

COPY NO. _____

**BARNUM ROAD BRIDGE REHABILITATION
27DPW01**

**AYER DEPARTMENT OF PUBLIC WORKS
AYER, MASSACHUSETTS**

**BIDDING AND CONTRACT
REQUIREMENTS AND
SPECIFICATIONS**

JULY 2026



Bids Due: Friday, August 14th, 2026 at 2:00 P.M.

Ayer DPW
25 BROOK STREET
AYER, MA 01432

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ADVERTISEMENT TO BID

TOWN OF AYER, MASSACHUSETTS
BARNUM ROAD BRIDGE REHABILITATION

The Town of Ayer DPW is seeking bids for the "**Barnum Road Bridge Rehabilitation**" project.

Sealed Bids for the General Contract will be received from General Contractors for construction of the **Barnum Road Bridge Rehabilitation project** at the **Ayer DPW Administrative building at 25 Brook Street, Ayer, MA 01432** until **Friday, August 14th, 2026 2:00 (PM)**, and at that time and place bids will be publicly opened and read aloud.

The Barnum Road Bridge Rehabilitation Project proposes the preservation of an 85-year-old bridge structure through numerous targeted repairs. The project proposes several concrete repairs, including repair of the bridge deck slab (underside), sidewalk slab, pile caps, and wingwalls. Their repairs will improve observed cracking, spalling, and delamination. The project proposes stabilization of slopes to permanently improve observed erosion. The project also proposes safety upgrades, including replacement of non-compliant guardrail systems with new MASH-compliant guardrails.

The **Notice to proceed to start construction will be issued no earlier than April 5th, 2027**. The time for completion of this contract is **180** calendar days following the Notice to Proceed to start construction.

The bidding and award of this Contract will be under the provisions of M.G.L. Chapter 30, Section 39M. Complete instructions for filing Bids are included in the Instructions to Bidders.

Each General Bid shall be submitted in accordance with the Instructions to Bidders and shall be accompanied by a Bid Security in the amount of 5 percent of the Bid.

No Bidder may withdraw their Bid for a period of sixty (60) days, excluding Saturdays, Sundays, and legal holidays after the actual date of the opening of the General Bids. This advertisement does not obligate the Owner for any costs associated with preparing or submitting bids.

The successful General Bidder must furnish a 100 percent Performance Bond and a 100 percent Payment Bond with a surety company acceptable to the Owner.

Minimum wage rates as determined by the Commissioner of the Department of Workforce Development under the provisions of M.G.L., Chapter 149, Section 26 to 27D, as amended, apply to this project. It is the responsibility of the contractor, before bid opening, to request, if necessary, any additional information on Prevailing Wage Rates for those trades people who may be employed for the proposed work under this contract.

All bidders must be pre-qualified by the Massachusetts Department of Transportation as follows. The MassDOT Prequalification Office will provide the Town with an official, and a waiver, contractor bid list for all contractors prequalified in the specified class of work within the parameters of this project. MassDOT prequalification of contractors with the class of work as,

Bridge – Construction, for the project with an **estimated value of \$771,710.00** will be required. Only those bidders listed in the official or waiver contractor lists issued by the MassDOT Prequalification Office will be allowed to submit a bid.

An electronic copy of the Contract Documents will be available at <https://www.ayer.ma.us/bids>.

A non-mandatory Pre-Bid Meeting will be held at **10:00AM** local time on **July 29, 2026**, at the Ayer Department of Public Works Office, 25 Brook Street, Ayer, MA 01432. Questions received at the Pre-Bid Meeting will be documented and distributed to plan holders as an addendum. A site walk, if deemed necessary, will follow the meeting.

The Owner reserves the right to waive any informality in or to reject any or all Bids if deemed to be in its best interest.

**DEPARTMENT OF PUBLIC WORKS
AYER, MASSACHUSETTS**

END OF SECTION

SECTION 00100

INSTRUCTIONS TO BIDDERS

1.01 BIDDING DOCUMENTS

Bids for "Barnum Road Bridge Rehabilitation" will be received at the Ayer Department of Public Works, 25 Brook Street, Ayer, MA 01432 until **August 14th, 2026, 2:00 PM** at which time they will be publicly opened and read aloud.

Each bid shall be submitted in a SEALED ENVELOPE MARKED "Barnum Road Bridge Rehabilitation".

Complete sets of the Bidding Documents in the number and for the deposit sum, if any, stated in the Advertisement or Invitation to Bid may be obtained from the OWNER. The deposit will be refunded to each document holder who returns a complete set of bidding documents in good condition within 30 days after opening of bids.

Complete sets of Bidding Documents must be used in preparing Bids. Owner does not assume any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents.

1.02 BIDDING REQUIREMENTS

Questions, Clarifications and Interpretations: Bidders shall promptly notify the Town of Ayer Town Engineer of questions, ambiguities, inconsistencies, errors, or omissions which they may discover upon examination of the Contract and Specification documents, the site and local conditions.

Written Request Required: Submit written request for clarification and interpretation to the Town of Ayer Town Engineer by email at mhernon@ayer.ma.us.

Time Required: Requests for clarifications and interpretations must be received by the Town of Ayer Town Engineer at least five working days [Saturdays, Sundays, Holidays excluded] prior to the date bids are due.

Response, Addenda: The response will be in the form of written addenda, which shall become part of the Contract Documents. Clarifications and interpretations offered by the Towns in any form other than formal written addenda shall be invalid.

Issuance of Addenda: Addenda will be issued by email to all plan holders.

Addenda Must Be Acknowledged: Bidders shall acknowledge Addenda in the spaces provided on the bid forms. Failure of a bidder to acknowledge Addenda in the spaces provided on the bid form may cause rejection of the bid or lead to protest. Failure of a bidder to receive any addenda shall not relieve it from any obligation under its bid as submitted.

1.03- BID SECURITY

The Bid must be accompanied by Bid security made payable to Owner in an amount of 5% of Bidder's maximum Bid price and in the form of a certified or bank check or a Bid Bond on the form attached issued by a surety meeting the requirements of the General Conditions.

All Bid Securities of Bidders except those of the three lowest responsible and eligible Bidders will be returned within five days, Saturdays, Sundays and legal holidays excluded, after opening of the General Bids. The Bid security of the three lowest Bidders will be retained until the Successful Bidder has executed the Contract Documents, furnished the required contract security and met the other conditions of the Notice of Award, whereupon the Bid security will be returned. If the Successful Bidder fails to execute and deliver the Contract Documents and furnish the required contract security within 15 days after the Notice of Award, Owner may annul the Notice of Award and the Bid security of that Bidder will be forfeited to the OWNER as liquidated damage. The amount forfeited to OWNER shall not exceed the difference between the Bid Price of said Bidder and that of the next lowest responsible and eligible bidder and provided further that, in case of death, disability, or other unforeseen circumstances affecting the Bidder, such Bid Security may be returned to the Bidder.

All Bid Securities will be returned on the execution of the Agreement or if no award is made within sixty (60) days, excluding Saturdays, Sundays, and legal holidays after the actual date of the opening of the General Bids, unless forfeited under the conditions herein stipulated.

1.04 PREPARATION OF BID

The Bid form is included with the Bidding Documents. Additional copies may be obtained from the Ayer DPW. All blanks on the Bid form shall be completed by printing in ink or by typewriter and the Bid signed. A Bid price shall be indicated for each Bid item listed therein.

A Bid by a corporation shall be executed in the corporate name by the president or a vice-president or other corporate officer accompanied by evidence of authority to sign. The corporate seal shall be affixed and attested by the secretary or an assistant secretary. The corporate address and state of incorporation shall be shown below the signature.

A Bid by a partnership shall be executed in the partnership name and signed by a partner (whose title must appear under the signature), accompanied by evidence of authority to sign. The official address of the partnership shall be shown below the signature.

A Bid by a limited liability company shall be executed in the name of the firm by a member and accompanied by evidence of authority to sign. The state of formation of the firm and the official address of the firm must be shown below the signature.

A Bid by an individual shall show the Bidder's name and official address.

A Bid by a joint venture shall be executed by each joint venture in the manner indicated on the Bid form. The official address of the joint venture must be shown below the signature.

All names shall be typed or printed in ink below the signatures.

The Bid shall contain an acknowledgment of receipt of all Addenda, the numbers of which shall be filled in on the Bid form. The address and telephone number for communications regarding the Bid shall be shown.

1.05 SUBMITTAL OF BID

Each prospective Bidder is furnished one copy of the Bidding Documents including one copy each of the Bid form and the Bid Bond. The Bid form is to be completed and submitted with the following:

- A. The Bid Form in its Entirety.
- B. Required Bid Security.
- C. Required Experience Statement (Section 00405) with supporting data.

A Bid shall be submitted no later than the date and time prescribed and at the place indicated in the advertisement or invitation to Bid and shall be enclosed in an opaque sealed envelope plainly marked with the Project title (and, if applicable, the designated portion of the Project for which the Bid is submitted), the name and address of Bidder, and shall be accompanied by the Bid security and other required documents. If a Bid is sent by mail or other delivery system, the sealed envelope containing the Bid shall be enclosed in a separate envelope plainly marked on the outside with the notation "BID ENCLOSED – Barnum Road Bridge Rehabilitation." A mailed Bid shall be addressed to:

Town of Ayer
Department of Public Works
25 Brook Street
Ayer, MA 01432

A Bid may be modified or withdrawn by an appropriate document duly executed in the manner that a Bid must be executed and delivered to the place where Bids are to be submitted prior to the date and time for the opening of Bids.

1.06 OPENING OF BIDS

Bids will be opened at the time and place indicated in the advertisement to Bid and, unless obviously non-responsive, read aloud publicly. An abstract of the amounts of the base Bids and major alternates, if any, will be made available to Bidders after the opening of Bids. All Bids will remain subject to acceptance for 60 days from the date of the Bid opening, but Owner may, in its sole discretion, release any Bid and return the Bid security prior to the end of this period.

1.07 BASIS OF BID; EVALUATION OF BIDS

Bidders shall submit a Bid on a lump sum basis for each lump sum item of Work and on a unit price basis for each unit price item of Work described in the Bidding Documents as provided for in the Bid Form. The total of all estimated prices will be determined as the sum of the products of the estimated quantity of each item and the unit price Bid for the item. Discrepancies between the multiplication of units of Work and unit prices will be resolved in favor of the unit prices. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum. Discrepancies between words and figures will be resolved in favor of the words.

In comparison of Bids, alternates will be applied in the same order of priority as listed in the Bid Form. After determination of the Successful Bidder based on the responsiveness, responsibility, and other Factors set forth in the Instructions, the award may be made to said Successful Bidder on its Base Bid and any combination of its additive alternate Bids for which Owner determines funds will be available at the time of award.

1.08 CONTRACT TIME

Contract Time: The period for this contract is as specified in the Agreement Form and Bid Form.

1.09 CONTRACT AWARD

Owner reserves the right to reject any or all Bids, including without limitation, nonconforming, nonresponsive, unbalanced, or conditional Bids. Owner further reserves the right to reject the Bid of any Bidder whom it finds, after reasonable inquiry and evaluation, to be non-responsible. Owner may also reject the Bid of any Bidder if Owner believes that it would not be in the best interest of the Project to make an award to that Bidder. Owner also reserves the right to waive all informalities not involving price, time, or changes in the Work and to negotiate contract terms with the Successful Bidder.

In evaluating Bidders, Owner will consider the qualifications of Bidders and may consider the qualifications and experience of the Bidder and other individuals or entities proposed for those portions of the Work.

Owner may conduct such investigations as Owner deems necessary to establish the responsibility, qualifications, and financial ability to perform the Work in accordance with the Contract Documents.

1.10 SALES AND USE TAXES

Section 6(f) of Chapter 64 H of the Massachusetts General Laws exempts building materials and supplies to be used in the project from Massachusetts sales tax, and bidders shall not include in their bids any amount therefore. The words "building materials and supplies" shall include all materials and supplies consumed, employed or expended in the construction, reconstruction, alteration, remodeling or repair of any building, structure, public highway, bridge or other such public work project, as well as such material and supplies physically incorporated therein. Said words shall also include rental charges for construction vehicles, equipment and machinery rented specifically for use on the site of the project or while being used exclusively for the transportation of materials for the project.

1.11 DELETION OF ITEMS

Owner reserves the right to reduce project scope by the elimination of Bid items, reduction of quantities on unit price Bid items, or deleting elements of lump sum Bid items. No adjustment to other Bid items prices will be permitted. In the case of reduction of quantities on unit price items, the unit price will not be adjusted.

1.12 SPECIAL LEGAL REQUIREMENTS

Minimum Wage Rates as determined by the Commissioner of Department of Workforce Development under the provision of the Massachusetts General Laws, Chapter 149, Sections 26 to 27D, as amended, apply to this project. It is the responsibility of the contractor, before bid opening, to request if necessary, any additional information on Minimum Wage Rates for those trades people who may be employed for the proposed work under this contract. The State schedule of minimum wage rates is included in the Appendix.

This project is subject to the Safety and Health Regulations of the U.S. Department of Labor set forth in Title 29 CFR, Part 1926 and to all subsequent amendments, and to the Massachusetts Department of Labor and Industries, Division of Industrial Safety 'Rules and Regulations for the Prevention of Accidents in Construction Operations' (Chapter 454 CMR 10.00 et seq.). Contractors shall be familiar with the requirements of these regulations.

END OF SECTION

SECTION 00300

FORM FOR GENERAL BID

Ayer Department of Public Works
Ayer, Massachusetts
Barnum Road Bridge Rehabilitation

The following Bid is submitted to: Town of Ayer Department of Public Works
25 Brook Street
Ayer, MA 01432

By (Contractor Name): _____
(Address for Giving Notice): _____

A. The Undersigned proposes to furnish all labor and materials required for the Barnum Road Bridge Rehabilitation project in Ayer, Massachusetts, in accordance with the accompanying plans and specifications prepared by The Ayer Department of Public Works for the contract price specified below, subject to additions and deductions according to the terms of the specifications.

B. This bid includes addenda

Number _____
Dated _____

C. **BASE BID** -The proposed contract price for the **Base Bid including Bid Items 101. through 994.01** complete is

_____ dollars (\$_____).
(in Words) (in Figures)

D. The subdivision of the proposed contract price is as follows:

BID FORM

BASE BID

Item No.	Quantity	Item with Unit Bid Price Written in Words	Unit Price		Amount	
			Dollars	Cents	Dollars	Cents
101.	0.17	CLEARING AND GRUBBING _____ DOLLARS AND _____ CENTS PER ACRES				
120.	28	EARTH EXCAVATION _____ DOLLARS AND _____ CENTS PER CUBIC YARD				
127.1	5	REINFORCED CONCRETE EXCAVATION _____ DOLLARS AND _____ CENTS PER CUBIC YARD				
141.1	20	TEST PIT FOR EXPLORATION _____ DOLLARS AND _____ CENTS PER CUBIC YARD				
144.	5	CLASS B ROCK EXCAVATION _____ DOLLARS AND _____ CENTS PER CUBIC YARD				

Item No.	Quantity	Item with Unit Bid Price Written in Words	Unit Price		Amount	
			Dollars	Cents	Dollars	Cents
151.	5	GRAVEL BORROW _____ DOLLARS AND _____ CENTS PER CUBIC YARD				
154.	1	SAND BORROW _____ DOLLARS AND _____ CENTS PER CUBIC YARD				
156.	4	CRUSHED STONE _____ DOLLARS AND _____ CENTS PER TON				
160.2	5	CONTROLLED LOW-STRENGTH MATERIAL - MECHANICAL EXCAVATABLE (101-300 PSI) _____ DOLLARS AND _____ CENTS PER CUBIC YARD				
170.	600	FINE GRADING AND COMPACTING - SUBGRADE AREA _____ DOLLARS AND _____ CENTS PER SQUARE YARD				
258.	22	STONE FOR PIPE ENDS _____ DOLLARS AND _____ CENTS PER SQUARE YARD				

Item No.	Quantity	Item with Unit Bid Price Written in Words	Unit Price		Amount	
			Dollars	Cents	Dollars	Cents
451.	1	HMA FOR PATCHING _____ DOLLARS AND _____ CENTS PER TON				
452.	1	ASPHALT EMULSION FOR TACK COAT _____ DOLLARS AND _____ CENTS PER GALLON				
482.3	15	SAWCUTTING ASPHALT PAVEMENT _____ DOLLARS AND _____ CENTS PER FOOT				
482.31	80	SAWING AND SEALING JOINTS IN ASPHALT PAVEMENT AT BRIDGES _____ DOLLARS AND _____ CENTS PER FOOT				
504.	32	GRANITE CURB TYPE VA4 - STRAIGHT _____ DOLLARS AND _____ CENTS PER FOOT				
509.	15	GRANITE TRANSITION CURB FOR PEDESTRIAN CURB RAMPS - STRAIGHT _____ DOLLARS AND _____ CENTS PER FOOT				

Item No.	Quantity	Item with Unit Bid Price Written in Words	Unit Price		Amount	
			Dollars	Cents	Dollars	Cents
620.12	800	GUARDRAIL, TL-2 (SINGLE FACED) _____ DOLLARS AND _____ CENTS PER FOOT				
627.1	2	TRAILING ANCHORAGE _____ DOLLARS AND _____ CENTS EACH				
627.82	2	GUARDRAIL TANGENT END TREATMENT, TL-2 _____ DOLLARS AND _____ CENTS EACH				
628.24	4	TRANSITION TO BRIDGE RAIL _____ DOLLARS AND _____ CENTS EACH				
628.304	2	TEMPORARY IMPACT ATTENUATOR, NON-REDIRECTIVE, TL-2 _____ DOLLARS AND _____ CENTS EACH				
628.4	2	TEMPORARY IMPACT ATTENUATOR, REMOVED AND RESET _____ DOLLARS AND _____ CENTS EACH				

Item No.	Quantity	Item with Unit Bid Price Written in Words	Unit Price		Amount	
			Dollars	Cents	Dollars	Cents
630.2	780	HIGHWAY GUARD REMOVED AND DISCARDED _____ DOLLARS AND _____ CENTS PER FOOT				
697.	180	SEDIMENTATION FENCE _____ DOLLARS AND _____ CENTS PER FOOT				
697.1	2	SILT SACK _____ DOLLARS AND _____ CENTS EACH				
697.2	175	FLOATING SILT FENCE _____ DOLLARS AND _____ CENTS PER FOOT				
698.3	25	GEOTEXTILE FABRIC FOR SEPARATION _____ DOLLARS AND _____ CENTS PER SQUARE YARD				
702.	5	HOT MIX ASPHALT SIDEWALK OR DRIVEWAY _____ DOLLARS AND _____ CENTS PER TON				

Item No.	Quantity	Item with Unit Bid Price Written in Words	Unit Price		Amount	
			Dollars	Cents	Dollars	Cents
748.	1	MOBILIZATION _____ DOLLARS AND _____ CENTS LUMP SUM				
751.	50	LOAM FOR ROADSIDES _____ DOLLARS AND _____ CENTS PER CUBIC YARD				
765.	440	SEEDING _____ DOLLARS AND _____ CENTS PER SQUARE YARD				
769.	1040	PAVEMENT MILLING MULCH UNDER GUARD RAIL _____ DOLLARS AND _____ CENTS PER FOOT				
851.1	120	TRAFFIC CONES FOR TRAFFIC MANAGEMENT _____ DOLLARS AND _____ CENTS PER DAY				
852.	145	SAFETY SIGNING FOR TRAFFIC MANAGEMENT _____ DOLLARS AND _____ CENTS PER SQUARE FOOT				

Item No.	Quantity	Item with Unit Bid Price Written in Words	Unit Price		Amount	
			Dollars	Cents	Dollars	Cents
852.11	800	TEMPORARY PEDESTRIAN BARRICADE _____ DOLLARS AND _____ CENTS PER FOOT				
852.12	2	TEMPORARY PEDESTRIAN CURBRAMP _____ DOLLARS AND _____ CENTS EACH				
853.1	2	PORTABLE BREAKAWAY BARRICADE TYPE III _____ DOLLARS AND _____ CENTS EACH				
853.21	750	TEMPORARY BARRIER REMOVED AND RESET _____ DOLLARS AND _____ CENTS PER FOOT				
853.331	750	TEMPORARY BARRIER - LIMITED DEFLECTION (TL-2) _____ DOLLARS AND _____ CENTS PER FOOT				
854.016	2500	TEMPORARY PAVING MARKINGS - 6 INCH (PAINTED) _____ DOLLARS AND _____ CENTS PER FOOT				

Item No.	Quantity	Item with Unit Bid Price Written in Words	Unit Price		Amount	
			Dollars	Cents	Dollars	Cents
854.1	1250	PAVEMENT MARKING REMOVAL _____ DOLLARS AND _____ CENTS PER SQUARE FOOT				
856.12	480	PORTABLE CHANGEABLE MESSAGE SIGN _____ DOLLARS AND _____ CENTS PER DAY				
859.	2000	REFLECTORIZED DRUM _____ DOLLARS AND _____ CENTS PER DAY				
859.1	630	REFLECTORIZED DRUMS WITH SEQUENTIAL FLASHING WARNING LIGHTS _____ DOLLARS AND _____ CENTS PER DAY				
864.04	50	PAVEMENT ARROWS AND LEGENDS REFLECTORIZED WHITE (THERMOPLASTIC) _____ DOLLARS AND _____ CENTS PER SQUARE FOOT				
866.106	750	6 INCH REFLECTORIZED WHITE LINE (THERMOPLASTIC) _____ DOLLARS AND _____ CENTS PER FOOT				

Item No.	Quantity	Item with Unit Bid Price Written in Words	Unit Price		Amount	
			Dollars	Cents	Dollars	Cents
867.106	1500	6 INCH REFLECTORIZED YELLOW LINE (THERMOPLASTIC) _____ DOLLARS AND _____ CENTS PER FOOT				
902.1	1	3500 PSI, 1.5 INCH, 520 CEMENT CONCRETE _____ DOLLARS AND _____ CENTS PER CUBIC YARD				
904.	6	4000 PSI, 3/4 INCH, 610 CEMENT CONCRETE _____ DOLLARS AND _____ CENTS PER CUBIC YARD				
908.1	1620	CONCRETE PENETRANT _____ DOLLARS AND _____ CENTS PER SQUARE FOOT				
910.1	6000	STEEL REINFORCEMENT FOR STRUCTURES - EPOXY COATED _____ DOLLARS AND _____ CENTS PER POUND				
912.	20	DRILLING AND GROUTING DOWELS _____ DOLLARS AND _____ CENTS EACH				

Item No.	Quantity	Item with Unit Bid Price Written in Words	Unit Price		Amount	
			Dollars	Cents	Dollars	Cents
983.1	60	RIPRAP _____ DOLLARS AND _____ CENTS PER TON				
989.201	20	REPAIRS TO CONCRETE - TYPE A, BRIDGE NO. A-19-011 (25M) _____ DOLLARS AND _____ CENTS PER CUBIC YARD				
989.202	45	REPAIRS TO CONCRETE - TYPE B, BRIDGE NO. A-19-011 (25M) _____ DOLLARS AND _____ CENTS PER SQUARE YARD				
989.203	30	REPAIRS TO CONCRETE - TYPE C, BRIDGE NO. A-19-011 (25M) _____ DOLLARS AND _____ CENTS PER FOOT				
994.01	1	TEMPORARY PROTECTIVE SHIELDING BRIDGE NO. A-19- 011 (25M) _____ DOLLARS AND _____ CENTS LUMP SUM				

E. The undersigned agrees that, if selected as general contractor, he/she will within five days, Saturdays, Sundays and legal holidays excluded, after presentation thereof by the awarding authority, execute a contract in accordance with the terms of this bid and furnish a performance bond and also a labor and materials or payment bond, each of a surety company qualified to do business under the laws of the commonwealth and satisfactory to the awarding authority and each in the sum of the contract price, the premiums for which are to be paid by the general contractor and are included in the contract price.

The undersigned declares that the only persons or parties interested in this Bid as principals are as stated; that the Bid is made without any collusion with other persons, firms, or corporations; that all, the Contract Documents as prepared by The Ayer Department of Public Works and dated July 2026 have been carefully examined; that the undersigned is fully informed in regard to all conditions pertaining to the Work and the place where it is to be done, and from them the undersigned makes this Bid. These prices shall cover all expenses incurred in performing the Work required under the Contract Documents, of which this Bid Form is a part.

The time period for holding bids, where Federal approval is not required is 30 days, Saturdays, Sundays and legal holidays excluded, after the opening of bids.

The Bid Security accompanying this Bid shall be in the amount of 5 percent of the Bid. The Bid Security shall be sealed in a separate envelope from the Bid and then attached to the envelope containing the Bid.

If a Notice of Award accompanied by at least two unsigned copies of the Agreement and all other applicable Contract Documents is delivered to the undersigned within thirty days, excluding Saturdays, Sundays, and legal holidays after the actual date of the opening of the General Bids, the undersigned will within five days, excluding Saturdays, Sundays, and legal holidays, after the date of receipt of such notification, execute and return all copies of the Agreement and all other applicable Contract Documents to OWNER. The premiums for all Bonds required shall be paid by CONTRACTOR and shall be included in the Contract Price. The undersigned Bidder further agrees that the Bid Security accompanying this Bid shall become the property of OWNER if the Bidder fails to execute the Agreement as stated above.

The undersigned hereby agrees that the Contract Time shall commence twenty days following the Effective Date of the Agreement and that the Work will be substantially complete and completed and ready for final payment in accordance with paragraph the General Conditions on or before the dates or within the number of calendar days indicated in the Agreement. Work will be substantially complete within **150** calendar days after the date when the Contract Time commences to run provided in the General Conditions and completed and ready for final payment within **180** calendar days after the date when the Contract Time commences to run. The undersigned further understands that delays in completion of the Work will cause the OWNER to suffer damages and incur substantial costs, and will expose the OWNER to other substantial liabilities, and that if the selected Contractor shall neglect, fail or refuse to achieve Substantial Completion or final completion of the Work within the times specified above, as such times may be extended pursuant to the provisions of the Contract Documents, the OWNER will hold the selected Contractor

strictly liable for all such damages and any other damages, costs, expenses or liabilities sustained or incurred by the OWNER arising out of such delays, as further provided in the Agreement, or for any delay in achieving any other milestones set forth in the Contract Documents in accordance with the terms of the Agreement. The undersigned accepts the provisions of the Agreement as to liquidated damages in the event of failure to complete the Work on time in the amount of \$500 per day after substantial completion time limits and \$500 per day after final completion time limits.

In accordance with the above understanding, the undersigned proposes to perform the Work, furnish all materials, and complete the work in its entirety in the manner and under the conditions required.

In comparison of Bids, alternates will be applied in the same order of priority as listed in the Bid Form. After determination of the Successful Bidder based on the responsiveness, responsibility, and other Factors set forth in the Instructions, the award may be made to said Successful Bidder on its Base Bid and any combination of its additive alternate Bids for which Owner determines funds will be available at the time of award.

The undersigned agrees that extra work, if any, will be performed in accordance with Article 10 of the General Conditions of the Contract and will be paid for in accordance with Article 11 of the General Conditions of the Contract.

The bidding and award of this Contract will be in accordance with M.G.L. Chapter 30, Section 39M.

The undersigned must furnish a 100 percent Performance Bond and a 100 percent Payment Bond with a surety company acceptable to OWNER.

Where indicated for amounts to be shown in both words and figures, in case of discrepancy, the amount shown in words shall govern.

The following documents are attached to and made a condition of this Bid:

- (a) This Bid Form in its Entirety.
- (b) Required Bid Security.
- (c) Required Experience Statement (Section 00405) with supporting data.

CERTIFICATIONS

Pursuant to M.G.L. Ch. 62C, sec. 49A, I certify under the penalties of perjury that I, to my best knowledge and belief, have filed all state tax returns and paid all state taxes required under law.

The undersigned hereby certifies that he/she is able to furnish labor that can work in harmony with all other elements of labor employed or to be employed on the work and that he/she will comply fully with all laws and regulations.

The undersigned further certifies under the penalties of perjury that this bid is in all respects bona fide, fair and made without collusion or fraud with any other person. As used in this subsection the word "person" shall mean any natural person, joint venture, partnership, corporation or other business or legal entity.

The undersigned further certifies under penalty of perjury that the said undersigned is not presently debarred from doing public construction work in the Commonwealth under the provisions of Section Twenty-nine F of Chapter Twenty-nine, or any other applicable debarment provisions of any other chapter of the General Laws or any rule or regulation promulgated thereunder.

Social Security Number or
Federal Identification Number

Individual or Corporate Name
(Print or Type)

By: _____
(Signature)

RESPECTFULLY SUBMITTED on _____, 20__

An Individual

By (Individual's Name)_____

(SEAL)

doing business as _____

Business address: _____

Phone No.: _____

A Partnership

By (Firm Name)_____

(SEAL)

(General Partner)_____

Business address: _____

Phone No.: _____

A Corporation

By (Corporation Name)_____ (Corporate Seal)

(State of Incorporation)_____

By (Name and Title of Person Authorized to Sign)_____

Attest (Secretary)_____

Business address: _____

Phone No.: _____

A Joint Venture

By (Name)_____ (SEAL)

(Address)_____

Phone No.: _____

By (Name)_____ (SEAL)

(Address)_____

Phone No.: _____

By (Name)_____ (SEAL)

(Address)_____

Phone No.: _____

(Each joint venture must sign. The manner of signing for each individual, partnership and corporation that is a party to the joint venture should be in the manner indicated above).

SECTION 00302CERTIFICATE OF AUTHORITY TO SIGN

At a duly authorized meeting of the Board of Directors of _____
 (Company Name)
 held on _____, at which all the Directors were present or waived notice, it was voted
 (Date)
 that _____, _____, _____
 (Officer Names)
 of this Company, be and he/she/they hereby is/are authorized to execute Bidding Document,
 Contracts and Bonds in the name and on behalf of said Company, and affix its corporate seal thereto,
 and such execution of any contract or obligation in this Company's name on its behalf by such
 _____ under seal of the Company shall be valid and binding upon this Company.
 (Officer/Title)

I hereby certify that the above vote has not been amended or rescinded and remains in full effect as of
 this date _____.

A true copy,

ATTEST _____
 Clerk

(Corporate Seal)

(General Bidders and Sub-Bidders shall complete and submit this Form or a similar Form as proof of Authority to Sign)

SECTION 00405
EXPERIENCE STATEMENT

All questions must be answered with clear and comprehensive data; if necessary, add additional pages. This statement must be notarized.

1. Name of Bidder.

2. Permanent Main Office address.

3. When organized.

4. Where incorporated.

5. How many years have you been engaged in the contracting business under your present firm name? Also state names and dates of previous firm names, if any.

6. State work of a similar nature to that stated in the Bid Proposal, including references that will assist the Owner to judge experience, skill and business standing:

7. Contracts on hand. (Schedule these, showing gross amount of each contract and the approximate anticipated dates of completion.)

8. General character of work performed by your company.

9. Have you ever failed to complete any work awarded to you? ___(Yes)
___(No) If so, where and why?

10. Have you ever defaulted on a contract? ___(Yes) ___(No). If so, where and why?

11. List the more important contracts recently executed by your company, stating approximate cost for each, and the month and year completed.

12. List your major equipment available for this contract.

13. List your key personnel such as Project Superintendent and foremen available for this contract.

14. List any subcontractors whom you would expect to use and the general components of the Project (e.g. Electrical, Plumbing, HVAC, etc.) for which they will be responsible. Indicate other projects on which the proposed subcontractor has worked with you.

15. Name and address of banking institutions with whom you do business.

Do you grant the Engineer permission to contact this (these) institutions? ___(Yes)
___(No)

Dated at _____ this _____ day of _____, 20____

(Name of Bidder)

By _____

State of _____ S Title _____

County of _____)

_____ being duly sworn, deposes and says that he is

of _____ and that the answers to the foregoing
(Name of Organization)

questions and all statements contained therein are true and correct.

Sworn to before me this _____ day of _____, 20____.

(Notary Public)

My commission expires _____.

END OF SECTION

SECTION 00410 BID BOND

Any singular reference to Bidder, Surety, Owner, or other party shall be considered plural where applicable.

BIDDER (Name and Address):

SURETY (Name and Address of Principal Place of Business):

OWNER:

Town of Ayer
One Main Street
Ayer, MA 01432

BID

Bid Due Date: **Friday, August 14th, 2026, 2:00 PM**

Project (Brief Description Including Location):

Barnum Road Bridge Rehabilitation

BOND

Bond Number:

Date (Not later than Bid due date):

Penal sum

(Words)

(Figures)

Surety and Bidder, intending to be legally bound hereby, subject to the terms printed on the reverse side hereof, do each because this Bid Bond to be duly executed on its behalf by its authorized officer, agent, or representative.

BIDDER

SURETY

(Seal)

(Seal)

Bidder's Name and Corporate Seal

Surety's Name and Corporate Seal

By: _____
Signature and Title

By: _____
Signature and Title
(Attach Power of Attorney)

Attest: _____
Signature and Title

Attest: _____
Signature and Title

Note: Above addresses are to be used for giving required notice.

1. Bidder and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to pay to Owner upon default of Bidder the penal sum set forth on the face of this Bond. Payment of the penal sum is the extent of Surety's liability.
2. Default of Bidder shall occur upon the failure of Bidder to deliver within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents.
3. This obligation shall be null and void if:
 - 3.1. Owner accepts Bidder's Bid and Bidder delivers within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents, or
 - 3.2. All Bids are rejected by Owner, or
 - 3.3. Owner fails to issue a Notice of Award to Bidder within the time specified in the Bidding Documents (or any extension thereof agreed to in writing by Bidder and, if applicable, consented to by Surety when required by Paragraph 5 hereof).
4. Payment under this Bond will be due and payable upon default by Bidder and within 30 calendar days after receipt by Bidder and Surety of written notice of default from Owner, which notice will be given with reasonable promptness, identifying this Bond and the Project and including a statement of the amount due.
5. Surety waives notice of any and all defenses based on or arising out of any time extension to issue Notice of Award agreed to in writing by Owner and Bidder, provided that the total time for issuing Notice of Award including extensions shall not in the aggregate exceed 120 days from Bid due date without Surety's written consent.
6. No suit or action shall be commenced under this Bond prior to 30 calendar days after the notice of default required in Paragraph 4 above is received by Bidder and Surety and in no case later than one year after Bid due date.
7. Any suit or action under this Bond shall be commenced only in a court of competent jurisdiction located in the state in which the Project is located.
8. Notices required hereunder shall be in writing and sent to Bidder and Surety at their respective addresses shown on the face of this Bond. Such notices may be sent by personal delivery, commercial courier, or by United States Registered or Certified Mail, return receipt requested, postage pre-paid, and shall be deemed to be effective upon receipt by the party concerned.
9. Surety shall cause to be attached to this Bond a current and effective Power of Attorney evidencing the authority of the officer, agent, or representative who executed this Bond on behalf of Surety to execute, seal, and deliver such Bond and bind the Surety thereby.
10. This Bond is intended to conform to all applicable statutory requirements. Any applicable requirement of any applicable statute that has been omitted from this Bond shall be deemed to be included herein as if set forth at length. If any provision of this Bond conflicts with any applicable statute, then the provision of said statute shall govern and the remainder of this Bond that is not in conflict therewith shall continue in full force and effect.
11. The term "Bid" as used herein includes a Bid, offer, or proposal as applicable.

SECTION 00510

AGREEMENT

THIS AGREEMENT is by and between The Town of Ayer, Massachusetts (“Owner”) and
____ (“Contractor”).

Owner and Contractor, in consideration of the mutual covenants hereinafter set forth, agree as follows:

ARTICLE 1 – WORK

- 1.01 Contractor shall complete all Work as specified or indicated in the Contract Documents. The Work is generally described as follows:

The Barnum Road Bridge Rehabilitation Project proposes the preservation of an 85-year-old bridge structure through numerous targeted repairs. The project proposes several concrete repairs, including repair of the bridge deck slab (underside), sidewalk slab, pile caps, and wingwalls. Their repairs will improve observed cracking, spalling, and delamination. The project proposes stabilization of slopes to permanently improve observed erosion. The project also proposes safety upgrades, including replacement of non-compliant guardrail systems with new MASH-compliant guardrails. The time for completion of this contract is **180** calendar days.

ARTICLE 2 – THE PROJECT

- 2.01 The Project for which the Work under the Contract Documents may be the whole or only a part is generally described as follows:

The Base Bid and accepted add alternates in accordance with the Contract Documents for the Project.

ARTICLE 3 – ENGINEER

- 3.01 The Project has been designed by Green International Affiliates (Engineer), who is to act as Owner’s representative, assume all duties and responsibilities, and have the rights and authority assigned to Engineer in the Contract Documents in connection with the completion of the Work in accordance with the Contract Documents.

ARTICLE 4 – CONTRACT TIMES

- 4.01 *Time of the Essence*

A. All time limits for Milestones, if any, Substantial Completion, and completion and readiness for final payment as stated in the Contract Documents are of the essence of the Contract.

- 4.02 *Days to Achieve Substantial Completion and Final Payment*

A. The Work will be substantially completed within 150 days after the date when the Contract Times commence to run as provided in Paragraph 3 of the General Conditions, and completed and ready for final payment in accordance with Paragraph 3.9 of the General Conditions within 180 days after the date when the Contract Times commence to run.

- 4.03 *Liquidated Damages*

A. Contractor and Owner recognize that time is of the essence of this Agreement and that Owner will suffer financial loss if the Work is not completed within the times specified in Paragraph 4.02 above, plus any extensions thereof allowed in accordance with the General Conditions. The parties also recognize the delays,

expense, and difficulties involved in proving in a legal or arbitration proceeding the actual loss suffered by Owner if the Work is not completed on time. Accordingly, instead of requiring any such proof, Owner and Contractor agree that as liquidated damages for delay (but not as a penalty), Contractor shall pay Owner \$500 for each day that expires after the time specified in Paragraph 4.02 for Substantial Completion until the Work is substantially complete. After Substantial Completion, if Contractor shall neglect, refuse, or fail to complete the remaining Work within the Contract Time or any proper extension thereof granted by Owner, Contractor shall pay Owner \$500 for each day that expires after the time specified in Paragraph 4.02 for completion and readiness for final payment until the Work is completed and ready for final payment.

ARTICLE 5 – CONTRACT PRICE

5.01 Owner shall pay Contractor for completion of the Work in accordance with the Contract Documents an amount in current funds equal to the sum of the amounts determined pursuant to Paragraph 5.01A.

A. For all Work, at the prices stated in Contractor's Bid, attached hereto as an exhibit.

ARTICLE 6 – PAYMENT PROCEDURES

6.01 *Submittal and Processing of Payments*

A. Contractor shall submit Applications for Payment in accordance with Article 5 of the General Conditions. Applications for Payment will be processed by Engineer as provided in the General Conditions.

6.02 *Progress Payments; Retainage*

A. Owner shall make progress payments on account of the Contract Price on the basis of Contractor's Applications for Payment on or about the 30th day of each month during performance of the Work as provided in Paragraphs 6.02.A.1 and 6.02.A.2 below. All such payments will be measured by the schedule of values established as provided in Paragraph 2.07.A of the General Conditions (and in the case of Unit Price Work based on the number of units completed) or, in the event there is no schedule of values, as provided in the General Requirements:

1. Prior to Substantial Completion, progress payments will be made in an amount equal to the percentage indicated below but, in each case, less the aggregate of payments previously made and less such amounts as Engineer may determine or Owner may withhold, including but not limited to liquidated damages, in accordance with the General Conditions:
 - a. 95 percent of Work completed (with the balance being retainage); and
 - b. 95 percent of cost of materials and equipment not incorporated in the Work (with the balance being retainage).
2. Upon Substantial Completion, Owner shall pay an amount sufficient to increase total payments to Contractor to 98 percent of the Work completed, less such amounts as Engineer shall determine in accordance with the General Conditions.

6.03 *Final Payment*

A. Upon final completion and acceptance of the Work in accordance with the General Conditions and the Supplementary Conditions, Owner shall pay the remainder of the Contract Price as recommended by the Engineer and as provided in the General Conditions, less any sum Owner is entitled to set off against Engineer's recommendation, including but not limited to liquidated damages.

ARTICLE 7 – INTEREST

7.01 Not Applicable

ARTICLE 8 – CONTRACTOR’S REPRESENTATIONS

8.01 In order to induce Owner to enter into this Agreement Contractor makes the following representations:

- A. Contractor has examined and carefully studied the Contract Documents and the other related data identified in the Bidding Documents.
- B. Contractor has visited the Site and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
- C. Contractor is familiar with and is satisfied as to all federal, state, and local Laws and Regulations that may affect cost, progress, and performance of the Work.
- D. Contractor has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or contiguous to the Site and all drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site (except Underground Facilities).
- E. Contractor has obtained and carefully studied (or assumes responsibility for doing so) all additional or supplementary examinations, investigations, explorations, tests, studies, and data concerning conditions (surface, subsurface, and Underground Facilities) at or contiguous to the Site which may affect cost, progress, or performance of the Work or which relate to any aspect of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, including any specific means, methods, techniques, sequences, and procedures of construction expressly required by the Bidding Documents, and safety precautions and programs incident thereto.
- F. Contractor does not consider that any further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract Documents.
- G. Contractor is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Contract Documents.
- H. Contractor has correlated the information known to Contractor, information and observations obtained from visits to the Site, reports and drawings identified in the Contract Documents, and all additional examinations, investigations, explorations, tests, studies, and data with the Contract Documents.
- I. Contractor has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Contractor has discovered in the Contract Documents, and the written resolution thereof by Engineer is acceptable to Contractor.
- J. The Contract Documents are generally enough to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

ARTICLE 9 – CONTRACT DOCUMENTS

9.01 *Contents*

- A. The Contract Documents consist of the following:
 - 1. This Agreement (pages 1 to 5, inclusive).
 - 2. Performance bond and Payment bond
 - 3. General Conditions
 - 4. Supplementary Conditions

5. Specifications as listed in the table of contents of the Project Manual.
6. Drawings consisting of 12 sheets with each sheet bearing the following general title: Bridge Rehabilitation – Barnum Road Over Bowers Brook.
7. Addenda (numbers ____ to ____, inclusive).
8. Exhibits to this Agreement (enumerated as follows):
 - a. Contractor's Bid (pages ____ to ____, inclusive).
 - b. Documentation submitted by Contractor prior to Notice of Award (pages ____ to ____, inclusive).
 - c. ____.
9. The following which may be delivered or issued on or after the Effective Date of the Agreement and are not attached hereto:
 - a. Notice to Proceed (pages ____ to ____, inclusive).
 - b. Work Change Directives.
 - c. Change Order(s).
- B. The documents listed in Paragraph 9.01.A are attached to this Agreement (except as expressly noted otherwise above).
- C. There are no Contract Documents other than those listed above in this Article 9.
- D. The Contract Documents may only be amended, modified, or supplemented as provided in the General Conditions.

ARTICLE 10 – MISCELLANEOUS

10.01 *Terms*

- A. Terms used in this Agreement will have the meanings stated in the General Conditions and the Supplementary Conditions.

10.02 *Assignment of Contract*

- A. No assignment by a party hereto of any rights under or interests in the Contract will be binding on another party hereto without the written consent of the party sought to be bound; and, specifically but without limitation, moneys that may become due and moneys that are due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.

10.03 *Successors and Assigns*

- A. Owner and Contractor each binds itself, its partners, successors, assigns, and legal representatives to the other party hereto, its partners, successors, assigns, and legal representatives in respect to all covenants, agreements, and obligations contained in the Contract Documents.

10.04 *Severability*

- A. Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon Owner and Contractor, who agree that the Contract Documents shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

IN WITNESS WHEREOF, Owner and Contractor have signed this Agreement in four copies. One counterpart each has been delivered to Owner, Contractor, Engineer, and Agency. All portions of the Contract Documents have been signed, initialed, or identified by Owner and Contractor or identified by Engineer on their behalf.

This Agreement is dated _____.

OWNER:

Select Board
Town of Ayer
Ayer, Massachusetts

By: _____

Title: Chair

By: _____

Title: Member

By: _____

Title: Member

CONTRACTOR

By: _____

Title: _____

[CORPORATE SEAL]

[CORPORATE SEAL]

Approved: _____

Title: Treasurer

Attest: _____

Title: Clerk

Address for giving notices:

Attest: _____

Title: _____

Address for giving notices:

Agent for service of process:

(If Contractor is a corporation or a partnership, attach evidence of authority to sign.)

SECTION 00610
PERFORMANCE BOND

Any singular reference to Contractor, Surety, Owner, or other party shall be considered plural where applicable.

CONTRACTOR (Name and Address):

SURETY (Name and Address of Principal Place of Business):

OWNER:

Town of Ayer
1 Main Street
Ayer, MA 01432

CONTRACT

Date:
Amount:
Description (Name and Location):

BOND

Bond Number:
Date (Not earlier than Contract Date):
Amount:
Modifications to this Bond Form:

Surety and Contractor, intending to be legally bound hereby, subject to the terms printed on the reverse side hereof, do each cause this Performance Bond to be duly executed on its behalf by its authorized officer, agent, or representative.

CONTRACTOR AS PRINCIPAL

Company:

Signature: _____ (Seal)
Name and Title:

(Space is provided below for signatures of additional parties, if required.)

CONTRACTOR AS PRINCIPAL

Company:

Signature: _____ (Seal)
Name and Title:

SURETY

Surety's Name and Corporate Seal (Seal)

By: _____
Signature and Title
(Attach Power of Attorney)

Attest: _____
Signature and Title

SURETY

Surety's Name and Corporate Seal (Seal)

By: _____
Signature and Title
(Attach Power of Attorney)

Attest: _____
Signature and Title:

EJCDC No. C-610 (2002 Edition)

Originally prepared through the joint efforts of the Surety Association of America, Engineers Joint Contract Documents Committee, the Associated General Contractors of America, and the American Institute of Architects.

1. Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to Owner for the performance of the Contract, which is incorporated herein by reference.

2. If Contractor performs the Contract, Surety and Contractor have no obligation under this Bond, except to participate in conferences as provided in Paragraph 3.1.

3. If there is no Owner Default, Surety's obligation under this Bond shall arise after:

3.1. Owner has notified Contractor and Surety, at the addresses described in Paragraph 10 below, that Owner is considering declaring a Contractor Default and has requested and attempted to arrange a conference with Contractor and Surety to be held not later than 15 days after receipt of such notice to discuss methods of performing the Contract. If Owner, Contractor and Surety agree, Contractor shall be allowed a reasonable time to perform the Contract, but such an agreement shall not waive Owner's right, if any, subsequently to declare a Contractor Default; and

3.2. Owner has declared a Contractor Default and formally terminated Contractor's right to complete the Contract. Such Contractor Default shall not be declared earlier than 20 days after Contractor and Surety have received notice as provided in Paragraph 3.1; and

3.3. Owner has agreed to pay the Balance of the Contract Price to:

1. Surety in accordance with the terms of the Contract;
2. Another contractor selected pursuant to Paragraph 4.3 to perform the Contract.

4. When Owner has satisfied the conditions of Paragraph 3, Surety shall promptly and at Surety's expense take one of the following actions:

4.1. Arrange for Contractor, with consent of Owner, to perform and complete the Contract; or

4.2. Undertake to perform and complete the Contract itself, through its agents or through independent contractors; or

4.3. Obtain bids or negotiated proposals from qualified contractors acceptable to Owner for a contract for performance and completion of the Contract, arrange for a contract to be prepared for execution by Owner and Contractor selected with Owner's concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Contract, and pay to Owner the amount of damages as described in Paragraph 6 in excess of the Balance of the Contract Price incurred by Owner resulting from Contractor Default; or

4.4. Waive its right to perform and complete, arrange for completion, or obtain a new contractor and with reasonable promptness under the circumstances:

1. After investigation, determine the amount for which it may be liable to Owner and, as soon as practicable after the amount is determined, tender payment therefor to Owner; or
2. Deny liability in whole or in part and notify Owner citing reasons therefor.

5. If Surety does not proceed as provided in Paragraph 4 with reasonable promptness, Surety shall be deemed to be in default on this Bond 15 days after receipt of an additional written notice from Owner to Surety demanding that Surety perform its obligations under this Bond, and Owner shall be entitled to enforce any remedy available to Owner. If Surety proceeds as provided in Paragraph 4.4, and Owner refuses the payment tendered or Surety has denied liability, in whole or in part, without further notice Owner shall be entitled to enforce any remedy available to Owner.

6. After Owner has terminated Contractor's right to complete the Contract, and if Surety elects to act under Paragraph 4.1, 4.2, or 4.3 above, then the responsibilities of Surety to Owner shall not be greater than those of Contractor under the Contract, and the responsibilities of Owner to Surety shall not be greater than those of Owner under the Contract. To a limit of the amount of this Bond, but subject to commitment by Owner of the Balance of the Contract Price to mitigation of costs and damages on the Contract, Surety is obligated without duplication for:

6.1. The responsibilities of Contractor for correction of defective Work and completion of the Contract;

6.2. Additional legal, design professional, and delay costs resulting from Contractor's Default, and resulting from the actions or failure to act of Surety under Paragraph 4; and

6.3. Liquidated damages, or if no liquidated damages are specified in the Contract, actual damages caused by delayed performance or non-performance of Contractor.

7. Surety shall not be liable to Owner or others for obligations of Contractor that are unrelated to the Contract, and the Balance of the Contract Price shall not be reduced or set off on account of any such unrelated obligations. No right of action shall accrue on this Bond to any person or entity other than Owner or its heirs, executors, administrators, or successors.

8. Surety hereby waives notice of any change, including changes of time, to Contract or to related subcontracts, purchase orders, and other obligations.

9. Any proceeding, legal or equitable, under this Bond may be instituted in any court of competent jurisdiction in the location in which the Work or part of the Work is located and shall be instituted within two years after Contractor Default or within two years after Contractor ceased working or within two years after Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.

10. Notice to Surety, Owner, or Contractor shall be mailed or delivered to the address shown on the signature page.

11. When this Bond has been furnished to comply with a statutory requirement in the location where the Contract was to be performed, any provision in this Bond conflicting with said statutory requirement shall be deemed deleted herefrom and provisions conforming to such statutory requirement shall be deemed incorporated herein. The intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

12. Definitions.

12.1 Balance of the Contract Price: The total amount payable by Owner to Contractor under the Contract after all proper adjustments have been made, including allowance to Contractor of any amounts received or to be received by Owner in settlement of insurance or other Claims for damages to which Contractor is entitled, reduced by all valid and proper payments made to or on behalf of Contractor under the Contract.

12.2. Contract: The agreement between Owner and Contractor identified on the signature page, including all Contract Documents and changes thereto.

12.3. Contractor Default: Failure of Contractor, which has neither been remedied nor waived, to perform or otherwise to comply with the terms of the Contract.

12.4. Owner Default: Failure of Owner, which has neither been remedied nor waived, to pay Contractor as required by the Contract or to perform and complete or comply with the other terms thereof.

SECTION 00620
PAYMENT BOND

Any singular reference to Contractor, Surety, Owner, or other party shall be considered plural where applicable.

CONTRACTOR (*Name and Address*):

SURETY (*Name, and Address of Principal Place of Business*):

OWNER (*Name and Address*):

Town of Ayer
1 Main Street
Ayer, MA 01432

CONTRACT

Effective Date of Agreement:

Amount:

Description (*Name and Location*):

BOND

Bond Number:

Date (*Not earlier than Effective Date of Agreement*):

Amount:

Modifications to this Bond Form:

Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Payment Bond to be duly executed by an authorized officer, agent, or representative.

CONTRACTOR AS PRINCIPAL

SURETY

Contractor's Name and Corporate Seal

Surety's Name and Corporate Seal

By: _____
Signature

By: _____
Signature (Attach Power of Attorney)

Print Name

Print Name

Title

Title

Attest: _____
Signature

Attest: _____
Signature

Title

Title

Note: Provide execution by additional parties, such as joint venturers, if necessary.

1. Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to Owner to pay for labor, materials, and equipment furnished by Claimants for use in the performance of the Contract, which is incorporated herein by reference.

2. With respect to Owner, this obligation shall be null and void if Contractor:

2.1 Promptly makes payment, directly or indirectly, for all sums due Claimants, and

2.2 Defends, indemnifies, and holds harmless Owner from all claims, demands, liens, or suits alleging non-payment by Contractor by any person or entity who furnished labor, materials, or equipment for use in the performance of the Contract, provided Owner has promptly notified Contractor and Surety (at the addresses described in Paragraph 12) of any claims, demands, liens, or suits and tendered defense of such claims, demands, liens, or suits to Contractor and Surety, and provided there is no Owner Default.

3. With respect to Claimants, this obligation shall be null and void if Contractor promptly makes payment, directly or indirectly, for all sums due.

4. Surety shall have no obligation to Claimants under this Bond until:

4.1 Claimants who are employed by or have a direct contract with Contractor have given notice to Surety (at the address described in Paragraph 12) and sent a copy, or notice thereof, to Owner, stating that a claim is being made under this Bond and, with substantial accuracy, the amount of the claim.

4.2 Claimants who do not have a direct contract with Contractor:

1. Have furnished written notice to Contractor and sent a copy, or notice thereof, to Owner, within 90 days after having last performed labor or last furnished materials or equipment included in the claim stating, with substantial accuracy, the amount of the claim and the name of the party to whom the materials or equipment were furnished or supplied, or for whom the labor was done or performed; and
2. Have either received a rejection in whole or in part from Contractor, or not received within 30 days of furnishing the above notice any communication from Contractor by which Contractor had indicated the claim will be paid directly or indirectly; and
3. Not having been paid within the above 30 days, have sent a written notice to Surety (at the address described in Paragraph 12) and sent a copy, or notice thereof, to Owner, stating that a claim is being made under this Bond and enclosing a copy of the previous written notice furnished to Contractor.

5. If a notice by a Claimant required by Paragraph 4 is provided by Owner to Contractor or to Surety, that is enough compliance.

6. Reserved.

7. Surety's total obligation shall not exceed the amount of this Bond, and the amount of this Bond shall be credited for any payments made in good faith by Surety.

8. Amounts owed by Owner to Contractor under the Contract shall be used for the performance of the Contract and to satisfy claims, if any, under any performance bond. By Contractor furnishing and Owner accepting this

Bond, they agree that all funds earned by Contractor in the performance of the Contract are dedicated to satisfy obligations of Contractor and Surety under this Bond, subject to Owner's priority to use the funds for the completion of the Work.

9. Surety shall not be liable to Owner, Claimants, or others for obligations of Contractor that are unrelated to the Contract. Owner shall not be liable for payment of any costs or expenses of any Claimant under this Bond, and shall have under this Bond no obligations to make payments to, give notices on behalf of, or otherwise have obligations to Claimants under this Bond.

10. Surety hereby waives notice of any change, including changes of time, to the Contract or to related subcontracts, purchase orders, and other obligations.

11. No suit or action shall be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the location in which the Work or part of the Work is located or after the expiration of one year from the date (1) on which the Claimant gave the notice required by Paragraph 4.1 or Paragraph 4.2.3, or (2) on which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Contract, whichever of (1) or (2) first occurs. If the provisions of this paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.

12. Notice to Surety, Owner, or Contractor shall be mailed or delivered to the addresses shown on the signature page. Actual receipt of notice by Surety, Owner, or Contractor, however accomplished, shall be sufficient compliance as of the date received at the address shown on the signature page.

13. When this Bond has been furnished to comply with a statutory requirement in the location where the Contract was to be performed, any provision in this Bond conflicting with said statutory requirement shall be deemed deleted herefrom and provisions conforming to such statutory requirement shall be deemed incorporated herein. The intent is that this Bond shall be construed as a statutory Bond and not as a common law bond.

14. Upon request of any person or entity appearing to be a potential beneficiary of this Bond, Contractor shall promptly furnish a copy of this Bond or shall permit a copy to be made.

15. Definitions

15.1 Claimant: An individual or entity having a direct contract with Contractor, or with a first-tier subcontractor of Contractor, to furnish labor, materials, or equipment for use in the performance of the Contract. The intent of this Bond shall be to include without limitation in the terms "labor, materials or equipment" that part of water, gas, power, light, heat, oil, gasoline, telephone service, or rental equipment used in the Contract, architectural and engineering services required for performance of the Work of Contractor and Contractor's subcontractors, and all other items for which a mechanic's lien may be asserted in the jurisdiction where the labor, materials, or equipment were furnished.

15.2 Contract: The agreement between Owner and Contractor identified on the signature page, including all Contract Documents and changes thereto.

15.3 Owner Default: Failure of Owner, which has neither been remedied nor waived, to pay Contractor as required by the Contract, or to perform and complete or otherwise comply with the other terms thereof.

SECTION 00700

STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT FUNDING AGENCY EDITION

Prepared by

ENGINEERS JOINT CONTRACT DOCUMENTS COMMITTEE

and

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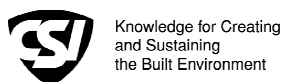


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GENERAL CONDITIONS

ARTICLE 1 – DEFINITIONS AND TERMINOLOGY

1.01 *Defined Terms*

- A. Wherever used in the Bidding Requirements or Contract Documents and printed with initial capital letters, the terms listed below will have the meanings indicated which are applicable to both the singular and plural thereof. In addition to terms specifically defined, terms with initial capital letters in the Contract Documents include references to identified articles and paragraphs, and the titles of other documents or forms.
1. *Addenda* – Written or graphic instruments issued prior to the opening of Bids which clarify, correct, or change the Bidding Requirements or the proposed Contract Documents.
 2. *Agency* – The Federal or state agency named as such in the Agreement.
 3. *Agreement* – The written instrument which is evidence of the agreement between Owner and Contractor covering the Work.
 4. *Application for Payment* – The form acceptable to Engineer which is to be used by Contractor during the course of the Work in requesting progress or final payments and which is to be accompanied by such supporting documentation as is required by the Contract Documents.
 5. *Asbestos* – Any material that contains more than one percent asbestos and is friable or is releasing asbestos fibers into the air above current action levels established by the United States Occupational Safety and Health Administration.
 6. *Bid* – The offer or proposal of a Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.
 7. *Bidder* – The individual or entity who submits a Bid directly to Owner.
 8. *Bidding Documents* – The Bidding Requirements and the proposed Contract Documents (including all Addenda).
 9. *Bidding Requirements* – The Advertisement or Invitation to Bid, Instructions to Bidders, bid security of acceptable form, if any, and the Bid Form with any supplements.
 10. *Change Order* – A document recommended by Engineer which is signed by Contractor and Owner and Agency and authorizes an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Contract Times, issued on or after the Effective Date of the Agreement.
 11. *Claim* – A demand or assertion by Owner or Contractor seeking an adjustment of Contract Price or Contract Times, or both, or other relief with respect to the terms of the Contract. A demand for money or services by a third party is not a Claim.
 12. *Contract* – The entire and integrated written agreement between the Owner and Contractor concerning the Work. The Contract supersedes prior negotiations, representations, or agreements, whether written or oral.
 13. *Contract Documents* – Those items so designated in the Agreement. Only printed or hard copies of the items listed in the Agreement are Contract Documents. Approved Shop Drawings, other Contractor's submittals, and the reports and drawings of subsurface and physical conditions are not Contract Documents.

14. *Contract Price* – The moneys payable by Owner to Contractor for completion of the Work in accordance with the Contract Documents as stated in the Agreement (subject to the provisions of Paragraph 11.03 in the case of Unit Price Work).
15. *Contract Times* – The number of days or the dates stated in the Agreement to: (i) achieve Milestones, if any, (ii) achieve Substantial Completion; and (iii) complete the Work so that it is ready for final payment as evidenced by Engineer's written recommendation of final payment.
16. *Contractor* – The individual or entity with whom Owner has entered into the Agreement.
17. *Cost of the Work* – See Paragraph 11.01.A for definition.
18. *Drawings* – That part of the Contract Documents prepared or approved by Engineer which graphically shows the scope, extent, and character of the Work to be performed by Contractor. Shop Drawings and other Contractor submittals are not Drawings as so defined.
19. *Effective Date of the Agreement* – The date indicated in the Agreement on which it becomes effective, but if no such date is indicated, it means the date on which the Agreement is signed and delivered by the last of the two parties to sign and deliver.
20. *Engineer* – The individual or entity named as such in the Agreement.
21. *Field Order* – A written order issued by Engineer which requires minor changes in the Work but which does not involve a change in the Contract Price or the Contract Times.
22. *General Requirements* – Sections of Division 1 of the Specifications. The General Requirements pertain to all sections of the Specifications.
23. *Hazardous Environmental Condition* – The presence at the Site of Asbestos, PCBs, Petroleum, Hazardous Waste, or Radioactive Material in such quantities or circumstances that may present a substantial danger to persons or property exposed thereto in connection with the Work.
24. *Hazardous Waste* – The term Hazardous Waste shall have the meaning provided in Section 1004 of the Solid Waste Disposal Act (42 USC Section 6903) as amended from time to time.
25. *Laws and Regulations; Laws or Regulations* – Any and all applicable laws, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.
26. *Liens* – Charges, security interests, or encumbrances upon Project funds, real property, or personal property.
27. *Milestone* – A principal event specified in the Contract Documents relating to an intermediate completion date or time prior to Substantial Completion of all the Work.
28. *Notice of Award* – The written notice by Owner to the Successful Bidder stating that upon timely compliance by the Successful Bidder with the conditions precedent listed therein, Owner will sign and deliver the Agreement.
29. *Notice to Proceed* – A written notice given by Owner to Contractor fixing the date on which the Contract Times will commence to run and on which Contractor shall start to perform the Work under the Contract Documents.
30. *Owner* – The individual or entity with whom Contractor has entered into the Agreement and for whom the Work is to be performed.
31. *PCBs* – Polychlorinated biphenyls.

32. *Petroleum* – Petroleum, including crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute), such as oil, petroleum, fuel oil, oil sludge, oil refuse, gasoline, kerosene, and oil mixed with other non-Hazardous Waste and crude oils.
33. *Progress Schedule* – A schedule, prepared and maintained by Contractor, describing the sequence and duration of the activities comprising the Contractor’s plan to accomplish the Work within the Contract Times.
34. *Project* – The total construction of which the Work to be performed under the Contract Documents may be the whole, or a part.
35. *Project Manual* – The bound documentary information prepared for bidding and constructing the Work. A listing of the contents of the Project Manual, which may be bound in one or more volumes, is contained in the table(s) of contents.
36. *Radioactive Material* – Source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954 (42 USC Section 2011 et seq.) as amended from time to time.
37. *Related Entity* – An officer, director, partner, employee, agent, consultant, or subcontractor.
38. *Resident Project Representative* – The authorized representative of Engineer who may be assigned to the Site or any part thereof.
39. *Samples* – Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and which establish the standards by which such portion of the Work will be judged.
40. *Schedule of Submittals* – A schedule, prepared and maintained by Contractor, of required submittals and the time requirements to support scheduled performance of related construction activities.
41. *Schedule of Values* – A schedule, prepared and maintained by Contractor, allocating portions of the Contract Price to various portions of the Work and used as the basis for reviewing Contractor’s Applications for Payment.
42. *Shop Drawings* – All drawings, diagrams, illustrations, schedules, and other data or information which are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work.
43. *Site* – Lands or areas indicated in the Contract Documents as being furnished by Owner upon which the Work is to be performed, including rights-of-way and easements for access thereto, and such other lands furnished by Owner which are designated for the use of Contractor.
44. *Specifications* – That part of the Contract Documents consisting of written requirements for materials, equipment, systems, standards and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable thereto.
45. *Subcontractor* – An individual or entity having a direct contract with Contractor or with any other Subcontractor for the performance of a part of the Work at the Site.
46. *Substantial Completion* – The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of Engineer, the Work (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms “substantially complete” and “substantially completed” as applied to all or part of the Work refer to Substantial Completion thereof.
47. *Successful Bidder* – The Bidder submitting a responsive Bid to whom Owner makes an award.

48. *Supplementary Conditions* – That part of the Contract Documents which amends or supplements these General Conditions.
49. *Supplier* – A manufacturer, fabricator, supplier, distributor, materialman, or vendor having a direct contract with Contractor or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by Contractor or any Subcontractor.
50. *Underground Facilities* – All underground pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or attachments, and any encasements containing such facilities, including those that convey electricity, gases, steam, liquid petroleum products, telephone or other communications, cable television, water, wastewater, storm water, other liquids or chemicals, or traffic or other control systems.
51. *Unit Price Work* – Work to be paid for on the basis of unit prices.
52. *Work* – The entire construction or the various separately identifiable parts thereof required to be provided under the Contract Documents. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction, and furnishing, installing, and incorporating all materials and equipment into such construction, all as required by the Contract Documents.
53. *Work Change Directive* – A written statement to Contractor issued on or after the Effective Date of the Agreement and signed by Owner and Agency upon recommendation of the Engineer ordering an addition, deletion, or revision in the Work, or responding to differing or unforeseen subsurface or physical conditions under which the Work is to be performed or to emergencies. A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the change ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order following negotiations by the parties as to its effect, if any, on the Contract Price or Contract Times.

1.02 *Terminology*

- A. The following words or terms are not defined but, when used in the Bidding Requirements or Contract Documents, have the following meaning.
- B. *Intent of Certain Terms or Adjectives*
1. The Contract Documents include the terms “as allowed,” “as approved,” “as ordered,” “as directed” or terms of like effect or import to authorize an exercise of professional judgment by Engineer. In addition, the adjectives “reasonable,” “suitable,” “acceptable,” “proper,” “satisfactory,” or adjectives of like effect or import are used to describe an action or determination of Engineer as to the Work. It is intended that such exercise of professional judgment, action or determination will be solely to evaluate, in general, the Work for compliance with the requirements of and information in the Contract Documents and conformance with the design concept of the completed Project as a functioning whole as shown or indicated in the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective is not intended to and shall not be effective to assign to Engineer any duty or authority to supervise or direct the performance of the Work or any duty or authority to undertake responsibility contrary to the provisions of Paragraph 9.09 or any other provision of the Contract Documents.
- C. *Day*
1. The word “day” means a calendar day of 24 hours measured from midnight to the next midnight.
- D. *Defective*
1. The word “defective,” when modifying the word “Work,” refers to Work that is unsatisfactory, faulty, or deficient in that it:
- a. does not conform to the Contract Documents, or

- b. does not meet the requirements of any applicable inspection, reference standard, test, or approval referred to in the Contract Documents, or
 - c. has been damaged prior to Engineer's recommendation of final payment (unless responsibility for the protection thereof has been assumed by Owner at Substantial Completion in accordance with Paragraph 14.04 or 14.05).
- E. *Furnish, Install, Perform, Provide*
 - 1. The word "furnish," when used in connection with services, materials, or equipment, shall mean to supply and deliver said services, materials, or equipment to the Site (or some other specified location) ready for use or installation and in usable or operable condition.
 - 2. The word "install," when used in connection with services, materials, or equipment, shall mean to put into use or place in final position said services, materials, or equipment complete and ready for intended use.
 - 3. The words "perform" or "provide," when used in connection with services, materials, or equipment, shall mean to furnish and install said services, materials, or equipment complete and ready for intended use.
 - 4. When "furnish," "install," "perform," or "provide" is not used in connection with services, materials, or equipment in a context clearly requiring an obligation of Contractor, "provide" is implied.
- F. Unless stated otherwise in the Contract Documents, words or phrases which have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.

ARTICLE 2 – PRELIMINARY MATTERS

2.01 *Delivery of Bonds and Evidence of Insurance*

- A. When Contractor delivers the executed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner such bonds as Contractor may be required to furnish.
- B. *Evidence of Insurance:* Before any Work at the Site is started, Contractor and Owner shall each deliver to the other, with copies to each additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance which either of them or any additional insured may reasonably request) which Contractor and Owner respectively are required to purchase and maintain in accordance with Article 5.

2.02 *Copies of Documents*

- A. Owner shall furnish to Contractor up to ten printed or hard copies of the Drawings and Project Manual. Additional copies will be furnished upon request at the cost of reproduction.

2.03 *Commencement of Contract Times; Notice to Proceed*

- A. The Contract Times will commence to run on the thirtieth day after the Effective Date of the Agreement or, if a Notice to Proceed is given, on the day indicated in the Notice to Proceed. A Notice to Proceed may be given at any time within 30 days after the Effective Date of the Agreement.

2.04 *Starting the Work*

- A. Contractor shall start to perform the Work on the date when the Contract Times commence to run. No Work shall be done at the Site prior to the date on which the Contract Times commence to run.

2.05 *Before Starting Construction*

- A. *Preliminary Schedules:* Within 10 days after the Effective Date of the Agreement (unless otherwise specified in the General Requirements), Contractor shall submit to Engineer for timely review:
1. a preliminary Progress Schedule;
 2. a preliminary Schedule of Submittals; and
 3. a preliminary Schedule of Values for all of the Work which includes quantities and prices of items which when added together equal the Contract Price and subdivides the Work into component parts in sufficient detail to serve as the basis for progress payments during performance of the Work. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work.

2.06 *Preconstruction Conference*

- A. Before any Work at the Site is started, a conference attended by Owner, Contractor, Engineer, Agency, and others as appropriate will be held to establish a working understanding among the parties as to the Work and to discuss the schedules referred to in Paragraph 2.05.A, procedures for handling Shop Drawings and other submittals, processing Applications for Payment, and maintaining required records.

2.07 *Initial Acceptance of Schedules*

- A. At least 10 days before submission of the first Application for Payment a conference attended by Contractor, Engineer, and others as appropriate will be held to review for acceptability to Engineer as provided below the schedules submitted in accordance with Paragraph 2.05.A. Contractor shall have an additional 10 days to make corrections and adjustments and to complete and resubmit the schedules. No progress payment shall be made to Contractor until acceptable schedules are submitted to Engineer.
1. The Progress Schedule will be acceptable to Engineer if it provides an orderly progression of the Work to completion within the Contract Times. Such acceptance will not impose on Engineer responsibility for the Progress Schedule, for sequencing, scheduling, or progress of the Work nor interfere with or relieve Contractor from Contractor's full responsibility therefor.
 2. Contractor's Schedule of Submittals will be acceptable to Engineer if it provides a workable arrangement for reviewing and processing the required submittals.
 3. Contractor's Schedule of Values will be acceptable to Engineer as to form and substance if it provides a reasonable allocation of the Contract Price to component parts of the Work.

ARTICLE 3 – CONTRACT DOCUMENTS: INTENT, AMENDING, REUSE

3.01 *Intent*

- A. The Contract Documents are complementary; what is required by one is as binding as if required by all.
- B. It is the intent of the Contract Documents to describe a functionally complete Project (or part thereof) to be constructed in accordance with the Contract Documents. Any labor, documentation, services, materials, or equipment that may reasonably be inferred from the Contract Documents or from prevailing custom or trade usage as being required to produce the intended result will be provided whether or not specifically called for at no additional cost to Owner.
- C. Clarifications and interpretations of the Contract Documents shall be issued by Engineer as provided in Article 9.

3.02 *Reference Standards*

A. *Standards, Specifications, Codes, Laws, and Regulations*

1. Reference to standards, specifications, manuals, or codes of any technical society, organization, or association, or to Laws or Regulations, whether such reference be specific or by implication, shall mean the standard, specification, manual, code, or Laws or Regulations in effect at the time of opening of Bids (or on the Effective Date of the Agreement if there were no Bids), except as may be otherwise specifically stated in the Contract Documents.
2. No provision of any such standard, specification, manual or code, or any instruction of a Supplier shall be effective to change the duties or responsibilities of Owner, Contractor, or Engineer, or any of their subcontractors, consultants, agents, or employees from those set forth in the Contract Documents. No such provision or instruction shall be effective to assign to Owner, or Engineer, or any of their Related Entities, any duty or authority to supervise or direct the performance of the Work or any duty or authority to undertake responsibility inconsistent with the provisions of the Contract Documents.

3.03 *Reporting and Resolving Discrepancies*

A. *Reporting Discrepancies*

1. *Contractor's Review of Contract Documents Before Starting Work:* Before undertaking each part of the Work, Contractor shall carefully study and compare the Contract Documents and check and verify pertinent figures therein and all applicable field measurements. Contractor shall promptly report in writing to Engineer any conflict, error, ambiguity, or discrepancy which Contractor may discover and shall obtain a written interpretation or clarification from Engineer before proceeding with any Work affected thereby.
2. *Contractor's Review of Contract Documents During Performance of Work:* If, during the performance of the Work, Contractor discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents or between the Contract Documents and any provision of any Law or Regulation applicable to the performance of the Work or of any standard, specification, manual or code, or of any instruction of any Supplier, Contractor shall promptly report it to Engineer in writing. Contractor shall not proceed with the Work affected thereby (except in an emergency as required by Paragraph 6.16.A) until an amendment or supplement to the Contract Documents has been issued by one of the methods indicated in Paragraph 3.04.
3. Contractor shall not be liable to Owner or Engineer for failure to report any conflict, error, ambiguity, or discrepancy in the Contract Documents unless Contractor knew or reasonably should have known thereof.

B. *Resolving Discrepancies*

1. Except as may be otherwise specifically stated in the Contract Documents, the provisions of the Contract Documents shall take precedence in resolving any conflict, error, ambiguity, or discrepancy between the provisions of the Contract Documents and:
 - a. the provisions of any standard, specification, manual, code, or instruction (whether or not specifically incorporated by reference in the Contract Documents); or
 - b. the provisions of any Laws or Regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).

3.04 *Amending and Supplementing Contract Documents*

- A. The Contract Documents may be amended to provide for additions, deletions, and revisions in the Work or to modify the terms and conditions thereof by either a Change Order or a Work Change Directive.

- B. The requirements of the Contract Documents may be supplemented, and minor variations and deviations in the Work may be authorized, by one or more of the following ways:
 - 1. A Field Order;
 - 2. Engineer's approval of a Shop Drawing or Sample; (Subject to the provisions of Paragraph 6.17.D.3) or
 - 3. Engineer's written interpretation or clarification.

3.05 *Reuse of Documents*

- A. Contractor and any Subcontractor or Supplier shall not:
 - 1. have or acquire any title to or ownership rights in any of the Drawings, Specifications, or other documents (or copies of any thereof) prepared by or bearing the seal of Engineer or Engineer's consultants, including electronic media editions; or
 - 2. reuse any of such Drawings, Specifications, other documents, or copies thereof on extensions of the Project or any other project without written consent of Owner and Engineer and specific written verification or adaption by Engineer.
- B. The prohibition of this Paragraph 3.05 will survive final payment, or termination of the Contract. Nothing herein shall preclude Contractor from retaining copies of the Contract Documents for record purposes.

3.06 *Electronic Data*

- A. Copies of data furnished by Owner or Engineer to Contractor or Contractor to Owner or Engineer that may be relied upon are limited to the printed copies (also known as hard copies). Files in electronic media format of text, data, graphics, or other types are furnished only for the convenience of the receiving party. Any conclusion or information obtained or derived from such electronic files will be at the user's sole risk. If there is a discrepancy between the electronic files and the hard copies, the hard copies govern.
- B. Because data stored in electronic media format can deteriorate or be modified inadvertently or otherwise without authorization of the data's creator, the party receiving electronic files agrees that it will perform acceptance tests or procedures within 60 days, after which the receiving party shall be deemed to have accepted the data thus transferred. Any errors detected within the 60-day acceptance period will be corrected by the transferring party.
- C. When transferring documents in electronic media format, the transferring party makes no representations as to long term compatibility, usability, or readability of documents resulting from the use of software application packages, operating systems, or computer hardware differing from those used by the data's creator.

ARTICLE 4 – AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS; REFERENCE POINTS

4.01 *Availability of Lands*

- A. Owner shall furnish the Site. Owner shall notify Contractor of any encumbrances or restrictions not of general application but specifically related to use of the Site with which Contractor must comply in performing the Work. Owner will obtain in a timely manner and pay for easements for permanent structures or permanent changes in existing facilities. If Contractor and Owner are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, as a result of any delay in Owner's furnishing the Site or a part thereof, Contractor may make a Claim therefor as provided in Paragraph 10.05.
- B. Upon reasonable written request, Owner shall furnish Contractor with a current statement of record legal title and legal description of the lands upon which the Work is to be performed and Owner's interest therein as necessary

for giving notice of or filing a mechanic's or construction lien against such lands in accordance with applicable Laws and Regulations.

- C. Contractor shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

4.02 *Subsurface and Physical Conditions*

A. *Reports and Drawings:* The Supplementary Conditions identify:

1. those reports of explorations and tests of subsurface conditions at or contiguous to the Site that Engineer has used in preparing the Contract Documents; and
2. those drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site (except Underground Facilities) that Engineer has used in preparing the Contract Documents.

B. *Limited Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the general accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such "technical data" is identified in the Supplementary Conditions. Except for such reliance on such "technical data," Contractor may not rely upon or make any claim against Owner or Engineer, or any of their Related Entities with respect to:

1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto; or
2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings; or
3. any Contractor interpretation of or conclusion drawn from any "technical data" or any such other data, interpretations, opinions, or information.

4.03 *Differing Subsurface or Physical Conditions*

A. *Notice:* If Contractor believes that any subsurface or physical condition at or contiguous to the Site that is uncovered or revealed either:

1. is of such a nature as to establish that any "technical data" on which Contractor is entitled to rely as provided in Paragraph 4.02 is materially inaccurate; or
2. is of such a nature as to require a change in the Contract Documents; or
3. differs materially from that shown or indicated in the Contract Documents; or
4. is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents;

then Contractor shall, promptly after becoming aware thereof and before further disturbing the subsurface or physical conditions or performing any Work in connection therewith (except in an emergency as required by Paragraph 6.16.A), notify Owner and Engineer in writing about such condition. Contractor shall not further disturb such condition or perform any Work in connection therewith (except as aforesaid) until receipt of written order to do so.

- B. *Engineer's Review:* After receipt of written notice as required by Paragraph 4.03.A, Engineer will promptly review the pertinent condition, determine the necessity of Owner's obtaining additional exploration or tests with respect thereto, and advise Owner in writing (with a copy to Contractor) of Engineer's findings and conclusions.

C. *Possible Price and Times Adjustments*

1. The Contract Price or the Contract Times, or both, will be equitably adjusted to the extent that the existence of such differing subsurface or physical condition causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:
 - a. such condition must meet any one or more of the categories described in Paragraph 4.03.A; and
 - b. with respect to Work that is paid for on a Unit Price Basis, any adjustment in Contract Price will be subject to the provisions of Paragraphs 9.07 and 11.03.
2. Contractor shall not be entitled to any adjustment in the Contract Price or Contract Times if:
 - a. Contractor knew of the existence of such conditions at the time Contractor made a final commitment to Owner with respect to Contract Price and Contract Times by the submission of a Bid or becoming bound under a negotiated contract; or
 - b. the existence of such condition could reasonably have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and contiguous areas required by the Bidding Requirements or Contract Documents to be conducted by or for Contractor prior to Contractor's making such final commitment; or
 - c. Contractor failed to give the written notice as required by Paragraph 4.03.A.
3. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, a Claim may be made therefor as provided in Paragraph 10.05. However, Owner and Engineer, and any of their Related Entities shall not be liable to Contractor for any claims, costs, losses, or damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Contractor on or in connection with any other project or anticipated project.

4.04 *Underground Facilities*

- A. *Shown or Indicated:* The information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or contiguous to the Site is based on information and data furnished to Owner or Engineer by the owners of such Underground Facilities, including Owner, or by others. Unless it is otherwise expressly provided in the Supplementary Conditions:
1. Owner and Engineer shall not be responsible for the accuracy or completeness of any such information or data; and
 2. the cost of all of the following will be included in the Contract Price, and Contractor shall have full responsibility for:
 - a. reviewing and checking all such information and data,
 - b. locating all Underground Facilities shown or indicated in the Contract Documents,
 - c. coordination of the Work with the owners of such Underground Facilities, including Owner, during construction, and

- d. the safety and protection of all such Underground Facilities and repairing any damage thereto resulting from the Work.

B. *Not Shown or Indicated*

1. If an Underground Facility is uncovered or revealed at or contiguous to the Site which was not shown or indicated, or not shown or indicated with reasonable accuracy in the Contract Documents, Contractor shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by Paragraph 6.16.A), identify the owner of such Underground Facility and give written notice to that owner and to Owner and Engineer. Engineer will promptly review the Underground Facility and determine the extent, if any, to which a change is required in the Contract Documents to reflect and document the consequences of the existence or location of the Underground Facility. During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.
2. If Engineer concludes that a change in the Contract Documents is required, a Work Change Directive or a Change Order will be issued to reflect and document such consequences. An equitable adjustment shall be made in the Contract Price or Contract Times, or both, to the extent that they are attributable to the existence or location of any Underground Facility that was not shown or indicated or not shown or indicated with reasonable accuracy in the Contract Documents and that Contractor did not know of and could not reasonably have been expected to be aware of or to have anticipated. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment in Contract Price or Contract Times, Owner or Contractor may make a Claim therefor as provided in Paragraph 10.05.

4.05 *Reference Points*

- A. Owner shall provide engineering surveys to establish reference points for construction which in Engineer's judgment are necessary to enable Contractor to proceed with the Work. Contractor shall be responsible for laying out the Work, shall protect and preserve the established reference points and property monuments, and shall make no changes or relocations without the prior written approval of Owner. Contractor shall report to Engineer whenever any reference point or property monument is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for the accurate replacement or relocation of such reference points or property monuments by professionally qualified personnel.

4.06 *Hazardous Environmental Condition at Site*

- A. *Reports and Drawings:* Reference is made to the Supplementary Conditions for the identification of those reports and drawings relating to a Hazardous Environmental Condition identified at the Site, if any, that have been utilized by the Engineer in the preparation of the Contract Documents.
- B. *Limited Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the general accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such "technical data" is identified in the Supplementary Conditions. Except for such reliance on such "technical data," Contractor may not rely upon or make any claim against Owner or Engineer, or any of their Related Entities with respect to:
 1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures of construction to be employed by Contractor and safety precautions and programs incident thereto; or
 2. other data, interpretations, opinions and information contained in such reports or shown or indicated in such drawings; or
 3. any Contractor interpretation of or conclusion drawn from any "technical data" or any such other data, interpretations, opinions or information.

- C. Contractor shall not be responsible for any Hazardous Environmental Condition uncovered or revealed at the Site which was not shown or indicated in Drawings or Specifications or identified in the Contract Documents to be within the scope of the Work. Contractor shall be responsible for a Hazardous Environmental Condition created with any materials brought to the Site by Contractor, Subcontractors, Suppliers, or anyone else for whom Contractor is responsible.
- D. If Contractor encounters a Hazardous Environmental Condition or if Contractor or anyone for whom Contractor is responsible creates a Hazardous Environmental Condition, Contractor shall immediately: (i) secure or otherwise isolate such condition; (ii) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by Paragraph 6.16.A); and (iii) notify Owner and Engineer (and promptly thereafter confirm such notice in writing). Owner shall promptly consult with Engineer concerning the necessity for Owner to retain a qualified expert to evaluate such condition or take corrective action, if any.
- E. Contractor shall not be required to resume Work in connection with such condition or in any affected area until after Owner has obtained any required permits related thereto and delivered to Contractor written notice: (i) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work; or (ii) specifying any special conditions under which such Work may be resumed safely. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times, or both, as a result of such Work stoppage or such special conditions under which Work is agreed to be resumed by Contractor, either party may make a Claim therefor as provided in Paragraph 10.05.
- F. If after receipt of such written notice Contractor does not agree to resume such Work based on a reasonable belief it is unsafe, or does not agree to resume such Work under such special conditions, then Owner may order the portion of the Work that is in the area affected by such condition to be deleted from the Work. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of an adjustment in Contract Price or Contract Times as a result of deleting such portion of the Work, then either party may make a Claim therefor as provided in Paragraph 10.05. Owner may have such deleted portion of the Work performed by Owner's own forces or others in accordance with Article 7.
- G. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, Subcontractors, and Engineer, and the officers, directors, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition, provided that such Hazardous Environmental Condition: (i) was not shown or indicated in the Drawings or Specifications or identified in the Contract Documents to be included within the scope of the Work, and (ii) was not created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 4.06.G shall obligate Owner to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- H. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 4.06. H shall obligate Contractor to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- I. The provisions of Paragraphs 4.02, 4.03, and 4.04 do not apply to a Hazardous Environmental Condition uncovered or revealed at the Site.

ARTICLE 5 – BONDS AND INSURANCE

5.01 *Performance, Payment, and Other Bonds*

- A. Contractor shall furnish performance and payment bonds, each in an amount at least equal to the Contract Price as security for the faithful performance and payment of all of Contractor's obligations under the Contract Documents. These bonds shall remain in effect until one year after the date when final payment becomes due or until completion of the correction period specified in Paragraph 13.07, whichever is later, except as provided otherwise by Laws or Regulations or by the Contract Documents. Contractor shall also furnish such other bonds as are required by the Contract Documents.
- B. All bonds shall be in the form prescribed by the Contract Documents except as provided otherwise by Laws or Regulations, and shall be executed by such sureties as are named in the current list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (amended) by the Financial Management Service, Surety Bond Branch, U.S. Department of the Treasury. All bonds signed by an agent must be accompanied by a certified copy of the agent's authority to act.
- C. If the surety on any bond furnished by Contractor is declared bankrupt or becomes insolvent or its right to do business is terminated in any state where any part of the Project is located or it ceases to meet the requirements of Paragraph 5.01.B, Contractor shall promptly notify Owner and Engineer and shall, within 20 days after the event giving rise to such notification, provide another bond and surety, both of which shall comply with the requirements of Paragraphs 5.01.B and 5.02.

5.02 *Licensed Sureties and Insurers*

- A. All bonds and insurance required by the Contract Documents to be purchased and maintained by Owner or Contractor shall be obtained from surety or insurance companies that are duly licensed or authorized in the jurisdiction in which the Project is located to issue bonds or insurance policies for the limits and coverages so required. Such surety and insurance companies shall also meet such additional requirements and qualifications as may be provided in the Supplementary Conditions.

5.03 *Certificates of Insurance*

- A. Contractor shall deliver to Owner, with copies to each additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by Owner or any other additional insured) which Contractor is required to purchase and maintain.
- B. Owner shall deliver to Contractor, with copies to each additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by Contractor or any other additional insured) which Owner is required to purchase and maintain.

5.04 *Contractor's Liability Insurance*

- A. Contractor shall purchase and maintain such liability and other insurance as is appropriate for the Work being performed and as will provide protection from claims set forth below which may arise out of or result from Contractor's performance of the Work and Contractor's other obligations under the Contract Documents, whether it is to be performed by Contractor, any Subcontractor or Supplier, or by anyone directly or indirectly employed by any of them to perform any of the Work, or by anyone for whose acts any of them may be liable:
 - 1. claims under workers' compensation, disability benefits, and other similar employee benefit acts;
 - 2. claims for damages because of bodily injury, occupational sickness or disease, or death of Contractor's employees;

3. claims for damages because of bodily injury, sickness or disease, or death of any person other than Contractor's employees;
 4. claims for damages insured by reasonably available personal injury liability coverage which are sustained:
 - a. by any person as a result of an offense directly or indirectly related to the employment of such person by Contractor, or
 - b. by any other person for any other reason;
 5. claims for damages, other than to the Work itself, because of injury to or destruction of tangible property wherever located, including loss of use resulting therefrom; and
 6. claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance or use of any motor vehicle.
- B. The policies of insurance required by this Paragraph 5.04 shall:
1. with respect to insurance required by Paragraphs 5.04.A.3 through 5.04.A.6 inclusive, include as additional insureds (subject to any customary exclusion regarding professional liability) Owner and Engineer, and any other individuals or entities identified in the Supplementary Conditions, all of whom shall be listed as additional insureds, and include coverage for the respective officers, directors, partners, employees, agents, consultants and subcontractors of each and any of all such additional insureds, and the insurance afforded to these additional insureds shall provide primary coverage for all claims covered thereby;
 2. include at least the specific coverages and be written for not less than the limits of liability provided in the Supplementary Conditions or required by Laws or Regulations, whichever is greater;
 3. include completed operations insurance;
 4. include contractual liability insurance covering Contractor's indemnity obligations under Paragraphs 6.11 and 6.20;
 5. contain a provision or endorsement that the coverage afforded will not be canceled, materially changed or renewal refused until at least 30 days prior written notice has been given to Owner and Contractor and to each other additional insured identified in the Supplementary Conditions to whom a certificate of insurance has been issued (and the certificates of insurance furnished by the Contractor pursuant to Paragraph 5.03 will so provide);
 6. remain in effect at least until final payment and at all times thereafter when Contractor may be correcting, removing, or replacing defective Work in accordance with Paragraph 13.07; and
 7. with respect to completed operations insurance, and any insurance coverage written on a claims-made basis, remain in effect for at least two years after final payment.
 - a. Contractor shall furnish Owner and each other additional insured identified in the Supplementary Conditions, to whom a certificate of insurance has been issued, evidence satisfactory to Owner and any such additional insured of continuation of such insurance at final payment and one year thereafter.

5.05 *Owner's Liability Insurance*

- A. In addition to the insurance required to be provided by Contractor under Paragraph 5.04, Owner, at Owner's option, may purchase and maintain at Owner's expense Owner's own liability insurance as will protect Owner against claims which may arise from operations under the Contract Documents.

5.06 *Property Insurance*

- A. Unless otherwise provided in the Supplementary Conditions, Contractor shall purchase and maintain property insurance upon the Work at the Site in the amount of the full replacement cost thereof (Contractor shall be responsible for any deductible or self-insured retention.). This insurance shall:
1. include the interests of Owner, Contractor, Subcontractors, and Engineer, and any other individuals or entities identified in the Supplementary Conditions, and the officers, directors, partners, employees, agents, consultants and subcontractors of any of them, each of whom is deemed to have an insurable interest and shall be listed as an insured or additional insured;
 2. be written on a Builder's Risk "all-risk" or open peril or special causes of loss policy form that shall at least include insurance for physical loss or damage to the Work, temporary buildings, falsework, and materials and equipment in transit, and shall insure against at least the following perils or causes of loss: fire, lightning, extended coverage, theft, vandalism and malicious mischief, earthquake, collapse, debris removal, demolition occasioned by enforcement of Laws and Regulations, water damage (other than caused by flood), and such other perils or causes of loss as may be specifically required by the Supplementary Conditions;
 3. include expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects);
 4. cover materials and equipment stored at the Site or at another location that was agreed to in writing by Owner prior to being incorporated in the Work, provided that such materials and equipment have been included in an Application for Payment recommended by Engineer;
 5. allow for partial utilization of the Work by Owner;
 6. include testing and startup; and
 7. be maintained in effect until final payment is made unless otherwise agreed to in writing by Owner, Contractor, and Engineer with 30 days written notice to each other additional insured to whom a certificate of insurance has been issued.
- B. Contractor shall purchase and maintain such boiler and machinery insurance or additional property insurance as may be required by the Supplementary Conditions or Laws and Regulations which will include the interests of Owner, Contractor, Subcontractors, and Engineer, and any other individuals or entities identified in the Supplementary Conditions, and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them, each of whom is deemed to have an insurable interest and shall be listed as an insured or additional insured.
- C. All the policies of insurance (and the certificates or other evidence thereof) required to be purchased and maintained in accordance with Paragraph 5.06 will contain a provision or endorsement that the coverage afforded will not be canceled or materially changed or renewal refused until at least 30 days prior written notice has been given to Owner and Contractor and to each other additional insured to whom a certificate of insurance has been issued and will contain waiver provisions in accordance with Paragraph 5.07.
- D. Owner shall not be responsible for purchasing and maintaining any property insurance specified in this Paragraph 5.06 to protect the interests of Contractor, Subcontractors, or others in the Work to the extent of any deductible amounts that are identified in the Supplementary Conditions. The risk of loss within such identified deductible amount will be borne by Contractor, Subcontractors, or others suffering any such loss, and if any of them wishes property insurance coverage within the limits of such amounts, each may purchase and maintain it at the purchaser's own expense.

5.07 *Waiver of Rights*

- A. Owner and Contractor intend that all policies purchased in accordance with Paragraph 5.06 will protect Owner, Contractor, Subcontractors, and Engineer, and all other individuals or entities identified in the Supplementary Conditions to be listed as insureds or additional insureds (and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them) in such policies and will provide primary coverage for all losses and damages caused by the perils or causes of loss covered thereby. All such policies shall contain provisions to the effect that in the event of payment of any loss or damage the insurers will have no rights of recovery against any of the insureds or additional insureds thereunder. Owner and Contractor waive all rights against each other and their respective officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them for all losses and damages caused by, arising out of or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work; and, in addition, waive all such rights against Subcontractors, and Engineer, and all other individuals or entities identified in the Supplementary Conditions to be listed as insured or additional insured (and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them) under such policies for losses and damages so caused. None of the above waivers shall extend to the rights that any party making such waiver may have to the proceeds of insurance held by Contractor as trustee or otherwise payable under any policy so issued.
- B. Owner waives all rights against Contractor, Subcontractors, and Engineer, and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them for:
 - 1. loss due to business interruption, loss of use, or other consequential loss extending beyond direct physical loss or damage to Owner's property or the Work caused by, arising out of, or resulting from fire or other perils whether or not insured by Owner; and
 - 2. loss or damage to the completed Project or part thereof caused by, arising out of, or resulting from fire or other insured peril or cause of loss covered by any property insurance maintained on the completed Project or part thereof by Owner during partial utilization pursuant to Paragraph 14.05, after Substantial Completion pursuant to Paragraph 14.04, or after final payment pursuant to Paragraph 14.07.
- C. Any insurance policy maintained by Owner covering any loss, damage or consequential loss referred to in Paragraph 5.07.B shall contain provisions to the effect that in the event of payment of any such loss, damage, or consequential loss, the insurers will have no rights of recovery against Contractor, Subcontractors, or Engineer, and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them.

5.08 *Receipt and Application of Insurance Proceeds*

- A. Any insured loss under the policies of insurance required by Paragraph 5.06 will be adjusted with Contractor and made payable to Contractor as fiduciary for the insureds, as their interests may appear, subject to the requirements of any applicable mortgage clause and of Paragraph 5.08.B. Contractor shall deposit in a separate account any money so received and shall distribute it in accordance with such agreement as the parties in interest may reach. If no other special agreement is reached, the damaged Work shall be repaired or replaced, the moneys so received applied on account thereof.
- B. Contractor as fiduciary shall have power to adjust and settle any loss with the insurers unless one of the parties in interest shall object in writing within 15 days after the occurrence of loss to Contractor's exercise of this power. If such objection be made, Contractor as fiduciary shall make settlement with the insurers in accordance with such agreement as the parties in interest may reach. If no such agreement among the parties in interest is reached, Contractor as fiduciary shall adjust and settle the loss with the insurers and, if required in writing by any party in interest, Contractor as fiduciary shall give bond for the proper performance of such duties.

5.09 *Acceptance of Bonds and Insurance; Option to Replace*

- A. If either Owner or Contractor has any objection to the coverage afforded by or other provisions of the bonds or insurance required to be purchased and maintained by the other party in accordance with Article 5 on the basis of

non-conformance with the Contract Documents, the objecting party shall so notify the other party in writing within 10 days after receipt of the certificates (or other evidence requested) required by Paragraph 2.01.B. Owner and Contractor shall each provide to the other such additional information in respect of insurance provided as the other may reasonably request. If either party does not purchase or maintain all of the bonds and insurance required of such party by the Contract Documents, such party shall notify the other party in writing of such failure to purchase prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage. Without prejudice to any other right or remedy, the other party may elect to obtain equivalent bonds or insurance to protect such other party's interests at the expense of the party who was required to provide such coverage, and a Change Order shall be issued to adjust the Contract Price accordingly.

5.10 *Partial Utilization, Acknowledgment of Property Insurer*

- A. If Owner finds it necessary to occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work as provided in Paragraph 14.05, no such use or occupancy shall commence before the insurers providing the property insurance pursuant to Paragraph 5.06 have acknowledged notice thereof and in writing effected any changes in coverage necessitated thereby. The insurers providing the property insurance shall consent by endorsement on the policy or policies, but the property insurance shall not be canceled or permitted to lapse on account of any such partial use or occupancy.

ARTICLE 6 – CONTRACTOR'S RESPONSIBILITIES

6.01 *Supervision and Superintendence*

- A. Contractor shall supervise, inspect, and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction. Contractor shall not be responsible for the negligence of Owner or Engineer in the design or specification of a specific means, method, technique, sequence, or procedure of construction which is shown or indicated in and expressly required by the Contract Documents.
- B. At all times during the progress of the Work, Contractor shall assign a competent resident superintendent who shall not be replaced without written notice to Owner and Engineer except under extraordinary circumstances. The superintendent will be Contractor's representative at the Site and shall have authority to act on behalf of Contractor. All communications given to or received from the superintendent shall be binding on Contractor.

6.02 *Labor; Working Hours*

- A. Contractor shall provide competent, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. Contractor shall at all times maintain good discipline and order at the Site.
- B. Except as otherwise required for the safety or protection of persons or the Work or property at the Site or adjacent thereto, and except as otherwise stated in the Contract Documents, all Work at the Site shall be performed during regular working hours. Contractor will not permit the performance of Work on a Saturday, Sunday, or any legal holiday without Owner's written consent (which will not be unreasonably withheld) given after prior written notice to Engineer.

6.03 *Services, Materials, and Equipment*

- A. Unless otherwise specified in the Contract Documents, Contractor shall provide and assume full responsibility for all services, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities, and all other facilities and incidentals necessary for the performance, testing, start-up, and completion of the Work.
- B. All materials and equipment incorporated into the Work shall be as specified or, if not specified, shall be of good quality and new, except as otherwise provided in the Contract Documents. All special warranties and guarantees

required by the Specifications shall expressly run to the benefit of Owner. If required by Engineer, Contractor shall furnish satisfactory evidence (including reports of required tests) as to the source, kind, and quality of materials and equipment.

- C. All materials and equipment shall be stored, applied, installed, connected, erected, protected, used, cleaned, and conditioned in accordance with instructions of the applicable Supplier, except as otherwise may be provided in the Contract Documents.

6.04 *Progress Schedule*

- A. Contractor shall adhere to the Progress Schedule established in accordance with Paragraph 2.07 as it may be adjusted from time to time as provided below.
 - 1. Contractor shall submit to Engineer for acceptance (to the extent indicated in Paragraph 2.07) proposed adjustments in the Progress Schedule that will not result in changing the Contract Times. Such adjustments will comply with any provisions of the General Requirements applicable thereto.
 - 2. Proposed adjustments in the Progress Schedule that will change the Contract Times shall be submitted in accordance with the requirements of Article 12. Adjustments in Contract Times may only be made by a Change Order.

6.05 *Substitutes and "Or-Equals"*

- A. Whenever an item of material or equipment is specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier, the specification or description is intended to establish the type, function, appearance, and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent, or "or-equal" item or no substitution is permitted, other items of material or equipment or material or equipment of other Suppliers may be submitted to Engineer for review under the circumstances described below.
 - 1. *"Or-Equal" Items:* If in Engineer's sole discretion an item of material or equipment proposed by Contractor is functionally equal to that named and sufficiently similar so that no change in related Work will be required, it may be considered by Engineer as an "or-equal" item, in which case review and approval of the proposed item may, in Engineer's sole discretion, be accomplished without compliance with some or all of the requirements for approval of proposed substitute items. For the purposes of this Paragraph 6.05.A.1, a proposed item of material or equipment will be considered functionally equal to an item so named if:
 - a. in the exercise of reasonable judgment Engineer determines that:
 - 1) it is at least equal in materials of construction, quality, durability, appearance, strength, and design characteristics;
 - 2) it will reliably perform at least equally well the function and achieve the results imposed by the design concept of the completed Project as a functioning whole;
 - 3) it has a proven record of performance and availability of responsive service; and
 - b. Contractor certifies that, if approved and incorporated into the Work:
 - 1) there will be no increase in cost to the Owner or increase in Contract Times, and
 - 2) it will conform substantially to the detailed requirements of the item named in the Contract Documents.
 - 2. Substitute Items

- a. If in Engineer's sole discretion an item of material or equipment proposed by Contractor does not qualify as an "or-equal" item under Paragraph 6.05.A.1, it will be considered a proposed substitute item.
 - b. Contractor shall submit sufficient information as provided below to allow Engineer to determine that the item of material or equipment proposed is essentially equivalent to that named and an acceptable substitute therefor. Requests for review of proposed substitute items of material or equipment will not be accepted by Engineer from anyone other than Contractor.
 - c. The procedure requirements for review by Engineer will be as set forth in Paragraph 6.05.A.2.d, as supplemented in the General Requirements and as Engineer may decide is appropriate under the circumstances.
 - d. Contractor shall make written application to Engineer for review of a proposed substitute item of material or equipment that Contractor seeks to furnish or use. The application:
 - 1) shall certify that the proposed substitute item will:
 - a) will perform adequately the functions and achieve the results called for by the general design,
 - b) be similar in substance to that specified, and
 - c) be suited to the same use as that specified;
 - 2) will state:
 - a) the extent, if any, to which the use of the proposed substitute item will prejudice Contractor's achievement of Substantial Completion on time;
 - b) whether or not use of the proposed substitute item in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with Owner for other work on the Project) to adapt the design to the proposed substitute item; and
 - c) whether or not incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty;
 - 3) will identify:
 - a) all variations of the proposed substitute item from that specified , and
 - b) available engineering, sales, maintenance, repair, and replacement services;
 - 4) and shall contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including costs of redesign and claims of other contractors affected by any resulting change.
- B. *Substitute Construction Methods or Procedures:* If a specific means, method, technique, sequence, or procedure of construction is expressly required by the Contract Documents, Contractor may furnish or utilize a substitute means, method, technique, sequence, or procedure of construction approved by Engineer. Contractor shall submit sufficient information to allow Engineer, in Engineer's sole discretion, to determine that the substitute proposed is equivalent to that expressly called for by the Contract Documents. The requirements for review by Engineer will be similar to those provided in Paragraph 6.05.A.2.
- C. *Engineer's Evaluation:* Engineer will be allowed a reasonable time within which to evaluate each proposal or submittal made pursuant to Paragraphs 6.05.A and 6.05.B. Engineer may require Contractor to furnish additional data about the proposed substitute item. Engineer will be the sole judge of acceptability. No "or equal" or

substitute will be ordered, installed or utilized until Engineer's review is complete, which will be evidenced by either a Change Order for a substitute or an approved Shop Drawing for an "or equal." Engineer will advise Contractor in writing of any negative determination.

- D. *Special Guarantee:* Owner may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.
- E. *Engineer's Cost Reimbursement:* Engineer will record Engineer's costs in evaluating a substitute proposed or submitted by Contractor pursuant to Paragraphs 6.05.A.2 and 6.05.B. Whether or not Engineer approves a substitute item so proposed or submitted by Contractor, Contractor shall reimburse Owner for the charges of Engineer for evaluating each such proposed substitute. Contractor shall also reimburse Owner for the charges of Engineer for making changes in the Contract Documents (or in the provisions of any other direct contract with Owner) resulting from the acceptance of each proposed substitute.
- F. *Contractor's Expense:* Contractor shall provide all data in support of any proposed substitute or "or-equal" at Contractor's expense.

6.06 *Concerning Subcontractors, Suppliers, and Others*

- A. Contractor shall not employ any Subcontractor, Supplier, or other individual or entity (including those acceptable to Owner as indicated in Paragraph 6.06.B), whether initially or as a replacement, against whom Owner may have reasonable objection. Contractor shall not be required to employ any Subcontractor, Supplier, or other individual or entity to furnish or perform any of the Work against whom Contractor has reasonable objection.
- B. If the Supplementary Conditions require the identity of certain Subcontractors, Suppliers, or other individuals or entities to be submitted to Owner in advance for acceptance by Owner by a specified date prior to the Effective Date of the Agreement, and if Contractor has submitted a list thereof in accordance with the Supplementary Conditions, Owner's acceptance (either in writing or by failing to make written objection thereto by the date indicated for acceptance or objection in the Bidding Documents or the Contract Documents) of any such Subcontractor, Supplier, or other individual or entity so identified may be revoked on the basis of reasonable objection after due investigation. Contractor shall submit an acceptable replacement for the rejected Subcontractor, Supplier, or other individual or entity, and the Contract Price will be adjusted by the difference in the cost occasioned by such replacement, and an appropriate Change Order will be issued. No acceptance by Owner of any such Subcontractor, Supplier, or other individual or entity, whether initially or as a replacement, shall constitute a waiver of any right of Owner or Engineer to reject defective Work.
- C. Contractor shall be fully responsible to Owner and Engineer for all acts and omissions of the Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work just as Contractor is responsible for Contractor's own acts and omissions. Nothing in the Contract Documents:
 - 1. shall create for the benefit of any such Subcontractor, Supplier, or other individual or entity any contractual relationship between Owner or Engineer and any such Subcontractor, Supplier or other individual or entity, nor
 - 2. shall anything in the Contract Documents create any obligation on the part of Owner or Engineer to pay or to see to the payment of any moneys due any such Subcontractor, Supplier, or other individual or entity except as may otherwise be required by Laws and Regulations.
- D. Contractor shall be solely responsible for scheduling and coordinating the Work of Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work under a direct or indirect contract with Contractor.
- E. Contractor shall require all Subcontractors, Suppliers, and such other individuals or entities performing or furnishing any of the Work to communicate with Engineer through Contractor.

- F. The divisions and sections of the Specifications and the identifications of any Drawings shall not control Contractor in dividing the Work among Subcontractors or Suppliers or delineating the Work to be performed by any specific trade.
- G. All Work performed for Contractor by a Subcontractor or Supplier will be pursuant to an appropriate agreement between Contractor and the Subcontractor or Supplier which specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract Documents for the benefit of Owner and Engineer. Whenever any such agreement is with a Subcontractor or Supplier who is listed as an additional insured on the property insurance provided in Paragraph 5.06, the agreement between the Contractor and the Subcontractor or Supplier will contain provisions whereby the Subcontractor or Supplier waives all rights against Owner, Contractor, and Engineer, and all other individuals or entities identified in the Supplementary Conditions to be listed as insureds or additional insureds (and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them) for all losses and damages caused by, arising out of, relating to, or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work. If the insurers on any such policies require separate waiver forms to be signed by any Subcontractor or Supplier, Contractor will obtain the same.

6.07 *Patent Fees and Royalties*

- A. Contractor shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product, or device which is the subject of patent rights or copyrights held by others. If a particular invention, design, process, product, or device is specified in the Contract Documents for use in the performance of the Work and if to the actual knowledge of Owner or Engineer its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights shall be disclosed by Owner in the Contract Documents.
- B. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device not specified in the Contract Documents.

6.08 *Permits*

- A. Unless otherwise provided in the Supplementary Conditions, Contractor shall obtain and pay for all construction permits and licenses. Owner shall assist Contractor, when necessary, in obtaining such permits and licenses. Contractor shall pay all governmental charges and inspection fees necessary for the prosecution of the Work which are applicable at the time of opening of Bids, or, if there are no Bids, on the Effective Date of the Agreement. Owner shall pay all charges of utility owners for connections for providing permanent service to the Work.

6.09 *Laws and Regulations*

- A. Contractor shall give all notices required by and shall comply with all Laws and Regulations applicable to the performance of the Work. Except where otherwise expressly required by applicable Laws and Regulations, neither Owner nor Engineer shall be responsible for monitoring Contractor's compliance with any Laws or Regulations.
- B. If Contractor performs any Work knowing or having reason to know that it is contrary to Laws or Regulations, Contractor shall bear all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such Work. However, it shall not be Contractor's primary responsibility to make certain that the Specifications and Drawings are in accordance with Laws and Regulations, but this shall not relieve Contractor of Contractor's obligations under Paragraph 3.03.

- C. Changes in Laws or Regulations not known at the time of opening of Bids (or, on the Effective Date of the Agreement if there were no Bids) having an effect on the cost or time of performance of the Work shall be the subject of an adjustment in Contract Price or Contract Times. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment, a Claim may be made therefor as provided in Paragraph 10.05.

6.10 *Taxes*

- A. Contractor shall pay all sales, consumer, use, and other similar taxes required to be paid by Contractor in accordance with the Laws and Regulations of the place of the Project which are applicable during the performance of the Work.

6.11 *Use of Site and Other Areas*

A. *Limitation on Use of Site and Other Areas*

1. Contractor shall confine construction equipment, the storage of materials and equipment, and the operations of workers to the Site and other areas permitted by Laws and Regulations, and shall not unreasonably encumber the Site and other areas with construction equipment or other materials or equipment. Contractor shall assume full responsibility for any damage to any such land or area, or to the owner or occupant thereof, or of any adjacent land or areas resulting from the performance of the Work.
2. Should any claim be made by any such owner or occupant because of the performance of the Work, Contractor shall promptly settle with such other party by negotiation or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law.
3. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any claim or action, legal or equitable, brought by any such owner or occupant against Owner, Engineer, or any other party indemnified hereunder to the extent caused by or based upon Contractor's performance of the Work.

- B. *Removal of Debris During Performance of the Work:* During the progress of the Work Contractor shall keep the Site and other areas free from accumulations of waste materials, rubbish, and other debris. Removal and disposal of such waste materials, rubbish, and other debris shall conform to applicable Laws and Regulations.

- C. *Cleaning:* Prior to Substantial Completion of the Work, Contractor shall clean the Site and the Work and make it ready for utilization by Owner. At the completion of the Work Contractor shall remove from the Site all tools, appliances, construction equipment and machinery, and surplus materials and shall restore to original condition all property not designated for alteration by the Contract Documents.

- D. *Loading Structures:* Contractor shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall Contractor subject any part of the Work or adjacent property to stresses or pressures that will endanger it.

6.12 *Record Documents*

- A. Contractor shall maintain in a safe place at the Site one record copy of all Drawings, Specifications, Addenda, Change Orders, Work Change Directives, Field Orders, and written interpretations and clarifications in good order and annotated to show changes made during construction. These record documents together with all approved Samples and a counterpart of all approved Shop Drawings will be available to Engineer for reference. Upon completion of the Work, these record documents, Samples, and Shop Drawings will be delivered to Engineer for Owner.

6.13 *Safety and Protection*

- A. Contractor shall be solely responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to:
 - 1. all persons on the Site or who may be affected by the Work;
 - 2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and
 - 3. other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.
- B. Contractor shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection. Contractor shall notify owners of adjacent property and of Underground Facilities and other utility owners when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property.
- C. All damage, injury, or loss to any property referred to in Paragraph 6.13.A.2 or 6.13.A.3 caused, directly or indirectly, in whole or in part, by Contractor, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by Contractor (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of Owner or Engineer or , or anyone employed by any of them, or anyone for whose acts any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of Contractor or any Subcontractor, Supplier, or other individual or entity directly or indirectly employed by any of them).
- D. Contractor's duties and responsibilities for safety and for protection of the Work shall continue until such time as all the Work is completed and Engineer has issued a notice to Owner and Contractor in accordance with Paragraph 14.07.B that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion).

6.14 *Safety Representative*

- A. Contractor shall designate a qualified and experienced safety representative at the Site whose duties and responsibilities shall be the prevention of accidents and the maintaining and supervising of safety precautions and programs.

6.15 *Hazard Communication Programs*

- A. Contractor shall be responsible for coordinating any exchange of material safety data sheets or other hazard communication information required to be made available to or exchanged between or among employers at the Site in accordance with Laws or Regulations.

6.16 *Emergencies*

- A. In emergencies affecting the safety or protection of persons or the Work or property at the Site or adjacent thereto, Contractor is obligated to act to prevent threatened damage, injury, or loss. Contractor shall give Engineer prompt written notice if Contractor believes that any significant changes in the Work or variations from the Contract Documents have been caused thereby or are required as a result thereof. If Engineer determines that a change in the Contract Documents is required because of the action taken by Contractor in response to such an emergency, a Work Change Directive or Change Order will be issued.

6.17 *Shop Drawings and Samples*

- A. Contractor shall submit Shop Drawings and Samples to Engineer for review and approval in accordance with the acceptable Schedule of Submittals (as required by Paragraph 2.07). Each submittal will be identified as Engineer may require.

1. *Shop Drawings*

- a. Submit number of copies specified in the General Requirements.
- b. Data shown on the Shop Drawings will be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to show Engineer the services, materials, and equipment Contractor proposes to provide and to enable Engineer to review the information for the limited purposes required by Paragraph 6.17.D.

2. *Samples*

- a. Submit number of Samples specified in the Specifications.
- b. Clearly identify each Sample as to material, Supplier, pertinent data such as catalog numbers, the use for which intended and other data as Engineer may require to enable Engineer to review the submittal for the limited purposes required by Paragraph 6.17.D.

- B. Where a Shop Drawing or Sample is required by the Contract Documents or the Schedule of Submittals, any related Work performed prior to Engineer's review and approval of the pertinent submittal will be at the sole expense and responsibility of Contractor.

C. *Submittal Procedures*

1. Before submitting each Shop Drawing or Sample, Contractor shall have determined and verified:
 - a. all field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information with respect thereto;
 - b. the suitability of all materials with respect to intended use, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work;
 - c. all information relative to Contractor's responsibilities for means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto; and
 - d. shall also have reviewed and coordinated each Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents.
2. Each submittal shall bear a stamp or specific written certification that Contractor has satisfied Contractor's obligations under the Contract Documents with respect to Contractor's review and approval of that submittal.
3. With each submittal, Contractor shall give Engineer specific written notice of any variations, that the Shop Drawing or Sample may have from the requirements of the Contract Documents. This notice shall be both a written communication separate from the Shop Drawings or Sample submittal; and, in addition, by a specific notation made on each Shop Drawing or Sample submitted to Engineer for review and approval of each such variation.

D. *Engineer's Review*

1. Engineer will provide timely review of Shop Drawings and Samples in accordance with the Schedule of Submittals acceptable to Engineer. Engineer's review and approval will be only to determine if the items covered by the submittals will, after installation or incorporation in the Work, conform to the information given in the Contract Documents and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.
2. Engineer's review and approval will not extend to means, methods, techniques, sequences, or procedures of construction (except where a particular means, method, technique, sequence, or procedure of construction is specifically and expressly called for by the Contract Documents) or to safety precautions or programs incident thereto. The review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.
3. Engineer's review and approval shall not relieve Contractor from responsibility for any variation from the requirements of the Contract Documents unless Contractor has complied with the requirements of Paragraph 6.17.C.3 and Engineer has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample. Engineer's review and approval shall not relieve Contractor from responsibility for complying with the requirements of Paragraph 6.17.C.1.

E. *Resubmittal Procedures*

1. Contractor shall make corrections required by Engineer and shall return the required number of corrected copies of Shop Drawings and submit, as required, new Samples for review and approval. Contractor shall direct specific attention in writing to revisions other than the corrections called for by Engineer on previous submittals.

6.18 *Continuing the Work*

- A. Contractor shall carry on the Work and adhere to the Progress Schedule during all disputes or disagreements with Owner. No Work shall be delayed or postponed pending resolution of any disputes or disagreements, except as permitted by Paragraph 15.04 or as Owner and Contractor may otherwise agree in writing.

6.19 *Contractor's General Warranty and Guarantee*

- A. Contractor warrants and guarantees to Owner that all Work will be in accordance with the Contract Documents and will not be defective. Engineer and its Related Entities shall be entitled to rely on representation of Contractor's warranty and guarantee.
- B. Contractor's warranty and guarantee hereunder excludes defects or damage caused by:
 1. abuse, modification, or improper maintenance or operation by persons other than Contractor, Subcontractors, Suppliers, or any other individual or entity for whom Contractor is responsible; or
 2. normal wear and tear under normal usage.
- C. Contractor's obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents or a release of Contractor's obligation to perform the Work in accordance with the Contract Documents:
 1. observations by Engineer;
 2. recommendation by Engineer or payment by Owner of any progress or final payment;
 3. the issuance of a certificate of Substantial Completion by Engineer or any payment related thereto by Owner;

4. use or occupancy of the Work or any part thereof by Owner;
5. any review and approval of a Shop Drawing or Sample submittal or the issuance of a notice of acceptability by Engineer;
6. any inspection, test, or approval by others; or
7. any correction of defective Work by Owner.

6.20 *Indemnification*

- A. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the performance of the Work, provided that any such claim, cost, loss, or damage is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom but only to the extent caused by any negligent act or omission of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work or anyone for whose acts any of them may be liable.
- B. In any and all claims against Owner or Engineer or any of their respective consultants, agents, officers, directors, partners, or employees by any employee (or the survivor or personal representative of such employee) of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under Paragraph 6.20.A shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for Contractor or any such Subcontractor, Supplier, or other individual or entity under workers' compensation acts, disability benefit acts, or other employee benefit acts.
- C. The indemnification obligations of Contractor under Paragraph 6.20.A shall not extend to the liability of Engineer and Engineer's officers, directors, partners, employees, agents, consultants and subcontractors arising out of:
 1. the preparation or approval of, or the failure to prepare or approve, maps, Drawings, opinions, reports, surveys, Change Orders, designs, or Specifications; or
 2. giving directions or instructions, or failing to give them, if that is the primary cause of the injury or damage.

6.21 *Delegation of Professional Design Services*

- A. Contractor will not be required to provide professional design services unless such services are specifically required by the Contract Documents for a portion of the Work or unless such services are required to carry out Contractor's responsibilities for construction means, methods, techniques, sequences and procedures. Contractor shall not be required to provide professional services in violation of applicable law.
- B. If professional design services or certifications by a design professional related to systems, materials or equipment are specifically required of Contractor by the Contract Documents, Owner and Engineer will specify all performance and design criteria that such services must satisfy. Contractor shall cause such services or certifications to be provided by a properly licensed professional, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, Shop Drawings and other submittals prepared by such professional. Shop Drawings and other submittals related to the Work designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to Engineer.
- C. Owner and Engineer shall be entitled to rely upon the adequacy, accuracy and completeness of the services, certifications or approvals performed by such design professionals, provided Owner and Engineer have specified to Contractor all performance and design criteria that such services must satisfy.

- D. Pursuant to this Paragraph 6.21, Engineer's review and approval of design calculations and design drawings will be only for the limited purpose of checking for conformance with performance and design criteria given and the design concept expressed in the Contract Documents. Engineer's review and approval of Shop Drawings and other submittals (except design calculations and design drawings) will be only for the purpose stated in Paragraph 6.17.D.1.
- E. Contractor shall not be responsible for the adequacy of the performance or design criteria required by the Contract Documents.

ARTICLE 7 – OTHER WORK AT THE SITE

7.01 *Related Work at Site*

- A. Owner may perform other work related to the Project at the Site with Owner's employees, or via other direct contracts therefor, or have other work performed by utility owners. If such other work is not noted in the Contract Documents, then:
 - 1. written notice thereof will be given to Contractor prior to starting any such other work; and
 - 2. if Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times that should be allowed as a result of such other work, a Claim may be made therefor as provided in Paragraph 10.05.
- B. Contractor shall afford each other contractor who is a party to such a direct contract, each utility owner and Owner, if Owner is performing other work with Owner's employees, proper and safe access to the Site, a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work, and shall properly coordinate the Work with theirs. Contractor shall do all cutting, fitting, and patching of the Work that may be required to properly connect or otherwise make its several parts come together and properly integrate with such other work. Contractor shall not endanger any work of others by cutting, excavating, or otherwise altering their work and will only cut or alter their work with the written consent of Engineer and the others whose work will be affected. The duties and responsibilities of Contractor under this Paragraph are for the benefit of such utility owners and other contractors to the extent that there are comparable provisions for the benefit of Contractor in said direct contracts between Owner and such utility owners and other contractors.
- C. If the proper execution or results of any part of Contractor's Work depends upon work performed by others under this Article 7, Contractor shall inspect such other work and promptly report to Engineer in writing any delays, defects, or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of Contractor's Work. Contractor's failure to so report will constitute an acceptance of such other work as fit and proper for integration with Contractor's Work except for latent defects and deficiencies in such other work.

7.02 *Coordination*

- A. If Owner intends to contract with others for the performance of other work on the Project at the Site, the following will be set forth in Supplementary Conditions:
 - 1. the individual or entity who will have authority and responsibility for coordination of the activities among the various contractors will be identified;
 - 2. the specific matters to be covered by such authority and responsibility will be itemized; and
 - 3. the extent of such authority and responsibilities will be provided.
- B. Unless otherwise provided in the Supplementary Conditions, Owner shall have sole authority and responsibility for such coordination.

7.03 *Legal Relationships*

- A. Paragraphs 7.01.A and 7.02 are not applicable for utilities not under the control of Owner.
- B. Each other direct contract of Owner under Paragraph 7.01.A shall provide that the other contractor is liable to Owner and Contractor for the reasonable direct delay and disruption costs incurred by Contractor as a result of the other contractor's actions or inactions.
- C. Contractor shall be liable to Owner and any other contractor for the reasonable direct delay and disruption costs incurred by such other contractor as a result of Contractor's action or inactions.

ARTICLE 8 – OWNER'S RESPONSIBILITIES

8.01 *Communications to Contractor*

- A. Except as otherwise provided in these General Conditions, Owner shall issue all communications to Contractor through Engineer.

8.02 *Replacement of Engineer*

- A. In case of termination of the employment of Engineer, Owner shall appoint an engineer to whom Contractor makes no reasonable objection, whose status under the Contract Documents shall be that of the former Engineer.

8.03 *Furnish Data*

- A. Owner shall promptly furnish the data required of Owner under the Contract Documents.

8.04 *Pay When Due*

- A. Owner shall make payments to Contractor when they are due as provided in Paragraphs 14.02.C and 14.07.C.

8.05 *Lands and Easements; Reports and Tests*

- A. Owner's duties in respect of providing lands and easements and providing engineering surveys to establish reference points are set forth in Paragraphs 4.01 and 4.05. Paragraph 4.02 refers to Owner's identifying and making available to Contractor copies of reports of explorations and tests of subsurface conditions and drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site that have been utilized by Engineer in preparing the Contract Documents.

8.06 *Insurance*

- A. Owner's responsibilities, if any, in respect to purchasing and maintaining liability and property insurance are set forth in Article 5.

8.07 *Change Orders*

- A. Owner is obligated to execute Change Orders as indicated in Paragraph 10.03.

8.08 *Inspections, Tests, and Approvals*

- A. Owner's responsibility in respect to certain inspections, tests, and approvals is set forth in Paragraph 13.03.B.

8.09 *Limitations on Owner's Responsibilities*

- A. The Owner shall not supervise, direct, or have control or authority over, nor be responsible for, Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Owner will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

8.10 *Undisclosed Hazardous Environmental Condition*

- A. Owner's responsibility in respect to an undisclosed Hazardous Environmental Condition is set forth in Paragraph 4.06.

8.11 *Evidence of Financial Arrangements*

- A. If and to the extent Owner has agreed to furnish Contractor reasonable evidence that financial arrangements have been made to satisfy Owner's obligations under the Contract Documents, Owner's responsibility in respect thereof will be as set forth in the Supplementary Conditions.

ARTICLE 9 – ENGINEER'S STATUS DURING CONSTRUCTION

9.01 *Owner's Representative*

- A. Engineer will be Owner's representative during the construction period. The duties and responsibilities and the limitations of authority of Engineer as Owner's representative during construction are set forth in the Contract Documents and will not be changed without written consent of Owner and Engineer.

9.02 *Visits to Site*

- A. Engineer will make visits to the Site at intervals appropriate to the various stages of construction as Engineer deems necessary in order to observe as an experienced and qualified design professional the progress that has been made and the quality of the various aspects of Contractor's executed Work. Based on information obtained during such visits and observations, Engineer, for the benefit of Owner, will determine, in general, if the Work is proceeding in accordance with the Contract Documents. Engineer will not be required to make exhaustive or continuous inspections on the Site to check the quality or quantity of the Work. Engineer's efforts will be directed toward providing for Owner a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On the basis of such visits and observations, Engineer will keep Owner informed of the progress of the Work and will endeavor to guard Owner against defective Work.
- B. Engineer's visits and observations are subject to all the limitations on Engineer's authority and responsibility set forth in Paragraph 9.09. Particularly, but without limitation, during or as a result of Engineer's visits or observations of Contractor's Work Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work.

9.03 *Project Representative*

- A. If Owner and Engineer agree, Engineer will furnish a Resident Project Representative to assist Engineer in providing more extensive observation of the Work. The authority and responsibilities of any such Resident Project Representative and assistants will be as provided in the Supplementary Conditions, and limitations on the responsibilities thereof will be as provided in Paragraph 9.09. If Owner designates another representative or agent to represent Owner at the Site who is not Engineer's consultant, agent or employee, the responsibilities and authority and limitations thereon of such other individual or entity will be as provided in the Supplementary Conditions.

9.04 *Authorized Variations in Work*

- A. Engineer may authorize minor variations in the Work from the requirements of the Contract Documents which do not involve an adjustment in the Contract Price or the Contract Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. These may be accomplished by a Field Order and will be binding on Owner and also on Contractor, who shall perform the Work involved promptly. If Owner or Contractor believes that a Field Order justifies an adjustment in the Contract Price or Contract Times, or both, and the parties are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment, a Claim may be made therefor as provided in Paragraph 10.05.

9.05 *Rejecting Defective Work*

- A. Engineer will have authority to reject Work which Engineer believes to be defective, or that Engineer believes will not produce a completed Project that conforms to the Contract Documents or that will prejudice the integrity of the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. Engineer will also have authority to require special inspection or testing of the Work as provided in Paragraph 13.04, whether or not the Work is fabricated, installed, or completed.

9.06 *Shop Drawings, Change Orders and Payments*

- A. In connection with Engineer's authority, and limitations thereof, as to Shop Drawings and Samples, see Paragraph 6.17.
- B. In connection with Engineer's authority, and limitations thereof, as to design calculations and design drawings submitted in response to a delegation of professional design services, if any, see Paragraph 6.21.
- C. In connection with Engineer's authority as to Change Orders, see Articles 10, 11, and 12.
- D. In connection with Engineer's authority as to Applications for Payment, see Article 14.

9.07 *Determinations for Unit Price Work*

- A. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor. Engineer will review with Contractor the Engineer's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). Engineer's written decision thereon will be final and binding (except as modified by Engineer to reflect changed factual conditions or more accurate data) upon Owner and Contractor, subject to the provisions of Paragraph 10.05.

9.08 *Decisions on Requirements of Contract Documents and Acceptability of Work*

- A. Engineer will be the initial interpreter of the requirements of the Contract Documents and judge of the acceptability of the Work thereunder. All matters in question and other matters between Owner and Contractor arising prior to the date final payment is due relating to the acceptability of the Work, and the interpretation of the requirements of the Contract Documents pertaining to the performance of the Work, will be referred initially to Engineer in writing within 30 days of the event giving rise to the question.
- B. Engineer will, with reasonable promptness, render a written decision on the issue referred. If Owner or Contractor believe that any such decision entitles them to an adjustment in the Contract Price or Contract Times or both, a Claim may be made under Paragraph 10.05. The date of Engineer's decision shall be the date of the event giving rise to the issues referenced for the purposes of Paragraph 10.05.B.
- C. Engineer's written decision on the issue referred will be final and binding on Owner and Contractor, subject to the provisions of Paragraph 10.05.

- D. When functioning as interpreter and judge under this Paragraph 9.08, Engineer will not show partiality to Owner or Contractor and will not be liable in connection with any interpretation or decision rendered in good faith in such capacity.

9.09 *Limitations on Engineer's Authority and Responsibilities*

- A. Neither Engineer's authority or responsibility under this Article 9 or under any other provision of the Contract Documents nor any decision made by Engineer in good faith either to exercise or not exercise such authority or responsibility or the undertaking, exercise, or performance of any authority or responsibility by Engineer shall create, impose, or give rise to any duty in contract, tort, or otherwise owed by Engineer to Contractor, any Subcontractor, any Supplier, any other individual or entity, or to any surety for or employee or agent of any of them.
- B. Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Engineer will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.
- C. Engineer will not be responsible for the acts or omissions of Contractor or of any Subcontractor, any Supplier, or of any other individual or entity performing any of the Work.
- D. Engineer's review of the final Application for Payment and accompanying documentation and all maintenance and operating instructions, schedules, guarantees, bonds, certificates of inspection, tests and approvals, and other documentation required to be delivered by Paragraph 14.07.A will only be to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests, and approvals that the results certified indicate compliance with the Contract Documents.
- E. The limitations upon authority and responsibility set forth in this Paragraph 9.09 shall also apply to the Resident Project Representative, if any, and assistants, if any.

ARTICLE 10 – CHANGES IN THE WORK; CLAIMS

10.01 *Authorized Changes in the Work*

- A. Without invalidating the Contract and without notice to any surety, Owner may, subject to written approval by Agency at any time or from time to time, order additions, deletions, or revisions in the Work by a Change Order, or a Work Change Directive. Upon receipt of any such document, Contractor shall promptly proceed with the Work involved which will be performed under the applicable conditions of the Contract Documents (except as otherwise specifically provided).
- B. If Owner and Contractor are unable to agree on entitlement to, or on the amount or extent, if any, of an adjustment in the Contract Price or Contract Times, or both, that should be allowed as a result of a Work Change Directive, a Claim may be made therefor as provided in Paragraph 10.05.

10.02 *Unauthorized Changes in the Work*

- A. Contractor shall not be entitled to an increase in the Contract Price or an extension of the Contract Times with respect to any work performed that is not required by the Contract Documents as amended, modified, or supplemented as provided in Paragraph 3.04, except in the case of an emergency as provided in Paragraph 6.16 or in the case of uncovering Work as provided in Paragraph 13.04.B.

10.03 *Execution of Change Orders*

- A. Owner and Contractor shall execute appropriate Change Orders recommended by Engineer covering:
1. changes in the Work which are: (i) ordered by Owner pursuant to Paragraph 10.01.A, (ii) required because of acceptance of defective Work under Paragraph 13.08.A or Owner's correction of defective Work under Paragraph 13.09, or (iii) agreed to by the parties;
 2. changes in the Contract Price or Contract Times which are agreed to by the parties, including any undisputed sum or amount of time for Work actually performed in accordance with a Work Change Directive; and
 3. changes in the Contract Price or Contract Times which embody the substance of any written decision rendered by Engineer pursuant to Paragraph 10.05; provided that, in lieu of executing any such Change Order, an appeal may be taken from any such decision in accordance with the provisions of the Contract Documents and applicable Laws and Regulations, but during any such appeal, Contractor shall carry on the Work and adhere to the Progress Schedule as provided in Paragraph 6.18.A.

10.04 *Notification to Surety*

- A. If notice of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Price or Contract Times) is required by the provisions of any bond to be given to a surety, the giving of any such notice will be Contractor's responsibility. The amount of each applicable bond will be adjusted to reflect the effect of any such change.

10.05 *Claims*

- A. *Engineer's Decision Required:* All Claims, except those waived pursuant to Paragraph 14.09, shall be referred to the Engineer for decision. A decision by Engineer shall be required as a condition precedent to any exercise by Owner or Contractor of any rights or remedies either may otherwise have under the Contract Documents or by Laws and Regulations in respect of such Claims.
- B. *Notice:* Written notice stating the general nature of each Claim shall be delivered by the claimant to Engineer and the other party to the Contract promptly (but in no event later than 30 days) after the start of the event giving rise thereto. The responsibility to substantiate a Claim shall rest with the party making the Claim. Notice of the amount or extent of the Claim, with supporting data shall be delivered to the Engineer and the other party to the Contract within 60 days after the start of such event (unless Engineer allows additional time for claimant to submit additional or more accurate data in support of such Claim). A Claim for an adjustment in Contract Price shall be prepared in accordance with the provisions of Paragraph 12.01.B. A Claim for an adjustment in Contract Time shall be prepared in accordance with the provisions of Paragraph 12.02.B. Each Claim shall be accompanied by claimant's written statement that the adjustment claimed is the entire adjustment to which the claimant believes it is entitled as a result of said event. The opposing party shall submit any response to Engineer and the claimant within 30 days after receipt of the claimant's last submittal (unless Engineer allows additional time).
- C. *Engineer's Action:* Engineer will review each Claim and, within 30 days after receipt of the last submittal of the claimant or the last submittal of the opposing party, if any, take one of the following actions in writing:
1. deny the Claim in whole or in part,
 2. approve the Claim, or
 3. notify the parties that the Engineer is unable to resolve the Claim if, in the Engineer's sole discretion, it would be inappropriate for the Engineer to do so. For purposes of further resolution of the Claim, such notice shall be deemed a denial.
- D. In the event that Engineer does not take action on a Claim within said 30 days, the Claim shall be deemed denied.

- E. Engineer's written action under Paragraph 10.05.C or denial pursuant to Paragraphs 10.05.C.3 or 10.05.D will be final and binding upon Owner and Contractor, unless Owner or Contractor invoke the dispute resolution procedure set forth in Article 16 within 30 days of such action or denial.
- F. No Claim for an adjustment in Contract Price or Contract Times will be valid if not submitted in accordance with this Paragraph 10.05.

ARTICLE 11 – COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK

11.01 *Cost of the Work*

- A. *Costs Included:* The term Cost of the Work means the sum of all costs, except those excluded in Paragraph 11.01.B, necessarily incurred and paid by Contractor in the proper performance of the Work. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, the costs to be reimbursed to Contractor will be only those additional or incremental costs required because of the change in the Work or because of the event giving rise to the Claim. Except as otherwise may be agreed to in writing by Owner, such costs shall be in amounts no higher than those prevailing in the locality of the Project, shall include only the following items, and shall not include any of the costs itemized in Paragraph 11.01.B.
 - 1. Payroll costs for employees in the direct employ of Contractor in the performance of the Work under schedules of job classifications agreed upon by Owner and Contractor. Such employees shall include, without limitation, superintendents, foremen, and other personnel employed full time at the Site. Payroll costs for employees not employed full time on the Work shall be apportioned on the basis of their time spent on the Work. Payroll costs shall include, but not be limited to, salaries and wages plus the cost of fringe benefits, which shall include social security contributions, unemployment, excise, and payroll taxes, workers' compensation, health and retirement benefits, bonuses, sick leave, vacation and holiday pay applicable thereto. The expenses of performing Work outside of regular working hours, on Saturday, Sunday, or legal holidays, shall be included in the above to the extent authorized by Owner.
 - 2. Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts shall accrue to Contractor unless Owner deposits funds with Contractor with which to make payments, in which case the cash discounts shall accrue to Owner. All trade discounts, rebates and refunds and returns from sale of surplus materials and equipment shall accrue to Owner, and Contractor shall make provisions so that they may be obtained.
 - 3. Payments made by Contractor to Subcontractors for Work performed by Subcontractors. If required by Owner, Contractor shall obtain competitive bids from subcontractors acceptable to Owner and Contractor and shall deliver such bids to Owner, who will then determine, with the advice of Engineer, which bids, if any, will be acceptable. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work plus a fee, the Subcontractor's Cost of the Work and fee shall be determined in the same manner as Contractor's Cost of the Work and fee as provided in this Paragraph 11.01.
 - 4. Costs of special consultants (including but not limited to Engineers, architects, testing laboratories, surveyors, attorneys, and accountants) employed for services specifically related to the Work.
 - 5. Supplemental costs including the following:
 - a. The proportion of necessary transportation, travel, and subsistence expenses of Contractor's employees incurred in discharge of duties connected with the Work.
 - b. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office, and temporary facilities at the Site, and hand tools not owned by the workers, which are consumed in the performance of the Work, and cost, less market value, of such items used but not consumed which remain the property of Contractor.

- c. Rentals of all construction equipment and machinery, and the parts thereof whether rented from Contractor or others in accordance with rental agreements approved by Owner with the advice of Engineer, and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs shall be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts shall cease when the use thereof is no longer necessary for the Work.
 - d. Sales, consumer, use, and other similar taxes related to the Work, and for which Contractor is liable, imposed by Laws and Regulations.
 - e. Deposits lost for causes other than negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.
 - f. Losses and damages (and related expenses) caused by damage to the Work, not compensated by insurance or otherwise, sustained by Contractor in connection with the performance of the Work (except losses and damages within the deductible amounts of property insurance established in accordance with Paragraph 5.06.D), provided such losses and damages have resulted from causes other than the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses shall include settlements made with the written consent and approval of Owner. No such losses, damages, and expenses shall be included in the Cost of the Work for the purpose of determining Contractor's fee.
 - g. The cost of utilities, fuel, and sanitary facilities at the Site.
 - h. Minor expenses such as telegrams, long distance telephone calls, telephone service at the Site, expressages, and similar petty cash items in connection with the Work.
 - i. The costs of premiums for all bonds and insurance Contractor is required by the Contract Documents to purchase and maintain.
- B. *Costs Excluded:* The term Cost of the Work shall not include any of the following items:
- 1. Payroll costs and other compensation of Contractor's officers, executives, principals (of partnerships and sole proprietorships), general managers, safety managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks, and other personnel employed by Contractor, whether at the Site or in Contractor's principal or branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in Paragraph 11.01.A.1 or specifically covered by Paragraph 11.01.A.4, all of which are to be considered administrative costs covered by the Contractor's fee.
 - 2. Expenses of Contractor's principal and branch offices other than Contractor's office at the Site.
 - 3. Any part of Contractor's capital expenses, including interest on Contractor's capital employed for the Work and charges against Contractor for delinquent payments.
 - 4. Costs due to the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property.
 - 5. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in Paragraphs 11.01.A and 11.01.B.
- C. *Contractor's Fee:* When all the Work is performed on the basis of cost-plus, Contractor's fee shall be determined as set forth in the Agreement. When the value of any Work covered by a Change Order or when a Claim for an

adjustment in Contract Price is determined on the basis of Cost of the Work, Contractor's fee shall be determined as set forth in Paragraph 12.01.C.

- D. *Documentation:* Whenever the Cost of the Work for any purpose is to be determined pursuant to Paragraphs 11.01.A and 11.01.B, Contractor will establish and maintain records thereof in accordance with generally accepted accounting practices and submit in a form acceptable to Engineer an itemized cost breakdown together with supporting data.

11.02 *Allowances*

- A. It is understood that Contractor has included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be performed for such sums and by such persons or entities as may be acceptable to Owner and Engineer.
- B. Cash Allowances
1. Contractor agrees that:
 - a. the cash allowances include the cost to Contractor (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the Site, and all applicable taxes; and
 - b. Contractor's costs for unloading and handling on the Site, labor, installation, overhead, profit, and other expenses contemplated for the cash allowances have been included in the Contract Price and not in the allowances, and no demand for additional payment on account of any of the foregoing will be valid.
- C. *Contingency Allowance*
1. Contractor agrees that a contingency allowance, if any, is for the sole use of Owner to cover unanticipated costs.
- D. Prior to final payment, an appropriate Change Order will be issued as recommended by Engineer to reflect actual amounts due Contractor on account of Work covered by allowances, and the Contract Price shall be correspondingly adjusted.

11.03 *Unit Price Work*

- A. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the unit price for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement.
- B. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Determinations of the actual quantities and classifications of Unit Price Work performed by Contractor will be made by Engineer subject to the provisions of Paragraph 9.07.
- C. Each unit price will be deemed to include an amount considered by Contractor to be adequate to cover Contractor's overhead and profit for each separately identified item.
- D. Owner or Contractor may make a Claim for an adjustment in the Contract Price in accordance with Paragraph 10.05 if:
1. the Bid price of a particular item of Unit Price Work amounts to more than 5 percent of the Contract Price and the variation in the quantity of that particular item of Unit Price Work performed by Contractor differs by more than 25 percent from the estimated quantity of such item indicated in the Agreement; and

2. there is no corresponding adjustment with respect to any other item of Work; and
3. Contractor believes that Contractor is entitled to an increase in Contract Price as a result of having incurred additional expense or Owner believes that Owner is entitled to a decrease in Contract Price and the parties are unable to agree as to the amount of any such increase or decrease.

ARTICLE 12 – CHANGE OF CONTRACT PRICE; CHANGE OF CONTRACT TIMES

12.01 *Change of Contract Price*

- A. The Contract Price may only be changed by a Change Order. Any Claim for an adjustment in the Contract Price shall be based on written notice submitted by the party making the Claim to the Engineer and the other party to the Contract in accordance with the provisions of Paragraph 10.05.
- B. The value of any Work covered by a Change Order or of any Claim for an adjustment in the Contract Price will be determined as follows:
 1. where the Work involved is covered by unit prices contained in the Contract Documents, by application of such unit prices to the quantities of the items involved (subject to the provisions of Paragraph 11.03); or
 2. where the Work involved is not covered by unit prices contained in the Contract Documents, by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with Paragraph 12.01.C.2); or
 3. where the Work involved is not covered by unit prices contained in the Contract Documents and agreement to a lump sum is not reached under Paragraph 12.01.B.2, on the basis of the Cost of the Work (determined as provided in Paragraph 11.01) plus a Contractor's fee for overhead and profit (determined as provided in Paragraph 12.01.C).
- C. Contractor's Fee: The Contractor's fee for overhead and profit shall be determined as follows:
 1. a mutually acceptable fixed fee; or
 2. if a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:
 - a. for costs incurred under Paragraphs 11.01.A.1 and 11.01.A.2, the Contractor's fee shall be 15 percent;
 - b. for costs incurred under Paragraph 11.01.A.3, the Contractor's fee shall be five percent;
 - c. where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of Paragraph 12.01.C.2.a is that the Subcontractor who actually performs the Work, at whatever tier, will be paid a fee of 15 percent of the costs incurred by such Subcontractor under Paragraphs 11.01.A.1 and 11.01.A.2 and that any higher tier Subcontractor and Contractor will each be paid a fee of five percent of the amount paid to the next lower tier Subcontractor;
 - d. no fee shall be payable on the basis of costs itemized under Paragraphs 11.01.A.4, 11.01.A.5, and 11.01.B;
 - e. the amount of credit to be allowed by Contractor to Owner for any change which results in a net decrease in cost will be the amount of the actual net decrease in cost plus a deduction in Contractor's fee by an amount equal to five percent of such net decrease; and

- f. when both additions and credits are involved in any one change, the adjustment in Contractor's fee shall be computed on the basis of the net change in accordance with Paragraphs 12.01.C.2.a through 12.01.C.2.e, inclusive.

12.02 *Change of Contract Times*

- A. The Contract Times may only be changed by a Change Order. Any Claim for an adjustment in the Contract Times shall be based on written notice submitted by the party making the Claim to the Engineer and the other party to the Contract in accordance with the provisions of Paragraph 10.05.
- B. Any adjustment of the Contract Times covered by a Change Order or any Claim for an adjustment in the Contract Times will be determined in accordance with the provisions of this Article 12.

12.03 *Delays*

- A. Where Contractor is prevented from completing any part of the Work within the Contract Times due to delay beyond the control of Contractor, the Contract Times will be extended in an amount equal to the time lost due to such delay if a Claim is made therefor as provided in Paragraph 12.02.A. Delays beyond the control of Contractor shall include, but not be limited to, acts or neglect by Owner, acts or neglect of utility owners or other contractors performing other work as contemplated by Article 7, fires, floods, epidemics, abnormal weather conditions, or acts of God.
- B. If Owner, Engineer, or other contractors or utility owners performing other work for Owner as contemplated by Article 7, or anyone for whom Owner is responsible, delays, disrupts, or interferes with the performance or progress of the Work, then Contractor shall be entitled to an equitable adjustment in the Contract Price or the Contract Times, or both. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.
- C. If Contractor is delayed in the performance or progress of the Work by fire, flood, epidemic, abnormal weather conditions, acts of God, acts or failures to act of utility owners not under the control of Owner, or other causes not the fault of and beyond control of Owner and Contractor, then Contractor shall be entitled to an equitable adjustment in Contract Times, if such adjustment is essential to Contractor's ability to complete the Work within the Contract Times. Such an adjustment shall be Contractor's sole and exclusive remedy for the delays described in this Paragraph 12.03.B.
 - 1. delays caused by or within the control of Contractor; or
- D. Owner, Engineer and the Related Entities of each of them shall not be liable to Contractor for any claims, costs, losses, or damages (including but not limited to all fees and charges of Engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Contractor on or in connection with any other project or anticipated project.
- E. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for delays within the control of Contractor. Delays attributable to and within the control of a Subcontractor or Supplier shall be deemed to be delays within the control of Contractor.

ARTICLE 13 – TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

13.01 *Notice of Defects*

- A. Prompt notice of all defective Work of which Owner or Engineer has actual knowledge will be given to Contractor. All defective Work may be rejected, corrected, or accepted as provided in this Article 13.

13.02 *Access to Work*

- A. Owner, Engineer, their consultants and other representatives and personnel of Owner, independent testing laboratories, and governmental agencies with jurisdictional interests will have access to the Site and the Work at reasonable times for their observation, inspecting, and testing. Contractor shall provide them proper and safe conditions for such access and advise them of Contractor's Site safety procedures and programs so that they may comply therewith as applicable.

13.03 *Tests and Inspections*

- A. Contractor shall give Engineer timely notice of readiness of the Work for all required inspections, tests, or approvals and shall cooperate with inspection and testing personnel to facilitate required inspections or tests.
- B. Contractor shall employ and pay for the services of an independent testing laboratory to perform all inspections, tests, or approvals required by the Contract Documents except:
 - 1. for inspections, tests, or approvals covered by Paragraphs 13.03.C and 13.03.D below;
 - 2. that costs incurred in connection with tests or inspections conducted pursuant to Paragraph 13.04.B shall be paid as provided in said Paragraph 13.04.C; and
 - 3. as otherwise specifically provided in the Contract Documents.
- C. If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested, or approved by an employee or other representative of such public body, Contractor shall assume full responsibility for arranging and obtaining such inspections, tests, or approvals, pay all costs in connection therewith, and furnish Engineer the required certificates of inspection or approval.
- D. Contractor shall be responsible for arranging and obtaining and shall pay all costs in connection with any inspections, tests, or approvals required for Owner's and Engineer's acceptance of materials or equipment to be incorporated in the Work; or acceptance of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work. Such inspections, tests, or approvals shall be performed by organizations acceptable to Owner and Engineer.
- E. If any Work (or the work of others) that is to be inspected, tested, or approved is covered by Contractor without written concurrence of Engineer, it must, if requested by Engineer, be uncovered for observation.
- F. Uncovering Work as provided in Paragraph 13.03.E shall be at Contractor's expense unless Contractor has given Engineer timely notice of Contractor's intention to cover the same and Engineer has not acted with reasonable promptness in response to such notice.

13.04 *Uncovering Work*

- A. If any Work is covered contrary to the written request of Engineer, it must, if requested by Engineer, be uncovered for Engineer's observation and replaced at Contractor's expense.
- B. If Engineer considers it necessary or advisable that covered Work be observed by Engineer or inspected or tested by others, Contractor, at Engineer's request, shall uncover, expose, or otherwise make available for observation, inspection, or testing as Engineer may require, that portion of the Work in question, furnishing all necessary labor, material, and equipment.
- C. If it is found that the uncovered Work is defective, Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such uncovering, exposure, observation, inspection, and testing, and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); and Owner shall be entitled to an appropriate decrease in the

Contract Price. If the parties are unable to agree as to the amount thereof, Owner may make a Claim therefor as provided in Paragraph 10.05.

- D. If, the uncovered Work is not found to be defective, Contractor shall be allowed an increase in the Contract Price or an extension of the Contract Times, or both, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement, and reconstruction. If the parties are unable to agree as to the amount or extent thereof, Contractor may make a Claim therefor as provided in Paragraph 10.05.

13.05 *Owner May Stop the Work*

- A. If the Work is defective, or Contractor fails to supply sufficient skilled workers or suitable materials or equipment, or fails to perform the Work in such a way that the completed Work will conform to the Contract Documents, Owner may order Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of Owner to stop the Work shall not give rise to any duty on the part of Owner to exercise this right for the benefit of Contractor, any Subcontractor, any Supplier, any other individual or entity, or any surety for, or employee or agent of any of them.

13.06 *Correction or Removal of Defective Work*

- A. Promptly after receipt of notice, Contractor shall correct all defective Work, whether or not fabricated, installed, or completed, or, if the Work has been rejected by Engineer, remove it from the Project and replace it with Work that is not defective. Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or removal (including but not limited to all costs of repair or replacement of work of others).
- B. When correcting defective Work under the terms of this Paragraph 13.06 or Paragraph 13.07, Contractor shall take no action that would void or otherwise impair Owner's special warranty and guarantee, if any, on said Work.

13.07 *Correction Period*

- A. If within one year after the date of Substantial Completion (or such longer period of time as may be prescribed by the terms of any applicable special guarantee required by the Contract Documents) or by any specific provision of the Contract Documents, any Work is found to be defective, or if the repair of any damages to the land or areas made available for Contractor's use by Owner or permitted by Laws and Regulations as contemplated in Paragraph 6.11.A is found to be defective, Contractor shall promptly, without cost to Owner and in accordance with Owner's written instructions:
1. repair such defective land or areas; or
 2. correct such defective Work; or
 3. if the defective Work has been rejected by Owner, remove it from the Project and replace it with Work that is not defective, and
 4. satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others or other land or areas resulting therefrom.
- B. If Contractor does not promptly comply with the terms of Owner's written instructions, or in an emergency where delay would cause serious risk of loss or damage, Owner may have the defective Work corrected or repaired or may have the rejected Work removed and replaced. All claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or repair or such removal and replacement (including but not limited to all costs of repair or replacement of work of others) will be paid by Contractor.

- C. In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the correction period for that item may start to run from an earlier date if so provided in the Specifications.
- D. Where defective Work (and damage to other Work resulting therefrom) has been corrected or removed and replaced under this Paragraph 13.07, the correction period hereunder with respect to such Work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.
- E. Contractor's obligations under this Paragraph 13.07 are in addition to any other obligation or warranty. The provisions of this Paragraph 13.07 shall not be construed as a substitute for or a waiver of the provisions of any applicable statute of limitation or repose.

13.08 *Acceptance of Defective Work*

- A. If, instead of requiring correction or removal and replacement of defective Work, Owner (and, prior to Engineer's recommendation of final payment, Engineer) prefers to accept it, Owner may do so. Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) attributable to Owner's evaluation of and determination to accept such defective Work (such costs to be approved by Engineer as to reasonableness) and the diminished value of the Work to the extent not otherwise paid by Contractor pursuant to this sentence. If any such acceptance occurs prior to Engineer's recommendation of final payment, a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work, and Owner shall be entitled to an appropriate decrease in the Contract Price, reflecting the diminished value of Work so accepted. If the parties are unable to agree as to the amount thereof, Owner may make a Claim therefor as provided in Paragraph 10.05. If the acceptance occurs after such recommendation, an appropriate amount will be paid by Contractor to Owner.

13.09 *Owner May Correct Defective Work*

- A. If Contractor fails within a reasonable time after written notice from Engineer to correct defective Work or to remove and replace rejected Work as required by Engineer in accordance with Paragraph 13.06.A, or if Contractor fails to perform the Work in accordance with the Contract Documents, or if Contractor fails to comply with any other provision of the Contract Documents, Owner may, after seven days written notice to Contractor, correct or remedy any such deficiency.
- B. In exercising the rights and remedies under this Paragraph 13.09, Owner shall proceed expeditiously. In connection with such corrective or remedial action, Owner may exclude Contractor from all or part of the Site, take possession of all or part of the Work and suspend Contractor's services related thereto, take possession of Contractor's tools, appliances, construction equipment and machinery at the Site, and incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere. Contractor shall allow Owner, Owner's representatives, agents and employees, Owner's other contractors, and Engineer and Engineer's consultants access to the Site to enable Owner to exercise the rights and remedies under this Paragraph.
- C. All claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) incurred or sustained by Owner in exercising the rights and remedies under this Paragraph 13.09 will be charged against Contractor, and a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work; and Owner shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount of the adjustment, Owner may make a Claim therefor as provided in Paragraph 10.05. Such claims, costs, losses and damages will include but not be limited to all costs of repair, or replacement of work of others destroyed or damaged by correction, removal, or replacement of Contractor's defective Work.
- D. Contractor shall not be allowed an extension of the Contract Times because of any delay in the performance of the Work attributable to the exercise by Owner of Owner's rights and remedies under this Paragraph 13.09.

ARTICLE 14 – PAYMENTS TO CONTRACTOR AND COMPLETION

14.01 *Schedule of Values*

- A. The Schedule of Values established as provided in Paragraph 2.07.A will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to Engineer. Progress payments on account of Unit Price Work will be based on the number of units completed.

14.02 *Progress Payments*

A. *Applications for Payments*

1. At least 20 days before the date established in the Agreement for each progress payment (but not more often than once a month), Contractor shall submit to Engineer for review an Application for Payment filled out and signed by Contractor covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the Site or at another location agreed to in writing, the Application for Payment shall also be accompanied by a bill of sale, invoice, or other documentation warranting that Owner has received the materials and equipment free and clear of all Liens and evidence that the materials and equipment are covered by appropriate property insurance or other arrangements to protect Owner's interest therein, all of which must be satisfactory to Owner.
2. Beginning with the second Application for Payment, each Application shall include an affidavit of Contractor stating that all previous progress payments received on account of the Work have been applied on account to discharge Contractor's legitimate obligations associated with prior Applications for Payment.
3. The amount of retainage with respect to progress payments will be as stipulated in the Agreement.

B. *Review of Applications*

1. Engineer will, within 10 days after receipt of each Application for Payment, either indicate in writing a recommendation of payment and present the Application to Owner or return the Application to Contractor indicating in writing Engineer's reasons for refusing to recommend payment. In the latter case, Contractor may make the necessary corrections and resubmit the Application.
2. Engineer's recommendation of any payment requested in an Application for Payment will constitute a representation by Engineer to Owner, based on Engineer's observations on the Site of the executed Work as an experienced and qualified design professional and on Engineer's review of the Application for Payment and the accompanying data and schedules, that to the best of Engineer's knowledge, information and belief:
 - a. the Work has progressed to the point indicated;
 - b. the quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, to the results of any subsequent tests called for in the Contract Documents, to a final determination of quantities and classifications for Unit Price Work under Paragraph 9.07, and to any other qualifications stated in the recommendation); and
 - c. the conditions precedent to Contractor's being entitled to such payment appear to have been fulfilled in so far as it is Engineer's responsibility to observe the Work.
3. By recommending any such payment Engineer will not thereby be deemed to have represented that:
 - a. inspections made to check the quality or the quantity of the Work as it has been performed have been exhaustive, extended to every aspect of the Work in progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to Engineer in the Contract Documents; or

- b. that there may not be other matters or issues between the parties that might entitle Contractor to be paid additionally by Owner or entitle Owner to withhold payment to Contractor.
- 4. Neither Engineer's review of Contractor's Work for the purposes of recommending payments nor Engineer's recommendation of any payment, including final payment, will impose responsibility on Engineer:
 - a. to supervise, direct, or control the Work, or
 - b. for the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or
 - c. for Contractor's failure to comply with Laws and Regulations applicable to Contractor's performance of the Work, or
 - d. to make any examination to ascertain how or for what purposes Contractor has used the moneys paid on account of the Contract Price, or
 - e. to determine that title to any of the Work, materials, or equipment has passed to Owner free and clear of any Liens.
- 5. Engineer may refuse to recommend the whole or any part of any payment if, in Engineer's opinion, it would be incorrect to make the representations to Owner stated in Paragraph 14.02.B.2. Engineer may also refuse to recommend any such payment or, because of subsequently discovered evidence or the results of subsequent inspections or tests, revise or revoke any such payment recommendation previously made, to such extent as may be necessary in Engineer's opinion to protect Owner from loss because:
 - a. the Work is defective, or completed Work has been damaged, requiring correction or replacement;
 - b. the Contract Price has been reduced by Change Orders;
 - c. Owner has been required to correct defective Work or complete Work in accordance with Paragraph 13.09; or
 - d. Engineer has actual knowledge of the occurrence of any of the events enumerated in Paragraph 15.02.A.

C. Payment Becomes Due

- 1. Ten days after presentation of the Application for Payment to Owner with Engineer's recommendation, the amount recommended will (subject to the provisions of Paragraph 14.02.D) become due, and when due will be paid by Owner to Contractor.

D. Reduction in Payment

- 1. Owner may refuse to make payment of the full amount recommended by Engineer because:
 - a. claims have been made against Owner on account of Contractor's performance or furnishing of the Work;
 - b. Liens have been filed in connection with the Work, except where Contractor has delivered a specific bond satisfactory to Owner to secure the satisfaction and discharge of such Liens;
 - c. the Contractor's performance or furnishing of the Work is inconsistent with funding Agency requirements;
 - d. there are other items entitling Owner to a set-off against the amount recommended; or

- e. Owner has actual knowledge of the occurrence of any of the events enumerated in Paragraphs 14.02.B.5.a through 14.02.B.5.c or Paragraph 15.02.A.
- 2. If Owner refuses to make payment of the full amount recommended by Engineer, Owner will give Contractor immediate written notice (with a copy to Engineer) stating the reasons for such action and promptly pay Contractor any amount remaining after deduction of the amount so withheld. Owner shall promptly pay Contractor the amount so withheld, or any adjustment thereto agreed to by Owner and Contractor, when Contractor corrects to Owner's satisfaction the reasons for such action.
- 3. If it is subsequently determined that Owner's refusal of payment was not justified, the amount wrongfully withheld shall be treated as an amount due as determined by Paragraph 14.02.C.1.

14.03 *Contractor's Warranty of Title*

- A. Contractor warrants and guarantees that title to all Work, materials, and equipment covered by any Application for Payment, whether incorporated in the Project or not, will pass to Owner no later than the time of payment free and clear of all Liens.

14.04 *Substantial Completion*

- A. When Contractor considers the entire Work ready for its intended use Contractor shall notify Owner and Engineer in writing that the entire Work is substantially complete (except for items specifically listed by Contractor as incomplete) and request that Engineer issue a certificate of Substantial Completion.
- B. Promptly after Contractor's notification, Owner, Agency, Contractor, and Engineer shall make a prefinal inspection of the Work to determine the status of completion. If Engineer does not consider the Work substantially complete, Engineer will notify Contractor in writing giving the reasons therefor.
- C. If Engineer considers the Work substantially complete, Engineer will deliver to Owner a tentative certificate of Substantial Completion which shall fix the date of Substantial Completion. There shall be attached to the certificate a tentative list of items to be completed or corrected before final payment. Owner shall have seven days after receipt of the tentative certificate during which to make written objection to Engineer as to any provisions of the certificate or attached list. If, after considering such objections, Engineer concludes that the Work is not substantially complete, Engineer will within 14 days after submission of the tentative certificate to Owner notify Contractor in writing, stating the reasons therefor. If, after consideration of Owner's objections, Engineer considers the Work substantially complete, Engineer will within said 14 days execute and deliver to Owner and Contractor a definitive certificate of Substantial Completion (with a revised tentative list of items to be completed or corrected) reflecting such changes from the tentative certificate as Engineer believes justified after consideration of any objections from Owner.
- D. At the time of delivery of the tentative certificate of Substantial Completion, Engineer will deliver to Owner and Contractor a written recommendation as to division of responsibilities pending final payment between Owner and Contractor with respect to security, operation, safety, and protection of the Work, maintenance, heat, utilities, insurance, and warranties and guarantees. Unless Owner and Contractor agree otherwise in writing and so inform Engineer in writing prior to Engineer's issuing the definitive certificate of Substantial Completion, Engineer's aforesaid recommendation will be binding on Owner and Contractor until final payment.
- E. Owner shall have the right to exclude Contractor from the Site after the date of Substantial Completion subject to allowing Contractor reasonable access to complete or correct items on the tentative list.

14.05 *Partial Utilization*

- A. Prior to Substantial Completion of all the Work, Owner may use or occupy any substantially completed part of the Work which has specifically been identified in the Contract Documents, or which Owner, Engineer, and Contractor agree constitutes a separately functioning and usable part of the Work that can be used by Owner for its

intended purpose without significant interference with Contractor's performance of the remainder of the Work, subject to the following conditions.

1. Owner at any time may request Contractor in writing to permit Owner to use or occupy any such part of the Work which Owner believes to be ready for its intended use and substantially complete. If and when Contractor agrees that such part of the Work is substantially complete, Contractor will certify to Owner and Engineer that such part of the Work is substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work.
2. Contractor at any time may notify Owner and Engineer in writing that Contractor considers any such part of the Work ready for its intended use and substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work.
3. Within a reasonable time after either such request, Owner, Contractor, and Engineer shall make an inspection of that part of the Work to determine its status of completion. If Engineer does not consider that part of the Work to be substantially complete, Engineer will notify Owner and Contractor in writing giving the reasons therefor. If Engineer considers that part of the Work to be substantially complete, the provisions of Paragraph 14.04 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.
4. No use or occupancy or separate operation of part of the Work may occur prior to compliance with the requirements of Paragraph 5.10 regarding property insurance.

14.06 *Final Inspection*

- A. Upon written notice from Contractor that the entire Work or an agreed portion thereof is complete, Engineer will promptly make a final inspection with Owner, Agency, and Contractor and will notify Contractor in writing of all particulars in which this inspection reveals that the Work is incomplete or defective. Contractor shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

14.07 *Final Payment*

A. *Application for Payment*

1. After Contractor has, in the opinion of Engineer, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance certificates of inspection, marked-up record documents (as provided in Paragraph 6.12), and other documents, Contractor may make application for final payment following the procedure for progress payments.
2. The final Application for Payment shall be accompanied (except as previously delivered) by:
 - a. all documentation called for in the Contract Documents, including but not limited to the evidence of insurance required by Paragraph 5.04.B.7;
 - b. consent of the surety, if any, to final payment;
 - c. a list of all Claims against Owner that Contractor believes are unsettled; and
 - d. complete and legally effective releases or waivers (satisfactory to Owner) of all Lien rights arising out of or Liens filed in connection with the Work.
3. In lieu of the releases or waivers of Liens specified in Paragraph 14.07.A.2 and as approved by Owner, Contractor may furnish receipts or releases in full and an affidavit of Contractor that: (i) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (ii) all payrolls, material and equipment bills, and other indebtedness connected with the Work for which Owner or

Owner's property might in any way be responsible have been paid or otherwise satisfied. If any Subcontractor or Supplier fails to furnish such a release or receipt in full, Contractor may furnish a bond or other collateral satisfactory to Owner to indemnify Owner against any Lien.

B. *Engineer's Review of Application and Acceptance*

1. If, on the basis of Engineer's observation of the Work during construction and final inspection, and Engineer's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, Engineer is satisfied that the Work has been completed and Contractor's other obligations under the Contract Documents have been fulfilled, Engineer will, within ten days after receipt of the final Application for Payment, indicate in writing Engineer's recommendation of payment and present the Application for Payment to Owner for payment. At the same time Engineer will also give written notice to Owner and Contractor that the Work is acceptable subject to the provisions of Paragraph 14.09. Otherwise, Engineer will return the Application for Payment to Contractor, indicating in writing the reasons for refusing to recommend final payment, in which case Contractor shall make the necessary corrections and resubmit the Application for Payment.

C. *Payment Becomes Due*

1. Thirty days after the presentation to Owner of the Application for Payment and accompanying documentation, the amount recommended by Engineer, less any sum Owner is entitled to set off against Engineer's recommendation, including but not limited to liquidated damages, will become due and will be paid by Owner to Contractor.

14.08 *Final Completion Delayed*

- A. If, through no fault of Contractor, final completion of the Work is significantly delayed, and if Engineer so confirms, Owner shall, upon receipt of Contractor's final Application for Payment (for Work fully completed and accepted) and recommendation of Engineer, and without terminating the Contract, make payment of the balance due for that portion of the Work fully completed and accepted. If the remaining balance to be held by Owner for Work not fully completed or corrected is less than the retainage stipulated in the Agreement, and if bonds have been furnished as required in Paragraph 5.01, the written consent of the surety to the payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by Contractor to Engineer with the Application for such payment. Such payment shall be made under the terms and conditions governing final payment, except that it shall not constitute a waiver of Claims. The remaining balance of any sum included in the final Application for Payment but held by OWNER for Work not fully completed and accepted will become due when the Work is fully completed and accepted.

14.09 *Waiver of Claims*

- A. The making and acceptance of final payment will constitute:
 1. a waiver of all Claims by Owner against Contractor, except Claims arising from unsettled Liens, from defective Work appearing after final inspection pursuant to Paragraph 14.06, from failure to comply with the Contract Documents or the terms of any special guarantees specified therein, or from Contractor's continuing obligations under the Contract Documents; and
 2. a waiver of all Claims by Contractor against Owner other than those previously made in accordance with the requirements herein and expressly acknowledged by Owner in writing as still unsettled.

ARTICLE 15 – SUSPENSION OF WORK AND TERMINATION

15.01 *Owner May Suspend Work*

- A. At any time and without cause, Owner may suspend the Work or any portion thereof for a period of not more than 90 consecutive days by notice in writing to Contractor and Engineer which will fix the date on which Work will be

resumed. Contractor shall resume the Work on the date so fixed. Contractor shall be granted an adjustment in the Contract Price or an extension of the Contract Times, or both, directly attributable to any such suspension if Contractor makes a Claim therefor as provided in Paragraph 10.05.

15.02 *Owner May Terminate for Cause*

- A. The occurrence of any one or more of the following events will justify termination for cause:
 - 1. Contractor's persistent failure to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment or failure to adhere to the Progress Schedule established under Paragraph 2.07 as adjusted from time to time pursuant to Paragraph 6.04);
 - 2. Contractor's disregard of Laws or Regulations of any public body having jurisdiction;
 - 3. Contractor's disregard of the authority of Engineer; or
 - 4. Contractor's violation in any substantial way of any provisions of the Contract Documents.
- B. If one or more of the events identified in Paragraph 15.02.A occur, Owner may, after giving Contractor (and surety) seven days written notice of its intent to terminate the services of Contractor:
 - 1. exclude Contractor from the Site, and take possession of the Work and of all Contractor's tools, appliances, construction equipment, and machinery at the Site, and use the same to the full extent they could be used by Contractor (without liability to Contractor for trespass or conversion),
 - 2. incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere, and
 - 3. complete the Work as Owner may deem expedient.
- C. If Owner proceeds as provided in Paragraph 15.02.B, Contractor shall not be entitled to receive any further payment until the Work is completed. If the unpaid balance of the Contract Price exceeds all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Owner arising out of or relating to completing the Work, such excess will be paid to Contractor. If such claims, costs, losses, and damages exceed such unpaid balance, Contractor shall pay the difference to Owner. Such claims, costs, losses, and damages incurred by Owner will be reviewed by Engineer as to their reasonableness and, when so approved by Engineer, incorporated in a Change Order. When exercising any rights or remedies under this Paragraph Owner shall not be required to obtain the lowest price for the Work performed.
- D. Notwithstanding Paragraphs 15.02.B and 15.02.C, Contractor's services will not be terminated if Contractor begins within seven days of receipt of notice of intent to terminate to correct its failure to perform and proceeds diligently to cure such failure within no more than 30 days of receipt of said notice.
- E. Where Contractor's services have been so terminated by Owner, the termination will not affect any rights or remedies of Owner against Contractor then existing or which may thereafter accrue. Any retention or payment of moneys due Contractor by Owner will not release Contractor from liability.
- F. If and to the extent that Contractor has provided a performance bond under the provisions of Paragraph 5.01.A, the termination procedures of that bond shall supersede the provisions of Paragraphs 15.02.B, and 15.02.C.

15.03 *Owner May Terminate For Convenience*

- A. Upon seven days written notice to Contractor and Engineer, Owner may, without cause and without prejudice to any other right or remedy of Owner, terminate the Contract. In such case, Contractor shall be paid for (without duplication of any items):
 - 1. completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work;
 - 2. expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials, or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses;
 - 3. all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) incurred in settlement of terminated contracts with Subcontractors, Suppliers, and others; and
 - 4. reasonable expenses directly attributable to termination.
- B. Contractor shall not be paid on account of loss of anticipated profits or revenue or other economic loss arising out of or resulting from such termination.

15.04 *Contractor May Stop Work or Terminate*

- A. If, through no act or fault of Contractor, (i) the Work is suspended for more than 90 consecutive days by Owner or under an order of court or other public authority, or (ii) Engineer fails to act on any Application for Payment within 30 days after it is submitted, or (iii) Owner fails for 30 days to pay Contractor any sum finally determined to be due, then Contractor may, upon seven days written notice to Owner and Engineer, and provided Owner or Engineer do not remedy such suspension or failure within that time, terminate the Contract and recover from Owner payment on the same terms as provided in Paragraph 15.03.
- B. In lieu of terminating the Contract and without prejudice to any other right or remedy, if Engineer has failed to act on an Application for Payment within 30 days after it is submitted, or Owner has failed for 30 days to pay Contractor any sum finally determined to be due, Contractor may, seven days after written notice to Owner and Engineer, stop the Work until payment is made of all such amounts due Contractor, including interest thereon. The provisions of this Paragraph 15.04 are not intended to preclude Contractor from making a Claim under Paragraph 10.05 for an adjustment in Contract Price or Contract Times or otherwise for expenses or damage directly attributable to Contractor's stopping the Work as permitted by this Paragraph.

ARTICLE 16 – DISPUTE RESOLUTION

16.01 *Methods and Procedures*

- A. Owner and Contractor may mutually request mediation of any Claim submitted to Engineer for a decision under Paragraph 10.05 before such decision becomes final and binding. The mediation will be governed by the Construction Industry Mediation Rules of the American Arbitration Association in effect as of the Effective Date of the Agreement. The request for mediation shall be submitted in writing to the American Arbitration Association. Timely submission of the request shall stay the effect of Paragraph 10.05.E.
- B. Owner and Contractor shall participate in the mediation process in good faith. The process shall be concluded within 60 days of filing of the request. The date of termination of the mediation shall be determined by application of the mediation rules referenced above.
- C. If the claim is not resolved by mediation, Engineer's action under Paragraph 10.05.C or a denial pursuant to Paragraphs 10.05.C.3 or 10.05.D shall become final and binding 30 days after termination of the mediation unless, within that time period, Owner or Contractor:

1. elects in writing to invoke any dispute resolution process provided for in the Supplementary Conditions, or
2. agrees with the other party to submit the Claim to another dispute resolution process, or
3. gives written notice to the other party of their intent to submit the Claim to a court of competent jurisdiction.

ARTICLE 17 – MISCELLANEOUS

17.01 *Giving Notice*

- A. Whenever any provision of the Contract Documents requires the giving of written notice, it will be deemed to have been validly given if:
 1. delivered in person to the individual or to a member of the firm or to an officer of the corporation for whom it is intended, or
 2. delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the giver of the notice.

17.02 *Computation of Times*

- A. When any period of time is referred to in the Contract Documents by days, it will be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by the law of the applicable jurisdiction, such day will be omitted from the computation.

17.03 *Cumulative Remedies*

- A. The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by Laws or Regulations, by special warranty or guarantee, or by other provisions of the Contract Documents. The provisions of this Paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right, and remedy to which they apply.

17.04 *Survival of Obligations*

- A. All representations, indemnifications, warranties, and guarantees made in, required by, or given in accordance with the Contract Documents, as well as all continuing obligations indicated in the Contract Documents, will survive final payment, completion, and acceptance of the Work or termination or completion of the Contract or termination of the services of Contractor.

17.05 *Controlling Law*

- A. This Contract is to be governed by the law of the state in which the Project is located.

17.06 *Headings*

- A. Article and paragraph headings are inserted for convenience only and do not constitute parts of these General Conditions.

ARTICLE 18 – FEDERAL REQUIREMENTS

18.01 *Agency Not a Party*

- A. This Contract is expected to be funded in part with funds provided by Agency. Neither Agency, nor any of its departments, entities, or employees is a party to this Contract.

18.02 *Contract Approval*

- A. Owner and Contractor will furnish Owner's attorney such evidence as required so that Owner's attorney can complete and execute the following "Certificate of Owner's Attorney" (Exhibit GC-A) before Owner submits the executed Contract Documents to Agency for approval.
- B. Concurrence by Agency in the award of the Contract is required before the Contract is effective.

18.03 *Conflict of Interest*

- A. Contractor may not knowingly contract with a supplier or manufacturer if the individual or entity who prepared the plans and specifications has a corporate or financial affiliation with the supplier or manufacturer.
- B. Owner's officers, employees, or agents shall not engage in the award or administration of this Contract if a conflict of interest, real or apparent, would be involved. Such a conflict would arise when: (i) the employee, officer or agent; (ii) any member of their immediate family; (iii) their partner or (iv) an organization that employs, or is about to employ, any of the above, has a financial interest in Contractor. Owner's officers, employees, or agents shall neither solicit nor accept gratuities, favors or anything of monetary value from Contractor or subcontractors.

18.04 *Gratuities*

- A. If Owner finds after a notice and hearing that Contractor, or any of Contractor's agents or representatives, offered or gave gratuities (in the form of entertainment, gifts, or otherwise) to any official, employee, or agent of Owner or Agency in an attempt to secure this Contract or favorable treatment in awarding, amending, or making any determinations related to the performance of this Contract, Owner may, by written notice to Contractor, terminate this Contract. Owner may also pursue other rights and remedies that the law or this Contract provides. However, the existence of the facts on which Owner bases such findings shall be an issue and may be reviewed in proceedings under the dispute resolution provisions of this Contract.
- B. In the event this Contract is terminated as provided in paragraph 18.04.A, Owner may pursue the same remedies against Contractor as it could pursue in the event of a breach of this Contract by Contractor. As a penalty, in addition to any other damages to which it may be entitled by law, Owner may pursue exemplary damages in an amount (as determined by Owner) which shall not be less than three nor more than ten times the costs Contractor incurs in providing any such gratuities to any such officer or employee.

18.05 *Audit and Access to Records*

- A. For all negotiated contracts and negotiated modifications (except those of \$10,000 or less), Owner, Agency, the Comptroller General, or any of their duly authorized representatives, shall have access to any books, documents, papers, and records of the Contractor, which are pertinent to the Contract, for the purpose of making audits, examinations, excerpts and transcriptions. Contractor shall maintain all required records for three years after final payment is made and all other pending matters are closed.

18.06 *Small, Minority and Women's Businesses*

- A. If Contractor intends to let any subcontracts for a portion of the work, Contractor shall take affirmative steps to assure that small, minority and women's businesses are used when possible as sources of supplies, equipment, construction, and services. Affirmative steps shall consist of: (1) including qualified small, minority and women's businesses on solicitation lists; (2) assuring that small, minority and women's businesses are solicited whenever

they are potential sources; (3) dividing total requirements when economically feasible, into small tasks or quantities to permit maximum participation of small, minority, and women's businesses; (4) establishing delivery schedules, where the requirements of the work permit, which will encourage participation by small, minority and women's businesses; (5) using the services and assistance of the Small Business Administration and the Minority Business Development Agency of the U.S. Department of Commerce; (6) requiring each party to a subcontract to take the affirmative steps of this section; and (7) Contractor is encouraged to procure goods and services from labor surplus area firms.

18.07 *Anti-Kickback*

- A. Contractor shall comply with the Copeland Anti-Kickback Act (18 USC 874 and 40 USC 276c) as supplemented by Department of Labor regulations (29 CFR Part 3, "Contractors and Subcontractors on Public Buildings or Public Works Financed in Whole or in Part by Loans or Grants of the United States"). The Act provides that Contractor or subcontractor shall be prohibited from inducing, by any means, any person employed in the construction, completion, or repair of public facilities, to give up any part of the compensation to which they are otherwise entitled. Owner shall report all suspected or reported violations to Agency.

18.08 *Clean Air and Pollution Control Acts*

- A. If this Contract exceeds \$100,000, Contractor shall comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 USC 7401 *et seq.*) and the Federal Water Pollution Control Act as amended (33 USC 1251 *et seq.*). Contractor will report violations to the Agency and the Regional Office of the EPA.

18.09 *State Energy Policy*

- A. Contractor shall comply with the Energy Policy and Conservation Act (P.L. 94-163). Mandatory standards and policies relating to energy efficiency, contained in any applicable State Energy Conservation Plan, shall be utilized.

18.10 *Equal Opportunity Requirements*

- A. If this Contract exceeds \$10,000, Contractor shall comply with Executive Order 11246, "Equal Employment Opportunity," as amended by Executive Order 11375, "Amending Executive Order 11246 Relating to Equal Employment Opportunity," and as supplemented by regulations at 41 CFR part 60, "Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor."
- B. Contractor's compliance with Executive Order 11246 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative active obligations required by the Standard Federal Equal Employment Opportunity Construction Contract Specifications, as set forth in 41 CFR Part 60-4 and its efforts to meet the goals established for the geographical area where the Contract is to be performed. The hours of minority and female employment and training must be substantially uniform throughout the length of the Contract, and in each trade, and Contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting Contractor's goals shall be a violation of the Contract, the Executive Order, and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.
- C. Contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs within 10 working days of award of any construction subcontract in excess of \$10,000 at any tier for construction work under the Contract resulting from this solicitation. The notification shall list the name, address, and telephone number of the subcontractor; employer identification number; estimated dollar amount of subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the Contract is to be performed.

18.11 *Restrictions on Lobbying*

- A. Contractor and each subcontractor shall comply with Restrictions on Lobbying (Public Law 101-121, Section 319) as supplemented by applicable Agency regulations. This Law applies to the recipients of contracts and subcontracts that exceed \$100,000 at any tier under a Federal loan that exceeds \$150,000 or a Federal grant that exceeds \$100,000. If applicable, Contractor must complete a certification form on lobbying activities related to a specific Federal loan or grant that is a funding source for this Contract. Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant, or any other award covered by 31 USC 1352. Each tier shall disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award. Certifications and disclosures are forwarded from tier to tier up to the Owner. Necessary certification and disclosure forms shall be provided by Owner.

18.12 *Environmental Requirements*

- A. When constructing a project involving trenching and/or other related earth excavations, Contractor shall comply with the following environmental constraints:
1. Wetlands – When disposing of excess, spoil, or other construction materials on public or private property, Contractor shall not fill in or otherwise convert wetlands.
 2. Floodplains – When disposing of excess, spoil, or other construction materials on public or private property, Contractor shall not fill in or otherwise convert 100 year floodplain areas delineated on the latest Federal Emergency Management Agency Floodplain Maps, or other appropriate maps, i.e., alluvial soils on NRCS Soil Survey Maps.
 3. Historic Preservation – Any excavation by Contractor that uncovers an historical or archaeological artifact shall be immediately reported to Owner and a representative of Agency. Construction shall be temporarily halted pending the notification process and further directions issued by Agency after consultation with the State Historic Preservation Officer (SHPO).
 4. Endangered Species – Contractor shall comply with the Endangered Species Act, which provides for the protection of endangered and/or threatened species and critical habitat. Should any evidence of the presence of endangered and/or threatened species or their critical habitat be brought to the attention of Contractor, Contractor will immediately report this evidence to Owner and a representative of Agency. Construction shall be temporarily halted pending the notification process and further directions issued by Agency after consultation with the U.S. Fish and Wildlife Service.

SECTION 00800

SUPPLEMENTARY CONDITIONS

Supplementary Conditions

These Supplementary Conditions amend or supplement the Standard General Conditions of the Construction Contract (EJCDC C-710 (2002 Funding Agency Edition), hereinafter called the General Conditions, and other provisions of the Contract Documents as indicated below. All provisions which are not so amended or supplemented remain in full force and effect.

Contents of Supplementary Conditions

<u>Section No.</u>	<u>Section Title</u>	<u>Page No.</u>
PART I - AMENDMENTS TO GENERAL CONDITIONS		
SC-1 to SC-18	Amendments to General Conditions	00800-1
PART II - STATE AND LOCAL GOVERNMENT PROVISIONS		
SC-20	Commonwealth of Massachusetts Provisions	SC-20-1
SC-32	Wage Rates	SC-32-1

SC-1 DEFINITIONS

The terms used in these Supplementary Conditions which are defined in the General Conditions have the meanings assigned to them in the General Conditions.

SC-1.01.A.2 AGENCY

Add the following language to the end of Paragraph 1.01.A.2:

All authority, rights and privileges assigned to Agency throughout the General Conditions shall be retained by the OWNER.

SC-1.01.A.4 APPLICATION FOR PAYMENT

Add the following language to the end of Paragraph 1.01.A.4:

The Application for Payment form to be used on this Project is EJCDC No. C-620 or similar approved format.

SC-1.01.A.10 CHANGE ORDER

Add the following language to the end of Paragraph 1.01.A.10:

The Change Order form to be used on this project is provided in Section 00842.

SC-1.01 A.54 NON-RESIDENT CONTRACTOR

Add a new paragraph immediately after paragraph 1.01.A.53 of the General Conditions, which is to read as follows:

54. Non-Resident Contractor -

- a. A person who is not a resident in the State where the proposed construction is to be located, or
- b. Any partnership that has no member thereof resident in the State where the proposed construction is to be located.
- c. Any corporation established under laws other than those of the State in which the proposed construction is located.

SC-1.02.D DEFECTIVE

Insert the following language as paragraph 1.02 D.1.d:

- d. or fails to provide the level of service for which it was intended.

SC-2.01 DELIVERY OF BONDS AND EVIDENCE OF INSURANCE

Add a new paragraph immediately after paragraph 2.01.B of the General Conditions, which is to read as follows:

C. *Non-Resident Contractor:* The Contractor, if a corporation established under laws other than the State in which the proposed construction is located, shall file with the Owner, notice of the name of its resident attorney, appointed as required by the laws of the State in which the proposed construction is located. The Contractor, if a resident of a State other than that in which the proposed construction is located and not a corporation, shall file, at the time of execution of the Agreement, with the Owner a written appointment of a resident of the State in which the construction is located, having an office or place of business therein, to be his true and lawful attorney upon whom all lawful processes in any actions or proceedings against him may be served; and in such writing, which shall set forth said attorney's place of residence, shall agree that any lawful process against him which is served on said attorney shall be of the same legal force and validity as if served on him and that the authority shall continue in force so long as any liability remains outstanding against him in said State. The power of attorney shall be filed in the office of the Secretary of State if required, and copies certified by the Secretary shall be sufficient evidence thereof. Such appointment shall continue in force until revoked by an instrument in writing, designating in a like manner some other person upon whom such processes may be served, which instrument shall be filed in the manner provided herein for the original appointment.

SC-2.03 COMMENCEMENT OF CONTRACT TIMES; NOTICE TO PROCEED

Delete Paragraph 2.03.A in its entirety and insert the following in its place:

- A. The Contract Times will commence to run on the day indicated in the Notice to Proceed. A Notice to Proceed may be given at any time within 30 days after the Effective Date of the Agreement.

SC-2.05 BEFORE STARTING CONSTRUCTION

Add the following as paragraph 2.05.B:

- B. The value of mobilization shall not exceed 2.5 percent of the contract price.

SC-3.01 INTENT

Add a new paragraph immediately after Paragraph 3.01 C of the General Conditions which is to read as follows:

- D. Each and every provision of law and clause required by law to be inserted in these Contract Documents shall be deemed to be inserted herein, and they shall be read and enforced as though it were included herein, and if through mistake or otherwise, any such provision is not inserted, or if not correctly inserted, then upon the application of either party, the Contract Documents shall forthwith be physically amended to make such insertion.

SC-4.02, SC-4.03 and SC-4.04 SUBSURFACE AND PHYSICAL CONDITIONS; DIFFERING SUBSURFACE OR PHYSICAL CONDITIONS; UNDERGROUND FACILITIES

SC-4.03 DIFFERING SUBSURFACE OR PHYSICAL CONDITIONS

Add a new paragraph 4.03D which is to read as follows:

- D. Adjustments resulting from subsurface or latent physical conditions will be in accordance with Massachusetts General Law Chapter 30, Section 39N.

SC-4.05 REFERENCE POINTS

Add a new paragraph immediately after paragraph 4.05A of the General Conditions which is to read as follows:

- B. ENGINEER may check the lines, elevations, reference marks, batter boards, etc., set by CONTRACTOR, and CONTRACTOR shall correct any errors disclosed by such check. Such a check shall not be considered as approval of CONTRACTOR's work and shall not relieve CONTRACTOR of the responsibility for accurate construction of the entire Work. CONTRACTOR shall furnish personnel to assist ENGINEER in checking lines and grades.

SC-4.06 HAZARDOUS ENVIRONMENTAL CONDITION AT SITE

Delete Paragraphs 4.06.A and 4.06.B in their entirety and insert the following:

- A. No reports or explorations or tests of Hazardous Environmental Conditions at or contiguous to the Site are known to the Owner or Engineer.
- B. Not used.

SC-5.03 CERTIFICATES OF INSURANCE

Add the following new paragraph immediately after Paragraph 5.03.B:

- C. Failure of the Owner to demand such certificates or other evidence of full compliance with these insurance requirements or failure of the Owner to identify a deficiency from evidence provided shall not be construed as a waiver of Contractor's obligation to maintain such insurance.

SC-5.04 CONTRACTOR'S LIABILITY INSURANCE

Add the following new paragraph immediately after Paragraph 5.04.B:

- C. The limits of liability for insurance required by Paragraph 5.04 of the General Conditions shall provide coverage for not less than the following amounts or greater where required by Laws and Regulations:

- 1. Workers' Compensation, and related coverages under Paragraphs 5.04.A.1 and A.2 of the General Conditions shall be in accordance with MGL Chapter 149. Section 34A:

a. State:	Statutory
b. Applicable Federal (e.g., Longshoremen's)	Statutory
c. Employer's Liability	\$500,000 Each Accident
	\$500,000 Disease per Employee

- 2. Contractor's General Liability under Paragraphs 5.04.A.3 through A.6 of the General Conditions which shall include completed operations and product liability coverages:

a. General Aggregate	\$ 2,000,000
b. Products - Completed Operations Aggregate	\$2,000,000
c. Personal and Advertising Injury	\$ 1,000,000
d. Each Occurrence (Bodily Injury and Property Damage)	\$ 1,000,000
e. Property Damage liability insurance will provide Explosion, Collapse, and Underground coverages where applicable.	
f. Excess or Umbrella Liability	
1) General Aggregate	\$ 5,000,000
2) Each Occurrence	\$ 5,000,000

- 3. Automobile Liability under Paragraph 5.04.A.6 of the General Conditions:

- a. Bodily Injury:
 - Each Person \$ 1,000,000
 - Each Accident \$ 1,000,000
 - b. Property Damage:
 - Each Accident \$ 1,000,000
 - c. Combined Single Limit of \$ 2,000,000
4. The Contractual Liability coverage required by paragraph 5.04.B.4 of the General Conditions shall provide coverage for not less than the following amounts:
- a. Bodily Injury:
 - Each Person \$ 2,000,000
 - Each Occurrence \$ 2,000,000
 - b. Property Damage:
 - Each Occurrence \$ 1,000,000
 - Annual Aggregate \$ 1,000,000
5. The Town of Ayer shall be included on the policy as additional insurers.

SC-5.06 PROPERTY INSURANCE

Delete paragraph 5.06B of the General Conditions in its entirety and insert the following:

B. CONTRACTOR shall be responsible for any deductible or self-insured retention.

Delete Paragraph 5.06.C of the General Conditions in its entirety and insert the following:

C. All the policies of insurance (or the certificates or other evidence thereof) required to be purchased and maintained by CONTRACTOR in accordance with paragraph 5.06.A. shall contain a provision or endorsement that the coverage afforded will not be canceled or materially changed or renewal refused until at least thirty days prior written notice has been given to OWNER, ENGINEER and each other additional insured by certified mail.

Delete paragraph 5.06D of the General Conditions in its entirety.

SC-5.07 WAIVER OF RIGHTS

Delete paragraph 5.07A of the General Conditions in its entirety.

SC-5.08 RECEIPT AND APPLICATION OF INSURANCE PROCEEDS

Delete paragraph 5.08A of the General Conditions in its entirety.

Delete paragraph 5.08B of the General Conditions in its entirety.

SC-5.09.A ACCEPTANCE OF BONDS AND INSURANCE; OPTION TO REPLACE

Delete paragraph 5.09A of the General Conditions in its entirety and insert the following in its place:

- A. If OWNER has any objection to the coverage afforded by or other provisions of the insurance required to be purchased and maintained by CONTRACTOR in accordance with this Article 5 on the basis of its not complying with the Contract Documents, OWNER will notify CONTRACTOR in writing thereof within ten days of the date of delivery of such certificates to OWNER in accordance with paragraph 2.05. CONTRACTOR will provide such additional information in respect of insurance provided by CONTRACTOR as OWNER may reasonably request.

SC-6.02 LABOR; WORKING HOURS

Add the following new paragraphs immediately after paragraph 6.02B of the General Conditions.

- C. Regular working hours are defined as 8 hours per day, Monday through Friday, excluding holidays, between the hours of 7:00 AM and 5:00 PM. Requests to work other than regular working hours shall be submitted to ENGINEER not less than 48 hours prior to any proposed weekend work or scheduled extended work weeks. Occasional unscheduled overtime on weekdays may be permitted provided two hours notice is given to ENGINEER.
- D. CONTRACTOR shall reimburse the OWNER for additional engineering and/or inspection costs incurred as a result of overtime work in excess of the regular working hours stipulated in Article SC-6.02.C. At Owner's option, overtime costs may either be deducted from the CONTRACTOR's monthly payment request or deducted from the CONTRACTOR's retention prior to release of final payment. Overtime costs for the OWNER's personnel shall be based on the individual's current overtime wage rate. Overtime costs for personnel employed by the ENGINEER or OWNER's independent testing laboratory shall be calculated in accordance with the terms of their respective contracts with the OWNER.
- E. This Agreement is subject to the applicable provisions of the Contract Work Hours and Safety Standards Act, Public Law 87-581, 87th Congress. No Contractor or Subcontractor contracting for any part of the Work shall require or permit any laborer or mechanic to be employed on the Work in excess of forty hours in any work week unless such laborer or mechanic receives compensation at a rate not less than one and one-half times that person's basic rate of pay for all hours worked in excess of forty hours in such work week.
- F. CONTRACTOR shall employ only competent persons to do the work and whenever OWNER shall notify CONTRACTOR, in writing, that any person on the Work appears to be incompetent, disorderly, or otherwise unsatisfactory, such person shall be removed from the Project and shall not again be employed on it except with the consent of OWNER.

SC-6.05 SUBSTITUTES AND “OR-EQUALS”

Add a new paragraph SC-6.05.A.1.c immediately after paragraph 6.05.A.1.b of the General Conditions, which is to read as follows:

- c. It shall be CONTRACTOR's responsibility to coordinate all submittals to ENGINEER for approval to eliminate any conflicts which might arise due to the use of “or equal”

items. Any additional costs incidental to the use of "or equal" items shall be paid by CONTRACTOR.

Add a new paragraph SC-6.05.A.3. immediately after paragraph 6.05.A.2.d. of the General Conditions, which is to read as follows:

3. Procurement standards under Massachusetts General Law Chapter 30, Section 39M requires specifications be written for competitive bidding by at least three (3) manufacturers or suppliers for each item of material to be furnished under the contract; except, however, that said specifications may be otherwise written for sound reasons in the public interest stated in writing in the public records of the awarding authority or promptly given in writing by the awarding authority to anyone making a written request.

SC-6.06 CONCERNING SUBCONTRACTORS, SUPPLIERS, AND OTHERS

Delete Paragraphs 6.06A and 6.06B of the General Conditions in their entirety and insert therefor the following:

A. CONTRACTOR shall not employ any Subcontractor, Supplier or other person or organization, (including those who are to furnish the principal items of materials or equipment), whether initially or as a substitute, against whom OWNER may have reasonable objection. Acceptance of any Subcontractor, other person or organization by OWNER shall not constitute a waiver of any right of OWNER to reject defective Work. CONTRACTOR shall not be required to employ any Subcontractor, other person, or organization against whom CONTRACTOR has reasonable objection.

B. Not Used.

Add the following paragraph immediately after paragraph 6.06.C.2:

3. Owner or Engineer may furnish to any such Subcontractor, Supplier, or other individual or entity, to the extent practicable, information about amounts paid to Contractor on account of Work performed for Contractor by a particular Subcontractor, Supplier, or other individual or entity.

Add the following language as 6.06.C .4 of the General Conditions:

4. CONTRACTOR shall make payments to Subcontractors in accordance with Massachusetts General Law Chapter 30, Section 39F.

Add a new sentence at the end of paragraph 6.06.E to read as follows:

OWNER or ENGINEER may furnish to any such Subcontractor, Supplier or other person or organization, to the extent practicable, information about amounts paid on their behalf to CONTRACTOR in accordance with CONTRACTOR's Applications for Payment.

Add the following language at the end of Paragraph 6.06.F of the General Conditions:

"except as required otherwise by Massachusetts General Law Chapter 149, Section 44F."

SC-6.08 PERMITS

Add a new paragraph immediately after Paragraph 6.08A of the General Conditions which is to read as follows:

- B. The CONTRACTOR shall be responsible for obtaining permits and approvals as required from the Town of Ayer. However, fees payable to the Town of Ayer for such permits, if required, shall be paid directly by the OWNER. The CONTRACTOR will be allowed no allowance for overhead and profit on fees paid to the Town of Ayer. All costs associated with obtaining these permits and approvals (other than the fees paid directly to the Town of Ayer) shall be included in the CONTRACTOR's Bid price.

SC-6.10 TAXES

Add a new paragraph immediately after Paragraph 6.10.A:

- B. Section 6(f) of Chapter 64 H of the Massachusetts General Laws exempts from Massachusetts sales tax building materials and supplies to be used in the project, and bidders shall not include in their bids any amount, therefore. The words "building materials and supplies" shall include all materials and supplies consumed, employed or expended in the construction, reconstruction, alteration, remodeling or repair of any building, structure, public highway, bridge or other such public work, as well as such material and supplies physically incorporated therein. Said words shall also include rental charges for construction vehicles, equipment and machinery rented specifically for use on the site of the project or while being used exclusively for the transportation of materials for the project.

SC-6.13 SAFETY AND PROTECTION

Add a new paragraph 6.13.C to read as follows:

- C. Safety provisions for confined space entry shall follow General Industry Standard CFR Title 29 Part 1910.146.

SC-6.19 CONTRACTOR'S GENERAL WARRANTY AND GUARANTEE

Add the following new paragraph 6.19.D., immediately after paragraph 6.19.B., of the General Conditions:

- D. CONTRACTOR shall guarantee all materials and equipment furnished and Work performed for a period of one (1) year from the date of Substantial Completion. CONTRACTOR warrants and guarantees for a period of one (1) year from the date of Substantial Completion of the systems that the completed systems are free from all defects due to faulty materials or workmanship and CONTRACTOR shall promptly make such corrections as may be necessary by reason of such defects including the repairs of any damage to other parts of the system resulting from such defects. OWNER will give notice of observed defects with reasonable promptness. In the event that CONTRACTOR should fail to make such repairs, adjustments, or other work that may be made necessary by such defects, OWNER may do so

and charge CONTRACTOR the cost thereby incurred. The Performance Bond shall remain in full force and effect through the guarantee period."

SC-6.20 INDEMNIFICATION

Add two new sentences at the end of paragraph 6.20.A to read as follows:

If through the acts of neglect on the part of CONTRACTOR, any other Contractor or any Subcontractor shall suffer loss or damage on the Work, CONTRACTOR shall settle with such other Contractor or Subcontractor by agreement or arbitration if such other Contractor or Subcontractor will so settle. If such other Contractor or Subcontractor shall assert any claim against OWNER and/or ENGINEER on account of any damage alleged to have been sustained, OWNER shall notify CONTRACTOR, who shall indemnify, defend, and save harmless OWNER and/or ENGINEER against any such claims.

Delete paragraphs 6.20.C, C. 1 and C.2 of the General Conditions in their entirety.

Add a new paragraph immediately after paragraph 6.20B of the General Conditions which is to read as follows:

6.21 Definitions; Contract Provisions; Management and Financial Statement; Enforcement

- A. CONTRACTOR shall comply with all applicable provisions of Chapter 30, Section 39R of the Massachusetts General Laws regarding CONTRACTOR's records.

SC-7.04 CLAIMS BETWEEN CONTRACTORS

Add the following new paragraph immediately after Paragraph 7.03:

SC-7.04 CLAIMS BETWEEN CONTRACTORS

- A. Should Contractor cause damage to the work or property of any separate contractor at the Site, or should any claim arising out of Contractor's performance of the Work at the Site be made by any separate contractor against Contractor, Owner, Engineer, Engineer's Consultants, or the construction coordinator, Contractor shall promptly attempt to settle with such separate contractor by agreement, or to otherwise resolve the dispute by arbitration or at law.
- B. Contractor shall, to the fullest extent permitted by Laws and Regulations, indemnify and hold harmless Owner, Engineer, Engineer's Consultants, the construction coordinator and the officers, directors, partners, employees, agents and other consultants and subcontractors of each and any of them from and against all claims, costs, losses and damages (including, but not limited to, fees and charges of engineers, architects, attorneys, and other professionals and court and arbitration costs) arising directly, indirectly or consequentially out of any action, legal or equitable, brought by any separate contractor against Owner, Engineer, Engineer's Consultants, or the construction coordinator to the extent said claim is based on or arises out of Contractor's performance of the Work. Should a separate contractor cause damage to the Work or property of Contractor or should the performance of work by any separate contractor at the Site give rise to any other Claim, Contractor shall not institute any action, legal or equitable, against Owner, Engineer, Engineer's Consultants, or the construction coordinator or

permit any action against any of them to be maintained and continued in its name or for its benefit in any court or before any arbiter which seeks to impose liability on or to recover damages from Owner, Engineer, Engineer's Consultants or the construction coordinator on account of any such damage or Claim.

- C. If Contractor is delayed at any time in performing or furnishing Work by any act or neglect of a separate contractor, and Owner and Contractor are unable to agree as to the extent of any adjustment in Contract Times attributable thereto, Contractor may make a Claim for an extension of times in accordance with Article 12. An extension of the Contract Times shall be Contractor's exclusive remedy with respect to Owner, Engineer, Engineer's Consultants, and construction coordinator for any delay, disruption, interference, or hindrance caused by any separate contractor. This paragraph does not prevent recovery from Owner, Engineer, Engineer's Consultant, or construction coordinator for activities that are their respective responsibilities.

SC-8.06. INSURANCE

Delete paragraph 8.06. of the General Conditions in its entirety.

SC-9 ENGINEER'S STATUS DURING CONSTRUCTION

SC-9.03 PROJECT REPRESENTATION

Add a new paragraph immediately after paragraph 9.03 A of the General Conditions which is to read as follows:

- B Resident Project Representative is Engineer's agent at the site, will act as directed by and under the supervision of Engineer, and will confer with Engineer regarding Resident Project Representative's actions. Resident Project Representative's dealings in matters pertaining to the on-site work shall in general be with Engineer and Contractor keeping Owner advised as necessary. Resident Project Representative's dealings with subcontractors shall only be through or with the full knowledge and approval of Contractor. Resident Project Representative shall generally communicate with Owner with the knowledge of and under the direction of Engineer.

1. Duties and Responsibilities of Resident Project Representative:

- 1.1 Schedules: Review the progress schedule, schedule of Shop Drawing submittals and schedule of values prepared by Contractor and consult with Engineer concerning acceptability.
- 1.2 Conferences and Meetings: Attend meetings with Contractor, such as preconstruction conferences, progress meetings, job conferences and other project-related meetings, and prepare and circulate copies of minutes thereof.
- 1.3 Liaison:

- a. Serve as Engineer's liaison with Contractor, working principally through Contractor's superintendent and assist in understanding the intent of the Contract Documents; and assist Engineer in serving as Owner's liaison with Contractor when Contractor's operations affect Owner's on-site operations.
 - b. Assist in obtaining from Owner additional details or information, when required for proper execution of the Work.
- 1.4 Shop Drawings and Samples:
- a. Record date of receipt of Shop Drawings and samples.
 - b. Receive samples which are furnished at the site by Contractor and notify Engineer of availability of samples for examination.
 - c. Advise Engineer and Contractor of the commencement of any Work requiring a Shop Drawing or sample if the submittal has not been reviewed by Engineer.
- 1.5 Review of Work, Rejection of Defective Work, Inspections and Tests:
- a. Conduct on-site observations of the Work in progress to assist Engineer in determining if the Work is in general proceeding in accordance with the Contract Documents.
 - b. Report to Engineer whenever Resident Project Representative believes that any Work is unsatisfactory, faulty or defective or does not conform to the Contract Documents, or has been damaged, or does not meet the requirements of any inspection, test or approval required to be made; and advise Engineer of Work that Resident Project Representative believes should be corrected or rejected or should be uncovered for observation, or requires special testing, inspection or approval.
 - c. Verify that tests, equipment and systems startups and operating and maintenance training are conducted in the presence of appropriate personnel, and that Contractor maintains adequate records thereof; and observe, record and report to Engineer appropriate details relative to the test procedures and startups.
 - d. Accompany visiting inspectors representing public or other agencies having jurisdiction over the Project, record the results of these inspections and report to Engineer.
- 1.6 Interpretation of Contract Documents: Report to Engineer when clarifications and interpretations of the Contract Documents are needed and transmit to Contractor clarifications and interpretations as issued by Engineer.
- 1.7 Modifications: Consider and evaluate Contractor's suggestions for modifications in Drawings or Specifications and report with recommendations to Engineer. Transmit to the Contractor decisions as issued by Engineer.
- 1.8 Records:
- a. Maintain at the job site orderly files for correspondence, reports of job conferences, Shop Drawings and samples, reproductions of original Contract Documents including all Work Directive Changes, Addenda, Change Orders, Field Orders, additional Drawings issued subsequent to the execution of the Contract, Engineer's clarifications and interpretations of the Contract Documents, progress reports, and other Project related documents.

- b. keep a diary or log book recording Contractor hours on the job site, weather conditions, data relative to questions of Work Directive Changes, Change Orders or changed conditions, list of job site visitors, daily activities, decisions, observations in general, and specific observations in more detail as in the case of observing test procedures; and send copies to Engineer.
- c. Record names, address and telephone numbers of all contractors, subcontractors and major suppliers of materials and equipment.

1.9 Reports:

- a. Furnish Engineer periodic reports as required of progress of the Work and of Contractor's compliance with the progress schedule and schedule of Shop Drawing and sample submittals.
- b. Consult with Engineer in advance of scheduled major tests, inspections or start of important phases of the Work.
- c. Draft proposed Change Orders and Work Directive Changes, obtaining backup material from Contractor and recommend Engineering Change Orders, Work Directive Changes, and Field Orders.
- d. Report immediately to Engineer and Owner upon the occurrence of any accident.

1.10 Payment Requests: Review applications for payment with Contractor for compliance with the established procedure for their submission and forward with recommendations to Engineer, noting particularly the relationship of the payment requested to the schedule of values, Work completed and materials and equipment delivered at the site but not incorporated in the Work.

1.11 Certificates, Maintenance and Operation Manuals: During the course of the Work, verify that certificates, maintenance and operation manuals and other data required to be assembled and furnished by Contractor are applicable to the items actually installed and in accordance with the Contract Documents, and have this material delivered to Engineer for review and forwarding to Owner prior to final payment for the Work.

1.12 Completion:

- a. Before Engineer issues a Certificate of Substantial Completion, submit to Contractor a list of observed items requiring completion or correction.
- b. Conduct final inspection in the company of Engineer, Owner and Contractor and prepare a final list of items to be completed or corrected.
- c. Observe that all items on final list have been completed or corrected and make recommendations to Engineer concerning acceptance.

2. Limitations of Authority of the Resident Project Representative:

- 2.1 Shall not authorize any deviation from the Contract Documents or substitution of materials or equipment, unless authorized by Engineer.
- 2.2 Shall not exceed limitations of Engineer's authority as set forth in the Contract Documents.

- 2.3 Shall not undertake any of the responsibilities of Contractor, subcontractors or Contractor's superintendent.
- 2.4 Shall not advise on, issue directions relative to or assume control over any aspect of the means, methods, techniques, sequences or procedures of construction unless such advice or directions are specifically required by the Contract Documents.
- 2.5 Shall not advise on, issue directions regarding or assume control over safety precautions and programs in connection with the Work.
- 2.6 Shall not accept Shop Drawing or sample submittals from anyone other than Contractor.
- 2.7 Shall not authorize Owner to occupy the Project in whole or in part.
- 2.8 Shall not participate in specialized field or laboratory tests or inspections conducted by others except as specifically authorized by Engineer.

C. ENGINEER'S interpretations will be made in accordance with Massachusetts General Law Chapter 30, Section 39P.

SC-11.01 COST OF THE WORK

Delete the second sentence in paragraph 11.01.A.1, of the General Conditions in its entirety and replace with the following:

"Such employees shall include foremen at the site."

Add a new paragraph immediately after paragraph 11.01.A.1, of the General Conditions which is to read as follows:

- a. CONTRACTOR shall establish, in the Agreement, the Direct Labor Cost percentage. This percentage, where approved by OWNER, will be used in the determination of the Direct Labor Cost listed in the Change Order Form. The Direct Labor Costs are defined to include social security contributions, unemployment, excise and payroll taxes, workers' and workmen's compensation, health and retirement benefits, sick leave, vacation and holiday pay, and cost of premiums for all additional insurance required because of changes in the Work.

SC-11.02 CASH ALLOWANCES

Delete paragraphs 11.02.A and B, of the General Conditions in their entirety.

SC-12.01 CHANGE OF CONTRACT PRICE

At the end of subparagraph 12.01.C.2.b, prior to the semicolon, add the following words:

“calculated on Subcontractor’s actual cost before Subcontractor’s fee is added”.

At the end of subparagraph 12.01.C.2.c, prior to the semicolon, add the following words:

“calculated on the actual cost of the work performed before any tier Subcontractor’s fee is added. The total combined fee on actual work shall not exceed 20%.”

Add a new paragraph immediately after paragraph 12.01.C.2.f, of the General Conditions which is to read as follows:

- g. To the sum of the costs and mark ups provided in this Article, a maximum of 2.5 percent may be added as compensation for bonds and insurance.

SC-13.05 OWNER MAY STOP THE WORK

Add a new paragraph immediately after paragraph 13.05.A of the General Conditions to read as follows:

- B. If OWNER stops Work under Paragraph 13.05.A, CONTRACTOR shall be entitled to no extension of Contract Time or increase in Contract Price.

SC-13.09 OWNER MAY CORRECT DEFECTIVE WORK

Delete the word "seven" in the first sentence of Paragraph 13.09.A, and replace with the word "twenty-one."

SC-14.02 PROGRESS PAYMENTS

Add the following sentence at the end of paragraph 14.02.A.3:

No payments will be made that would deplete the retainage, place in escrow any funds that are required for retainage or invest the retainage for the benefit of the Contractor.

Add a new paragraph immediately after paragraph 14.02A.3 of the General Conditions which is to read as follows:

- 4. CONTRACTOR shall furnish evidence that payment received on the basis of materials and equipment not incorporated and suitably stored, has in fact been paid to the respective supplier(s) within sixty days of payment by OWNER. Failure to provide such evidence of payment may result in the withdrawal of previous approval(s) and removal of the cost of related materials and equipment from the next submitted Application for Payment.

After Paragraph 14.02.A.4., add the new subparagraph:

- 5. The ENGINEER shall receive and review, in connection with its review of the CONTRACTOR's applications for payment, the weekly payroll records required to be submitted by the CONTRACTOR pursuant to MGL Chapter 149, Section 27B. Such review shall be for the purpose of determining that the amount of wages paid to laborers employed on the project is no less than the applicable prevailing wage rates established for the project by the Massachusetts Department of Labor and Industries. The ENGINEER shall maintain, as part of the Project records, one complete copy of all such payroll records,

and shall transmit to the OWNER, upon completion of the review provided for herein, the original weekly records as submitted by the CONTRACTOR. The ENGINEER shall promptly notify the OWNER if (1) any payroll records submitted by the CONTRACTOR do not represent payment of at least the applicable prevailing wage rates established for the project or (2) the ENGINEER knows or has reason to believe that the weekly payroll records submitted by the CONTRACTOR do not accurately represent the wages actually paid to laborers employed on the project and that the CONTRACTOR is not paying said laborers at least the amount of said prevailing wage rates."

Delete paragraph 14.02B.1 of the General Conditions in its entirety and insert the following in its place:

1. Progress Payments will be made in accordance with Massachusetts General Law Chapter 30, Section 39K.

After Subparagraph 14.02.D.1.e. add new subparagraphs:

- f. CONTRACTOR has failed to make payment to Subcontractors or Suppliers or for labor.
- g. Liability for liquidated damages has been incurred by CONTRACTOR.
- h. CONTRACTOR has not delivered, or ENGINEER has not been given sufficient time to review such submittals and other documentation as final shop drawings; warranties; installation, operation and maintenance manuals; test reports, certifications; start-up reports and other documentation required by the Contract Documents.
- i. CONTRACTOR has not complied with applicable prevailing wage rates established for the project as established by the Massachusetts Department of Labor and Industries, as determined by ENGINEER's review of the Application for Payment, as described in subparagraph 14.02.B.1.a.

SC-14.03 CONTRACTOR'S WARRANTY OF TITLE

Add two new paragraphs immediately after paragraph 14.03A of the General Conditions which are to read as follows:

- B. No materials or supplies for the Work shall be purchased by CONTRACTOR or Subcontractor subject to any chattel mortgage or under a conditional sale contract or other agreement by which an interest is retained by the seller. CONTRACTOR warrants that CONTRACTOR has good title to all materials and supplies used by CONTRACTOR in the Work, free from all liens, claims or encumbrances.
- C. CONTRACTOR shall indemnify, defend and save OWNER harmless from all claims growing out of the lawful demands of Subcontractors, laborers, workmen, mechanics, material men, and furnishers of machinery and parts thereof, equipment, power tools, and all supplies, including commissary, incurred in the furtherance of the performance of this Contract. CONTRACTOR shall at OWNER's request, furnish satisfactory evidence that all obligations of nature hereinabove designated have been paid, discharged, or waived. If CONTRACTOR fails to do

so, then OWNER may, after having served written notice on the said CONTRACTOR either pay unpaid bills, of which OWNER has written notice, direct, or withhold from the CONTRACTOR's unpaid compensation a sum of money deemed reasonably sufficient to pay any and all such lawful claims until satisfactory evidence is furnished that all liabilities have been fully discharged whereupon payment to CONTRACTOR shall be resumed, in accordance with the terms of this Contract, but in no event shall the provisions of this sentence be construed to impose any obligations upon OWNER to either CONTRACTOR or CONTRACTOR's Surety. In paying any unpaid bills of the CONTRACTOR, OWNER shall be deemed the agent of CONTRACTOR and any payment so made by OWNER, shall be considered as payment made under the Contract by OWNER to CONTRACTOR and OWNER shall not be liable to CONTRACTOR for any such payment made in good faith.

SC-14.04 SUBSTANTIAL COMPLETION

Add the following new paragraph 14.04.D. immediately after paragraph 14.04.C., which is to read as follows:

- D. ENGINEER shall be entitled to withhold substantial completion if CONTRACTOR has not brought all systems and subsystems that are part of the Work substantially complete to functioning condition to the satisfaction of the OWNER; provided training to OWNER to the satisfaction of the OWNER on all operating systems that are part of the Work substantially complete; and provided all necessary documentation for operation and maintenance of all operating systems including, but not limited to, final manufacturer's operation and maintenance manuals.

SC-14.05 PARTIAL UTILIZATION

Add the following new paragraph immediately after paragraph 14.05.A.4, which is to read as follows:

5. Owner may at any time request Contractor in writing to permit Owner to take over operation of any part of the Work although it is not substantially complete. A copy of such request will be sent to Engineer, and within a reasonable time thereafter Owner, Contractor, and Engineer shall make an inspection of that part of the Work to determine its status of completion and will prepare a list of the items remaining to be completed or corrected thereon before final payment. If Contractor does not object in writing to Owner and Engineer that such part of the Work is not ready for separate operation by Owner, Engineer will finalize the list of items to be completed or corrected and will deliver such lists to Owner and Contractor together with a written recommendation as to the division of responsibilities pending final payment between Owner and Contractor with respect to security, operation, safety, maintenance, utilities, insurance, warranties, and guarantees for that part of the Work which will become binding upon Owner and Contractor at the time when Owner takes over such operation (unless they shall have otherwise agreed in writing and so informed Engineer). During such operation and prior to Substantial Completion of such part of the Work, Owner shall allow Contractor reasonable access to complete or correct items on said list and to complete other related Work.

SC-14.07 FINAL PAYMENT

Delete paragraph 14.07B.1, of the General Conditions in its entirety and insert the following in its place:

1. If, on the basis of ENGINEER's observation of the Work during construction and final inspection, and ENGINEER's review of the final Application for Payment and accompanying documentation - all as required by the Contract Documents, ENGINEER is satisfied that the Work has been completed and CONTRACTOR's other obligations under the Contract Documents have been fulfilled, ENGINEER will indicate in writing ENGINEER's recommendation of payment and present the Application to OWNER for payment. Thereupon ENGINEER will give written notice to OWNER and CONTRACTOR that the Work is acceptable subject to the provisions of paragraph 14.09. Otherwise, ENGINEER will return the Application to CONTRACTOR, indicating in writing the reasons for refusing to recommend final payment, in which case CONTRACTOR shall make the necessary corrections and resubmit the Application. If the Application and accompanying documentation are appropriate as to form and substance, OWNER shall in accordance with the applicable Massachusetts General Law, pay CONTRACTOR the amount recommended by ENGINEER.

SC-15.01 OWNER MAY SUSPEND WORK

Delete paragraph 15.01 A of the General Conditions in its entirety and insert the following in its place:

A. OWNER may order, at any time and without cause, suspension of the Work in accordance with Massachusetts General Law Chapter 30, Section 39O.

SC-15.02 OWNER MAY TERMINATE FOR CAUSE

Add a new phrase immediately after paragraph 15.02.A.4 of the General Conditions which is to read as follows:

5. If CONTRACTOR abandons the Work, or sublets this Contract or any part thereof, without the previous written consent of OWNER, or if the Contract or any claim thereunder shall be assigned by CONTRACTOR otherwise than as herein specified;

SC-16.01 METHODS AND PROCEDURES

Add a new paragraph immediately after paragraph 16.01.A of the General Conditions which is to read as follows:

- B. Any dispute or controversy between OWNER and CONTRACTOR arising out of, relating to, or concerning any interpretation, construction, performance or breach of this CONTRACT, shall be controlled by applicable Massachusetts law. Any lawsuit arising out of such dispute or controversy shall be filed in the County Superior Court in the Commonwealth of Massachusetts, unless otherwise agreed by CONTRACTOR and OWNER in writing.

SC-17 MISCELLANEOUS

Add a new paragraph immediately after paragraph 17.06 of the General Conditions which is to read as follows:

17.07. Addresses

- A. Both the address given in the Bid Form upon which this Agreement is founded, and CONTRACTOR's office at or near the site of the Work are hereby designated as places to either of which notices, letters, and other communications to CONTRACTOR shall be certified, mailed, or delivered. The delivering at the above named place, or depositing in a postpaid wrapper directed to the first-named place, in any post office box regularly maintained by the post office department, of any notice, letter or other communication to Contractor shall be deemed sufficient service thereof upon CONTRACTOR; and the date of said service shall be the date of such delivery or mailing. The first-named address may be changed at any time by an instrument in writing, executed and acknowledged by CONTRACTOR, and delivered to OWNER and ENGINEER. Nothing herein contained shall be deemed to preclude or render inoperative the service of any notice, letter, or other communication upon CONTRACTOR personally.

Add the following new paragraphs immediately after paragraph 17.07. of the Supplementary Conditions:

17.08 Wage Rates:

- A. The requirements and provisions of all applicable laws and any amendments thereof or additions thereto as to the employment of labor, and to the schedule of minimum wage rates established in compliance with laws shall be a part of these Contract Documents. Copies of the wage schedules are included in PART II of these Supplementary Conditions. If, after the Notice of Award, it becomes necessary to employ any person in a trade or occupation not classified in the wage determinations, such person shall be paid at not less than such rates as shall be determined by the officials administering the laws mentioned above. Such approved minimum rate shall be retroactive to the time of the initial employment of such person in such trade or occupation. CONTRACTOR shall notify OWNER of CONTRACTOR's intention to employ persons in trades or occupations not classified in sufficient time for OWNER to obtain approved rates for such trades or occupations.
- B. The schedules of wages referred to above are minimum rates only, and OWNER will not consider any claims for additional compensation made by CONTRACTOR because of payment by CONTRACTOR of any wage rate in excess of the applicable rate contained in these Contract Documents. All disputes in regard to the payment of wages in excess of these specified in the schedules shall be resolved by CONTRACTOR.
- C. The said schedules of wages shall continue to be the minimum rates to be paid during the life of this Agreement and a legible copy of said schedules shall be kept posted in a conspicuous place at the site of the work.
- D. The State schedule of minimum wage rates are included in PART II of these Supplementary Conditions. Where rates differ, the higher rates shall apply as a minimum for that trade.

SC -18.02 CONTRACT APPROVAL

Delete section 18.02 in its entirety.

SC -18.08 CLEAN AIR AND POLLUTION CONTROL ACTS

Delete paragraph 18.08.A in its entirety and insert the following in its place:

- A. If this Contract exceeds \$100,000, the Contractor shall comply with all applicable standards, orders, or requirements issued under Section 306 of the Clean Air Act (42 USC §1857(h)), Section 508 of the Clean Water Act (33 USC §1368), Executive Order 11738, and Environmental Protection Agency regulations (40 CFR Part 15).

PART II - STATE, AND LOCAL GOVERNMENT PROVISIONS

State and Local Government Provisions included herein, have been selected from those to which specific references have been made elsewhere in the Contract Documents. Each and every other provision of law or clause required by law to be inserted in this Contract shall be deemed to be also inserted herein in accordance with paragraph 3.01 D of the Supplementary Conditions.

SC-20 COMMONWEALTH OF MASSACHUSETTS PROVISIONS

1.1. OWNER and CONTRACTOR agree that the following Commonwealth of Massachusetts Provisions apply to the work to be performed under this Contract and that these provisions supersede any conflicting provisions of this Contract.

1.2. Applicable provisions of Massachusetts General Laws and Regulations and/or the United States Code and Code of Federal Regulations govern this Contract and any provision in violation of the foregoing shall be deemed null, void and of no effect. Where conflict between Code of Federal Regulations and State Laws and Regulations exist, the more stringent requirement shall apply.

1.3. Massachusetts General Laws: The following are incorporated into the Contract by reference.

- 1.3.1. Chapter 30, Section 39F
- 1.3.2. Chapter 30, Section 39I
- 1.3.3. Chapter 30, Section 39J
- 1.3.4. Chapter 30, Section 39K
- 1.3.5. Chapter 30, Section 39L
- 1.3.6. Chapter 30, Section 39M
- 1.3.7. Chapter 30, Section 39N
- 1.3.8. Chapter 30, Section 39O
- 1.3.9. Chapter 30, Section 39P
- 1.3.10. Chapter 30, Section 39Q
- 1.3.11. Chapter 30, Section 39R
- 1.3.12. Chapter 82, Section 40
- 1.3.13. Chapter 149, Section 34
- 1.3.14. Chapter 149, Section 44F
- 1.3.15. Chapter 149, Section 44G
- 1.3.16. Chapter 149, Section 44J

**SECTION 00810
NOTICE OF AWARD**

Dated _____

Project:	Owner: Town of Ayer	Owner's Contract No.: 27DPW01
Contract: Barnum Road Bridge Rehabilitation		Engineer's Project No.:
Bidder:		
Bidder's Address: (send Certified Mail, Return Receipt Requested)		

You are notified that your Bid dated _____ for the above Contract has been considered. You are the Successful Bidder and are awarded a Contract for _____

(Indicate total Work, alternates or sections or Work awarded.)

The Contract Price of your Contract is _____
_____ Dollars (\$_____).

(Insert appropriate data if Unit Prices are used. Change language for Cost-Plus contracts.)

_____ copies of each of the proposed Contract Documents (except Drawings) accompany this Notice of Award.

_____ sets of the Drawings will be delivered separately or otherwise made available to you immediately.

You must comply with the following conditions precedent within [5] days of the date you receive this Notice of Award.

1. Deliver to the Owner [_____] fully executed counterparts of the Contract Documents.
2. Deliver with the executed Contract Documents the Contract security [Bonds] as specified in the Instructions to Bidders (Article 20), [and] General Conditions (Paragraph 5.01) [and Supplementary Conditions (Paragraph SC-5.01).]
3. Other conditions precedent:

Failure to comply with these conditions within the time specified will entitle Owner to consider you in default, annul this Notice of Award and declare your Bid security forfeited.

Within ten days after you comply with the above conditions, Owner will return to you one fully executed counterpart of the Contract Documents.

Owner
By: _____
Authorized Signature
Title

**SECTION 00811
NOTICE TO PROCEED**

Dated _____

Project:	Owner: Town of Ayer	Owner's Contract No.: 27DPW01
Contract: Barnum Road Bridge Rehabilitation		Engineer's Project No.:
Contractor:		
Contractor's Address: [send Certified Mail, Return Receipt Requested]		

You are notified that the Contract Times under the above contract will commence to run on _____. On or before that date, you are to start performing your obligations under the Contract Documents. In accordance with Article 4 of the Agreement, the date of Substantial Completion is _____, and the date of readiness for final payment is _____ [(or) the number of days to achieve Substantial Completion is _____, and the number of days to achieve readiness for final payment is _____].

Before you may start any Work at the Site, Paragraph 2.01.B of the General Conditions provides that you and Owner must each deliver to the other (with copies to Engineer and other identified additional insureds) certificates of insurance which each is required to purchase and maintain in accordance with the Contract Documents.

Also, before you may start any Work at the Site, you must [add other requirements]:

Contractor
Received by: _____

Title

Date

Owner
Given by: _____
Authorized Signature

Title

Date

**SECTION 00838
CERTIFICATE OF SUBSTANTIAL COMPLETION**

Project:	Owner: Town of Ayer	Owner's Contract No.: 27DPW01
Contract: Barnum Road Bridge Rehabilitation		Date of Contract:
Contractor:		Engineer's Project No.:

This [tentative] [definitive] Certificate of Substantial Completion applies to:

- ☐ All Work under the Contract Documents: ☐ The following specified portions:

Date of Substantial Completion

The Work to which this Certificate applies has been inspected by authorized representatives of Owner, Contractor and Engineer, and found to be substantially complete. The Date of Substantial Completion of the Project or portion thereof designated above is hereby declared and is also the date of commencement of applicable warranties required by the Contract Documents, except as stated below.

A [tentative] [revised tentative] [definitive] list of items to be completed or corrected, is attached hereto. This list may not be all-inclusive, and the failure to include any items on such list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents.

The responsibilities between OWNER and CONTRACTOR for security, operation, safety, maintenance, heat, utilities, insurance and warranties shall be as provided in the Contract Documents except as amended as follows:

- ☐ Amended Responsibilities ☐ Not Amended

Owner's Amended Responsibilities:

Contractor's Amended Responsibilities:

The following documents are attached to and made part of this Certificate:

This Certificate does not constitute an acceptance of Work not in accordance with the Contract Documents nor is it a release of Contractor's obligation to complete the Work in accordance with the Contract Documents.

Executed by Engineer

Date

Accepted by Contractor

Date

Accepted by Owner

Date

**SECTION 00840
WORK CHANGE DIRECTIVE**

No. _____

Date of Issuance: _____ Effective Date: _____

Project:	Owner: Town of Ayer	Owner's Contract No.: 27DPW01
Contract: Barnum Road Bridge Rehabilitation		Date of Contract:
Contractor:		Engineer's Project No.:

You are directed to proceed promptly with the following change(s):

Description: _____

Purpose of Work Change Directive: _____

Attachments: (List documents supporting change): _____

If the Owner or Contractor believe that the above change has affected the Contract Price any Claim for a Change Order based thereon will involve one or more of the following methods as defined in the Contract Documents.

Method of Determining change in Contract Price:

- ☐ Unit Prices
☐ Lump Sum
☐ Cost of the Work

Estimated [Increase] [Decrease] in Contract Price:

\$ _____

Estimated [Increase] [Decrease] in Contract Times:

Substantial Completion: _____ Days

Final Completion: _____ Days

If the change involves an increase, the estimated amount is not to be exceeded without further authorization.

RECOMMENDED:	ACCEPTED:	ACCEPTED:
By: _____ Engineer (Authorized Signature)	By: _____ Owner (Authorized Signature)	By: _____ Contractor (Authorized Signature)
Date: _____	Date: _____	Date: _____
Approved by Funding Agency (if applicable): _____		Date: _____

WORK CHANGE DIRECTIVE - INSTRUCTIONS

A. GENERAL INFORMATION

This document was developed for use in situations involving changes in the Work which, if not processed expeditiously, might delay the Project. These changes are often initiated in the field and may affect the Contract Price or the Contract Times. This is not a Change Order, but only a directive to proceed with Work that may be included in a subsequent Change Order.

For supplemental instructions and minor changes not involving a change in the Contract Price or the Contract Times a Field Order should be used.

B. COMPLETING THE WORK CHANGE DIRECTIVE FORM

Engineer initiates the form, including a description of the items involved and attachments.

Based on conversations between Engineer and Contractor, Engineer completes the following:

METHOD OF DETERMINING CHANGE, IF ANY, IN CONTRACT PRICE: Mark the method to be used in determining the final cost of Work involved and the estimated net effect on the Contract Price. If the change involves an increase in the Contract Price and the estimated amount is approached before the additional or changed Work is completed, another Work Change Directive must be issued to change the estimated price or Contractor may stop the changed Work when the estimated time is reached. If the Work Change Directive is not likely to change the Contract Price, the space for estimated increase (decrease) should be marked "Not Applicable".

Once Engineer has completed and signed the form, all copies should be sent to Owner for authorization because Engineer alone does not have authority to authorize changes in Price or Times. Once authorized by Owner, a copy should be sent by Engineer to Contractor. Price and Times may only be changed by Change Order signed by Owner and Contractor with Engineer's recommendation.

Paragraph 10.03.A.2 of the General Conditions requires that a Change Order be initiated and processed to cover any undisputed sum or amount of time for Work actually performed pursuant to this Work Change Directive.

Once the Work covered by this directive is completed or final cost and times are determined, Contractor should submit documentation for inclusion in a Change Order.

THIS IS A DIRECTIVE TO PROCEED WITH A CHANGE THAT MAY AFFECT THE CONTRACT PRICE OR CONTRACT TIMES. A CHANGE ORDER, IF ANY, SHOULD BE CONSIDERED PROMPTLY.

**SECTION 00842
CHANGE ORDER**

No. _____

Date of Issuance: _____ Effective Date: _____

Project:	Owner: Town of Ayer	Owner's Contract No.: 27DPW01
Contract: Barnum Road Bridge Rehabilitation		Date of Contract:
Contractor:		Engineer's Project No.:

The Contract Documents are modified as follows upon execution of this Change Order:

Description:

Attachments: (List documents supporting change):

CHANGE IN CONTRACT PRICE:	CHANGE IN CONTRACT TIMES:
Original Contract Price: \$ _____	Original Contract Times: ☐ Working days ☐ Calendar days Substantial completion (days or date): _____ Ready for final payment (days or date): _____
[Increase] [Decrease] from previously approved Change Orders No. _____ to No. _____: \$ _____	[Increase] [Decrease] from previously approved Change Orders No. _____ to No. _____: Substantial completion (days): _____ Ready for final payment (days): _____
Contract Price prior to this Change Order: \$ _____	Contract Times prior to this Change Order: Substantial completion (days or date): _____ Ready for final payment (days or date): _____
[Increase] [Decrease] of this Change Order: \$ _____	[Increase] [Decrease] of this Change Order: Substantial completion (days or date): _____ Ready for final payment (days or date): _____
Contract Price incorporating this Change Order: \$ _____	Contract Times with all approved Change Orders: Substantial completion (days or date): _____ Ready for final payment (days or date): _____

RECOMMENDED:	ACCEPTED:	ACCEPTED:
By: _____ Engineer (Authorized Signature)	By: _____ Owner (Authorized Signature)	By: _____ Contractor (Authorized Signature)
Date: _____	Date: _____	Date: _____
APPROVED:	_____ Agency (Authorized Signature)	Date: _____

Change Order Instructions

A. GENERAL INFORMATION

This document was developed to provide a uniform format for handling contract changes that affect Contract Price or Contract Times. Changes that have been initiated by a Work Change Directive must be incorporated into a subsequent Change Order if they affect Price or Times.

Changes that affect Contract Price or Contract Times should be promptly covered by a Change Order. The practice of accumulating Change Orders to reduce the administrative burden may lead to unnecessary disputes.

If Milestones have been listed in the Agreement, any effect of a Change Order thereon should be addressed.

For supplemental instructions and minor changes not involving a change in the Contract Price or Contract Times, a Field Order should be used.

B. COMPLETING THE CHANGE ORDER FORM

Engineer normally initiates the form, including a description of the changes involved and attachments based upon documents and proposals submitted by Contractor, or requests from Owner, or both.

Once Engineer has completed and signed the form, all copies should be sent to Owner or Contractor for approval, depending on whether the Change Order is a true order to the Contractor or the formalization of a negotiated agreement for a previously performed change. After approval by one contracting party, all copies should be sent to the other party for approval. Engineer should make distribution of executed copies after approval by both parties.

If a change only applies to price or to times, cross out the part of the tabulation that does not apply.

SECTION 01010

SUMMARY OF WORK

PART 1 - GENERAL

1.1 DESCRIPTION

A. Work Included:

1. The Barnum Road Bridge Rehabilitation Project proposes the preservation of an 85-year-old bridge structure through numerous targeted repairs. The project proposes several concrete repairs, including repair of the bridge deck slab (underside), sidewalk slab, pile caps, and wingwalls. Their repairs will improve observed cracking, spalling, and delamination. The project proposes stabilization of slopes to permanently improve observed erosion. The project also proposes safety upgrades, including replacement of non-compliant guardrail systems with new MASH-compliant guardrails.
2. The Contractor is responsible for all site restoration and pavement as specified.

B. Removals, Relocations and Rearrangements

1. Examine the existing site for the work of all trades which will influence the cost of the work under the bid. This work shall include removals, relocations and rearrangements which may interfere with, disturb or complicate the performance of the work under the bid involving systems, equipment and related service lines, which shall continue to be utilized as part of the finished project. The Contractor is responsible for all coordination in this regard.
2. Provide in the bid a sufficient amount to include all removals, relocations, rearrangements and reconnections herein specified, necessary or required to provide approved operation and coordination of the combined new and existing systems and equipment.

C. Street and Roadway Paving

1. The Contractor is responsible for installing temporary hot mix asphalt patches, where pavement is disturbed, to ensure safe passage of motor vehicles.

D. Restoration of Disturbed Areas

1. The Contractor is responsible for the restoration of all areas disturbed by the work to an equal or better condition than that encountered prior to construction; particularly in residential areas of the project.

E. Construction Staging / Storage Area

1. The Contractor shall work with the Department of Public Works and the Ayer Conservation Commission regarding a staging area prior to mobilizing to the project site. All staging areas shall be returned to the existing condition (or better as agreed to by the Town of Ayer) following the completion of the contract (or sooner) at no extra cost to the Town. Erosion control required at these sites, beyond what is required for the construction of the proposed improvements, shall be considered incidental to the work.

1.2 COORDINATION WITH OTHERS

A. Town of Ayer

1. Contractor shall coordinate access, egress, detours, and traffic control, if required, at each site with the Ayer Police Department. The Contractor shall notify Ayer Police and Fire Department and Ayer Shirley Regional School District at least 24 hours in advance of any street closings or detours.
 2. The Contractor shall be responsible for coordinating and maintaining public services to all public and private properties.
- B. The Contractor shall provide the DPW with a construction schedule indicating the times to perform the work required. The Contractor shall update the schedule when required and give the DPW one week's notice before the start of any work.

1.3 PERMITS

- A. Contractor shall obtain a Town of Ayer Road Opening Permit and Trench Permit. The Road Opening Permit, Authorized Water Connector and Drain Layer, and Trench permit fees for this project are waived by the Ayer DPW.
- B. No environmental permits are expected to be required for the project. A Negative Determination of Applicability was issued by Ayer Conservation Commission in October 2023; however, this determination will expire prior to the anticipated start of construction. Therefore, a new Request for Determination of Applicability is being submitted to Ayer Conservation Commission in July 2026 and is expected to receive a Negative Determination of Applicability.

1.4 PROGRESS OF WORK

- A. The Contractor shall promptly start construction work under this contract with the necessary crews and equipment to properly execute and complete this contract in the specified time. No cessation of Contractor's operations will be allowed without the approval of the Owner. The rate of progress shall be satisfactory to the Owner.

1.5 DETOURS AND ROAD ACCESSIBILITY

- A. The Contractor shall contact the responsible heads of the Fire, Police, Post Office, School District and other appropriate governing bodies of the municipality in order to obtain necessary permits and determine the requirements of said departments with respect to traffic control, alternate vehicular access routes, etc. The Contractor shall maintain one lane of traffic for the duration of the project unless otherwise approved by the Ayer Police Department. Wherever detours are permitted the size, construction and location of signs shall conform to local and state requirements and/or standards. Detour routes shall be adequately posted to assist the motorist to return to his route of travel. Where the roadway under construction is the only means of vehicular access to a particular area, the Contractor shall provide continual access to the area for residents and emergency vehicles.
- B. The Contractor shall submit a traffic control plan as specified in Section 01570 Traffic Regulation.

1.6 CHANGES IN AMOUNT OF WORK

- A. The Owner reserves the right to increase or decrease the amount of any item of the work listed as may be found desirable or necessary during the carrying out of this contract and the unit prices quoted in the Proposal shall apply without change to such variation in the quantity of each of the Items.

1.7 VISITS TO THE SITE

- A. Before submitting a bid, the Contractor shall visit the various sites, examine their conditions, and thoroughly acquaint himself with the conditions for performing the work. The Contractor shall also study the drawings and compare the same with the information gathered during his examination of the sites, as no extra compensation will be authorized for extra work caused by his unfamiliarity with the sites and/or drawings or the conditions peculiar to this job.

1.8 DISPOSAL OF EXCESS MATERIAL

- A. All excess soil and removed pavement shall be transported and disposed of at approved locations in accordance to all applicable Laws and Regulations.

1.9 TECHNICAL SPECIFICATIONS

- A. All technical specifications such as MassDOT, FHWA, MUTCD, ASTM, AASHTO, etc., referred to in these specifications refer to the latest revision of such technical specifications.

1.10 SPECIAL CONDITIONS

- A. The Contractor is advised that protection of the existing utilities in the vicinity of the project, and the assurance of uninterrupted service during the contract period is of the essence.
- B. In the event that demolition, excavation, or other operations undertaken by the Contractor under this contract result in damages to, all necessary repairs shall be done by the Contractor. The Contractor shall provide, at no extra cost to the Owner, all necessary materials, equipment, and labor necessary to satisfactorily excavate backfill, repair, etc., in conjunction with such repair work.
- C. Prior to commencing excavation work, the Contractor shall notify Dig-Safe to have all existing public and private utility lines and underground structures marked out.

1.11 EXISTING UTILITIES AND STRUCTURES

- A. The location and size of some existing underground facilities such as sewers, drains, culverts, water mains, gas mains, cables, service pipes, etc., are shown on the plans, based on results of surveys and existing records, and are shown as approximate only. The plans do not show the exact location and depth of all utilities, nor do they show all utilities that may be encountered.
- B. The Contractor shall assume that there are existing underground utility connections to each and every building or structure along the line of work, whether they appear on the drawings or not. The Contractor shall notify the proper utility companies and obtain and preserve the locations as marked for all existing gas, electric and other utilities that may be encountered along the line of work, until such time as such markings are no longer required.
- C. Experimental trench excavations are to be made prior to commencing pipe laying operations. The experimental trench locations shall be where requested by the Contractor and/or as directed by the Engineer and shall be paid for under the applicable bid item.

- D. The Contractor shall dig by hand in advance of the trenching machinery to determine the exact location and depth of each utility to be encountered. Excavating machinery shall be stopped at least two feet away from each side of the utility to be crossed and the Contractor shall tunnel by hand under these utilities after he has ascertained their exact location and depth.

1.12 TWENTY-FOUR (24) HOUR EMERGENCY SERVICE

- A. The Contractor shall maintain a 24-hour, 7-day a week telephone service and a local facility to handle emergency requirements such as settled trenches, clogged drains, rain damage, etc. The Contractor's emergency personnel shall be able to respond to emergency calls within thirty minutes. A list of the personnel and their telephone numbers shall be submitted to the Owner and Highway/Engineering Departments and to the local Police and Fire Departments. This requirement shall apply during the entire length of the project. This list shall be submitted on the Contractor's letterhead and shall state that should an emergency arise during the implementation of this project, these people are to be contacted. The Contractor shall submit this letter at the pre-construction conference.

PART 2 - PRODUCTS

Not Applicable.

PART 3 - EXECUTION

3.1 CONSTRUCTION SEQUENCE

- A. For the protection of life and property, all backfill operations shall follow closely behind pipe laying. The Contractor shall insure that no excavation be left open, unguarded, or water filled during any period of time when work is not actually in progress. It is the purpose and intent that all excavations and backfill, including consolidation operations, the installation of service connections and temporary surfacing and pavements within an area be accomplished expeditiously before proceeding to other work areas. Construction scheduling and methods will be discussed at the pre-construction conference.
- B. The Owner reserves the right to schedule the Contractor to construct at any locations within the project area. At the same time the Owner may order the suspension of construction at any location.
- C. The Contractor shall submit to the Engineer for review and acceptance a complete schedule of his proposed sequence of construction operations prior to commencing any work. This schedule shall include the Contractor's plans for doing the work.
- D. The Contractor must submit to the Engineer a written request to deviate from the above sequence, provided he can demonstrate to the Engineer that the continuity will not be adversely affected.
- E. It shall be recognized that certain interruptions of, and disruptions to, the distribution system will be required to complete the work of this Contract. Scheduled interruptions shall be kept to a minimum frequency and duration. Such

interruptions shall be coordinated by the Contractor and the Owner using the Contractor's proposed work schedule.

- F. The Contractor shall notify the Owner a minimum of seven (7) days in advance of any work which may affect or disrupt services. Once the interruption occurs the Contractor must maintain a workforce on-site to complete the work in the agreed upon time.
- G. The Contractor shall have all materials and equipment on-site, and shall receive the Owner's approval, prior to initiating work which requires any part of the existing distribution system to be off-line.

END OF SECTION

SECTION 01110
ENVIRONMENTAL PROTECTION PROCEDURES

PART 1- GENERAL

1.1 SCOPE OF WORK

- A. Furnish all labor, materials and equipment and perform all work required for the prevention of environmental pollution in conformance with applicable laws and regulations, during and as the result of construction operations under this Contract. For the purpose of this Section, environmental pollution is defined as the presence of chemical, physical, or biological elements or agents which adversely affect human health or welfare; unfavorably alter ecological balances of importance to human life; affect other species of importance to man; or degrade the utility of the environment for aesthetic and/or recreational purposes.
- B. The control of environmental pollution requires consideration of air, water and land, and involves management of noise and solid waste, as well as other pollutants.
- C. This Section is intended to ensure that construction is achieved with a minimum of disturbance to the existing ecological balance between a water resource and its surroundings. These are general guidelines. It is the Contractor's responsibility to determine the specific construction techniques to meet these guidelines.

1.2 APPLICABLE REGULATIONS

- A. Comply with all applicable Federal, State and local laws and regulations concerning environmental pollution control and abatement.

1.3 NOTIFICATIONS

- A. The Engineer will notify the Contractor in writing of any non-compliance with the foregoing provisions or of any environmentally objectionable acts and corrective action to be taken. State or local agencies responsible for verification of certain aspects of the environmental protection requirements shall notify the Contractor in writing, through the Engineer, of any non-compliance with State or local requirements. After receipt of such notice from the Engineer or from the regulatory agency through the Engineer, immediately take corrective action. Such notice, when delivered to the Contractor or his authorized representative at the site of the work, shall be deemed sufficient for the purpose. If the Contractor fails or refuses to comply promptly, the Owner may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No part of the time lost due to any such stop orders shall be made the subject of a claim for extension of time or for excess costs or damages by the Contractor unless it is later determined that the Contractor was in compliance.

1.4 IMPLEMENTATION

- A. Prior to commencement of the work, meet with the Engineer to develop mutual understandings relative to compliance with these provisions and administration of the environmental pollution control program.

- B. Remove temporary environmental control features, when approved by the Engineer and incorporate permanent control features into the project at the earliest practicable time.

PART 2- PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.1 EROSION CONTROL

- A. Schedule and conduct all work in a manner that will minimize the erosion of soils in the area of the work. All erosion control measures shall be in place in an area prior to any construction activity in that area. Specific requirements for erosion and sedimentation controls are shown on the Drawings and specified in Section 02270. Provide any necessary supplemental erosion control measures such as diversion channels, sedimentation or filtration systems, berms, staked hay bales, seeding, mulching or other special surface treatments as are required to prevent silting and muddying of streams,

3.2 PROTECTION OF STREAMS AND SURFACE WATERS

- A. Take all precautions to prevent, or reduce to a minimum, any damage to any stream or surface water from pollution by debris, sediment or other material, or from the manipulation of equipment and/or materials in or near such streams.
 - 1. Water that has been used for washing or processing, or that contains oils or sediments that will reduce the quality of the water in the stream, shall not be directly returned to the stream. Divert such waters through a settling basin or filter before being directed into streams or surface waters.
 - 2. Do not discharge water from dewatering operations directly into any live or intermittent stream, channel, wetlands, surface water or any storm sewer. Water from dewatering operations shall be treated by filtration, settling basins, or other approved method to reduce the amount of sediment contained in the water to allowable levels.
 - 3. Take all preventative measures to avoid spillage of petroleum products and other pollutants. In the event of any spillage, prompt remedial action shall be taken in accordance with a contingency action plan approved by the Massachusetts Department of Environmental Protection. Submit two copies of approved contingency plans to the Engineer.
 - 4. Water being flushed from structures or pipelines after disinfection, with a Cl₂ residue of 0.15 mg/l or greater, shall be treated with a dechlorination solution, in a method approved by the Engineer, prior to discharge.

3.3 PROTECTION OF LAND RESOURCES

- A. Restore land resources within the project boundaries and outside the limits of permanent work to a condition, after completion of construction that will appear to be natural and not detract from the appearance of the project. Confine all construction activities to areas approved by the Owner.
- B. Outside of areas requiring earthwork for the construction of the new facilities, do not deface, injure, or destroy trees or shrubs, nor remove or cut them without prior approval. No ropes, cables, or guys shall be fastened to or attached to any existing nearby trees for anchorage unless specifically authorized by the Engineer. Where such special emergency use is permitted, first wrap the trunk with a sufficient thickness of burlap or

logs over which softwood cleats shall be tied before any rope, cable, or wire is placed. The Contractor shall in any event be responsible for any damage resulting from such use.

- C. Before beginning operations near them, protect trees that may possibly be defaced, bruised, injured, or otherwise damaged by the construction equipment, dumping or other operations, by placing boards, planks, or poles around them. Monuments and markers shall be protected similarly.
- D. Any trees or other landscape features scarred or damaged by the Contractor's equipment or operations shall be restored as nearly as possible to their original condition. The Engineer will decide the method of restoration to be used and whether damaged trees shall be treated and healed or removed and disposed of.
 - 1. All scars made on trees by equipment, construction operations, or by the removal of limbs larger than 1-in in diameter shall be coated as soon as possible with an approved tree wound dressing. All trimming or pruning shall be performed in an approved manner by experienced workmen with saws or pruning shears. Tree trimming with axes will not be permitted.
 - 2. Climbing ropes shall be used where necessary for safety. Trees that are to remain, either within or outside established clearing limits, that are subsequently damaged by the Contractor and are beyond saving in the opinion of the Engineer, shall be immediately removed or replaced.
- E. The locations of the Contractor's storage areas, required temporarily in the performance of the work, shall be cleared portions of the job site or areas to be cleared as shown on the Drawings and approved by the Engineer and shall not be within wetlands or floodplains. The preservation of the landscape shall be an imperative consideration in the selection of all sites and in the construction of buildings. Drawings showing storage facilities shall be submitted for approval of the Engineer.
- G. Remove all signs of temporary construction facilities such as haul roads, work areas, structures, foundations of temporary structures, stockpiles of excess of waste materials, or any other vestiges of construction as directed by the Engineer. It is anticipated that excavation, filling and plowing of roadways will be required to restore the area to near natural conditions which will permit the growth of vegetation thereon. The disturbed areas shall be prepared and seeded as approved by the Engineer.
- H. All debris and excess material will be disposed of outside wetland or floodplain areas in an environmentally sound manner.

3.4 PROTECTION OF AIR QUALITY

- A. Burning - The use of burning at the project site for the disposal of refuse and debris will not be permitted.
- B. Dust Control - Maintain all excavations, embankment, stockpiles, access roads, plant sites, waste areas, borrow areas and all other work areas within or without the project boundaries free from dust which could cause the standards for air pollution to be exceeded and which would cause a hazard or nuisance to others. Refer to Section 01562 for additional provisions.
- C. An approved method of stabilization consisting of sprinkling or other similar methods will be permitted to control dust. The use of petroleum products or chlorides is prohibited.
- D. Sprinkling, to be approved, must be repeated at such intervals as to keep all parts of the disturbed area at least damp at all times, and the Contractor shall have sufficient competent equipment on the job to accomplish this. Dust control shall be performed as

the work proceeds and whenever a dust nuisance or hazard occurs, as determined by the Engineer.

- E. Any sweeping operations must include a preliminary sprinkling step to reduce air-borne dust.

3.5 NOISE CONTROL

- A. The construction shall not cause noise to increase at the property line, at the nearest residence, by more than 3 decibel above the ambient existing levels. The Contractor shall provide equipment to measure noise levels when requested by Engineer or Owner.
- B. Make every effort to minimize noises caused by the construction operations. Equipment shall be equipped with silencers or mufflers designed to operate with the least possible noise in compliance with Federal and State regulations.

3.6 MAINTENANCE OF POLLUTION CONTROL FACILITIES DURING CONSTRUCTION

- A. Maintain all facilities constructed for pollution control as long as the operations creating the particular pollutant are being carried out or until the material concerned has become stabilized to the extent that pollution is no longer being created.

END OF SECTION

SECTION 01150

MEASUREMENT AND PAYMENT

PART 1 - GENERAL

1.1 DESCRIPTION

- A. For lump sum items, payment shall be made to the Contractor in accordance with an accepted Progress Schedule and Schedule of Values based on actual work completed.
- B. For unit-price items, payment shall be based on the actual amount of work accepted and for the actual amount of materials in place, as shown by the final measurements.
 - 1. All units of measurement shall be standard United States convention as applied to the specific items of work by tradition and as interpreted by the Engineer.
 - 2. At the end of each day's work, the Contractor's Superintendent or other authorized representative of the Contractor shall meet with the Resident Project Representative and determine the quantities of unit price work accomplished and/or completed during the workday.
 - 3. The Resident Project Representative will then prepare two "Daily Progress Reports" which shall be signed by both the Resident Project Representative and Contractor's Representative.
 - 4. Once each month the Resident Project Representative will prepare two "Monthly Progress Summation" forms from the month's accumulation of "Daily Progress Reports" which shall also be signed by both the Resident Project Representative and Contractor's Representative.
 - 5. These completed forms will provide the basis of the Engineer's monthly quantity estimate upon which payment will be made. Items not appearing on both the Daily Progress Reports and Monthly Progress Summation will not be included for payment. Items appearing on forms not properly signed by the Contractor will not be included for payment.
 - 6. After the work is completed and before final payment is made there for, the Engineer will make final measurements to determine the quantities of various items of work accepted as the basis for final settlement.

1.2 SCOPE OF PAYMENT

- A. Payments to the Contractor will be made for the actual quantities of the Contract items performed and accepted in accordance with the Contract Documents. Upon completion of the construction, if these actual quantities show either an increase or decrease from the quantities given in the Bid Form, the Contract unit prices will still prevail.
- B. The Contractor shall accept compensation, as herein provided, in full payment for furnishing all materials, labor, tools, equipment, and incidentals necessary to the completed work and for performing all work contemplated and embraced by the Contract; 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 the 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 invoice, in no way shall affect the obligation of the Contractor to repair or renew any defective parts of the construction or to be responsible for all damage due to such defects.

1.3 PAYMENT FOR INCREASED OR DECREASED QUANTITIES

- A. When alterations in the quantities of work not requiring supplemental agreements, as hereinbefore provided for, are ordered and performed, the 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.

1.4 OMITTED ITEMS

- A. Should any items contained in the bid form be found unnecessary for the proper completion of the work contracted, the Engineer may eliminate such items from the Contract, and such action shall in no way invalidate the Contract, and no allowance will be made for items so eliminated in making final payment to the Contractor.

1.5 PARTIAL PAYMENTS

- A. Partial payments shall be made monthly as the work progresses. Partial payment shall be made subject to the provisions of the Supplemental and General Conditions.

1.6 PAYMENT FOR MATERIAL DELIVERED

- A. No payment shall be made for materials delivered until installed in accordance with the specifications.

1.7 FINAL PAYMENT

- A. The Engineer will make, as soon as practicable after the entire completion of the project, a final quantity invoice of the amount of the Work performed and the value of such Work. Owner shall make final payments of the sum found due less retainages subject to the provisions of the General and Supplementary Conditions.

1.8 INCIDENTAL WORK

- A. Incidental work items for which separate payment is not made include (but are not limited to) the following items:
1. Coordination with the Owner, Regulatory Agencies, Utility Providers, and others, including related inspection cost, documentation required for final acceptance of applicable permits
 2. Utility coordination, crossings, supports, monitoring, and relocations (temporary and permanent), unless payment is otherwise made herein
 3. Project record documents and drawings
 4. Materials and quality assurance testing required by the Contractor
 5. Construction schedules, bonds, insurance, shop drawings, warranties, guarantees, certifications, and other submittals required by the Contract Documents
 6. Repair and replacement of utilities damaged by construction activities and corresponding proper disposal of removed materials
 7. Temporary utilities for construction and to maintain existing service during construction.

8. Temporary construction and other facilities not to be permanently incorporated into the Work necessary for construction sequencing and maintenance of operations
9. Weather protection
10. Permits not otherwise paid for or provided by the Owner
11. Visits to the Project site or elsewhere by personnel or agents of the Contractor, including manufacturer's representatives, as may be required
12. On-site and other facilities acceptable to Engineer for the storage of materials, supplies and equipment to be incorporated into the Work
13. Preconstruction photos and videos
14. Construction administration and insurance
15. Storage of materials and equipment.
16. Testing of construction materials for adherence to MassDOT Specifications and the Special Provisions contained herein including but not limited to concrete, asphalt, and borrow materials
17. Testing and disposal of surplus borrow material as a result of construction.

1.9 DESCRIPTION OF PAY ITEMS

- A. Refer to the Massachusetts Department of Transportation latest editions of the STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES, the SUPPLEMENTAL SPECIFICATIONS, and the Special Provisions contained herein for descriptions related to the Method of Measurement and Basis of Payment for the work to be completed under the respective items listed in the Bid Form.

END OF SECTION

SECTION 01200

PROJECT SUBMITTALS, MEETINGS AND QUALITY CONTROL

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Project Meetings: The Engineer will conduct project meetings throughout the construction period to enable orderly review during progress of the work, and to provide for systematic discussion of problems.
- B. Submittals: Submit to the Engineer, Shop Drawings, Operation and Maintenance Manuals, Manufacturers' Certificates, Project Data, and Samples required by the Specification Sections
- C. Quality Control: Maintain quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce work of specified quality.

1.2 QUALITY ASSURANCE

- A. Persons designated by the Contractor to attend and participate in the project meetings shall have all required authority to commit the Contractor to solutions agreed upon in the project meetings.
- B. Testing of construction materials for adherence to MassDOT Specifications and the Special Provisions contained herein including but not limited to concrete compressive strength, asphalt density, borrow materials (grain size, compaction).

1.3 PROJECT MEETINGS

- A. Agenda items: To the maximum extent practicable, advise the Engineer at least 24 hours in advance of project meetings regarding all items to be added to the agenda.
- B. Minutes: The Engineer will compile minutes of each project meeting and will furnish a copy to the Contractor.

1.4 SHOP DRAWINGS

- A. Shop Drawings are required for each and every element of the work. Each shop drawing shall be assigned a sequential number for purposes of easy identification, and shall retain its assigned number, with appropriate subscript, on required resubmissions.
- B. Shop Drawings are generally defined as all fabrication and erection drawings, diagrams, brochures, schedules, bills of material, manufacturers data, spare parts lists, and other data prepared by the Contractor, his subcontractors, suppliers, or manufacturers which illustrate the manufacturer, fabrication, construction, and installation of the work, or a portion thereof.
- C. The Contractor shall submit to the Engineer a minimum of six (6) copies of Shop Drawings and approved data. The Engineer will retain three (3) copies (for Owner's, Engineer's and Field Representative's files) and return three (3) copies to the Contractor for distribution to subcontractors, suppliers and manufacturers. If the Contractor requires more than three (3) then the number of copies submitted

shall be adjusted accordingly. The only exception to the above is that all shop drawings which incorporate blue line type drawings shall be submitted with only one good quality reproducible. The Engineer will return the one marked up reproducible to the Contractor.

- D. The Contractor shall provide a copy of the completed Submittal Certification Form (copy provided for Contractor's use at the end of this Specification Section) which shall be attached to every copy of each shop drawing. Shop Drawings shall show the principal dimensions, weight, structural and operating features, space required, clearances, type and/or brand of finish or shop coat, grease fittings, etc., depending on the subject of the drawing. When it is customary to do so, when the dimensions are of particular importance, or when so specified, the drawings shall be certified by the manufacturer or fabricator as correct for the work.
- E. Shop Drawings shall be submitted as a complete package by specification section, unless otherwise reviewed and approved by the Engineer. It is the intent that all information, materials and samples associated with each specification section be included as a single submittal for the Engineer's review. Any deviation from this requirement, such as submitting miscellaneous metals grouped by structure, shall be requested in writing prior to any associated submittal.
- F. The Contractor shall be responsible for the prompt and timely submittal of all shop and working drawings so that there shall be no delay to the work due to the absence of such drawings.
- G. No material or equipment shall be purchased or fabricated especially for the Contract until the required shop and working drawings have been submitted as hereinabove provided and reviewed for conformance to the Contract requirements. All such materials and equipment and the work involved in their installation or incorporation into the Work shall then be as shown in and represented by said drawings.
- H. Until the necessary review has been made, the Contractor shall not proceed with any portion of the work (such as the construction of foundations), the design or details of which are dependent upon the design or details of work, materials, equipment or other features for which review is required.
- I. All shop and working drawings shall be submitted to the Engineer by and/or through the Contractor, who shall be responsible for obtaining shop and working drawings from his subcontractors and returning reviewed drawings to them. Shop drawings shall be of standardized sizes to enable the Owner to maintain a permanent record of the submissions. Approved standard sizes shall be: (a) 24 inches by 36 inches; (b) 11 inches by 17 inches, and (c) 11 inches by 8-1/2 inches. Provision shall be made in preparing the shop drawings to provide a binding margin on the left hand side of the sheet. Shop drawings submitted other than as specified herein may be returned for re submittal without being reviewed.
- J. Only drawings which have been checked and corrected by the fabricator should be submitted to the Contractor by his subcontractors and vendors. Prior to submitting drawings to the Engineer, the Contractor shall check thoroughly all such drawings to satisfy himself that the subject matter thereof conforms to the Drawings and Specifications in all respects. All drawings which are correct shall be marked with the date, checker's name, and indication of the Contractor's approval, and then shall be submitted to the Engineer.

- K. If a shop drawing shows any deviation from the Contract requirements, the Contractor shall make specific mention of the deviations in his letter of transmittal.
- L. Should the Contractor submit equipment that requires modifications to the structures, piping, electrical conduit, wires and appurtenances, layout, etc., detailed on the Drawings, he shall also submit details of the proposed modifications. If such equipment and modifications are accepted, the Contractor, at no additional cost to the Owner, shall do all work necessary to make such modifications.
- M. A maximum of two submissions of each Shop Drawing will be reviewed, checked, and commented upon without charge to the Contractor. Any additional submissions which are ordered by the Engineer to fulfill the stipulations of the Drawings and Specifications, and which are required by virtue of the Contractor's neglect or failure to comply with the requirements of the Drawings and Specifications, or to make those modifications and/or corrections ordered by the Engineer in the review of the first two submissions of each Shop Drawing, will be reviewed and checked as deemed necessary by the Engineer, and the cost of such review and checking, as determined by the Owner, and based upon Engineer's documentation of time and rates established for additional services in the Owner-Engineer Agreement for this Project, may be deducted from the Contractor to make all modifications and/or corrections as may be required by the Engineer in an accurate, complete, and timely fashion.
- N. SAMPLES - The Contractor shall submit samples when requested by the Engineer to establish conformance with the specifications, and as necessary to define color selections available.

1.5 SUBMISSION REQUIREMENTS

- A. Accompany submittals with transmittal letter, containing:
 - 1. Date.
 - 2. Project title and number.
 - 3. Contractor's name and address.
 - 4. The number of each Shop Drawing, Project Data and Sample submitted.
 - 5. Notification of deviations from Contract Documents.
 - 6. Other pertinent data.
- B. A completed Submittal Certification Form shall be attached to each copy of each shop drawing and must include:
 - 1. Identification of deviations from Contract Documents.
 - 2. Contractor's stamp, initialed or signed, certifying review of the submittal, verification of field measurements and compliance with Contract Documents.
 - 3. Where specified or when requested by the Engineer, manufacturer's certification that equipment, accessories and shop painting meet or exceed the Specification requirements.
 - 4. Where specified, manufacturer's guarantee.

1.6 RESUBMISSION REQUIREMENTS

- A. Revise initial drawings as required and resubmit as specified for initial submittal.
- B. Indicate on drawings any changes which have been made other than those required by Engineer.

1.7 ENGINEER'S REVIEW

- A. The review of shop and working drawings hereunder will be general only, and nothing contained in this specification shall relieve, diminish or alter in any respect the responsibilities of the Contractor under the Contract Documents and in particular, the specific responsibility of the Contractor for details of design and dimensions necessary for proper fitting and construction of the work as required by the Contract and for achieving the result and performance specified thereunder.

PART 2 - PRODUCTS

NOT USED

PART 3 - EXECUTION

3.1 PROJECT MEETINGS

- A. Except as noted below for pre-construction conference, project meetings will be held monthly. Coordinate as necessary to establish mutually acceptable schedule for meetings.
- B. Meetings will be held at the Ayer DPW office.
- C. **Pre-construction conference** will be scheduled within twenty days after the Effective Date of the Agreement, but before the Contractor starts any work at the site. Provide attendance by authorized representatives of the Contractor and all major subcontractors. The Engineer will advise other interested parties and request their attendance. Minimum agenda:
 - 1. Identification of key project personnel for Owner, Engineer, Contractor, funding/regulatory Agencies.
 - 2. Responsibilities of Owner, Engineer, Resident Project Representative, Contractor.
 - 3. Channels and procedures for communications.
 - 4. Construction schedule, including sequence of critical work.
 - 5. Easements, permits.
 - 6. Contract Documents, including distribution of required copies of original documents and revisions.
 - 7. Processing of Shop Drawings and other data submitted to the Engineer for review.
 - 8. Processing of field decisions and Change Orders.
 - 9. Rules and regulations governing performance of the Work, including funding/regulatory Agency requirements.
 - 10. Procedures for safety and first aid, security, quality control, housekeeping, and other related matters.
- D. PROGRESS MEETINGS
 - 1. Review, revise as necessary, and approved minutes of previous meeting.
 - 2. Review progress of the Work since last meeting, including status of submittals for approval.
 - 3. Review schedule of work to be accomplished prior to next meeting.
 - 4. Discuss monthly partial payment request.

5. Review status of change order requests and Work Directive Changes.
6. Identify problems which impede planned progress.
7. Develop corrective measures and procedures to regain planned schedule.
8. Complete other current business.

3.2 QUALITY CONTROL

- A. Maintain quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce work of specified quality.
- B. Comply with industry standards except when more restrictive tolerances or specified requirements indicate more rigid standards or more precise workmanship.
- C. Perform work by persons qualified to produce workmanship of specified quality.
- D. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, and racking.
- E. Comply with manufacturer's instructions in full detail, including each step in sequence. Should instructions conflict with Contract Documents, request clarification from Engineer before proceeding. When required by individual Specifications Section, submit manufacturer's certificate that products meet or exceed specified requirements.
- F. When specified in respective Specification Sections, require supplier and/or manufacturer to provide qualified personnel to observe field conditions, conditions of surfaces and installation, quality of workmanship, start-up of equipment, test, adjust and balance of equipment as applicable, and to make appropriate recommendations.
- G. Representative shall submit written report to Engineer listing observations and recommendations.

3.3 TESTING LABORATORY SERVICES

- A. Contractor will employ and pay for services of an Independent Testing Laboratory to perform inspections, tests, and other services wherever an Independent Testing Laboratory is required by individual specification sections listed in paragraph 1.2 above, or the specific sections, unless otherwise indicated.
- B. Services will be performed in accordance with requirements of governing authorities and with specified standards.
- C. Reports will present observations and test results and indicate compliance or non-compliance with specified standards and with Contract Documents. Independent Testing Laboratory will submit one copy of each report directly to each of the following: Owner, Engineer, Resident Project Representative, and Contractor. Reports will be mailed within 5 days of obtaining test results. If test results indicate deficiencies, Independent Testing Laboratory shall telephone or FAX results to Engineer and Contractor within 24 hours.
- D. Contractor shall cooperate with Independent Testing Laboratory personnel; furnish tools, samples of materials, design mix, equipment, storage and assistance as requested.
- E. Contractor shall coordinate all testing work and shall notify Engineer and Independent Testing Laboratory at least 24 hours prior to performing work requiring testing services. If scheduled tests or sampling cannot be performed because the work is not ready as scheduled, testing costs associated with the delay

will be determined by Engineer and invoiced to Contractor. If unpaid after 60 days, the invoice amount will be deducted from the Contract Price. If adequate notice is not provided, Contractor shall suspend work on that portion of the Project until testing can be performed. Such suspension will not be grounds for a claim against the Owner for delay, nor will it be an acceptable basis for an extension of time.

F. Payment for Independent Testing Laboratory services shall be as follows:

1. General: Where testing is the Contractor's responsibility, payment will be made as stated below unless other requirements are given in Specification Sections. Testing which is the responsibility of the Contractor will be considered an incidental item unless otherwise indicated in Section 01150, Measurement and Payment.
2. Initial Testing: Contractor will pay for initial tests.
3. Retesting: Costs of retesting due to non-compliance will be paid by Contractor. The cost of retesting will be determined by Engineer and Owner will invoice Contractor for this cost. If unpaid after 60 days, the invoice amount will be deducted from the Contract Price.
4. Contractor's Convenience Testing: Inspections and tests performed for Contractor's convenience will be paid for by Contractor.

END OF SECTION

SECTION 01562DUST CONTROLPART 1 - GENERAL1.1 DESCRIPTIONS

A. Work Included:

1. Furnish and apply water or calcium chloride on the road surfaces within the construction site, when required to control dust (such as when saw cutting pavement or concrete) and when directed by the Engineer.
2. When dust control is not included as a separate item in the Contract, the work shall be considered incidental to the appropriate items of the Contract.

PART 2 - PRODUCTS2.1 MATERIALS

A. Water for Sprinkling:

1. Clean, free of salt, oil, and other injurious matter.

B. Calcium Chloride:

1. Meet the requirements of AASHTO M144.

PART 3 - EXECUTION3.1 APPLICATION

A. Water:

1. Apply water by methods approved by the Engineer.
2. Use approved equipment including a tank with gauge equipped pump and spray bar.

B. Calcium Chloride:

1. Apply at a rate sufficient to maintain a damp surface but low enough to assure non-contamination of water courses.
2. Apply water prior to calcium chloride addition.

END OF SECTION

SECTION 01570

TRAFFIC REGULATION

PART 1 - GENERAL

1.1 DESCRIPTION

A. Work Included:

1. Provide all materials and perform all work necessary to completely regulate traffic in the area of Work.
 2. Perform all work in such a manner as to provide safe passage at all times for the public and with a minimum of obstruction to traffic.
 3. Do not close roads or streets to passage of the public without the permission of the proper authorities.
- B. The Ayer Police Department and/or the DPW will determine if safe passage is being maintained and shall have the authority to require the contractor to take any additional steps necessary to maintain safe passage.
- C. Contractor shall determine the traffic management for each location. Police details will be required as specified in paragraph 2.2. The Contractor is responsible for providing proper detour signage and police details as required by the Town.
- D. Access to local residents and public safety vehicles must be maintained at all times.
- E. Town will pay all Police details directly.

1.2 TRAFFIC CONTROL PLAN

- A. The Contractor shall submit, at or before the Preconstruction Meeting, a Traffic Control Plan (TCP) that provides the following information, as applicable to this project:
1. The name, telephone number, and other contact numbers (cellular phone, pager, if any) of the Contractor's employee (the "Responsible Person") with overall responsibility for following the TCP, and who is empowered to immediately resolve any traffic control deficiencies or issues.
 2. Proposed construction phasing or sequencing that reasonably minimizes traffic impacts.
 3. A written narrative and/or plan explaining how traffic and pedestrians will be moved through the Project Limits, including transitions during the change from one phase of construction to the next, as applicable.
 4. Temporary traffic control treatments at all intersections with roads, rail crossings, businesses, parking lots, pedestrian ways, bike paths, trails, residences, garages, farms, and other access points, as applicable.
 5. A procedure for notifying the DPW, local emergency officials, and local residents whenever significant traffic impacts are anticipated or occur
 6. A description of any detours including provisions for constructing, maintaining, signing, and removing the detour or detours, including all temporary bridges and accessory features and complete restoration of the impacted land.

PART 2 - PRODUCTS

2.1 WARNING SIGNS AND BARRICADES

- A. Provide adequate warning signs, barricades, signal lights, watchmen and take other necessary precautions for the safety of the public.
- B. Provide and illuminate suitable warning signs to show where construction, barricades or detours exist.
- C. Provide barricades of substantial construction and painted with a finish that increases visibility at night.
- D. Keep signal lights illuminated at all barricades and obstructions from sunset to sunrise.
- E. Maintain all necessary signs, barricades, lights, watchmen and other safety precautions during authorized suspension of the Work, weekends, holidays or other times when the Work is not in progress.
- F. Traffic control signs, devices, etc., for construction work shall be located and of the size and type as outlined in Manual on Uniform Traffic Control Devices for Streets and Highways as published by U. S. Department of Transportation.

2.2 UNIFORMED POLICE OFFICER

- A. Arrange and schedule for the police details with the State Police and Ayer Police Department. The Contractor is responsible for proper scheduling and cancelling details. **The Ayer DPW will pay for all scheduled details.** If a detail is not cancelled and a cost is incurred, the Contractor will be responsible for paying for the detail.

PART 3 - EXECUTION

3.1 DETOURS

- A. Detour will not be allowed for this project.

3.2 INCONVENIENCE TO RESIDENTS OF VICINITY

- A. Whenever a traveled way is closed, perform the Work in such a manner that local travel and residents in the vicinity of the Work will be inconvenienced as little as possible.
- B. Allow access to residents, businesses and abutting land owners along the project to driveways and other normal outlets from their property.

END OF SECTION

SECTION 01720

PROJECT RECORD DOCUMENTS

PART 1 - GENERAL

1.1 DESCRIPTION

A. Work Included:

1. Keep accurate record documents for all additions, substitutions of material, variations in work, and any other additions or revisions to the Contract.

1.2 MAINTENANCE OF DOCUMENTS

A. Maintain at job site, one copy of:

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

B. Maintain documents in clean, dry, legible condition.

C. Make documents available at all times for inspection by the Engineer and Owner, and by the end of the project, transmit these documents to the Engineer.

1.3 RECORDING

A. Label each document "PROJECT RECORD" in large high printed letters.

B. Keep record documents current and do not permanently conceal any work until required information has been recorded.

C. General Field Recording Issues:

1. All ties should be taken from existing, permanent features such as utility poles, corners of houses and hydrants. Porches, sheds or other house additions should be avoided for they could be torn down. A minimum of two ties should be taken.
2. Stations should be recorded to the nearest foot.
3. Inverts should be recorded to the nearest hundredth of a foot.
4. Elevations should be recorded to the nearest hundredth of a foot.
5. Building dimensions should be recorded to the nearest 1/4".

D. Project Record Drawings - Legibly mark Contract Drawings to record existing utilities and actual construction of all work, including but not limited to the following (where applicable):

1. Existing Utilities

Water mains and services, water main gate valves, sewer mains and services, storm drains, culverts, steam lines, gas lines, tanks and other existing utilities encountered during construction must be accurately located and shown on the

Drawings. In congested areas supplemental drawings or enlargements may be required.

- a. Show any existing utilities encountered in plan and profile and properly labeled showing size, material and type of utility. Ties should be shown on plan. Utility should be drawn to scale in section (horizontally and vertically) and an elevation should be called out to the nearest hundredth of a foot.
- b. When existing utility lines are broken and repaired, ties should be taken to these locations.
- c. If existing water lines are replaced or relocated, document the area involved and pipe materials, size, etc. in a note, and with ties.
2. Manholes, Catch Basins and other structures.
 - a. Renumber structure stationing to reflect changes.
 - b. Show ties to center of structure covers or hatches.
 - c. In general, show inverts at center of structures. However, for manholes with drop structures, or steep channels (greater than 0.2' change on slope), show inverts at face of manhole.
 - d. Show inverts for other structures at the face of the structure.
 - e. Draw any new structures that are added on plan and profile.
 - f. Show any field or office redesigns.
 - g. Redraw plan if the structure's location is moved more than 5 feet in any direction.
3. Water Mains
 - a. Show ties to the location of all valves, bends (horizontal and vertical), tees and other fittings. The use of thrust blocks should be recorded.
 - b. Revise elevations indicated on the Drawings to reflect actual construction.
4. House Services
 - a. Draw all house services (even to empty lots) on plan, and show ties.
 - b. Show ties or distances to wyes from manhole.
 - c. Show chimneys heights in the profile.
5. Ledge
 - a. Ledge profiles should be shown. Note whether the plotted ledge profile reflects undisturbed or expanded conditions.
6. Yard Piping
 - a. Site piping should be drawn to reflect the installed locations, with ties and elevation of all bends (horizontal and vertical).

1.4 SUBMITTALS

- A. At the completion of the project, deliver record documents to the Engineer.
- B. Accompany submittal with transmittal letter, in duplicate, containing:
 1. Date, project title and number.
 2. Contractor's name and address.
 3. Title and number of each record document with certification that each document is completed and accurate.
 4. Signature of Contractor, or his authorized representative.

- C. Failure to supply all information on the Project Record Drawings may result in additional retainage from monthly partial payment requests, and in non-approval of final payments of the Contract and/or if contract time has elapsed, this shall be grounds for the enactment of the liquidated damages as specified.

END OF SECTION

GENERAL

These specifications are hereby made part of the Contract Documents and shall apply to all parts of the Contract. The identification of the Contract Item Number corresponds to those listed in the 2026 edition of the Standard Specifications for Highways and Bridges of the Massachusetts Department of Transportation. References to Sections and Subsections, under each contract item refers to those contained in the Standard Specifications. The Contractor must have the 2026 Standard Specifications, the latest Massachusetts Department of Transportation Construction Standard Details, the 2023 Manual on Uniform Traffic Control Devices for Streets and Highways with Massachusetts Amendments, and the latest Standard Drawings for Signs and Supports. Any item not covered in these special provisions is covered in the 2026 Standard Specifications.

ITEM 127.1

REINFORCED CONCRETE EXCAVATION

CUBIC YARD

The work under this Item shall conform to the relevant provisions of Sections 112, 120, and 140 of the Standard Specifications and the following:

The work under this Item shall include furnishing all labor, materials and equipment necessary to demolish and remove elements of the structure of the existing bridge sidewalk as indicated on the Contract Drawings and as directed by the Engineer. Removal of bituminous surface or bituminous patches on the existing bridge sidewalk shall be incidental to this item. In addition, the Contractor is required to remove all dust, loose concrete, bitumen, and debris encountered as part of the excavation and prior to installation of the new reinforcement and placement of the new concrete at the bridge sidewalk. Except as specified, all materials and debris shall become the property of the Contractor, and shall be recycled, reused or disposed of in accordance with applicable local, state and federal requirements.

The Contractor shall schedule concrete excavation operations subject to compliance with the general construction phasing scheme and subject to the approval of the Engineer. The Engineer may reject the use of any method or equipment that may cause damage to the existing structure which is to remain. Means and methods of performing the concrete excavation work are the responsibility of the Contractor. Upon completion of the excavation the Contractor shall inspect the final surface for any cracks or other damage.

No material shall be disposed of onsite, and the Contractor shall take all necessary precautions to prevent debris from falling onto the Bowers Brook.

Four (4) weeks prior to the start of demolition, the Contractor shall submit to the Engineer, for review and approval, a detailed method of demolition and dust control, including all equipment to be used at each location, and the method of preventing falling debris. Any material that falls into such areas shall be removed immediately, and at the Contractor's expense. Legal documentation indicating an approved disposal location for all waste material resulting from the demolition shall be submitted.

The Contractor's operations shall not result in any damage to adjacent structures or foundations. Any damage to adjacent structures that are to remain that are damaged as a result of the Contractor's operations shall be repaired by the Contractor to the satisfaction of the Engineer and at no additional expense.

Method of Measurement and Basis of Payment

Item 127.1 "Reinforced Concrete Excavation" shall be measured and paid for by the unit of Cubic Yard of the existing structure concrete removed which shall be full compensation for all labor, equipment, materials, tools, temporary support systems, scaffolding, transportation, disposal fees and all other incidental items necessary to complete the work for Bridge No. A-19-011.

ITEM 160.2

CONTROLLED LOW STRENGTH MATERIAL **CUBIC YARD**
MECHANICAL EXCAVATABLE (101-300 PSI)

The work under this Item shall conform to the relevant provisions of Section M4.08.0 supplemented with the following:

Controlled density fill (CDF) excavatable shall be Type 2 and shall be used to backfill around the bottom of the existing pile caps for Bents #1 and #4, extending up to the face of the caps and to fill the gap underneath the existing pile cap to provide a level bearing surface upon installation as shown in the Plans. Controlled density fill excavatable shall be one of those included on MassDOT's Qualified Construction Materials List.

Method of Measurement and Basis of Payment

This Item will be measured per cubic yard and the quantity shall be determined in accordance with the dimensions on the plans or as Directed.

This Item will be paid for at the contract unit price per Cubic Yard. This price shall include all labor, materials, equipment and incidental costs required to complete the work.

ITEM 482.31

**SAWING & SEALING JOINTS IN ASPHALT
PAVEMENT AT BRIDGES**

FOOT

The work to be done under this Item consists of making a sealed kerf across the full width of the asphalt pavement at bridge abutments where called for on the Plans. The shape, width, and depth of the kerf shall be as shown on the Plans.

The Contractor shall place a mark on each curb or barrier on either side of the roadway. These marks shall be aligned with the actual end of the bridge deck and shall be placed so that they will not be covered or otherwise obscured by the asphalt pavement.

The Contractor shall snap a straight chalk line on the pavement between these two marks. The Contractor shall then saw cut the pavement along this line to the depth, width and shape as shown on the Plans. The equipment shall be approved by the Engineer prior to commencing work.

After completing the saw cutting, the Contractor shall clean the saw groove of any dust and debris with an oil free air blast. If the groove was wet sawn, the groove shall be cleaned with a water blast to remove any remaining slurry and debris, vacuumed with a Wet-or-Dry vacuum to remove any standing water, and then dried with an air blast from a Hot-Air-Lance.

Once the groove is clean and dry, the Contractor shall fill it completely with a hot-applied bituminous crack sealer meeting the requirements of M3.05.4 in accordance with the manufacturer's application instructions and restrictions regarding ambient and material temperatures. The crack sealer shall be thoroughly cured prior to opening the road to traffic. To reduce tackiness, only boiler slag aggregate (black beauty) shall be scattered over the sealer when required by the Engineer. Conventional sand shall not be used for this purpose.

Method of Measurement and Basis of Payment

Item 482.31 "Sawing & Sealing Joints in Asphalt Pavement at Bridges" shall be measured and paid for by the unit of Linear Feet of the joint which shall be full compensation for all labor, equipment, materials, tools, temporary support systems, scaffolding, transportation, disposal fees and all other incidental items necessary to complete the work for Bridge No. A-19-011.

ITEM 628.24

TRANSITION TO BRIDGE RAIL

EACH

Description

The work under this item shall conform to the relevant provisions of Section 600 of the Standard Specifications and shall be for furnishing transition to the bridge rail at all four corners of the bridge in accordance with MassDOT Standard Detail 628.24.2 and 628.24.3. This item shall also include the additional undercut anchors to attach the approach guardrail to the existing parapet as shown on the plans.

The undercut anchors shall be stainless steel wedge anchors. Stainless steel anchors shall conform to ASTM A304. The head configuration of anchors shall be externally threaded.

Measurement and Payment

Transition to Bridge Rail will be paid for at the Contract unit price per each, which price shall include all labor, materials, equipment, and incidental costs required to complete the work. The cost of additional undercut anchors shall be incidental to this item.

ITEM 697.1

SILT SACK

EACH

Description

The work under this item shall conform to the relevant provisions of Section 670 of the Standard Specifications and the following:

Materials

The work under this item includes furnishing, installing, maintaining and removing a reusable fabric sack to be installed in drainage structures for the prevention of silt and sediment from the construction site entering the storm water collection system. Devices shall be ACF Environmental (800)448-3636; Reed & Graham Inc. (888)381-0800; or approved equal.

Construction Methods

Silt sacks shall be installed in retained existing and proposed catch basins within the project limits and as required by the Engineer.

The silt sack shall be as manufactured to fit the opening of the drainage structure under regular flow conditions, and shall be mounted under the grate. The insert shall be secured from the surface such that the grate can be removed without the insert discharging into the structure. The filter material shall be installed and maintained in accordance with the manufacturer's written literature and as directed by the Engineer.

Silt sacks shall remain in place until the placement of the pavement overlay or top course and the graded areas have become permanently stabilized by vegetative growth. All materials used for the filter fabric will become the property of the Contractor and shall be removed from the site.

The Contractor shall inspect the condition of silt sacks after each rainstorm and during major rain events. Silt sacks shall be cleaned periodically to remove and dispose of accumulated debris as required. Silt sacks, which become damaged during construction operations, shall be repaired or replaced immediately at no additional cost to the Department.

When emptying the silt sack, the contractor shall take all due care to prevent sediment from entering the structure. Any silt or other debris found in the drainage system at the end of construction shall be removed by the Contractor. The silt and sediment from the silt sack shall be legally disposed of off site. Under no condition shall silt and sediment from the insert be deposited on site and used in construction.

All curb openings shall be blocked to prevent stormwater from bypassing the device.

All debris accumulated in silt sacks shall be handled and disposed of as described in Section 227.

Measurement and Payment

Silt sacks will be measured for payment per each, complete in place.

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Silt sacks will be paid for at the Contract unit price per each, which price shall include all labor, materials, equipment and incidental costs required to complete the work. No separate payment will be made for removal and disposal of the sediment from the insert, but all costs in connection therewith shall be included in the Contract unit price bid.

ITEM 697.2

FLOATING SILT FENCE

FOOT

Description

The work to be performed under this item shall consist of all work required to furnish, place, maintain and remove temporary floating silt fences as shown on the Plans for control of sediment and debris.

Materials

The Contractor shall provide a silt curtain of commercial manufacture, with demonstrated ability to trap and hold sediment and debris, as manufactured by Elastec/American Marine, Carmi, IL; Parker Systems, Inc., Chesapeake, VA; Boom Environmental Products, New Bedford, MA; or approved equal.

The Contractor shall submit the silt fence that is proposed for use in the work for approval by the Engineer prior to shipment to the project site. Submittals shall include certificates of compliance, manufacturer's printed instructions and/or shop drawings and proposed installation/removal procedures.

The Floating Silt Fence fabric shall be woven polypropylene material recommended for use by the manufacturer for conditions anticipated at the project site. The material shall have sufficient properties to capture most types of silt, sediments, and debris. The fabric shall have ultraviolet inhibitors and adequate strength to accommodate anticipated site conditions without failing.

Construction Methods

Both ends of the Floating Silt Fence shall be tied into the banks of the river. The Floating Silt Curtain shall be placed as close as possible to the banks of the river while still allowing room for construction operations.

The floating silt fence shall not encroach on land under the jurisdiction of Article 97. This applies to both parcels along the river south of the bridge.

The Floating Silt Fences shall be provided with flotation consisting of rigid, closed cell expanded polystyrene, ethafoam, or polyethylene floats attached to the top of the silt curtain along its entire length. The flotation material shall be protected from mechanical damage and deterioration that would cause pollution. The Contractor shall employ flotation that provides the fence with a minimum of free board without gaps. The Contractor shall ensure that the buoyancy ratio (weight of displaced fluid to barrier weight) is greater than 3 to 1.

The Contractor shall provide high visibility color fabric cover for the flotation devices with a 1-inch minimum width reflective band attached on the side of the flotation covering along the entire length of the boom. The Contractor shall ensure that the flotation is secured to the boom to prevent shifting or slipping. The Contractor shall provide manufacturer installed grommets or equivalents to reinforce stress points and provide attachment points.

The floating silt fence shall incorporate anchor lines, top load lines and bottom load lines, as required, that are minimum ½-inch diameter nylon rope. The Contractor shall provide a fence with anchor lines, additional ballast, and floats that are attached to the silt fence at reinforced attachment points provided by the manufacturer.

The floating silt fence shall be provided with anchor and ballast chain of minimum ½-inch diameter galvanized steel with ballast chain sewn into a hem at the bottom of the fence and secured to the material of the hem to prevent shifting or accidental removal.

The Floating Silt Fence shall be high enough to extend to the bottom of the water channel plus 10%. The Contractor shall weight the base of the curtain with ballast so that it will remain in continuous contact with the bottom to prevent sediment and silt migration.

The floating silt fence shall be maintained in a basically vertical position. Allow a minimum of 6 inches of free board at the top of the curtain for curtain depths less than 6 feet and a minimum of 12 inches of free board for curtain depths more than 6 feet at all times along its continuous length.

For ease of handling and transportation, individual panels/sections may be connected or sewn together in the field. Do not use heat welding methods to join panels. The Contractor shall join the panels in a manner that will prevent silt, sediment, debris, or turbidity to migrate from the work area.

The Contractor shall provide anchors for the Floating Silt Fence in the size and number required to maintain the fence in position for proper and continuous operation once deployed. The Contractor shall mark the vertical position of the anchors with crown buoys to warn of their hazard and facilitate easy recovery.

The Contractor shall attach anchor chains between the anchor line and anchor to prevent line fouling, to lower the angle of load pulling on the anchor, and to act as a shock absorber. The Contractor shall employ anchor line buoys to help prevent line entanglement and stress on the boom. The Contractor shall equip each anchor line with a minimum of 10 feet of anchor chain.

After installation, the Contractor shall maintain the floating silt fence in proper working order until construction has been completed and roadway embankments have 70% vegetative cover. The curtain shall be maintained until sediment in suspension has settled and floating debris has been removed. Removal must be approved by the Engineer. The Contractor shall conduct the removal during periods of calm weather. The Contractor shall remove the fence carefully to minimize the release of trapped sediment and debris. Do not drag the fence while in contact with the water channel bottom.

The Contractor shall maintain the integrity of the Floating Silt Fence as long as it is necessary to contain sediment. The Contractor shall inspect the Floating Silt Fence daily and any observed deficiencies shall be corrected immediately.

Method of Measurement

Floating silt fence shall be measured per foot, measured at the water line along the face of the floatation silt fence.

Basis of Payment

Floating silt fence shall be paid for at the Contract unit price per foot, which price shall include all labor, materials, equipment, and incidental costs required to complete the work.

ITEM 698.3 **GEOTEXTILE FABRIC FOR SEPARATION** **SQUARE YARD**

Description

Work to be performed under this Item consists of furnishing and placing geotextile fabric in accordance with the Standard Specifications, the manufacturer's directions and the details shown on the plans.

Materials

Geotextile fabric for separation (Class 1 or Class 2) shall conform to the requirements of AASHTO M 288 in accordance with Subsection M9.50.0 of the Standard Specifications and shall be one of those included on MassDOT's Qualified Construction Materials List. Geotextile fabric shall be Class 1 or 2 in accordance with the requirements outlined in Table 4 of AASHTO M 288.

Construction Methods

The geotextile fabric shall be installed in accordance with the Construction/Installation Guidelines specified in AASHTO M288 in addition to the following requirements. Geotextile fabric shall be embedded into the embankment as shown on the plans. Fabric shall be overlapped 12 inches minimum.

Method of Measurement

Geotextile fabric for separation will be measured in square yards, complete in place. Overlapped material will not be included in the measurement.

Basis of Payment

Geotextile fabric for separation shall be paid for at the Contract unit price per square yard, which price shall include all labor, materials, equipment and incidental costs required to complete the work.

ITEM 852.11
ITEM 852.12

TEMPORARY PEDESTRIAN BARRICADE
TEMPORARY PEDESTRIAN CURB RAMP

FOOT
EACH

Description

Work for temporary pedestrian barricades and curb ramps consists of furnishing, deploying, maintaining in proper conditions, resetting, and removing temporary pedestrian barricades and temporary pedestrian ramps as part of a Temporary Pedestrian Access Route (TPAR) in order to guide pedestrians around a fully- or partially closed sidewalk. These devices are intended to prevent pedestrians from entering the work area and to prevent pedestrians from inadvertently entering the vehicle travel lane by providing visual and physical separation between each space.

Materials

The Temporary Pedestrian Barricade shall have a continuous bottom rail or edge no more than two (2) inches above the ground and eight (8) inches in height (minimum) to accommodate cane users, have a smooth and continuous hand railing along the top edge no less than 32 inches above the ground and not obstruct or project into the pedestrian path of travel. Barricade walls shall be nearly vertical and generally within the same plane.

If exposed to traffic, Temporary Pedestrian Barricades shall be crashworthy.

The Temporary Pedestrian Curb Ramp shall provide a 48-inch minimum width, with a firm, stable, and non-slip surface. Protective edging with a two (2) inch minimum height shall be installed when the curb ramp or landing platform has a vertical drop of six (6) inches or greater.

The Temporary Pedestrian Curb Ramp walkway and landing area surface shall be of a solid, continuous, contrasting color abutting up to the existing sidewalk.

If a Temporary Pedestrian Curb Ramp leads to a crosswalk, a detectable warning pad must be used at the base of the ramp; if it leads to a protected path that does not conflict with vehicular traffic then a detectable pad shall not be used.

Construction Methods

The Temporary Pedestrian Barricade shall be placed in an area that will provide pedestrians with a TPAR on a smooth, continuous hard surface for its entirety. The geometry and alignment of the facility shall meet the requirements of the "Americans with Disabilities Act Accessibility Guidelines for Buildings and Facilities" and the Massachusetts Architectural Access Board.

The recommended width of the TPAR is 60 inches, but if constraints exist a minimum clear width of 48 inches shall be provided along its entirety. If a 60 inch width cannot be accommodated in full, a 60 inch by 60 inch passing space shall be provided every 200 feet or less along the TPAR. Turning areas shall be 60 inches by 60 inches minimum.

Lateral joints between any surfaces shall not exceed 0.5 inches. Lateral edges may be vertical up to 0.25 inches high and shall be beveled at 1V:2H between 0.25 inches and 0.5 inches.

The TPAR shall be kept clear of debris, snow, and ice and the Temporary Pedestrian Barricades and Temporary Pedestrian Curb Ramps shall not obstruct drainage.

Method of Measurement and Basis of Payment

Item 852.11 “Temporary Pedestrian Barricade” and 852.12 “Temporary Pedestrian Curb Ramp” shall be measured and paid for by the unit of Linear Feet of the joint and by each curb ramp which shall be full compensation for all labor, equipment, materials, tools, temporary support systems, scaffolding, transportation, removing and resetting at a different location, disposal fees and all other incidental items necessary to complete the work for Bridge No. A-19-011.

ITEM 853.331 TEMPORARY BARRIER – LIMITED DEFLECTION (TL-2) FOOT

Description

Work under this item shall conform to the relevant provisions of Subsection 850 and shall consist of furnishing, installing, maintaining and final removal of limited deflection TL-2 temporary barrier systems for channelization of traffic and/or work zone protection. Limited deflection temporary barrier systems shall have a maximum combined working width of 39 inches which includes the width of the barrier plus the dynamic deflection and in all cases the clear area available behind the barrier shall be greater than the dynamic deflection of the barrier system. The barriers shall be used in areas where the available clear area behind the barrier systems to obstructions or vertical drop-offs is greater than the anticipated barrier deflection.

Materials

The Contractor shall use a temporary barrier system that is listed on the Qualified Traffic Control Equipment List that meets the specified working width indicated above and the minimum requirements of the AASHTO Manual on Assessing Safety Hardware (MASH) at Test Level (TL) 2 or higher.

The Contractor may submit alternate materials to the Engineer for approval if the limited deflection temporary barrier system meets the following criteria:

1. The system has been tested by an independent laboratory that is accredited by FHWA to crash test roadside hardware;
2. The system meets the minimum requirements of the AASHTO *Manual on Assessing Safety Hardware* (MASH) at Test Level (TL) 2 or higher; and
3. The system has a federal-aid eligibility letter from FHWA.

Copies of the testing results and the federal-aid eligibility letter shall be submitted and approved by the Engineer prior to procurement of an alternate temporary barrier system.

The Contractor shall supply shop drawings to confirm the available clear area behind the barrier equals or exceeds the maximum dynamic deflection of MASH Test 3-11 during testing procedures taken at an independent laboratory that is accredited by FHWA to crash test roadside hardware.

Delineators shall be installed on all limited deflection temporary barrier systems in conformance with the relevant provisions of Section 850.69 and shall be incidental to the temporary barrier systems.

Temporary impact attenuators that are listed on the Qualified Traffic Control Equipment List shall be used whenever a blunt end of the limited deflection temporary barrier system is facing traffic within the clear zone unless it is protected by a second barrier system or secured to a separate barrier system or bridge railing by a method approved by the manufacturer.

Construction Methods

Limited deflection temporary barrier systems shall be placed in line with the drawings. Installation shall be per the manufacturer's specifications, details, and the approved shop drawings.

The Contractor shall not place any breaks in the limited deflection temporary barrier system that will result in sections that are shorter than the stated minimum length-of-need (LON) under MASH Test 3-11. Exceptions shall be allowed for gate systems or changeable length segments placed over expansion joints if those barrier segment types have been tested and meet the minimum requirements of MASH Test 3-11 with the adjoining limited deflection barrier system.

Within the LON section, limited deflection temporary barrier systems shall only be placed on paved surfaces unless otherwise tested and certified under MASH TL-2 for those conditions.

Damage to the pavement surface caused by the limited deflection temporary barrier during installation, while in service, and/or during removal shall be repaired as directed by the Engineer at the Contractor's expense

Limited deflection temporary barrier systems that require anchorage systems shall conform with the relevant provisions of Section 850.70 including the restoration of roadway surfaces and bridge decks. Barrier systems selected that require anchorage systems on the new proposed bridge deck shall minimize the number of anchorage locations to the greatest extent possible. Where the bridge barrier is anchored to the proposed bridge deck, the anchor holes shall be filled with non-shrink grout upon removal of the barrier.

Method of Measurement and Basis of Payment

Item 853.331 "Temporary Barrier – Limited Deflection (TL-2) shall be measured and paid for by the unit of linear feet and shall be made at the contract price per foot for limited deflection temporary barrier installed in place, including all incidental items. This price shall include the cost of furnishing, installing, maintaining and final removal of all limited deflection temporary barrier systems.

For limited deflection temporary barrier systems that require anchorage systems, the cost of furnishing and installing the anchorage and hardware shall be considered incidental to the cost of the item.

Payment for limited deflection temporary barrier removed and reset will be made under Item 853.21.

<u>ITEM 859.1</u>	<u>REFLECTORIZED DRUMS WITH SEQUENTIAL FLASHING WARNING LIGHTS</u>	<u>UNIT DAY</u>
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Description

Work under this Section consists of furnishing, installing, maintaining in proper operating conditions, and removing reflectorized drums, and any necessary ballast, equipped with sequential flashing warning lights.

Materials

Reflectorized drums shall be listed on the MassDOT Qualified Traffic Control Equipment List.

Reflective sheeting on drums shall meet or exceed ASTM D4956 Type VIII. All drums shall be maintained in a satisfactory manner including the removal of oils, dirt, and debris that may cause reduced retroreflectivity.

The Contractor shall use one of the following sequential flashing warning light systems unless otherwise approved by the Engineer:

1. Empco-Lite LWCS.
2. pi-Lit® Sequential Barricade-Style Lamp; or
3. Unipart Dorman SynchroGUIDE.

Sequential flashing warning lights shall be secured to reflectorized drums per the light manufacturer's specifications.

Construction Methods

The first ten drums in any merging or shifting taper as designated in the Temporary Traffic Control Plan shall be equipped with sequential flashing warning lights. These lights shall be operating, at a minimum, between dusk and dawn when the taper is deployed.

The successive flashing of the sequential warning lights shall occur from the upstream end of the merging or shifting taper to the downstream end of the taper in order to identify the desired vehicle path. Each warning light in the sequence shall be flashed at a rate of not less than 55, nor more than 75 times per minute.

Warning lights shall be powered off when drums are not deployed in a taper.

Method of Measurement and Basis of Payment

Item 859.1 "Reflectorized Drums with Sequence Flashing Warning Lights" shall be measured and paid for by the unit of Day which shall be full compensation for all labor, equipment, materials, tools, temporary support systems, scaffolding, transportation, disposal fees and all other incidental items necessary to complete the work for Bridge No. A-19-011.

ITEM 908.10

CONCRETE PENETRANT

SQUARE FOOT

Description

The work under this item shall conform to the relevant provisions of Section 901 of the Standard Specifications and the following:

The concrete penetrant shall be a material listed on the Qualified Construction Materials List maintained by the MassDOT Research and Materials Section.

Concrete penetrant shall be applied to exposed faces of the bridge structure for the limits shown on the plans, after completion of the proposed improvements for each stage of construction, in accordance with these Special Provisions and the manufacturer's recommendations. Penetrant shall be applied to the existing portions of the bridge structure not repaired or modified by the work, as well as areas of new concrete for the limits shown on the plans.

Contractor shall follow all manufacturer's recommendations regarding application of the penetrant, including minimum durations for concrete curing prior to the application of penetrant.

This work shall consist of furnishing all labor, materials, and equipment required to treat concrete surfaces, including surface preparation and application.

Materials

Concrete penetrant shall conform to Materials Specification M9.15.0.

Construction Methods

Concrete penetrant shall be applied per Section 907.72 of the Supplemental Specifications.

Method of Measurement And Basis of Payment

Concrete penetrant will be measured and paid for at the Contract unit price per Square Foot of treated concrete surfaces, which price shall include all labor, material, equipment, and incidental costs required to complete the work.

ITEM 912.

DRILLING AND GROUTING DOWELS

EACH

The work under this Item shall conform to the relevant provisions of Section 901 of the Standard Specifications and the following:

The work to be done under this Item shall consist of drilling holes, furnishing, installing, and grouting of steel dowel reinforcement for the anchorage of new concrete extension to existing concrete southeast wingwalls, as shown on the Contract Plans, or as required by the Engineer.

Materials

The grout to be used for these dowels shall meet the requirements of:

1. "Garonite™ HD," as manufactured by Garon Products, Incorporated of Wall, New Jersey.
2. "FX-228®," as manufactured by Fox Industries, Incorporated of Baltimore, Maryland.
3. "Five Star® Grout," as manufactured by U.S. Grout Corp. of Fairfield, Connecticut.
4. An approved equal. A copy of MassDOT's Approved Products List may be consulted and is available on its website.

Epoxy, vinyl, or polyester resin adhesives shall not be utilized.

Reinforcing steel dowels shall meet the requirements of AASHTO M31 Grade 60. All reinforcing steel dowels shall be epoxy coated in accordance with ASTM A775. The Contractor shall follow the Manufacturer's recommendations for mixing, placing and curing the grout and placing the reinforcing dowels.

Submittals

The Contractor shall submit to the Engineer for review and approval, the methods and procedures for drilling and grouting, and dowel testing, including equipment and materials proposed for the work. The embedment length, the method and equipment used to drill the dowel holes and the diameter of the drilled hole shall, at a minimum, conform to the recommendations of the manufacturer and shall also be submitted to the Engineer for approval.

Construction Methods

The dowel embedment must be adequate to fully develop 125% of the yield strength of the bar and shall be a minimum of 12 inches in length.

The Contractor shall perform a field test on a minimum of 5% of the dowels for capacity in tension. This testing is incidental to the work under this Item.

The pullout force shall correspond to 90% of the yield strength of the bar. If any of the tested bars pull out or if the surrounding concrete shows signs of fracture, the Contractor shall adjust the hole diameter, embedment length and/or grouting material to meet this test requirement.

The method of applying the tension test load to the dowels shall conform to ASTM E488.

The details of the testing equipment used, and the locations and details of the test dowels shall be submitted to the Engineer for approval. The Contractor shall perform this test as soon as possible in order to eliminate delays in construction due to the approval process. Dowels shall not be ordered until the embedment lengths have been approved by the Engineer.

The diameter of the drilled dowel holes shall be in accordance with the recommendations of the grout manufacturer. The holes shall be blown clear of any debris and shall be approved by the Engineer prior to the placement of any grout materials.

The Contractor shall strictly follow the recommendations of the manufacturer for mixing and placing the grout material prior to the placement of the dowels. The Contractor shall adhere to the recommendations of the manufacturer regarding minimum and maximum temperatures while placing the grout. Any excessive grout around the hole after placement of the dowel shall be struck off smooth while the grout is still fresh.

All dowel holes shall be drilled at locations where impact or percussion type drills would be likely to damage adjacent concrete; however, the drill holes shall be intentionally roughened in these instances to ensure proper adhesion of the grout. No impact or percussion type drills will be allowed unless approved by the Engineer. The drilling operation shall be performed without damage to any existing reinforcing or portion of the structure that is to remain in place. All holes shall be blown clear of any foreign material prior to placement of the grout.

The Contractor shall have no claim for any variations in the diameter of the hole, the embedment length, the method of coring the holes or the type of grout used in anchoring the proposed dowels.

Manufacturer's Representative

The Contractor shall arrange with the materials manufacturer or distributor to have the services of a competent field representative at the work site prior to any drilling of the proposed dowel holes to instruct the work crews in proper dowel installation procedures.

The field representative shall remain at the job site after work commences and continue to instruct until the representative and the Contractor, Inspector and/or Engineer are satisfied that the crew has mastered the technique of installing the dowels successfully. The representative shall make periodic visits to the Project as the work progresses and shall confer on each visit with the Contractor, Inspector, and/or Engineer. The manufacturer's field representative must be fully qualified to perform the work and shall be subject to the approval of the Engineer.

The Contractor is responsible for the expense of the services of the required field representative.

27DPW01
Barnum Road over Bowers Brook Bridge Rehabilitation

<u>ITEM 989.201</u>	<u>REPAIRS TO CONCRETE – TYPE A, BRIDGE NO. A-19-011 (25M)</u>	<u>CUBIC YARD</u>
<u>ITEM 989.202</u>	<u>REPAIRS TO CONCRETE – TYPE B, BRIDGE NO. A-19-011 (25M)</u>	<u>SQUARE YARD</u>
<u>ITEM 989.203</u>	<u>REPAIRS TO CONCRETE – TYPE C, BRIDGE NO. A-19-011 (25M)</u>	<u>LINEAR FEET</u>

Description

The work under this Item shall conform to the applicable provisions of Section 995 of the Standard Specifications and the specific requirements stipulated below for the component parts of this Item.

Work under this Item shall include all materials, equipment and labor needed to construct the following:

- Repairs of spalled, delaminated, cracked, and exposed reinforcing concrete as shown on the plans.
- All the deterioration mappings shown on the plans were observed during field visits in August, 2023 and more deterioration shall be expected.
- The Contractor shall report immediately to the engineer for any deterioration that is significantly exceeding the limits shown on the plans and shall not continue work without directions from the engineer.

If any temporary shoring for the structure becomes necessary, it will be considered part of this item and will be the contractor's responsibility.

CONCRETE REPAIR TYPE A

Work shall consist of surveying the existing concrete structure to locate and remove loose concrete, deteriorated concrete, and concrete overlaying hollow areas; patching these areas as well as spalled and scaled areas with patching material to the original contour, in accordance with these specifications and the Contract Drawings.

Concrete Repair Type A shall be performed when the area to be patched is greater than 4 square feet or the depth of the patch is greater than 3 inches or the full depth of reinforcement. Repair shall also include preparation of areas to be patched (including exposed reinforcing) and the application of a bonding compound for bonding new concrete to cured concrete. The surfaces to be bonded are as indicated on the Contract Drawings.

The Contractor shall submit repair schedule, proposed procedures and details for approval.

Materials

Patching Material

Patching material for Concrete Repair Type A shall be 4000 psi, 3/8-inch, 660 Cement Concrete or shall be used from the MassDOT QCML. The concrete mix shall contain a calcium nitrite corrosion inhibitor admixture, or approved equal, meeting all the requirements.

Single Component Zinc Primer

The single component zinc rich primer shall be used from the MassDOT QCML.

Epoxy Bonding Compound

The Epoxy Bonding Compound shall be from the MassDOT Approved Materials List.

Construction Methods

Concrete Removal and Surface Preparation

A survey of the existing structure shall be performed by the Contractor, to determine the exact limits and locations of all areas to be repaired. The limits of application shall not exceed the requirements as specified herein.

Spalled and scaled areas shall be made free of all loose and deteriorated concrete. Loose and deteriorated concrete shall be chipped away back to sound concrete. The exposed surfaces shall be thoroughly sandblasted and vacuumed immediately prior to applying the patch material.

Hollow areas in the existing concrete shall be completely exposed by chipping away the overlaying concrete. The exposed surfaces shall be chipped away back to sound concrete and thoroughly sandblasted and vacuumed immediately prior to applying the patch material.

Extreme care shall be taken where reinforcing steel is uncovered not to damage the steel or its bond in the surrounding concrete. Pneumatic tools shall not be placed in directed contact with reinforcing steel. Maximum 15 lb. size hammers shall be used for general chipping and removal. Exposed reinforcing shall remain in place except where specifically indicated for removal by direction of the Engineer. Exposed reinforcing steel shall be sandblasted in accordance with SSPC-SP-6, Commercial Blast Cleaning, to remove all contaminants, rust and rust scale. The exposed blast cleaned reinforcing steel shall be coated with the single component zinc primer by brush. All application of the zinc primer shall be in accordance with the manufacturer's printed instructions.

All compressed air equipment used in cleaning shall have properly sized and designed oil separators, attached and functional, to assure the delivery of oil free air to the nozzle.

Where the existing reinforcing steel is severely corroded or damaged such that reinforcing steel has lost more than 15% of the original bar area, the corroded/damaged portion shall be cut out and replaced with new reinforcing steel of the same size with a minimum length for lap splices as required under the tension lap splice requirements set forth under the AASHTO Standard Specifications for Highway Bridges. Where the lap splice length could not be installed, the Contractor shall use a mechanical splice system as directed by the Engineer. Concrete shall be removed to a minimum depth of 3/4 inch behind the existing steel.

When using sandblasting equipment, all work shall be shielded for the protection of the public. Adequate measures shall be taken by the Contractor to prevent concrete chips, tools and/or materials from entering into adjacent roadway lanes or dropping to areas below the structure. All debris shall be promptly swept up and removed from the site. All materials removed shall be satisfactorily disposed of by the Contractor.

The surfaces to be patched, including exposed reinforcing, shall be free of oil, solvent, grease, dirt, dust, bitumen, rust, loose particles, and foreign matter. If an air hose is used, care shall be taken to avoid deposit of oil by the air pump.

Epoxy Bonding Compound Application for Concrete Repair Type A

Before the repair concrete is applied, the surface to which it is to be bonded shall receive a coat of epoxy bonding compound. Surface preparation shall be in strict compliance with the manufacturers' recommendations.

Also, the Contractor is alerted to the fact that some of the repair areas are large. Special procedures may be required in order to perform the concrete patches within the material setting time. Otherwise, an epoxy compound with extended setting time should be used. If the bonding material has passed its contact time, concrete shall not be placed, and the Contractor shall follow the manufacturer's recommendations for removal and re-application requirements.

Inspection of Completed Patches

Cured patches shall be sounded by the Engineer to detect the presence of any hollow spots. Such spots shall be removed and replaced by the Contractor until the work is found to be acceptable to the Engineer.

CONCRETE REPAIR TYPE B

Work shall consist of surveying the existing concrete structure to locate and remove loose concrete, deteriorated concrete, and concrete overlaying hollow areas; patching these areas as well as spalled and scaled areas with patching material to the original contour, in accordance with these specifications and the Contract Drawings.

Concrete Repair Type B shall be performed when the area to be patched is less than or equal to 4 square feet and depth is less than or equal to 3 inches. This work shall also include preparation of areas to be patched (including exposed reinforcing).

This work shall conform to the applicable provisions of Sections 112 and 901 of the Standard Specifications and the specific requirements stipulated below.

The Contractor shall submit repair schedule, proposed procedures and details for approval.

Materials

Patching Material

Patching material product for Concrete Repair Type B shall be chosen from the MassDOT QCML.

Patching Material shall contain corrosion inhibitor admixture such as calcium nitrite and meet all the requirements.

Compatibility

The patching material, corrosion inhibiting admixture, concrete protective coating, bonding material, if required, shall be compatible with each other.

Construction Methods

Concrete Removal and Surface Preparation

A survey of the existing structure shall be performed by the Contractor to determine the exact limits and locations of all areas to be repaired under this item. The limits of application shall not exceed the requirements as specified herein.

Spalled and scaled areas shall be made free of all loose and deteriorated concrete. Loose and deteriorated concrete shall be chipped away back to sound concrete. The exposed surfaces shall be thoroughly sandblasted and vacuumed immediately prior to applying the patch material.

Hollow areas in the existing concrete shall be completely exposed by chipping away the overlaying concrete. The exposed surfaces shall be chipped away back to sound concrete and thoroughly sandblasted and vacuumed immediately prior to applying the patch material.

Extreme care shall be taken where reinforcing steel is uncovered not to damage the steel or its bond in the surrounding concrete. Pneumatic tools shall not be placed in directed contact with reinforcing steel. Maximum 15 lb. size hammers shall be used for general chipping and removal. Exposed reinforcing shall remain in place except where specifically indicated for removal by direction of the Engineer. Exposed reinforcing steel shall be sandblasted in accordance with SSPC-SP-6, Commercial Blast Cleaning, to remove all contaminants, rust and rust scale.

All compressed air equipment used in cleaning shall have properly sized and designed oil separators, attached and functional, to assure the delivery of oil free air to the nozzle.

Type B repairs are not expected to expose existing reinforcing. However, if the existing reinforcing is exposed when performing a Type B repair, the repair shall be performed as a Type A repair.

Concrete shall be removed to a minimum depth of 3/4 inch behind the existing steel.

When using sandblasting equipment, all work shall be shielded for the protection of the public. Adequate measures shall be taken by the Contractor to prevent concrete chips, tools and/or materials from entering into adjacent roadway lanes or dropping to areas below the structure. All debris shall be promptly swept up and removed from the site. All materials removed shall be satisfactorily disposed of by the Contractor.

The surfaces to be patched, including exposed reinforcing, shall be free of oil, solvent, grease, dirt, dust, bitumen, rust, loose particles, and foreign matter. If an air hose is used, care shall be taken to avoid deposit of oil by the air pump.

The exposed blast cleaned reinforcing steel shall be coated with the single component zinc primer by brush. All application of the zinc primer shall be in accordance with the manufacturer's printed instructions.

Epoxy Bonding Compound Application for Concrete Repair Type B

Before the repair concrete is applied, the surface to which it is to be bonded shall receive a coat of epoxy bonding compound if required by the manufacturer. Surface preparation shall be in strict compliance with the manufacturers' recommendations.

Placing Patching Material

All mixing and application of the patch material shall be done in strict accordance with the printed instructions supplied by the manufacturer.

At the time of patch material application, the surfaces to be patched shall be damp (saturated surface dry) with no glistening water.

The patch material shall be packed into the substrate, filling all pores and voids, then forced against the edges of the repair area working toward the center. After filling the voids, the patch material shall be compacted, and the surfaces struck off with a steel trowel to match the adjacent surfaces.

Curing of patches shall be in strict accordance with the printed instructions supplied by the manufacturer.

Inspection of Completed Patches

Cured patches shall be sounded by the Engineer to detect the presence of any hollow spots. Such spots shall be removed and replaced by the Contractor until the work is found to be acceptable to the Engineer.

CONCRETE REPAIR TYPE C

The work includes all labor, materials and equipment necessary to complete the work specified in this Section, complete in place, including but not limited to the following:

1. Injection grouting of structural and non-structural elements into the existing cracks.
2. Selective demolition, removal and disposal of materials and debris necessary for the epoxy injection or drilling of injecting ports.

Limits of Work: Contract Drawings indicate repair locations and typical repair details anticipated for this project.

Materials

Concrete Repair Type C, epoxy injection of cracks, material shall conform to the following requirements and the concrete crack sealer products must be chosen from MassDOT QCML:

1. Compressive Properties (ASTM D-695) at 28 days
 - a. Compressive Strength: 10,000 psi min
 - b. Modulus of Elasticity: 300,000 psi min
2. Tensile Properties (ASTM D-638) at 14 days
 - a. Tensile Strength: 7000 psi min
 - b. Elongation at Break: ... 3-5%
 - c. Modulus of Elasticity: 340,000 psi min
3. Flexural Properties (ASTM D-790) at 14 days
 - a. Flexural Strength (Modulus of Rupture): 12,000 psi min.
 - b. Tangent Modulus of Elasticity in Bending: 300,000 psi min
4. Shear Strength (ASTM D-732) at 14 days: 4500 psi min
5. Total Water Absorption (ASTM D-570) at 7 days: 1.5% max. (2 hour boil)
6. Bond Strength (ASTM C-882) Hardened Concrete to Hardened Concrete
 - a. 2 day (dry cure): 2800 psi min
 - b. 4 day (moist cure): 2000 psi min
7. Deflection Temperature (ASTM D-648) at 14 days: 104F min (fiber stress loading = 264 psi)
8. The epoxy resin adhesive shall conform to ASTM C-881, and AASHTO M235-90.
9. The epoxy resin adhesive shall be approved by the United States Department of Agriculture.

Submittals

Submit manufacturer's literature and certified test data from independent testing laboratories for all specified materials. Test data shall verify materials comply with referenced standards and physical and performance properties. Testing shall incorporate the material properties indicated on the Drawings for the existing concrete structure.

Delivery, Storage and Handling: Epoxy Injection of Cracks materials and accessories shall be in original unopened packages, clearly labeled with the manufacturer's identification and printed instructions. Store and handle in accordance with the recommendations of the manufacturer.

Environmental Conditions: Refer to manufacturer's literature for any physical or environmental limitations.

Construction Methods

Any components of the bridge which is damaged or otherwise made unsatisfactory as a result of Contractor's operations shall be repaired by the Contractor at no additional cost.

During the prosecution of work under this Item for the removal of deteriorated concrete, the Engineer may reject the use of any method or equipment, which causes undue vibration or possible damage to the structure or any part thereof.

The Contractor shall take all measure necessary to protect pedestrian and vehicular traffic from construction operations. No debris, tools, or incidental equipment of any kind will be permitted to fall into areas where vehicular or pedestrian traffic exists.

Any material that accidentally falls into such areas shall be removed immediately. All materials removed under this item shall be removed from the job site and disposed of in a lawful manner.

Epoxy Injection of Cracks

1. Surface preparation and crack preparation: Surface must be clean and sound. Clean the cracks. Remove dust, dirt, debris, oil, laitance, grease, curing compound, impregnations, waxes and other bond inhibiting materials and materials which will prevent epoxy penetration.
2. Use injection equipment as recommended by the material manufacturer. Set appropriate injection ports based on system used. Seal ports and cracks with materials specified by the crack filler material manufacturer. Inject full depth of cracks in strict accordance with manufacturer's written instructions.
3. Mix materials in strict accordance with manufacturer's instructions.
4. Clean Up: Clean equipment and adjacent surfaces as recommended by material manufacturer.
5. Remove injection ports and sealing materials from surfaces of concrete. Grind surface smoothly. Clean concrete surface to match adjacent concrete.

CALCIUM NITRITE CORROSION INHIBITOR ADMIXTURE

The concrete mix for the concrete repairs shall contain a calcium nitrite corrosion inhibitor admixture or approved equal.

The admixture shall conform to AASHTO M 194 and MassDOT M4.06.1 requirements. The admixture shall be manufactured by a supplier pre-approved by MassDOT. The dosage of admixture for a given application shall be selected in strict compliance with the manufacturer recommendations but shall not be less than that specified in MassDOT M4.06.1.

EPOXY BONDING COMPOUND

The epoxy bonding compound shall conform to the requirements of AASHTO M325 Class V. The final formulation shall be a 100% solids system and no diluents, wetting agents, or volatile solvents shall be incorporated.

STEEL REINFORCEMENT FOR STRUCTURES – EPOXY COATED

Description

The work under this Item shall conform to the applicable provisions of Section 901 of the Standard Specifications and shall include all steel reinforcement and epoxy coated welded wire mesh utilized for the repairs to the existing substructure elements. All other steel reinforcement shall be included under Item 995.01.

Method of Measurement and Basis of Payment

Items 989.201, 989.202 and 989.203 “Repairs To Concrete – Type A, Bridge No. A-19-011 (25M)”, “Repairs To Concrete – Type B, Bridge No. A-19-011 (25M)”, and “Repairs To Concrete – Type C, Bridge No. A-19-011 (25M)” will be measured for payment as a Cubic Yard, Square Yard and Linear Feet and shall be paid for as a Cubic Yard, Square Yard and Linear Feet, which shall include full compensation for all labor, equipment, materials, tools and incidental costs required to complete the work. Any temporary shoring required to complete the work shall be incidental to Items 989.201, 989.202 and 989.203.

ITEM 994.01

TEMPORARY PROTECTIVE SHIELDING
BRIDGE NO. A-19-011

LUMP SUM

The work under this Item shall consist of designing, furnishing, erecting, maintaining, removing, and disposing of temporary protective shielding to protect Bowers Brook from falling debris during bridge rehabilitation.

Prior to the start of rehabilitation, the Contractor shall be required to submit the details of the temporary shielding to the Engineer for review and approval. The plans will be reviewed as to the methods of erection and as to whether or not the proposed installation will provide the required level of protection. It is the Contractor's responsibility to design the protection shielding to conform to all Federal, State and Local laws and regulations and the requirements contained in the Contract Documents. The protection shielding shall be designed by a Professional Engineer registered in the Commonwealth of Massachusetts. The drawings and calculations shall bear his/her seal when they are submitted to the Engineer. Written approval must be obtained prior to erection of the protection shielding.

The shielding shall be designed to safely withstand all loads that it will be subjected to. The allowable design stresses shall be in accordance with AASHTO Standard Specifications for Highway Bridges. The design of the shielding for concrete removal shall also include a complete description of the equipment and construction methods proposed for the concrete removal and also the maximum size of concrete area being excavated. The shielding shall also be designed to withstand the maximum size of concrete area excavated should it fall inadvertently. The design height of fall shall be shown in the Contractor's submission.

Contractor to note that he/she should be able to repair the underside of the bridge deck repair while shielding is in place. Also to note that there are limited clearances between the underside of the bridge and the water surface level and therefore it is suggested that the repair work and the installation of the shielding be performed during the low water level conditions.

The shielding shall extend the full length of the bridge span and a sufficient distance above and beyond the deck overhang at the fascia to protect the waterway below. All spaces along the perimeter of the shielding and at the seams shall be sealed to prevent dust and debris from escaping and falling into Bowers Brook.

The shielding shall be maintained and remain in place until the rehabilitation is complete. Shielding shall be removed only upon approval of the Engineer. After completion, the shielding shall be removed and disposed of properly. All materials used in the shielding system shall be the property of the Contractor and shall be completely removed from the site at the completion of the project.

Under Item 994.01 of the Contract, the Contractor will be paid the Contract Lump Sum price for Protective Shielding, which price shall include full compensation for the design of the shielding scheme, all equipment, materials, tools and labor necessary for the installation, maintenance, operation, removal and disposal of the protective shielding. Payment of 75% of the Lump Sum Bid Price of this Item will be paid upon complete installation and approval by the Engineer. It will be further divided 50% after completion of complete installation and 25% after approval by the Engineer. The remaining 25% of the Lump Sum Bid Price of this Item will be paid following complete removal and disposal of the shielding from the project.

APPENDIX A – PREVAILING WAGE RATES



**THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT
DEPARTMENT OF LABOR STANDARDS
Prevailing Wage Rates**

MAURA HEALEY
Governor
KIM DRISCOLL
Lt. Governor

As determined by the Director under the provisions of the
Massachusetts General Laws, Chapter 149, Sections 26 to 27H

LAUREN JONES
Secretary
MICHAEL FLANAGAN
Director

Awarding Authority: Ayer - Department of Public Works **City/Town:** AYER
Contract Number:
Description of Work: Bridge Rehabilitation; Concrete Repairs; Guardrail Improvements; Slope Improvements
Job Location: Barnum Road, Ayer, MA 01432

Information about Prevailing Wage Schedules for Awarding Authorities and Contractors

- The wage rates will remain in effect for the duration of the project, except in the case of multi-year public construction projects. For construction projects lasting longer than one year, awarding authorities must request an updated wage schedule no later than two weeks before the anniversary of the date the contract was executed by the awarding authority and the general contractor. For multi-year CM AT RISK projects, the awarding authority must request an annual update no later than two weeks before the anniversary date, determined as the earlier of: (a) the execution date of the GMP Amendment, or (b) the execution date of the first amendment to permit procurement of construction services. The updated wage schedule must be provided to all contractors, including general and sub-contractors, working on the construction project.
- This annual update requirement is generally not applicable to 27F "rental of equipment" contracts. For such contracts, the prevailing wage rates issued by DLS shall remain in effect for the duration of the contract term. However, if the prevailing wage rate sheet issued does not contain wage rates for each year covered by the contract term, the Awarding Authority must request updated rate sheets from DLS and provide them to the contractor to ensure the correct rates are being paid throughout the duration of the contract. Additionally, if an Awarding Authority exercises an option to renew or extend the contract term, they must request updated rate sheets from DLS and provide them to the contractor.
- This wage schedule applies only to the specific project referenced at the top of this page and uniquely identified by the "Wage Request Number" on all pages of this schedule.
- An Awarding Authority must request an updated wage schedule if it has not opened bids or selected a contractor within 90 days of the date of issuance of the wage schedule. For CM AT RISK projects (bid pursuant to G.L. c.149A), the earlier of: (a) the execution date of the GMP Amendment, or (b) the bid for the first construction scope of work must be within 90-days of the wage schedule issuance date.
- The wage schedule shall be incorporated in any advertisement or call for bids for the project as required by M.G.L. c. 149, § 27. The wage schedule shall be made a part of the contract awarded for the project. The wage schedule must be posted in a conspicuous place at the work site for the life of the project in accordance with M.G.L. c. 149 § 27. The wages listed on the wage schedule must be paid to employees performing construction work on the project whether they are employed by the prime contractor, a filed sub-bidder, or a sub-contractor.
- Apprentices working on the project are required to be registered with the Massachusetts Division of Apprentice Standards (DAS). Apprentices must keep their apprentice identification card on their persons during all work hours on the project. An apprentice registered with DAS may be paid the lower apprentice wage rate at the applicable step as provided on the prevailing wage schedule. **Any apprentice not registered with DAS regardless of whether they are registered with another federal, state, local, or private agency must be paid the journeyworker's rate.**
- Every contractor or subcontractor working on the construction project must submit weekly payroll reports and a Statement of Compliance directly to the awarding authority by mail or email and keep them on file for three years. Each weekly payroll report must contain: the employee's name, address, occupational classification, hours worked, and wages paid. Do not submit weekly payroll reports to DLS. For a sample payroll reporting form go to <http://www.mass.gov/dols/pw>.
- Contractors with questions about the wage rates or classifications included on the wage schedule have an affirmative obligation to inquire with DLS at (617) 626-6953.
- Contractors must obtain the wage schedules from awarding authorities. Failure of a contractor or subcontractor to pay the prevailing wage rates listed on the wage schedule to all employees who perform construction work on the project is a violation of the law and subjects the contractor or subcontractor to civil and criminal penalties.
- Employees not receiving the prevailing wage rate set forth on the wage schedule may file a complaint with the Fair Labor Division of the office of the Attorney General at (617) 727-3465.

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
(2 AXLE) DRIVER - EQUIPMENT	6/1/2026	\$41.95	\$16.17	\$21.78	\$0.00	\$0.00	\$79.90
TEAMSTERS JOINT COUNCIL NO. 10	12/1/2026	\$41.95	\$16.17	\$23.52	\$0.00	\$0.00	\$81.64
TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	1/1/2027	\$41.95	\$16.77	\$23.52	\$0.00	\$0.00	\$82.24
(3 AXLE) DRIVER - EQUIPMENT	6/1/2026	\$42.02	\$16.17	\$21.78	\$0.00	\$0.00	\$79.97
TEAMSTERS JOINT COUNCIL NO. 10	12/1/2026	\$42.02	\$16.17	\$23.52	\$0.00	\$0.00	\$81.71
TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	1/1/2027	\$42.02	\$16.77	\$23.52	\$0.00	\$0.00	\$82.31
(4 & 5 AXLE) DRIVER - EQUIPMENT	6/1/2026	\$42.14	\$16.17	\$21.78	\$0.00	\$0.00	\$80.09
TEAMSTERS JOINT COUNCIL NO. 10	12/1/2026	\$42.14	\$16.17	\$23.52	\$0.00	\$0.00	\$81.83
TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	1/1/2027	\$42.14	\$16.77	\$23.52	\$0.00	\$0.00	\$82.43
ADS/SUBMERSIBLE PILOT	8/1/2024	\$117.16	\$10.08	\$11.62	\$12.67	\$0.00	\$151.53
PILE DRIVER LOCAL 56							
PILE DRIVER LOCAL 56 (ZONE 2)							
For apprentice rates see "Apprentice- PILE DRIVER"							
AIR TRACK OPERATOR	6/1/2026	\$42.41	\$10.90	\$9.75	\$9.11	\$0.00	\$72.17
LABORERS	12/1/2026	\$43.85	\$10.90	\$9.75	\$9.11	\$0.00	\$73.61
LABORERS - ZONE 2	6/1/2027	\$45.30	\$10.90	\$9.75	\$9.11	\$0.00	\$75.06
	12/1/2027	\$46.75	\$10.90	\$9.75	\$9.11	\$0.00	\$76.51
	6/1/2028	\$48.25	\$10.90	\$9.75	\$9.11	\$0.00	\$78.01
	12/1/2028	\$49.75	\$10.90	\$9.75	\$9.11	\$0.00	\$79.51
For apprentice rates see "Apprentice- LABORER"							
AIR TRACK OPERATOR (HEAVY & HIGHWAY)	6/1/2026	\$42.41	\$10.90	\$9.75	\$9.21	\$0.00	\$72.27
LABORERS	12/1/2026	\$43.85	\$10.90	\$9.75	\$9.21	\$0.00	\$73.71
LABORERS - ZONE 2 (HEAVY & HIGHWAY)							
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"							
ASBESTOS REMOVER - PIPE / MECH. EQUIPT.	12/1/2025	\$44.80	\$14.50	\$4.30	\$6.75	\$0.00	\$70.35
HEAT & FROST INSULATORS LOCAL 6							
HEAT & FROST INSULATORS LOCAL 6 (BOSTON)							
ASPHALT RAKER	6/1/2026	\$41.91	\$10.90	\$9.75	\$9.11	\$0.00	\$71.67
LABORERS	12/1/2026	\$43.35	\$10.90	\$9.75	\$9.11	\$0.00	\$73.11
LABORERS - ZONE 2	6/1/2027	\$44.80	\$10.90	\$9.75	\$9.11	\$0.00	\$74.56
	12/1/2027	\$46.25	\$10.90	\$9.75	\$9.11	\$0.00	\$76.01
	6/1/2028	\$47.75	\$10.90	\$9.75	\$9.11	\$0.00	\$77.51
	12/1/2028	\$49.25	\$10.90	\$9.75	\$9.11	\$0.00	\$79.01
For apprentice rates see "Apprentice- LABORER"							
ASPHALT RAKER (HEAVY & HIGHWAY)	6/1/2026	\$41.91	\$10.90	\$9.75	\$9.21	\$0.00	\$71.77
LABORERS	12/1/2026	\$43.35	\$10.90	\$9.75	\$9.21	\$0.00	\$73.21
LABORERS - ZONE 2 (HEAVY & HIGHWAY)							
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"							
ASPHALT/CONCRETE/CRUSHER PLANT-ON SITE	6/1/2026	\$59.38	\$17.05	\$13.35	\$3.25	\$0.00	\$93.03
OPERATING ENGINEERS LOCAL 4	12/1/2026	\$60.83	\$17.05	\$13.35	\$3.25	\$0.00	\$94.48
OPERATING ENGINEERS LOCAL 4							
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
BACKHOE/FRONT-END LOADER	6/1/2026	\$59.38	\$17.05	\$13.35	\$3.25	\$0.00	\$93.03
OPERATING ENGINEERS LOCAL 4	12/1/2026	\$60.83	\$17.05	\$13.35	\$3.25	\$0.00	\$94.48
OPERATING ENGINEERS LOCAL 4							

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

BARCO-TYPE JUMPING TAMPER	6/1/2026	\$41.91	\$10.90	\$9.75	\$9.11	\$0.00	\$71.67
LABORERS	12/1/2026	\$43.35	\$10.90	\$9.75	\$9.11	\$0.00	\$73.11
LABORERS - ZONE 2	6/1/2027	\$44.80	\$10.90	\$9.75	\$9.11	\$0.00	\$74.56
	12/1/2027	\$46.25	\$10.90	\$9.75	\$9.11	\$0.00	\$76.01
	6/1/2028	\$47.75	\$10.90	\$9.75	\$9.11	\$0.00	\$77.51
	12/1/2028	\$49.25	\$10.90	\$9.75	\$9.11	\$0.00	\$79.01

For apprentice rates see "Apprentice- LABORER"

BLOCK PAVER, RAMMER / CURB SETTER	6/1/2026	\$42.41	\$10.90	\$9.75	\$9.11	\$0.00	\$72.17
LABORERS	12/1/2026	\$43.85	\$10.90	\$9.75	\$9.11	\$0.00	\$73.61
LABORERS - ZONE 2	6/1/2027	\$45.30	\$10.90	\$9.75	\$9.11	\$0.00	\$75.06
	12/1/2027	\$46.75	\$10.90	\$9.75	\$9.11	\$0.00	\$76.51
	6/1/2028	\$48.25	\$10.90	\$9.75	\$9.11	\$0.00	\$78.01
	12/1/2028	\$49.75	\$10.90	\$9.75	\$9.11	\$0.00	\$79.51

For apprentice rates see "Apprentice- LABORER"

BLOCK PAVER, RAMMER / CURB SETTER (HEAVY & HIGHWAY)	6/1/2026	\$42.41	\$10.90	\$9.75	\$9.21	\$0.00	\$72.27
LABORERS	12/1/2026	\$43.85	\$10.90	\$9.75	\$9.21	\$0.00	\$73.71
LABORERS - ZONE 2 (HEAVY & HIGHWAY)							

For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"

BOILER MAKER	1/1/2024	\$48.12	\$7.07	\$14.60	\$6.00	\$0.00	\$75.79
BOILERMAKERS LOCAL 29							
BOILERMAKERS LOCAL 29							

Apprentice: BOILER MAKER**Effective Date: 1/1/2024**

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	65.00	\$31.28	\$7.07	\$9.32	\$3.90	\$0.00	\$51.57
2	65.00	\$31.28	\$7.07	\$9.32	\$3.90	\$0.00	\$51.57
3	70.00	\$33.68	\$7.07	\$10.03	\$4.20	\$0.00	\$54.98
4	75.00	\$36.09	\$7.07	\$10.74	\$4.50	\$0.00	\$58.40
5	80.00	\$38.50	\$7.07	\$11.45	\$4.80	\$0.00	\$61.82
6	85.00	\$40.90	\$7.07	\$12.18	\$5.10	\$0.00	\$65.25
7	90.00	\$43.31	\$7.07	\$12.88	\$5.40	\$0.00	\$68.66
8	95.00	\$45.71	\$7.07	\$13.62	\$5.70	\$0.00	\$72.10

Apprentice to Journeyworker Ratio: 1:4

BRICK/STONE/ARTIFICIAL MASONRY (INCL. MASONRY WATERPROOFING)	2/1/2026	\$65.81	\$12.84	\$15.57	\$7.33	\$0.00	\$101.55
BRICKLAYERS LOCAL 3	8/1/2026	\$68.01	\$12.84	\$15.57	\$7.33	\$0.00	\$103.75
BRICKLAYERS LOCAL 3 (LOWELL)	2/1/2027	\$69.41	\$12.84	\$15.57	\$7.33	\$0.00	\$105.15

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate																																																
Apprentice: BRICK/STONE/ARTIFICIAL MASONRY (INCL. MASONRY WATERPROOFING) Effective Date: 2/1/2026 <table><thead><tr><th>Step</th><th>Percent</th><th>Apprentice Base Wage</th><th>Health</th><th>Pension</th><th>Annuity</th><th>Supplemental Unemployment</th><th>Total Rate</th></tr></thead><tbody><tr><td>1</td><td>50.00</td><td>\$32.91</td><td>\$12.84</td><td>\$15.57</td><td>\$7.33</td><td>\$0.00</td><td>\$68.65</td></tr><tr><td>2</td><td>60.00</td><td>\$39.49</td><td>\$12.84</td><td>\$15.57</td><td>\$7.33</td><td>\$0.00</td><td>\$75.23</td></tr><tr><td>3</td><td>70.00</td><td>\$46.07</td><td>\$12.84</td><td>\$15.57</td><td>\$7.33</td><td>\$0.00</td><td>\$81.81</td></tr><tr><td>4</td><td>80.00</td><td>\$52.65</td><td>\$12.84</td><td>\$15.57</td><td>\$7.33</td><td>\$0.00</td><td>\$88.39</td></tr><tr><td>5</td><td>90.00</td><td>\$59.23</td><td>\$12.84</td><td>\$15.57</td><td>\$7.33</td><td>\$0.00</td><td>\$94.97</td></tr></tbody></table>								Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate	1	50.00	\$32.91	\$12.84	\$15.57	\$7.33	\$0.00	\$68.65	2	60.00	\$39.49	\$12.84	\$15.57	\$7.33	\$0.00	\$75.23	3	70.00	\$46.07	\$12.84	\$15.57	\$7.33	\$0.00	\$81.81	4	80.00	\$52.65	\$12.84	\$15.57	\$7.33	\$0.00	\$88.39	5	90.00	\$59.23	\$12.84	\$15.57	\$7.33	\$0.00	\$94.97
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate																																																
1	50.00	\$32.91	\$12.84	\$15.57	\$7.33	\$0.00	\$68.65																																																
2	60.00	\$39.49	\$12.84	\$15.57	\$7.33	\$0.00	\$75.23																																																
3	70.00	\$46.07	\$12.84	\$15.57	\$7.33	\$0.00	\$81.81																																																
4	80.00	\$52.65	\$12.84	\$15.57	\$7.33	\$0.00	\$88.39																																																
5	90.00	\$59.23	\$12.84	\$15.57	\$7.33	\$0.00	\$94.97																																																
Apprentice: BRICK/STONE/ARTIFICIAL MASONRY (INCL. MASONRY WATERPROOFING) Effective Date: 8/1/2026 <table><thead><tr><th>Step</th><th>Percent</th><th>Apprentice Base Wage</th><th>Health</th><th>Pension</th><th>Annuity</th><th>Supplemental Unemployment</th><th>Total Rate</th></tr></thead><tbody><tr><td>1</td><td>50.00</td><td>\$34.01</td><td>\$12.84</td><td>\$15.57</td><td>\$7.33</td><td>\$0.00</td><td>\$69.75</td></tr><tr><td>2</td><td>60.00</td><td>\$40.81</td><td>\$12.84</td><td>\$15.57</td><td>\$7.33</td><td>\$0.00</td><td>\$76.55</td></tr><tr><td>3</td><td>70.00</td><td>\$47.61</td><td>\$12.84</td><td>\$15.57</td><td>\$7.33</td><td>\$0.00</td><td>\$83.35</td></tr><tr><td>4</td><td>80.00</td><td>\$54.41</td><td>\$12.84</td><td>\$15.57</td><td>\$7.33</td><td>\$0.00</td><td>\$90.15</td></tr><tr><td>5</td><td>90.00</td><td>\$61.21</td><td>\$12.84</td><td>\$15.57</td><td>\$7.33</td><td>\$0.00</td><td>\$96.95</td></tr></tbody></table>								Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate	1	50.00	\$34.01	\$12.84	\$15.57	\$7.33	\$0.00	\$69.75	2	60.00	\$40.81	\$12.84	\$15.57	\$7.33	\$0.00	\$76.55	3	70.00	\$47.61	\$12.84	\$15.57	\$7.33	\$0.00	\$83.35	4	80.00	\$54.41	\$12.84	\$15.57	\$7.33	\$0.00	\$90.15	5	90.00	\$61.21	\$12.84	\$15.57	\$7.33	\$0.00	\$96.95
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate																																																
1	50.00	\$34.01	\$12.84	\$15.57	\$7.33	\$0.00	\$69.75																																																
2	60.00	\$40.81	\$12.84	\$15.57	\$7.33	\$0.00	\$76.55																																																
3	70.00	\$47.61	\$12.84	\$15.57	\$7.33	\$0.00	\$83.35																																																
4	80.00	\$54.41	\$12.84	\$15.57	\$7.33	\$0.00	\$90.15																																																
5	90.00	\$61.21	\$12.84	\$15.57	\$7.33	\$0.00	\$96.95																																																
Apprentice to Journeyworker Ratio: 1:5																																																							
BULLDOZER/GRADER/SCRAPER	6/1/2026	\$58.70	\$17.05	\$13.35	\$3.25	\$0.00	\$92.35																																																
OPERATING ENGINEERS LOCAL 4	12/1/2026	\$60.14	\$17.05	\$13.35	\$3.25	\$0.00	\$93.79																																																
For apprentice rates see "Apprentice- OPERATING ENGINEERS"																																																							
CAISSON & UNDERPINNING BOTTOM MAN	6/1/2026	\$50.40	\$10.90	\$9.75	\$9.80	\$0.00	\$80.85																																																
LABORERS	12/1/2026	\$51.90	\$10.90	\$9.75	\$9.80	\$0.00	\$82.35																																																
LABORERS - FOUNDATION AND MARINE																																																							
For apprentice rates see "Apprentice- LABORER"																																																							
CAISSON & UNDERPINNING LABORER	6/1/2026	\$49.25	\$10.90	\$9.75	\$9.80	\$0.00	\$79.70																																																
LABORERS	12/1/2026	\$50.75	\$10.90	\$9.75	\$9.80	\$0.00	\$81.20																																																
LABORERS - FOUNDATION AND MARINE																																																							
For apprentice rates see "Apprentice- LABORER"																																																							
CAISSON & UNDERPINNING TOP MAN	6/1/2026	\$49.58	\$10.90	\$9.75	\$9.80	\$0.00	\$80.03																																																
LABORERS	12/1/2026	\$51.08	\$10.90	\$9.75	\$9.80	\$0.00	\$81.53																																																
LABORERS - FOUNDATION AND MARINE																																																							
For apprentice rates see "Apprentice- LABORER"																																																							
CARBIDE CORE DRILL OPERATOR	6/1/2026	\$41.91	\$10.90	\$9.75	\$9.11	\$0.00	\$71.67																																																
LABORERS	12/1/2026	\$43.35	\$10.90	\$9.75	\$9.11	\$0.00	\$73.11																																																
LABORERS - ZONE 2																																																							
	6/1/2027	\$44.80	\$10.90	\$9.75	\$9.11	\$0.00	\$74.56																																																
	12/1/2027	\$46.25	\$10.90	\$9.75	\$9.11	\$0.00	\$76.01																																																
	6/1/2028	\$47.75	\$10.90	\$9.75	\$9.11	\$0.00	\$77.51																																																
	12/1/2028	\$49.25	\$10.90	\$9.75	\$9.11	\$0.00	\$79.01																																																
For apprentice rates see "Apprentice- LABORER"																																																							

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
CARPENTER	3/1/2026	\$50.85	\$11.08	\$11.47	\$8.50	\$0.00	\$81.90
CARPENTERS	9/1/2026	\$52.10	\$11.08	\$11.47	\$8.50	\$0.00	\$83.15
CARPENTERS -ZONE 2 (Eastern Massachusetts)	3/1/2027	\$53.35	\$11.08	\$11.47	\$8.50	\$0.00	\$84.40

Apprentice: CARPENTER							
Effective Date: 3/1/2026							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	45.00	\$22.88	\$11.08	\$0.00	\$1.73	\$0.00	\$35.69
2	45.00	\$22.88	\$11.08	\$0.00	\$1.73	\$0.00	\$35.69
3	55.00	\$27.97	\$11.08	\$0.00	\$3.40	\$0.00	\$42.45
4	55.00	\$27.97	\$11.08	\$0.00	\$3.40	\$0.00	\$42.45
5	70.00	\$35.60	\$11.08	\$11.41	\$5.10	\$0.00	\$63.19
6	70.00	\$35.60	\$11.08	\$11.41	\$5.10	\$0.00	\$63.19
7	80.00	\$40.68	\$11.08	\$11.44	\$6.80	\$0.00	\$70.00
8	80.00	\$40.68	\$11.08	\$11.44	\$6.80	\$0.00	\$70.00

Apprentice: CARPENTER							
Effective Date: 9/1/2026							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	45.00	\$23.45	\$11.08	\$0.00	\$1.73	\$0.00	\$36.26
2	45.00	\$23.45	\$11.08	\$0.00	\$1.73	\$0.00	\$36.26
3	55.00	\$28.66	\$11.08	\$0.00	\$3.40	\$0.00	\$43.14
4	55.00	\$28.66	\$11.08	\$0.00	\$3.40	\$0.00	\$43.14
5	70.00	\$36.47	\$11.08	\$11.41	\$5.10	\$0.00	\$64.06
6	70.00	\$36.47	\$11.08	\$11.41	\$5.10	\$0.00	\$64.06
7	80.00	\$41.68	\$11.08	\$11.44	\$6.80	\$0.00	\$71.00
8	80.00	\$41.68	\$11.08	\$11.44	\$6.80	\$0.00	\$71.00

Apprentice to Journeyworker Ratio: 1:5

CARPENTER WOOD FRAME	10/1/2025	\$27.37	\$7.38	\$4.47	\$1.00	\$0.00	\$40.22
CARPENTERS	10/1/2026	\$28.47	\$7.38	\$4.47	\$1.00	\$0.00	\$41.32

All Aspects of New Wood Frame Work

Apprentice: CARPENTER WOOD FRAME							
Effective Date: 10/1/2025							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	60.00	\$16.42	\$7.38	\$0.00	\$0.00	\$0.00	\$23.80
2	60.00	\$16.42	\$7.38	\$0.00	\$0.00	\$0.00	\$23.80
3	65.00	\$17.79	\$7.38	\$0.00	\$1.00	\$0.00	\$26.17
4	70.00	\$19.16	\$7.38	\$0.00	\$1.00	\$0.00	\$27.54
5	75.00	\$20.53	\$7.38	\$3.80	\$1.00	\$0.00	\$32.71
6	80.00	\$21.90	\$7.38	\$3.80	\$1.00	\$0.00	\$34.08

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
Apprentice: CARPENTER WOOD FRAME							
Effective Date: 10/1/2025							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
7	85.00	\$23.26	\$7.38	\$3.80	\$1.00	\$0.00	\$35.44
8	90.00	\$24.63	\$7.38	\$3.80	\$1.00	\$0.00	\$36.81

Apprentice: CARPENTER WOOD FRAME							
Effective Date: 10/1/2026							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	60.00	\$17.08	\$7.38	\$0.00	\$0.00	\$0.00	\$24.46
2	60.00	\$17.08	\$7.38	\$0.00	\$0.00	\$0.00	\$24.46
3	65.00	\$18.51	\$7.38	\$0.00	\$1.00	\$0.00	\$26.89
4	70.00	\$19.93	\$7.38	\$0.00	\$1.00	\$0.00	\$28.31
5	75.00	\$21.35	\$7.38	\$3.80	\$1.00	\$0.00	\$33.53
6	80.00	\$22.78	\$7.38	\$3.80	\$1.00	\$0.00	\$34.96
7	85.00	\$24.20	\$7.38	\$3.80	\$1.00	\$0.00	\$36.38
8	90.00	\$25.62	\$7.38	\$3.80	\$1.00	\$0.00	\$37.80

Apprentice to Journeyworker Ratio: 1:5

CEMENT MASONRY/PLASTERING	1/1/2026	\$53.24	\$13.35	\$16.43	\$7.78	\$1.80	\$92.60
PLASTERERS AND CEMENT MASONS LOCAL 534	7/1/2026	\$54.49	\$13.35	\$16.43	\$7.78	\$1.80	\$93.85
Plasterers and Cement Masons - Zone 1	1/1/2027	\$55.94	\$13.35	\$16.43	\$7.78	\$1.80	\$95.30
	7/1/2027	\$57.29	\$13.35	\$16.43	\$7.78	\$1.80	\$96.65
	1/1/2028	\$58.64	\$13.35	\$16.43	\$7.78	\$1.80	\$98.00

Apprentice: CEMENT MASONRY/PLASTERING							
Effective Date: 1/1/2026							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$26.62	\$13.35	\$16.43	\$0.00	\$0.00	\$56.40
2	60.00	\$31.94	\$13.35	\$16.43	\$7.78	\$1.80	\$71.30
3	65.00	\$34.61	\$13.35	\$16.43	\$7.78	\$1.80	\$73.97
4	70.00	\$37.27	\$13.35	\$16.43	\$7.78	\$1.80	\$76.63
5	75.00	\$39.93	\$13.35	\$16.43	\$7.78	\$1.80	\$79.29
6	80.00	\$42.59	\$13.35	\$16.43	\$7.78	\$1.80	\$81.95
7	90.00	\$47.92	\$13.35	\$16.43	\$0.00	\$0.00	\$77.70

Apprentice: CEMENT MASONRY/PLASTERING							
Effective Date: 7/1/2026							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$27.25	\$13.35	\$16.43	\$0.00	\$0.00	\$57.03

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
Apprentice: CEMENT MASONRY/PLASTERING Effective Date: 7/1/2026							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
2	60.00	\$32.69	\$13.35	\$16.43	\$7.78	\$1.80	\$72.05
3	65.00	\$35.42	\$13.35	\$16.43	\$7.78	\$1.80	\$74.78
4	70.00	\$38.14	\$13.35	\$16.43	\$7.78	\$1.80	\$77.50
5	75.00	\$40.87	\$13.35	\$16.43	\$7.78	\$1.80	\$80.23
6	80.00	\$43.59	\$13.35	\$16.43	\$7.78	\$1.80	\$82.95
7	90.00	\$49.04	\$13.35	\$0.00	\$7.78	\$0.00	\$70.17
Apprentice to Journeyworker Ratio: 1:5							
CHAIN SAW OPERATOR	6/1/2026	\$41.91	\$10.90	\$9.75	\$9.11	\$0.00	\$71.67
LABORERS	12/1/2026	\$43.35	\$10.90	\$9.75	\$9.11	\$0.00	\$73.11
LABORERS - ZONE 2	6/1/2027	\$44.80	\$10.90	\$9.75	\$9.11	\$0.00	\$74.56
	12/1/2027	\$46.25	\$10.90	\$9.75	\$9.11	\$0.00	\$76.01
	6/1/2028	\$47.75	\$10.90	\$9.75	\$9.11	\$0.00	\$77.51
	12/1/2028	\$49.25	\$10.90	\$9.75	\$9.11	\$0.00	\$79.01
For apprentice rates see "Apprentice- LABORER"							
CLAM SHELLS/SLURRY BUCKETS/HEADING MACHINES	6/1/2026	\$60.61	\$17.05	\$13.35	\$3.25	\$0.00	\$94.26
OPERATING ENGINEERS LOCAL 4	12/1/2026	\$62.09	\$17.05	\$13.35	\$3.25	\$0.00	\$95.74
OPERATING ENGINEERS LOCAL 4							
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
COMPRESSOR OPERATOR	6/1/2026	\$37.63	\$17.05	\$13.35	\$3.25	\$0.00	\$71.28
OPERATING ENGINEERS LOCAL 4	12/1/2026	\$38.58	\$17.05	\$13.35	\$3.25	\$0.00	\$72.23
OPERATING ENGINEERS LOCAL 4							
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
DELEADER (BRIDGE)	1/1/2026	\$59.56	\$10.35	\$12.00	\$12.60	\$0.00	\$94.51
PAINTERS LOCAL 35							
PAINTERS LOCAL 35 - ZONE 2							
Apprentice: DELEADER (BRIDGE) Effective Date: 1/1/2026							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$29.78	\$10.35	\$0.00	\$0.00	\$0.00	\$40.13
2	55.00	\$32.76	\$10.35	\$0.00	\$6.93	\$0.00	\$50.04
3	60.00	\$35.74	\$10.35	\$0.00	\$7.56	\$0.00	\$53.65
4	65.00	\$38.71	\$10.35	\$0.00	\$8.19	\$0.00	\$57.25
5	70.00	\$41.69	\$10.35	\$12.00	\$8.82	\$0.00	\$72.86
6	75.00	\$44.67	\$10.35	\$12.00	\$9.45	\$0.00	\$76.47
7	80.00	\$47.65	\$10.35	\$12.00	\$10.08	\$0.00	\$80.08
8	90.00	\$53.60	\$10.35	\$12.00	\$11.34	\$0.00	\$87.29
Apprentice to Journeyworker Ratio: 1:1							

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
DEMO: ADZEMAN	6/1/2026	\$49.30	\$10.90	\$9.75	\$9.65	\$0.00	\$79.60
LABORERS	12/7/2026	\$50.80	\$10.90	\$9.75	\$9.65	\$0.00	\$81.10
LABORERS - ZONE 2	6/7/2027	\$52.40	\$10.90	\$9.75	\$9.65	\$0.00	\$82.70
	12/6/2027	\$54.00	\$10.90	\$9.75	\$9.65	\$0.00	\$84.30
	6/5/2028	\$55.68	\$10.90	\$9.75	\$9.65	\$0.00	\$85.98
	12/4/2028	\$57.35	\$10.90	\$9.75	\$9.65	\$0.00	\$87.65
For apprentice rates see "Apprentice- LABORER"							
DEMO: BACKHOE/LOADER/HAMMER OPERATOR	6/1/2026	\$50.30	\$10.90	\$9.75	\$9.65	\$0.00	\$80.60
LABORERS	12/7/2026	\$51.80	\$10.90	\$9.75	\$9.65	\$0.00	\$82.10
LABORERS - ZONE 2	6/7/2027	\$53.40	\$10.90	\$9.75	\$9.65	\$0.00	\$83.70
	12/6/2027	\$55.00	\$10.90	\$9.75	\$9.65	\$0.00	\$85.30
	6/5/2028	\$56.68	\$10.90	\$9.75	\$9.65	\$0.00	\$86.98
	12/4/2028	\$58.35	\$10.90	\$9.75	\$9.65	\$0.00	\$88.65
For apprentice rates see "Apprentice- LABORER"							
DEMO: BURNERS	6/1/2026	\$50.05	\$10.90	\$9.75	\$9.65	\$0.00	\$80.35
LABORERS	12/7/2026	\$51.55	\$10.90	\$9.75	\$9.65	\$0.00	\$81.85
LABORERS - ZONE 2	6/7/2027	\$53.15	\$10.90	\$9.75	\$9.65	\$0.00	\$83.45
	12/6/2027	\$54.75	\$10.90	\$9.75	\$9.65	\$0.00	\$85.05
	6/5/2028	\$56.43	\$10.90	\$9.75	\$9.65	\$0.00	\$86.73
	12/4/2028	\$58.10	\$10.90	\$9.75	\$9.65	\$0.00	\$88.40
For apprentice rates see "Apprentice- LABORER"							
DEMO: CONCRETE CUTTER/SAWYER	6/1/2026	\$50.30	\$10.90	\$9.75	\$9.65	\$0.00	\$80.60
LABORERS	12/7/2026	\$51.80	\$10.90	\$9.75	\$9.65	\$0.00	\$82.10
LABORERS - ZONE 2	6/7/2027	\$53.40	\$10.90	\$9.75	\$9.65	\$0.00	\$83.70
	12/6/2027	\$55.00	\$10.90	\$9.75	\$9.65	\$0.00	\$85.30
	6/5/2028	\$56.68	\$10.90	\$9.75	\$9.65	\$0.00	\$86.98
	12/4/2028	\$58.35	\$10.90	\$9.75	\$9.65	\$0.00	\$88.65
For apprentice rates see "Apprentice- LABORER"							
DEMO: JACKHAMMER OPERATOR	6/1/2026	\$50.05	\$10.90	\$9.75	\$9.65	\$0.00	\$80.35
LABORERS	12/7/2026	\$51.55	\$10.90	\$9.75	\$9.65	\$0.00	\$81.85
LABORERS - ZONE 2	6/7/2027	\$53.15	\$10.90	\$9.75	\$9.65	\$0.00	\$83.45
	12/6/2027	\$54.75	\$10.90	\$9.75	\$9.65	\$0.00	\$85.05
	6/5/2028	\$56.43	\$10.90	\$9.75	\$9.65	\$0.00	\$86.73
	12/4/2028	\$58.10	\$10.90	\$9.75	\$9.65	\$0.00	\$88.40
For apprentice rates see "Apprentice- LABORER"							
DEMO: WRECKING LABORER	6/1/2026	\$49.30	\$10.90	\$9.75	\$9.65	\$0.00	\$79.60
LABORERS	12/7/2026	\$50.80	\$10.90	\$9.75	\$9.65	\$0.00	\$81.10
LABORERS - ZONE 2	6/7/2027	\$52.40	\$10.90	\$9.75	\$9.65	\$0.00	\$82.70
	12/6/2027	\$54.00	\$10.90	\$9.75	\$9.65	\$0.00	\$84.30
	6/5/2028	\$55.68	\$10.90	\$9.75	\$9.65	\$0.00	\$85.98
	12/4/2028	\$57.35	\$10.90	\$9.75	\$9.65	\$0.00	\$87.65
For apprentice rates see "Apprentice- LABORER"							
DIRECTIONAL DRILL MACHINE OPERATOR	6/1/2026	\$58.70	\$17.05	\$13.35	\$3.25	\$0.00	\$92.35
OPERATING ENGINEERS LOCAL 4	12/1/2026	\$60.14	\$17.05	\$13.35	\$3.25	\$0.00	\$93.79
OPERATING ENGINEERS LOCAL 4							

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
DIVER	8/1/2024	\$78.11	\$10.08	\$11.62	\$12.67	\$0.00	\$112.48
PILE DRIVER LOCAL 56							
PILE DRIVER LOCAL 56 (ZONE 2)							
as of 8-1-24, Apprentices with diving licenses begin at second year. % of Diver wage 70/80/90 2A \$69.83, 3A \$91.79,4A \$102.14 Total Rate							
DIVER TENDER	8/1/2024	\$51.97	\$10.08	\$11.62	\$12.67	\$0.00	\$86.34
PILE DRIVER LOCAL 56							
PILE DRIVER LOCAL 56 (ZONE 2)							
as of 8-1-24, Apprentices with diving licenses begin at second year. % of Piledriver wage 70/80/90 2A \$54.20, 3A \$73.93,4A \$82.05 Total Rate							
DIVER TENDER (EFFLUENT)	8/1/2024	\$83.69	\$10.08	\$11.62	\$12.67	\$0.00	\$118.06
PILE DRIVER LOCAL 56							
PILE DRIVER LOCAL 56 (ZONE 2)							
For apprentice rates see "Apprentice- PILE DRIVER"							
DIVER/SLURRY (EFFLUENT)	8/1/2024	\$117.16	\$10.08	\$11.62	\$12.67	\$0.00	\$151.53
PILE DRIVER LOCAL 56							
PILE DRIVER LOCAL 56 (ZONE 2)							
For apprentice rates see "Apprentice- PILE DRIVER"							
DRAWBRIDGE OPERATOR (Construction)	7/1/2020	\$26.77	\$6.67	\$3.93	\$0.00	\$0.16	\$37.53
DRAWBRIDGE - SEIU LOCAL 888							
DRAWBRIDGE - SEIU LOCAL 888							
ELECTRICIAN	9/7/2025	\$48.16	\$14.98	\$14.30	\$5.30	\$0.00	\$82.74
ELECTRICIANS LOCAL 96	9/6/2026	\$49.38	\$15.96	\$14.57	\$5.43	\$0.00	\$85.34
ELECTRICIANS LOCAL 96							

Apprentice: ELECTRICIAN**Effective Date: 9/7/2025**

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	40.00	\$19.26	\$14.98	\$0.58	\$0.00	\$0.00	\$34.82
2	45.00	\$21.67	\$14.98	\$0.65	\$0.00	\$0.00	\$37.30
3	48.00	\$23.12	\$14.98	\$13.55	\$2.54	\$0.00	\$54.19
4	55.00	\$26.49	\$14.98	\$13.65	\$2.92	\$0.00	\$58.04
5	65.00	\$31.30	\$14.98	\$13.80	\$3.45	\$0.00	\$63.53
6	80.00	\$38.53	\$14.98	\$14.02	\$4.24	\$0.00	\$71.77

Apprentice: ELECTRICIAN**Effective Date: 9/6/2026**

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	40.00	\$19.75	\$15.96	\$0.59	\$0.00	\$0.00	\$36.30
2	45.00	\$22.22	\$15.96	\$0.67	\$0.00	\$0.00	\$38.85
3	48.00	\$23.70	\$15.96	\$13.80	\$2.61	\$0.00	\$56.07
4	55.00	\$27.16	\$15.96	\$13.90	\$2.99	\$0.00	\$60.01
5	65.00	\$32.10	\$15.96	\$14.05	\$3.53	\$0.00	\$65.64

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
Apprentice: ELECTRICIAN Effective Date: 9/6/2026							
		Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
Step 6	80.00	\$39.50	\$15.96	\$14.28	\$4.35	\$0.00	\$74.09
Apprentice to Journeyworker Ratio: 2:3							
ELEVATOR CONSTRUCTOR	1/1/2026	\$69.23	\$16.38	\$11.06	\$10.70	\$0.00	\$107.37
ELEVATOR CONSTRUCTORS LOCAL 41	1/1/2027	\$72.23	\$16.48	\$11.16	\$11.00	\$0.00	\$110.87
ELEVATOR CONSTRUCTORS LOCAL 41							
Apprentice: ELEVATOR CONSTRUCTOR Effective Date: 1/1/2026							
		Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
Step 1	50.00	\$34.62	\$16.38	\$0.00	\$0.00	\$0.00	\$51.00
2	55.00	\$38.08	\$16.38	\$11.06	\$10.70	\$0.00	\$76.22
3	65.00	\$45.00	\$16.38	\$11.06	\$10.70	\$0.00	\$83.14
4	70.00	\$48.46	\$16.38	\$11.06	\$10.70	\$0.00	\$86.60
5	80.00	\$55.38	\$16.38	\$11.06	\$10.70	\$0.00	\$93.52
Apprentice: ELEVATOR CONSTRUCTOR Effective Date: 1/1/2027							
		Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
Step 1	50.00	\$36.12	\$16.48	\$0.00	\$0.00	\$0.00	\$52.60
2	55.00	\$39.73	\$16.48	\$11.16	\$11.00	\$0.00	\$78.37
3	65.00	\$46.95	\$16.48	\$11.16	\$11.00	\$0.00	\$85.59
4	70.00	\$50.56	\$16.48	\$11.16	\$11.00	\$0.00	\$89.20
5	80.00	\$57.78	\$16.48	\$11.16	\$11.00	\$0.00	\$96.42
Apprentice to Journeyworker Ratio: 1:1							
ELEVATOR CONSTRUCTOR HELPER	1/1/2026	\$48.46	\$16.38	\$11.06	\$10.70	\$0.00	\$86.60
ELEVATOR CONSTRUCTORS LOCAL 41	1/1/2027	\$50.56	\$16.48	\$11.16	\$11.00	\$0.00	\$89.20
ELEVATOR CONSTRUCTORS LOCAL 41							
For apprentice rates see "Apprentice - ELEVATOR CONSTRUCTOR"							
FENCE & GUARD RAIL ERECTOR (HEAVY & HIGHWAY)	6/1/2026	\$41.91	\$10.90	\$9.75	\$9.21	\$0.00	\$71.77
LABORERS	12/1/2026	\$43.35	\$10.90	\$9.75	\$9.21	\$0.00	\$73.21
LABORERS - ZONE 2 (HEAVY & HIGHWAY)							
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"							
FIELD ENG.INST.PERSON-BLDG,SITE,HVY/HWY	5/1/2026	\$54.40	\$16.55	\$13.35	\$3.25	\$0.00	\$87.55
OPERATING ENGINEERS LOCAL 4	11/1/2026	\$55.69	\$16.55	\$13.35	\$3.25	\$0.00	\$88.84
OPERATING ENGINEERS LOCAL 4	5/1/2027	\$57.12	\$16.55	\$13.35	\$3.25	\$0.00	\$90.27
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
FIELD ENG.PARTY CHIEF-BLDG,SITE,HVY/HWY	5/1/2026	\$56.02	\$16.55	\$13.35	\$3.25	\$0.00	\$89.17
OPERATING ENGINEERS LOCAL 4	11/1/2026	\$57.32	\$16.55	\$13.35	\$3.25	\$0.00	\$90.47
OPERATING ENGINEERS LOCAL 4	5/1/2027	\$58.77	\$16.55	\$13.35	\$3.25	\$0.00	\$91.92
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
FIELD ENG.ROD PERSON-BLDG,SITE,HVY/HWY	5/1/2026	\$26.28	\$16.55	\$13.35	\$3.25	\$0.00	\$59.43
OPERATING ENGINEERS LOCAL 4	11/1/2026	\$27.04	\$16.55	\$13.35	\$3.25	\$0.00	\$60.19
OPERATING ENGINEERS LOCAL 4	5/1/2027	\$27.89	\$16.55	\$13.35	\$3.25	\$0.00	\$61.04
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
FIRE ALARM INSTALLER	9/7/2025	\$48.16	\$14.98	\$14.30	\$5.30	\$0.00	\$82.74
ELECTRICIANS LOCAL 96	9/6/2026	\$49.38	\$15.96	\$14.57	\$5.43	\$0.00	\$85.34
ELECTRICIANS LOCAL 96							
For apprentice rates see "Apprentice- ELECTRICIAN"							
FIRE ALARM REPAIR / MAINT/COMMISSIONING	9/7/2025	\$48.16	\$14.98	\$14.30	\$5.30	\$0.00	\$82.74
ELECTRICIANS LOCAL 96	9/6/2026	\$49.38	\$15.96	\$14.57	\$5.43	\$0.00	\$85.34
ELECTRICIANS LOCAL 96							
For apprentice rates see "Apprentice- ELECTRICIAN"							
FIREMAN (ASST. ENGINEER)	6/1/2026	\$47.55	\$17.05	\$13.35	\$3.25	\$0.00	\$81.20
OPERATING ENGINEERS LOCAL 4	12/1/2026	\$48.73	\$17.05	\$13.35	\$3.25	\$0.00	\$82.38
OPERATING ENGINEERS LOCAL 4							
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
FLAGGER & SIGNALER (HEAVY & HIGHWAY)	6/1/2026	\$29.21	\$10.90	\$9.75	\$9.21	\$0.00	\$59.07
LABORERS	12/1/2026	\$29.21	\$10.90	\$9.75	\$9.21	\$0.00	\$59.07
LABORERS - ZONE 2 (HEAVY & HIGHWAY)							
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"							
FLOORCOVERER	3/1/2026	\$59.24	\$10.33	\$11.47	\$8.80	\$0.00	\$89.84
FLOORCOVERERS LOCAL 2168	9/1/2026	\$60.74	\$10.33	\$11.47	\$8.80	\$0.00	\$91.34
FLOORCOVERERS LOCAL 2168 ZONE I	3/1/2027	\$62.24	\$10.33	\$11.47	\$8.80	\$0.00	\$92.84

Apprentice: FLOORCOVERER

Effective Date: 3/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	45.00	\$26.66	\$10.33	\$0.00	\$1.76	\$0.00	\$38.75
2	45.00	\$26.66	\$10.33	\$0.00	\$1.76	\$0.00	\$38.75
3	55.00	\$32.58	\$10.33	\$0.00	\$3.52	\$0.00	\$46.43
4	55.00	\$32.58	\$10.33	\$0.00	\$3.52	\$0.00	\$46.43
5	70.00	\$41.47	\$10.33	\$11.47	\$5.28	\$0.00	\$68.55
6	70.00	\$41.47	\$10.33	\$11.47	\$5.28	\$0.00	\$68.55
7	80.00	\$47.39	\$10.33	\$11.47	\$7.04	\$0.00	\$76.23
8	80.00	\$47.39	\$10.33	\$11.47	\$7.04	\$0.00	\$76.23

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
Apprentice: FLOORCOVERER							
Effective Date: 9/1/2026							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	45.00	\$27.33	\$10.33	\$0.00	\$1.76	\$0.00	\$39.42
2	45.00	\$27.33	\$10.33	\$0.00	\$1.76	\$0.00	\$39.42
3	55.00	\$33.41	\$10.33	\$0.00	\$3.52	\$0.00	\$47.26
4	55.00	\$33.41	\$10.33	\$0.00	\$3.52	\$0.00	\$47.26
5	70.00	\$42.52	\$10.33	\$11.47	\$5.28	\$0.00	\$69.60
6	70.00	\$42.52	\$10.33	\$11.47	\$5.28	\$0.00	\$69.60
7	80.00	\$48.59	\$10.33	\$11.47	\$7.04	\$0.00	\$77.43
8	80.00	\$48.59	\$10.33	\$11.47	\$7.04	\$0.00	\$77.43
Apprentice Notes							
Steps are 750 hrs.							
Apprentice to Journeyworker Ratio: 1:1							
FORK LIFT/CHERRY PICKER	6/1/2026	\$59.38	\$17.05	\$13.35	\$3.25	\$0.00	\$93.03
OPERATING ENGINEERS LOCAL 4	12/1/2026	\$60.83	\$17.05	\$13.35	\$3.25	\$0.00	\$94.48
OPERATING ENGINEERS LOCAL 4							
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
GENERATOR/LIGHTING PLANT/HEATERS	6/1/2026	\$37.63	\$17.05	\$13.35	\$3.25	\$0.00	\$71.28
OPERATING ENGINEERS LOCAL 4	12/1/2026	\$38.58	\$17.05	\$13.35	\$3.25	\$0.00	\$72.23
OPERATING ENGINEERS LOCAL 4							
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
GLAZIER (GLASS PLANK/AIR BARRIER/INTERIOR SYSTEMS)	1/1/2026	\$49.06	\$10.35	\$12.00	\$12.60	\$0.00	\$84.01
GLAZIERS LOCAL 35							
GLAZIERS LOCAL 35 (ZONE 2)							
Apprentice: GLAZIER (GLASS PLANK/AIR BARRIER/INTERIOR SYSTEMS)							
Effective Date: 1/1/2026							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$24.53	\$10.35	\$0.00	\$0.00	\$0.00	\$34.88
2	55.00	\$26.98	\$10.35	\$0.00	\$6.88	\$0.00	\$44.21
3	60.00	\$29.44	\$10.35	\$0.00	\$7.50	\$0.00	\$47.29
4	65.00	\$31.89	\$10.35	\$0.00	\$8.13	\$0.00	\$50.37
5	70.00	\$34.34	\$10.35	\$12.00	\$8.75	\$0.00	\$65.44
6	75.00	\$36.80	\$10.35	\$12.00	\$9.38	\$0.00	\$68.53
7	80.00	\$39.25	\$10.35	\$12.00	\$10.00	\$0.00	\$71.60
8	90.00	\$44.15	\$10.35	\$12.00	\$11.25	\$0.00	\$77.75
Apprentice to Journeyworker Ratio: 1:1							
HOISTING ENGINEER/CRANES/GRADALLS	6/1/2026	\$59.38	\$17.05	\$13.35	\$3.25	\$0.00	\$93.03
OPERATING ENGINEERS LOCAL 4							

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
OPERATING ENGINEERS LOCAL 4	12/1/2026	\$60.83	\$17.05	\$13.35	\$3.25	\$0.00	\$94.48

Apprentice: HOISTING ENGINEER/CRANES/GRADALLS

Effective Date: 6/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	55.00	\$32.66	\$0.00	\$0.00	\$0.00	\$0.00	\$32.66
2	60.00	\$35.63	\$17.05	\$13.35	\$3.25	\$0.00	\$69.28
3	65.00	\$38.60	\$17.05	\$13.35	\$3.25	\$0.00	\$72.25
4	70.00	\$41.57	\$17.05	\$13.35	\$3.25	\$0.00	\$75.22
5	75.00	\$44.54	\$17.05	\$13.35	\$3.25	\$0.00	\$78.19
6	80.00	\$47.50	\$17.05	\$13.35	\$3.25	\$0.00	\$81.15
7	85.00	\$50.47	\$17.05	\$13.35	\$3.25	\$0.00	\$84.12
8	90.00	\$53.44	\$17.05	\$13.35	\$3.25	\$0.00	\$87.09

Apprentice: HOISTING ENGINEER/CRANES/GRADALLS

Effective Date: 12/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	55.00	\$33.46	\$0.00	\$0.00	\$0.00	\$0.00	\$33.46
2	60.00	\$36.50	\$17.05	\$13.35	\$3.25	\$0.00	\$70.15
3	65.00	\$39.54	\$17.05	\$13.35	\$3.25	\$0.00	\$73.19
4	70.00	\$42.58	\$17.05	\$13.35	\$3.25	\$0.00	\$76.23
5	75.00	\$45.62	\$17.05	\$13.35	\$3.25	\$0.00	\$79.27
6	80.00	\$48.66	\$17.05	\$13.35	\$3.25	\$0.00	\$82.31
7	85.00	\$51.71	\$17.05	\$13.35	\$3.25	\$0.00	\$85.36
8	90.00	\$54.75	\$17.05	\$13.35	\$3.25	\$0.00	\$88.40

Apprentice to Journeyworker Ratio: 1:6

HVAC (DUCTWORK)	2/1/2026	\$62.93	\$14.91	\$18.74	\$9.53	\$2.98	\$109.09
SHEETMETAL WORKERS LOCAL 17							
SHEETMETAL WORKERS LOCAL 17 - A							

For apprentice rates see "Apprentice- SHEET METAL WORKER"

HVAC (ELECTRICAL CONTROLS)	9/7/2025	\$48.16	\$14.98	\$14.30	\$5.30	\$0.00	\$82.74
ELECTRICIANS LOCAL 96	9/6/2026	\$49.38	\$15.96	\$14.57	\$5.43	\$0.00	\$85.34
ELECTRICIANS LOCAL 96							

For apprentice rates see "Apprentice- ELECTRICIAN"

HVAC (TESTING AND BALANCING - AIR)	2/1/2026	\$62.93	\$14.91	\$18.74	\$9.53	\$2.98	\$109.09
SHEETMETAL WORKERS LOCAL 17							
SHEETMETAL WORKERS LOCAL 17 - A							

For apprentice rates see "Apprentice- SHEET METAL WORKER"

HVAC (TESTING AND BALANCING -WATER)	3/1/2026	\$70.58	\$13.95	\$14.00	\$9.55	\$0.00	\$108.08
PIPEFITTERS LOCAL 537							
PIPEFITTERS LOCAL 537							

For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
HVAC MECHANIC PIPEFITTERS LOCAL 537 PIPEFITTERS LOCAL 537	3/1/2026	\$70.58	\$13.95	\$14.00	\$9.55	\$0.00	\$108.08

For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"

HYDRAULIC DRILLS LABORERS LABORERS - ZONE 2	6/1/2026	\$42.41	\$10.90	\$9.75	\$9.11	\$0.00	\$72.17
	12/1/2026	\$43.85	\$10.90	\$9.75	\$9.11	\$0.00	\$73.61
	6/1/2027	\$45.30	\$10.90	\$9.75	\$9.11	\$0.00	\$75.06
	12/1/2027	\$46.75	\$10.90	\$9.75	\$9.11	\$0.00	\$76.51
	6/1/2028	\$48.25	\$10.90	\$9.75	\$9.11	\$0.00	\$78.01
	12/1/2028	\$49.75	\$10.90	\$9.75	\$9.11	\$0.00	\$79.51

For apprentice rates see "Apprentice- LABORER"

HYDRAULIC DRILLS (HEAVY & HIGHWAY) LABORERS LABORERS - ZONE 2 (HEAVY & HIGHWAY)	6/1/2026	\$42.41	\$10.90	\$9.75	\$9.21	\$0.00	\$72.27
	12/1/2026	\$43.85	\$10.90	\$9.75	\$9.21	\$0.00	\$73.71

For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"

INSULATOR (PIPES & TANKS) HEAT & FROST INSULATORS LOCAL 6 HEAT & FROST INSULATORS LOCAL 6 (BOSTON)	9/1/2025	\$60.34	\$14.75	\$9.52	\$10.09	\$0.00	\$94.70
	9/1/2026	\$63.76	\$14.75	\$9.52	\$10.09	\$0.00	\$98.12

Apprentice: INSULATOR (PIPES & TANKS)**Effective Date: 9/1/2025**

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$30.17	\$14.75	\$9.27	\$5.05	\$0.00	\$59.24
2	60.00	\$36.20	\$14.75	\$9.32	\$6.05	\$0.00	\$66.32
3	70.00	\$42.24	\$14.75	\$9.37	\$7.06	\$0.00	\$73.42
4	80.00	\$48.27	\$14.75	\$9.42	\$8.07	\$0.00	\$80.51

Apprentice: INSULATOR (PIPES & TANKS)**Effective Date: 9/1/2026**

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$31.88	\$14.75	\$9.27	\$5.05	\$0.00	\$60.95
2	60.00	\$38.26	\$14.75	\$9.32	\$6.05	\$0.00	\$68.38
3	70.00	\$44.63	\$14.75	\$9.37	\$7.06	\$0.00	\$75.81
4	80.00	\$51.01	\$14.75	\$9.42	\$8.07	\$0.00	\$83.25

Apprentice to Journeyworker Ratio: 1:4

IRONWORKER/WELDER IRONWORKERS LOCAL 7 IRONWORKERS LOCAL 7 (WORCESTER AREA)	3/16/2026	\$58.35	\$9.25	\$12.75	\$15.00	\$0.00	\$95.35
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Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
Apprentice: IRONWORKER/WELDER Effective Date: 3/16/2026							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	70.00	\$40.85	\$9.25	\$12.75	\$5.00	\$0.00	\$67.85
2	80.00	\$46.68	\$9.25	\$12.75	\$5.00	\$0.00	\$73.68
3	90.00	\$52.52	\$9.25	\$12.75	\$5.00	\$0.00	\$79.52
4	0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
5	0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
6	0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Apprentice to Journeyworker Ratio: 1:4							
JACKHAMMER & PAVING BREAKER OPERATOR	6/1/2026	\$41.91	\$10.90	\$9.75	\$9.11	\$0.00	\$71.67
LABORERS	12/1/2026	\$43.35	\$10.90	\$9.75	\$9.11	\$0.00	\$73.11
LABORERS - ZONE 2	6/1/2027	\$44.80	\$10.90	\$9.75	\$9.11	\$0.00	\$74.56
	12/1/2027	\$46.25	\$10.90	\$9.75	\$9.11	\$0.00	\$76.01
	6/1/2028	\$47.75	\$10.90	\$9.75	\$9.11	\$0.00	\$77.51
	12/1/2028	\$49.25	\$10.90	\$9.75	\$9.11	\$0.00	\$79.01
For apprentice rates see "Apprentice- LABORER"							
LABORER	6/1/2026	\$41.66	\$10.90	\$9.75	\$9.11	\$0.00	\$71.42
LABORERS	12/1/2026	\$43.10	\$10.90	\$9.75	\$9.11	\$0.00	\$72.86
LABORERS - ZONE 2	6/1/2027	\$44.55	\$10.90	\$9.75	\$9.11	\$0.00	\$74.31
	12/1/2027	\$46.00	\$10.90	\$9.75	\$9.11	\$0.00	\$75.76
	6/1/2028	\$47.50	\$10.90	\$9.75	\$9.11	\$0.00	\$77.26
	12/1/2028	\$49.00	\$10.90	\$9.75	\$9.11	\$0.00	\$78.76
Apprentice: LABORER Effective Date: 6/1/2026							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	60.00	\$25.00	\$10.90	\$9.75	\$9.11	\$0.00	\$54.76
2	70.00	\$29.16	\$10.90	\$9.75	\$9.11	\$0.00	\$58.92
3	80.00	\$33.33	\$10.90	\$9.75	\$9.11	\$0.00	\$63.09
4	90.00	\$37.49	\$10.90	\$9.75	\$9.11	\$0.00	\$67.25
Apprentice: LABORER Effective Date: 12/1/2026							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	60.00	\$25.86	\$10.90	\$9.75	\$9.11	\$0.00	\$55.62
2	70.00	\$30.17	\$10.90	\$9.75	\$9.11	\$0.00	\$59.93
3	80.00	\$34.48	\$10.90	\$9.75	\$9.11	\$0.00	\$64.24
4	90.00	\$38.79	\$10.90	\$9.75	\$9.11	\$0.00	\$68.55

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
Apprentice to Journeyworker Ratio: 1:5							
LABORER (HEAVY & HIGHWAY)	6/1/2026	\$41.66	\$10.90	\$9.75	\$9.21	\$0.00	\$71.52
LABORERS	12/1/2026	\$43.10	\$10.90	\$9.75	\$9.21	\$0.00	\$72.96
LABORERS - ZONE 2 (HEAVY & HIGHWAY)							

Apprentice: LABORER (HEAVY & HIGHWAY)							
Effective Date: 6/1/2026							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	60.00	\$25.00	\$10.90	\$9.75	\$9.21	\$0.00	\$54.86
2	70.00	\$29.16	\$10.90	\$9.75	\$9.21	\$0.00	\$59.02
3	80.00	\$33.33	\$10.90	\$9.75	\$9.21	\$0.00	\$63.19
4	90.00	\$37.49	\$10.90	\$9.75	\$9.10	\$0.00	\$67.24

Apprentice: LABORER (HEAVY & HIGHWAY)							
Effective Date: 12/1/2026							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	60.00	\$25.86	\$10.90	\$9.75	\$9.21	\$0.00	\$55.72
2	70.00	\$30.17	\$10.90	\$9.75	\$9.21	\$0.00	\$60.03
3	80.00	\$34.48	\$10.90	\$9.75	\$9.21	\$0.00	\$64.34
4	90.00	\$38.79	\$10.90	\$9.75	\$9.21	\$0.00	\$68.65

Apprentice to Journeyworker Ratio: 1:5

LABORER: CARPENTER TENDER	6/1/2026	\$41.66	\$10.90	\$9.75	\$9.11	\$0.00	\$71.42
LABORERS	12/1/2026	\$43.10	\$10.90	\$9.75	\$9.11	\$0.00	\$72.86
LABORERS - ZONE 2	6/1/2027	\$44.55	\$10.90	\$9.75	\$9.11	\$0.00	\$74.31
	12/1/2027	\$46.00	\$10.90	\$9.75	\$9.11	\$0.00	\$75.76
	6/1/2028	\$47.50	\$10.90	\$9.75	\$9.11	\$0.00	\$77.26
	12/1/2028	\$49.00	\$10.90	\$9.75	\$9.11	\$0.00	\$78.76

For apprentice rates see "Apprentice- LABORER"

LABORER: CEMENT FINISHER TENDER	6/1/2026	\$41.66	\$10.90	\$9.75	\$9.11	\$0.00	\$71.42
LABORERS	12/1/2026	\$43.10	\$10.90	\$9.75	\$9.11	\$0.00	\$72.86
LABORERS - ZONE 2	6/1/2027	\$44.55	\$10.90	\$9.75	\$9.11	\$0.00	\$74.31
	12/1/2027	\$46.00	\$10.90	\$9.75	\$9.11	\$0.00	\$75.76
	6/1/2028	\$47.50	\$10.90	\$9.75	\$9.11	\$0.00	\$77.26
	12/1/2028	\$49.00	\$10.90	\$9.75	\$9.11	\$0.00	\$78.76

For apprentice rates see "Apprentice- LABORER"

LABORER: HAZARDOUS WASTE/ASBESTOS REMOVER	6/1/2026	\$41.75	\$10.90	\$9.75	\$9.65	\$0.00	\$72.05
LABORERS	12/7/2026	\$43.19	\$10.90	\$9.75	\$9.65	\$0.00	\$73.49
LABORERS - ZONE 2	6/7/2027	\$44.64	\$10.90	\$9.75	\$9.65	\$0.00	\$74.94
	12/6/2027	\$46.09	\$10.90	\$9.75	\$9.65	\$0.00	\$76.39
	6/5/2028	\$47.59	\$10.90	\$9.75	\$9.65	\$0.00	\$77.89
	12/4/2028	\$49.09	\$10.90	\$9.75	\$9.65	\$0.00	\$79.39

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
For apprentice rates see "Apprentice- LABORER"							
LABORER: MASON TENDER	6/1/2026	\$41.91	\$10.90	\$9.75	\$9.11	\$0.00	\$71.67
LABORERS	12/1/2026	\$43.35	\$10.90	\$9.75	\$9.11	\$0.00	\$73.11
LABORERS - ZONE 2	6/1/2027	\$44.80	\$10.90	\$9.75	\$9.11	\$0.00	\$74.56
	12/1/2027	\$46.25	\$10.90	\$9.75	\$9.11	\$0.00	\$76.01
	6/1/2028	\$47.75	\$10.90	\$9.75	\$9.11	\$0.00	\$77.51
	12/1/2028	\$49.25	\$10.90	\$9.75	\$9.11	\$0.00	\$79.01
For apprentice rates see "Apprentice- LABORER"							
LABORER: MASON TENDER (HEAVY & HIGHWAY)	6/1/2026	\$41.91	\$10.90	\$9.75	\$9.21	\$0.00	\$71.77
LABORERS	12/1/2026	\$43.35	\$10.90	\$9.75	\$9.21	\$0.00	\$73.21
LABORERS - ZONE 2 (HEAVY & HIGHWAY)							
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"							
LABORER: MULTI-TRADE TENDER	6/1/2026	\$41.66	\$10.90	\$9.75	\$9.11	\$0.00	\$71.42
LABORERS	12/1/2026	\$43.10	\$10.90	\$9.75	\$9.11	\$0.00	\$72.86
LABORERS - ZONE 2	6/1/2027	\$44.55	\$10.90	\$9.75	\$9.11	\$0.00	\$74.31
	12/1/2027	\$46.00	\$10.90	\$9.75	\$9.11	\$0.00	\$75.76
	6/1/2028	\$47.50	\$10.90	\$9.75	\$9.11	\$0.00	\$77.26
	12/1/2028	\$49.00	\$10.90	\$9.75	\$9.11	\$0.00	\$78.76
For apprentice rates see "Apprentice- LABORER"							
LABORER: TREE REMOVER	6/1/2026	\$41.66	\$10.90	\$9.75	\$9.11	\$0.00	\$71.42
LABORERS	12/1/2026	\$43.10	\$10.90	\$9.75	\$9.11	\$0.00	\$72.86
LABORERS - ZONE 2	6/1/2027	\$44.55	\$10.90	\$9.75	\$9.11	\$0.00	\$74.31
	12/1/2027	\$46.00	\$10.90	\$9.75	\$9.11	\$0.00	\$75.76
	6/1/2028	\$47.50	\$10.90	\$9.75	\$9.11	\$0.00	\$77.26
	12/1/2028	\$49.00	\$10.90	\$9.75	\$9.11	\$0.00	\$78.76
This classification applies to the removal of standing trees, and the trimming and removal of branches and limbs when related to public works construction or site clearance incidental to construction . For apprentice rates see "Apprentice- LABORER"							
LASER BEAM OPERATOR	6/1/2026	\$41.91	\$10.90	\$9.75	\$9.11	\$0.00	\$71.67
LABORERS	12/1/2026	\$43.35	\$10.90	\$9.75	\$9.11	\$0.00	\$73.11
LABORERS - ZONE 2	6/1/2027	\$44.80	\$10.90	\$9.75	\$9.11	\$0.00	\$74.56
	12/1/2027	\$46.25	\$10.90	\$9.75	\$9.11	\$0.00	\$76.01
	6/1/2028	\$47.75	\$10.90	\$9.75	\$9.11	\$0.00	\$77.51
	12/1/2028	\$49.25	\$10.90	\$9.75	\$9.11	\$0.00	\$79.01
For apprentice rates see "Apprentice- LABORER"							
LASER BEAM OPERATOR (HEAVY & HIGHWAY)	6/1/2026	\$41.91	\$10.90	\$9.75	\$9.21	\$0.00	\$71.77
LABORERS	12/1/2026	\$43.35	\$10.90	\$9.75	\$9.21	\$0.00	\$73.21
LABORERS - ZONE 2 (HEAVY & HIGHWAY)							
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"							
MARBLE & TILE FINISHERS	2/1/2026	\$52.08	\$12.84	\$15.57	\$5.78	\$0.00	\$86.27
BRICKLAYERS LOCAL 3	8/1/2026	\$53.84	\$12.84	\$15.57	\$5.78	\$0.00	\$88.03
BRICKLAYERS LOCAL 3 - MARBLE & TILE	2/1/2027	\$54.96	\$12.84	\$15.57	\$5.78	\$0.00	\$89.15

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
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Apprentice: MARBLE & TILE FINISHERS							
Effective Date: 2/1/2026							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$26.04	\$12.84	\$15.57	\$5.78	\$0.00	\$60.23
2	60.00	\$31.25	\$12.84	\$15.57	\$5.78	\$0.00	\$65.44
3	70.00	\$36.46	\$12.84	\$15.57	\$5.78	\$0.00	\$70.65
4	80.00	\$41.66	\$12.84	\$15.57	\$5.78	\$0.00	\$75.85
5	90.00	\$46.87	\$12.84	\$15.57	\$5.78	\$0.00	\$81.06

Apprentice: MARBLE & TILE FINISHERS							
Effective Date: 8/1/2026							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$26.92	\$12.84	\$15.57	\$5.78	\$0.00	\$61.11
2	60.00	\$32.30	\$12.84	\$15.57	\$5.78	\$0.00	\$66.49
3	70.00	\$37.69	\$12.84	\$15.57	\$5.78	\$0.00	\$71.88
4	80.00	\$43.07	\$12.84	\$15.57	\$5.78	\$0.00	\$77.26
5	90.00	\$48.46	\$12.84	\$15.57	\$5.78	\$0.00	\$82.65

Apprentice to Journeyworker Ratio: 1:5

MARBLE MASONS,TILELAYERS & TERRAZZO MECH	2/1/2026	\$67.97	\$12.84	\$15.57	\$7.99	\$0.00	\$104.37
BRICKLAYERS LOCAL 3	8/1/2026	\$70.17	\$12.84	\$15.57	\$7.99	\$0.00	\$106.57
BRICKLAYERS LOCAL 3 - MARBLE & TILE	2/1/2027	\$71.57	\$12.84	\$15.57	\$7.99	\$0.00	\$107.97

Apprentice: MARBLE MASONS,TILELAYERS & TERRAZZO MECH							
Effective Date: 2/1/2026							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$33.99	\$12.84	\$15.57	\$7.99	\$0.00	\$70.39
2	60.00	\$40.78	\$12.84	\$15.57	\$7.99	\$0.00	\$77.18
3	70.00	\$47.58	\$12.84	\$15.57	\$7.99	\$0.00	\$83.98
4	80.00	\$54.38	\$12.84	\$15.57	\$7.99	\$0.00	\$90.78
5	90.00	\$61.17	\$12.84	\$15.57	\$7.99	\$0.00	\$97.57

Apprentice: MARBLE MASONS,TILELAYERS & TERRAZZO MECH							
Effective Date: 8/1/2026							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$35.09	\$12.84	\$15.57	\$7.99	\$0.00	\$71.49
2	60.00	\$42.10	\$12.84	\$15.57	\$7.99	\$0.00	\$78.50
3	70.00	\$49.12	\$12.84	\$15.57	\$7.99	\$0.00	\$85.52
4	80.00	\$56.14	\$12.84	\$15.57	\$7.99	\$0.00	\$92.54

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
Apprentice: MARBLE MASONS,TILELAYERS & TERRAZZO MECH							
Effective Date: 8/1/2026							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
5	90.00	\$63.15	\$12.84	\$15.57	\$7.99	\$0.00	\$99.55
Apprentice to Journeyworker Ratio: 1:5							
MECH. SWEEPER OPERATOR (ON CONST. SITES)	6/1/2026	\$58.70	\$17.05	\$13.35	\$3.25	\$0.00	\$92.35
OPERATING ENGINEERS LOCAL 4	12/1/2026	\$60.14	\$17.05	\$13.35	\$3.25	\$0.00	\$93.79
OPERATING ENGINEERS LOCAL 4							
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
MECHANICS MAINTENANCE	6/1/2026	\$58.70	\$17.05	\$13.35	\$3.25	\$0.00	\$92.35
OPERATING ENGINEERS LOCAL 4	12/1/2026	\$60.14	\$17.05	\$13.35	\$3.25	\$0.00	\$93.79
OPERATING ENGINEERS LOCAL 4							
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
MILLWRIGHT (Zone 2)	1/5/2026	\$46.86	\$10.58	\$11.47	\$10.00	\$0.00	\$78.91
MILLWRIGHTS LOCAL 1121							
MILLWRIGHTS LOCAL 1121 - Zone 2							
Apprentice: MILLWRIGHT (Zone 2)							
Effective Date: 1/5/2026							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	55.00	\$25.77	\$10.58	\$0.00	\$5.50	\$0.00	\$41.85
2	65.00	\$30.46	\$10.58	\$0.00	\$6.50	\$0.00	\$47.54
3	75.00	\$35.15	\$10.58	\$11.47	\$7.50	\$0.00	\$64.70
4	85.00	\$39.83	\$10.58	\$11.47	\$8.50	\$0.00	\$70.38
Apprentice Notes							
Step 1&2 Appr. indentured after 1/6/2020 receive no pension,							
Apprentice to Journeyworker Ratio: 1:4							
MORTAR MIXER	6/1/2026	\$41.91	\$10.90	\$9.75	\$9.11	\$0.00	\$71.67
LABORERS	12/1/2026	\$43.35	\$10.90	\$9.75	\$9.11	\$0.00	\$73.11
LABORERS - ZONE 2	6/1/2027	\$44.80	\$10.90	\$9.75	\$9.11	\$0.00	\$74.56
	12/1/2027	\$46.25	\$10.90	\$9.75	\$9.11	\$0.00	\$76.01
	6/1/2028	\$47.75	\$10.90	\$9.75	\$9.11	\$0.00	\$77.51
	12/1/2028	\$49.25	\$10.90	\$9.75	\$9.11	\$0.00	\$79.01
For apprentice rates see "Apprentice- LABORER"							
OILER (OTHER THAN TRUCK CRANES,GRADALLS)	6/1/2026	\$25.07	\$17.05	\$13.35	\$3.25	\$0.00	\$58.72
OPERATING ENGINEERS LOCAL 4	12/1/2026	\$25.74	\$17.05	\$13.35	\$3.25	\$0.00	\$59.39
OPERATING ENGINEERS LOCAL 4							
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
OILER (TRUCK CRANES, GRADALLS)	6/1/2026	\$31.17	\$17.05	\$13.35	\$3.25	\$0.00	\$64.82

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
OPERATING ENGINEERS LOCAL 4	12/1/2026	\$31.97	\$17.05	\$13.35	\$3.25	\$0.00	\$65.62
OPERATING ENGINEERS LOCAL 4							
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
OTHER POWER DRIVEN EQUIPMENT - CLASS II	6/1/2026	\$58.70	\$17.05	\$13.35	\$3.25	\$0.00	\$92.35
OPERATING ENGINEERS LOCAL 4	12/1/2026	\$60.14	\$17.05	\$13.35	\$3.25	\$0.00	\$93.79
OPERATING ENGINEERS LOCAL 4							
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
PAINTER (BRIDGES/TANKS)	1/1/2026	\$59.56	\$10.35	\$12.00	\$12.50	\$0.00	\$94.41
PAINTERS LOCAL 35							
PAINTERS LOCAL 35 - ZONE 2							

Apprentice: PAINTER (BRIDGES/TANKS)							
Effective Date: 1/1/2026							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$29.78	\$10.35	\$0.00	\$0.00	\$0.00	\$40.13
2	55.00	\$32.76	\$10.35	\$0.00	\$6.93	\$0.00	\$50.04
3	60.00	\$35.74	\$10.35	\$0.00	\$7.56	\$0.00	\$53.65
4	65.00	\$38.71	\$10.35	\$0.00	\$8.19	\$0.00	\$57.25
5	70.00	\$41.69	\$10.35	\$12.00	\$8.82	\$0.00	\$72.86
6	75.00	\$44.67	\$10.35	\$12.00	\$9.45	\$0.00	\$76.47
7	80.00	\$47.65	\$10.35	\$12.00	\$10.08	\$0.00	\$80.08
8	90.00	\$53.60	\$10.35	\$12.00	\$11.34	\$0.00	\$87.29

Apprentice to Journeyworker Ratio: 1:1

PAINTER (SPRAY OR SANDBLAST, NEW) *	1/1/2026	\$50.46	\$10.35	\$12.00	\$12.60	\$0.00	\$85.41
* If 30% or more of surfaces to be painted are new construction, NEW paint rate shall be used.							
PAINTERS LOCAL 35							
PAINTERS LOCAL 35 - ZONE 2							

Apprentice: PAINTER (SPRAY OR SANDBLAST, NEW) *							
Effective Date: 1/1/2026							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$25.23	\$10.35	\$0.00	\$0.00	\$0.00	\$35.58
2	55.00	\$27.75	\$10.35	\$0.00	\$6.93	\$0.00	\$45.03
3	60.00	\$30.28	\$10.35	\$0.00	\$7.56	\$0.00	\$48.19
4	65.00	\$32.80	\$10.35	\$0.00	\$8.19	\$0.00	\$51.34
5	70.00	\$35.32	\$10.35	\$12.00	\$8.82	\$0.00	\$66.49
6	75.00	\$37.85	\$10.35	\$12.00	\$9.45	\$0.00	\$69.65
7	80.00	\$40.37	\$10.35	\$12.00	\$10.08	\$0.00	\$72.80
8	90.00	\$45.41	\$10.35	\$12.00	\$11.34	\$0.00	\$79.10

Apprentice to Journeyworker Ratio: 1:1

PAINTER (SPRAY OR SANDBLAST, REPAINT)	1/1/2026	\$48.52	\$10.35	\$12.00	\$12.60	\$0.00	\$83.47
PAINTERS LOCAL 35							

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
PAINTERS LOCAL 35 - ZONE 2							

Apprentice: PAINTER (SPRAY OR SANDBLAST, REPAINT)							
Effective Date: 1/1/2026							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$24.26	\$10.35	\$0.00	\$0.00	\$0.00	\$34.61
2	55.00	\$26.69	\$10.35	\$0.00	\$6.93	\$0.00	\$43.97
3	60.00	\$29.11	\$10.35	\$0.00	\$7.56	\$0.00	\$47.02
4	65.00	\$31.54	\$10.35	\$0.00	\$8.19	\$0.00	\$50.08
5	70.00	\$33.96	\$10.35	\$12.00	\$8.82	\$0.00	\$65.13
6	75.00	\$36.39	\$10.35	\$12.00	\$9.45	\$0.00	\$68.19
7	80.00	\$38.82	\$10.35	\$12.00	\$10.08	\$0.00	\$71.25
8	90.00	\$43.67	\$10.35	\$12.00	\$11.34	\$0.00	\$77.36

Apprentice to Journeyworker Ratio: 1:1

PAINTER / TAPER (BRUSH, NEW) *	1/1/2026	\$49.06	\$10.35	\$12.00	\$12.60	\$0.00	\$84.01
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* If 30% or more of surfaces to be painted are new construction,
NEW paint rate shall be used.

PAINTERS LOCAL 35

PAINTERS LOCAL 35 - ZONE 2

Apprentice: PAINTER / TAPER (BRUSH, NEW) *							
Effective Date: 1/1/2026							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$24.53	\$10.35	\$0.00	\$0.00	\$0.00	\$34.88
2	55.00	\$26.98	\$10.35	\$0.00	\$6.93	\$0.00	\$44.26
3	60.00	\$29.44	\$10.35	\$0.00	\$7.56	\$0.00	\$47.35
4	65.00	\$31.89	\$10.35	\$0.00	\$8.19	\$0.00	\$50.43
5	70.00	\$34.34	\$10.35	\$12.00	\$8.82	\$0.00	\$65.51
6	75.00	\$36.80	\$10.35	\$12.00	\$9.45	\$0.00	\$68.60
7	80.00	\$39.25	\$10.35	\$12.00	\$10.08	\$0.00	\$71.68
8	90.00	\$44.15	\$10.35	\$12.00	\$11.34	\$0.00	\$77.84

Apprentice to Journeyworker Ratio: 1:1

PAINTER / TAPER (BRUSH, REPAINT)	1/1/2026	\$47.12	\$10.35	\$12.00	\$12.60	\$0.00	\$82.07
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PAINTERS LOCAL 35

PAINTERS LOCAL 35 - ZONE 2

Apprentice: PAINTER / TAPER (BRUSH, REPAINT)							
Effective Date: 1/1/2026							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$23.56	\$10.35	\$0.00	\$0.00	\$0.00	\$33.91
2	55.00	\$25.92	\$10.35	\$0.00	\$6.93	\$0.00	\$43.20

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
Apprentice: PAINTER / TAPER (BRUSH, REPAINT) Effective Date: 1/1/2026							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
3	60.00	\$28.27	\$10.35	\$0.00	\$7.56	\$0.00	\$46.18
4	65.00	\$30.63	\$10.35	\$0.00	\$8.19	\$0.00	\$49.17
5	70.00	\$32.98	\$10.35	\$12.00	\$8.82	\$0.00	\$64.15
6	75.00	\$35.34	\$10.35	\$12.00	\$9.45	\$0.00	\$67.14
7	80.00	\$37.70	\$10.35	\$12.00	\$10.08	\$0.00	\$70.13
8	90.00	\$42.41	\$10.35	\$12.00	\$11.34	\$0.00	\$76.10
Apprentice to Journeyworker Ratio: 1:1							
PAINTER TRAFFIC MARKINGS (HEAVY/HIGHWAY)	6/1/2026	\$41.66	\$10.90	\$9.75	\$9.21	\$0.00	\$71.52
LABORERS	12/1/2026	\$43.10	\$10.90	\$9.75	\$9.21	\$0.00	\$72.96
LABORERS - ZONE 2 (HEAVY & HIGHWAY)							
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)							
PANEL & PICKUP TRUCKS DRIVER	6/1/2026	\$41.78	\$16.17	\$21.78	\$0.00	\$0.00	\$79.73
TEAMSTERS JOINT COUNCIL NO. 10	12/1/2026	\$41.78	\$16.17	\$23.52	\$0.00	\$0.00	\$81.47
TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	1/1/2027	\$41.78	\$16.77	\$23.52	\$0.00	\$0.00	\$82.07
PIER AND DOCK CONSTRUCTOR (UNDERPINNING AND DECK)	8/1/2024	\$51.97	\$10.08	\$11.62	\$12.67	\$0.00	\$86.34
PILE DRIVER LOCAL 56							
PILE DRIVER LOCAL 56 (ZONE 2)							
For apprentice rates see "Apprentice- PILE DRIVER"							
PILE DRIVER	8/1/2024	\$51.97	\$10.08	\$11.62	\$12.67	\$0.00	\$86.34
PILE DRIVER LOCAL 56							
PILE DRIVER LOCAL 56 (ZONE 2)							
Apprentice: PILE DRIVER Effective Date: 8/1/2024							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	45.00	\$23.39	\$10.08	\$0.00	\$2.53	\$0.00	\$36.00
2	55.00	\$28.58	\$10.08	\$0.00	\$5.07	\$0.00	\$43.73
3	70.00	\$36.38	\$10.08	\$11.62	\$7.60	\$0.00	\$65.68
4	80.00	\$41.58	\$10.08	\$11.62	\$10.14	\$0.00	\$73.42
Apprentice to Journeyworker Ratio: 1:5							
PIPEFITTER & STEAMFITTER	3/1/2026	\$70.58	\$13.95	\$14.00	\$9.55	\$0.00	\$108.08
PIPEFITTERS LOCAL 537							
PIPEFITTERS LOCAL 537							

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
Apprentice: PIPEFITTER & STEAMFITTER Effective Date: 3/1/2026							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	40.00	\$28.23	\$13.95	\$0.30	\$9.55	\$0.00	\$52.03
2	45.00	\$31.76	\$13.95	\$14.00	\$9.55	\$0.00	\$69.26
3	60.00	\$42.35	\$13.95	\$14.00	\$9.55	\$0.00	\$79.85
4	70.00	\$49.41	\$13.95	\$14.00	\$9.55	\$0.00	\$86.91
5	80.00	\$56.46	\$13.95	\$14.00	\$9.55	\$0.00	\$93.96
Apprentice to Journeyworker Ratio: 1:3							
PIPELAYER	6/1/2026	\$41.91	\$10.90	\$9.75	\$9.11	\$0.00	\$71.67
LABORERS	12/1/2026	\$43.35	\$10.90	\$9.75	\$9.11	\$0.00	\$73.11
LABORERS - ZONE 2	6/1/2027	\$44.80	\$10.90	\$9.75	\$9.11	\$0.00	\$74.56
	12/1/2027	\$46.25	\$10.90	\$9.75	\$9.11	\$0.00	\$76.01
	6/1/2028	\$47.75	\$10.90	\$9.75	\$9.11	\$0.00	\$77.51
	12/1/2028	\$49.25	\$10.90	\$9.75	\$9.11	\$0.00	\$79.01
For apprentice rates see "Apprentice- LABORER"							
PIPELAYER (HEAVY & HIGHWAY)	6/1/2026	\$41.91	\$10.90	\$9.75	\$9.21	\$0.00	\$71.77
LABORERS	12/1/2026	\$43.35	\$10.90	\$9.75	\$9.21	\$0.00	\$73.21
LABORERS - ZONE 2 (HEAVY & HIGHWAY)							
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"							
PLUMBERS & GASFITTERS	3/2/2026	\$72.64	\$15.32	\$12.61	\$8.00	\$0.00	\$108.57
PLUMBERS & GASFITTERS LOCAL 12	8/31/2026	\$74.79	\$15.32	\$12.61	\$8.00	\$0.00	\$110.72
PLUMBERS & GASFITTERS LOCAL 12	3/1/2027	\$76.94	\$15.32	\$12.61	\$8.00	\$0.00	\$112.87
	8/30/2027	\$79.09	\$15.32	\$12.61	\$8.00	\$0.00	\$115.02
	2/28/2028	\$81.29	\$15.32	\$12.61	\$8.00	\$0.00	\$117.22
	9/4/2028	\$83.49	\$15.32	\$12.61	\$8.00	\$0.00	\$119.42
	3/5/2029	\$85.69	\$15.32	\$12.61	\$8.00	\$0.00	\$121.62
	9/3/2029	\$87.89	\$15.32	\$12.61	\$8.00	\$0.00	\$123.82
	3/4/2030	\$89.84	\$15.32	\$12.61	\$8.00	\$0.00	\$125.77
Apprentice: PLUMBERS & GASFITTERS Effective Date: 3/2/2026							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	35.00	\$25.42	\$15.32	\$4.61	\$2.80	\$0.00	\$48.15
2	40.00	\$29.06	\$15.32	\$5.22	\$3.20	\$0.00	\$52.80
3	55.00	\$39.95	\$15.32	\$7.07	\$4.40	\$0.00	\$66.74
4	65.00	\$47.22	\$15.32	\$8.30	\$5.20	\$0.00	\$76.04
5	75.00	\$54.48	\$15.32	\$9.53	\$6.00	\$0.00	\$85.33

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
Apprentice: PLUMBERS & GASFITTERS Effective Date: 8/31/2026							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	35.00	\$26.18	\$15.32	\$4.61	\$2.80	\$0.00	\$48.91
2	40.00	\$29.92	\$15.32	\$5.22	\$3.20	\$0.00	\$53.66
3	55.00	\$41.13	\$15.32	\$7.07	\$5.20	\$0.00	\$68.72
4	65.00	\$48.61	\$15.32	\$8.30	\$5.20	\$0.00	\$77.43
5	75.00	\$56.09	\$15.32	\$9.53	\$6.00	\$0.00	\$86.94
Apprentice to Journeyworker Ratio: 1:2							
PNEUMATIC CONTROLS (TEMP.)	3/1/2026	\$70.58	\$13.95	\$14.00	\$9.55	\$0.00	\$108.08
PIPEFITTERS LOCAL 537							
PIPEFITTERS LOCAL 537							
For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"							
PNEUMATIC DRILL/TOOL OPERATOR	6/1/2026	\$41.91	\$10.90	\$9.75	\$9.11	\$0.00	\$71.67
LABORERS	12/1/2026	\$43.35	\$10.90	\$9.75	\$9.11	\$0.00	\$73.11
LABORERS - ZONE 2	6/1/2027	\$44.80	\$10.90	\$9.75	\$9.11	\$0.00	\$74.56
	12/1/2027	\$46.25	\$10.90	\$9.75	\$9.11	\$0.00	\$76.01
	6/1/2028	\$47.75	\$10.90	\$9.75	\$9.11	\$0.00	\$77.51
	12/1/2028	\$49.25	\$10.90	\$9.75	\$9.11	\$0.00	\$79.01
For apprentice rates see "Apprentice- LABORER"							
PNEUMATIC DRILL/TOOL OPERATOR (HEAVY & HIGHWAY)	6/1/2026	\$41.91	\$10.90	\$9.75	\$9.21	\$0.00	\$71.77
LABORERS	12/1/2026	\$43.35	\$10.90	\$9.75	\$9.21	\$0.00	\$73.21
LABORERS - ZONE 2 (HEAVY & HIGHWAY)							
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"							
POWDERMAN & BLASTER	6/1/2026	\$42.66	\$10.90	\$9.75	\$9.11	\$0.00	\$72.42
LABORERS	12/1/2026	\$44.10	\$10.90	\$9.75	\$9.11	\$0.00	\$73.86
LABORERS - ZONE 2	6/1/2027	\$45.55	\$10.90	\$9.75	\$9.11	\$0.00	\$75.31
	12/1/2027	\$47.00	\$10.90	\$9.75	\$9.11	\$0.00	\$76.76
	6/1/2028	\$48.50	\$10.90	\$9.75	\$9.11	\$0.00	\$78.26
	12/1/2028	\$50.00	\$10.90	\$9.75	\$9.11	\$0.00	\$79.76
For apprentice rates see "Apprentice- LABORER"							
POWDERMAN & BLASTER (HEAVY & HIGHWAY)	6/1/2026	\$42.66	\$10.90	\$9.75	\$9.21	\$0.00	\$72.52
LABORERS	12/1/2026	\$44.10	\$10.90	\$9.75	\$9.21	\$0.00	\$73.96
LABORERS - ZONE 2 (HEAVY & HIGHWAY)							
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"							
POWER SHOVEL/DERRICK/TRENCHING MACHINE	6/1/2026	\$59.38	\$17.05	\$13.35	\$3.25	\$0.00	\$93.03
OPERATING ENGINEERS LOCAL 4	12/1/2026	\$60.83	\$17.05	\$13.35	\$3.25	\$0.00	\$94.48
OPERATING ENGINEERS LOCAL 4							
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
PUMP OPERATOR (CONCRETE)	6/1/2026	\$58.70	\$17.05	\$13.35	\$3.25	\$0.00	\$92.35
OPERATING ENGINEERS LOCAL 4	12/1/2026	\$60.14	\$17.05	\$13.35	\$3.25	\$0.00	\$93.79
OPERATING ENGINEERS LOCAL 4							

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
PUMP OPERATOR (DEWATERING, OTHER)	6/1/2026	\$37.63	\$17.05	\$13.35	\$3.25	\$0.00	\$71.28
OPERATING ENGINEERS LOCAL 4	12/1/2026	\$38.58	\$17.05	\$13.35	\$3.25	\$0.00	\$72.23
OPERATING ENGINEERS LOCAL 4							
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
READY-MIX CONCRETE DRIVER	1/1/2026	\$30.50	\$11.97	\$6.65	\$0.00	\$0.00	\$49.12
TEAMSTERS 170							
TEAMSTERS 170 - J.G. MacLellan (Lowell)							
RECLAIMERS	6/1/2026	\$58.70	\$17.05	\$13.35	\$3.25	\$0.00	\$92.35
OPERATING ENGINEERS LOCAL 4	12/1/2026	\$60.14	\$17.05	\$13.35	\$3.25	\$0.00	\$93.79
OPERATING ENGINEERS LOCAL 4							
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
RIDE-ON MOTORIZED BUGGY OPERATOR	6/1/2026	\$41.91	\$10.90	\$9.75	\$9.11	\$0.00	\$71.67
LABORERS	12/1/2026	\$43.35	\$10.90	\$9.75	\$9.11	\$0.00	\$73.11
LABORERS - ZONE 2	6/1/2027	\$44.80	\$10.90	\$9.75	\$9.11	\$0.00	\$74.56
	12/1/2027	\$46.25	\$10.90	\$9.75	\$9.11	\$0.00	\$76.01
	6/1/2028	\$47.75	\$10.90	\$9.75	\$9.11	\$0.00	\$77.51
	12/1/2028	\$49.25	\$10.90	\$9.75	\$9.11	\$0.00	\$79.01
For apprentice rates see "Apprentice- LABORER"							
ROLLER/SPREADER/MULCHING MACHINE	6/1/2026	\$58.70	\$17.05	\$13.35	\$3.25	\$0.00	\$92.35
OPERATING ENGINEERS LOCAL 4	12/1/2026	\$60.14	\$17.05	\$13.35	\$3.25	\$0.00	\$93.79
OPERATING ENGINEERS LOCAL 4							
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
ROOFER (Inc.Roofer Waterproofng &Roofer Damproofg)	2/1/2026	\$53.53	\$14.53	\$12.67	\$9.03	\$0.00	\$89.76
ROOFERS LOCAL 33							
ROOFERS LOCAL 33							

Apprentice: ROOFER (Inc.Roofer Waterproofng &Roofer Damproofg)

Effective Date: 2/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$26.77	\$14.53	\$6.52	\$9.03	\$0.00	\$56.85
2	60.00	\$32.12	\$14.53	\$12.67	\$9.03	\$0.00	\$68.35
3	65.00	\$34.79	\$14.53	\$12.67	\$9.03	\$0.00	\$71.02
4	75.00	\$40.15	\$14.53	\$12.67	\$9.03	\$0.00	\$76.38
5	85.00	\$45.50	\$14.53	\$12.67	\$9.03	\$0.00	\$81.73

Apprentice Notes

** 1:5, 2:6-10, the 1:10; Reroofing: 1:4, then 1:1

Apprentice to Journeyworker Ratio: 1:5

ROOFER SLATE / TILE / PRECAST CONCRETE	2/1/2026	\$53.78	\$14.53	\$12.67	\$9.03	\$0.00	\$90.01
ROOFERS LOCAL 33							
ROOFERS LOCAL 33							

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
For apprentice rates see "Apprentice- ROOFER"							
SHEETMETAL WORKER	2/1/2026	\$62.93	\$14.91	\$18.74	\$9.53	\$2.98	\$109.09
SHEETMETAL WORKERS LOCAL 17							
SHEETMETAL WORKERS LOCAL 17 - A							

Apprentice: SHEETMETAL WORKER							
Effective Date: 2/1/2026							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	42.00	\$26.43	\$14.91	\$6.19	\$0.00	\$0.00	\$47.53
2	42.00	\$26.43	\$14.91	\$6.19	\$0.00	\$0.00	\$47.53
3	47.00	\$29.58	\$14.91	\$10.93	\$1.25	\$1.62	\$58.29
4	47.00	\$29.58	\$14.91	\$10.93	\$1.25	\$1.62	\$58.29
5	52.00	\$32.72	\$14.91	\$11.66	\$1.50	\$1.74	\$62.53
6	52.00	\$32.72	\$14.91	\$11.66	\$1.75	\$1.75	\$62.79
7	60.00	\$37.76	\$14.91	\$12.84	\$2.00	\$1.93	\$69.44
8	65.00	\$40.90	\$14.91	\$13.58	\$2.25	\$2.04	\$73.68
9	75.00	\$47.20	\$14.91	\$15.06	\$2.75	\$2.28	\$82.20
10	85.00	\$53.49	\$14.91	\$16.53	\$2.75	\$2.49	\$90.17

Apprentice to Journeyworker Ratio: 1:4

SPECIALIZED EARTH MOVING EQUIP < 35 TONS	6/1/2026	\$42.24	\$16.17	\$21.78	\$0.00	\$0.00	\$80.19
TEAMSTERS JOINT COUNCIL NO. 10	12/1/2026	\$42.24	\$16.17	\$23.52	\$0.00	\$0.00	\$81.93
TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	1/1/2027	\$42.24	\$16.77	\$23.52	\$0.00	\$0.00	\$82.53
SPECIALIZED EARTH MOVING EQUIP > 35 TONS	6/1/2026	\$42.53	\$16.17	\$21.78	\$0.00	\$0.00	\$80.48
TEAMSTERS JOINT COUNCIL NO. 10	12/1/2026	\$42.53	\$16.17	\$23.52	\$0.00	\$0.00	\$82.22
TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	1/1/2027	\$42.53	\$16.77	\$23.52	\$0.00	\$0.00	\$82.82
SPRINKLER FITTER	1/1/2026	\$72.05	\$13.45	\$7.45	\$18.25	\$0.00	\$111.20
SPRINKLER FITTERS LOCAL 550							
SPRINKLER FITTERS LOCAL 550 - (Section A) Zone 1							

Apprentice: SPRINKLER FITTER							
Effective Date: 1/1/2026							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	35.00	\$25.22	\$13.45	\$13.84	\$0.00	\$0.00	\$52.51
2	40.00	\$28.82	\$13.45	\$14.75	\$0.00	\$0.00	\$57.02
3	45.00	\$32.42	\$13.45	\$15.67	\$0.00	\$0.00	\$61.54
4	50.00	\$36.03	\$13.45	\$16.57	\$0.00	\$0.00	\$66.05
5	55.00	\$39.63	\$13.45	\$17.49	\$0.00	\$0.00	\$70.57
6	60.00	\$43.23	\$13.45	\$18.40	\$0.00	\$0.00	\$75.08
7	65.00	\$46.83	\$13.45	\$19.32	\$0.00	\$0.00	\$79.60
8	70.00	\$50.44	\$13.45	\$20.22	\$0.00	\$0.00	\$84.11
9	75.00	\$54.04	\$13.45	\$21.15	\$0.00	\$0.00	\$88.64
10	80.00	\$57.64	\$13.45	\$22.05	\$0.00	\$0.00	\$93.14

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate																																																
Apprentice Notes Apprentice entered prior 9/30/10:																																																							
Apprentice to Journeyworker Ratio: 1:3																																																							
STEAM BOILER OPERATOR	6/1/2026	\$58.70	\$17.05	\$13.35	\$3.25	\$0.00	\$92.35																																																
OPERATING ENGINEERS LOCAL 4	12/1/2026	\$60.14	\$17.05	\$13.35	\$3.25	\$0.00	\$93.79																																																
OPERATING ENGINEERS LOCAL 4																																																							
For apprentice rates see "Apprentice- OPERATING ENGINEERS"																																																							
TAMPERS, SELF-PROPELLED OR TRACTOR DRAWN	6/1/2026	\$58.70	\$17.05	\$13.35	\$3.25	\$0.00	\$92.35																																																
OPERATING ENGINEERS LOCAL 4	12/1/2026	\$60.14	\$17.05	\$13.35	\$3.25	\$0.00	\$93.79																																																
OPERATING ENGINEERS LOCAL 4																																																							
For apprentice rates see "Apprentice- OPERATING ENGINEERS"																																																							
TERRAZZO FINISHERS	2/1/2026	\$66.89	\$12.84	\$15.57	\$8.02	\$0.00	\$103.32																																																
BRICKLAYERS LOCAL 3	8/1/2026	\$69.09	\$12.84	\$15.57	\$8.02	\$0.00	\$105.52																																																
BRICKLAYERS LOCAL 3 - MARBLE & TILE	2/1/2027	\$70.49	\$12.84	\$15.57	\$8.02	\$0.00	\$106.92																																																
Apprentice: TERRAZZO FINISHERS Effective Date: 2/1/2026 <table> <tr> <th>Step</th><th>Percent</th><th>Apprentice Base Wage</th><th>Health</th><th>Pension</th><th>Annuity</th><th>Supplemental Unemployment</th><th>Total Rate</th></tr> <tr> <td>1</td><td>50.00</td><td>\$33.45</td><td>\$12.84</td><td>\$15.57</td><td>\$8.02</td><td>\$0.00</td><td>\$69.88</td></tr> <tr> <td>2</td><td>60.00</td><td>\$40.13</td><td>\$12.84</td><td>\$15.57</td><td>\$8.02</td><td>\$0.00</td><td>\$76.56</td></tr> <tr> <td>3</td><td>70.00</td><td>\$46.82</td><td>\$12.84</td><td>\$15.57</td><td>\$8.02</td><td>\$0.00</td><td>\$83.25</td></tr> <tr> <td>4</td><td>80.00</td><td>\$53.51</td><td>\$12.84</td><td>\$15.57</td><td>\$8.02</td><td>\$0.00</td><td>\$89.94</td></tr> <tr> <td>5</td><td>90.00</td><td>\$60.20</td><td>\$12.84</td><td>\$15.57</td><td>\$8.02</td><td>\$0.00</td><td>\$96.63</td></tr> </table>								Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate	1	50.00	\$33.45	\$12.84	\$15.57	\$8.02	\$0.00	\$69.88	2	60.00	\$40.13	\$12.84	\$15.57	\$8.02	\$0.00	\$76.56	3	70.00	\$46.82	\$12.84	\$15.57	\$8.02	\$0.00	\$83.25	4	80.00	\$53.51	\$12.84	\$15.57	\$8.02	\$0.00	\$89.94	5	90.00	\$60.20	\$12.84	\$15.57	\$8.02	\$0.00	\$96.63
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate																																																
1	50.00	\$33.45	\$12.84	\$15.57	\$8.02	\$0.00	\$69.88																																																
2	60.00	\$40.13	\$12.84	\$15.57	\$8.02	\$0.00	\$76.56																																																
3	70.00	\$46.82	\$12.84	\$15.57	\$8.02	\$0.00	\$83.25																																																
4	80.00	\$53.51	\$12.84	\$15.57	\$8.02	\$0.00	\$89.94																																																
5	90.00	\$60.20	\$12.84	\$15.57	\$8.02	\$0.00	\$96.63																																																
Apprentice: TERRAZZO FINISHERS Effective Date: 8/1/2026 <table> <tr> <th>Step</th><th>Percent</th><th>Apprentice Base Wage</th><th>Health</th><th>Pension</th><th>Annuity</th><th>Supplemental Unemployment</th><th>Total Rate</th></tr> <tr> <td>1</td><td>50.00</td><td>\$34.55</td><td>\$12.84</td><td>\$15.57</td><td>\$8.02</td><td>\$0.00</td><td>\$70.98</td></tr> <tr> <td>2</td><td>60.00</td><td>\$41.45</td><td>\$12.84</td><td>\$15.57</td><td>\$8.02</td><td>\$0.00</td><td>\$77.88</td></tr> <tr> <td>3</td><td>70.00</td><td>\$48.36</td><td>\$12.84</td><td>\$15.57</td><td>\$8.02</td><td>\$0.00</td><td>\$84.79</td></tr> <tr> <td>4</td><td>80.00</td><td>\$55.27</td><td>\$12.84</td><td>\$15.57</td><td>\$8.02</td><td>\$0.00</td><td>\$91.70</td></tr> <tr> <td>5</td><td>90.00</td><td>\$62.18</td><td>\$12.84</td><td>\$15.57</td><td>\$8.02</td><td>\$0.00</td><td>\$98.61</td></tr> </table>								Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate	1	50.00	\$34.55	\$12.84	\$15.57	\$8.02	\$0.00	\$70.98	2	60.00	\$41.45	\$12.84	\$15.57	\$8.02	\$0.00	\$77.88	3	70.00	\$48.36	\$12.84	\$15.57	\$8.02	\$0.00	\$84.79	4	80.00	\$55.27	\$12.84	\$15.57	\$8.02	\$0.00	\$91.70	5	90.00	\$62.18	\$12.84	\$15.57	\$8.02	\$0.00	\$98.61
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate																																																
1	50.00	\$34.55	\$12.84	\$15.57	\$8.02	\$0.00	\$70.98																																																
2	60.00	\$41.45	\$12.84	\$15.57	\$8.02	\$0.00	\$77.88																																																
3	70.00	\$48.36	\$12.84	\$15.57	\$8.02	\$0.00	\$84.79																																																
4	80.00	\$55.27	\$12.84	\$15.57	\$8.02	\$0.00	\$91.70																																																
5	90.00	\$62.18	\$12.84	\$15.57	\$8.02	\$0.00	\$98.61																																																
Apprentice to Journeyworker Ratio: 1:5																																																							
TEST BORING DRILLER	6/1/2026	\$53.25	\$10.90	\$9.75	\$9.80	\$0.00	\$83.70																																																
LABORERS	12/1/2026	\$54.75	\$10.90	\$9.75	\$9.80	\$0.00	\$85.20																																																
LABORERS - FOUNDATION AND MARINE																																																							
For apprentice rates see "Apprentice- LABORER"																																																							
TEST BORING DRILLER HELPER	6/1/2026	\$49.37	\$10.90	\$9.75	\$9.80	\$0.00	\$79.82																																																
LABORERS	12/1/2026	\$50.87	\$10.90	\$9.75	\$9.80	\$0.00	\$81.32																																																
LABORERS - FOUNDATION AND MARINE																																																							

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
For apprentice rates see "Apprentice- LABORER"							
TEST BORING LABORER	6/1/2026	\$49.25	\$10.90	\$9.75	\$9.80	\$0.00	\$79.70
LABORERS	12/1/2026	\$50.75	\$10.90	\$9.75	\$9.80	\$0.00	\$81.20
LABORERS - FOUNDATION AND MARINE							
For apprentice rates see "Apprentice- LABORER"							
TRACTORS/PORTABLE STEAM GENERATORS	6/1/2026	\$58.70	\$17.05	\$13.35	\$3.25	\$0.00	\$92.35
OPERATING ENGINEERS LOCAL 4	12/1/2026	\$60.14	\$17.05	\$13.35	\$3.25	\$0.00	\$93.79
OPERATING ENGINEERS LOCAL 4							
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
TRAILERS FOR EARTH MOVING EQUIPMENT	6/1/2026	\$42.82	\$16.17	\$21.78	\$0.00	\$0.00	\$80.77
TEAMSTERS JOINT COUNCIL NO. 10	12/1/2026	\$42.82	\$16.17	\$23.52	\$0.00	\$0.00	\$82.51
TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	1/1/2027	\$42.82	\$16.77	\$23.52	\$0.00	\$0.00	\$83.11
TUNNEL WORK - COMPRESSED AIR	6/1/2026	\$61.48	\$10.90	\$9.75	\$10.25	\$0.00	\$92.38
LABORERS	12/1/2026	\$62.98	\$10.90	\$9.75	\$10.25	\$0.00	\$93.88
LABORERS (COMPRESSED AIR)							
For apprentice rates see "Apprentice- LABORER"							
TUNNEL WORK - COMPRESSED AIR (HAZ. WASTE)	6/1/2026	\$63.48	\$10.90	\$9.75	\$10.25	\$0.00	\$94.38
LABORERS	12/1/2026	\$64.98	\$10.90	\$9.75	\$10.25	\$0.00	\$95.88
LABORERS (COMPRESSED AIR)							
For apprentice rates see "Apprentice- LABORER"							
TUNNEL WORK - FREE AIR	6/1/2026	\$53.55	\$10.90	\$9.75	\$10.25	\$0.00	\$84.45
LABORERS	12/1/2026	\$55.05	\$10.90	\$9.75	\$10.25	\$0.00	\$85.95
LABORERS (FREE AIR TUNNEL)							
For apprentice rates see "Apprentice- LABORER"							
TUNNEL WORK - FREE AIR (HAZ. WASTE)	6/1/2026	\$55.55	\$10.90	\$9.75	\$10.25	\$0.00	\$86.45
LABORERS	12/1/2026	\$57.05	\$10.90	\$9.75	\$10.25	\$0.00	\$87.95
LABORERS (FREE AIR TUNNEL)							
For apprentice rates see "Apprentice- LABORER"							
VAC-HAUL	6/1/2026	\$42.24	\$16.17	\$21.78	\$0.00	\$0.00	\$80.19
TEAMSTERS JOINT COUNCIL NO. 10	12/1/2026	\$42.24	\$16.17	\$23.52	\$0.00	\$0.00	\$81.93
TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	1/1/2027	\$42.24	\$16.77	\$23.52	\$0.00	\$0.00	\$82.53
VOICE-DATA-VIDEO TECHNICIAN	9/7/2025	\$36.12	\$14.98	\$13.94	\$3.97	\$0.00	\$69.01
ELECTRICIANS LOCAL 96	9/6/2026	\$37.04	\$15.96	\$14.20	\$4.07	\$0.00	\$71.27
ELECTRICIANS LOCAL 96							

Apprentice: VOICE-DATA-VIDEO TECHNICIAN**Effective Date: 9/7/2025**

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$18.06	\$14.98	\$0.54	\$3.97	\$0.00	\$37.55
2	55.00	\$19.87	\$14.98	\$0.60	\$3.97	\$0.00	\$39.42
3	60.00	\$21.67	\$14.98	\$13.51	\$3.97	\$0.00	\$54.13
4	65.00	\$23.48	\$14.98	\$13.56	\$3.97	\$0.00	\$55.99

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
Apprentice: VOICE-DATA-VIDEO TECHNICIAN Effective Date: 9/7/2025							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
5	70.00	\$25.28	\$14.98	\$13.62	\$3.97	\$0.00	\$57.85
6	75.00	\$27.09	\$14.98	\$13.67	\$3.97	\$0.00	\$59.71
7	80.00	\$28.90	\$14.98	\$13.73	\$3.97	\$0.00	\$61.58
8	85.00	\$30.70	\$14.98	\$13.78	\$3.97	\$0.00	\$63.43
Apprentice: VOICE-DATA-VIDEO TECHNICIAN Effective Date: 9/6/2026							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$18.52	\$15.96	\$0.56	\$4.07	\$0.00	\$39.11
2	55.00	\$20.37	\$15.96	\$0.61	\$4.07	\$0.00	\$41.01
3	60.00	\$22.22	\$15.96	\$13.76	\$4.07	\$0.00	\$56.01
4	65.00	\$24.08	\$15.96	\$13.81	\$4.07	\$0.00	\$57.92
5	70.00	\$25.93	\$15.96	\$13.87	\$4.07	\$0.00	\$59.83
6	75.00	\$27.78	\$15.96	\$13.92	\$4.07	\$0.00	\$61.73
7	80.00	\$29.63	\$15.96	\$13.98	\$4.07	\$0.00	\$63.64
8	85.00	\$31.48	\$15.96	\$14.03	\$4.07	\$0.00	\$65.54
Apprentice to Journeyworker Ratio: 1:1							
WAGON DRILL OPERATOR	6/1/2026	\$41.91	\$10.90	\$9.75	\$9.11	\$0.00	\$71.67
LABORERS	12/1/2026	\$43.35	\$10.90	\$9.75	\$9.11	\$0.00	\$73.11
LABORERS - ZONE 2	6/1/2027	\$44.80	\$10.90	\$9.75	\$9.11	\$0.00	\$74.56
	12/1/2027	\$46.25	\$10.90	\$9.75	\$9.11	\$0.00	\$76.01
	6/1/2028	\$47.75	\$10.90	\$9.75	\$9.11	\$0.00	\$77.51
	12/1/2028	\$49.25	\$10.90	\$9.75	\$9.11	\$0.00	\$79.01
For apprentice rates see "Apprentice- LABORER"							
WAGON DRILL OPERATOR (HEAVY & HIGHWAY)	6/1/2026	\$41.91	\$10.90	\$9.75	\$9.21	\$0.00	\$71.77
LABORERS	12/1/2026	\$43.35	\$10.90	\$9.75	\$9.21	\$0.00	\$73.21
LABORERS - ZONE 2 (HEAVY & HIGHWAY)							
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"							
WASTE WATER PUMP OPERATOR	6/1/2026	\$59.38	\$17.05	\$13.35	\$3.25	\$0.00	\$93.03
OPERATING ENGINEERS LOCAL 4	12/1/2026	\$60.83	\$17.05	\$13.35	\$3.25	\$0.00	\$94.48
OPERATING ENGINEERS LOCAL 4							
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
WATER METER INSTALLER	3/2/2026	\$72.64	\$15.32	\$12.61	\$8.00	\$0.00	\$108.57
PLUMBERS & GASFITTERS LOCAL 12	8/31/2026	\$74.79	\$15.32	\$12.61	\$8.00	\$0.00	\$110.72
PLUMBERS & GASFITTERS LOCAL 12	3/1/2027	\$76.94	\$15.32	\$12.61	\$8.00	\$0.00	\$112.87
	8/30/2027	\$79.09	\$15.32	\$12.61	\$8.00	\$0.00	\$115.02
	2/2/2028	\$81.29	\$15.32	\$12.61	\$8.00	\$0.00	\$117.22
	9/4/2028	\$83.49	\$15.32	\$12.61	\$8.00	\$0.00	\$119.42
	3/5/2029	\$85.69	\$15.32	\$12.61	\$8.00	\$0.00	\$121.62

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
	9/3/2029	\$87.89	\$15.32	\$12.61	\$8.00	\$0.00	\$123.82
	3/4/2030	\$89.84	\$15.32	\$12.61	\$8.00	\$0.00	\$125.77

For apprentice rates see "Apprentice- PLUMBER/PIPEFITTER" or "PLUMBER/GASFITTER"

Additional Apprentice Information

All apprentices must be registered with the Division of Apprenticeship Training(DAS) in accordance with M.G.L.c. 23, §§ 11E-11L. Minimum wage rates for apprentices employed on public works projects are listed above as a percentage of the hourly prevailing wage rate established by the Commissioner under the provisions of M.G.L.c. 149, §§ 26-27D.

Apprentice ratios are established by DAS pursuant to M.G.L.c. 23, §§ 11E-11L. Ratios are expressed as the allowable number of apprentices to journeymen or fraction thereof, unless otherwise specified. The ratios listed herein have been taken from relevant private collective bargaining agreements(CBAs) and are provided for illustrative purposes only. They have not been independently verified as being accurate or continuing to be accurate.

Parties having questions regarding what ratio to use should contact DAS.

**APPENDIX B – NATIONAL GIRD – GENERAL GUIDELINES FOR WORKING
AROUND GAS UTILITIES**

General Guidelines for Working Around Gas Utilities

Notice: National Grid requests the opportunity to review design plans and construction projects prior initiation. This document intends to provide minimum guidelines to consider when planning construction, and does not remove the need to coordinate with National Grid. Additional measures may be required to maintain the integrity of all gas pipeline and ancillary items to ensure the safety of the general public and personnel on site. National Grid should be contacted and involved as early as possible to prevent delays or undue costs during construction.

NGRID Contacts:

Gas Leaks & Emergencies - 800-233-5325

Damage Prevention – Mitch Baptista- (857) 507-7067

Dig Safe and General construction

Contractor must call Dig Safe to have the gas mains and services marked out before construction.

Contractor shall dig test pits to ascertain the exact locations, cover and invert elevations, clearances, and alignment of existing gas facilities as needed. Contractor shall exercise extreme caution when excavating in the vicinity of any gas facility. Hand excavation shall be performed to locate all gas facilities and whenever digging within 24" of gas facilities. If cover over gas piping is removed the required cover must be replaced.

Notification of Construction

National Grid requires a minimum 4-month's advanced notification prior to the start of construction to allow for the review of 3rd party design plans, the design of required gas distribution main replacement and/or upgrades in coordination with 3rd party construction, and time to line up the required resources to start standard gas projects. Depending on the classification and complexity of the gas infrastructure in question, lead times for the design of gas facilities in conflict may increase. Where non-stock material is required, National Grid cannot guarantee the procurement within a given duration. National Grid's ability to start construction will be contingent on obtaining the required permit approval from municipalities, state, and federal agencies alike.

Please also note that the safety and reliability of our gas system takes precedence. National Grid will review projects on a case-by-case basis, however standard practice is to restrict live gas work during the normal heating season of November 15th through April 15th.

Types of Gas Facilities

Gas mains and services are made of several different materials and contain a wide range of pressures. Typical materials used for buried gas pipe includes bare steel, coated steel, plastic, cast iron, wrought iron, ductile iron, and copper. Never assume that a pipe is not gas. At times gas lines are inserted into older lines to save excavation cost. Contact National Grid damage prevention if there are questions around any pipe being a live gas facility.

Exposure of Gas Facilities

If any gas mains or services become exposed, National Grid must be notified to inspect the line before backfilling. Also any damage that may have been made to the pipe or pipe coating will need to be repaired by National Grid before backfilling. See Language for Backfill and Compaction around Gas Pipes, below.

Support In Place

Care must be exercised when saw cutting over any gas infrastructure, the exact depth of gas mains and services vary. Undermined gas pipe must be adequately supported and protected from damage. Steel and plastic gas facilities may be supported in accordance with standard CNST-6045. Please contact National Grid prior to exposing and supporting any natural gas pipe or facility. **See appendix 1**

Cast Iron gas main requires special attention, plans should be reviewed by National Grid prior to excavation and supporting in place. Refer to Encroachments section below for additional information.

Encroachments

Massachusetts state law requires the replacement of encroached gas pipe per DPU ruling: 220 CMR 113, National Grid treats encroachments as an emergency. Cast iron gas pipe 8" in diameter and smaller may need to be replaced with steel or plastic pipe prior to construction to prevent encroachments from occurring. Where crossing existing cast iron facilities, the use of smaller buckets and hand tools is recommended to limit trench openings to 36" in width. This will greatly reduce the number of encroachments requiring replacement and repair.

Cast iron gas pipe larger than 8" in diameter are not covered under the encroachment guidelines and cannot be encroached by law. However, National Grid does not allow more than 10 linear feet of large diameter cast iron gas main or more than (1) bell and spigot joint to be exposed and supported at a time, whichever is more restrictive.

Protection of Exposed Pipe

Hand excavation or vacuum excavation shall be used when exposing gas pipe or in the close vicinity of gas pipe. If a gas facility becomes exposed, contact National Grid for review and analyses prior to backfilling.

Where gas facilities are exposed, the pipe must be protected from damage. The use of tools or equipment directly on or near our pipe, as well as any construction activity that could move or damage our pipeline or pipe coating, will not be permitted by National Grid. If a gas facility becomes exposed, the use of construction blankets, plywood, rock shielding, fiberglass reinforcement protection wraps, or other means must be used to protect the gas pipe coating from debris and damage. Small nicks, holes, and discontinuation in the pipe wall/pipe coating can become a weak spot that hastens corrosion and could lead to premature failure.

Vibration

Low levels of vibration must be maintained when working around gas facilities. If activities may impose increased levels of vibrations on our gas pipe, contact National Grid for review. Construction activities may include, but are not limited to pile driving, ledge removal and blasting, certain methods of soil compaction, micro-tunneling, jacking, directional drilling, etc.

Blasting

National Grid must be notified of any blasting that will take place within 200 feet of a gas utility. National Grid must be supplied with a detailed blast plan for blasting in the vicinity of gas facilities. The evaluation of the blast plan by a National Grid engineer may take some time, therefore, blast plan data should be submitted at least two weeks prior to the planned blasting. As a general rule, blasting will not be permitted within 10 feet of a gas line and PPV at the nearest gas pipe shall not exceed 2 in/sec without approval from National Grid. PPV at the nearest gas main shall be monitored.

Clearances

Except under special applications which may require greater clearances (steam lines, high voltage cables, etc.), underground structures and utilities installed parallel to National Grid's gas facilities must maintain a minimum of three (3) feet separation.

Except under special applications which may require greater clearances (steam lines, high voltage cables, etc.), underground structures and utilities must be installed with a minimum separation of twelve (12) inches from National Grid's gas facilities.

Contact National Grid engineer for guidance if the above separations cannot be maintained.

Regulator Stations

Gas regulator stations are **critical** facilities and National Grid must be contacted prior to the commencement of work within 200 feet of a station. Regulator stations are typically in buried vaults accessed through either manhole covers or aluminum doors. Only authorized National Grid employees shall open a regulator station vault. Be aware that a complex nest of piping and valves often exists in the vicinity outside the vaults.

Valves - NEVER OPERATE A GAS VALVE. ONLY NATIONAL GRID SHALL OPERATE GAS VALVES.

Access to gas valves must be maintained throughout construction and left at grade at the end of construction. Contact Gate Valve Adjustment/Damage Prevention prior to restoration to coordinate the adjustment of road boxes. Grade adjustments overtop transmission pipeline should be coordinated with National Grid engineering prior to construction. The adjustment of road boxes, manholes, or vaults that house valves/purges/blowoffs/etc. on transmission pipeline may require design work and the procurement of non-stock items with long lead times.

Valve boxes and covers associated with retired main may be removed or abandoned by removing their covers and filling with compacted soil after confirming with a national grid representative.

Pipeline Markers:

Pipeline markers and above ground signage indicating the presence of high pressure transmission pipeline **must remain in place at all times**. If the location of existing markers need to be relocated for any reason, contact National Grid Damage Prevention prior to removal.

Excavations Involving Transmission Pipelines

If the proposed construction is within close proximity of high pressure transmission gas main, contact National Grid's Damage Prevention Department for specific requirements. It is recommended that:

- A National Grid representative is on site continuously during any excavation/subsurface work within 15 feet of a transmission facility.
- When working within 15' of the outside perimeter of any transmission pipeline, hand tools and vacuum excavation must be used until the exact alignment has been verified
- When working within 15' of the outside perimeter of any transmission pipeline, verification holes should be dug using hand tools/vacuum excavation at 50 ft intervals over transmission main that runs adjacent to a proposed individual construction excavation.
- Where crossing transmission gas pipe with utilities and underground structures, test holes must be dug at the crossing to confirm the depth, invert elevation, and separation.
- Once the exact alignment of transmission piping has been verified using hand tools and vacuum excavation, powered excavation may be used within 15' of the pipeline, **but no closer than the transmission pipeline Safety Zone (18" + ½ the diameter of the pipeline).**

Guidelines for Backfill and Compaction Around Gas Pipes

Permanent Backfill and Compaction

This work shall consist of backfilling and compacting all disturbed material at and around existing gas pipes and facilities. Size of pipe, material, length of exposed pipe, location of pipe, etc. will all follow the same set of Standards and Specifications stipulated by Nationalgrid Company. If design plans call for gas pipes to be exposed and supported (sheeting methods not used), then at the time of backfill, all disturbed material below the invert of the gas pipe shall be removed and replaced with suitable roadway or trench excavation material or bedding material. The contractor will not be allowed to replace this disturbed material with the same existing material if it has now been mixed with adjacent silty subsoil (clays) and fines. Well-graded gravel and sands will be used to replace the unsuitable material when no excess suitable material is available on site. Soils with high humus or mineral content should not be used to for backfill because they can promote electrolytic or bacterial attack.

Backfilling the gas pipe should begin immediately after the work in that location is complete. The region within 6" alongside and on top of the gas pipe shall be backfilled with padding sand (free of cinders, ash, and rock). In no case shall the material used for backfilling in this region contain any stones. Backfill shall consist of suitable materials (medium to coarse sands with little or no silts) placed in layers of not more than 8" to 12" after compaction.

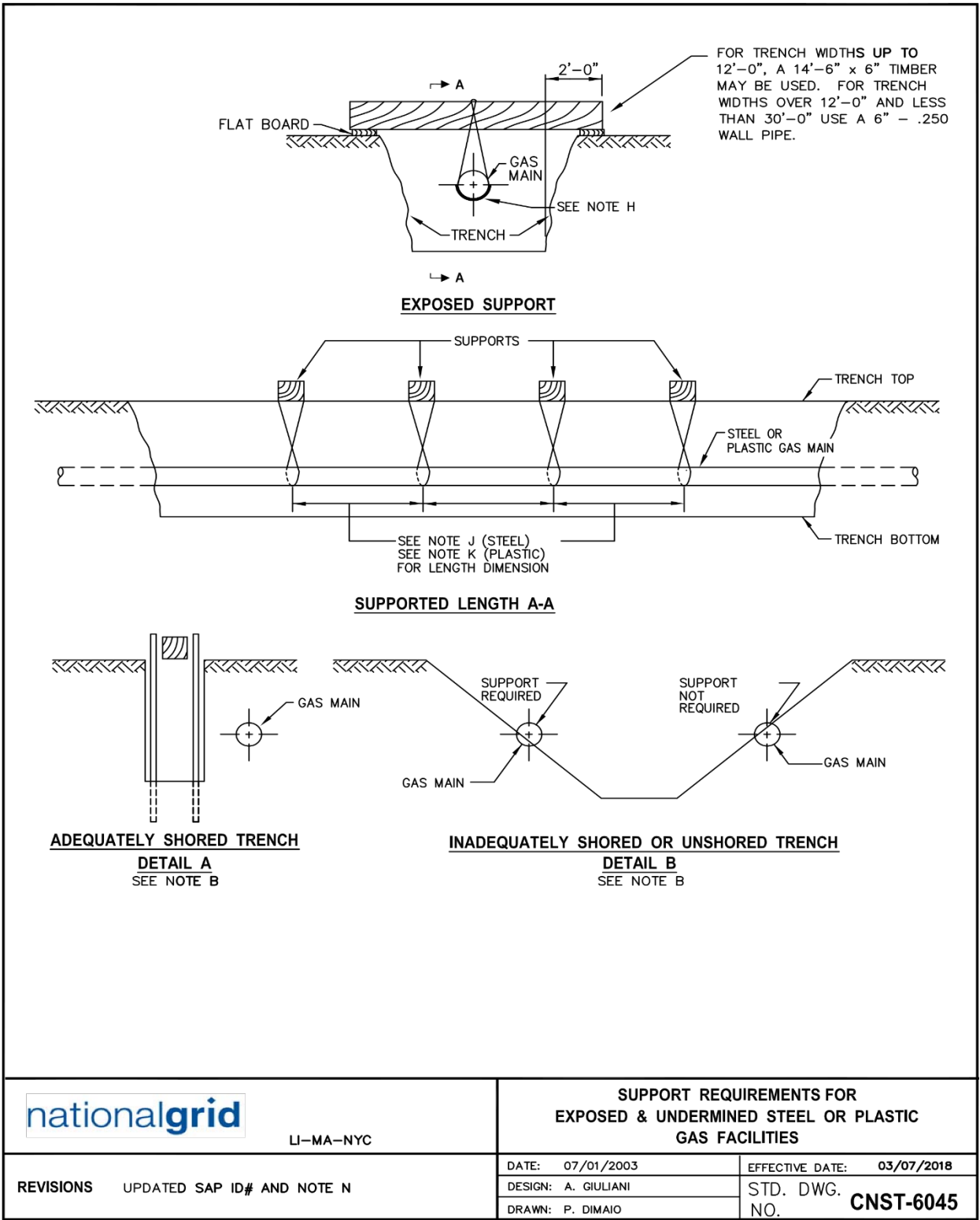
Trench spoil material shall be suitable for backfilling above the padding material as long as rocks with a diameter larger than 3" are removed. The layers shall be mechanically compacted to the industry standard of 95% or until a density comparable to the unexcavated material is achieved. In some instances, flooding with water is an acceptable method of compaction but only if the back-fill material is clean, coarse, and adequate drainage is existent. The above specified backfill material is essential in order to attain the degree of compaction necessary to avoid future settlement.

Tracing Wire, if necessary, shall be installed 2" to 6" above Plastic gas pipes. Tracer wire must be installed and repaired by qualified personnel only, contact National Grid if tracer wire has been damaged during excavation.

Warning Tape shall be installed approximately 12" above the gas pipe. If warning tape is exposed during excavation, immediately stop excavation and contact National Grid for further review

A minimum of 2" temporary pavement shall be applied over the trench as soon as possible.

Appendix 1



NOTES:

- A. THIS CONSTRUCTION STANDARD SHALL BE USED TO SUPPORT PLASTIC OR STEEL GAS FACILITIES WHICH ARE UNDERMINED AND EXPOSED BY CONSTRUCTION ACTIVITY.
- B. IF AN EXCAVATION IS MADE AT ANY DISTANCE PARALLEL TO THE GAS FACILITY WITH ADEQUATE OSHA STRUCTURAL SHORING, AS SHOWN IN DETAIL "A", OR IF A STABLE SOIL CONDITION WITH SUFFICIENT COVER ABOVE THE PIPE'S CENTERLINE EXISTS, AS SHOWN IN DETAIL "B", THEN SUPPORTS ARE NOT REQUIRED. UNSTABLE SOIL IS DEFINED AS A SOIL WHICH CAN CAUSE "SOIL RUN OUT" FROM BENEATH THE PIPE (e.g., WASHOUT, SOFT CLAY, etc.) OR CAN SHIFT DUE TO CONSTRUCTION ACTIVITY, VIBRATIONS, etc.; AND CAUSE A SOIL SCENARIO TO OCCUR AS SHOWN IN DETAIL "B" TO REQUIRE PIPE SUPPORT.
- C. IF AN EXCAVATION CROSSES OR RUNS PARALLEL TO A GAS FACILITY, SUPPORTS MAY NOT BE REQUIRED IF THE EXPOSED SECTION OF PLASTIC PIPES IS 3' OR LESS AND STEEL PIPES 7' OR LESS.
- D. ALL EXCAVATIONS SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THE ONE CALL DIG SAFE PROGRAM USING THE APPROPRIATE MARK OUT, TEST HOLES AND EXCAVATION TO AVOID DAMAGE TO PIPE OR PIPE COATINGS:
- NEW YORK STATE CODE RULE 753
 - MA CHAPTER 82 - SECTION 40, GENERAL LAWS, REGULATING NOTICE REQUIREMENTS FOR EXCAVATION IN PUBLIC WAYS
- E. USE OF THIS CONSTRUCTION STANDARD DOES NOT RELIEVE THE CONSTRUCTION AGENCY OR AUTHORITY OR THEIR RESPECTIVE CONTRACTORS OF RESPONSIBILITY FOR DAMAGES. ALL DAMAGES WILL BE REPAIRED IN ACCORDANCE WITH EXISTING STANDARDS AND THE APPROPRIATE PARTY SHALL BE BILLED FOR ALL EXPENSES.
- F. GAS FACILITIES SHOULD NOT BE UNDERMINED WITHOUT ADEQUATE SUPPORT (DETAIL A). ALL SUPPORT LINES SHALL BE TENSIONED SO THAT NO DEFLECTION WILL OCCUR WHEN THE FACILITY IS UNDERMINED. THIS TENSION SHALL BE CHECKED AT THE START AND END OF EACH DAY AND ADJUSTED AS NECESSARY.
- G. WHERE A COUPLING, GAS SERVICE, CLAMP, VALVE, DRIP LINE OR OTHER APPURTENANCE EXISTS ON THE EXPOSED SECTION OF MAIN, AN ADDITIONAL SUPPORT SHALL BE INSTALLED AT THE LOCATION.
- H. WHEN SUPPORTING AN EXPOSED FACILITY, THE PIPE COATING SHALL BE PROTECTED WITH ROCK SHIELD (ITEM [ID 9340226](#)), OR OTHER LIKE MATERIAL CUT TO A MINIMUM WIDTH OF $\frac{1}{2}$ THE SUPPORTED PIPE DIAMETER. SUPPORT LINES SHALL BE A MINIMUM OF $\frac{3}{4}$ " POLYPROPYLENE OR BETTER. [FRP SHEILDS MAY ALSO BE USED FOR THIS PURPOSE PROVIDED THEY EXTEND A MINIMUM OF \$\frac{1}{2}\$ WAY UP THE PIPE TO PROTECT FROM SIDE LOADING.](#)
- I. SUPPORTS FOR GAS TRANSMISSION FACILITIES SHALL BE REVIEWED WITH GAS ENGINEERING PRIOR TO INSTALLATION.
- J. THE MAXIMUM SPACING BETWEEN SUPPORTS FOR STEEL FACILITIES SHALL BE AS FOLLOWS: 7' SPACING FOR $\frac{3}{4}$ " AND 1 $\frac{1}{4}$ " STEEL

10' SPACING FOR 2" STEEL
15' SPACING FOR 3" AND 4" STEEL
20' SPACING FOR 6" AND LARGER STEEL

- K. THE MAXIMUM SPACING BETWEEN SUPPORTS FOR PLASTIC FACILITIES SHALL BE AS FOLLOWS :
 - 3 ' SPACING FOR 2" AND SMALLER PLASTIC
 - 6' SPACING FOR 4" AND LARGER PLASTIC
- L. VIBRATING MACHINES ARE ALLOWED OVER STEEL OR PLASTIC FACILITIES WITH 24" OR GREATER COVER. HAND HELD MECHANICAL TAMPER IS ACCEPTABLE OVER ANY FACILITY WITH 12" OR GREATER COVER.
- M. WHEN CONSTRUCTION ACTIVITY IS COMPLETED, CLEAN FILL SHALL BE COMPACTED AROUND AND UNDER THE GAS FACILITY BEFORE REMOVING SUPPORTS.
- N. [CONTACT NATIONAL GRID FOR REPLACEMENT REQUIREMENTS OF CAST IRON PIPE.](#)