m. Full size plans **\$32.00 (\$36.50 by mail)**. Half size plans **\$16.00 (\$19.00 by mail)**, Bid Book \$10 (\$13 by mail), Single Sheets \$2, payment in advance, all non-refundable.

Each Bid must be made upon blank forms provided by the Department and must be accompanied by a bid bond at 5% of the bid amount or an official bank check, cashier's check, certified check, certificate of deposit, or United States postal money order in the amount of 5% of the bid amount, payable to Treasurer, State of Maine as a Bid guarantee. A Contract Performance Surety Bond and a Contract Payment Surety Bond, each in the amount of 100 percent of the Contract price, will be required of the successful Bidder.

This Contract is subject to all applicable Federal Laws. This contract is subject to compliance with the Disadvantaged Business Enterprise program requirements as set forth by the Maine Department of Transportation.

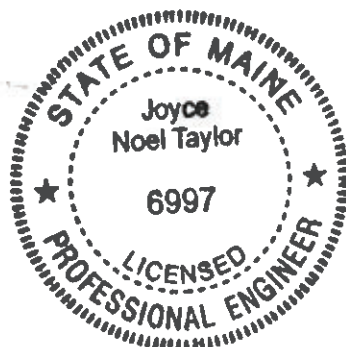
All work shall be governed by *State of Maine, Department of Transportation, Standard Specifications, March 2020 Edition*, price \$10 [\$15 by mail], and *Standard Details, March 2020 Edition*, price \$10 [\$15 by mail]. They also may be purchased by telephone at (207) 624-3536 between the hours of 7:00 a.m. to 3:30 p.m. *Standard Detail* updates can be found at <http://www.maine.gov/mdot/contractors/publications/>.

The right is hereby reserved to the MaineDOT to reject any or all bids.

Augusta, Maine
October 23, 2024



JOYCE NOEL TAYLOR P. E.
CHIEF ENGINEER



Maine Department of Transportation

Proposal Schedule of Items

Proposal ID: 023515.00

Project(s): 023515.00

SECTION: 1 MAIN ITEMS

Alt Set ID: Alt Mbr ID:

Contractor: _____

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price		Bid Amount	
			Dollars	Cents	Dollars	Cents
0010	201.23 REMOVING SINGLE TREE TOP ONLY	10.000 EA	_____	 _____	_____	 _____
0020	201.24 REMOVING STUMP	15.000 EA	_____	 _____	_____	 _____
0030	202.110 REMOVING, STORING, AND RESETTING STRUCTURES AND OBSTRUCTIONS	1.000 EA	_____	 _____	_____	 _____
0040	202.15 REMOVING EXISTING MANHOLE OR CATCH BASIN	2.000 EA	_____	 _____	_____	 _____
0050	202.19 REMOVING EXISTING BRIDGE	LUMP SUM		 LUMP SUM	_____	 _____
0060	202.202 REMOVING PAVEMENT SURFACE	350.000 SY	_____	 _____	_____	 _____
0070	202.61 REMOVE STORM DRAIN OR SEWER PIPE, ALL DEPTHS AND SIZES	LUMP SUM		 LUMP SUM	_____	 _____
0080	203.20 COMMON EXCAVATION	790.000 CY	_____	 _____	_____	 _____
0090	203.2318 DISPOSAL OF SPECIAL WASTE	330.000 T	_____	 _____	_____	 _____
0100	203.24 COMMON BORROW	25.000 CY	_____	 _____	_____	 _____
0110	203.25 GRANULAR BORROW	240.000 CY	_____	 _____	_____	 _____
0120	206.082 STRUCTURAL EARTH EXCAVATION - MAJOR STRUCTURES	550.000 CY	_____	 _____	_____	 _____

Maine Department of Transportation

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price		Bid Amount	
			Dollars	Cents	Dollars	Cents
0130	304.10 AGGREGATE SUBBASE COURSE - GRAVEL	1,150.000 CY	_____	 _____	_____	 _____
0140	304.14 AGGREGATE BASE COURSE - TYPE A	5.000 CY	_____	 _____	_____	 _____
0150	403.2081 12.5 MM POLYMER MODIFIED HOT MIX ASPHALT	180.000 T	_____	 _____	_____	 _____
0160	403.209 HOT MIX ASPHALT 9.5 MM (SIDEWALKS, DRIVES, INCIDENTALS)	40.000 T	_____	 _____	_____	 _____
0170	403.2131 12.5 MM POLYMER MODIFIED HMA BASE	340.000 T	_____	 _____	_____	 _____
0180	409.15 BITUMINOUS TACK COAT - APPLIED	220.000 G	_____	 _____	_____	 _____
0190	461.131 TEMPORARY PAVEMENT	380.000 T	_____	 _____	_____	 _____
0200	501.231 DYNAMIC LOADING TEST	1.000 EA	_____	 _____	_____	 _____
0210	501.46 STEEL H-BEAM PILES 73 LBS/FT, DELIVERED	325.000 LF	_____	 _____	_____	 _____
0220	501.461 STEEL H-BEAM PILES 73 LBS/FT, IN PLACE	150.000 LF	_____	 _____	_____	 _____
0230	501.492 STEEL W-BEAM PILES 252 LBS/FT, DELIVERED AND INSTALLED	97.000 LF	_____	 _____	_____	 _____
0240	501.502 ROCK SOCKETED H-PILES	125.000 LF	_____	 _____	_____	 _____

Maine Department of Transportation

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price		Bid Amount	
			Dollars	Cents	Dollars	Cents
0250	501.804 DRILLING EQUIPMENT MOBILIZATION	LUMP SUM		LUMP SUM	_____	_____
0260	501.90 PILE TIPS	5.000 EA	_____	_____	_____	_____
0270	501.92 PILE DRIVING EQUIPMENT MOBILIZATION	LUMP SUM		LUMP SUM	_____	_____
0280	502.219 STRUCTURAL CONCRETE, ABUTMENTS AND RETAINING WALLS	LUMP SUM		LUMP SUM	_____	_____
0290	502.31 STRUCTURAL CONCRETE APPROACH SLABS	LUMP SUM		LUMP SUM	_____	_____
0300	502.49 STRUCTURAL CONCRETE CURBS AND SIDEWALKS	LUMP SUM		LUMP SUM	_____	_____
0310	502.608 STRUCTURAL CONCRETE, MISC. BUILDING FOUNDATION	LUMP SUM		LUMP SUM	_____	_____
0320	503.12 REINFORCING STEEL, FABRICATED AND DELIVERED	4,200.000 LB	_____	_____	_____	_____
0330	503.13 REINFORCING STEEL, PLACING	4,200.000 LB	_____	_____	_____	_____
0340	503.19 LOW-CARBON, CHROMIUM REINFORCEMENT - FABRICATED & DELIVERED	13,600.000 LB	_____	_____	_____	_____
0350	503.20 LOW-CARBON, CHROMIUM REINFORCEMENT - PLACING	13,600.000 LB	_____	_____	_____	_____

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			Dollars	Cents	Dollars	Cents
0360	507.08161 STEEL APPROACH RAILING, 4 BAR	2.000 EA	_____	 _____	_____	 _____
0370	507.0821 STEEL BRIDGE RAILING, 3 BAR	LUMP SUM	LUMP SUM		_____	 _____
0380	507.0822 STEEL APPROACH RAILING, 3-BAR	2.000 EA	_____	 _____	_____	 _____
0390	507.0831 STEEL BRIDGE RAILING, 4 BAR	LUMP SUM	LUMP SUM		_____	 _____
0400	508.14 HIGH PERFORMANCE WATERPROOFING MEMBRANE	LUMP SUM	LUMP SUM		_____	 _____
0410	510.12 SPECIAL DETOUR ___ FOOT ROADWAY WIDTH, VEHICULAR AND PEDESTRIAN TRAFFIC SEPARATED	LUMP SUM	LUMP SUM		_____	 _____
0420	511.07 COFFERDAM: ABUTMENT NO. 1	LUMP SUM	LUMP SUM		_____	 _____
0430	511.07 COFFERDAM: ABUTMENT NO. 2	LUMP SUM	LUMP SUM		_____	 _____
0440	515.21 PROTECTIVE COATING FOR CONCRETE SURFACES	LUMP SUM	LUMP SUM		_____	 _____
0450	526.301 PORTABLE CONCRETE BARRIER TYPE I	LUMP SUM	LUMP SUM		_____	 _____
0460	527.34 WORK ZONE CRASH CUSHIONS	4.000 UN	_____	 _____	_____	 _____
0470	531.511 BRIDGE SUPERSTRUCTURE - DETAIL BUILD	LUMP SUM	LUMP SUM		_____	 _____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price		Bid Amount	
			Dollars	Cents	Dollars	Cents
0480	603.169 15 INCH CULVERT PIPE OPTION III	70.000 LF	_____	 _____	_____	 _____
0490	603.179 18 INCH CULVERT PIPE OPTION III	113.000 LF	_____	 _____	_____	 _____
0500	604.152 48 INCH MANHOLE	4.000 EA	_____	 _____	_____	 _____
0510	604.252 CATCH BASIN TYPE A5-C	4.000 EA	_____	 _____	_____	 _____
0520	605.09 6 INCH UNDERDRAIN TYPE B	340.000 LF	_____	 _____	_____	 _____
0530	605.11 12 INCH UNDERDRAIN TYPE C	130.000 LF	_____	 _____	_____	 _____
0540	606.1301 31" W-BM GR, MID-WAY SPLICE-SGL FACED	325.000 LF	_____	 _____	_____	 _____
0550	606.1303 31" W-BM GR, MID-WAY SPLICE-15' RAD AND LESS	50.000 LF	_____	 _____	_____	 _____
0560	606.1305 31" W-BM GR, MID-WAY SPLICE FLARED TERMINAL	1.000 EA	_____	 _____	_____	 _____
0570	606.1721 BRIDGE TRANSITION - TYPE 1	4.000 EA	_____	 _____	_____	 _____
0580	606.265 TERMINAL END - SINGLE RAIL - GALVANIZED STEEL	3.000 EA	_____	 _____	_____	 _____
0590	606.353 REFLECTORIZED FLEXIBLE GUARDRAIL MARKER	8.000 EA	_____	 _____	_____	 _____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price		Bid Amount	
			Dollars	Cents	Dollars	Cents
0600	607.1601 TEMPORARY CHAIN LINK FENCE - 4'	75.000 LF	_____	 _____	_____	 _____
0610	607.24 REMOVE AND RESET FENCE	40.000 LF	_____	 _____	_____	 _____
0620	608.26 CURB RAMP DETECTABLE WARNING FIELD	24.000 SF	_____	 _____	_____	 _____
0630	608.62 GENERATOR PAD	LUMP SUM		 LUMP SUM		 _____
0640	609.11 VERTICAL CURB TYPE 1	413.000 LF	_____	 _____	_____	 _____
0650	609.23 TERMINAL CURB TYPE 1	1.000 EA	_____	 _____	_____	 _____
0660	609.234 TERMINAL CURB TYPE 1 - 4 FOOT	1.000 EA	_____	 _____	_____	 _____
0670	609.238 TERMINAL CURB TYPE 1 - 8 FOOT	4.000 EA	_____	 _____	_____	 _____
0680	610.08 PLAIN RIPRAP	50.000 CY	_____	 _____	_____	 _____
0690	610.16 HEAVY RIPRAP	1,200.000 CY	_____	 _____	_____	 _____
0700	610.18 STONE DITCH PROTECTION	25.000 CY	_____	 _____	_____	 _____
0710	613.319 EROSION CONTROL BLANKET	60.000 SY	_____	 _____	_____	 _____
0720	615.07 LOAM	52.000 CY	_____	 _____	_____	 _____

Maine Department of Transportation

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price		Bid Amount	
			Dollars	Cents	Dollars	Cents
0730	618.13 SEEDING METHOD NUMBER 1	3.000 UN	_____	_____	_____	_____
0740	618.14 SEEDING METHOD NUMBER 2	6.000 UN	_____	_____	_____	_____
0750	619.12 MULCH	8.000 UN	_____	_____	_____	_____
0760	619.14 EROSION CONTROL MIX	110.000 CY	_____	_____	_____	_____
0770	620.58 EROSION CONTROL GEOTEXTILE	1,670.000 SY	_____	_____	_____	_____
0780	620.66 DRAINAGE GEOCOMPOSITE	82.000 SY	_____	_____	_____	_____
0790	626.421 24 INCH DIAMETER FOUNDATION	14.000 LF	_____	_____	_____	_____
0800	627.733 4" WHITE OR YELLOW PAINTED PAVEMENT MARKING LINE	2,300.000 LF	_____	_____	_____	_____
0810	627.75 WHITE OR YELLOW PAVEMENT & CURB MARKING	96.000 SF	_____	_____	_____	_____
0820	627.77 REMOVING PAVEMENT MARKINGS	240.000 SF	_____	_____	_____	_____
0830	627.78 TEMPORARY 4 INCH PAINTED PAVEMENT MARKING LINE, WHITE OR YELLOW	1,450.000 LF	_____	_____	_____	_____
0840	629.05 HAND LABOR, STRAIGHT TIME	40.000 HR	_____	_____	_____	_____

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Contractor: _____

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price		Bid Amount	
			Dollars	Cents	Dollars	Cents
0850	631.12 ALL PURPOSE EXCAVATOR (INCLUDING OPERATOR)	20.000 HR	_____	_____	_____	_____
0860	631.14 GRADER (INCLUDING OPERATOR)	20.000 HR	_____	_____	_____	_____
0870	631.15 ROLLER, EARTH AND BASE COURSE (INCLUDING OPERATOR)	20.000 HR	_____	_____	_____	_____
0880	631.172 TRUCK - LARGE (INCLUDING OPERATOR)	20.000 HR	_____	_____	_____	_____
0890	639.18 FIELD OFFICE TYPE A	1.000 EA	_____	_____	_____	_____
0900	643.6005 SOLAR POWERED LED SCHOOL ZONE BEACON - REMOVE AND RESET	1.000 EA	_____	_____	_____	_____
0910	643.62 RECTANGULAR RAPID FLASHING BEACON	1.000 EA	_____	_____	_____	_____
0920	652.312 TYPE III BARRICADE	6.000 EA	_____	_____	_____	_____
0930	652.33 DRUM	50.000 EA	_____	_____	_____	_____
0940	652.34 CONE	50.000 EA	_____	_____	_____	_____
0950	652.35 CONSTRUCTION SIGNS	350.000 SF	_____	_____	_____	_____

Maine Department of Transportation

Proposal Schedule of Items

Proposal ID: 023515.00

Project(s): 023515.00

SECTION: 1 MAIN ITEMS

Alt Set ID: Alt Mbr ID:

Contractor: _____

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price		Bid Amount	
			Dollars	Cents	Dollars	Cents
0960	652.361 MAINTENANCE OF TRAFFIC CONTROL DEVICES	LUMP SUM				
0970	652.38 FLAGGER	800.000 HR				
0980	652.41 PORTABLE CHANGEABLE MESSAGE SIGN	3.000 EA				
0990	655.01 ENGINE - GENERATOR SYSTEM	LUMP SUM				
1000	655.201 ELECTRICAL WORK	LUMP SUM				
1010	656.75 TEMPORARY SOIL EROSION AND WATER POLLUTION CONTROL	LUMP SUM				
1020	659.10 MOBILIZATION	LUMP SUM				
1030	801.03 TEST PITS	2.000 EA				
1040	801.071 TEMPORARY SEWER BY-PASS	LUMP SUM				
1050	806.50 CONTROL PANEL AND RELATED ITEMS	1.000 EA				
1060	810.20 8 INCH PVC SANITARY SEWER	190.000 LF				
1070	812.163 MODIFY SEWER MH, ADJUST FRAME & COVER	1.000 EA				

Maine Department of Transportation

Proposal Schedule of Items

Proposal ID: 023515.00

Project(s): 023515.00

SECTION: 1 MAIN ITEMS

Alt Set ID:

Alt Mbr ID:

Contractor: _____

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price		Bid Amount	
			Dollars	Cents	Dollars	Cents
1080	827.331 TRENCH INSULATION	400.000 SY	_____	 _____	_____	 _____
1090	827.3641 REMOVE AND DISPOSE ASBESTOS CEMENT PIPE	40.000 LF	_____	 _____	_____	 _____
1100	830.13 SEWER MAIN BRIDGE CROSSING	LUMP SUM		 LUMP SUM	_____	 _____
1110	832.07 OWNERS TESTING ALLOWANCE	LUMP SUM		 LUMP SUM	_____	 _____
1120	841.47 STEEL BOLLARD	5.000 EA	_____	 _____	_____	 _____
Section: 1			Total:		_____	 _____
			Total Bid:		_____	 _____

CONTRACT AGREEMENT, OFFER & AWARD

AGREEMENT made on the date last signed below, by and between the State of Maine, acting through and by its Department of Transportation (Department), an agency of state government with its principal administrative offices located at Child Street, Augusta, Maine, with a mailing address at 16 State House Station, Augusta, Maine 04333-0016, and

_____ a corporation or other legal entity organized under the laws of the State of _____, with its principal place of business located at _____

The Department 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 023515.00** for **Babsons Bridge Replacement** in the town of **Mount Desert** County of **Hancock** Maine. The Work includes construction, maintenance during construction, warranty as provided in the Contract, and other incidental work.

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

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

B. **Time.**

The Contractor agrees to complete all Work, except warranty work, on or before **June 30, 2027**. Further, the Department may deduct from moneys otherwise due the Contractor, not as a penalty, but as Liquidated Damages in accordance with Sections 107.7 and 107.8 of the *State of Maine Department of Transportation 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, *Standard Specifications, March 2020 Edition, 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, *Standard Specifications March 2020 Edition*, *Standard Details March 2020 Edition* as updated through advertisement, Supplemental Specifications, Special Provisions, Contract Agreement; and Contract Bonds contained herein for construction of:

WIN 023515.00 – Babsons Bridge Replacement – in the town of Mount Desert

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 Government in writing.

As Offeror also agrees:

First: To do any extra work, not covered by the attached “Schedule of Items,” which may be ordered by the Resident, and to accept as full compensation the amount determined upon a “Force Account” basis as provided in the *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 Treasurer of the State of Maine 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 *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 Department.

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.
documents referenced herein.

This award consummates the Contract, and the

MAINE DEPARTMENT OF TRANSPORTATION

Date

By: Bruce A. Van Note, Commissioner

Witness

CONTRACT AGREEMENT, OFFER & AWARD

AGREEMENT made on the date last signed below, by and between the State of Maine, acting through and by its Department of Transportation (Department), an agency of state government with its principal administrative offices located at Child Street, Augusta, Maine, with a mailing address at 16 State House Station, Augusta, Maine 04333-0016, and

_____ a corporation or other legal entity organized under the laws of the State of _____, with its principal place of business located at _____

The Department 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 023515.00** for **Babsons Bridge Replacement** in the town of **Mount Desert** County of **Hancock** Maine. The Work includes construction, maintenance during construction, warranty as provided in the Contract, and other incidental work.

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

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

B. **Time.**

The Contractor agrees to complete all Work, except warranty work, on or before **June 30, 2027**. Further, the Department may deduct from moneys otherwise due the Contractor, not as a penalty, but as Liquidated Damages in accordance with Sections 107.7 and 107.8 of the *State of Maine Department of Transportation 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, *Standard Specifications, March 2020 Edition, 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, *Standard Specifications March 2020 Edition*, *Standard Details March 2020 Edition* as updated through advertisement, Supplemental Specifications, Special Provisions, Contract Agreement; and Contract Bonds contained herein for construction of:

WIN 023515.00 – Babsons Bridge Replacement – in the town of Mount Desert

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 Government in writing.

As Offeror also agrees:

First: To do any extra work, not covered by the attached “Schedule of Items,” which may be ordered by the Resident, and to accept as full compensation the amount determined upon a “Force Account” basis as provided in the *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 Treasurer of the State of Maine 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 *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 Department.

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.
documents referenced herein.

This award consummates the Contract, and the

MAINE DEPARTMENT OF TRANSPORTATION

Date

By: Bruce A. Van Note, Commissioner

Witness

CONTRACT AGREEMENT, OFFER & AWARD

AGREEMENT made on the date last signed below, by and between the State of Maine, acting through and by its Department of Transportation (Department), an agency of state government with its principal administrative offices located at Child Street Augusta, Maine, with a mailing address at 16 State House Station, Augusta, Maine 04333-0016, and (Name of the firm bidding the job) a corporation or other legal entity organized under the laws of the State of Maine, with its principal place of business located at (address of the firm bidding the job)

The Department 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, PIN No.0112345.00, for the **Hot Mix Asphalt Overlay** in the town/city of **South Nowhere**, County of **Washington**, Maine. The Work includes construction, maintenance during construction, warranty as provided in the Contract, and other incidental work.

The Contractor shall be responsible for furnishing all supervision, labor, equipment, tools supplies, permanent materials and temporary materials required to perform the Work including 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 Department 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 **November 15, 2006**. Further, the Department may deduct from moneys otherwise due the Contractor, not as a penalty, but as Liquidated Damages in accordance with Sections 107.7 and 107.8 of the *State of Maine Department of Transportation 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 (Place bid here in alphabetical form such as One Hundred and Two dollars and 10 cents)
\$ (repeat bid here in numerical terms, such as \$102.10) 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, *Standard Specifications, March 2020 Edition, Standard Details March 2020 Edition*, 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 Appendix A to Division 100 of the *Standard Specifications March 2020 Edition* (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, *Standard Specifications, March 2020 Edition, Standard Details March 2020 Edition*, Supplemental Specifications, Special Provisions, Contract Agreement; and Contract Bonds contained herein for construction of:

PIN 012345.00 South Nowhere, Hot Mix Asphalt Overlay,

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 Government in writing.

As Offeror also agrees:

First: To do any extra work, not covered by the attached "Schedule of Items," which may be ordered by the Resident, and to accept as full compensation the amount determined upon a "Force Account" basis as provided in the *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 Treasurer of the State of Maine 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 *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 Department.

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.

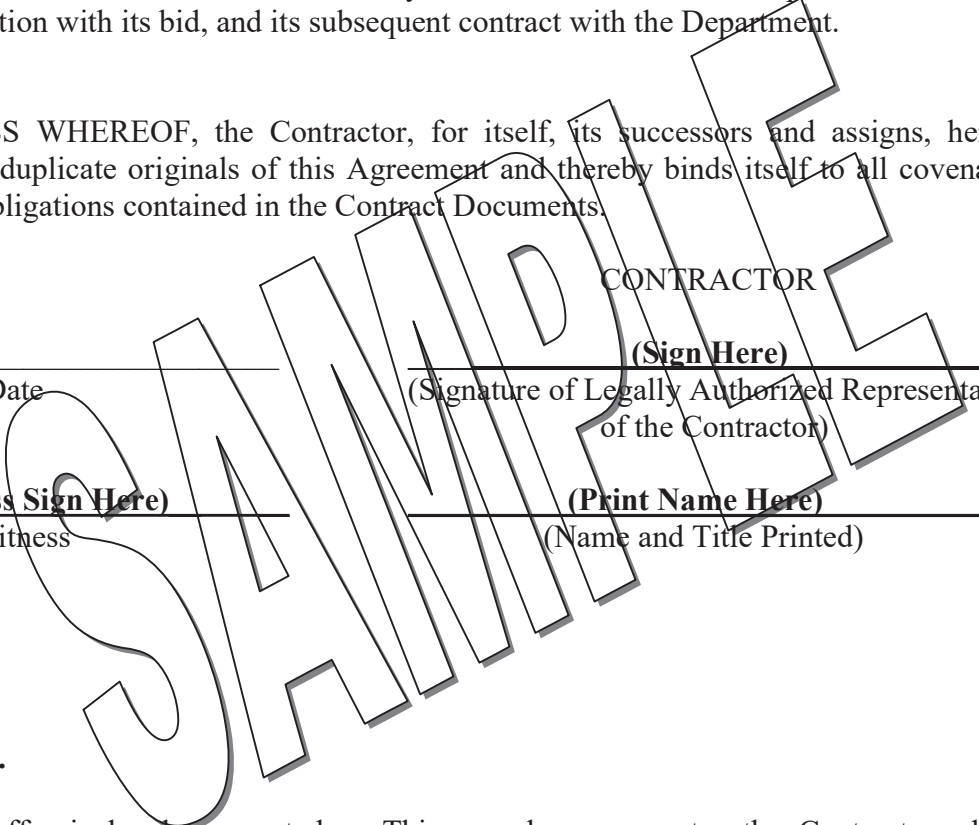
Date

(Witness Sign Here)
Witness

(Sign Here)
(Signature of Legally Authorized Representative of the Contractor)

(Print Name Here)
(Name and Title Printed)

CONTRACTOR



G. Award.

Your offer is hereby accepted. documents referenced herein.

This award consummates the Contract, and the

MAINE DEPARTMENT OF TRANSPORTATION

Date

By: Bruce A. Van Note, Commissioner

(Witness)

BOND # _____

CONTRACT PERFORMANCE BOND
(Surety Company Form)

KNOW ALL MEN BY THESE PRESENTS: That _____
_____ in the State of _____, as principal,
and.....
a corporation duly organized under the laws of the State of and having a
usual place of business
as Surety, are held and firmly bound unto the Treasurer of the State of Maine in the sum
of _____ and 00/100 Dollars (\$ _____),
to be paid said Treasurer of the State of Maine or his successors in office, for which
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 State
of Maine.

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

WITNESSES:

SIGNATURES:

CONTRACTOR:

Signature.....

.....

Print Name Legibly

Print Name Legibly

SURETY:

Signature

.....

Print Name Legibly

Print Name Legibly

SURETY ADDRESS:

NAME OF LOCAL AGENCY:

.....
.....
.....

ADDRESS
.....
.....

TELEPHONE.....

.....

BOND # _____

CONTRACT PAYMENT BOND
(Surety Company Form)

KNOW ALL MEN BY THESE PRESENTS: That _____
_____ **in the State of** _____, as principal,
and.....

a corporation duly organized under the laws of the State of and having a
usual place of business in
as Surety, are held and firmly bound unto the Treasurer of the State of Maine for the use
and benefit of claimants as herein below defined, in the sum of
_____ **and 00/100 Dollars (\$** _____ **)**
for the payment whereof 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 which 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 .. .

WITNESS:

SIGNATURES:

CONTRACTOR:

Signature.....

.....

Print Name Legibly

Print Name Legibly

SURETY:

Signature.....

.....

Print Name Legibly

Print Name Legibly

SURETY ADDRESS:

NAME OF LOCAL AGENCY:

.....

ADDRESS

.....

.....

TELEPHONE

.....

MAP - 23515.00



The Maine Department of Transportation provides this publication for information only. Reliance upon this information is at user risk. It is subject to revision and may be incomplete depending upon changing conditions. The Department assumes no liability if injuries or damages result from this information. This map is not intended to support emergency dispatch.

0.06 Miles
1 inch = 0.07 miles

Date: 9/4/2024
Time: 2:40:52 PM
40

MaineDOT DBE Project Attainment Target (PAT)
for this Project is .019 %

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.

Superseded General Decision Number: ME20230036

State: Maine

Construction Type: Highway

County: Hancock County in Maine.

HIGHWAY 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 \$17.20 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 2024.
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 \$12.90 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 2024.

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	01/05/2024
1	02/02/2024
2	04/05/2024

* ENGI0004-005 04/01/2024

	Rates	Fringes
POWER EQUIPMENT OPERATOR: Grader/Blade, Milling Machine, Paver (Asphalt, Aggregate, and Concrete), Roller Asphalt.....	\$ 28.60	13.80

* SUME2014-031 06/23/2017

	Rates	Fringes
CARPENTER, Includes Form Work....	\$ 18.34	2.84
HIGHWAY/PARKING LOT STRIPING: Laborer.....	\$ 14.24 **	2.06
IRONWORKER, REINFORCING.....	\$ 16.27 **	0.00
LABORER: Asphalt, Includes Raker, Shoveler, Spreader and Distributor.....	\$ 13.97 **	3.14
LABORER: Common or General.....	\$ 13.03 **	2.07
LABORER: Wheelman.....	\$ 15.40 **	3.01
OPERATOR: Backhoe/Excavator/Trackhoe.....	\$ 14.91 **	3.28
OPERATOR: Bobcat/Skid Steer/Skid Loader.....	\$ 20.36	5.06
OPERATOR: Broom/Sweeper.....	\$ 16.52 **	6.38
OPERATOR: Bulldozer.....	\$ 16.58 **	2.89
OPERATOR: Loader.....	\$ 17.79	5.88
OPERATOR: Mechanic.....	\$ 22.30	8.71
OPERATOR: Screed.....	\$ 18.82	4.75
OPERATOR: Roller (Earth).....	\$ 15.81 **	1.72
TRAFFIC CONTROL: Flagger.....	\$ 9.00 **	0.00
TRAFFIC CONTROL: Laborer-Cones/ Barricades/Barrels - Setter/Mover/Sweeper.....	\$ 17.48	5.37
TRUCK DRIVER: Dump Truck.....	\$ 15.64 **	4.83
TRUCK DRIVER: TackTruck.....	\$ 18.82	8.29

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

=====

** Workers in this classification may be entitled to a higher minimum wage under Executive Order 14026 (\$17.20) or 13658 (\$12.90). 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 classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of ""identifiers"" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than ""SU"" or ""UAVG"" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which 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. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of 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. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

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

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour National Office because National Office has responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write 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 the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write 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 by 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

4.) All decisions by the Administrative Review Board are final.

=====

END OF GENERAL DECISION"

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.

THE CONTRACTOR SHALL PLAN AND CONDUCT WORK ACCORDINGLY.

MEETING

A Preconstruction Utility Conference, as defined in Subsection 104.4.6 of the Standard Specifications **IS** required.

GENERAL INFORMATION

These Special Provisions outline the arrangements that have been made by the Department 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 the limits of this project or intending to install facilities during project construction.

Utilities have been notified and will be furnished a project specification.

The Contractor shall give all Utilities **ten (10) working days’ notice** prior to beginning **ANY** work on this project.

OVERVIEW

Utility	Aerial	Subsurface	Contact Person	Contact Phone
Versant Power	X		Don King	(207) 949-3957
Consolidated Communications	X		Jason Holyoke	(207)907-0323
Charter Communications	X		Jason Crosby	(207)620-3375
Town of Mount Desert		X	Brian Henkel	(207) 276-5743

Temporary utility adjustments are **NOT** anticipated. If any unexpected utility relocations become necessary, they shall be scheduled in accordance with Section 104 of the Standard Specifications and shall be performed by the appropriate utility company in conjunction with the work by the Contractor. Should the Contractor choose to have any poles temporarily relocated, all work shall be done at the Contractor’s request and expense, with no additional cost or schedule impacts to the Department.

Unless otherwise specified, any underground utility facilities shown on the project plans represent approximate locations gathered from available information. The Department cannot certify the level of accuracy of this data. Underground facilities indicated on the topographic sheets (plan views) have been collected from historical records and/or on-site designations provided by the respective Utilities. Underground facilities indicated on the cross-sections have been carried over from the plan view data and may also include further approximations of the elevations (depths) based upon straight-line interpolation from the nearest manholes, gate valves, or test pits.

All adjustments are to be made by the respective Utility/Railroad unless otherwise specified herein.

Fire hydrants shall not be disturbed until all necessary work has been accomplished to ensure proper fire protection.

All clearing and tree removal in areas where Utilities are involved must be completed before the Utilities are able to relocate their facilities.

It is the responsibility of the Contractor with the Utility pole owner, to layout all of the proposed pole locations in the field prior to the start of utility relocations. Should any adjustments be needed, the Utility will document adjustments and inform the Department prior to utility relocations.

The Contractor shall provide the Utilities access to the new pole locations. Construction of any spot cuts or fills in excess of 2 feet must be completed prior to utility relocations. The Contractor shall prepare a plan for how access and the spot cuts and fills will be accomplished and what the schedule will be for performing the work. This plan will be discussed at the pre-construction utility meeting.

***** Specific information regarding the line voltage can be requested from Versant Power. *****

Utility working days are Monday through Friday. Times are estimated on the basis of a single crew for each utility. Any times and dates mentioned are **estimates only** and are dependent upon favorable weather, working conditions, and freedom from emergencies.

AERIAL

Aerial utility adjustments are **NOT** anticipated at this time for the project. Though unexpected, if utility relocations become necessary, they will be scheduled in compliance with Section 104 of the Standard Specifications and will be done by the Utilities after the Contractor has finished their work.

Aerial utilities require **five (5) working days' notice** prior to any operations involving work around their lines.

DETOUR

Prior to starting construction of the detour, The contractor will be responsible for the installation of a service pole and meter at station 10+57 40' right as noted in the pole list and on the plans. The contractor will be responsible for connecting communications and power to the Horner property, to include new wire, conduit and all incidentals required to provide compete uninterrupted services to the residence. This work shall be coordinated with the property owner to insure minimal disruption. Removal of existing service poles will be the contractor's responsibility. This work shall be incidental to the detour item.

Utility Specific Issues: Versant Power is planning on placing new poles prior to the start of the project as noted in the pole list. This work will include all trimming necessary for the transfer of power lines, notifying communications that transfers are complete and coordinating the transfer of the communications lines to the new pole locations prior to the start of work. Although tree tops will be trimmed, clearing is still anticipated to complete construction of the project. The contractor is responsible for all clearing that remains.

Pole List:

Existing Pole #	Existing Station	Left/Right		Existing Offset	Proposed Station	Left/Right		Proposed Offset	Comments
		LT	RT			LT	RT		
253/401	9+70	x		26.25'					removed
207912	9+73	x		35'					ok
207913	11+47.5	x		27.44	same	x		34	
207914	13+74	x		20.15'	same	x		34	
207908	13+73		x	24.75	13+76		x	73 (temporary) 25 permanent	Stub pole to be removed for temp bridge. Will need to place temp svc pole to feed Casper Weinberger.
207915	14+63	x		25.04'	same	x		33	
207916	15+78.75		x	24.75'					ok
207925	15+79	x		24'					ok
TBD					10+57		x	40'	New pole with meter for service to Horner property
402D	10+50		x	19.75					Contractor to remove
207909	10+68.5		x	29.37					Contractor to remove

SUBSURFACE

Town of Mount Desert

The **Public Works Department** has a gravity sewer system within the project limits. Work has been incorporated into this project which consists of installation of temporary 8" SDR 21 PVC pressure sewer, installation of a new 8" DI gravity sewer system attached to the bridge and includes installing manholes, pipe hangers, insulation, heat trace, tying into the existing sewer and associated incidental work, and removal and or relocation of the existing sewer system. The Contractor shall coordinate with **Brian Henkel** from the **Mt. Desert Public Works** or their construction inspector during construction for inspection and acceptance of this work.

MAINTAINING UTILITY LOCATION MARKINGS

The Contractor will be responsible for maintaining the buried utility location markings following the initial locating by the appropriate utility or their designated representative.

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 determined by field conditions. 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.

**SPECIFICATIONS
FOR
MOUNT DESERT BABSON
BRIDGE SEWER REPLACEMENT
TOWN OF MOUNT DESERT, MAINE
AUGUST, 2024**



Prepared by:
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TABLE OF CONTENTS

MOUNT DESERT BABSON BRIDGE SEWER REPLACEMENT

TOWN OF MOUNT DESERT, MAINE

TABLE OF CONTENTS

The following specifications pertain to the sewer related work.

Drawing List

Page
DL-1

INDEX

TECHNICAL SPECIFICATIONS

Section

Title

DIVISION 1 - GENERAL REQUIREMENTS

01026 Measurement and Payment
01300 Submittals
01400 Quality Control
01500 Temporary Construction Facilities

DIVISION 2 - SITE CONSTRUCTION

02110 Site Clearing
02160 Excavation Support Systems
02200 Earthwork
02700 Buried Sewerage
02701 Sewer Crossing of Bridge
02717 Manhole Rim Adjustment
02720 Precast Concrete Sewerage Structures

DIVISION 3 - CONCRETE

03300 Cast-in-place Concrete

DIVISION 5 – METAL

05120 Structural Steel
05500 Metal Fabrications
05501 Miscellaneous Metals

TOC-1

OA2193

DIVISION 7 - THERMAL AND MOISTURE PROTECTION

07200 Insulation

DIVISION 11 - EQUIPMENT

11325 Base Mounted Horizontal Suction Duplex Pump Station Control Panel

DIVISION 13 - SPECIAL CONSTRUCTION

13831 Plastic Bollard Covers

DIVISION 15 - MECHANICAL

15125 Pipe Expansion Joints

15145 Pipe Hangers, Supports, Anchors and Seals

DIVISION 16 - ELECTRICAL

16030 Electrical Provisions of Equipment Work

16045 Electrical Related Work

16050 Temporary Power

16100 Basic Electrical Systems

16195 Electrical Identification

16400 Electrical Service & Distribution

16620 Standby Power Generation Systems

16795 Remote Telemetry Systems

16898 Electric Protective Heating Cables

DRAWING LIST

DRAWING LIST

MOUNT DESERT BABSON BRIDGE SEWER REPLACEMENT
TOWN OF MOUNT DESERT, MAINE

SHEET

TITLE

GENERAL

G-1 General Notes & Index

CIVIL

C-1 Existing Sewer Plan & Profile
C-2 Temporary Sewer Plan & Profile
C-3 Permanent Sewer Plan & Profile
C-4 Civil Details
C-5 Civil Details

STRUCTURAL

S-1 Sewer Line Support Details

ELECTRICAL

E-1 Electrical Site Plan Power Riser & Schedules
E-2 Electrical P.S. Section & Heat Trace Details
E-3 Pump Station Service Cabinet Details & Telemetry Riser

TECHNICAL SPECIFICATIONS

DIVISION 1

GENERAL REQUIREMENTS

SECTION 01026

MEASUREMENT AND PAYMENT

SECTION 01026 - MEASUREMENT AND PAYMENT

PART 1 - GENERAL

1.01 DESCRIPTION

- A. Scope: This section describes the measurement and payment for the work to be completed under each bid item in the Proposal. The descriptions may not reference all of the associated Work. Work specified, but not specifically designated as a bid item, is considered incidental to all bid items.
- B. Payment procedures are described in the Agreement, General Conditions, and related documents.
- C. Work Covered: The total price for the Contract shall cover all work shown on the Contract Drawings and required by the Specifications and other Contract Documents. All costs in connection with the Work, including furnishing all materials, equipment, supplies and appurtenances; providing all construction, and tools; and performing all necessary labor and supervision to fully complete the Work, shall be included in the lump sum price bid or the unit prices specified on the bid sheets. No item that is required for the proper and successful completion of the Work will be paid for outside of, or in addition to, the prices submitted in the bid. All Work not specifically identified within this section shall be considered incidental to the project and a subsidiary obligation of the Contractor and all costs in connection therewith shall be included in the prices.

PART 2 - PRODUCTS (not applicable)

PART 3 - EXECUTION

3.01 SCHEDULE OF PAYMENT ITEMS

A. Item 1 - (MaineDOT 202.15) Remove Existing Manhole:

1. Payment: Unit price as stated in the Proposal per unit shown to be removed on the Drawings or as directed by the Engineer.
2. Measurement: Measured as complete units.
3. Includes cleaning, earthwork, compaction, removal and disposal of materials, and restoration of disturbed surfaces.
4. Schedule of Payment: 100% upon completion.

B. Item 2 - (MaineDOT 202.61) Remove Sewer Pipe:

1. Payment: Lump sum price as stated in the Proposal.
2. Measurement: Per completion of work.
3. Includes removal or abandonment of existing utility pipes along new sewer routes where encountered, removal of existing sewer as necessary for bridge work, including but not limited to all existing heat trace electrical and other materials as shown on the Drawings, including all disposal costs, labor, materials, and equipment.
4. Schedule of Payment: Measured by actual percent completion at time of requisition.

C. Item 3 - (MaineDOT 501.492) Steel W-Beam Delivered and Installed:

1. Payment: Unit price per linear foot as stated in the Proposal.
2. Measurement: As measured in place along the horizontal projection of the weak axis protective beam.
3. Includes labor, equipment, steel clip angles, anchor rods, fabricated drain hole and all incidentals required to provide the weak axis protective beam in accordance with the Contract Documents.

4. Schedule of Payment: 100% upon acceptance and completion.

D. Item 4 – (MaineDOT 604.152) 48” Manhole:

1. Payment: Unit price per each installation as stated in the Proposal.
2. Measurement: Measured as complete units.
3. Includes earthwork, shoring and bracing, dewatering, manholes, frames and covers and all piping, fittings and supports within the manholes as specified and as shown on Drawings.
4. Schedule of Payment: Manhole installation - 60%; inverts – 10%; compaction – 10%, frames and covers – 10%, and leakage testing – 10%.

E. Item 5 – (MaineDOT 608.62) Generator Pad:

1. Payment: Lump sum price as stated in the Proposal.
2. Measurement: Paid in proportion to percentage of work completed at the time of requisition.
3. Includes: Coordination, earthwork, dewatering, all concrete, rebar, crushed stone, filter fabric and incidentals.
4. Schedule of Payment: On the basis of percent of work completed.

F. Item 6 – (MaineDOT 655.01) Generator System:

1. Payment: Lump sum price as stated in the Proposal.
2. Measurement: Measured as complete unit on the basis of percent of work completed.
3. Includes: All labor, equipment, materials and incidentals related to the complete installation of emergency standby generator as shown on the Drawings including all demolition, clearing, excavation, earthwork, generator, automatic transfer switch, insulation, electrical, instrumentation, testing and all work that is required, for a complete emergency standby generator installation.
4. Schedule of Payment: On the basis of percent of work completed.

G. Item 7 - (MaineDOT 655.201) Electrical Work:

1. Payment: Lump sum price as stated in the Proposal.
2. Measurement: Per completion of work.
3. Includes: All labor, equipment, and materials related to electrical work as shown on the Drawings including wiring, conduit, expansion joints, and electrical equipment including but not limited to, controls, monitoring equipment and alarms, raceways, generator connection, modifying existing panel, new meter and entrance, controls, programming, junction boxes, mounting to existing utility pole, backboard, posts, edging, mechanical, instrumentation and telemetry, coordination with other work, and all labor, materials, and incidentals as required to provide a full system and to integrate separately listed bid items and all details as shown on the plans.
4. Schedule of Payment: 100% upon installation.
5. Explanation: Electrical work complete with the exception of any bid items listed separately.

H. Item 8 - (MaineDOT 801.03) Test Pits:

1. Payment: Unit price per each test pit unit as stated in the Proposal.
2. Measurement: Per unit completed.
3. Includes clearing, excavation, dewatering, backfilling, and compaction in locations as shown in Drawings or as directed by the Engineer.
4. Schedule of Payment: 100% upon completion.
5. Limitation: In order to qualify as a test pit for payment, at least 5 CY of material must be excavated in search of a specific buried site feature. Only one test pit payment per each specific site feature will be made.

I. Item 9 - (MaineDOT 801.071) Temporary Sewer Bypass:

1. Payment: Lump sum price as stated in the Proposal.
2. Measurement: Per completion of work.
3. Includes: Excavation, coordination with temporary bridge construction, sewer pipe and fittings, backfill, compaction, expansion joints, suspended pipe hangers, supports and hardware, shoring and bracing, temporary heat trace systems, insulation, installation and removal and incidentals as shown on the Drawings or as required. Also includes Contractor's responsibility for all temporary piping, monitoring and maintenance of temporary sewer to maintain continuous sewer service.
4. Schedule of Payment: Installation - 90%; testing and cleaning - 10%
5. Clarification: This item includes all costs for temporary sewer main including temporary electrical for heat trace. All permanent electrical work to remain will be in Bid Item 7.

J. Item 10 – (MaineDOT 806.50) Control Panel and Related Items:

1. Payment: Lump sum price as stated in the Proposal.
2. Measurement: Paid in proportion to percentage of work completed at time of requisition.
3. Includes: All labor, equipment, materials and incidentals related to the complete installation of the new duplex pump station control panel as shown on the Drawings including all demolition, clearing, wet well modifications, internal piping and fittings, new control panel enclosure, level pressure transducer, back-up float system, controller, circuit breakers and operating mechanisms, alarm light device, programming, mechanical, electrical, instrumentation and telemetry, start-up and all requirements for the installation of a complete control panel upgrade with the exception of other separately listed pay items.
4. Schedule of Payment: On the basis of percent of work completed at time of requisition.

5. Clarification: This item includes all costs for temporary sewer main electrical. All permanent electrical work to remain will be in Bid Item 7.
- K. Item 11 – (MaineDOT 810.20) Buried 8” Sanitary Sewer:
1. Payment: Unit price per linear foot as stated in the Proposal.
 2. Measurement: Linear feet as measured along the horizontal projection of the centerline of the pipe; measure from and to inside face of manhole or abutments.
 3. Includes clearing, excavation, bedding, backfill, compaction, roadway base and subbase (meet MaineDOT specifications), shoring and bracing, dewatering, ductile iron pipe, and fittings as shown on the Drawings or as required.
 4. Schedule of Payment: Installation - 85%; compaction and air testing - 10%; cleaning - 5%.
- L. Item 12 - (MaineDOT 812.163) Modify Sewer Manhole, Adjust Frame & Cover:
1. Payment: Unit price per unit as stated in the Proposal.
 2. Measurement: Per completion of work.
 3. Includes: excavation, removal of existing frame and cover, any precast concrete risers needed to adjust cover to grade, butyl rubber sealant, mortar, poly frost barrier, resetting frame and cover, backfill restoration to original site conditions, and all incidentals.
 4. Schedule of Payment: 100% per unit upon completion.
- M. Item 13 - (MaineDOT 827.331) Trench Insulation 2” Rigid:
1. Payment: Unit price per square yard as stated in the Proposal.
 2. Measurement: Measured in place as shown on the Drawings or as directed by the Engineer.

3. Includes insulation over pipe and structures as shown on the Drawings and as specified.
 4. Schedule of Payment: 100% upon installation.
 5. Explanation: If 4" insulation called for in places, payment will be based on double the 2" price.
- N. Item 14 – (MaineDOT 827.3641) Remove and Dispose Asbestos Cement Pipe:
1. Payment: Unit price as stated in the Proposal.
 2. Measurement: Unit price per linear foot as measured along the horizontal projection of the centerline of the pipe.
 3. Includes removal of existing buried asbestos cement pipe along new sewer routes where encountered and as shown on the Drawings including all storage costs, disposal costs and incidentals.
 4. Schedule of Payment: 100% upon completion.
- O. Item 15 – (MaineDOT 830.13) Sewer Main Bridge Crossing:
1. Payment: Lump sum price as stated in the Proposal.
 2. Measurement: Paid in proportion to percentage of work completed at time of requisition.
 3. Includes: Pipe, insulation, heat trace, hangers, support system, expansion joints, pipe sleeves, pipe jacket, pipe wrap, staging, and all labor, materials and incidentals as required or as shown on the Drawings.
 4. Schedule of Payment: On the basis of percent of work completed at time of requisition.
- P. Item 16 - (MDOT 832.07) Owner's Testing Allowance:
1. Explanation: Testing listed in the Contract Documents as being the Owner's responsibility will be paid for by the Contractor and

reimbursed through this allowance. This allowance does not apply to any tests which are stated in the Contract Documents as being the Contractor's responsibility.

2. Payment: Actual costs incurred.
3. Measurement: Submit evidence of paid invoices from testing firm.
4. Includes: Testing costs, such as concrete tests, compaction tests, etc., that are specified as Owner's responsibility are included in this item. Contractor shall pay for all such tests. All testing costs specified as the Contractor's responsibility shall remain so and in no way shall the included allowance be used for such costs. All testing costs shall be billed directly to Contractor, and a final Change Order will be issued balancing the actual testing costs to the Contractor as compared to the stated allowance.
5. Schedule of Payment: 100% - upon completion of tests and evidence of paid invoice submitted.

Q. Item 17 - (MaineDOT 841.47) Steel Bollard:

1. Payment: Unit price per unit as stated in the Proposal.
2. Measurement: Per each unit completed.
3. Includes clearing, excavation, dewatering steel pipe, concrete, backfilling, compaction, and HDPE sleeve as indicated on the Drawings.
4. Schedule of Payment: 100% upon completion.

*** END OF SECTION ***

01026-8

SECTION 01300

SUBMITTALS

SECTION 01300 - SUBMITTALS

PART 1 - GENERAL

1.01 DESCRIPTION OF REQUIREMENTS

- A. Submittal requirements specified in this section include Shop Drawings, product data, samples and miscellaneous Work-related submittals. Individual submittal requirements are specified in applicable sections for each unit of work. Refer to other Division-1 sections and other Contract Documents for requirements of administrative submittals.
- B. Definitions: Work-related submittals of this section are categorized for convenience as follows:
 - 1. Shop Drawings include specially-prepared technical data for this project, including drawings, diagrams, performance curves, data sheets, schedules, templates, patterns, reports, calculations, instructions, measurements and similar information.
 - 2. Product data include standard printed information on materials, products and systems.
 - 3. Samples include both fabricated and unfabricated physical examples of materials, products and units of Work; both as complete units and as smaller portions of units of Work; either for limited visual inspection or (where indicated) for more detailed testing and analysis.
- C. Miscellaneous submittals related directly to the Work (non-administrative) include warranties, maintenance agreements, workmanship bonds, project photographs, survey data and reports, physical work records, quality testing and certifying reports, copies of industry standards, Record Drawings, field measurement data, operating and maintenance materials, overrun stock, and similar information, devices and materials applicable to the Work.
- D. Provisions of Funding Requirements
 - 1. Provide documentation to demonstrate compliance with provisions of funding associated with the entire scope of work, as applicable.

1.02 GENERAL SUBMITTAL REQUIREMENTS

A. Coordination and Work Sequencing:

1. Coordinate preparation and processing of submittals with performance of the Work so that Work will not be delayed by submittals.
2. Coordinate and sequence different categories of submittals for same Work, and for interfacing units of Work, so that one will not be delayed for coordination of Engineer's review with another.
3. Determine and verify all interface conditions, catalog numbers and similar data.
4. Coordinate with other trades and equipment manufacturers.
5. Indicate all deviations from the requirements of the Contract Documents.
6. Field measure all critical project dimensions prior to issuing submittal and to fabricating products shown on the submittals.

B. Preparation of Submittals: Provide either cover sheet, or permanent marking on each submittal to identify project, date, Contractor, Subcontractor, submittal name and similar information to distinguish it from other submittals. Include specifications section reference and submittal log reference to clearly define to what portion of Work that is applicable to submittal. Show Contractor's executed review and approval marking. Submittals which are received from sources other than through Contractor's office will be returned by Engineer "without action".

C. Number of Submittals (Paper): Submit number of copies to be returned plus 4 copies which will be retained by the Engineer. Additional copies may be requested by the Engineer.

D. Electronic Submission: Coordinate submission with MaineDOT and Olver Associates Inc. Equipment submittals shall be sent as paper copies. Submittals with 11" x 17" or larger pages/plans will not be accepted in electronic format. Any submittals over 50 pages should be provided as paper submissions.

E. General Distribution: Provide additional distribution of submittals (not included in foregoing copy submittal requirements) to Subcontractors, suppliers, fabricators, installers, governing authorities and others as necessary for proper

performance of the Work. Include such additional copies in transmittal to Engineer where required to receive "Action" marking before final distribution. Record distributions on transmittal forms.

1.03 SUBMITTAL CONTENTS

- A. Shop Drawings: Provide newly-prepared information, on reproducible sheets, with graphic information at accurate scale (except as otherwise indicated), with name of preparer indicated (firm name). Show dimensions and note which are based on field measurement. Identify materials and products in the Work shown. Indicate compliance with standards, and special coordination requirements. Do not allow Shop Drawing copies without appropriate final "Action" markings by Engineer to be used in connection with the Work.

- B. Product Data: Collect required data into one submittal for each unit of Work or system; and mark each copy to show which choices and options are applicable to project. Include manufacturer's standard printed recommendations for application and use, compliance with standards, application of labels and seals, notation of field measurements which have been checked, and special coordination requirements.

- C. Samples: Provide units identical with final condition of proposed materials or products for the work. Include "range" samples (not less than 3 units) where unavoidable variations must be expected, and describe or identify variations between units of each set. Provide full set of optional samples where Engineer's selection is required. Include information with each sample to show generic description, source or product name and manufacturer, limitations, and compliance with standards. Samples are submitted for review and confirmation of color, pattern, texture and type by Engineer. Engineer will not "test" samples (except as otherwise indicated) for compliance with other requirements, which are therefore the exclusive responsibility of Contractor.

- E. AIS product submittals must include a letter from the manufacturer of the product that includes the following features:
 - 1. Submittal is on manufacturer's letterhead;
 - 2. It is signed by a manufacturer's representative;
 - 3. It is dated with a current date;
 - 4. Lists the specific product(s) on the submittal and letter cover;
 - 5. Lists the project name and location;
 - 6. Lists the specific place(s) of manufacture in USA (City & State); and,

7. References the American Iron & Steel mandate and preferably the Consolidated Appropriations Act of 2017 and/ or Section 746 of Title VII.

Submittals on AIS projects that do not have a letter meeting the above requirements will not be processed.

AND

- F. BABA product submittals must include a letter from the manufacturer of the product that includes the following features:

1. Submittal is on manufacturer's letterhead;
2. It is signed by a manufacturer's representative;
3. It is dated with a current date;
4. Lists the specific product(s) on the submittal and letter cover;
5. Lists the project name and location;
6. Lists the specific place(s) of manufacture in USA (City & State); and,
7. References to the Infrastructure Investment and Jobs Act ("IIJA") or the Bipartisan Infrastructure Law (BIL) are also acceptable. For iron and steel items under BABA, references to the American Iron and Steel (AIS) requirements are also acceptable and reciprocal with BABA for such items.

Submittals on BABA projects that do not have a letter meeting the above requirements will not be processed.

1.04 PROCESSING OF SUBMITTALS

- A. Engineer's Action: Where action and return is required or requested, Engineer will review each submittal, mark with "Action", and where possible return within two weeks of receipt. Where submittal must be held for coordination, or additional time is required for review of complex items, Contractor will be so advised by Engineer without delay.
- B. Action Stamp: Engineer's action stamp, for use on submittals to be returned to Contractor, is self-explanatory.
- C. Additional Submittals: If an intermediate submittal is necessary, process the same as the initial submittal.
- D. Allow two to four weeks for reprocessing each submittal.

- E. No extension of Contract Time will be authorized because of failure to transmit submittals to the Engineer sufficiently in advance of the Work to permit processing.

1.05 INCORPORATION OF WORK

- A. No work shall be incorporated into project until such time as Contractor has formally submitted a Submittal for all materials and until Engineer has reviewed and approved submittal.
- B. No payment will be approved for any work incorporated into project without an approved submittal.
- C. Failure by Contractor to provide Submittals for work in a timely manner shall be grounds for suspension of contract by Owner at no penalty to Owner. Contract will not be resumed until Contractor has properly issued all Submittals. No additional contract time will be provided for period of time that project is delayed due to submittals not being issued in a timely manner.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)

END OF SECTION

01300-5

SECTION 01400

QUALITY CONTROL

SECTION 01400 - QUALITY CONTROL

PART 1 - GENERAL

1.01 SUMMARY

- A. This Section includes administrative and procedural requirements for quality-control services.
- B. Quality-control services include inspections, tests, and related actions, including reports performed by Contractor, by independent agencies, and by governing authorities. They do not include contract enforcement activities performed by Engineer.
- C. Inspection and testing services are required to verify compliance with requirements specified or indicated. These services do not relieve Contractor of responsibility for compliance with Contract Document requirements.
- D. Requirements of this Section relate to customized fabrication and installation procedures, not production of standard products.
 - 1. Specific quality-control requirements for individual construction activities are specified in the Sections that specify those activities. Requirements in those Sections may also cover production of standard products.
 - 2. Specified inspections, tests, and related actions do not limit Contractor's quality-control procedures that facilitate compliance with Contract Document requirements.
 - 3. Requirements for Contractor to provide quality-control services required by Engineer, Owner, or authorities having jurisdiction are not limited by provisions of this Section.

1.02 RESPONSIBILITIES

- A. Contractor Responsibilities: Unless otherwise indicated as the responsibility of another identified entity, Contractor shall provide inspections, tests, and other quality-control services specified elsewhere in the Contract documents and

required by authorities having jurisdiction. Costs for these services are included in the Contract Price.

- B. Contractor's Tests: Where individual Sections specifically indicate that certain inspections, tests, and other quality-control services are the Contractor's responsibility, the Contractor shall employ and pay a qualified independent testing agency to perform quality-control services. Costs for these services are included in the Contract Price.
- C. Owner's Tests: Where individual Sections specifically indicate that certain inspections, tests, and other quality-control services are the Owner's responsibility, the Owner will employ and pay a qualified independent testing agency to perform those services. Where a testing allowance is included as a payment item, Contractor shall be responsible for the payment of all Owner's tests.
- D. Retesting: The Contractor is responsible for retesting where results of inspections, tests, or other quality-control services prove unsatisfactory and indicate noncompliance with Contract Document requirements, regardless of whether the original test was Contractor's responsibility.
- E. The cost of retesting construction, revised or replaced by the Contractor, is the Contractor's responsibility where required tests performed on original construction indicated noncompliance with Contract Document requirements.
- F. Associated Services: Cooperate with agencies performing required inspections, tests, and similar services, and provide reasonable auxiliary services as required. Notify the agency sufficiently in advance of operations to permit assignment of personnel. Auxiliary services required include, but are not limited to, the following:
 - 1. Provide access to the Work.
 - 2. Furnish incidental labor and facilities necessary to facilitate inspections and tests.
 - 3. Take adequate quantities of representative samples of materials that require testing or assist the agency in taking samples.
 - 4. Provide facilities for storage and curing of test samples.

5. Deliver samples to testing laboratories.
6. Provide the agency with a preliminary design mix proposed for use for materials mixes that require control by the testing agency.
7. Provide security and protection of samples and test equipment at the Project Site.

G. Duties of the Testing Agency: The independent agency engaged to perform inspections, sampling, and testing of materials and construction specified in individual Sections shall cooperate with the Engineer and the Contractor in performance of the agency's duties. The testing agency shall provide qualified personnel to perform required inspections and tests.

1. The agency shall notify the Engineer and the Contractor promptly of irregularities or deficiencies observed in the Work during performance of its services.
2. The agency is not authorized to release, revoke, alter, or enlarge requirements of the Contract Documents or approve or accept any portion of the Work.
3. The agency shall not perform any duties of the Contractor.

1.03 SUBMITTALS

- A. Unless the Contractor is responsible for this service, the independent testing agency shall submit a certified written report, in duplicate, of each inspection, test, or similar service to the Engineer. If the Contractor is responsible for the service, submit a certified written report, in duplicate, of each inspection, test, or similar service through the Contractor.
- B. Report Data: Written reports of each inspection, test, or similar service include, but are not limited to, the following:
 1. Date of issue.
 2. Project title and number.
 3. Name, address, and telephone number of testing agency.

4. Dates and locations of samples and tests or inspections.
5. Names of individuals making the inspection or test.
6. Designation of Work and test method.
7. Identification of product and Specification Section.
8. Complete inspection or test data.
9. Test results and an interpretation of test results.
10. Ambient conditions at the time of sample taking and testing.
11. Comments or professional opinion on whether inspected or tested Work complies with Contract Document requirements.
12. Name and signature of laboratory inspector.
13. Recommendations on retesting.

1.04 QUALITY ASSURANCE

- A. Qualifications for Service Agencies: Engage inspection and testing service agencies, including independent testing laboratories, that are prequalified as complying with the American Council of Independent Laboratories' "Recommended Requirements for Independent Laboratory Qualification" and that specialize in the types of inspections and tests to be performed.
- B. Each independent inspection and testing agency engaged on the Project shall be authorized by authorities having jurisdiction to operate in the state where the Project is located.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION

3.01 REPAIR AND PROTECTION

- A. General: Upon completion of inspection, testing, sample taking and similar services, repair damaged construction and restore substrates and finishes.
- B. Protection construction exposed by or for quality-control service activities, and protect repaired construction.
- C. Repair and protection is Contractor's responsibility, regardless of the assignment of responsibility for inspection, testing, or similar services.

END OF SECTION

SECTION 01500

TEMPORARY CONSTRUCTION FACILITIES

SECTION 01500 - TEMPORARY CONSTRUCTION FACILITIES

PART 1 - GENERAL

1.01 REQUIREMENTS

- A. Provide temporary facilities including:

Safety equipment

Rerouting of all sewage flows around work areas as required

Maintain all existing water and sewer utilities active

- B. Payment for temporary facilities is incidental to the Project.

1.02 QUALITY ASSURANCE

- A. General: Comply with OSHA and local regulations, NFPA, and local regulations and requirements.

- B. Conditions of Use: Install, operate, maintain and protect temporary facilities in a manner and at locations which will be safe, non-hazardous, sanitary and protective of persons and property.

1.03 SUBMITTALS

- A. Flow diversion and by-pass plan shall be submitted in advance for review and approval prior to implementing flow diversion or by-pass operations.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION

3.01 REROUTING OF SEWAGE FLOWS

- A. Provide all necessary pumping or gravity lines to convey sewage around work areas as needed.
- B. Maintain capacity of existing sewer systems at all times.

- C. Schedule construction so that pump station capacity is maintained at all times throughout the duration of construction.
- D. Redundancy is required if pumps are used.
- E. Coordinate all work with Owner and modify schedule as required with no penalty to Owner to meet system needs.
- F. Pumps used for wastewater conveyance must be rated to pass a 3" Ø minimum solid or, alternatively, a grinder pump may be used.
- G. Alarms and floats must be provided for each pump to operate pump and to signal alarm condition.
- H. Alarms must be wired into pump station central alarm system or telemetry.
- I. Contractor shall operate temporary pump systems for at least forty-eight hours prior to disconnecting permanent equipment in order to demonstrate suitability of system.
- J. Temporary pumps shall be brought on-line at beginning of work week (Monday) so that initial problems will surface before weekend.

3.02 MAINTAIN ALL EXISTING UTILITY SERVICES

- A. Locate all buried utility services and main lines for water, sewer, storm drainage, telephone, cable, electric, gas, and others as may exist as shown on plans or as indicated by Owner of utility.
- B. Confirm all utility locations with Owner of utility prior to excavation.
- C. Maintain all active utility services for duration of project and return to equal or better condition as existed prior to project at the completion of the work.
- D. Repair at no cost to the Owner all utilities damaged by Contractor's work in accordance with provisions of Contract Documents.

3.03 DAILY TEMPORARY SITE MEASURES

- A. Clean all roads, walkways, parking areas, and work areas by sweeping.

- B. Apply calcium chloride to unpaved road surfaces for dust control.
- C. Barricade all open excavations utilizing MDOT approved barrels, Jersey barriers, or sheeting material in a manner acceptable to Owner.
- D. Clean up and discard all debris daily.
- E. Provide lighting of temporary barricades in traffic areas.
- F. Where appropriate, fill excavation and remove construction equipment from public roadways on a daily basis.

3.04 TEMPORARY POWER

- A. Contractor is responsible for payment of all electric utility costs for temporary power, and normal power consumption of construction activities.
- B. Owner shall be responsible for payment if any special fees assessed by the electric company for permanent service changes.
- C. Contractor shall provide temporary emergency stand-by generator as required during switch over of main power.

END OF SECTION

DIVISION 2

SITE CONSTRUCTION

SECTION 02110

SITE CLEARING

SECTION 02110 - SITE CLEARING

PART 1 - GENERAL

1.01 DESCRIPTION OF WORK

- A. Site clearing work to be conducted as part of this project includes, but is not limited to:
1. Protection of existing trees indicated to remain or outside of work area.
 2. Removal and/or relocation of trees and other vegetation.
 3. Clearing and grubbing, including removal of waste materials in project area.
 4. Removing and/or resetting above ground improvements, including but not limited to pipes and site features.
 5. Removal and/or resetting where required of underground features and utilities including manholes, sewers, electrical utilities, and pipes.
 6. Removal of roadways and driveways and resetting where required.
 7. Removal of existing pump station controls and related items.
 8. Removal of electrical or utility conduits.

1.02 RELATED SECTIONS

- A. Section 02720 – Precast Concrete Sewerage Structures.

1.03 PROJECT CONDITIONS

- A. Confine all clearing and grubbing to the following locations:
1. Areas where work is required to be done, restricted to the minimum extent required to properly install the work.

2. Within the property lines of lands owned by Owner.
- B. Traffic: Conduct site clearing operations to ensure minimum interference with roads, streets, and other adjacent facilities. Do not close or obstruct streets, or other facilities without permission from authorities having jurisdiction.
- C. Protection of Existing Improvements: Provide protections necessary to prevent damage to existing improvements unless indicated to be permanently removed.
1. Protect improvements on adjoining properties and on Owner's property.
 2. Restore damaged improvements, whether or not shown on the Drawings, to their original condition, as acceptable to property owners.
- D. Protection of Existing Trees and Vegetation: Protect existing trees and other vegetation indicated to remain in place against unnecessary cutting, breaking or skinning of roots, skinning or bruising of bark, smothering of trees by stockpiling construction materials or excavated materials within drip line, excess foot or vehicular traffic, or parking of vehicles within drip line. Provide temporary guards to protect trees and vegetation to be left standing.
1. Water trees and other vegetation to remain within limits of contract work as required to maintain their health during course of construction operations.
 2. Provide protection for roots over 1 1/2 inch in diameter that are cut during construction operations. Coat cut faces with an emulsified asphalt or other acceptable coating formulated to use on damaged plant tissues. Temporarily cover exposed roots with wet burlap to prevent roots from drying out; cover with earth as soon as possible.
 3. Repair or replace trees and vegetation indicated to remain that are damaged by construction operations in a manner acceptable to Engineer. Employ a licensed arborist to repair damage to trees and shrubs.
- E. Improvements on Private Property: Authority for performing removal and alteration work on private property will be obtained by Owner prior to award of contract.
- F. Reset Disturbed Property Pins or Monuments by a Professional Surveyor.

G. Asbestos Cement Piping shall be disposed of as required by the DEP. Asbestos pipe is expected to be encountered in this work.

1. All disturbed asbestos cement (AC) sewer piping shall be removed from trench and segregated from general construction fill. Disposal of all AC piping materials is regulated under DEP Chapter 401.

2. Disposal of all other piping materials shall comply with DEP disposal requirements and may require a beneficial use license prior to use as construction fill.

1.04 EXISTING SERVICES

A. General: Indicated locations are approximate; determine exact locations before commencing work.

B. Identify service lines and capping locations on Project Record Documents.

1.05 STORAGE AND HANDLING

A. Store items removed during construction at approved locations for subsequent reinstallation.

B. Obstruction of roads, driveways, gutters and drainage ditches, swales and channels with stored materials is not permitted.

1.06 JOB CONDITIONS

A. The locations of trees, plantings, vegetation, fences, curbs and other living and nonliving items, as shown on the Drawings, have been determined by actual surveys at the time surveys were made. Since that time, the condition of the site may have changed. Remove and replace all obstacles and obstructions, as required to complete the Work, whether shown on the Drawings or not, at no extra cost to Owner.

B. Explosives are not permitted for clearing and grubbing operations.

C. Use all means necessary to protect existing objects not indicated to be removed. In the event of damage, make all necessary repairs and replacements and restore to its original condition, as acceptable to Engineer.

1.07 SCHEDULING

- A. Pavements which are required to be removed shall be saw cut in advance, but do not remove until installation of work commences.
- B. Do not remove highway signs, guardrails, and other control, safety, and warning devices until just prior to installation work in the immediate area of such improvements.
- C. Do not remove fences until Owner is notified at least four (4) days in advance. Do not remove fences more than 48 hours in advance of work in that location. Provide temporary fencing acceptable to Owner where indicated on Drawings.
- D. All items removed but scheduled to be replaced shall be reinstalled as soon as possible after completion of all work in that area.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Verify that all boundaries, including permanent and temporary easements, property lines, rights-of-way, and grading limits have been accurately and clearly marked.
- B. Verify that work areas and other items of work are accurately located and clearly marked.

3.02 PREPARATION

- A. Identify all trees, plantings, and other objects which are considered necessary to be removed, cut, trimmed, or temporarily relocated.
- B. Accompany Engineer through the site to inspect items to be trimmed, removed, relocated or replanted prior to start of work. If Contractor wishes to remove, either permanently or temporarily, any vegetation not specifically identified on the Drawings to be removed, make request to Engineer at least 7 days in advance. All vegetation must be maintained unless specifically authorized for removal by Engineer or in writing by property owner.

3.03 SITE CLEARING

- A. General: Remove trees, shrubs, grass, and other vegetation, improvements, or obstructions, as required, to permit installation of new construction. Remove similar items elsewhere on site or premises as specifically indicated. Removal includes digging out and off site disposal of stumps and roots.

- B. Topsoil: Topsoil is defined as friable clay loam surface soil found in a depth of not less than 4 inches. Satisfactory topsoil is reasonably free of subsoil, clay lumps, stones, and other objects over 2 inches in diameter, and without weeds, roots, and other objectionable material.
 - 1. Where existing trees are indicated to remain, leave existing topsoil in place within drip lines to prevent damage to root system.

- C. Clearing and Grubbing: Clear only trees, shrubs, and other vegetation as approved by Engineer.
 - 1. Completely remove stumps, roots, and other debris protruding through ground surface.
 - 2. Use only hand methods for grubbing inside drip line of trees indicated to remain.
 - 3. Fill depressions caused by clearing and grubbing operations with satisfactory soil material, unless further excavation or earthwork is indicated. Place fill material in horizontal layers not exceeding 6 inches loose depth, and thoroughly compact each layer to a density equal to adjacent original ground.
 - 4. Remove and waste materials or debris in the work area and dispose of off-site.
 - 5. Removal/Restoration of Existing Improvements: Remove and restore existing above grade and below grade improvements as indicated and as necessary to facilitate new construction. Store fences, signs, walks, guard rails, curbs, and other items designated to be restored.

D. Trees and Plantings:

1. In grassed, planted, and open areas, do not remove or trim trees or plantings without the prior permission of Engineer. Remove and preserve small trees, plantings, flowers and similar vegetation for reuse.
2. If it is impractical to fell trees as a whole, remove them in sections according to standard practices of professional tree removal. Fell trees to the center of the area being cleared to minimize damage to trees that are to be left standing.
3. Immediately after felling a tree, remove branches, cut trunk and limbs and remove all materials from the site and dispose of in a lawful manner. If cut trees are noted to remain on site and become the property of the owner, cut all tree branches and trunk sections in excess of 3" in diameter in to two foot lengths, and stack neatly in a location as directed by the Engineer.
4. All trees to be trimmed shall be evenly cut to achieve neat severance with the least possible damage to the tree. Review proposed tree trimming with Engineer prior to work.

E. Pavements:

1. Remove existing pavements, to the limits shown on the Drawings, or if not shown, to the minimum extent possible to perform the work.
2. Saw-cut asphalt and concrete paved surfaces before removal. Use a saw which will cut a neat, straight joint line.

F. Walls, Fences, and Other Obstructions:

1. All walls, fences, signs, and other obstructions encountered shall be carefully removed and stored for subsequent replacement.
2. Do not disturb property markers unless absolutely necessary. If it becomes necessary to disturb or remove a property marker, employ a Registered Land Surveyor at no extra cost to the Owner to establish the property marker location by providing a minimum of four (4) ties to the

marker. The Registered Land Surveyor shall replace the property marker as soon as possible.

G. Manholes:

1. Remove all manhole frames, covers, risers, tops, cones, barrels, base sections and slabs where indicated on the Drawings or as directed by the Engineer.
2. Remove all pipes where indicated by the Drawings or as directed by the Engineer.
3. Fill all voids created with select granular fill or with aggregate subbase and base if under traveled ways or sidewalks.
4. Compact all backfill as specified herein.

H. Electrical Utilities:

1. Maintain electric utilities for duration of project.
2. Temporarily relocate if interfering with work area, or permanently relocate as indicated on Drawings, or as directed by Engineer.
3. Restore at completion of project.

3.04 SALVAGEABLE ITEMS

- A. Owner retains first refusal of salvage value of all items removed from site including stumpage, wood, site improvements, and incidentals. Contractor shall allow Owner to inspect all items removed during site clearing operations. If Owner wishes to retain items, Contractor shall remove them to storage area to be identified by Owner.
- B. Contractor shall not claim loss of salvage value for items retained by Owner as a justification for a price increase or change order under this Contract.

3.05 DISPOSAL OF WASTE MATERIALS

- A. Contractor shall remove and dispose of all site clearing debris and items that Owner does not elect to salvage.

- B. Removal from Owner's Property: Remove waste materials from Owner's property and dispose of by methods conforming to all Federal, State, and local regulations.
- C. Burning on Owner's Property: Burning is not permitted on Owner's property.

END OF SECTION

SECTION 02160

EXCAVATION SUPPORT SYSTEMS

SECTION 02160 - EXCAVATION SUPPORT SYSTEMS

PART 1 - GENERAL

1.01 DESCRIPTION OF WORK

- A. General support system work includes, but is not limited to, the following:
 - 1. Shoring and bracing necessary to protect existing streets, utilities, and other improvements and excavation against loss of ground or caving embankments.
 - 2. Maintenance of shoring and bracing.
 - 3. Removal of shoring and bracing, as required.
- B. Types of shoring and bracing systems include, but are not limited to, the following:
 - 1. OSHA approved trench boxes.

1.02 SUBMITTALS

- A. General: Submit each item in this Article in accordance with Conditions of Contract and Division 1 Specification Sections.
- B. Layout drawings for excavation support system and other data prepared by, or under the supervision of, a qualified professional engineer. System design and calculations must be acceptable to local authorities having jurisdiction.

1.03 QUALITY ASSURANCE

- A. Engineer Qualification: A professional engineer legally authorized to practice in jurisdiction where Project is located and experienced in providing successful engineering services for excavation support systems similar in extent required for this Project.
- B. Supervision: Engage and assign supervision of excavation support system to a qualified professional engineer foundation consultant.

1. Submit name of engaged consultant and qualifying technical experience.
- C. Regulations: Comply with codes and ordinances of governing authorities having jurisdiction.

1.04 JOB CONDITIONS

- A. Before starting work, verify governing dimensions and elevations.
 1. Verify condition of adjoining properties.
 2. Take photographs to record any existing settlement or cracking of structures, pavements, and other improvements.
 3. Prepare a list of such damages, verified by dated photographs, and signed by Contractor and others conducting investigation.
- B. Survey adjacent structures and improvements, employing qualified professional engineer, and establishing exact elevations at fixed points to act as benchmarks. Clearly identify benchmarks and record existing elevations.
- C. During excavation, resurvey benchmarks weekly, maintaining accurate log of surveyed elevations for comparison with original elevations. Promptly notify Engineer if changes in elevations occur or if cracks, sags, or other damage is evident.

1.05 EXISTING UTILITIES AND STRUCTURES

- A. Protect existing active sewer, water, electricity, and other utility services and adjacent structures.
- B. Notify municipal agencies and service utility companies having jurisdiction. Comply with requirements of governing authorities and agencies for protection, relocation, removal, and discontinuing of services.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. General: Provide adequate shoring and bracing materials which will support loads imposed. Materials need not be new, but should be in serviceable condition.
- B. Structural Steel: ASTM A 36.

PART 3 - EXECUTION

3.01 CONFORMANCE WITH OSHA

- A. Comply with all OSHA regulations.

END OF SECTION

SECTION 02200

EARTHWORK

SECTION 02200 - EARTHWORK

PART 1 - GENERAL

1.01 DESCRIPTION OF WORK

A. Earthwork associated with sewer installation includes the following:

1. Excavation of soils, rock, debris, fill, and miscellaneous as required.
2. Excavation and sawcutting of paved areas.
3. Dewatering, drainage, and moisture control in excavated areas as required.
4. Aggregates for fill, backfill, bedding, and miscellaneous as required.
5. Backfilling of trench excavation.
6. Compaction of trench excavation.
7. Grading of areas prior to surface restoration.
8. Disposal of excess material.
9. Test pits as required.
10. Filter fabric where required.
11. Trench marking tape where required.

1.02 RELATED SECTIONS

- A. Section 02110 - Site Clearing.
- B. Section 02160 - Excavation Support Systems.
- C. Section 02700 - Sewerage.

- D. Section 02720 - Precast Concrete Sewerage Structures.
- E. Section 03300 – Cast-in-Place Concrete.
- F. MaineDOT specifications and special provisions for aggregates.

1.03 PAY LIMITS

- A. Excavation Measurement: Volume of excavation actually removed, measured in original position, but not to exceed the following unless specifically shown otherwise on Drawings.
 - 1. 24 inches outside of precast manhole measured as square.
 - 2. Pipe pay limits as shown on Drawings.
 - 3. Other structures or items shall be 12” beyond the limits of the structure.
 - 4. As shown or stated on Drawings or Contract Documents.

1.04 DEFINITIONS

- A. Base Course: The layer placed above the subbase.
- B. Common Borrow: Soil material obtained off-site when sufficient approved soil material is not available from excavation.
- C. Excavation consists of the removal of material encountered to subgrade elevations and the reuse or disposal of materials removed.
- D. Structures: Buildings, footings, foundations, retaining walls, slabs, tanks, curbs, mechanical and electrical appurtenances, or other man-made stationary features constructed above or below ground surface.
- E. Subbase Course: The layer placed between the subgrade and base course.
- F. Subgrade: The uppermost surface of an excavation or the top surface of a fill on backfill at elevations defined on the Drawings.
- G. Unauthorized excavation consists of removing materials beyond indicated subgrade elevations or dimensions or pay limits without direction by the

Engineer. Unauthorized excavation, as well as remedial work directed by the Engineer, shall be at the Contractor's expense.

- H. Utilities include on-site underground pipes, conduits, ducts, and cables, as well as underground services within building lines.

1.05 SUBMITTALS

- A. Submit the following according to the Conditions of the Contract and Division 1 Specification Sections:

1. Product data for the following:

- a) Each type of warning tape.
- b) Filter fabric.

2. Samples of the following when requested:

- a) Samples sealed in air-tight containers of each proposed soil material required from on-site or borrow sources.
- b) 12-by-12-inch sample of filter fabric.

3. Test Reports: Submit the following:

- a) Grain size analysis of each soil material proposed for incorporation into work with one test provided for every 1000 CY of material placed or at other frequency determined by Engineer.
- b) One optimum moisture-maximum density curve for each soil material incorporated into work or at other frequency as determined by Engineer.

1.06 QUALITY ASSURANCE

- A. Codes and Standards: Perform earthwork complying with requirements of authorities having jurisdiction.

- B. Testing and Inspection Service: Owner will employ a qualified independent geotechnical engineering testing agency to verify that soils comply with specified requirements and to perform required field and laboratory testing.

1.07 PROJECT CONDITIONS

- A. Existing Utilities: Do not interrupt existing utilities serving facilities occupied by the Owner or others except when permitted in writing by the Engineer and then only after acceptable temporary utility services have been provided.
 - 1. Provide a minimum 72 hours notice to the Engineer and receive written notice to proceed before interrupting any utility.
- B. Demolish and abandon existing underground utilities indicated to be removed. Coordinate with utility companies to shutoff services if lines are active.
- C. Test pits: Excavate test pits to gain additional information on project conditions where shown on the Drawings or as directed by Engineer. Comply with earthwork requirements of this Section.

1.08 PROTECTION

- A. Protection of surfaces: Do not operate equipment on surfaces beyond the work area as much as practicable. Surfaces which are outside the specified limits of Work which become damaged shall be repaired by the Contractor at no additional cost to the Owner.
- B. Maintain excavations with approved barricades, lights, and signs to protect life and property until excavation is filled and graded to a condition acceptable to the Engineer.
- C. Protect structures, utilities, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washout and other hazards created by earthwork operations.

PART 2 - PRODUCTS

2.01 SOIL MATERIALS

- A. Provide approved soil materials complying with this specification.
- B. Suitable materials: As indicated on Drawings or that meet these specifications.

- C. Unsuitable materials: Material containing excessive clay, vegetation, organic matter; debris; pavement over four inches in greatest dimension; stones or boulders over four inches in greatest dimension; frozen material and material which, in the opinion of the Engineer, will not provide a suitable foundation or subgrade, or does not meet these specifications.
- D. Inspection: The Engineer may inspect off-site sources of materials and order tests of these materials to verify compliance with these specifications.
- E. Testing: All materials shall be tested for gradation analysis at the rate of one test per 1000 cubic yards or, in the opinion of the Engineer, if approved material appears to have significantly changed quality since last test.

2.02 Manhole Gravel/Select Backfill: Well graded granular material free of organic material. Sieve analysis by weight:

<u>Sieve size</u>	<u>% Passing By Weight</u>
4"	100
3"	90 - 100
1/4"	25 - 90
No. 40	0 - 30
No. 200	0 - 5

2.03 Sand: Well graded durable particles free from organics. Sieve analysis by weight:

<u>Sieve Size</u>	<u>% Passing by Weight</u>
3/8"	100
No. 4	95 - 100
No. 16	50 - 85
No. 100	2 - 10
No. 200	0 - 5

2.04 3/4" Crushed Stone: Durable, clean angular rock fragments obtained by breaking and crushing rock material. Sieve analysis by weight:

<u>Sieve Size</u>	<u>% Passing by Weight</u>
1"	100
3/4"	75 - 100
1/2"	35 - 70
3/8"	0 - 25
No. 200	0 - 2

2.05 Common Borrow: Earth suitable for embankment or subgrade construction shall be free of frozen material, rubbish, debris, peat and other unsuitable material. Soils meeting Soil Classifications MH, CH, OH, and Pt will not be accepted. Moisture content shall be sufficient to provide required compaction and stable embankment. In no case shall the moisture content exceed 4 percent above optimum. The optimum moisture content shall be determined in accordance with ASTM 1557. All common borrow material shall be approved by Engineer. Sieve analysis by weight:

<u>Sieve Size</u>	<u>% Passing by Weight</u>
8"	100
No. 200	0 - 50

2.06 ACCESSORIES

- A. Detectable Warning Tape: Acid- and alkali-resistant polyethylene film warning tape manufactured for marking and identifying underground utilities, minimum 3 inches wide and 5 mils thick minimum, continuously inscribed with a description of the utility, with metallic core encased in a protective jacket for corrosion protection, detectable by metal detector when tape is buried up to 2'-6" deep.
- B. Tape Colors: Provide tape colors to utilities as follows:
 - 1. Red: Electric.
 - 2. Green: Sewer systems.
- C. Filter Fabric for General Use: Manufacturer's standard nonwoven pervious geotextile fabric of polypropylene, nylon or polyester fibers, or a combination.
 - 1. Provide filter fabrics that meets or exceeds the listed minimum physical properties determined according to ASTM D 4759 and the referenced standard test method in parenthesis:
 - a) Grab Tensile Strength (ASTM D 4632): 120 lb.
 - b) Apparent Opening Size (ASTM D 4751): #70 U.S. Standard sieve.

- c) Permittivity (ASTM D 4491): 1.7 per second.
 - d) Flow rate (ASTM D 4491): 135 gallons per minute per square foot.
 - 2. Fabric shall be equal to MIRAFL 140N manufactured by T.C. MIRAFL.
- D. Filter Fabric for MDOT Trench: Manufacturer's standard nonwoven pervious geotextile fabric of polypropylene fibers.
- 1. Provide filter fabric that meets or exceeds the listed minimum physical properties determined according to ASTM D 4759 and the referenced standard test method in parenthesis:
 - a) Grab Tensile Strength (ASTM D 4632): 160 lb.
 - b) Apparent Opening Size (ASTM D 4751): #70 U.S. Standard sieve.
 - c) Permittivity (ASTM D 4491): 1.5 per second.
 - d) Flow rate (ASTM 4491): 110 gallons per minute per square foot.
 - 3. Fabric shall be equal to MIRAFL 160N.

PART 3 - EXECUTION

3.01 PREPARATION

- A. Protect structures, utilities, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards created by earthwork operations.
- B. Protect subgrades and foundation soils against freezing temperatures or frost. Provide protective insulating materials as necessary.
- C. Provide tree protection as required.
- D. Obtain copies of all applicable permits governing excavation.

3.02 EXCAVATION CLASSIFICATIONS

- A. Excavation is classified as follows and includes excavation to required subgrade elevations. Excavation will be classified as earth excavation or rock excavation on land and as submerged excavation or submerged rock excavation below mean low water of tidal areas as follows:
 - 1. Earth excavation includes roadway excavation of pavements, bases, subbases and subgrades, and other obstructions visible on surface; underground structures, utilities, and other items indicated to be demolished and removed; together with soil and other materials encountered that are not classified as rock or unauthorized excavation.
 - a) Intermittent drilling, blasting, or ripping to increase production and not necessary to permit excavation of material encountered will be classified as earth excavation.

3.03 STABILITY OF EXCAVATIONS

- A. Comply with local codes, ordinances, and requirements of authorities having jurisdiction to maintain stable excavations.

3.04 EXCAVATION FOR UTILITY TRENCHES

- A. Excavate trenches to indicated slopes, lines, depths, and invert elevations.
- B. Excavate uniform widths to provide a working clearance on each side of pipe or conduit. Excavate trench walls vertically from trench bottom to 12 inches higher than top of pipe or conduit, unless otherwise indicated.
 - 1. Clearance: 12 inches each side of pipe or conduit or as indicated on Drawings.
- C. Trench Bottoms: Excavate and shape trench bottoms to provide uniform bearing and support of pipes and conduit or appropriate space for bedding where bedding is required as indicated on Drawings.
- D. Remove all sharp items and objects from trench.
- E. Where encountering rock or another unyielding bearing surface, carry trench excavation 6 inches below invert elevation to receive bedding course.

- F. Maximum excavated length of utility trench that may be left open and not backfilled to grade shall at end of day be 200 LF.

3.05 EXCAVATION OF PAVED AREAS

- A. Sawcut pavement prior to excavation and again prior to paving to provide a clean, uniform edge.
- B. Minimize disturbance of remaining pavement.
- C. Cut and remove the minimum amount of pavement required to do the Work.
- D. Use shoring and bracing where sides of excavation will not stand without undermining pavement.

3.06 EXCESS EXCAVATION WASTE AREAS

- A. If material is suitable as approved by Engineer, use excess excavated material for subgrade or embankment construction. Comply with all compaction requirements defined herein.
- B. If material is deemed unsuitable for reuse by Engineer, or if excess suitable material exists, it shall be the responsibility of the Contractor to obtain necessary permits and approvals from all pertinent State and Federal agencies and from the local municipality prior to the establishment of waste areas off the project.
 - 1. Written permission of the property owners shall be obtained by the Contractor, including permission to dispose of waste in the area.
 - 2. Copies of all required permits shall be given to the Engineer.
 - 3. Provisions shall be made for temporary and permanent erosion controls at waste areas which shall include, but not necessarily be limited to, grading the surface to drain, covering the surface with loam or other earthy material that will support growth and seeding and mulching.

3.07 TEST PITS

- A. Excavate test pits in locations as directed by Engineer.

- B. Utilize smallest equipment required for excavation and appropriately tracked or wheeled equipment to minimize damage to ground surfaces and vegetation in areas not otherwise to be disturbed by Contractor's activities.
- C. To the extent possible, restore surface conditions to existing prior to excavation.

3.08 APPROVAL OF SUBGRADE

- A. Notify Engineer when excavations have reached required subgrade. Allow time for verification of subgrade elevations prior to proceeding with placement of subbase material.
- B. When Engineer determines that unforeseen unsatisfactory soil is present, continue excavation and replace with compacted backfill or fill material as directed.
- C. Unforeseen additional excavation and replacement material will be paid according to the Contract provisions for changes in Work.
- D. Reconstruct subgrades damaged by freezing temperatures, frost, rain, accumulated water, or construction activities, as directed by the Engineer.

3.09 UNAUTHORIZED EXCAVATION

- A. Fill unauthorized excavation without altering required top elevation. Flowable concrete fill may be used to bring elevations to proper position when acceptable to the Engineer.

3.10 STORAGE OF SOIL MATERIALS

- A. Stockpile excavated materials acceptable for backfill and fill soil materials, including acceptable borrow materials. Stockpile soil materials without intermixing. Place, grade, and shape stockpiles to drain surface water. Cover to prevent wind-blown dust.
- B. Stockpile soil materials away from edge of excavation. Do not store within drip line of remaining trees.
- C. Stockpiling excavated soils along roadway is prohibited.

3.11 DEWATERING

- A. Prevent surface water and subsurface or groundwater from entering excavations, from ponding on prepared subgrades, and from flooding Project site and surrounding area.
- B. Protect subgrades from softening and damage by rain or water accumulation.
- C. Do not allow water to accumulate in excavations. Provide and maintain pumps, dewatering system components necessary to convey water away from excavations.
- D. Convey water removed from excavations and rain water to collection or run-off areas. Establish and maintain temporary drainage ditches and other diversions outside excavation limits for each structure. Do not use trench excavations as temporary drainage ditches.

3.12 UTILITY TRENCH BACKFILL

- A. Place and compact bedding course on rock and other unyielding bearing surfaces and to fill unauthorized excavations. Shape bedding course to provide continuous support for bells, joints, and barrels of pipes and for joints, fittings, and bodies of conduits.
- B. Bed pipe in crushed stone to limits of bedding and requirements for remaining trench backfill.
- C. Provide 4 inch thick concrete base slab support for piping or conduit less than 2'-6" below surface of roadways. After installation and testing, completely encase piping or conduit in a minimum of 4 inches of concrete before backfilling or placing roadway subbase.
- D. Place and compact initial backfill of satisfactory soil material or subbase material, free of particles larger than 1 inch, to a height of 12 inches over the utility pipe or conduit.
- E. Carefully compact material under pipe haunches and bring backfill evenly up on both sides and along the full length of utility piping or conduit to avoid damage or displacement of utility system.
- F. Coordinate backfilling with utilities testing.

- G. Fill voids with approved backfill materials as shoring and bracing, and sheeting is removed.
- H. Place and compact final backfill of satisfactory soil material to final subgrade.
- I. Install warning tape directly above utilities as indicated on Drawings.

3.13 MOISTURE CONTROL

- A. Uniformly moisten or aerate subgrade and each subsequent fill or backfill layer before compaction to within two percent of optimum moisture content.
- B. Do not place backfill or fill material on surfaces that are muddy, frozen, or contain frost or ice.
- C. Remove and replace, or scarify and air-dry satisfactory soil material that is too wet to compact to specified density.
- D. Stockpile or spread and dry removed wet satisfactory soil material.

3.14 COMPACTION

- A. Place backfill and fill materials in layers not more than 12 inches in loose depth for material compacted by heavy compaction equipment, and not more than 6 inches in loose depth for material compacted by hand-operated tampers.
- B. Place backfill and fill materials evenly on all sides of structures to required elevations. Place backfill and fill uniformly along the full length of each structure.
- C. Compact to the following minimum densities:

<u>FILL AND BACKFILL LOCATION</u>	<u>DENSITY</u>
Top 2 feet under pavement	95%
Below top 2 feet under pavement	92%
Trenches through unpaved areas	90%
Pipe Bedding	92%
Under structure foundations	95%
Beside structure foundation walls, retaining walls, and tank walls	95%

Around street manholes

92%

Maximum density: ASTM D1557, modified.

Field density tests: ASTM D2922 (nuclear methods).

- D. Determine actual in place densities using field tests as directed by the Engineer. Tests will be made by an independent laboratory. Costs for initial tests will be paid by Owner or by testing allowance bid item. Subsequent retests will be paid by Contractor.
- E. When field in-place density tests are performed using nuclear methods, make calibration checks of both density and moisture gages at beginning of work, on each different type of material encountered, and at intervals as directed by the Engineer.
- F. In each compacted initial and final trench backfill layer, perform at least one field in-place density test for each 200 feet or less of trench, and at every 2' vertical layer, but no fewer than two tests.
- G. When testing agency reports that subgrades, fills, or backfills are below specified density, scarify and moisten or aerate, or remove and replace soil to the depth required, recompact, and retest until required density is obtained.

3.15 GRADING

- A. Uniformly grade areas to a smooth surface, free from irregular surface changes. Comply with compaction requirements and grade to cross sections, lines, and elevations indicated.
- B. Provide a smooth transition between existing adjacent grades and new grades.
- C. Cut out soft spots, fill low spots, and trim high spots to conform to required surface tolerances.
- D. Slope grades to direct water away from buildings and to prevent ponding.
- E. Finish subgrades to required elevations within the following tolerances:
 - 1. Lawn or Unpaved Areas: Plus or minus 0.10 foot.
 - 2. Pavements: Plus or minus 1/2 inch when tested with 10 foot straightedge.

- F. After grading, compact subgrade surfaces to the percentage of maximum density for each area classification.
- G. Protect newly graded areas from traffic and erosion. Keep free of trash and debris.
- H. Repair and re-establish grades in settled, eroded, and rutted areas to specified tolerances.
- I. Where completed compacted areas are disturbed by subsequent construction operations or adverse weather, scarify surface, re-shape, and compact to required density prior to further construction.

3.16 SUBBASE AND BASE COURSES

- A. Under pavements, place subbase course material on prepared subgrades. Place base course material over subbases to pavements.
- B. Compact subbase and base courses at optimum moisture content to required grades, lines, cross sections and thickness to not less than 95 percent of ASTM D 1557 modified.
- C. Shape subbase and base to required crown elevations and cross-slope grades.
- D. When thickness of compacted subbase or base course is 6 inches or less, place materials in a single layer.
- E. When thickness of compacted subbase or base course exceeds 12 inches, place materials in equal layers, with no layer more than 12 inches thick or less than 6 inches thick when compacted.
- F. Place shoulders along edges of subbase and base course to prevent lateral movement. Construct shoulders at least 12 inches wide of acceptable soil materials and compact simultaneously with each subbase and base layer.

3.17 FINAL DISPOSAL OF EXCESS MATERIALS

- A. Remove excess excavated material not wanted by the Owner and dispose of it off Owner's property.

- B. Grade material to the satisfaction of the Owner of the property on which the material is deposited. Keep roads free of debris. Use suitable watertight vehicles for hauling wet materials over roads and streets.
- C. Clean up materials dropped from or spread by vehicles promptly or when directed by the Engineer.
- D. Dispose of materials in accordance with all applicable regulations.

END OF SECTION

02200-15

SECTION 02700

BURIED SEWERAGE

SECTION 02700 - BURIED SEWERAGE

PART 1 - GENERAL

1.01 DESCRIPTION OF WORK

- A. Provide buried sanitary systems as shown on the Drawings. This section includes:

Ductile iron lined sewer pipe and fittings
Fernco couplings
Abandoning sewerage systems
Fittings and couplings between pipe types
Maximum allowable open trench limitations

1.02 RELATED SECTIONS

- A. Section 02160 - Excavation Support Systems.
B. Section 02200 - Earthwork (includes excavation, bedding, backfill, compaction).
C. Section 02701 – Sewer Crossing of Bridge.
D. Section 02720 - Precast Concrete Sewerage Structures.
E. Section 03300 - Cast-in-Place Concrete.
F. Section 07200 – Insulation.
G. Section 15145 - Pipe Hangers, Supports, Anchors, and Seals.

1.03 DEFINITIONS

- A. Sewerage Piping: System of sewer pipe, fittings, and appurtenances for gravity flow of sanitary sewage.

1.04 PERFORMANCE REQUIREMENTS

- A. Gravity Flow, Non-pressure Piping Pressure Ratings: At least equal to system test pressure.

1.05 SUBMITTALS

- A. Submit each item in this Article according to the Conditions of the Contract and Division 1 Specifications Sections:
 - 1. Manufacturer's product data and installation instructions.
 - 2. Certified copies of tests on pipe units.
 - 3. Shop Drawings or Catalog Cuts of adapters for joining pipes of different materials.
 - 4. Construction Records: Record depth and location of the following:
 - a) Bends
 - b) Repairs to existing pipes
 - c) All utilities encountered during excavation
 - 5. Record neatly in a permanently bound notebook and submit at substantial completion. Provide access to records for Engineer at all times. Submit copies to Engineer on a weekly basis.

1.06 QUALITY ASSURANCE

- A. Environmental Agency Compliance: Comply with regulations pertaining to sanitary sewerage and storm drainage systems as promulgated by Maine DEP and U.S. EPA.
- B. Utility Compliance: Comply with regulations pertaining to sanitary sewerage systems. Include standards of water and other utilities where appropriate and Maine DOT utility location and road opening permits.
- C. Product Options: Drawings indicate sizes, profiles, connections, and dimensional requirements of system components and are based on specific manufacturer types indicated.

1.07 DELIVERY, STORAGE, AND HANDLING

- A. Do not store plastic structures in direct sunlight.
- B. Do not store plastic pipe or fittings in direct sunlight.

- C. Protect pipe, pipe fittings, and seals from dirt and damage.

1.08 PROJECT CONDITIONS

- A. Site Information: Perform site survey, research public utility records, and verify existing utility locations prior to excavation.
- B. Locate existing structures and piping to be closed and abandoned or to remain.
- C. Existing Utilities: Do not interrupt existing utilities serving facilities occupied by the Owner or others except when permitted under the following conditions and then only after arranging to provide acceptable temporary utility services.
 - 1. Notify Engineer not less than 72 hours in advance of proposed utility interruptions.
 - 2. Do not proceed with utility interruptions without receiving Engineer's written permission.

1.09 SEQUENCING AND SCHEDULING

- A. Coordinate sanitary sewerage system connections to utility company's sanitary sewer.
- B. Coordinate with other utility work.
- C. Maximum allowable open trench that is not backfilled to grade at any one time shall be 200 LF.

PART 2 - PRODUCTS

2.01 PIPE AND FITTINGS

- A. Lined Ductile Iron Gravity Pipe:
 - 1. AWWA C151, Class 150 minimum, for push on joints, thickness class 51 minimum.
 - 2. Fittings standard pattern meeting AWWA C110 for push on joints with 250 psi minimum rating.

3. Interior pipe and fittings coating asphaltic material seal coating, double cement lined, meeting AWWA C104 with minimum 1 mil thickness.
4. Gaskets rubber meeting AWWA C111 with mechanical or lock on joints.

2.02 BURIED PIPE JOINTS

- A. Gravity and non-pressure ductile iron pipe - mechanical joint, locking ring, or push on pipes.

2.03 PIPE COUPLINGS

- A. Ductile iron sewers shall be Fernco Strong Back RC 1000 Series (Series 6000 for AIS Compliance) coupling for appropriate pipe or equal.
- B. Push-On: ANSI/AWWA C110 and ANSI/AWWA C111, Pacific States Cast Iron Pipe Company or U.S. Pipe and Foundry Tyton joint, or equal.

2.04 MARKING TAPE

- A. Metal detector compatible for future location.
- B. Width of three inches minimum.
- C. Green color required.
- D. Equal to Liveguard III by Tri-Sales Inc.

2.05 INSULATION WRAPPING JACKET FOR BURIED PIPE

- A. Coordinate with Section 02701.

2.06 INSULATION ACCESSORIES

- A. Coordinate with Section 02701.

PART 3 - EXECUTION

3.01 INSTALLATION OF GRAVITY SEWERS AND FITTINGS

- A. General Locations and Arrangements: Drawings (plans and details) indicate the general location and arrangement of underground sewerage systems piping. Location and arrangement of piping layout take into account many design considerations. Install piping as indicated, to extent practical.
- B. Install piping beginning at low point of systems, true to grades and alignment indicated with unbroken continuity of invert. Place bell ends of piping facing upstream. Install gaskets, seals, sleeves, and couplings according to manufacturer's recommendations for use of lubricants, cements, and other installation requirements. Maintain swab or drag in line and pull past each joint as it is completed.
- C. Laser beam required for establishing pipe invert grades in field.
- D. Bedding for each pipe length shall be completed before next pipe length installed.
- E. Lay pipe to line and grade shown on the Drawings. If grade is not shown, determine elevations of start and finish points for each run of pipe. Lay pipe to a uniform grade between these points.
- F. Use manholes for changes in direction, except where fittings or cleanouts are indicated. Use fittings for branch connections, except where direct tap into existing sewer is indicated.
- G. Use proper size increasers, reducers, and couplings where different sizes or materials of pipes and fittings are connected. Reduction of the size of piping in the direction of flow is prohibited.
- H. Lay pipe in the dry. Do not use installed pipe to remove water from Work area.
- I. Flush all pipe and remove debris. Flushing method must be approved by Engineer. Gravity flushing is not acceptable.

3.02 ABANDONING SEWERAGE PIPES

- A. Close open ends of abandoned underground piping that is indicated to remain in place. Include closures strong enough to withstand hydrostatic and earth pressures that may result after ends of abandoned piping have been closed. Use either of the following procedures:
 - 1. Close open ends of piping with at least 8 inch thick brick masonry bulkheads.
 - 2. Close open ends of piping with threaded metal caps, plastic plugs, or other acceptable methods suitable for size and type of material being closed. Do not use wood plugs.
 - 3. Close open ends of pipe by encasing in concrete mass that extends at least 18" outside of pipe end in all directions.

3.03 EXISTING UTILITIES

- A. If, either for the convenience of the contractor, or accidentally, existing utilities or structures of any kind are disrupted, damaged, or proposed temporarily disconnected, contractor shall repair, reconnect, or reinstall the utility to the complete satisfaction of the Utility Owner, Engineer, and Owner. This may require replacement of existing facilities with new materials.

3.04 FIELD QUALITY CONTROL

- A. Clear interior of piping and structures of dirt and superfluous material as the work progresses. Maintain swab or drag in piping and pull past each joint as it is completed.
 - 1. Place plug in end of incomplete piping at end of day and whenever work stops.
 - 2. Flush piping between manholes and other structures, if required by authorities having jurisdiction, to remove collected debris.
- B. Inspect interior of piping to determine whether line displacement or other damage has occurred. Inspect after approximately 24 inches of backfill is in place, and again at completion of the Project.

1. Submit separate reports for each system inspection.
2. Defects requiring correction include the following:
 - a) Alignment: Less than full diameter of inside of pipe is visible between structures.
 - b) Deflection: Flexible piping with deflection that prevents passage of a ball or cylinder of a size not less than 92.5 percent of piping diameter.
 - c) Crushed, broken, cracked, or otherwise damaged piping.
 - d) Infiltration: Water leakage into piping.
 - e) Exfiltration: Water leakage from or around piping.
- C. Replace defective piping using new materials and repeat inspection until defects are within allowances specified.
- D. Reinspect and repeat procedure until results are satisfactory.
- E. Test new piping systems and parts of existing systems that have been altered, extended, or repaired for leaks and defects.
 1. Do not enclose, cover, or put into service before inspection and approval.
 2. Test completed piping systems according to authorities having jurisdiction.
 3. Schedule tests, and their inspections by authorities having jurisdiction, with at least 48 hours' advance notice.
 4. Submit separate reports for each test.

3.05 MAXIMUM OPEN TRENCH LIMITATION

- A. Maximum excavated length of utility trench that may be left open and not backfilled to grade at any given time shall be 200 LF.

3.06 TESTING OF GRAVITY SEWERS

- A. Test all gravity sewer pipes after backfilling. Perform tests in presence of Engineer.
- B. Use low pressure air test as follows:
 - 1. Plug ends of section to be tested.
 - 2. Supply air slowly to the pipe to be tested until the air pressure inside the pipe is 4.0 psi greater than the average back pressure of any groundwater submerging the pipe.
 - 3. Disconnect air supply and allow a minimum of two minutes for stabilization of pressure.
 - 4. Following stabilization period measure drop in pressure over a six minute test period.
 - 5. Acceptable drop: No more than 1.0 psi.
- C. Deflection Test for Gravity Sewer Pipe: Test flexible pipe for deflection after a minimum of 30 days after final backfilling, using a rigid ball or mandrel of 92.5% of the inside diameter of the pipe. No mechanical pulling devices permitted.
- D. Repair all pipes not passing tests using materials and methods approved by the Engineer, and retest.

END OF SECTION

SECTION 02701

SEWER CROSSING OF BRIDGE

SECTION 02701 – SEWER CROSSING OF BRIDGE

PART 1 - GENERAL

1.01 DESCRIPTION OF WORK

- A. Furnish all labor, materials, and equipment necessary to complete all work as shown on drawings and specified. Bridge work includes the following items for both the temporary and permanent sewer:
1. Pipe.
 2. Expansion joints.
 3. Pipe insulation.
 4. Insulation jacket.
 5. Insulation accessories.
 6. Heat tracing.

1.02 RELATED SECTIONS

- A. Section 02200 – Earthwork
- B. Section 02700 – Buried Sewerage
- C. Section 15125 – Pipe Expansion Joints
- D. Section 16100 – Basic Electrical Systems
- D. Section 16898 – Electric Protective Heating Cables

1.03 SUBMITTALS

- A. Shop Drawings: Submit shop drawings for ductile iron pipe, insulation and accessories, protective jacket, pipe supports, and pipe hanger components.
- B. Product data: Submit manufacturers' specifications and installation instructions.

- C. Submittals shall be required for both temporary and permanent systems.

1.04 QUALITY ASSURANCE

- A. General: Insulation work shall be installed by skilled workers employed in the trade. Heat tracing work shall be coordinated with Electrical Contractor.
- D. MaineDOT Specifications: MaineDOT Standard Specifications must be followed when working on the bridge structures and making alterations to the same.

PART 2 – PRODUCTS

2.01 PIPES AND FITTINGS

- A. General: Provide fittings of same type and class of materials as pipe.
- B. Plastic Polyvinyl Chloride (PVC) Temporary Sewer:
 - 1. ASTM D2241, SDR 21, Class 200 pressure pipe.
 - 2. Fittings to be pressure rated equal to pipe.
 - 3. Gaskets to conform with ASTM D1869 and F477.
 - 4. Expansion joints compatible with pipe.
 - 5. Heat-traced and insulated.
- C. Restrained Joint Push-On Ductile-Iron Pipe:
 - 1. AWWA C151, thickness Class 52.
 - 2. Lining: AWWA C104, double cement mortar lined, seal coated.
 - 3. Gaskets, Glands, and Bolts and Nuts: AWWA C111.
 - 4. Restrained Push-On Type Pipe: AWWA C110, C111, rubber gaskets, rubber retainer, ductile iron components.
 - 5. Exterior Coating: Bituminous.