

PROJECT MANUAL
for
Maine Maritime Academy
Drainage and Sidewalk Improvements

June 28, 2021

BGS PIN 3259

Owner:
Maine Maritime Academy
Facilities Department
70 Pleasant Street
Castine, Maine 04421

Engineer:
Plymouth Engineering, Inc.
8 Main Street, Unit C
Newport, Maine 04953

Bureau of General Services
77 State House Station
Augusta, Maine 04333-0077

00 01 10
Table Of Contents

Division 00 – Procurement and Contracting Requirements

<i>Section name</i>	<i>number of pages</i>
<u>INTRODUCTORY INFORMATION</u>	
00 01 01 Project Title Page.....	1
00 01 10 Table of Contents.....	3
<u>PROCUREMENT REQUIREMENTS</u>	
00 10 00 SOLICITATION	
00 11 00 Advertisements and Invitations	
00 11 13 Advertisement for Bids.....	2
00 20 00 INSTRUCTIONS FOR PROCUREMENT	
00 21 00 Instructions	
00 21 13 Instructions to Bidders.....	1
00 40 00 PROCUREMENT FORMS AND SUPPLEMENTS	
00 41 00 Bid Forms	
00 41 13 Bid Form – Stipulated Sum (Single-Prime Contract).....	2
00 43 00 Procurement Form Supplements	
00 43 13 Contractor Bid Security Form	2
00 43 25 Substitution Request Form (During Procurement)	3
<u>CONTRACTING REQUIREMENTS</u>	
00 50 00 CONTRACTING FORMS AND SUPPLEMENTS	
00 52 00 Agreement Forms	
00 52 13 Agreement Form – Stipulated Sum (Single-Prime Contract)	4
00 60 00 PROJECT FORMS	
00 63 00 Clarification and Modification Forms	
00 63 63 Change Order Form	3
00 70 00 CONDITIONS OF THE CONTRACT	
00 71 00 Contracting Definitions	
00 71 00 Definitions	6

00 01 10
Table Of Contents

	<i>Section name</i>	<i>number of pages</i>
00 72 00	General Conditions	
00 72 13	General Conditions	22
00 73 00	Supplementary Conditions	
00 73 43	Wage Rate Requirements	1
 Division 01 – General Requirements		
 01 00 00 GENERAL REQUIREMENTS		
 01 10 00 SUMMARY		
01 11 00	Summary of Work	
01 11 13	Work Covered by Contract Documents.....	3
 01 20 00 PRICE AND PAYMENT PROCEDURES		
 01 29 00 Payment Procedures		
01 29 76	Measurement and Payment.....	4
01 29 77	Application for Payment Form	1
 01 30 00 ADMINISTRATIVE REQUIREMENTS-Not Used		
 01 40 00 QUALITY REQUIREMENTS		
 01 45 00 Quality Control		
01 45 10	Soil Testing.....	2
 01 50 00 TEMPORARY FACILITIES AND CONTROLS		
 01 51 00 Temporary Facilities		
01 51 10	Temporary Facilities and Utilities	4
 01 57 00 Temporary Controls		
01 57 13	Temporary Erosion and Sediment Control	4
 01 70 00 EXECUTION AND CLOSEOUT REQUIREMENTS		
 01 74 00 Cleaning and Waste Management		
01 74 13	Project Cleaning.....	3

00 01 10
Table Of Contents

<i>Section name</i>	<i>number of pages</i>
01 78 00 Closeout Submittals	
01 78 39 Project Record Documents	2
01 80 00 PERFORMANCE REQUIREMENTS	
01-89-00 Site Construction Performance Requirements	
01 80 00 Noise	1
 Division 02 – Site Work	
 02-10-00 Site Preparation	
02 10 00 Site Preparation.....	4
 02-22-00 Demolition	
02 22 00 Demolition	2
 02-22-22 Cutting and Patching	
02 22 22 Cutting and Patching.....	3
 02-23-00 Earthwork	
02 23 00 Earthwork	4
02 23 16 Rock Removal	3
 02-50-00 Pavement	
02 50 10 Bituminous Pavement.....	4
 02-90-00 Loam and Seeding	
02 92 00 Loaming, Seeding and Mulching.....	6

00 11 13
Notice to Contractors

Sidewalk and Drainage Improvements

BGS project number 3259

The project includes removal of existing bituminous asphalt sidewalks and construction of new bituminous concrete sidewalks, regrading, erosion and sedimentation control, and loam and seeding.

The cost of the work is approximately \$ 70,000. The work to be performed under this contract shall be completed on or before the Final Completion date of *1 November 2021*.

1. Bids shall be submitted in sealed envelopes plainly marked "**Bid for Drainage and Sidewalk Improvements**" and addressed to the Bid Administrator:

*Carl Olson
Facilities Department
Maine Maritime Academy
70 Pleasant Street
Castine, Maine 04421*

The envelope shall contain a completed Contractor Bid Form, plus bid security when required, to be received no later than **2:00 PM, on July 22, 2021**. Bid submissions will be opened and read aloud at *Holmes Heritage Room, Harold Alfond Student Union, 42 Pleasant Street, Castine Maine 04421* at the time and date noted above.

Any bid submitted after the noted time will not be considered a valid bid and will remain unopened. Any bid submitted by any other means will not be considered a valid bid.

2. The bid shall be submitted on the Contractor Bid Form (section 00 41 13) provided in the Bid Documents. The Owner reserves the right to accept or reject any or all bids as may best serve the interest of the Owner.
3. Bid security *is required* on this project.
If noted above as required, the Bidder shall include a satisfactory Bid Bond (section 00 43 13) or a certified or cashier's check for 5% of the bid amount with the completed bid form submitted to the Owner. The Bid Bond form is available on the BGS website.
4. Performance and Payment Bonds *are not required* on this project.
If noted above as required, the selected Contractor shall furnish a 100% contract Performance Bond (section 00 61 13.13) and a 100% contract Payment Bond (section 00 61 13.16) in the contract amount to cover the execution of the Work. Bond forms are available on the BGS website.
5. Filed Sub-bids *are not required* on this project.
6. There *are no* Pre-qualified General Contractors on this project.
If Pre-qualified General Contractors are identified for this project, the name of each company, with their city and state, are listed below.
7. An on-site pre-bid conference *will* be conducted for this project.
If a pre-bid conference is scheduled, it is *mandatory* for General Contractors and optional for Subcontractors and suppliers. Contractors who arrive late or leave early for a mandatory meeting

00 11 13
Notice to Contractors

may be prohibited from participating in this meeting and bidding. *Pre-bid meeting will take place July 8, 2021 at 10:00 AM at Maine Maritime Academy, Pleasant Street, Castine, Maine in the area between the Alford Student Union and ABS Center.*

8. Bid Documents - full sets only - will be available on or about *July 1, 2021* and may be obtained *at no cost* from:

Bureau of General Services

Planning Design and Construction

Invitation for Bid

www.maine.gov/dafs/bgs/business-opportunities#invitationforbid

9. Bid Documents may be examined at:

AGC Maine

188 Whitten Road

Augusta, ME 04330

Phone 207-622-4741 Fax 207-622-1625

Construction Summary

734 Chestnut Street

Manchester, NH 03104

Phone 603-627-8856 Fax 603-627-4524

00 21 13
Instructions to Bidders

1. Bidder Requirements

- 1.1 A bidder is a Contractor who is qualified, or has been specifically pre-qualified by the Bureau of General Services, to bid on the proposed project described in the Bid Documents.
- 1.2 Contractors and Subcontractors bidding on projects that utilize Filed Sub-bids shall follow the requirements outlined in these Bid Documents for such projects. See Section 00 22 13 for additional information.
- 1.3 Contractors and Subcontractors are not eligible to bid on the project when their access to project design documents prior to the bid period distribution of documents creates an unfair bidding advantage. Prohibited access includes consultation with the Owner or with design professionals engaged by the Owner regarding cost estimating, constructability review, or project scheduling. This prohibition to bid applies to open, competitive bidding or pre-qualified contractor bidding or Filed Sub-bidding. The Bureau may require additional information to determine if the activities of a Contractor constitute an unfair bidding advantage.
- 1.4 Each bidder is responsible for becoming thoroughly familiar with the Bid Documents prior to submitting a bid. The failure of a bidder to review evident site conditions, to attend available pre-bid conferences, or to receive, examine, or act on addenda to the Bid Documents shall not relieve that bidder from any obligation with respect to their bid or the execution of the work as a Contractor.
- 1.5 Prior to the award of the contract, General Contractor bidders or Filed Sub-bidders may be required to provide documented evidence to the Owner or the Bureau showing compliance with the provisions of this section, their business experience, financial capability, or performance on previous projects.
- 1.6 The selected General Contractor bidder will be required to provide proof of insurance before a contract can be executed.
- 1.7 Contracts developed from this bid shall not be assigned, sublet or transferred without the written consent of the Owner.
- 1.8 By submitting a bid the Contractor attests that it has not been declared ineligible to bid on State of Maine projects. The Director of the Bureau of General Services may disallow award of this contract to any Contractor if there is evidence that the Contractor or any of its Subcontractors, through their own fault, have been terminated, suspended for cause, debarred from bidding, agreed to refrain from bidding as part of a settlement, have defaulted on a contract, or had a contract completed by another party.
- 1.9 The Contractor attests that it is not presently indicted for or otherwise criminally or civilly charged by a Federal, State or local government entity with commission of any of the following offenses and has not within a three-year period preceding this bid been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction, or contract under a public transaction, violation of Federal or State anti-trust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property.

00 21 13
Instructions to Bidders

- 1.10 The Contractor shall not make any award or permit any award (subgrant or contract) at any tier to any party which is debarred or suspended or is otherwise excluded from or ineligible for participation in Federal assistance programs or State of Maine projects.
2. Authority of Owner
- 2.1 The Owner reserves the right to accept or reject any or all bids as may best serve the interest of the Owner.
- 2.2 Subject to the Owner's stated right to accept or reject any or all bids, the Contractor shall be selected on the basis of the lowest sum of an acceptable Base Bid plus any Alternate Bids the Owner elects to include. An acceptable bid is one from a responsive and responsible bidder.
3. Submitting Bids and Bid Requirements
- 3.1 Each bid shall be submitted on the forms provided in the Bid Documents.
- 3.2 Each bid shall be valid for a period of thirty calendar days following the Project bid closing date and time.
- 3.3 A bid that contains any escalation clause is considered invalid.
- 3.4 Bidders shall include a Bid Bond or other approved bid security with the bid form submitted to the Owner when the bid form indicates such bid security is required. The bond value shall be 5% of the bid amount. The form of bond is shown in section 00 43 13.
- 3.5 Bidders shall include the cost of Performance and Payment Bonds in the bid amount if the bid amount will result in a construction contract value over \$125,000, inclusive of alternate bids that may be awarded in the contract. Pursuant to 14 M.R.S.A., Section 871, Public Works Contractors' Surety Bond Law of 1971, subsection 3, the selected Contractor is required to provide these bonds before a contract can be executed. The form of bonds are shown in section 00 61 13.13 and 00 61 13.16.
- 3.6 Bidders may modify bids in writing, by the same means as the original bid submission, prior to the bid closing time. Such written amendments shall not disclose the amount of the initial bid. If so disclosed, the entire bid is considered invalid.
- 3.7 Bidders shall acknowledge on the bid form all Addenda issued in a timely manner. The Consultant shall not issue Addenda affecting the content of the bid less than 72 hours prior to the bid closing time. Addenda shall be issued to all companies who are registered holders of Bid Documents.
- 3.8 A bid may be withdrawn without penalty if a written request by the bidder is presented to the Owner prior to the bid closing time. Such written withdrawal requests are subject to verification as required by the Bureau. After the bid closing time, such written withdrawal requests may be allowed in consideration of the bid bond or, without utilizing a bid bond, if the Contractor

00 21 13
Instructions to Bidders

provides documented evidence to the satisfaction of the Bureau that factual errors had been made on the bid form.

- 3.9 In the event State of Maine Offices unexpectedly close on the published date of a public bid opening in the location of that bid opening, prior to the time of the scheduled deadline, the new deadline for the public bid opening will be the following business day at the originally scheduled hour of the day, at the original location. Official closings are posted on the State of Maine government website.
- 3.10 The Owner may require, in a Notice of Intent to Award letter to the apparent low bidder, a Schedule of Values, Project Schedule, and List of Subcontractors and Suppliers as both a demonstration of capability of the Bidder and as a condition of award.
- 3.11 Projects which require a State of Maine wage determination will include that schedule as part of the Bid Documents. See section 00 73 46, if such rates are required.
- 3.12 Projects which require compliance with the Davis-Bacon Act are subject to the regulations contained the Code for Federal Regulations and the federal wage determination which is made a part of the Bid Documents. See section 00 73 46, if such rates are required.
- 3.13 The Owner is exempt from the payment of Maine State sales and use taxes as provided in 36 M.R.S. §1760 (1). The Contractor and Subcontractors shall not include taxes on exempt items in the construction contract.

00 41 13
Contractor Bid Form

Drainage and Sidewalk Improvements

BGS Project Number 3259

Bid Form submitted by: *paper documents only to address below*

Bid Administrator:

Carl Olson
Facilities Department
Maine Maritime Academy
70 Peasant Street
Castine, Maine 04421

Bidder:

Signature: _____

Printed name and
title: _____

Company name: _____

Mailing address: _____

City, state, zip code: _____

Phone number: _____

Email address: _____

State of
incorporation,
if a corporation: _____

List of all partners,
if a partnership: _____

The Bidder agrees, if the Owner offers to award the contract, to provide any and all bonds and certificates of insurance, as well as Schedule of Values, Project Schedule, and List of Subcontractors and Suppliers if required by the Owner, and to sign the designated Construction Contract within twelve calendar days after the date of notification of such acceptance, except if the twelfth day falls on a State of Maine government holiday or other closure day, or a Saturday, or a Sunday, in which case the aforementioned documents must be received before 12:00 noon on the first available business day following the holiday, other closure day, Saturday, or Sunday.

As a guarantee thereof, the Bidder submits, together with this bid, a bid bond or other acceptable instrument as and if required by the Bid Documents.

00 41 13
Contractor Bid Form

1. The Bidder, having carefully examined the form of contract, general conditions, specifications and drawings dated July 22, 2021, prepared by Pymouth Engineering, Inc. for Maine Maritime Academy Drainage and Sidewalk Improvements, as well as the premises and conditions relating to the work, proposes to furnish all labor, equipment and materials necessary for and reasonably incidental to the construction and completion of this project for the **Base Bid** amount of:

\$ _____ .00

2. Allowances *are not included* on this project.
3. Alternate Bids *are not included* on this project.
4. The Bidder acknowledges receipt of the following addenda to the specifications and drawings:

Addendum No. _____ Dated: _____

Addendum No. _____ Dated: _____

Addendum No. _____ Dated: _____

Addendum No. _____ Dated: _____

5. Bid security *is required* on this project.
If noted above as required, the Bidder shall include with this bid form a satisfactory Bid Bond (section 00 43 13) or a certified or cashier's check for 5% of the bid amount with this completed bid form submitted to the Owner.
6. Filed Sub-bids *are not required* on this project.
If noted above as required, the Bidder shall include with this bid form a list of each Filed Sub-bidder selected by the Bidder on the form provided (section 00 41 13F).

00 43 13
Contractor Bid Bond

Bond No.: insert bond number

We, the undersigned, insert company name of Contractor, select type of entity of insert name of municipality in the State of insert name of state as principal, and insert name of surety as Surety, are hereby held and firmly bound unto select title of obligee in the penal sum of five percent of the bid amount, for the payment of which, well and truly to be made, we hereby jointly and severally bind ourselves, our heirs, executors, administrators, successors and assigns, signed this insert date, i.e.: 8th day of select month, select year, which is the same date as that of the first specified bid due date, or subsequent bid due date revised by addendum.

The condition of the above obligation is such that whereas the principal has submitted to the Owner, or State of Maine, to a certain bid, attached hereto and hereby made a part hereof, to enter into a contract in writing, for the construction of insert name of project as designated in the contract documents

Now therefore:

If said bid shall be rejected, or, in the alternate,

If said bid shall be accepted and the principal shall execute and deliver a contract in the form of contract attached hereto, properly completed in accordance with said bid, and shall furnish a bond for the 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 void.

Otherwise, the same shall remain in force and effect- it being expressly understood and agreed that the liability of the Surety for any and all claims hereunder shall, in no event, exceed the penal amount of this obligation as herein stated.

The Surety, for value received hereby stipulates and agrees that the obligation of said Surety and its bonds shall be in no way impaired or affected by any extension of the time within which the Obligee may accept such bid and said Surety does hereby waive notice of any such extension.

00 43 13
Contractor Bid Bond

In witness whereof, the principal and the Surety have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereto affixed and these presents to be signed by their proper officers, the day and year first set above.

Signed and sealed this insert date, i.e.: 8th day of select month, select year, which is the first specified bid due date, or subsequent bid due date revised by addendum.

Contractor

(Signature)

insert name and title

insert company name

insert address
insert city state zip code

Surety

(Signature)

insert name and title

insert company name

insert address
insert city state zip code

If Contractor is a partnership, all partners shall execute the bond. A power of attorney document indicating that it still is in full force and effect shall be provided by the person executing this bond.

SECTION 004325

SUBSTITUTION REQUEST

PART 1 – GENERAL

1.1 BIDDING REQUIREMENTS

- A. All requirements of the bidding requirements shall apply to and govern the work of this Section.

1.2 FORM

- A. The substitution request form is included in this section. Reproduce copies of the included form. Submit a separate form for each product.

PART 2 - PRODUCTS

- 1. Not used.

PART 3 – EXECUTION

- 2. Supply request for substitutions prior to bid.

SUBSTITUTION REQUEST FORM

TO: _____

PROJECT: _____

We hereby submit for your consideration, the following products instead of the specified items for the above project:

Section Item	Paragraph	Specified
_____	_____	_____

Proposed Substitution:

Attach complete technical data, including laboratory tests, if applicable.

Include complete information on changes to Drawings and/or Specifications which proposed substitution will require for its proper installation.

Submit all necessary samples and substantiating data with request to provide equal quality and performance to that which is specified. Clearly mark manufacturer's literature to indicate equality in performance.

Fill in Blanks Below:

- A. Does the substitution affect dimensions shown on Drawings? Yes ____
No ____.
If yes, clearly indicate changes.

- B. Will the undersigned pay for changes to the design, including engineering and detailing costs caused by the requested substitution?

- C. What affect does substitution have on other trades?

D. What affect does substitution have on applicable code requirements?

E. Differences between proposed substitution and specified item?

F. Manufacturer's guarantee of the proposed and specified items are:

_____ Same _____ Different. (Explain on Attachment).

State of Maine CONSTRUCTION CONTRACT

Large Construction Project

*This form is used when the Contract value is \$50,000 or greater.
The Project Manual, Specifications and Drawings are considered part of this Contract.*

Agreement entered into by and between the insert contracting entity name hereinafter called the **Owner** and insert Contractor company name hereinafter called the **Contractor**.

BGS Project No.: insert number assigned by BGS

Other Project No.: _____

For the following Project: title of project shown on documents at facility or campus name, municipality, Maine.

The Specifications and the Drawings have been prepared by firm name, acting as Professional-of-Record and named in the documents as the Consultant Architect or Engineer.

The *Owner* and *Contractor* agree as follows:

ARTICLE 1 COMPENSATION AND PAYMENTS

1.1 The Owner shall pay the Contractor to furnish all labor, equipment, materials and incidentals necessary for the construction of the Work described in the Specifications and shown on the Drawings the Contract Amount as shown below.

Base Bid	<u>\$0.00</u>
<i>Alternate Bid number and name or "no Alternates"</i>	<u>\$0.00</u>
<i>Alternate Bid number and name or "no Alternates"</i>	<u>\$0.00</u>
<i>Alternate Bid number and name or "no Alternates"</i>	<u>\$0.00</u>
<i>Alternate Bid number and name or "no Alternates"</i>	<u>\$0.00</u>
<i>Alternate Bid number and name or "no Alternates"</i>	<u>\$0.00</u>
Total Contract Amount	<u>\$0.00</u>

1.2 The Contractor's requisition shall contain sufficient detail and supporting information for the Owner to evaluate and support the payment requested.

1.2.1 Payments are due and payable twenty-five working days from the date of receipt of a Contractor requisition which is approved by the Owner.

1.2.2 Provisions for late payments are governed by 5 M.R.S. Chapter 144, *Payment of Invoices Received from Business Concerns*, and interest shall be calculated at 1% per month.

ARTICLE 2 COMMENCEMENT AND COMPLETION DATES

2.1 The Work of this Contract shall commence no sooner than the date this document is executed by the approval authority, or a subsequent date designated in the contract documents.

2.2 The Substantial Completion Date shall be 15 December 2023.

2.3 The Work of this Contract shall be completed on or before the Contract Final Completion Date of 31 December 2023.

2.4 The Contract Expiration Date shall be 29 February 2024. (This date is the Owner's deadline for internal management of contract accounts. The Contract Expiration Date does not directly relate to any contract obligation of the Contractor.)

ARTICLE 3 INELIGIBLE BIDDER

3.1 By signing this contract the Contractor attests that it has not been declared ineligible to bid on State of Maine projects. The Bureau of General Services may disallow award of this contract to any Contractor if there is evidence that the Contractor or any of its Subcontractors, through their own fault, have been terminated, suspended for cause, debarred from bidding, agreed to refrain from bidding as part of a settlement, have defaulted on a contract, or had a contract completed by another party.

3.2 By signing this contract the Contractor attests that it is not presently indicted for or otherwise criminally or civilly charged by a Federal, State or local government entity with commission of any of the following offenses and has not within a three-year period preceding this bid been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction, or contract under a public transaction, violation of Federal or State anti-trust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property.

3.3 The Contractor shall not make any award or permit any award (subgrant or contract) at any tier to any party which is debarred or suspended or is otherwise excluded from or ineligible for participation in Federal assistance programs or State of Maine projects.

ARTICLE 4 CONTRACTOR'S RESPONSIBILITIES

4.1 On this project, the Contractor shall furnish the Owner the appropriate contract bonds in the amount of 100% of the Contract Sum. Contract bonds are mandated if the Contract Sum exceeds \$125,000, or if bonds are specifically required by the Contract Documents.

4.2 The Contractor shall comply with all laws, codes and regulations applicable to the Work.

4.3 The Contractor shall acquire all permits and third-party approvals applicable to the Work not specifically identified as provided by the Owner. Costs for Contractor-provided permits and third-party approvals shall be included in the Contract Sum identified in Section 1.1 above.

4.4 The Contractor shall remain an independent agent for the duration of this Contract, shall not become an employee of the State of Maine, and shall assure that no State employee will be compensated by, or otherwise benefit from, this Contract.

4.5 The Contractor shall be responsible for any design cost, construction cost, or other cost incurred on the Project to the extent caused by the negligent acts, errors or omissions of the Contractor or their Subcontractors in the performance of Work under this Contract.

ARTICLE 5 OWNER'S RESPONSIBILITIES

5.1 The Owner shall provide full information about the objectives, schedule, constraints and existing conditions of the project. The Owner has established a budget with reasonable contingencies that meets the project requirements.

5.2 By signing this contract, the Owner attests that all State of Maine procurement requirements for this contract have been met, including the solicitation of competitive bids.

ARTICLE 6 INSTRUMENTS OF SERVICE

6.1 The Contractor's use of the drawings, specifications and other documents known as the Consultant's Instruments of Service is limited to the execution of the Contractor's scope of work of this project unless the Contractor receives the written consent of the Owner and Consultant for use elsewhere.

ARTICLE 7 MISCELLANEOUS PROVISIONS

7.1 This Contract shall be governed by the laws of the State of Maine.

7.2 The Owner and Contractor, respectively, bind themselves, their partners, successors, assigns and legal representatives to this Contract. Neither party to this Contract shall assign the Contract as a whole without written consent of the other party, which consent the Owner may withhold without cause.

7.3 Notwithstanding any other provision of this Agreement, if the Owner does not receive sufficient funds to fund this Agreement or funds are de-appropriated, or if the Owner does not receive legal authority from the Maine State Legislature or Maine Courts to expend funds intended for this Agreement, then the Owner is not obligated to make payment under this Agreement; provided, however, the Owner shall be obligated to pay for services satisfactorily performed prior to any such non-appropriation in accordance with the termination provisions of this Agreement. The Owner shall timely notify the Contractor of any non-appropriation and the effective date of the non-appropriation.

ARTICLE 8 CONTRACT DOCUMENTS

8.1 The General Conditions of the contract, instructions to bidders, bid form, Special Provisions, the written specifications and the drawings, and any Addenda, together with this agreement, form the contract. Each element is as fully a part of the Contract as if hereto attached or herein repeated.

8.2 Specifications: indicate date of issuance of project manual

8.3 Drawings: note each sheet number and title

8.4 Addenda: note each addenda number and date, or "none"

BGS Project No.: _____

The Contract is effective as of the date executed by the approval authority.

OWNER**CONTRACTOR**

Signature *Date*
name and title
name of contracting entity
address
telephone
email address

Signature *Date*
name and title
name of contractor company
address
telephone
email address
Vendor Number

Indicate the names of the review and approval individuals appropriate to the approval authority.

select proper approval authority			
Reviewed by:		Approved by:	
<i>Signature</i>	<i>Date</i>	<i>Signature</i>	<i>Date</i>
<i>insert name</i>		<i>Joseph H. Ostwald</i>	
<i>Project Manager/ Contract Administrator</i>		<i>Director, Planning, Design & Construction</i>	

**State of Maine
CONSTRUCTION CONTRACT
Change Order**

Project name: Drainage and Sidewalk Improvements
Maine Maritime Academy, Castine, Maine 04421

Change Order Number: **1**

Issue Date of this Document: **31-Dec-2022**

Contractor Company name

address

city state zip code

BGS Project No.: **3259**

Other Project No.: **20151**

Cost Change

Show Deduct as a negative number, e.g.: "-\$850".

	Add	Deduct	Total
Net Amount of this Change Order	\$0	\$0	
Net Amount of Previous Change Orders	\$0	\$0	
Net of Change Orders to Date	\$0	\$0	\$0
Original Contract Amount			\$0
Revised Contract Amount			\$0

Time Change

Show Deduct as a negative number, e.g.: "-8".

	Add	Deduct	Total
Net Calendar Days Adjusted by this Change Order	0	0	
Net Calendar Days Adjusted by Previous Change Orders	0	0	
Net of Change Orders to Date	0	0	0
Original Contract Final Completion Date			31-Dec-2023
Revised Contract Final Completion Date*			31-Dec-2023

Consultant (Architect or Engineer)

Plymouth Engineering, Inc.

Fred S. Marshall, Project Manager

signature

date

Contractor

Type company name here

Type person's name, title here

signature

date

Owner

Maine Maritime Academy

Carl Olson, Facilities Operation Manger

signature

date

Not Used

Type entity name here

Type person's name, title here

signature

date

Bureau of General Services

Division of Planning, Design & Construction

Joseph Ostwald, Division Director

signature

date

Attach the "List of Change Order Items" sheet, plus all supporting documentation for each Change Order Item.

Substantial Completion Date: the deadline for first beneficial use by Owner, as certified by Consultant.

** Contract Final Completion Date : the Contractor's final completion deadline for contract work.*

Contract Expiration Date: the Owner's deadline for internal management of contract accounts;

Contract Expiration Date does not directly relate to any contract obligation of the Contractor.

1-Nov-2021

31-Dec-2023

29-Feb-2024

List of Change Order Items

Project name: Drainage and Sidewalk Improvements
Contractor Company name

C. O. Number: 1

CO Item No.	CP No.	Item Name	Reason Code	Calendar Days*	Cost
1	1	Type brief name of Change Order Item here		0	\$0
				0	\$0
				0	\$0
				0	\$0
				0	\$0
				0	\$0
				0	\$0
				0	\$0
				0	\$0
				0	\$0
				0	\$0
				0	\$0
				0	\$0
				0	\$0
				0	\$0
				0	\$0
Totals				0	\$0

Reason Codes

EO Error or omission of Consultant
 UC Unforeseen job site condition
 OC Owner-generated change
 RC Regulatory authority-generated change
 CC Contractor-generated change

* Calendar Days shows Contract Final
 Completion Date impact only.

Attach this sheet to the BGS "Change Order" cover sheet (with cost and time summaries, and signatures). Attach a "Details" sheet, and other supporting documentation, for each Change Order Item listed above.

Details of Change Order Item

Project name: Drainage & Sidewalk Improvements Change Order Item Number **1**
 Maine Maritime Academy, Castine, ME 04421 CP (Change Proposal) Number **1**
 Issue Date of this Document: 31-Oct-2021

Contractor Company name

address

BGS Project No.: n

city state zip code

Other Project No.: x

Change Order Item	Type name of Change Order Item here			
Description of Work	Type brief description here of work scope here.			
Reason or Necessity of Work	Type brief justification for change here.			
Cost Breakdown	Work by Subcontractor only	Work by Sub and Contractor	Work by Contractor only	
Subcontractor base cost	\$0	\$0		
Subcontractor markup	\$0	\$0		
Contractor base cost		\$0	\$0	
Contractor markup	\$0	\$0	\$0	
Subtotal	\$0	\$0	\$0	
Compensation	lump sum		Total Cost	\$0
Initiated by	Consultant		Calendar Days*	0
Reason Code	CC	Supporting Documentation		is attached

EO
Error or omission
of Consultant

UC
Unforeseen job site
condition

OC
Owner-
generated change

RC
Regulatory authority-
generated change

CC
Contractor-
generated change

* Calendar Days shows Contract Final Completion Date impact only.

Consultant

(Architect or Engineer)

Type firm name here

Type person's name, title here

signature

date

Contractor

Type company name here

Type person's name, title here

signature

date

Owner

Type contracting entity name here

Type person's name, title here

signature

date

Owner's Rep

Type entity name here

Type person's name, title here

signature

date

Bureau of

Division of Planning, Design & Construction

General Services

Type person's name, title here

signature

date

00 71 00
Definitions

1. Definitions

- 1.1 *Addendum*: A document issued by the Consultant that amends the Bid Documents. Addenda shall not be issued less than seventy-two hours prior to the specified bid opening time.
- 1.2 *Allowance*: A specified dollar amount for a particular scope of work or service included in the Work that is identified in the Bid Documents and included in each Bidder's Bid. The Contractor shall document expenditures for an Allowance during the Project. Any unused balance shall be credited to the Owner. The Contractor is responsible for notifying the Owner of anticipated expenses greater than the specified amount and the Owner is responsible for those additional expenses.
- 1.3 *Alternate Bid*: The Contractor's written offer of a specified dollar amount, submitted on the Bid Form, for the performance of a particular scope of work described in the Bid Documents. The Owner determines the low bidder based on the sum of the base Bid and any combination of Alternate Bids that the Owner selects.
- 1.4 *Architect*: A Consultant acting as, or supporting, the Professional-of-Record who is responsible for the design of the Project. Equivalent to "Consultant" in State of Maine contract forms.
- 1.5 *Architectural Supplemental Instruction (ASI)*: A written instruction from the Architect for the purpose of clarification of the Contract Documents. An ASI does not alter the Contract Price or Contract Time. ASIs may be responses to RFIs and shall be issued by the Architect in a timely manner to avoid any negative impact on the Schedule of Work.
- 1.6 *Bid*: The Contractor's written offer of a specified dollar amount or amounts, submitted on a form included in the Bid Documents, for the performance of the Work. A Bid may include bonds or other requirements. A base Bid is separate and distinct from Alternate Bids, being the only cost component necessary for the award of the contract, and representing the minimum amount of Work that is essential for the functioning of the Project.
- 1.7 *Bid Bond*: The security designated in the Bid Documents, furnished by Bidders as a guaranty of good faith to enter into a contract with the Owner, should a contract be awarded to that Bidder.
- 1.8 *Bidder*: Any business entity, individual or corporation that submits a bid for the performance of the work described in the Bid Documents, acting directly or through a duly authorized representative. See also *Responsive and Responsible Bidder*.
- 1.9 *Bid Documents*: The drawings, procurement and contracting requirements, general requirements, and the written specifications -including all addenda, that a bidder is required to reference in the submission of a bid.
- 1.10 *Bureau*: The State of Maine Bureau of Real Estate Management (formerly known as Bureau of General Services, or BGS) in the Department of Administrative and Financial Services.
- 1.11 *Calendar days*: Consecutive days, as occurring on a calendar, taking into account each day of the week, month, year, and any religious, national or local holidays. Calendar days are used for changes in Contract Time.

00 71 00
Definitions

- 1.12 *Certificate of Substantial Completion*: A document developed by the Consultant that describes the final status of the Work and establishes the date that the Owner may use the facility for its intended purpose. The Certificate of Substantial Completion may also include a provisional list of items - a "punch list" - remaining to be completed by the Contractor. The Certificate of Substantial Completion identifies the date from which the project warranty period commences.
- 1.13 *Certificate of Occupancy*: A document developed by a local jurisdiction such as the Code Enforcement Officer that grants permission to the Owner to occupy a building.
- 1.14 *Change Order (CO)*: A document that modifies the contract and establishes the basis of a specific adjustment to the Contract Price or the Contract Time, or both. Change Orders may address correction of omissions, errors, and document discrepancies, or additional requirements. Change Orders should include all labor, materials and incidentals required to complete the work described. A Change Order is not valid until signed by the Contractor, Owner and Consultant and approved by the Bureau.
- 1.15 *Change Order Proposal (COP) (see also Proposal)*: Contract change proposed by the Contractor regarding the contract amount, requirements, or time. The Contractor implements the work of a COP after it is accepted by all parties. Accepted COPs are incorporated into the contract by Change Order.
- 1.16 *Clerk of the Works*: The authorized representative of the Consultant on the job site. Clerk of the Works is sometimes called the Architect's representative.
- 1.17 *Construction Change Directive (CCD)*: A written order prepared by the Consultant and signed by the Owner and Consultant, directing a change in the Work prior to final agreement with the Contractor on adjustment, if any, in the Contract Price or Contract Time, or both.
- 1.18 *Contract*: A written agreement between the Owner and the successful bidder which obligates the Contractor to perform the work specified in the Contract Documents and obligates the Owner to compensate the Contractor at the mutually accepted sum, rates or prices.
- 1.19 *Contract Bonds (also known as Payment and Performance Bonds)*: The approved forms of security, furnished by the Contractor and their surety, which guarantee the faithful performance of all the terms of the contract and the payment of all bills for labor, materials and equipment by the Contractor.
- 1.20 *Contract Documents*: The drawings and written specifications (including all addenda), Standard General Conditions, and the contract (including all Change Orders subsequently incorporated in the documents).
- 1.21 *Contract Expiration Date*: Date determined by the Owner as a deadline for internal management of contract accounts. This allows time after the Contract Final Completion Date for processing the final Requisition for Payment. The Contract Expiration Date does not directly relate to any contract obligation of the Contractor.
- 1.22 *Contract Final Completion Date*: Point of time when the Work is fully completed in compliance with the Contract Documents, as certified by the Consultant. Final payment to the Contractor is due upon Final Completion of the Project.
- 1.23 *Contract Price*: The dollar amount of the construction contract, also called *Contract Sum*.

00 71 00
Definitions

- 1.24 *Contract Time*: The designated duration of time to execute the Work of the contract, with a specific date for completion.
- 1.25 *Contractor*: Also called the "General Contractor" or "GC" the individual or entity undertaking the execution of the general contract work under the terms of the contract with the Owner, acting directly or through a duly authorized representative. The Contractor is responsible for the means, methods and materials utilized in the execution and completion of the Work.
- 1.26 *Consultant*: The Architect or Engineer acting as Professional-of-Record for the Project. The Consultant is responsible for the design of the Project.
- 1.27 *Drawings*: The graphic and pictorial portion of the Contract Documents showing the design, location and dimensions of the Work, generally including plans, elevations, sections, details, schedules, and diagrams.
- 1.28 *Engineer*: A Consultant acting as, or supporting, the Professional-of-Record who is responsible for the design of the Project. Equivalent to "Consultant" in State of Maine contract forms.
- 1.29 *Filed Sub-bid*: The designated major Subcontractor's (or, in some cases, Contractor's) written offer of a specified dollar amount or amounts, submitted on a form included in the Bid Documents, for the performance of a particular portion of the Work. A Filed Sub-bid may include bonds or other requirements.
- 1.30 *General Requirements*: The on-site overhead expense items the Contractor provides for the Project, typically including, but not limited to, building permits, construction supervision, Contract Bonds, insurance, field office, temporary utilities, rubbish removal, and site fencing. Overhead expenses of the Contractor's general operation are not included. Sometimes referred to as the Contractor's General Conditions.
- 1.31 *Owner*: The State agency which is represented by duly authorized individuals. The Owner is responsible for defining the scope of the Project and compensation to the Consultant and Contractor.
- 1.32 *Owner's Representative*: The individual or entity contracted by the Owner to be an advisor and information conduit regarding the Project.
- 1.33 *Overhead*: General and administrative expenses of the Contractor's principal and branch offices, including payroll costs and other compensation of Contractor employees, deductibles paid on any insurance policy, charges against the Contractor for delinquent payments, and costs related to the correction of defective work, and the Contractor's capital expenses, including interest on capital used for the work.
- 1.34 *Performance and Payment Bonds (also known as Contract Bonds)*: The approved forms of security, furnished by the Contractor and their surety, which guarantee the faithful performance of all the terms of the contract and the payment of all bills for labor, materials and equipment by the Contractor.
- 1.35 *Post-Bid Addendum*: Document issued by the Consultant that defines a potential Change Order prior to signing of the construction contract. The Post-Bid Addendum allows the Owner to negotiate

00 71 00
Definitions

contract changes with the Bidder submitting the lowest valid bid, only if the negotiated changes to the Bid Documents result in no change or no increase in the bid price.

A Post-Bid Addendum may also be issued after a competitive construction Bid opening to those Bidders who submitted a Bid initially, for the purpose of rebidding the Project work without re-advertising.

- 1.36 *Project*: The construction project proposed by the Owner to be constructed according to the Contract Documents. The Project, a public improvement, may be tied logistically to other public improvements and other activities conducted by the Owner or other contractors.
- 1.37 *Proposal (see also Change Order Proposal)*: The Contractor's written offer submitted to the Owner for consideration containing a specified dollar amount or rate, for a specific scope of work, and including a schedule impact, if any. A proposal shall include all costs for overhead and profit. The Contractor implements the work of a Proposal after it is accepted by all parties. Accepted Proposals are incorporated into the contract by Change Order.
- 1.38 *Proposal Request (PR)*: An Owner's written request to the Contractor for a Change Order Proposal.
- 1.39 *Punch List*: A document that identifies the items of work remaining to be done by the Contractor at the Close Out of a Project. The Punch List is created as a result of a final inspection of the work only after the Contractor attests that all of the Work is in its complete and permanent status.
- 1.40 *Request For Information (RFI)*: A Contractor's written request to the Consultant for clarification, definition or description of the Work. RFIs shall be presented by the Contractor in a timely manner to avoid any negative impact on the Schedule of Work.
- 1.41 *Request For Proposal (RFP)*: An Owner's written request to the Contractor for a Change Order Proposal.
- 1.42 *Requisition for Payment*: The document in which the Contractor certifies that the Work described is, to the best of the Contractor's knowledge, information and belief, complete and that all previous payments have been paid by the Contractor to Subcontractors and suppliers, and that the current requested payment is now due. See *Schedule of Values*.
- 1.43 *Responsive and Responsible Bidder*: A bidder who complies, on a given project, with the following *responsive* standards, as required by the bid documents:
- provided specific qualifications to bid the project, if required;
 - attended mandatory pre-bid conferences, if required;
 - provided a bid prior to the close of the bid period;
 - submitted a complete bid form;
 - submitted other materials and information, such as bid security, as required;
- and, meets the following minimums regarding these *responsible* standards:
- sustains a satisfactory record of project performance;
 - maintains a permanent place of business in a known physical location;
 - possesses the financial means for short- and long-term operations;
 - possesses the appropriate technical experience;
 - employs adequate personnel and subcontractor resources;
 - maintains the equipment needed to perform the work;

00 71 00
Definitions

complies with the proposed implementation schedule;
complies with the insurance and bonding requirements;
can provide post-construction warranty coverage;
and other criteria which can be considered relevant to the contract.

- 1.44 *Retainage*: The amount, calculated at five percent (5%) of the contract value or a scheduled value, that the Owner shall withhold from the Contractor until the work or portion of work is declared substantially complete or otherwise accepted by the Owner. The Owner may, if requested, reduce the amount withheld if the Owner deems it desirable and prudent to do so. (See Title 5 M.R.S.A., Section 1746.)
- 1.45 *Sample*: A physical example provided by the Contractor which illustrates materials, equipment or workmanship and establishes standards by which the Work will be judged.
- 1.46 *Schedule of the Work*: The document prepared by the Contractor and approved by the Owner that specifies the dates on which the Contractor plans to begin and complete various parts of the Work, including dates on which information and approvals are required from the Owner.
- 1.47 *Schedule of Values*: The document prepared by the Contractor and approved by the Owner before the commencement of the Work that specifies the dollar values of discrete portions of the Work equal in sum to the contract amount. The Schedule of Values is used to document progress payments of the Work in regular (usually monthly) requisitions for payment. See *Requisition for Payment*.
- 1.48 *Shop Drawings*: The drawings, diagrams, schedules and other data specially prepared for the Work by the Contractor or a Subcontractor, manufacturer, supplier or distributor to illustrate some portion of the Work.
- 1.49 *Specifications*: The portion of the Contract Documents consisting of the written requirements of the Work for materials, equipment, systems, standards, workmanship, and performance of related services.
- 1.50 *Subcontractor*: An individual or entity undertaking the execution of any part of the Work by virtue of a written agreement with the Contractor or any other Subcontractor. Also, an individual or entity retained by the Contractor or any other Subcontractor as an independent contractor to provide the labor, materials, equipment or services necessary to complete a specific portion of the Work.
- 1.51 *Substantial Completion Date*: Point of time when the Work or a designated portion of the Work is sufficiently complete in compliance with the Contract Documents so that the Owner can occupy or utilize the Work for its intended purpose without unscheduled disruption. Substantial Completion is documented by the date of the Certificate of Substantial Completion signed by the Owner and the Contractor.
- 1.52 *Superintendent*: The representative of the Contractor on the job site, authorized by the Contractor to receive and fulfill instructions from the Consultant.
- 1.53 *Surety*: The individual or entity that is legally bound with the Contractor and Subcontractor to insure the faithful performance of the contract and for the payment of the bills for labor, materials and equipment by the Contractor and Subcontractors.

00 71 00
Definitions

- 1.54 *Work*: The construction and services, whether completed or partially completed, including all labor, materials, equipment and services provided or to be provided by the Contractor and Subcontractors to fulfill the requirements of the Project as described in the Contract Documents.

00 72 13
General Conditions

Table of Contents of this General Conditions Section

1. Preconstruction Conference	2
2. Intent and Correlation of Contract Documents	2
3. Additional Drawings and Specifications	3
4. Ownership of Contract Documents	3
5. Permits, Laws, and Regulations	3
6. Taxes	4
7. Labor and Wages	4
8. Indemnification	5
9. Insurance Requirements	5
10. Contract Bonds	6
11. Patents and Royalties	7
12. Surveys, Layout of Work	7
13. Record of Documents	7
14. Allowances	8
15. Shop Drawings	8
16. Samples	8
17. Substitutions	8
18. Assignment of Contract	9
19. Separate Contracts	9
20. Subcontracts	10
21. Contractor-Subcontractor Relationship	10
22. Supervision of the Work	11
23. Observation of the Work	11
24. Consultant's Status	12
25. Management of the Premises	12
26. Safety and Security of the Premises	13
27. Changes in the Work	14
28. Correction of the Work	15
29. Owner's Right to do Work	16
30. Termination of Contract and Stop Work Action	16
31. Delays and Extension of Time	17
32. Payments to the Contractor	18
33. Payments Withheld	19
34. Liens	19
35. Workmanship	19
36. Close-out of the Work	20
37. Date of Completion and Liquidated Damages	21
38. Dispute Resolution	21

00 72 13
General Conditions

1. Preconstruction Conference

- 1.1 The Contractor shall, upon acceptance of a contract and prior to commencing work, schedule a preconstruction conference with the Owner and Consultant. The purpose of this conference is as follows.
 - 1.1.1 Introduce all parties who have a significant role in the Project, including:
 - Owner (State agency or other contracting entity)
 - Owner's Representative
 - Consultant (Architect or Engineer)
 - Subconsultants
 - Clerk-of-the-works
 - Contractor (GC)
 - Superintendent
 - Subcontractors
 - Other State agencies
 - Construction testing company
 - Commissioning agent
 - Special Inspections agent
 - Bureau of General Services (BGS);
 - 1.1.2 Review the responsibilities of each party;
 - 1.1.3 Review any previously-identified special provisions of the Project;
 - 1.1.4 Review the Schedule of the Work calendar submitted by the Contractor to be approved by the Owner and Consultant;
 - 1.1.5 Review the Schedule of Values form submitted by the Contractor to be approved by the Owner and Consultant;
 - 1.1.6 Establish routines for Shop Drawing approval, contract changes, requisitions, et cetera;
 - 1.1.7 discuss jobsite issues;
 - 1.1.8 Discuss Project close-out procedures;
 - 1.1.9 Provide an opportunity for clarification of Contract Documents before work begins; and
 - 1.1.10 Schedule regular meetings at appropriate intervals for the review of the progress of the Work.

2. Intent and Correlation of Contract Documents

- 2.1 The intent of the Contract Documents is to describe the complete Project. The Contract Documents consist of various components; each component complements the others. What is shown as a requirement by any one component shall be inferred as a requirement on all corresponding components.
- 2.2 The Contractor shall furnish all labor, equipment and materials, tools, transportation, insurance, services, supplies, operations and methods necessary for, and reasonably incidental to, the construction and completion of the Project. Any work that deviates from the Contract Documents which appears to be required by the exigencies of construction or by inconsistencies in the Contract Documents, will be determined by the Consultant and authorized in writing by the Consultant, Owner and the Bureau prior to execution. The Contractor shall be responsible for requesting clarifying information where the intent of the Contract Documents is uncertain.
- 2.3 The Contractor shall not utilize any apparent error or omission in the Contract Documents to the disadvantage of the Owner. The Contractor shall promptly notify the Consultant in writing of such errors or omissions. The Consultant shall make any corrections or clarifications necessary in such a situation to document the true intent of the Contract Documents.

00 72 13
General Conditions

3. Additional Drawings and Specifications

- 3.1 Upon the written request of the Contractor, the Owner shall provide, at no expense to the Contractor, up to five sets of printed Drawings and Specifications for the execution of the Work.
- 3.2 The Consultant shall promptly furnish to the Contractor revised Drawings and Specifications, for the area of the documents where those revisions apply, when corrections or clarifications are made by the Consultant. All such information shall be consistent with, and reasonably inferred from, the Contract Documents. The Contractor shall do no work without the proper Drawings and Specifications.

4. Ownership of Contract Documents

- 4.1 The designs represented on the Contract Documents are the property of the Consultant. The Drawings and Specifications shall not be used on other work without consent of the Consultant.

5. Permits, Laws, and Regulations

- 5.1 The Owner is responsible for obtaining any zoning approvals or other similar local project approvals necessary to complete the Work, unless otherwise specified in the Contract Documents.
- 5.2 The Owner is responsible for obtaining Maine Department of Environmental Protection, Maine Department of Transportation, or other similar state government project approvals necessary to complete the Work, unless otherwise indicated in the Contract Documents.
- 5.3 The Owner is responsible for obtaining any federal agency project approvals necessary to complete the Work, unless otherwise indicated in the Contract Documents.
- 5.4 The Owner is responsible for obtaining all easements for permanent structures or permanent changes in existing facilities.
- 5.5 The Contractor is responsible for obtaining and paying for all permits and licenses necessary for the implementation of the Work. The Contractor shall notify the Owner of any delays, variance or restrictions that may result from the issuing of permits and licenses.
- 5.6 The Contractor shall comply with all ordinances, laws, rules and regulations and make all required notices bearing on the implementation of the Work. In the event the Contractor observes disagreement between the Drawings and Specifications and any ordinances, laws, rules and regulations, the Contractor shall promptly notify the Consultant in writing. Any necessary changes shall be made as provided in the contract for changes in the work. The Contractor shall not perform any work knowing it to be contrary to such ordinances, laws, rules and regulations.
- 5.7 The Contractor shall comply with local, state and federal regulations regarding construction safety and all other aspects of the Work.
- 5.8 The Contractor shall comply with the Maine Code of Fair Practices and Affirmative Action, 5 M.R.S. §784 (2).

00 72 13
General Conditions

6. Taxes

- 6.1 The Owner is exempt from the payment of Maine State sales and use taxes as provided in 36 M.R.S. §1760 (1). The Contractor and Subcontractors shall not include taxes on exempt items in the construction contract.
- 6.2 Section 1760 further provides in subsection 61 that sales to a construction contractor or its subcontractor of tangible personal property that is to be physically incorporated in, and become a permanent part of, real property for sale to or owned by the Owner, are exempt from Maine State sales and use taxes. Tangible personal property is defined in 36 M.R.S. §1752 (17).
- 6.3 The Contractor may contact Maine Revenue Services, 24 State House Station, Augusta, Maine 04333 for guidance on tax exempt regulations authorized by 36 M.R.S. §1760 and detailed in Rule 302 (18-125 CMR 302).

7. Labor and Wages

- 7.1 The Contractor shall conform to the labor laws of the State of Maine, and all other laws, ordinances, and legal requirements affecting the work in Maine.
- 7.2 The Consultant shall include a wage determination document prepared by the Maine Department of Labor in the Contract Documents for state-funded contracts in excess of \$50,000. The document shows the minimum wages required to be paid to each category of labor employed on the project.
- 7.3 On projects requiring a Maine wage determination, the Contractor shall submit monthly payroll records to the Owner ("the contracting agency") showing the name and occupation of all workers and all independent contractors employed on the project. The monthly submission must also include the Contractor's company name, the title of the project, hours worked, hourly rate or other method of remuneration, and the actual wages or other compensation paid to each person.
- 7.4 The Contractor shall not reveal, in the payroll records submitted to the Owner, personal information regarding workers and independent contractors, other than the information described above. Such information shall not include Social Security number, employee identification number, or employee address or phone number, for example.
- 7.5 The Contractor shall conform to Maine statute (39-A M.R.S. §105-A (6)) by providing to the Workers' Compensation Board a list of all subcontractors and independent contractors on the job site and a record of the entity to whom that subcontractor or independent contractor is directly contracted and by whom that subcontractor or independent contractor is insured for workers' compensation purposes.
- 7.6 The Contractor shall enforce strict discipline and good order among their employees at all times, and shall not employ any person unfit or unskilled to do the work assigned to them.
- 7.7 The Contractor shall promptly pay all employees when their compensation is due, shall promptly pay all others who have billed and are due for materials, supplies and services used in the Work, and shall promptly pay all others who have billed and are due for insurance, workers compensation coverage, federal and state unemployment compensation, and Social Security

00 72 13
General Conditions

charges pertaining to this Project. Before final payments are made, the Contractor shall furnish to the Owner affidavits that all such payments described above have been made.

- 7.8 The Contractor may contact the Maine Department of Labor, 54 State House Station, Augusta, Maine 04333 for guidance on labor issues.
- 7.9 The Contractor may contact the Maine Workers' Compensation Board, 27 State House Station, Augusta, Maine 04333 for guidance on workers' compensation issues.

8. Indemnification

- 8.1 The Contractor shall indemnify and hold harmless the Owner and its officers and employees from and against any and all damages, liabilities, and costs, including reasonable attorney's fees, and defense costs, for any and all injuries to persons or property, including claims for violation of intellectual property rights, to the extent caused by the negligent acts or omissions of the Contractor, its employees, agents, officers or subcontractors in the performance of work under this Agreement. The Contractor shall not be liable for claims to the extent caused by the negligent acts or omissions of the Owner or for actions taken in reasonable reliance on written instructions of the Owner.
- 8.2 The Contractor shall notify the Owner promptly of all claims arising out of the performance of work under this Agreement by the Contractor, its employees or agents, officers or subcontractors.
- 8.3 This indemnity provision shall survive the termination of the Agreement, completion of the project or the expiration of the term of the Agreement.

9. Insurance Requirements

- 9.1 The Contractor shall provide, with each original of the signed Contract, an insurance certificate or certificates acceptable to the Owner and BGS. The Contractor shall submit insurance certificates to the Owner and BGS at the commencement of this Contract and at policy renewal or revision dates. The certificates shall identify the project name and BGS project number, and shall name the Owner as certificate holder and as additional insured for general liability and automobile liability coverages. The submitted forms shall contain a provision that coverage afforded under the insurance policies will not be canceled or materially changed unless at least ten days prior written notice by registered letter has been given to the Owner and BGS.
- 9.2 The Owner does not warrant or represent that the insurance required herein constitutes an insurance portfolio which adequately addresses all risks faced by the Contractor or its Subcontractors. The Contractor is responsible for the existence, extent and adequacy of insurance prior to commencement of work. The Contractor shall not allow any Subcontractor to commence work until all similar insurance required of the Subcontractor has been confirmed by the Contractor.
- 9.3 The Contractor shall procure and maintain primary insurance for the duration of the Project and, if written on a Claims-Made basis, shall also procure and maintain Extended Reporting Period (ERP) insurance for the period of time that any claims could be brought. The Contractor shall ensure that all Subcontractors they engage or employ will procure and maintain similar insurance

00 72 13
General Conditions

in form and amount acceptable to the Owner and BGS. At a minimum, the insurance shall be of the types and limits set forth herein protecting the Contractor from claims which may result from the Contractor's execution of the Work, whether such execution be by the Contractor or by those employed by the Contractor or by those for whose acts they may be liable. All required insurance coverages shall be placed with carriers authorized to conduct business in the State of Maine by the Maine Bureau of Insurance.

- 9.3.1 The Contractor shall have Workers' Compensation insurance for all employees on the Project site in accordance with the requirements of the Workers' Compensation law of the State of Maine. Minimum acceptable limits for Employer's Liability are:

Bodily Injury by Accident	\$500,000
Bodily Injury by Disease	\$500,000 Each Employee
Bodily Injury by Disease	\$500,000 Policy Limit

- 9.3.2 The Contractor shall have Commercial General Liability insurance providing coverage for bodily injury and property damage liability for all hazards of the Project including premise and operations, products and completed operations, contractual, and personal injury liabilities. The policy shall include collapse and underground coverage as well as explosion coverage if explosion hazards exist. Aggregate limits shall apply on a location or project basis. Minimum acceptable limits are:

General aggregate limit.....	\$2,000,000
Products and completed operations aggregate	\$1,000,000
Each occurrence limit	\$1,000,000
Personal injury aggregate.....	\$1,000,000

- 9.3.3 The Contractor shall have Automobile Liability insurance against claims for bodily injury, death or property damage resulting from the maintenance, ownership or use of all owned, non-owned and hired automobiles, trucks and trailers. Minimum acceptable limit is:

Any one accident or loss	\$500,000
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- 9.3.4 For the portion of a project which is new construction, the Contractor shall procure and maintain Builder's Risk insurance naming the Owner, Contractor, and any Subcontractor as insureds as their interest may appear. Covered causes of loss form shall be all Risks of Direct Physical Loss, endorsed to include flood, earthquake, transit and sprinkler leakage where sprinkler coverage is applicable. Unless specifically authorized in writing by the Owner, the limit of insurance shall not be less than the initial contract amount, for the portion of the project which is new construction, and coverage shall apply during the entire contract period and until the work is accepted by the Owner.

- 9.3.5 The Contractor shall have Owner's Protective Liability insurance for contract values \$50,000 and above, naming the Owner as the Named Insured. Minimum acceptable limits are:

General aggregate limit.....	\$2,000,000
Each occurrence limit	\$1,000,000

10. Contract Bonds

- 10.1 When noted as required in the Bid Documents, the Contractor shall provide to the Owner a Performance Bond and a Payment Bond, or "contract bonds", upon execution of the contract. Each bond value shall be for the full amount of the contract and issued by a surety company authorized to do business in the State of Maine as approved by the Owner. The bonds shall be

00 72 13
General Conditions

executed on the forms furnished in the Bid Documents. The bonds shall allow for any subsequent additions or deductions of the contract.

- 10.2 The contract bonds shall continue in effect for one year after final acceptance of the contract to protect the Owner's interest in connection with the one year guarantee of workmanship and materials and to assure settlement of claims for the payment of all bills for labor, materials and equipment by the Contractor.

11. Patents and Royalties

- 11.1 The Contractor shall, for all time, secure for the Owner the free and undisputed right to the use of any patented articles or methods used in the Work. The expense of defending any suits for infringement or alleged infringement of such patents shall be borne by the Contractor. Awards made regarding patent suits shall be paid by the Contractor. The Contractor shall hold the Owner harmless regarding patent suits that may arise due to installations made by the Contractor, and to any awards made as a result of such suits.
- 11.2 Any royalty payments related to the work done by the Contractor for the Project shall be borne by the Contractor. The Contractor shall hold the Owner harmless regarding any royalty payments that may arise due to installations made by the Contractor.

12. Surveys, Layout of Work

- 12.1 The Owner shall furnish all property surveys unless otherwise specified.
- 12.2 The Contractor is responsible for correctly staking out the Work on the site. The Contractor shall employ a competent surveyor to position all construction on the site. The surveyor shall run the axis lines, establish correct datum points and check each line and point on the site to insure their accuracy. All such lines and points shall be carefully preserved throughout the construction.
- 12.3 The Contractor shall lay out all work from dimensions given on the Drawings. The Contractor shall take measurements and verify dimensions of any existing work that affects the Work or to which the Work is to be fitted. The Contractor is solely responsible for the accuracy of all measurements. The Contractor shall verify all grades, lines, levels, elevations and dimensions shown on the Drawings and report any errors or inconsistencies to the Consultant prior to commencing work.

13. Record of Documents

- 13.1 The Contractor shall maintain one complete set of Contract Documents on the jobsite, in good order and current status, for access by the Owner and Consultant.
- 13.2 The Contractor shall maintain, continuously updated, complete records of Requests for Information, Architectural Supplemental Instructions (or equivalent), Information Bulletins, supplemental sketches, Change Order Proposals, Change Orders, Shop Drawings, testing reports, et cetera, for access by the Owner and Consultant.

00 72 13
General Conditions

14. Allowances

- 14.1 The Contract Price shall include all allowances described in the Contract Documents. The Contractor shall include all overhead and profit necessary to implement each allowance in their Contract Price.
- 14.2 The Contractor shall not be required to employ parties for allowance work against whom the Contractor has a reasonable objection. In such a case, the Contractor shall notify the Owner in writing of their position and shall propose an alternative party to complete the work of the allowance.

15. Shop Drawings

- 15.1 The Contractor shall administer Shop Drawings prepared by the Contractor, Subcontractors, suppliers or others to conform to the approved Schedule of the Work. The Contractor shall verify all field measurements, check and authorize all Shop Drawings and schedules required by the Work. The Contractor is the responsible party and contact for the Contractor's work as well as that of Subcontractors, suppliers or others who provide Shop Drawings.
- 15.2 The Consultant shall review and acknowledge Shop Drawings, with reasonable promptness, for general conformity with the design concept of the project and compliance with the information provided in the Contract Documents.
- 15.3 The Contractor shall provide monthly updated logs containing: requests for information, information bulletins, supplemental instructions, supplemental sketches, change order proposals, change orders, submittals, testing and deficiencies.
- 15.4 The Contractor shall make any corrections required by the Consultant, and shall submit a quantity of corrected copies as may be needed. The acceptance of Shop Drawings or schedules by the Consultant shall not relieve the Contractor from responsibility for deviations from Drawings and Specifications, unless the Contractor has called such deviations to the attention of the Consultant at the time of submission and secured the Consultant's written approval. The acceptance of Shop Drawings or schedules by the Consultant does not relieve the Contractor from responsibility for errors in Shop Drawings or schedules.

16. Samples

- 16.1 The Contractor shall furnish for approval, with reasonable promptness, all samples as directed by the Consultant. The Consultant shall review and approve such samples, with reasonable promptness, for general conformity with the design concept of the project and compliance with the information provided in the Contract Documents. The subsequent work shall be in accord with the approved samples.

17. Substitutions

- 17.1 The Contractor shall furnish items and materials described in the Contract Documents. If the item or material specified describes a proprietary product, or uses the name of a manufacturer, the term "or approved equal" shall be implied, if it is not included in the text. The specific item or material specified establishes a minimum standard for the general design, level of quality, type, function, durability, efficiency, reliability, compatibility, warranty coverage, installation factors

00 72 13
General Conditions

and required maintenance. The Drawing or written Specification shall not be construed to exclude other manufacturers products of comparable design, quality, and efficiency.

- 17.2 The Contractor may submit detailed information about a proposed substitution to the Consultant for consideration. Particular models of items and particular materials which the Contractor asserts to be equal to the items and materials identified in the Contract Documents shall be allowed only with written approval by the Consultant. The request for substitution shall include a cost comparison and a reason or reasons for the substitution.
- 17.3 The Consultant may request additional information about the proposed substitution. The approval or rejection of a proposed substitution may be based on timeliness of the request, source of the information, the considerations of minimum standards described above, or other considerations. The Consultant should briefly state the rationale for the decision. The decision shall be considered final.
- 17.4 The duration of a substitution review process can not be the basis for a claim for delay in the Schedule of the Work.

18. Assignment of Contract

- 18.1 The Contractor shall not assign or sublet the contract as a whole without the written consent of the Owner. The Contractor shall not assign any money due to the Contractor without the written consent of the Owner.

19. Separate Contracts

- 19.1 The Owner reserves the right to create other contracts in connection with this Project using similar General Conditions. The Contractor shall allow the Owner's other contractors reasonable opportunity for the delivery and storage of materials and the execution of their work. The Contractor shall coordinate and properly connect the Work of all contractors.
- 19.2 The Contractor shall promptly report to the Consultant and Owner any apparent deficiencies in work of the Owner's other contractors that impacts the proper execution or results of the Contractor. The Contractor's failure to observe or report any deficiencies constitutes an acceptance of the Owner's other contractors work as suitable for the interface of the Contractor's work, except for latent deficiencies in the Owner's other contractors work.
- 19.3 Similarly, the Contractor shall promptly report to the Consultant and Owner any apparent deficiencies in their own work that would impact the proper execution or results of the Owner's other contractors.
- 19.4 The Contractor shall report to the Consultant and Owner any conflicts or claims for damages with the Owner's other contractors and settle such conflicts or claims for damages by mutual agreement or arbitration, if necessary, at no expense to the Owner.
- 19.5 In the event the Owner's other contractors sue the Owner regarding any damage alleged to have been caused by the Contractor, the Owner shall notify the Contractor, who shall defend such proceedings at the Contractor's expense. The Contractor shall pay or satisfy any judgment that may arise against the Owner, and pay all other costs incurred.

00 72 13
General Conditions

20. Subcontracts

- 20.1 The Contractor shall not subcontract any part of this contract without the written permission of the Owner.
- 20.2 The Contractor shall submit a complete list of named Subcontractors and material suppliers to the Consultant and Owner for approval by the Owner prior to commencing work. The Subcontractors named shall be reputable companies of recognized standing with a record of satisfactory work.
- 20.3 The Contractor shall not employ any Subcontractor or use any material until they have been approved, or where there is reason to believe the resulting work will not comply with the Contract Documents.
- 20.4 The Contractor, not the Owner, is as fully responsible for the acts and omissions of Subcontractors and of persons employed by them, as the Contractor is for the acts and omissions of persons directly or indirectly employed by the Contractor.
- 20.5 Neither the Contract Documents nor any Contractor-Subcontractor contract shall indicate, infer or create any direct contractual relationship between any Subcontractor and the Owner.

21. Contractor-Subcontractor Relationship

- 21.1 The Contractor shall be bound to the Subcontractor by all the obligations in the Contract Documents that bind the Contractor to the Owner.
- 21.2 The Contractor shall pay the Subcontractor, in proportion to the dollar value of the work completed and requisitioned by the Subcontractor, the approved dollar amount allowed to the Contractor no more than seven days after receipt of payment from the Owner.
- 21.3 The Contractor shall pay the Subcontractor accordingly if the Contract Documents or the subcontract provide for earlier or larger payments than described in the provision above.
- 21.4 The Contractor shall pay the Subcontractor for completed and requisitioned subcontract work, less retainage, no more than seven days after receipt of payment from the Owner for the Contractor's approved Requisition for Payment, even if the Consultant fails to certify a portion of the Requisition for Payment for a cause not the fault of the Subcontractor.
- 21.5 The Contractor shall not make a claim for liquidated damages or penalty for delay in any amount in excess of amounts that are specified by the subcontract.
- 21.6 The Contractor shall not make a claim for services rendered or materials furnished by the Subcontractor unless written notice is given by the Contractor to the Subcontractor within ten calendar days of the day in which the claim originated.
- 21.7 The Contractor shall give the Subcontractor an opportunity to present and to submit evidence in any progress conference or disputes involving subcontract work.

00 72 13
General Conditions

- 21.8 The Contractor shall pay the Subcontractor a just share of any fire insurance payment received by the Contractor.
- 21.9 The Subcontractor shall be bound to the Contractor by the terms of the Contract Documents and assumes toward the Contractor all the obligations and responsibilities that the Contractor, by those documents, assumes toward the Owner.
- 21.10 The Subcontractor shall submit applications for payment to the Contractor in such reasonable time as to enable the Contractor to apply for payment as specified.
- 21.11 The Subcontractor shall make any claims for extra cost, extensions of time or damages, to the Contractor in the manner provided in these General Conditions for like claims by the Contractor to the Owner, except that the time for the Subcontractor to make claims for extra cost is seven calendar days after the receipt of Consultant's instructions.
22. Supervision of the Work
- 22.1 During all stages of the Work the Contractor shall have a competent superintendent, with any necessary assistant superintendents, overseeing the project. The superintendent shall not be reassigned without the consent of the Owner unless a superintendent ceases to be employed by the Contractor due to unsatisfactory performance.
- 22.2 The superintendent represents the Contractor on the jobsite. Directives given by the Consultant or Owner to the superintendent shall be as binding as if given directly to the Contractor's main office. All important directives shall be confirmed in writing to the Contractor. The Consultant and Owner are not responsible for the acts or omissions of the superintendent or assistant superintendents.
- 22.3 The Contractor shall provide supervision of the Work equal to the industry's highest standard of care. The superintendent shall carefully study and compare all Contract Documents and promptly report any error, inconsistency or omission discovered to the Consultant. The Contractor may not necessarily be held liable for damages resulting directly from any error, inconsistency or omission in the Contract Documents or other instructions by the Consultant that was not revealed by the superintendent in a timely way.
23. Observation of the Work
- 23.1 The Contractor shall allow the Owner, the Consultant and the Bureau continuous access to the site for the purpose of observation of the progress of the work. All necessary safeguards and accommodations for such observations shall be provided by the Contractor.
- 23.2 The Contractor shall coordinate all required testing, approval or demonstration of the Work. The Contractor shall give sufficient notice to the appropriate parties of readiness for testing, inspection or examination.
- 23.3 The Contractor shall schedule inspections and obtain all required certificates of inspection for inspections by a party other than the Consultant.

00 72 13
General Conditions

- 23.4 The Consultant shall make all scheduled observations promptly, prior to the work being concealed or buried by the Contractor. If approval of the Work is required of the Consultant, the Contractor shall notify the Consultant of the construction schedule in this regard. Work concealed or buried prior to the Consultant's approval may need to be uncovered at the Contractor's expense.
- 23.5 The Consultant may order reexamination of questioned work, and, if so ordered, the work must be uncovered by the Contractor. If the work is found to conform to the Contract Documents, the Owner shall pay the expense of the reexamination and remedial work. If the work is found to not conform to the Contract Documents, the Contractor shall pay the expense, unless the defect in the work was caused by the Owner's Contractor, whose responsibility the reexamination expense becomes.
- 23.6 The Bureau shall periodically observe the Work during the course of construction and make recommendations to the Contractor or Consultant as necessary. Such recommendations shall be considered and implemented through the usual means for changes to the Work.

24. Consultant's Status

- 24.1 The Consultant represents the Owner during the construction period, and observes the work in progress on behalf of the Owner. The Consultant has authority to act on behalf of the Owner only to the extent expressly provided by the Contract Documents or otherwise demonstrated to the Contractor. The Consultant has authority to stop the work whenever such an action is necessary, in the Consultant's reasonable opinion, to ensure the proper execution of the contract.
- 24.2 The Consultant is the interpreter of the conditions of the contract and the judge of its performance. The Consultant shall favor neither the Owner nor the Contractor, but shall use the Consultant's powers under the contract to enforce faithful performance by both parties.
- 24.3 In the event of the termination of the Consultant's employment on the project prior to completion of the work, the Owner shall appoint a capable and reputable replacement. The status of the new Consultant relative to this contract shall be that of the former Consultant.

25. Management of the Premises

- 25.1 The Contractor shall place equipment and materials, and conduct activities on the premises in a manner that does not unreasonably hinder site circulation, environmental stability, or any long term effect. Likewise, the Consultant's directions shall not cause the use of premises to be impeded for the Contractor or Owner.
- 25.2 The Contractor shall not use the premises for any purpose other than that which is directly related to the scope of work. The Owner shall not use the premises for any purpose incompatible with the proposed work simultaneous to the work of the Contractor.
- 25.3 The Contractor shall enforce the Consultant's instructions regarding information posted on the premises such as signage and advertisements, as well as activities conducted on the premises such as fires, and smoking.

00 72 13
General Conditions

25.4 The Owner may occupy any part of the Project that is completed with the written consent of the Contractor, and without prejudice to any of the rights of the Owner or Contractor. Such use or occupancy shall not, in and of itself, be construed as a final acceptance of any work or materials.

26. Safety and Security of the Premises

26.1 The Contractor shall designate, and make known to the Consultant and the Owner, a safety officer whose duty is the prevention of accidents on the site.

26.2 The Contractor shall continuously maintain security on the premises and protect from unreasonable occasion of injury all people authorized to be on the job site. The Contractor shall also effectively protect the property and adjacent properties from damage or loss.

26.3 The Contractor shall take all necessary precautions to ensure the safety of workers and others on and adjacent to the site, abiding by applicable local, state and federal safety regulations. The Contractor shall erect and continuously maintain safeguards for the protection of workers and others, and shall post signs and other warnings regarding hazards associated with the construction process, such as protruding fasteners, moving equipment, trenches and holes, scaffolding, window, door or stair openings, and falling materials.

26.4 The Contractor shall restore the premises to conditions that existed prior to the start of the project at areas not intended to be altered according to the Contract Documents.

26.5 The Contractor shall protect existing utilities and exercise care working in the vicinity of utilities shown in the Drawings and Specifications or otherwise located by the Contractor.

26.6 The Contractor shall protect from damage existing trees and other significant plantings and landscape features of the site which will remain a permanent part of the site. If necessary or indicated in the Contract Documents, tree trunks shall be boxed and barriers erected to prevent damage to tree branches or roots.

26.7 The Contractor shall repair or replace damage to the Work caused by the Contractor's or Subcontractor's forces, including that which is reasonably protected, at the expense of the responsible party.

26.8 The Contractor shall not load, or allow to be loaded, any part of the Project with a force which imperils personal or structural safety. The Consultant may consult with the Contractor on such means and methods of construction, however, the ultimate responsibility lies with the Contractor.

26.9 The Contractor shall not jeopardize any work in place with subsequent construction activities such as blasting, drilling, excavating, cutting, patching or altering work. The Consultant must approve altering any structural components of the project. The Contractor shall supervise all construction activities carried out by others on site to ensure that the work is neatly done and in a manner that will not endanger the structure or the component parts.

26.10 The Contractor may act with their sole discretion in emergency situations that potentially effect health, life or serious damage to the premises or adjacent properties, to prevent such potential loss or injury. The Contractor may negotiate with the Owner for compensation for expenses due to such emergency work.

00 72 13
General Conditions

- 26.11 The Contractor and Subcontractors shall have no responsibility for the identification, discovery, presence, handling, removal or disposal of, or exposure of persons to, hazardous materials in any form at the project site. The Contractor shall avoid disruption of any hazardous materials or toxic substances at the project site and promptly notify the Owner in writing on the occasion of such a discovery.
- 26.12 The Contractor shall keep the premises free of any unsafe accumulation of waste materials caused by the work. The Contractor shall regularly keep the spaces "broom clean". See the Close-out of the Work provisions of this section regarding cleaning at the completion of the project.
27. Changes in the Work
- 27.1 The Contractor shall not proceed with extra work without an approved Change Order or Construction Change Directive. A Change Order which has been properly signed by all parties shall become a part of the contract.
- 27.2 A Change Order is the usual document for directing changes in the Work. In certain circumstances, however, the Owner may utilize a Construction Change Directive to direct the Contractor to perform changes in the Work that are generally consistent with the scope of the project. The Owner shall use a Construction Change Directive only when the normal process for approving changes to the Work has failed to the detriment of the Project, or when agreement on the terms of a Change Order cannot be met, or when an urgent situation requires, in the Owner's judgment, prompt action by the Contractor.
- 27.3 The Consultant shall prepare the Construction Change Directive representing a complete scope of work, with proposed Contract Price and Contract Time revisions, if any, clearly stated.
- 27.4 The Contractor shall promptly carry out a Construction Change Directive which has been signed by the Owner and the Consultant. Work thus completed by the Contractor constitutes the basis for a Change Order. Changes in the Contract Price and Contract Time shall be as defined in the Construction Change Directive unless subsequently negotiated with some other terms.
- 27.5 The method of determining the dollar value of extra work shall be by:
- .1 an estimate of the Contractor accepted by Owner as a lump sum, or
 - .2 unit prices named in the contract or subsequently agreed upon, or
 - .3 cost plus a designated percentage, or
 - .4 cost plus a fixed fee.
- 27.6 The Contractor shall determine the dollar value of the extra work for both the lump sum and cost plus designated percentage methods so as not to exceed the following rates. The rates include all overhead and profit expenses.
- .1 Contractor - for any work performed by the Contractor's own forces, up to 20% of the cost;
 - .2 Subcontractor - for work performed by Subcontractor's own forces, up to 20% of the cost;
 - .3 Contractor - for work performed by Contractor's Subcontractor, up to 10% of the amount due the Subcontractor.
- 27.7 The Contractor shall keep and provide records as needed or directed for the cost plus designated percentage method. The Consultant shall review and certify the appropriate amount which

00 72 13
General Conditions

- includes the Contractor's overhead and profit. The Owner shall make payments based on the Consultant's certificate.
- 27.8 Cost reflected in Change Orders shall be limited to the following: cost of materials, cost of delivery, cost of labor (including Social Security, pension, Workers' Compensation insurance, and unemployment insurance), and cost of rental of power tools and equipment. Labor cost may include a pro-ratio share of a foreman's time only in the case of an extension of contract time granted due to the Change Order.
- 27.9 Overhead reflected in Change Orders shall be limited to the following: bond premium, supervision, wages of clerks, time keepers, and watchmen, small tools, incidental expenses, general office expenses, and all other overhead expenses directly related to the Change Order.
- 27.10 The Contractor shall provide credit to the Owner for labor, materials, equipment and other costs but not overhead and profit expenses for those Change Order items that result in a net value of credit to the contract.
- 27.11 The Owner may change the scope of work of the Project without invalidating the contract. The Owner shall notify the Contractor of a change of the scope of work for the Owner's Contractors, which may affect the work of this Contractor, without invalidating the contract. Change Orders for extension of the time caused by such changes shall be developed at the time of directing the change in scope of work.
- 27.12 The Consultant may order minor changes in the Work, not involving extra cost, which is consistent with the intent of the design or project.
- 27.13 The Contractor shall immediately give written notification to the Consultant of latent conditions discovered at the site which materially differ from those represented in the Drawings or Specifications, and which may eventually result in a change in the scope of work. The Contractor shall suspend work until receiving direction from the Consultant. The Consultant shall promptly investigate the conditions and respond to the Contractor's notice with direction that avoids any unnecessary delay of the Work. The Consultant shall determine if the discovered conditions warrant a Change Order.
- 27.14 The Contractor shall, within ten calendar days of receipt of the information, give written notification to the Consultant if the Contractor claims that instructions by the Consultant will constitute extra cost not accounted for by Change Order or otherwise under the contract. The Consultant shall promptly respond to the Contractor's notice with direction that avoids any unnecessary delay of the Work. The Consultant shall determine if the Contractor's claim warrants a Change Order.
28. Correction of the Work
- 28.1 The Contractor shall promptly remove from the premises all work the Consultant declares is non-conforming to the contract. The Contractor shall replace the work properly at no expense to the Owner. The Contractor is also responsible for the expenses of others whose work was damaged or destroyed by such remedial work.

00 72 13
General Conditions

- 28.2 The Owner may elect to remove non-conforming work if it is not removed by the Contractor within a reasonable time, that time defined in a written notice from the Consultant. The Owner may elect to store removed non-conforming work not removed by the Contractor at the Contractor's expense. The Owner may, with ten days written notice, dispose of materials which the Contractor does not remove. The Owner may sell the materials and apply the net proceeds, after deducting all expenses, to the costs that should have been borne by the Contractor.
- 28.3 The Contractor shall remedy any defects due to faulty materials or workmanship and pay for any related damage to other work which appears within a period of one year from the date of substantial completion, and in accord with the terms of any guarantees provided in the contract. The Owner shall promptly give notice of observed defects to the Contractor and Consultant. The Consultant shall determine the status of all claimed defects. The Contractor shall perform all remedial work without unjustifiable delay in either the initial response or the corrective action.
- 28.4 The Consultant may authorize, after a reasonable notification to the Contractor, an equitable deduction from the contract amount in lieu of the Contractor correcting non-conforming or defective work.
29. Owner's Right to do Work
- 29.1 The Owner may, using other contractors, correct deficiencies attributable to the Contractor, or complete unfinished work. Such action shall take place only after giving the Contractor three days written notice, and provided the Consultant approves of the proposed course of action as an appropriate remedy. The Owner may then deduct the cost of the remedial work from the amount due the Contractor.
- 29.2 The Owner may act with their sole discretion when the Contractor is unable to take action in emergency situations that potentially effect health, life or serious damage to the premises or adjacent properties, to prevent such potential loss or injury. The Owner shall inform the Contractor of the emergency work performed, particularly where it may affect the work of the Contractor.
30. Termination of Contract and Stop Work Action
- 30.1 The Owner may, owing to a certificate of the Consultant indicating that sufficient cause exists to justify such action, without prejudice to any other right or remedy and after giving the Contractor and the Contractor's surety seven days written notice, terminate the employment of the Contractor. At that time the Owner may take possession of the premises and of all materials,

00 72 13
General Conditions

tools and appliances on the premises and finish the work by whatever method the Owner may deem expedient. Cause for such action by the Owner includes:

- .1 the contractor is adjudged bankrupt, or makes a general assignment for the benefit of its creditors, or
- .2 a receiver is appointed due to the Contractor's insolvency, or
- .3 the Contractor persistently or repeatedly refuses or fails to provide enough properly skilled workers or proper materials, or
- .4 the Contractor fails to make prompt payment to Subcontractors or suppliers of materials or labor, or
- .5 the Contractor persistently disregards laws, ordinances or the instructions of the Consultant, or is otherwise found guilty of a substantial violation of a provision of the Contract Documents.

- 30.2 The Contractor is not entitled, as a consequence of the termination of the employment of the Contractor as described above, to receive any further payment until the Work is finished. If the unpaid balance of the contract amount exceeds the expense of finishing the Work, including compensation for additional architectural, managerial and administrative services, such balance shall be paid to the Contractor. If the expense of finishing the Work exceeds the unpaid balance, the Contractor shall pay the difference to the Owner. The Consultant shall certify the expense incurred by the Contractor's default. This obligation for payment shall continue to exist after termination of the contract.
- 30.3 The Contractor may, if the Work is stopped by order of any court or other public authority for a period of thirty consecutive days, and through no act or fault of the Contractor or of anyone employed by the Contractor, with seven days written notice to the Owner and the Consultant, terminate this contract. The Contractor may then recover from the Owner payment for all work executed, any proven loss and reasonable profit and damage.
- 30.4 The Contractor may, if the Consultant fails to issue a certificate for payment within seven days after the Contractor's formal request for payment, through no fault of the Contractor, or if the Owner fails to pay to the Contractor within 30 days after submission of any sum certified by the Consultant, with seven days written notice to the Owner and the Consultant, stop the Work or terminate this Contract.

31. Delays and Extension of Time

- 31.1 The completion date of the contract shall be extended if the work is delayed by changes ordered in the work which have approved time extensions, or by an act or neglect of the Owner, the Consultant, or the Owner's Contractor, or by strikes, lockouts, fire, flooding, unusual delay in transportation, unavoidable casualties, or by other causes beyond the Contractor's control. The Consultant shall determine the status of all claimed causes.
- 31.2 The contract shall not be extended for delay occurring more than seven calendar days before the Contractor's claim made in writing to the Consultant. In case of a continuing cause of delay, only one claim is necessary.
- 31.3 The contract shall not be extended due to failure of the Consultant to furnish drawings if no schedule or agreement is made between the Contractor and the Consultant indicating the dates

00 72 13
General Conditions

which drawings shall be furnished and fourteen calendar days has passed after said date for such drawings.

- 31.4 This article does not exclude the recovery of damages for delay by either party under other provisions in the Contract Document.

32. Payments to the Contractor

- 32.1 As noted under *Preconstruction Conference* in this section, the Contractor shall submit a Schedule of Values form, before the first application for payment, for approval by the Owner and Consultant. The Consultant may direct the Contractor to provide evidence that supports the correctness of the form. The approved Schedule of Values shall be used as a basis for payments.
- 32.2 The Contractor shall submit an application for each payment ("Requisition for Payment") on a form approved by the Owner and Consultant. The Consultant may require receipts or other documents showing the Contractor's payments for materials and labor, including payments to Subcontractors.
- 32.3 The Contractor shall submit Requisitions for Payment as the work progresses not more frequently than once each month, unless the Owner approves a more frequent interval due to unusual circumstances. The Requisition for Payment is based on the proportionate quantities of the various classes of work completed or incorporated in the Work, in agreement with the actual progress of the Work and the dollar value indicated in the Schedule of Values.
- 32.4 The Consultant shall verify and certify each Requisition for Payment which appears to be complete and correct prior to payment being made by the Owner. The Consultant may certify an appropriate amount for materials not incorporated in the Work which have been delivered and suitably stored at the site. The Contractor shall submit bills of sale, insurance certificates, or other such documents that will adequately protect the Owner's interests prior to payments being certified.
- 32.5 In the event any materials delivered but not yet incorporated in the Work have been included in a certified Requisition for Payment with payment made, and said materials thereafter are damaged, deteriorated or destroyed, or for any reason whatsoever become unsuitable or unavailable for use in the Work, the full amount previously allowed shall be deducted from subsequent payments unless the Contractor satisfactorily replaces said material.
- 32.6 The Contractor may request certification of an appropriate dollar amount for materials not incorporated in the Work which have been delivered and suitably stored away from the site. The Contractor shall submit bills of sale, insurance certificates, right-of-entry documents or other such documents that will adequately protect the Owner's interests. The Consultant shall determine if the Contractor's documentation for the materials is complete and specifically designated for the Project. The Owner may allow certification of such payments.
- 32.7 Subcontractors may request, and shall receive from the Consultant, copies of approved Requisitions for Payment showing the amounts certified in the Schedule of Values.
- 32.8 Certified Requisitions for Payment, payments made to the Contractor, or partial or entire occupancy of the project by the Owner shall not constitute an acceptance of any work that does

00 72 13
General Conditions

not conform to the Contract Documents. The making and acceptance of the final payment constitutes a waiver of all claims by the Owner, other than those arising from unsettled liens, from faulty work or materials appearing within one year from final payment or from requirements of the Drawings and Specifications, and of all claims by the Contractor, except those previously made and still unsettled.

33. Payments Withheld

- 33.1 The Owner shall retain five percent of each payment due the Contractor as part security for the fulfillment of the contract by the Contractor. The Owner may make payment of a portion of this "retainage" to the Contractor temporarily or permanently during the progress of the Work. The Owner may thereafter withhold further payments until the full amount of the five percent is reestablished. The Contractor may deposit with the Maine State Treasurer certain securities in place of retainage amounts due according to Maine Statute (5 M.R.S. §1746).
- 33.2 The Consultant may withhold or nullify the whole or a portion of any Requisitions for Payment submitted by the Contractor in the amount that may be necessary, in his reasonable opinion, to protect the Owner from loss due to any of the following:
- .1 defective work not remedied;
 - .2 claims filed or reasonable evidence indicating probable filing of claims;
 - .3 failure to make payments properly to Subcontractors or suppliers;
 - .4 a reasonable doubt that the contract can be completed for the balance then unpaid;
 - .5 liability for damage to another contractor.

The Owner shall make payment to the Contractor, in the amount withheld, when the above circumstances are removed.

34. Liens

- 34.1 The Contractor shall deliver to the Owner a complete release of all liens arising out of this contract before the final payment or any part of the retainage payment is released. The Contractor shall provide with the release of liens an affidavit asserting each release includes all labor and materials for which a lien could be filed. Alternately, the Contractor, in the event any Subcontractor or supplier refuses to furnish a release of lien in full, may furnish a bond satisfactory to the Owner, to indemnify the Owner against any lien.
- 34.2 In the event any lien remains unsatisfied after all payments to the Contractor are made by the Owner, the Contractor shall refund to the Owner all money that the latter may be compelled to pay in discharging such lien, including all cost and reasonable attorney's fees.

35. Workmanship

- 35.1 The Contractor shall provide materials, equipment, and installed work equal to or better than the quality specified in the Contract Documents and approved in submittal and sample. The installation methods shall be of the highest standards, and the best obtainable from the respective trades. The Consultant's decision on the quality of work shall be final.

00 72 13
General Conditions

- 35.2 The Contractor shall know local labor conditions for skilled and unskilled labor in order to apply the labor appropriately to the Work. All labor shall be performed by individuals well skilled in their respective trades.
- 35.3 The Contractor shall perform all cutting, fitting, patching and placing of work in such a manner to allow subsequent work to fit properly, whether that be by the Contractor, the Owner's Contractors or others. The Owner and Consultant may advise the Contractor regarding such subsequent work. Notwithstanding the notification or knowledge of such subsequent work, the Contractor may be directed to comply with this standard of compatible construction by the Consultant at the Contractor's expense.
- 35.4 The Contractor shall request clarification or revision of any design work by the Consultant, prior to commencing that work, in a circumstance where the Contractor believes the work cannot feasibly be completed at the highest quality, or as indicated in the Contract Documents. The Consultant shall respond to such requests in a timely way, providing clarifying information, a feasible revision, or instruction allowing a reduced quality of work. The Contractor shall follow the direction of the Consultant regarding the required request for information.
- 35.5 The Contractor shall guarantee the Work against any defects in workmanship and materials for a period of one year commencing with the date of the Certificate of Substantial Completion, unless specified otherwise for specific elements of the project. The Work may also be subdivided in mutually agreed upon components, each defined by a separate Certificate of Substantial Completion.
36. Close-out of the Work
- 36.1 The Contractor shall remove from the premises all waste materials caused by the work. The Contractor shall make the spaces "broom clean" unless a more thorough cleaning is specified. The Contractor shall clean all windows and glass immediately prior to the final inspection, unless otherwise directed.
- 36.2 The Owner may conduct the cleaning of the premises where the Contractor, duly notified by the Consultant, fails to adequately complete the task. The expense of this cleaning may be deducted from the sum due to the Contractor.
- 36.3 The Contractor shall participate in all final inspections and acknowledge the documentation of unsatisfactory work, customarily called the "punch list", to be corrected by the Contractor. The Consultant shall document the successful completion of the Work in a dated Certificate of Substantial Completion, to be signed by Owner, Consultant, and Contractor.
- 36.4 The Contractor shall not call for final inspection of any portion of the Work that is not completely and permanently installed. The Contractor may be found liable for the expenses of individuals called to final inspection meetings prematurely.
- 36.5 The Contractor and all major Subcontractors shall participate in the end-of-warranty-period conference, typically scheduled close to one year after the Substantial Completion date.

00 72 13
General Conditions

37. Date of Completion and Liquidated Damages

- 37.1 The Contractor may make a written request to the Owner for an extension or reduction of time, if necessary. The request shall include the reasons the Contractor believes justifies the proposed completion date. The Owner may grant the revision of the contract completion date if the Work was delayed due to conditions beyond the control and the responsibility of the Contractor. The Contractor shall not conduct unauthorized accelerated work or file delay claims to recover alleged damages for unauthorized early completion.
- 37.2 The Contractor shall vigorously pursue the completion of the Work and notify the Owner of any factors that have, may, or will affect the approved Schedule of the Work. The Contractor may be found responsible for expenses of the Owner or Consultant if the Contractor fails to make notification of project delays.
- 37.3 The Project is planned to be done in an orderly fashion which allows for an iterative submittal review process, construction administration including minor changes in the Work and some bad weather. The Contractor shall not file delay claims to recover alleged damages on work the Consultant determines has followed the expected rate of progress.
- 37.4 The Consultant shall prepare the Certificate of Substantial Completion which, when signed by the Owner and the Contractor, documents the date of Substantial Completion of the Work or a designated portion of the Work. The Owner shall not consider the issuance of a Certificate of Occupancy by an outside authority a prerequisite for Substantial Completion if the Certificate of Occupancy cannot be obtained due to factors beyond the Contractor's control.
- 37.5 Liquidated Damages may be deducted from the sum due to the Contractor for each calendar day that the Work remains uncompleted after the completion date specified in the Contract or an approved amended completion date. The dollar amount per day shall be calculated using the Schedule of Liquidated Damages table shown below.

If the original contract amount is:	The per day Liquidated Damages shall be:
Less than \$100,000	\$250
\$100,000 to less than \$2,000,000	\$750
\$2,000,000 to less than \$10,000,000	\$1,500
\$10,000,000 and greater	\$1,500 plus \$250 for each \$2,000,000 over \$10,000,000

38. Dispute Resolution

38.1 Mediation

- 38.1.1 A dispute between the parties which arises under this Contract which cannot be resolved through informal negotiation, shall be submitted to a neutral mediator jointly selected by the parties.
- 38.1.2 Either party may file suit before or during mediation if the party, in good faith, deems it to be necessary to avoid losing the right to sue due to a statute of limitations. If suit is filed before good faith mediation efforts are completed, the party filing suit shall agree to stay all proceedings in the lawsuit pending completion of the mediation process, provided such stay is without prejudice.

00 72 13
General Conditions

38.1.3 In any mediation between the Owner and the Consultant, the Owner has the right to consolidate related claims between Owner and Contractor.

38.2 Arbitration

38.2.1 If the dispute is not resolved through mediation, the dispute shall be settled by arbitration. The arbitration shall be conducted before a panel of three arbitrators. Each party shall select one arbitrator; the third arbitrator shall be appointed by the arbitrators selected by the parties. The arbitration shall be conducted in accordance with the Maine Uniform Arbitration Act (MUAA), except as otherwise provided in this section.

38.2.2 The decision of the arbitrators shall be final and binding upon all parties. The decision may be entered in court as provided in the MUAA.

38.2.3 The costs of the arbitration, including the arbitrators' fees shall be borne equally by the parties to the arbitration, unless the arbitrator orders otherwise.

38.2.4 In any arbitration between the Owner and the Consultant, the Owner has the right to consolidate related claims between Owner and Contractor.

00 73 46
Wage Determination Schedule

PART 1- GENERAL

1.1 Related Documents

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specifications Sections, apply to this Section.

1.2 Summary

- A. This Section includes the wage determination requirements for Contractors as issued by the State of Maine Department of Labor Bureau of Labor Standards or the United States Department of Labor.

1.3 Requirements

- A. Conform to the wage determination schedule for this project which is shown on the following page.

PART 2 - PRODUCTS (not used)

PART 3 - EXECUTION (not used)

00 73 46 Wage Determination Schedule 01 May 2020

State of Maine
Department of Labor
Bureau of Labor Standards
Augusta, Maine 04333-0045
Telephone (207) 623-7906

Wage Determination - In accordance with 26 MRS §1301 et. seq., this is a determination by the Bureau of Labor Standards, of the fair minimum wage rate to be paid to laborers and workers employed on the below titled project.

2021 Fair Minimum Wage Rates
Highway & Earth Hancock County

Occupation Title	Minimum Wage	Minimum Benefit	Total	Occupation Title	Minimum Wage	Minimum Benefit	Total
Asphalt Raker	\$ 18.94	\$ 4.66	\$ 23.60	Ironworker - Reinforcing	\$ 28.36	\$ 0.00	\$ 28.36
Backhoe Loader Operator	\$ 33.80	\$ 10.28	\$ 44.08	Laborer - Skilled	\$ 18.32	\$ 3.52	\$ 21.84
Boom Truck (Truck Crane) Operator	\$ 25.00	\$ 5.86	\$ 31.86	Laborers (Helpers & Tenders)	\$ 18.00	\$ 0.90	\$ 18.90
Bulldozer Operator	\$ 20.00	\$ 1.58	\$ 21.58	Loader Operator - Front-End	\$ 22.00	\$ 7.62	\$ 29.62
Carpenter - Rough	\$ 30.76	\$ 19.72	\$ 50.48	Mechanic- Maintenance	\$ 22.75	\$ 1.59	\$ 24.34
Cement Mason/Finisher	\$ 20.50	\$ 1.42	\$ 21.92	Millwright	\$ 25.75	\$ 5.41	\$ 31.16
Communication Equip Installer	\$ 22.00	\$ 0.00	\$ 22.00	Painter	\$ 20.90	\$ 2.07	\$ 22.97
Crane Operator =>15 Tons)	\$ 29.00	\$ 6.68	\$ 35.68	Paver Operator	\$ 23.91	\$ 13.25	\$ 37.16
Crusher Plant Operator	\$ 22.96	\$ 7.90	\$ 30.86	Pipelayer	\$ 25.00	\$ 3.36	\$ 28.36
Electrician - Licensed	\$ 31.98	\$ 17.24	\$ 49.22	Reclaimer Operator	\$ 26.83	\$ 13.25	\$ 40.08
Electrician Helper/Cable Puller	\$ 18.50	\$ 2.39	\$ 20.89	Roller Operator - Earth	\$ 23.91	\$ 2.97	\$ 26.88
Excavator Operator	\$ 23.74	\$ 2.26	\$ 26.00	Roller Operator - Pavement	\$ 32.55	\$ 7.96	\$ 40.51
Fence Setter	\$ 18.50	\$ 2.00	\$ 20.50	Screed/Wheelman	\$ 20.00	\$ 3.01	\$ 23.01
Flagger	\$ 13.75	\$ 0.00	\$ 13.75	Stone Mason	\$ 25.00	\$ 1.88	\$ 26.88
Grader/Scraper Operator	\$ 26.29	\$ 10.70	\$ 36.99	Truck Driver - Heavy	\$ 19.50	\$ 3.87	\$ 23.37
Highway Worker/Guardrail Installer	\$ 24.87	\$ 1.36	\$ 26.23	Truck Driver - Light	\$ 24.15	\$ 0.38	\$ 24.53
Hot Top Plant Operator	\$ 23.91	\$ 13.25	\$ 37.16	Truck Driver - Medium	\$ 19.00	\$ 0.99	\$ 19.99
Industrial Truck (Forklift) Operator	\$ 26.83	\$ 3.25	\$ 30.08	Truck Driver - Tractor Trailer	\$ 18.00	\$ 0.00	\$ 18.00

The Laborer classifications include a wide range of work duties. Therefore, if any specific occupation to be employed on this project is not listed in this determination, call the Bureau of Labor Standards at the above number for further clarification.

Welders are classified in the trade to which the welding is incidental.

Apprentices – The minimum wage rate for registered apprentices are those set forth in the standards and policies of the Maine State Apprenticeship and Training Council for approved apprenticeship programs.

Title 26 §1310 requires that a clearly legible statement of all fair minimum wage and benefits rates to be paid the several classes of laborers, workers and mechanics employed on the construction on the public work must be kept posted in a prominent and easily accessible place at the site by each contractor and subcontractor subject to sections 1304 to 1313.

Appeal – Any person affected by the determination of these rates may appeal to the Commissioner of Labor by filing a written notice with the Commissioner stating the specific grounds of the objection within ten (10) days from the filing of these rates.

A true copy

Attest: Scott R. Cotnoir

Scott R. Cotnoir
Wage & Hour Director
Bureau of Labor Standards

Expiration Date: 12-31-2021
Revised 2-25-2021

SECTION 01113

GENERAL SUMMARY OF WORK

PART 1 - GENERAL

1.1 Work Under this Contract

1.1.1 Location: Maine Maritime Academy, 1 Pleasant Street, Castine, Maine.

1.1.2 Scope: The work generally consists of the following, which is not an all-inclusive list: Removal/demolition of bituminous concrete sidewalks. Excavation for relocated sidewalks. Eight inches of subbase MDOT Type C, Four inches of base gravel, MDOT Type a. Two inches of MDOT Superpave. Grading, erosion control. And loam and seeding.

1.2 Enumeration of Drawings

The following are the Drawings, which form a part of this Contract as set forth in the General Conditions of the Construction Contract:

Sheet #	Drawing #	Sheet Name
1		Cover Sheet
2	C1	Existing Site
3	C2	Removal Plan
4	C3	Site Plan
5	C4	Grading Plan
6	C5	Layout Plan
7	C6	Erosion & Sedimentation Control
8	C7	Erosion & Sedimentation Control Plan & Details
9	C8	Construction Details & Notes

1.3 Enumeration of Specifications

The following are the Specifications, which form a part of this Contract:

Division #	Division Name
00	Procurement & Contracting
01	General Requirements
02	Site Work

PART 2 - PRODUCTS

MDOT Type A Gravel
MDOT Type C Gravel
Fill Material
Bituminous Concrete Pavement
Loam and Seed

PART 3 - EXECUTION

3.1 Coordination

CONTRACTOR shall coordinate construction under this Contract with the following entities:

3.1.1 Dig Safe: CONTRACTOR shall call Dig-Safe prior to any excavation taking place. CONTRACTOR shall provide ENGINEER with a confirmation number and date and time when excavation will be allowed.

3.1.2 Telephone Service: CONTRACTOR shall be responsible for coordinating all Work in and around telephone utility facilities with the applicable local firm and shall bear all costs of inspection requirements, temporary facilities, relocations, pole relocation, and all other requirements. CONTRACTOR shall note that underground telephone lines may exist within the project area and shall take special care not to disrupt any existing lines.

3.1.3 Cable Television: CONTRACTOR shall be responsible for coordinating all Work in and around cable television utility facilities with the applicable local carrier and shall bear all costs of inspection requirements, temporary facilities, relocations, pole relocation, and all other requirements.

3.1.4 Electrical Service: CONTRACTOR shall be responsible for coordinating all Work in and around electrical facilities with Central Maine Power Company or the applicable local distribution company and shall bear all costs of inspection requirements, temporary facilities, relocations, pole relocation, and all other requirements. A work order is in place for pole placement for this project.

3.1.5 Municipal Departments: CONTRACTOR shall be responsible for coordinating all Work with all affected municipal departments, including the following, which may not be an all-inclusive list: Town of Castine Public Works Department, Town of Castine Sewer Department, Town of Castine Police Department, Town of Castine Fire Department, and Town of Castine Water Department.

CONTRACTOR shall notify municipal departments in writing at least 24 hours in advance of any and all street closings or detours, etc. Copies of such written notices shall be forwarded to ENGINEER by CONTRACTOR.

3.1.6 Utility Districts: CONTRACTOR shall be responsible for coordinating all Work with all affected utility districts, including Sewer Department. CONTRACTOR shall notify utility districts in writing at least 24 hours in advance of any and all street closings, detours, water line shut downs, taking hydrants out of service, etc. Copies of such written notices shall be forwarded to ENGINEER by CONTRACTOR.

3.1.7 Other Entities: CONTRACTOR shall further be responsible for coordinating all Work with Facilities, Maine Maritime Academy, other contractors, utilities, and adjoining land owners or tenants that may be affected by the Work.

END OF SECTION

SECTION 012976

MEASUREMENT AND PAYMENT

PART 1 - GENERAL

1.1 Summary

A. This Specification covers both lump sum and unit price Contracts.

PART 2 - PRODUCTS

Not Applicable

PART 3 - EXECUTION

3.1 Lump Sum Items

A. For lump sum items, payment will be made to CONTRACTOR in accordance with the progress schedule and schedule of values that were approved by ENGINEER, on the basis of actual work completed.

3.2 Unit Price Items

A. For unit-price items, payment to CONTRACTOR will be based on actual amount of Work accepted by ENGINEER and for the actual amount of materials in place, as shown by final measurement.

B. All units of measurement shall be standard United States convention as applied to the specific items of work by tradition and as interpreted by ENGINEER.

C. At the end of each week's Work, CONTRACTOR's Resident Superintendent or other authorized representative of CONTRACTOR shall submit to ENGINEER's Resident Representative the quantities of work accomplished and/or completed during the work week. Work quantities for lump sum items should be expressed as a percentage of the total work, and quantities for unit price items should be submitted with numbers of units and unit prices from the accepted schedule of unit prices. If ENGINEER'S Resident Representative is not present on any given day, CONTRACTOR shall submit by fax, the same information no later than the end of business on Friday of the week.

D. Once each month the ENGINEER's Resident Representative will prepare two (2) "Monthly Progress Summation" forms which shall be signed by both the ENGINEER's Resident Representative and CONTRACTOR's Resident Representative and submitted to OWNER.

E. The above-described completed forms will provide the basis of ENGINEER's monthly quantity estimate upon which payment will be made. Items not appearing on the Monthly Progress Summation will not be included for payment. Items appearing on forms not properly signed by CONTRACTOR will not be included for payment.

3.3 Scope of Payment

A. Payments to CONTRACTOR will be made for the actual quantities of the Contract items performed and accepted in accordance with the Contract Documents. Upon completion of Construction if these actual unit price items quantities show either an increase or decrease from the quantities given in the Bid Form, the Contract Unit Prices will still prevail, except as provided herein after.

B. CONTRACTOR shall accept compensation, as herein provided, as full payment for furnishing all materials, labor, tools, equipment, and incidentals necessary to the completed Work and for performing all Work contemplated and intended by the Contract Documents; also for all loss or damage arising from the nature of the Work, or from the action of the elements, or from any unforeseen difficulties which may be encountered during the prosecution of the Work and until its final acceptance by ENGINEER, and for all risks of every description connected with the prosecution of the Work, except as provided herein, also for all expenses incurred in consequence of the suspension of the Work as herein authorized.

C. The payment of any partial estimate or of any retained percentage except by and under the approved final Application for Payment, in no way shall affect the obligation of CONTRACTOR to repair or renew any defective parts of the construction or to be responsible for all damage due to such defects.

3.4 Payment for Increase or Decreased Quantities

A. When alterations in the quantities of work not requiring supplemental agreements, as herein before provided for, are ordered and performed, CONTRACTOR shall accept payment in full at the Contract price for the actual quantities of work done. No allowance will be made for anticipated profits. Increased or decreased work involving supplemental agreements will be paid for as stipulated in such agreements.

3.5 Omitted Items

A. Should any item or items contained in the Bid Form be found unnecessary for the proper completion of the work contracted, ENGINEER may eliminate such item or items from the Contract, and a credit be made for items so eliminated in making final payment to CONTRACTOR. Such action shall in no way invalidate the Contract, and no allowance will be made for items so eliminated in making final payment to CONTRACTOR.

3.6 Partial Payments

A. Partial payments shall be made monthly to CONTRACTOR as the Work progresses. All Applications for Payment and payments shall be subject to correction in the final quantity Application for Payment and payment.

3.7 Payment for Materials Delivered

A. When requested by CONTRACTOR and at the discretion of OWNER, payment may be made for all or part of the value of acceptable materials and equipment that are to be incorporated into bid items and/or the Project. These materials shall be new and have been delivered to the job site or storage location other than at the job site if acceptable to OWNER. Prior to payment being made, submit to ENGINEER original invoices from suppliers accompanied by receipted bills as proof of payment of all the values of the material and/or equipment under consideration. Materials and equipment, when so paid for by OWNER, shall become the property of OWNER and in the event of default on the part of CONTRACTOR, OWNER may use or cause to be used these materials and equipment in the construction of the Work. CONTRACTOR shall be responsible for any damage to or loss of these materials and equipment. The amount thus paid by OWNER shall reduce the estimated amounts due CONTRACTOR as the material is used in the Work.

B. No partial payment shall be made upon fuels, supplies, lumber, false work, other materials, or on temporary structures of any kind which are not a permanent part of the Contract.

3.8 Waiver of Liens

A. Within 21 days of OWNER's partial payment to CONTRACTOR, CONTRACTOR shall submit fully executed Waivers of Lien for all labor and materials included in such payment which have been incorporated into the work or suitably stored on site. The Waiver of Lien form contained in the Contract Documents shall be the form used.

B. Failure to provide timely Waivers of Lien may result in a delay in processing subsequent Applications for Payment, or additional retainage being withheld from payments by OWNER for said Application for Payment. The amount of any such increase in retainage shall be determined by ENGINEER. No Application for Payment shall be processed without receipt of fully executed Waivers of Lien covering all work included on all prior Applications for Payment.

3.9 Final Payment

A. ENGINEER will make, as soon as practicable after the entire completion of the Project, a final quantity application for payment in the amount of the Work performed and the value of such Work and OWNER will then pay the entire sum found to be due, after deducting therefrom all previous payments. All amounts to be retained or deducted under the provisions of the Contract may be held by the OWNER for a period of sixty (60) days after the completion of the final quantity application for payment, or until such time as CONTRACTOR submits satisfactory evidence that all bills for labor and materials used under this Contract have been paid and all required documents have been submitted to ENGINEER.

3.10 Incidental Work

A. All other items described in these Specifications but not listed as a Bid Item shall be considered incidental to related items in the appropriate Sections as mentioned therein. Incidental work items for which separate payment will not be made includes, but is not

Maine Maritime Academy Drainage and Sidewalk Improvements

necessarily limited to, the following items:

1. Project Record Documents
2. Traffic Regulation
3. Safety Equipment and Measures
4. Signs
5. Clean-up and restoration of property other than the OWNER's.
6. Restoration of fences, hedges, and other structures.
7. Cooperation and coordination with others, including utility companies.
8. Utility crossings and relocations, unless otherwise paid for.
9. Temporary utility service.
10. Trench boxes and shoring.
11. Dewatering as necessary.
12. Dust Control as necessary.
13. Erosion Control as necessary.
14. Construction schedules, bonds, insurance, shop drawings, warranties, guarantees, certifications and other submittals required by the Contract Documents.
15. Temporary construction not permanently incorporated into the work.
16. Weather protection.
17. Trench dams and pipe insulation.
18. Permits not otherwise paid for by the Owner.
19. Contract Administration and insurance.
20. Visits to the site or elsewhere by personnel or agents of the Contractor, including manufacturer's representatives, as may be required.
21. Minor items such as relocation of sign posts, rock walls, mail boxes, curbs, traffic loop detectors, guard rails, pavement markings, etc. damaged as a result of construction activities.

END OF SECTION

SECTION 012977

APPLICATION FOR PAYMENT

TO: _____

FROM: _____

PROJECT NAME: _____

PAY REQUISITION NO: _____

REQUISITION DATE: _____

REQUISITION PERIOD: _____ TO _____

DATE RECEIVED BY ENGINEER: _____

DATE RECEIVED BY OWNER: _____

PAYMENT OF THIS PAY REQUISITION IS BASED UPON THE FOLLOWING:
(ATTACH PAY ITEM BREAKDOWN SPREADSHEET)

ORIGINAL CONTRACT AMOUNT: \$ _____

NET CHANGE BY CHANGE ORDER(S): \$ _____

CONTRACT SUM TO DATE: \$ _____

ITEM	THIS REQ.	TOTAL TO DATE
AMOUNT EARNED	\$ _____	\$ _____
LESS RETAINAGE	\$ _____	\$ _____
PREVIOUS PAYMENTS	\$ _____	\$ _____
AMOUNT DUE	\$ _____	\$ _____

SUBMITTED BY: _____

TITLE _____ DATE: _____

REVIEWED BY: _____

TITLE _____ DATE: _____

ACCEPTED BY: _____

TITLE _____ DATE: _____

END OF SECTION

SECTION 014510

SOIL TESTING

PART 1 - GENERAL

1.1 Summary

A. This section includes requirements for soil and aggregate testing, including sieve analysis, moisture density tests and compaction tests necessary for the completion of the work.

1.2 References

A. *Standard Specifications For Highways And Bridges*, Maine Department of Transportation (MDOT), Latest Revision.

B. American Society for Testing and Materials (ASTM), Selected Standards, Latest Edition.

1.3 Submittals

A. Prior to the commencement of any work, CONTRACTOR shall notify ENGINEER of the sources of all soil and aggregate materials proposed for incorporation into the work.

B. Soil and aggregate samples shall receive sieve analysis and moisture density tests (ASTM D1557, Method C or D) at an independent testing laboratory. The laboratory shall be employed by CONTRACTOR and approved by ENGINEER.

C. Test results shall be submitted to and approved by ENGINEER prior to any Material being incorporated into the Work.

D. The cost for this initial testing shall be borne by the CONTRACTOR.

PART 2 - PRODUCTS

Not Applicable.

PART 3 - EXECUTION

3.1 Field Control Testing

A. Either the nuclear density method (ASTM D2992) or the sand cone method (ASTM

D1556) shall be used to determine material compaction percentage.

B. A sufficient number of tests shall be conducted to ensure that the specified density is being obtained. A minimum of one test shall be taken for each layer of fill for the following areas:

1. Trench areas - for each 100 linear feet of continuous trench area or part thereof between structures.
2. Sidewalk area for each 100 feet of sidewalk length of fractional part thereof
3. Other areas - within each 5,000 square feet of continuous area or fractional part thereof.

C. Compaction tests shall be scheduled by CONTRACTOR in cooperation with the ENGINEER and paid for by CONTRACTOR. Copies of test results shall be promptly distributed to OWNER, ENGINEER and CONTRACTOR. Reports will be mailed within 5 days of test results. If tests indicate failing results then ENGINEER/OWNER is to be notified immediately.

D. The specific location for each test to be taken and the number of tests to be taken shall be as designated by ENGINEER at the time of testing.

E. Testing performed exclusively for CONTRACTOR's convenience shall be the sole responsibility of CONTRACTOR and shall be at no cost to OWNER.

3.2 Re-testing

A. ENGINEER may require periodic sieve analysis and/or moisture density testing to be done to ensure the material is in conformity with the initial tests submitted. If test results meet specifications and closely resemble initial test results, the cost of the testing shall be paid for by the OWNER. If test results indicate a substantially different material or fail to meet specifications, CONTRACTOR shall reimburse OWNER according to the actual cost of the testing.

B. If any test results fail to meet specifications, CONTRACTOR shall correct the situation and obtain a passing test. The Contractor shall reimburse the Owner for the costs.

END OF SECTION

SECTION 015110

TEMPORARY FACILITIES AND UTILITIES

PART 1 - GENERAL

1.1 Summary

A. This work shall consist of all labor, materials and equipment to provide and remove as required all temporary facilities and utilities necessary for the execution and completion of the Work.

1.2 Scope of Work

A. This work shall include but not be limited to such items as temporary electricity, telephone, sanitary facilities, water, and such other items as may be required for completion of the work.

1.3 References

- A. IBC Latest Edition.
- B. National Electrical Code (NEC), Latest Edition.
- C. Maine Plumbing Code, Latest Edition.
- D. OSHA Publication 2207, Latest Edition.
- E. Applicable Municipal Ordinances

PART 2 - PRODUCTS AND EXECUTION

2.1 Materials

- A. All materials shall be provided in accordance with all applicable Laws and Regulations.
- B. Materials for temporary use may be new or used but shall be serviceable and adequately maintained.

2.2 Storage

- A. Provide an on-site secure and weatherproof storage facility or obtain permission of OWNER to use OWNER's facility, if available. Utilize facility for storage of all

materials which could be damaged by inclement weather.

2.3 Field Offices and Sheds

A. Not Required

2.4 Sanitary Facilities

A. Provide and maintain enclosed sanitary facilities for use by all workers employed on the Project.

B. All sanitary facilities shall comply with all applicable Laws and Regulations, including the Maine State Plumbing Code and all OSHA requirements.

C. Provide additional toilet facilities for each 35 personnel on the Project, or each increment or part thereof.

D. Maintain all facilities throughout the Project and keep all toiletry supplies stocked.

E. Dismantle and remove all temporary facilities upon completion of the Project.

2.5 Electricity

A. Provide and pay for temporary electrical service with a separate meter for use of CONTRACTOR and all Subcontractors.

B. All facilities shall be installed, maintained, and used in accordance with all applicable Laws and Regulations, including the National Electrical Code and OSHA regulations.

C. Provide adequate grounded extension cords not over 100 feet long with approved GFCI breakers as required by The National Electrical Code and OSHA.

2.6 Telephone

A. Provide job-site supervisor cellular telephone numbers for use by OWNER, ENGINEER, CONTRACTOR and CONTRACTOR's authorized agents.

2.7 Water

A. Provide potable water supply for use by all trades.

B. Provide other water as needed to satisfy the requirements of other sections of these Specifications.

2.8 Staging, Scaffolding, Shoring

A. Provide all required staging, scaffolding and shoring required to complete the work.

B. All such items shall comply with all applicable Laws and Regulations, including all applicable OSHA regulations, in order to provide a safe work environment.

C. Maintain and remove all such items upon completion of the work.

2.9 De-watering

A. Provide all pumps, piping, ditching, temporary sediment settling structures and other means required to maintain all excavations and all other operations free from water.

B. Pumping shall be maintained outside of normal working hours as necessary to protect the work.

C. All costs for de-watering shall be considered incidental to related work and shall be paid for by the Contractor.

D. Water from de-watering operations shall not be disposed of without sedimentation control.

E. All work related to site de-watering shall be incidental to the overall project cost.

2.10 Fencing and Protection

A. Provide fences, lights, and other safety devices required, or as necessary to conform to law and to insure the security of the site and any materials stored at the site during non-construction hours.

B. No trenches shall be left unprotected over-night.

2.11 Policing

A. At all times during the work, provide and maintain adequate and safe ingress and egress to the site for workers and work vehicles. Properly screen, barricade, and protect all areas affected by the work against hazards of any kind that may affect life, limb, or property.

B. On a periodic, routine, basis, remove all debris from the site and maintain the project in a neat and orderly condition. Do not allow debris to accumulate. Dispose of all debris in accordance with all applicable laws, rules, and regulations.

2.12 Cleanup and Restoration

A. Collect and properly dispose of all debris on site.

B. Restore and repair any damage to any existing or newly constructed work including all utilities. Pay all costs incurred in repair or restoration.

C. Upon completion of the Project remove all temporary facilities and utilities and restore site to the satisfaction of ENGINEER.

END OF SECTION

SECTION 015713

EROSION AND SEDIMENTATION CONTROL

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Diversion of surface water from construction area.
 - 2. Temporary and permanent erosion and sedimentation control structures and measures to prevent erosion of off-site soils.

1.2 SYSTEM DESCRIPTION

- A. Provide erosion and sedimentation controls for all areas within Contract limits where existing earth and vegetation will be disturbed by construction.

1.3 SUBMITTALS

- A. Product Data: Submit two copies of manufacturer's specifications with application and installation instructions for proprietary materials and items, including silt fencing, erosion control mesh, and others as requested.

1.4 QUALITY ASSURANCE

- A. Maine Department of Environmental Protection, Bureau of Land and Water Quality publication dated October 2016, "Maine Erosion and Sediment Control Best Management Practices (BMP's)".

1.5 ENVIRONMENTAL REQUIREMENTS

- A. All construction under this Project shall be subject to review and/or inspection by local, State, and Federal agencies for the adequacy of erosion and sedimentation control measures.
- B. Conform to conditions of environmental permits or licenses that are applicable to Project.

PART 2 - PRODUCTS

2.1 GENERAL

- A. Seed, fertilizer and lime as specified under Erosion Control Notes provided on Contract Drawings.

2.2 COMPONENTS

- A. Mulch: Conforming to State of Maine Department of Transportation "Standard Specification, November 2014" (MDOT) Section 619.
- B. Erosion Control Mesh: Jute or excelsior blanket conforming to State of Maine Department of Transportation "Standard Specification, November 2014" (MDOT), Section 613.
- C. Siltation Fence: "Propex Silt Stop" as manufactured by Amoco Fabrics Company or approved equal.

2.3 ACCESSORIES

- A. Support Fence: Attach siltation fabric to metal or wooden posts. Fence with integral support mesh and posts is acceptable.

PART 3 - EXECUTION

3.1 GENERAL

- A. Temporary measures for controlling erosion and sedimentation may include, but are not limited to:
 - 1. Siltation fencing around downslope periphery of areas to be disturbed by construction.
 - 2. Temporary seeding and mulching of soil stockpiles or disturbed areas.
 - 3. Other temporary practices as approved by the Engineer.
- B. Permanent measures for controlling erosion and sedimentation shall be provided as shown on the plans or required by these Specifications.
- C. Where disturbed areas cannot be permanently stabilized within 14 days of soil exposure, temporarily seed and mulch as specified under Section 02900, or otherwise stabilize as approved by the Engineer.
- D. Complete permanent soil stabilization measures for all slopes, channels, ditches, or any disturbed land area within seven (7) days after final grading has been completed.
- E. Where permanent erosion control measure is not possible or practical to implement, and upon approval by the Engineer, apply temporary stabilization practice as in 3.1.C above.

3.2 PREPARATION

- A. Implement erosion and sedimentation control measures before grubbing, stripping, excavating, placing fill, temporary or permanent placement of excavated materials, or other earth work.

3.3 INSTALLATION

- A. Diverting Surface Water:
 - 1. Build, maintain, and operate cofferdams, channels, flumes, sumps, and other temporary diversion and protection works needed to divert streamflow and other surface water through or around construction site and away from the Work while construction is in progress.
 - 2. Outlet diverted stormwater to sedimentation trap, basin, or other approved sedimentation control measures.
- B. Sedimentation Control Fence:
 - 1. Construct siltation fences at locations and to dimensions shown on Drawings, and as required to meet specified criteria.
 - 2. Remove all retained soil or other material and dispose of it at an approved disposal area before removal of silt fence.
- C. Stone Check Dam:
 - 1. Construct stone check dams at locations and to dimensions shown on Drawings and as required to meet specified criteria.
 - 2. Place dams every two feet of vertical drop as noted on the Drawings.
 - 3. Remove and replace dams when they have served their usefulness so as not to obstruct storm flow or drainage.
- D. Riprap Apron (Riprap Inlet Protection):
 - 1. Construct riprap aprons at locations and to dimensions shown on the Drawings and to meet specified criteria.
 - 2. Clear and grub surface of all areas where riprap aprons will be constructed.
 - 3. Dispose of unsatisfactory material at designated disposal areas.
 - 4. No overfall from the end of the apron to the surface of the receiving channel is permitted. Area to be riprapped shall be at the same grade (flush) with surface of receiving channel.
 - 5. Apron dimensions and riprap thickness as shown on Drawings.
 - 6. Placing of fill in receiving channel is not permitted.
 - 7. Riprap construction shall conform to the specifications for riprap.

3.4 FIELD QUALITY CONTROL

- A. All temporary and permanent control measures shall be periodically inspected and maintained by the Contractor for the duration of the construction and warranty period of this Contract. Sediment collection devices shall be cleaned periodically as required, and the removed material reused or disposed of at an approved disposal area.

3.5 REMOVAL OF TEMPORARY WORKS

- A. Remove to level and grade to the extent required to present a sightly appearance and to prevent any obstruction of the flow of water or any other interference with the operation of or access to the permanent works.

Maine Maritime Academy Sidewalk and Drainage Improvements

- B. Removal of temporary control measures is subjected to Engineer's approval.

END OF SECTION

SECTION 017413

PROJECT CLEANING

PART 1 - GENERAL

1.1 Summary

A. Maintain premises and public properties free from accumulations of waste, debris and rubbish caused by operations.

B. At completion of work, remove waste materials, tools, equipment, machinery, and surplus materials and clean all sight-exposed surfaces. Leave Project clean and ready for use.

1.2 Quality Assurance

A. Requirements of Regulatory Agencies: Conduct cleaning and disposal operations in accordance with all applicable Laws and Regulations.

PART 2 - PRODUCTS

2.1 Materials

A. Use only cleaning materials recommended by manufacturer of surface to be cleaned.

B. Do not use cleaning materials that are hazardous to workers or the environment.

PART 3 - EXECUTION

3.1 Performance

A. Cleaning During Construction:

1. Execute cleaning operations to ensure that buildings, grounds, and public properties are maintained free from accumulations of waste materials and rubbish.

2. Entirely remove and dispose of material or debris during the progress of the Work that has washed into or has been placed in watercourses, ditches, gutters, drains, catch basins, or elsewhere as a result of CONTRACTOR's operation.

3. At reasonable intervals during the progress of work, clean the site and dispose of waste materials, debris, and rubbish.

4. Handle materials in a controlled manner with as few handlings as possible. Do not drop or throw material from heights.

5. Retain store items in an orderly arrangement allowing maximum access, not impeding traffic or drainage and providing required protection of materials.
6. Do not allow accumulation of scrap, debris, waste material, and other items not required for construction of this Work.
7. At least twice each month, and more often if necessary, completely remove all scrap, debris, and waste material from the job site.
8. Provide adequate storage for all items awaiting removal from the job site, observing requirements for fire protection and protection of the ecology.

B. Site

1. Daily, and more often if necessary, inspect the site and pick up all scrap, debris and waste material. Remove such items to the place designated for their storage.
2. Weekly, and more often if necessary, inspect all arrangements of materials stored on the site. Restack, tidy or otherwise service arrangements to meet the requirements to meet the requirements of subparagraph 3.1-A-5 above.
3. Maintain the site in a neat and orderly condition at all times.

C. Control of Hazards:

1. Prevent accumulation of wastes which may create hazardous conditions.
2. Provide adequate ventilation during use of volatile or noxious substances.

D. Disposal:

1. Do not burn or bury rubbish and waste materials on Project site.
2. Do not dispose of wastes into streams or waterways.

3.2 Final Cleaning

A. Site:

1. Unless otherwise specifically approved by ENGINEER, broom clean paved areas on the site and public paved areas adjacent to the site.
2. Completely remove resultant debris.

B. Schedule final cleaning as approved by ENGINEER to enable OWNER to accept completely clean work.

3.3 Cleaning During OWNER's Occupancy

A. Should OWNER occupy the work or any portion thereof prior to its completion by CONTRACTOR and acceptance by OWNER, responsibilities for interim and final cleaning shall be as determined by ENGINEER in accordance with the General Conditions of the Contract.

END OF SECTION

SECTION 01720

PROJECT RECORD DOCUMENTS

PART 1 - GENERAL

1.1 Summary

A. This work shall include all labor, materials and equipment necessary to keep and complete accurate Project Record Documents for all additions, substitutions of equipment or material, variations in work, and any other additions or revisions to the Contract.

PART 2 - PRODUCTS

2.1 Contract Documents

A. The Contractor shall maintain at the job site one (1) copy of the following:

1. Contract Drawing
2. Specifications
3. Addenda
4. Approved Shop Drawings
5. Change Orders
6. Test Reports
7. Any other modifications to the Contract

B. All material shall be kept in a secure and dust free environment and shall only be used for record document purposes.

PART 3 - EXECUTION

3.1 Recording

A. CONTRACTOR shall record all changes, differences, modifications, substitutions of the Drawings and Contract Documents.

B. CONTRACTOR shall record locations of all utility lines and fixtures including depths and horizontal locations. Use swing ties or similar methods approved by ENGINEER.

Maine Maritime Academy Drainage and Sidewalk Improvements

C. CONTRACTOR shall indicate on Drawings manufacturer, trade name, catalog number and supplier of products and equipment actually installed.

3.2 Submittals

- A. Provide submittals in accordance with other sections of these Specifications.
- B. Information shall be submitted in three ring binders or other suitable binder form.
- C. Failure to provide Record Documents and Drawings shall be grounds for non-release of retainage.

END OF SECTION

SECTION 01720

PROJECT RECORD DOCUMENTS

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C. CONTRACTOR shall indicate on Drawings manufacturer, trade name, catalog number and supplier of products and equipment actually installed.

3.2 Submittals

- A. Provide submittals in accordance with other sections of these Specifications.
- B. Information shall be submitted in three ring binders or other suitable binder form.
- C. Failure to provide Record Documents and Drawings shall be grounds for non-release of retainage.

END OF SECTION

SECTION 018910

NOISE

PART 1 - GENERAL

1.1 Summary

A. All construction activities shall be subject to applicable construction noise regulations as promulgated by the State of Maine Department of Environmental Protection, OSHA, and other governmental agencies having jurisdiction over the project.

1.2 References

A. OSHA Publication 2207, Safety and Health Standards, latest edition.

B. Maine Department of Environmental Protection Regulations, Chapter 375, 38 M.R.S.A., Section 484 (3), latest edition.

PART 2 - PRODUCTS

Not applicable.

PART 3 - EXECUTION

3.1 General

A. Conduct all activities to ensure compliance with all applicable Laws and Regulations.

END OF SECTION

SECTION 021000

SITE PREPARATION

PART 1 - GENERAL

1.1 Summary

A. Site preparation includes, but is not necessarily limited to:

1. Construction Layout
2. Clearing
3. Grubbing
4. Protection of existing, on-site features
5. Site security

1.2 Limits of Work

A. Clearing and grubbing shall be performed within the areas required for construction, or as shown on the Drawings, to a depth as shown on the Drawings below the existing, undisturbed ground grade.

B. Perform additional clearing and grubbing work within areas and to depths which, in the opinion of ENGINEER, satisfy the anticipated construction shown on the Drawings.

C. A secure site shall be established around the work area.

1.3 Quality Assurance

A. All work shall comply with all applicable Laws and Regulations. This shall include but not be limited to:

1. Notification of any required regulatory agency prior to the commencement of any work requiring such notification.
2. Disposal of combustible material by burning only when permitted.
3. Removal and disposal of non-salvageable structures and materials.

B. CONTRACTOR shall obtain and pay for all permits and licenses required for work under this Section.

C. CONTRACTOR shall make all necessary provisions so that no street, sidewalk, or

Maine Maritime Academy Drainage and Sidewalk Improvements

other means of access or travel is blocked, closed, or obstructed without prior written approval by the appropriate authority.

D. Security fencing and provisions shall comply with all OSHA requirements and those Laws and Regulations of all authorities having jurisdiction.

PART 2 - PRODUCTS

2.1 Materials

A. Provide all materials required to complete the work contained within this section.

B. All timber, wood, and other non-salvage materials shall become the property of CONTRACTOR unless other agreements are made between OWNER and CONTRACTOR. Materials to be removed in a safe and legal manner. Off-site disposal of any materials must be in accordance with all legal and regulatory requirements.

C. Restore materials and structures to their original condition and repair any damage to structures to the complete satisfaction of OWNER and ENGINEER.

PART 3 - EXECUTION

3.1 Protection of Existing Items

A. Items which are selected to remain or to be transplanted such as certain trees and shrubs as indicated on the Drawings shall be protected by the erection of grade stakes and flagging or fencing encircling the item to be protected. Stakes or fencing shall be placed at least 3'-0" out from the trunks of trees to be saved and shall be erected prior to any construction, clearing or grubbing on the site.

B. Exercise extreme care during excavation to prevent damage to any existing structures or the roots of any trees and shrubs to remain. When excavating utility trenches within the branch spread of trees, all work shall be done by hand. Open such trenches only when the utility can be installed immediately. Prune the injured roots cleanly and backfill as soon as possible.

C. Existing trees and shrubs designated to be saved which have become damaged shall be replaced with trees and shrubs of similar size and species as approved by ENGINEER. All costs incurred shall be paid by CONTRACTOR.

D. Any damage caused to any existing structure to remain shall be repaired immediately to the satisfaction of the OWNER and ENGINEER.

E. Any trees, shrubs, and structures to remain shall not be used for guy anchors or other fastenings. Vehicles shall not be parked within branch spread of trees. Do not stockpile fill or building materials around the bases of such trees or adjacent to such structures.

3.2 Staking, Layout and Grading

- A. All construction layout shall be completed in accordance with the Drawings by a Maine Licensed Professional Land Surveyor employed by CONTRACTOR.
- B. Prior to the start of any construction work, Surveyor shall stake out all limits of cut and fill, underground utility lines and structures, and centerlines of all roads, walks, etc.
- C. Protect and maintain all established property monuments, property bounds, and construction benchmarks. All property monuments which are disturbed or destroyed are to be replaced by a Maine Licensed Professional Land Surveyor employed by CONTRACTOR.
- D. ENGINEER reserves the right to adjust the locations of such construction layout as necessary to comply with the intent of the Contract Documents.

3.3 Clearing

- A. Remove, as indicated or required, all trees, brush, slash, stubs, bushes, shrubs, plants, debris, and obstructions within the area to be cleared, except any areas that may be designated as "selective clearing" on the Drawings.
- B. Remove all stumps unless otherwise approved by the ENGINEER.
- C. Dispose of all material daily as it accumulates. Do not obstruct travel to and from or within the site with debris piles.
- D. Take special care to completely dispose of all elm trees and branches immediately after cutting either by burial in approved locations or, when permitted, by burning in areas well removed from standing elm growth.
- E. Where overhead lines, private property, traffic or life might be endangered by the felling of a tree in one piece, remove it in sections as large as possible to handle safely.

3.4 Grubbing:

- A. Perform grubbing work beneath new roads, seeded areas, and other areas and as directed ENGINEER.
- B. Grub out all sod, vegetation, and other objectionable material to a minimum depth of 6 inches below the existing, undisturbed ground grade.
- C. Remove all stumps, including major root systems.

3.5 Disposal

- A. General

Maine Maritime Academy Drainage and Sidewalk Improvements

1. Remove from the site and dispose excess material in accordance with all applicable Laws and Regulations, and
2. Provide evidence of an approved disposal area unless otherwise specified.
3. The Owner reserves the right to have re-usable quality materials from road base excavation delivered to a site of its choice within one mile of the project site as an incidental cost to the project.

B. Burning

1. Dispose of combustible materials by burning only if approved by local and state officials. Only native materials generated by the Work shall be burned.
2. Employ competent workers to perform burning in such a manner and at such locations that adjacent properties, trees and growth to remain, overhead cables and wires, and utilities will not be jeopardized.
3. Do not: leave fires unguarded; burn poison oak, poison ivy or other plants of similar nature; use tires or other combustible waste material to augment burning.
4. Burn combustible materials daily as the work progresses.
5. CONTRACTOR shall be responsible for all damage caused by fires and shall be responsible for obtaining any necessary permits for burning.

3.6 Replacement of Materials

- A. Remove all paving, sub-paving, curbing, gutters, brick, paving block, and minor structures that are over areas to be filled or excavated.
- B. Remove and replace bituminous and Portland cement concrete in accordance with the appropriate sections of these Specifications.
- C. Carefully remove, store, and protect topsoil in accordance with the appropriate sections of this Specification, and the Erosion Control Plan outlined on the Drawings.
- D. Properly store and preserve all material to be replaced in a location approved by ENGINEER.

3.7 Security

- A. Provide all security fencing and other provisions necessary to maintain a secure and safe site.

END OF SECTION

SECTION 022210

DEMOLITION

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Demolishing designated structures.
 - 2. Disconnecting and capping designated utilities.
 - 3. Protecting items designated to remain.
 - 4. Removing demolished materials.

1.2 CLOSEOUT SUBMITTALS

- A. Project Record Documents: Record actual locations of capped utilities.

PART 2 - PRODUCTS

2.1 FILL MATERIALS

- A. Fill Material: Type D fill, specified in Section 023000 - Earthwork.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Document condition of adjacent structures indicated to remain.

3.2 PREPARATION

- A. Call Dig Safe at (888) 344-7233 not less than 72 hours before performing Work.
 - 1. Request underground utilities to be located and marked within and surrounding construction area.
- B. Contact Unity Utilities District at 207-948-2459 not less than 72 hours before performing Work.
 - 1. Request sanitary sewer utilities be located and marked within and surrounding the construction area.
- C. Provide, erect, and maintain temporary barriers and security devices.

Maine Maritime Academy Drainage and Sidewalk Improvements

- D. Prevent movement or settlement of adjacent structures. Provide bracing and shoring.
- E. Protect existing pavement, underground utilities, lighting and landscaping materials to remain.

3.3 DEMOLITION REQUIREMENTS

- A. Conduct demolition to minimize interference with adjacent building areas and access to buildings.
- B. Conduct operations with minimum interference to public or private accesses.
- C. Maintain egress and access at all times. Do not close or obstruct roadway and sidewalks without permits.
- D. Cease operations immediately when adjacent structures appear to be in danger. Notify Maine Maritime Academy Facilities Management and Engineer.

3.4 CLEAN UP

- A. Remove demolished materials from site as work progresses.
- B. Leave areas of work in clean condition.

3.5 DISPOSAL

- A. Remove bituminous concrete pavement and dispose of in a licensed demolition debris disposal site.

END OF SECTION

SECTION 022222
CUTTING AND PATCHING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes procedural requirements for cutting and patching.
- B. Related Sections include the following:
 - 1. Section 01010 "Demolition" for demolition of existing precast concrete tank.

1.3 DEFINITIONS

- A. Cutting: Removal of in-place bituminous concrete necessary to permit installation or performance of other Work.
- B. Patching: Fitting and repair work required to restore surfaces to original conditions after installation of other Work.

1.4 QUALITY ASSURANCE

- A. Structural Elements: Do not cut and patch structural elements in a manner that could change their load-carrying capacity or load-deflection ratio (unless noted on drawings).
- B. Operational Elements: Do not cut and patch operating elements and related components in a manner that results in reducing their capacity to perform as intended or that results in increased maintenance or decreased operational life or safety.
- C. Visual Requirements: Do not cut and patch construction in a manner that results in visual evidence of cutting and patching. Do not cut and patch construction exposed on the exterior or in occupied spaces in a manner that would, in Architect's opinion, reduce the building's aesthetic qualities. Remove and replace construction that has been cut and patched in a visually unsatisfactory manner.

1.5 OWNER COORDINATION

- A. All work that will interfere with the continued long-term operation of the owners operations is to be reviewed and coordinated with owners representative.

- B. Work hours will be adjusted to eliminate disruption to the Owner as needed.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. General: Comply with requirements specified in other Sections.
- B. In-Place Materials: Use materials identical to in-place materials. For exposed surfaces, use materials that visually match in-place adjacent surfaces to the fullest extent possible.
 - 1. If identical materials are unavailable or cannot be used, use materials that, when installed, will match the visual and functional performance of in-place materials.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine surfaces to be cut and patched and conditions under which cutting and patching are to be performed.
 - 1. Compatibility: Before patching, verify compatibility with and suitability of substrates, including compatibility with in-place finishes or primers.
 - 2. Proceed with installation only after unsafe or unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Temporary Support: Provide temporary support of Work to be cut.
- B. Protection: Protect in-place construction during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portions of Project that might be exposed during cutting and patching operations.
- C. Adjoining Areas: Avoid interference with use of adjoining areas or interruption of free passage to adjoining areas.

3.3 PERFORMANCE

- A. General: Employ skilled workers to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time, and complete without delay.
 - 1. Cut in-place construction to provide for installation of other components or performance of other construction, and subsequently patch as required to restore surfaces to their original condition.

Maine Maritime Academy Drainage and Sidewalk Improvements

- B. Cutting: Cut in-place construction by sawing, drilling, breaking, chipping, grinding, and similar operations, including excavation, using methods least likely to damage elements retained or adjoining construction. If possible, review proposed procedures with original Installer; comply with original Installer's written recommendations.
 - 1. In general, use hand or small power tools designed for sawing and grinding, not hammering and chopping. Cut holes and slots as small as possible, neatly to size required, and with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use.
 - 2. Proceed with patching after construction operations requiring cutting are complete.
- C. Patching: Patch construction by filling, repairing, refinishing, closing up, and similar operations following performance of other Work. Patch with durable seams that are as invisible as possible. Provide materials and comply with installation requirements specified in other Sections.
 - 1. Inspection: Where feasible, test and inspect patched areas after completion to demonstrate integrity of installation.
 - 2. Exposed Finishes: Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in a manner that will eliminate evidence of patching and refinishing.
 - a. Clean piping, conduit, and similar features before applying paint or other finishing materials.
 - b. Restore damaged pipe covering to its original condition.
- D. Cleaning: Clean areas and spaces where cutting and patching are performed. Completely remove paint, mortar, oils, putty, and similar materials.

END OF SECTION

SECTION 022300

EARTHWORK

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes site grading, building excavating, backfilling, and compacting.

1.2 SUBMITTALS

- A. Samples: Submit 10 lb. sample of each type of fill to testing laboratory, in airtight containers.

PART 2 - PRODUCTS

2.1 SOIL MATERIALS

- A. Topsoil: Reusable excavated or imported friable loam; free of subsoil, roots, grass, weeds, large stone, and foreign matter.
- B. Subsoil: Reusable excavated or imported material, graded free of lumps larger than 6 inches, rocks larger than 3 inches, organic material, and debris.

2.2 FILL MATERIALS

- A. Common Borrow: Conforming to State of Maine Department of Transportation "Standard Specifications for Highways and Bridges" (MDOT) 703.18.
- B. Sub-base: Conforming to MDOT 703.06, Type B.
- C. Base: Conforming to MDOT 703.06, Type A.

2.3 ACCESSORIES

- A. Geotextile Fabric: Non-biodegradable.
 - 1. TC Mirafi; Model 160N.
 - 2. TC Mirafi; Model 600X.

PART 3 - EXECUTION

3.1 EXAMINATION AND PREPARATION

- A. Identify required lines, levels, contours, and datum.

- B. Notify Owner's Representative when subsoil grades are established in order to confirm existence of suitable soils upon which to provide gravel and/or pavement surfaces and build-up.
- C. Notify Owner's Representative of unexpected subsurface conditions and discontinue affected work in area until notified to resume work.
- D. Identify and flag known utility locations. Notify utility company to relocate utilities as necessary to perform work.
- E. Maintain and protect existing utilities to remain.
- F. Verify foundation walls are braced to support surcharge forces imposed by backfilling operations.

3.2 PROTECTION OF ADJACENT WORK

- A. Underpin adjacent structures that may be damaged by excavation work, including service utilities and pipe chases.
- B. Grade excavation top perimeter to prevent surface water run-off into excavation or to adjacent properties.

3.3 TOPSOIL EXCAVATING

- A. Do not excavate wet topsoil.
- B. Excavate topsoil within building footprint, cut and fill areas, and areas to be yard.
- C. Stockpile in area to be designated on site by Engineer and protect from erosion.
- D. Remove excess topsoil from site and dispose of legally off site before Final Completion. Owner reserves right to keep excess topsoil for use at this or other sites in the future.

3.4 SUBSOIL EXCAVATING

- A. Do not remove wet subsoil.
- B. Remove groundwater by pumping to keep excavations dry.
- C. Excavate subsoil required for building foundations, construction operations, and other Work.
- D. Slope banks at angle of 1.5 horizontal: 1 vertical or less, until shored.
- E. Do not interfere with 45 degree bearing splay of foundations.
- F. Proof roll bearing surfaces.

Maine Maritime Academy Drainage and Sidewalk Improvements

- G. Over excavate soft spots and backfill in accordance with schedule at end of this section.
- H. Correct unauthorized excavation at no cost to Owner.
- I. Fill over-excavated areas under structure bearing surfaces in accordance with the schedule at the end of this section.
- J. Stockpile subsoil in area to be designated on site by Engineer and protect from erosion.
- K. Remove excess subsoil from site and dispose of legally off site before Substantial Completion. Owner reserves the right to keep excess subsoil for use at this or other sites in the future.

3.5 BACKFILLING

- A. Backfill areas to contours and elevations. Use unfrozen and unsaturated materials.
- B. Backfill systematically, as early as possible, to allow maximum time for natural settlement. Do not backfill over porous, wet, frozen, or spongy subgrade surfaces.
- C. Place geotextile fabric over subsoil in areas where soft spots were removed or over-excavation was replaced.
- D. Place fill material in continuous layers and compact in accordance with schedule at end of this section.
- E. Employ placement method so not to disturb or damage foundations, foundation perimeter drainage, foundation damp proofing, or utilities in trenches.
- F. Maintain optimum moisture content of backfill materials to attain required compaction density.
- G. Backfill against supported foundation walls. Backfill simultaneously on each side of unsupported foundation walls.
- H. Slope grade away from building minimum 2 inches in 10 ft, unless noted otherwise.

3.6 TESTS - Backfill

- A. Tests and analysis of fill material will be performed in accordance with ASTM D1557.
- B. Frequency of Tests: One (1) per 200 cubic yards of material, but in no case less than two (2) for any material or portion of the Project.

3.7 TESTS – Bearing

- A. Provide for bearing capacity testing of soils at footing levels prepared by a licensed soils engineer.
- B. Frequency of Tests: Frequency of tests should be satisfactory to the foundation design Engineer. Provide a minimum of five (5) tests. Verify number with Engineer prior to conducting tests.

3.8 TOLERANCES

- A. Top Surface of Exposed Sub grade: Plus or minus one inch.
- B. Top of Topsoil: Plus or minus 1/2 inch.

3.9 SCHEDULE

- A. Fill Under Landscaped Areas: Subsoil fill, 12" thick layers, compact uniformly to 90 percent of maximum dry density (to 4 inches below finish grade).
- B. Fill Under Sidewalk:
 - 1. Sub base, 8 inches thick (maximum lift of 8 inches), to 6 inches below finish yard elevation, compact uniformly to 95 percent of maximum dry density.
 - 2. Base, 2 inches thick, compact uniformly to 95 percent of maximum dry density.
- C. Over excavation: Granular Fill, 12-inch thick layers, compact uniformly to 95 percent of maximum density.

END OF SECTION

SECTION 025010

BITUMINOUS PAVEMENT

PART 1- GENERAL

1.1 Work Included

- A. Provide all labor and materials necessary for the installation of the bituminous items shown on the drawings. This shall include, but is not necessarily limited to, roadways, driveways, sidewalks, curbs, etc.
- B. Provide all components necessary for a proper and complete installation and operation.

1.2 Standards

- A. All work shall be completed in accordance with *Standard Specifications For Highways and Bridges*, as published by the Maine Department of Transportation (MDOT Specifications), latest edition.

1.3 Submittals

- A. Provide submittals conformance with Section 01001 of these Specifications.
- B. Submit copies of all proposed mix designs.
- C. Each delivery of bituminous pavement shall be accompanied with a delivery slip for quantity and quality records. Each slip shall contain the following minimum information:
Date, Project, Vehicle, Type of Mix/Material, All applicable weights, Signature of Producer and Seal of Licensed Weighmaster.
- D. Submit other documents as specified in the appropriate Sections of this Division.

PART 2 - PRODUCTS

2.1 Materials

Maine Maritime Academy Drainage and Sidewalk Improvements

A. The following mixes, as noted on the drawings, shall conform to the following criteria:

1. Surface Course, MDOT 9.5 mm coarse mix;

B. Mix contents, including Asphalt Cement type, aggregates etc. shall be in accordance with MDOT Division 400 for the mixes specified on the project drawings.

PART 3 - EXECUTION

3.1 Preparation

A. Pavement removal

1. Exercise extreme care in the removal of pavement so that remaining pavement will not be unnecessarily disturbed or destroyed.
2. Mechanically cut pavement to be removed in a straight line, unless otherwise approved by ENGINEER.
3. When removing pavement under the jurisdiction of the MDOT strictly adhere to all MDOT regulations controlling pavement openings.

B. Preparation of Base:

1. Base for Bituminous Pavement shall be constructed as specified in Section 02300 – Earthwork.
2. ENGINEER shall be notified at least 24 hours prior to paving to allow for site inspection. No pavement shall be placed until the base is approved by ENGINEER.

C. Surface Preparation:

1. Tack Coat: Apply to contact surfaces of previously constructed bituminous pavement or Portland cement concrete, and surfaces abutting or projecting into the bituminous pavement. Distribute at rate of 0.05 to 0.15 gallons per square yard of surface. The word "surfaces" as mentioned above means vertically cut or existing edges of pavement and/or horizontal surface edges where pavement overlap may occur (feathered edge).
2. Overlay over New or Existing Pavement:
 - a. Prior to placing the over-lay, the foundation course shall be thoroughly cleaned of all foreign and objectionable material by the use of brooms or brushes, combined with washing with water if necessary.
 - b. A tack coat of emulsified asphalt, type RS-1 or HFMS-1, shall be applied to any existing old pavement prior to overlay and/or to any new pavement in place longer than 24 hours or that received traffic of any kind prior to next pavement lift. Application rate shall

be approximately 0.02 gallons per square yard within the temperature range specified in MDOT Section 702.05.

- c. Bituminous Curbing: Prior to placing the curb, the foundation course shall be thoroughly cleaned of all foreign and objectionable material by the use of brooms or brushes, combined with washing with water if necessary. String or chalk lines shall be positioned on the prepared base to provide guide lines. Except for newly laid bituminous pavements with the surface still tacky and free from dust, a light tack coat of emulsified asphalt or rapid-curing asphalt shall be applied before placing the bituminous curb.

3.2 Application

A. Street, Driveway and Sidewalk Paving:

1. Place bituminous mixture on prepared surface. Minimum allowable temperature for placing is 225 degrees Fahrenheit. Maximum shall be 325 degrees Fahrenheit. Place by hand in areas inaccessible to paving machine and small areas. Place each course to required grade, cross-slope and compacted thickness.
2. Bituminous pavement plant mix shall not be placed on a wet surface. The pavement shall be constructed only when the air temperature in the shade at the paving location is 40 degrees Fahrenheit or above. Weather conditions shall be otherwise satisfactory for proper handling and finishing of the mixture.
3. The mixture shall be laid upon the properly prepared base course, spread and struck off to the plan grade and elevation.
4. Self-propelled bituminous pavers shall be used where possible to distribute the mixture over such partial width as may be practicable.
5. Immediately after the bituminous mixture has been spread, struck off, and surface irregularities adjusted, it shall be thoroughly and uniformly compacted by rolling. The surface shall be rolled when the mixture is in the proper condition and when the rolling does not cause undue displacement occurring as the result of the reversing of the direction of a roller or from other caused, shall be corrected at once by the use of a rake or lutes and the addition of fresh mixture when required. Care shall be exercised in rolling not to displace the line and grade of the edge of the bituminous mixture.
6. Any mixture that becomes loose and broken, mixed with dirt or is in any way defective, shall be removed and replaced with fresh, hot mixture which shall be compacted to conform with the surrounding area. Any area showing an excess of deficiency of bituminous material shall be removed and replaced.
7. The finished surface will be tested using a ten (10) foot straight edge at selected locations. The variation of the surface from the testing edge of the straight edge between any two contacts with the surface shall at no point exceed 1/4". All lumps or depressions exceeding the specified tolerance shall be corrected by removing defective work and replacing it

with new material as approved. Regardless of surface tolerances, pavement shall be sloped to allow positive drainage free from puddles.

8. Specifications shall apply when applicable:
 - a. 401.07 Weather Limitations,
 - b. 401.08 Bituminous Mixing Plant,
 - c. 401.09 Hauling Equipment,
 - d. 401.10 Bituminous Pavers,
 - e. 401.11 Rollers,
 - f. 401.12 Conditioning of Existing Surface,
 - g. 401.14 Preparation of Aggregates,
 - h. 401.15 Mixing,
 - i. 401.16 Spreading and finishing,
 - j. 401.17 Compactions,
 - k. 401.18 Joints
 - l. 401.20 Surface Tolerances

3.3 Testing

- A. Testing in accordance with MDOT Division 400.
- B. Compaction: 93% using the Theoretical Maximum Density (TMD) for all machine placed courses.
- C. Take core samples daily and test.
- D. Fill all core holes with tack coat and mix.

3.4 Protection

- A. After final rolling, do not permit vehicular traffic on pavement until it has cooled and hardened to the extent that the pavement will not be damaged.

END OF SECTION

SECTION 029025

LOAMING, SEEDING AND MULCHING

PART 1 - GENERAL

1.1 Summary

- A. This work shall include, but is not necessarily limited to, providing, installing, and maintaining all loam, grass seed, and mulch, in addition to preparation of subgrade in areas to receive topsoil and cleaning up after the work is complete.

1.2 Submittals

- A. Samples of material shall be submitted for inspection and approval upon ENGINEER's request. Analyses shall be certified by the manufacturer, dealer or testing laboratory, whichever is appropriate. Samples shall include the following:
 - 1. Commercial Fertilizers - 1-lb. bag showing analysis;
 - 2. Ground Limestone - 1-lb. bag showing analysis;
 - 3. Topsoil - 1/2 cu.yd. from each source, including test samples showing any amendment recommendations from soils laboratory; and
 - 4. Seed - 1 pint/test lot showing analysis.

1.3 Quality Assurance

- A. All work under this Section shall be performed by workers experienced in this type of work and under the full time supervision of a qualified foreman.

1.4 Testing

- A. If required by the Engineer, have soil samples tested for pH, N, P, and K for recommendations for lime and fertilizing. Testing shall be performed by a laboratory approved by ENGINEER.

1.5 Storage of Material

- A. Deliver material to the site in original unopened packages showing weight, manufacturer's name and guaranteed analysis.
- B. Store materials in such a manner that their effectiveness and usability will not be diminished or destroyed and shall be uniform in composition, dry unfrozen and free-flowing. ENGINEER reserves the right to reject any material which has become damaged or does not meet specified requirements.

PART 2 - PRODUCTS

2.1 Topsoil

- A. Suitable stockpiled topsoil previously removed from the project site shall be reused in this Contract at no additional cost to OWNER. If additional topsoil is required for the Work of this Section, it shall be from approved off-site sources. Provide topsoil for seeding of all disturbed areas within or outside the Contract limit line.
- B. Topsoil borrow shall be a natural, fertile, friable loam, typical of cultivated topsoils of the locality, containing at least 5% and not more than 20% organic matter. Topsoil shall be taken from a well-drained, arable site and shall be good, rich, uniform grade without admixtures of subsoil, stones, earth, clods, sticks, stumps, clay, lumps, roots or other objectionable extraneous matter or debris.
- C. Before any topsoil is delivered to the site, submit a sample of one-half cubic yard of topsoil from each source of supply for ENGINEER's inspection and approval. Delivery may begin upon such approval. The approved sample shall be stored on the site until the supply from its source is exhausted or until no more topsoil is required.
- D. Representative samples of stockpiled topsoil and topsoil borrow shall be tested for acidity, fertility and general texture by a recognized commercial or government agency. Furnish copies of the testing agency's report of findings and recommendations to ENGINEER.
- E. CONTRACTOR shall make any and all additions to or amendments to topsoil as required to remedy any deficiency shown in these tests.
- F. No topsoil shall be delivered in a frozen or muddy condition.

2.2 Topsoil Additives

- A. Commercial Fertilizers: Shall be a complete fertilizer and shall be a standard product complying with all applicable state and federal fertilizer laws. Fertilizer shall be delivered to the site in original, unopened containers which shall bear the manufacturer's name and guaranteed statement of analysis. Fertilizer shall contain not less than 10% nitrogen, 10% phosphorus, and 10% potash by weight of ingredients or as otherwise indicated by topsoil test results. At least 40% by weight of the nitrogen content of the fertilizer shall be derived from organic materials.
- B. Superphosphate: Shall be finely ground phosphate rock as commonly used for agricultural purposes and shall contain not less than 18% available phosphoric acid.
- C. Ground Limestone: Shall be dolomitic limestone and contain not less than 85% of total carbonates and magnesium and shall be ground to such fineness that 50% will pass through a 100-mesh sieve and 90% will pass through a 20-mesh sieve.

Coarser material will be accepted provided the specified rates of applications are increased proportionately on the basis of quantities passing the 100-mesh sieve.

- D. Water: Shall be furnished by CONTRACTOR and shall be suitable for irrigation and free from ingredients harmful to plant life. Hose, sprinklers, and all other watering equipment required for the work shall be furnished by CONTRACTOR.

2.3 Seed

- A. Seed mixture shall be fresh, clean, new crop seed. Seed may be mixed by an approved method on the site or may be mixed by the dealer. If the seed is mixed on the site, each variety shall be delivered in the original containers bearing the dealer's guaranteed analysis. If seed is mixed by the dealer, CONTRACTOR shall furnish to ENGINEER the dealer's guaranteed statement of the composition of the mixture and the percentage of purity and germination of each variety.
- B. Seed shall be purchased from a recognized distributor and shall be composed of the varieties and mixed in the proportions specified herein. Seed shall test to minimum percentages of purity and germination specified.
- C. Each variety of seed shall have a percentage of germination of not less than 80, a percentage of purity of not less than 85 and shall have no more than one percent of weed content.
- D. Seed mixture shall be equal to MDOT park mix except as noted for high slope areas.

2.4 Mulch

- A. New crop dry hay or straw relatively free of seed weed or other approved mulch if mechanical method is used.
- B. Hydro Mulch Fibers (if hydraulic spray method is used) as approved by the Engineer.

PART 3 - EXECUTION

3.1 Coordination of Work

- A. Coordinate work with that of other trades affecting or affected by work of this Section. Cooperate with such trades to assure the steady progress of the work.

3.2 Preparation of Subgrade

- A. After ENGINEER's acceptance of subgrade work performed under the Earthwork or other Sections of these Specifications, complete whatever additional grading is necessary to bring the sub-grade to a true, smooth slope parallel with and, except where otherwise indicated, four (4") inches below grade for all areas to receive top-soil. Other sub-grades shall be as indicated. All areas to receive topsoil shall be compacted to a maximum dry density of 90%.

- B. Immediately before placing topsoil, use a harrow or other equipment to loosen and scarify the surface of the subgrade to a depth of 3". Subgrade shall be inspected and approved by ENGINEER before placing of topsoil.
- C. Provide and set sufficient grade stakes as determined by ENGINEER to insure correct line and grade of finish grade.

3.3 Placing Topsoil

- A. Place and spread topsoil over approved areas to a depth that will equal at least 4 inches after natural settlement and light rolling. Final topsoil surface shall conform to the lines, grades and elevations indicated and shall assure proper drainage in an uninterrupted pattern free of hollows and pockets.
- B. After topsoil has been spread, prepare it carefully by scarifying or harrowing and raking. Remove all clumps or lumps of soil, brush, roots, stumps, litter and other foreign material, and stones over 1" in diameter and dispose of legally off the site. Topsoiled areas shall also be free of smaller stones in excessive quantities as determined by ENGINEER. Roll the entire surface with a hand roller weighing a minimum of 100 pounds per foot of width. During the rolling, fill all depressions caused by settlement with additional topsoil and then re-grade and roll until the surface presents a smooth, even and uniform finish and is up to the required grade.

3.4 Application of Topsoil Additives

- A. Fertilizers: Apply commercial fertilizer and work thoroughly into the topsoil in two (2) applications. The first application shall be within one week before the seeding, at the rate of twenty-five (25) pounds per thousand square feet, harrowed into the top 2" of seed bed. The second application shall be as determined by the test results.
- B. Superphosphate: Apply superphosphate to the topsoil with the first application of commercial fertilizer at the rate of 20 pounds per thousand square feet or at the rate determined from the test results.
- C. Limestone: After the topsoil has been spread, and graded, and if recommended as a result of the soil analysis, apply ground limestone at the rate of 100 pounds per one thousand square feet or at the rate recommended by the testing laboratory.

3.5 Seeding Season

- A. Seed shall not be placed before April 15 nor after September 15.
- B. All seeding completed between June 15 and August 15 must be continuously watered according to good practice to insure seeds will not dry out.
- C. Seeding at any other times shall be allowed only when ordered by the Engineer

to control erosion or when the CONTRACTOR submits a written request for permission to do so and permission is granted by the ENGINEER.

3.6 Sowing of Seed

- A. Mechanical Method: Immediately before any seed is sown, the ground shall be scarified, harrowed and raked until the surface is smooth, friable and of uniformly fine texture. No seeding shall be done during windy weather. Sow seed in two directions at right angles to each other. Sow the seed evenly with approved seeding device at the rate of four (4) pounds per 1000 square feet. Cover seed with a thin layer of topsoil by light raking or other approved method. Compact the seed bed immediately after or during seeding with a hand roller, or other equipment approved by ENGINEER.
- B. Hydraulic Method: at the option of the Contractor, the specified seed, fertilizer, mulch and water may be applied in accordance with MDOT 618.07. No seeding shall be done during windy weather.

3.7 Mulching

- A. Immediately after seeding, cover the entire seeded area with mulch of the type specified herein at the rate of one to two tons per acre. Distribute mulch evenly and do not leave large gaps or mats.
- B. Mulch may be applied by hand or with a mulch blower. Cellulose mulch may be applied by hydroseeder if approved by ENGINEER.
- C. Immediately after or during mulching operation, apply a mulch binder to prevent mulch from blowing. Apply at rates approved by ENGINEER.

3.8 Watering

- A. Water newly seeded areas daily or as necessary to supplement natural rainfall to maintain moisture to a minimum depth of 5"
- B. Use a fine spray that will not disturb the soil surface or the seed. Do not apply water at a rate that causes runoff.
- C. Suitable water for planting and maintenance of lawns shall be provided by CONTRACTOR. CONTRACTOR shall provide all necessary watering equipment.

3.9 Maintenance

- A. CONTRACTOR shall be responsible for each seeded area until it is accepted as hereinafter specified and for a period of one year thereafter.
- B. Maintenance shall begin immediately after each area is seeded and shall continue in accordance with the following requirements.

- C. Maintenance shall consist of providing protection by erecting necessary signs and mowing barriers and by repairing damaged areas as approved by ENGINEER. Damaged areas and areas which do not produce a satisfactory stand of grass shall be repaired to re-establish the condition and grade of the area prior to the original seeding and then re-fertilized, reseeded and re-mulched as specified for the original work as many times as necessary to produce a minimum 90% catch rate. Prior to acceptance, damage resulting from erosion, gullies, washouts, or other causes shall be repaired by filling with topsoil, tamping, re-fertilization, and reseeding and mulching.

3.10 Inspection for Acceptance and Cleanup

- A. Upon written request by CONTRACTOR, ENGINEER shall inspect all seeded areas to determine completion of Contract work. This request must be submitted at least ten (10) days prior to the anticipated date. The seeded areas will become acceptable when they show a uniform, thick, well-developed stand of grass with a minimum 90% catch rate.
- B. ENGINEER's inspection shall determine whether the seeded areas are acceptable or not.
- C. Any deficiencies found by the ENGINEER shall be corrected by the CONTRACTOR before acceptance of the seeded areas.

END OF SECTION

