

# **SPRINGFIELD WATER AND SEWER COMMISSION**



**PROJECT MANUAL  
FOR  
SPRINGFIELD RESERVOIR CULVERT REPLACEMENT PROJECT  
BID NO. 27-13**

**Issue Date: September 22, 2026**

**General Bid Due Date: October 22, 2026, 2:00 P.M. EDT**

## COMMISSIONERS

Matthew Donnellan, Chair  
Daniel Rodriguez, Vice-Chair  
Madelyn Landreau, Commissioner

Joshua D. Schimmel, Executive Director

Edward J. Sweeney, Chief Procurement Officer

Miles Moffatt, Tighe & Bond, Designer



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END OF SECTION

**ADVERTISEMENT  
SPRINGFIELD WATER AND SEWER COMMISSION  
CHIEF PROCUREMENT OFFICER  
Bid No. 27-13 Springfield Reservoir Culvert Replacement Project  
CAPITAL PROJECT**

Sealed bids are requested by the Springfield Water and Sewer Commission's (SWSC) Chief Procurement Officer. Bidding procedures are per Massachusetts General Laws (MGL) Chapter 30A as amended and other applicable statutes.

Bids will be accepted by the Chief Procurement Officer at the Springfield Water and Sewer Commission John J. Lyons Administration Building, 250 M Street Ext., Agawam, MA until 2:00PM EDT on October 22, 2026, at which time and place they will be publicly opened and read aloud.

**Springfield Reservoir Culvert Replacement Project.** The project includes the replacement of two existing culverts. Culvert 1 will replace a stone culvert with a 6-foot wide x 5-foot deep (72" x 60") box culvert lined with a 2-foot deep stone infill. Culvert 2 will replace a 24" corrugated metal pipe with a 3-foot wide x 2-foot deep (36" x 24") box culvert lined with no stone infill. Both culverts on SWSC property at the Springfield Reservoir, 1149 Center Street, Ludlow, Massachusetts. The Project is estimated not to exceed \$220,000. An optional pre-bid meeting has been scheduled for October 6, 2026 at 10:00AM. The pre-bid meeting will be held onsite at 1149 Center Street in Ludlow, MA. Bidders are strongly encouraged to attend the pre-bid meeting. Pre-bid contact: (Contact: Edward J. Sweeney, [edward.sweeney@waterandsewer.org](mailto:edward.sweeney@waterandsewer.org))

Bid Forms and Contract Documents will be available upon request to [edward.sweeney@waterandsewer.org](mailto:edward.sweeney@waterandsewer.org) after 10:00 AM EDT on September 22, 2026.

Contractor must agree to pay MA Prevailing Wage rates whenever applicable. The SWSC reserves the right to waive any informality in, or to revoke, any or all bids, if in the public interest to do so. All questions regarding bid or its specifications must be made in writing and received by the Chief Procurement Officer at the above email address by 4:00 PM on October 13, 2026, in order to be considered.

**Edward J. Sweeney, Chief Procurement Officer, Springfield Water and Sewer Commission**

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**ESTIMATED BIDDING SCHEDULE**  
**SPRINGFIELD RESERVOIR CULVERT REPLACEMENT PROJECT**  
**SWSC Bid No. 27-13**

|                   |                                                                                                                                                     |
|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>09/17/2026</b> | <b>Ad Sent to the Central Register</b>                                                                                                              |
| <b>09/22/2026</b> | <b>Published in the Republican</b>                                                                                                                  |
| <b>09/22/2026</b> | <b>Bid Packages are Available</b><br><b>(<a href="mailto:edward.sweeney@waterandsewer.org">edward.sweeney@waterandsewer.org</a>)</b>                |
| <b>10/06/2026</b> | <b>Optional Pre-Bid Meeting. 10:00 A.M., 1149 Center Street</b><br><b>in Ludlow, MA.</b>                                                            |
| <b>10/13/2026</b> | <b>(4:00 PM)Written Questions Due to the CPO</b><br><b>(<a href="mailto:edward.sweeney@waterandsewer.org">edward.sweeney@waterandsewer.org</a>)</b> |
| <b>10/22/2026</b> | <b>(2:00 PM) Bids due and opened</b>                                                                                                                |
| <b>11/10/2026</b> | <b>Estimated Contract Start Date</b>                                                                                                                |

**Substantial Completion Date: 180 Calendar Days from Receipt of NTP**

## SECTION 00020

### INVITATION FOR BIDS

#### **Springfield Reservoir Culvert Replacement Project SWSC Bid No. 27-13**

The Springfield Water and Sewer Commission, Springfield, Massachusetts, “Commission”, “Owner”, “SWSC” or the “Awarding Authority”), is seeking sealed bids for the Project: **Springfield Reservoir Culvert Replacement Project (SWSC Bid 27-13)**, in the Town of Ludlow, Massachusetts.

Sealed bids will be received at the Offices of the Springfield Water and Sewer Commission, 250 M Street Extension, Agawam, MA 01101 or by mail at the Springfield Water and Sewer Commission, 250 M Street Extension, Agawam, MA 01101 until **October 22, 2026, 2:00 PM** at which time all bids will be publicly opened and read aloud at Bondi’s Large Conference Room.

The bidding and award of the Contract shall be in full compliance with Sections 3039M of the General Laws of the Commonwealth of Massachusetts as last revised. Complete instructions for filing Bids are included in the Instructions to Bidders.

Bidders shall note that the United States Postal Service and major commercial delivery or package express companies deliver to the business office at 250 M Street Extension. It is the Bidder’s responsibility to ensure that their proposal is received at the office of the Commission by the closing date and time.

Bid Forms and Contract Documents will be available upon request to [edward.sweeney@waterandsewer.org](mailto:edward.sweeney@waterandsewer.org) after 10:00 AM EDT on September 22, 2026 after 10:00 AM EDT.

An optional Pre-Bid Conference will be held at 10: 00 AM on October 6, 2026 on site at 1149 Center Street in Ludlow, MA. Bidders are strongly encouraged to attend the site visit. Site Visit contact: Edward (Ted) Sweeney. ([edward.sweeney@waterandsewer.org](mailto:edward.sweeney@waterandsewer.org)) .

**Nature and scope of work:**

The project includes the replacement of two existing culverts. Culvert 1 will replace a stone culvert with a 6-foot wide x 5-foot deep (72" x 60") box culvert lined with a 2-foot deep stone infill. Culvert 2 will replace a 24" corrugated metal pipe with a 3-foot wide x 2-foot deep (36" x 24") box culvert lined with no stone infill. Both culverts are on SWSC property at the Springfield Reservoir, 1149 Center Street, Ludlow, Massachusetts.

The time for completion of this project is **180** calendar days from the date of the written Notice to Proceed.

The estimated project value is: **\$220,000**.

All questions must be made in writing and received by the SWSC Chief Procurement Officer, Edward J. Sweeney, no later than \_\_\_\_\_, **2025**, via the following contact: [edward.sweeney@waterandsewer.org](mailto:edward.sweeney@waterandsewer.org).

All bids shall be accompanied by a bid deposit in an amount at least five percent (5%) of the greatest possible bid amount, considering all alternates, in the form of a certified, cashier's or treasurer's check issued by a responsible bank or trust company made payable to the Springfield Water and Sewer Commission or a bid bond.

A performance bond in an amount equal to 100 percent of the total amount of the bid will be required for faithful performance of the contract as well as Labor and Materials bond in an amount equal to 100 percent of the total bid amount. The surety company must be qualified to do business in the Commonwealth of Massachusetts, and the form of surety must be satisfactory to the Springfield Water and Sewer Commission.

Every bid bond, performance bond, and payment bond issued for any construction work in the Commonwealth of Massachusetts shall be the bond of a surety company organized pursuant to Section 105 of Chapter 175 or of a surety company authorized to do business in the Commonwealth under the provisions of Section 106 of said Chapter 175 and be approved by the U.S. Department of Treasury and are acceptable as sureties and reinsurers on federal bonds under Title 31 of the United States Code, sections 9304 to 9308.

The Springfield Water and Sewer Commission reserves the right to reject any or all bids if it is in the public interest to do so. The Springfield Water and Sewer Commission reserves the right to waive any informality in if deemed it its best interest to do so as may be allowed by statute.

General Contractors shall be required to comply with all applicable Massachusetts General Laws. Bidders may not withdraw their Bids for a period of ninety (90) days, excluding Saturdays, Sundays, and legal holidays after the actual date of the opening of the Bids.

Minimum Wage Rates as determined by the Executive Office of Labor and 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 bidder, 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.

EDWARD J. SWEENEY, CHIEF PROCUREMENT OFFICER  
SPRINGFIELD WATER AND SEWER COMMISSION  
250 M STREET EXTENSION AGAWAM, MASSACHUSETTS 01001

END OF SECTION 00020

## SECTION 00100

### INFORMATION TO BIDDERS

#### ARTICLE 1 RECEIPT AND OPENING OF BIDS:

The Springfield Water and Sewer Commission, Springfield, Massachusetts, (herein called the "Owner"), invites bids on the form attached hereto, all blanks of which must be appropriately filled in. Bids will be received by the Owner at the Office of the Springfield Water and Sewer Commission, Springfield, Massachusetts, 250 M Street Extension, Agawam, MA 01101, as stated in the Invitation for Bids, at which time they will be publicly opened and read aloud (via remote bid opening). The envelopes containing the bids must be sealed, addressed to the attention of the Springfield Water and Sewer Commission, Attention: Chief Procurement Officer, 250 M Street Extension, Agawam, MA 01101 and designated as **"SWSC Bid No. 27-13 Springfield Reservoir Culvert Replacement"**. Any hand delivered Bid received after the deadline will not be accepted. Any other Bid received after the deadline will be returned to the addressee. Any Bid submitted to and received by the Springfield Water and Sewer Commission after the deadline for receipt of Bids will not be accepted. It is the responsibility of the Bidder to ensure that its Bid is received by the Springfield Water and Sewer Department in a timely fashion. The deadline for receipt of Bids can be extended by written Addendum only. Bids may not be submitted orally, by facsimile, by email, by telephone, or any other method except for the methods described above. A Bid may be modified only by submitting any such modification in the form of a document executed in the same manner as a Bid, delivered in a sealed envelope in the same manner as a Bid, designated as a modification to the original Bid and submitted to the Springfield Water and Sewer Commission prior to the time designated for the opening of Bids.

#### CONDITIONAL BIDS SHALL NOT BE ACCEPTED

The Owner may waive any informalities or may reject any and all bids.

Any bid may be withdrawn prior to the scheduled time for the opening of bids or authorized postponement thereof. Any bid received after the time and date specified shall not be considered.

The time period for holding bids, where Federal approval is not required is 90 days, Saturdays, Sundays, and legal holidays excluded, after the opening of bids and where Federal approval is required, the time period for holding bids is 90 days, Saturdays, Sundays, and holidays excluded after such approval.

#### Public Bid Review and Inspection:

1. Upon opening, all Bids become public records except for portions thereof that are not subject to public disclosure as a matter of law.

2. Bids may be reviewed by the public in a manner set forth by the Owner.

## ARTICLE 2 PREPARATION OF BID:

Each bid must be submitted on the prescribed form. All blank spaces for bid prices must be filled in, in ink or typewritten, both in words and figures. All bids must be prepared in conformity with and shall be based upon and submitted subject to all requirements of the Specifications and Drawings together with all addenda thereto.

Each bid must be submitted in sealed inner and outer envelopes bearing on the outside of each envelope the name of the bidder, his address, and the name of the project for which the bid is submitted. Both envelopes shall be clearly labeled "BID DOCUMENTS" so as to guard against opening prior to the time set therefore, and no blame shall be attached to any agent or employee of the Springfield Water and Sewer Commission for the opening of any bid not so marked.

In submitting a Bid, the Bidder represents that:

1. It has read and examined the Specifications, Details, Drawings, and Bidding Documents thoroughly;
2. It understands the Specifications, Details, Drawings, and Bidding Documents;
3. The Bid is made in accordance with the Specifications, Details, Drawings, and Bidding Documents;
4. It has visited the site, has become familiar with the conditions of the site and the surrounding area, and has familiarized itself with the local conditions that may in any manner affect cost, progress, or performance of Work;
5. It has correlated its own observations with the Specifications, Details, Drawings, and Bidding Documents;
6. It has found no errors, conflicts, ambiguities, or omissions in the Specifications, Details, Drawings, and Bidding Documents, except for those that it has brought to the Owner's attention in writing at least seven calendar days prior to submitting the Bid.
7. It is familiar with all applicable Federal, State, City and Springfield Water and Sewer Commission laws, rules, regulations, and procedures affecting its Bid and its Bid is in conformity with those laws, rules, regulations and procedures; and
8. The Bidder has complied with every requirement of these Instructions and

that the Specifications, Details, Drawings, and Bidding Documents are sufficient in scope and detail to indicate and convey an understanding of all terms and conditions for the performance of the Work.

### ARTICLE 3 WITHDRAWAL OF BIDS:

Prior to Bid opening. A Bid may be withdrawn before the time designated for opening Bids. The Bidder requesting such withdrawal must make the request in writing and in a specific manner designated by the Owner if the Owner so requires. Withdrawal of a Bid prior to the Bid opening time will not prejudice the right of a Bidder to resubmit a Bid. A Bid cannot be withdrawn after the Bid opening time except as provided by law.

After Bid opening. In the case of death, disability, bona fide clerical error or mechanical error of a substantial nature or other unforeseen circumstances affecting a Bidder, a Bidder may withdraw its Bid after the time designated for the Bid opening, if within five days of the date designated for opening its Bid, such Bidder submits a statement under the penalties of perjury to the Springfield Water and Sewer Commission detailing the basis for withdrawal. The Owner will then make a determination as to whether such Bidder had satisfied both the statutory and Owner requirements for such withdrawal. If the Owner is satisfied, the Bid Deposit will be returned to such Bidder.

### ARTICLE 4 METHOD OF BIDDING:

The Owner invites a bid for the complete construction of the project, together with all related incidental and appurtenant work as described in these Specifications and/or outlined or shown on the Drawings.

### ARTICLE 5 QUALIFICATIONS OF BIDDER:

The Bidder is directed to review Section 00200 A6 – STATEMENT OF BIDDER’S QUALIFICATIONS. The Bidder shall complete statement of bidder’s qualifications and submit with the bid. Conditional bids will not be accepted.

The Bidder is directed to the following requirements: the Bidder shall have completed three projects in the last five years which included coordination and work of a comparable scope and complexity as this Project.

The Owner reserves the right to reject the Bid of any Bidder who the Owner has determined has not completed a prior project, whether with the Springfield Water and Sewer Commission or elsewhere, because of the fault of the Bidder, its Subcontractors or employees; has been declared in default on a prior contract whether with the Springfield Water and Sewer Commission or elsewhere; has failed to complete a prior project in a timely fashion whether with the Springfield Water and Sewer Commission or elsewhere; based on its work record, is not capable of performing the Work within Contract whether due to lack of sufficient prior experience, as determined by the Owner, or for any reason; does not meet the minimum qualifications and experience requirements stated above and

elsewhere; has not completed three projects in the last five years which included coordination and work of a comparable scope and complexity as this Project; has a work record of its Subcontractors demanding direct payment from the Owner or other awarding authority; has a work record of its Subcontractors, employees or material suppliers complaining to the Owner or other awarding authority regarding the Bidder's failure to pay them; has a record of complaints made to the Owner or other awarding authority by persons offended by the behavior of the Bidder, its Subcontractors or employees; is currently in litigation with the Owner; or has a record of its failure to comply with the Commonwealth and/or Springfield Water and Sewer Commission laws or requirements. "Work record" or "record" constitutes a minimum of one event in the work history of the Bidder.

#### ARTICLE 6 BID SECURITY:

Each bid must be accompanied by treasurer's certified check or bank check of the bidder, or a bid bond prepared on the form of bid bond attached hereto, duly executed by the bidder as principal and having as Surety thereon a surety company meeting the statutory requirements below, in the amount of 5 percent of the bid. Such check or bid bond will be returned to all except the three lowest bidders within five days after the opening of bids, and the remaining checks or bid bonds will be returned promptly after the Owner and the accepted bidder have executed the Contract; or if no award has been made within 30 days after the date of the opening of bids, upon demand of the bidder at any time thereafter, so long as bidder has not been notified of the acceptance of its bid. The applicable requirements pertaining to the bid bond shall also apply to the certified check.

Every bid bond, every performance bond and every payment bond issued for any construction work in the Commonwealth of Massachusetts shall be the bond of a surety company organized pursuant to Section 105 of Chapter 175 or of a surety company authorized to do business in the Commonwealth under the provisions of Section 106 of said Chapter 175 and be approved by the U.S. Department of Treasury and are acceptable as sureties and reinsurers on federal bonds under Title 31 of the United States Code, sections 9304 to 9308.

The Owner shall reject every Bid that is not accompanied by a Bid deposit.

#### ARTICLE 7 LIQUIDATED DAMAGES FOR FAILURE TO ENTER INTO CONTRACT:

The successful bidder, upon its failure or refusal to execute and deliver the Contract and Bonds required within 10 days after bidder has received notice of the acceptance of its bid, shall forfeit to the Owner as liquidated damages for such failure or refusal the security deposited with its bid.

#### ARTICLE 8 TIME OF COMPLETION AND LIQUIDATED DAMAGES:

The bidder must agree to commence work on or before a date to be specified in a written



notice to proceed by the Owner, and to fully complete the project within the period specified in the Bid. Bidder must also agree to pay as liquidated damages a minimum of \$500.00 for each consecutive calendar day thereafter as hereinafter provided in the General Conditions.

#### ARTICLE 9     CONDITIONS OF WORK:

All bidders shall inform themselves fully of the conditions relating to the Specifications, Details, Drawings, and Bidding Documents; construction; and labor, under which the work is now or will be performed; including personal examination of the sites. Failure to do so will not relieve the successful bidder of its obligation to furnish all material and all labor necessary to carry out the provisions of the Contract Documents, and to complete the contemplated work for the consideration set forth in their bid. An optional pre-bid meeting has been scheduled for October 6, 2026, at 10:00AM. The pre-bid meeting will be held onsite at 1149 Center Street in Ludlow, MA. Bidders are strongly encouraged to attend the pre-bid meeting. Pre-bid contact: (Contact: Edward J Sweeney, [edward.sweeney@waterandsewer.org](mailto:edward.sweeney@waterandsewer.org))

#### ARTICLE 10   ADDENDA AND INTERPRETATIONS:

No interpretation of the meaning of the Drawings, Specifications, or other pre-bid documents will be made to any bidder orally. Every request for such interpretations shall be made in writing addressed to Edward J. Sweeney, Chief Procurement Officer, Springfield Water and Sewer Commission, 250 M Street Extension, Agawam, MA 01101 ([edward.sweeney@waterandsewer.org](mailto:edward.sweeney@waterandsewer.org)), and to be given consideration must be received by the date indicated in SECTION 00020 – INVITATION TO BID. Any and all such interpretations and any supplemental instructions will be in the form of written addenda to the Specifications; which, if issued, will be mailed to all prospective bidders (at the respective addresses furnished for such purposes), not later than 3 days prior to the date fixed for the opening of bids. Failure of any bidder to receive any such addendum or interpretations shall not relieve such bidder from any obligation under his bid as submitted. All addenda so issued shall become part of the Contract Documents.

Oral clarifications or interpretations will be without legal effect. Addenda will either be emailed to all persons having received Bidding Documents from the Springfield Water and Sewer Commission. Each Bidder shall be responsible for determining that it has received all Addenda issued.

Acknowledgment of Addenda: Each Bidder is required to acknowledge the receipt of all Addenda (the numbers of which are to be filled in on the Bid form by the Bidder).

#### ARTICLE 11   CONTRACT SECURITY:

Simultaneously with the delivery of the executed Contract, the General Contractor shall furnish the Owner with a Performance Bond and a Payment Bond in penal sums equal to the amount of the Contract price, conditioned upon the performance by the Contractor of

all undertakings, covenants, terms, conditions and agreements of the Contract Documents, and upon the prompt payment by the Contractor to all persons supplying labor and materials in the prosecution of the work provided by the Contract Documents. Such bonds shall be executed by the Contractor and a corporate bonding company licensed to transact such business in the state in which the work is to be performed and named on the current list of "Surety Companies Acceptable on Federal Bonds" as published in the Treasury Department Circular No. 570. The expense of these bonds shall be borne by the Contractor. If at any time a surety on any such bond is declared a bankrupt or loses its right to do business in the state in which the work is to be performed, or is removed from the list of Surety Companies accepted on Federal bonds, the Contractor shall immediately notify the Owner and shall, within ten (10) days after notice from the Owner to do so, substitute an acceptable bond (or bonds) in such form and sum and signed by such other Surety or Sureties as may be satisfactory to the Owner. The premiums on such bond shall be paid by the Contractor. No further payments shall be deemed due nor shall be made until the new Surety or Sureties shall have furnished an acceptable Bond to the Owner.

Every bid bond, every performance bond and every payment bond issued for any construction work in the Commonwealth of Massachusetts shall be the bond of a surety company organized pursuant to Section 105 of Chapter 175 or of a surety company authorized to do business in the Commonwealth under the provisions of Section 106 of said Chapter 175 and be approved by the U.S. Department of Treasury and are acceptable as sureties and reinsurers on federal bonds under Title 31 of the United States Code, sections 9304 to 9308.

#### ARTICLE 12 POWER OF ATTORNEY:

Attorneys-in-fact who sign bid bonds or contract bonds must file with each bond a certified and effectively dated copy of their power of attorney.

#### ARTICLE 13 LAWS AND REGULATIONS:

The bidder's attention is directed to the fact that all applicable Federal and State laws, including Commonwealth of Massachusetts General Laws, requiring fair competition of bidders for the construction, reconstruction, alteration, remodeling, repair or demolition of public works, municipal ordinances, and the rules and regulations of all authorities having jurisdiction over construction of the project shall apply to the Contract throughout, including Chapter 30, Sections 39L through 39P, Section 39R and Chapter 82, Section 40, Amendments, and they will be deemed to be included in the Contract the same as though herein written out in full.

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.

#### ARTICLE 14 METHOD OF AWARD-LOWEST RESPONSIBLE BIDDER:

Bids will be compared on the basis of the experience and competence of the bidder and on the basis of the totals of the quantities listed in the proposal under the enumerated items at the unit prices or lump sums bid for these items. The contract will be awarded to the lowest responsible and eligible bidder meeting the minimum qualifications and experience requirements. However, the Owner may reject any and all bids if it is in the public interest to do so.

The Owner shall award the contract to the lowest responsible (in Owner's sound discretion demonstrably possessing the skill, ability, qualifications, experience and integrity necessary to faithfully perform the work called for by the Contract, based upon determination of competent workmanship and financial soundness) and eligible (able to meet the requirements set forth in the Bidding Documents) Bidder within ninety (90) Business Days after the date of the opening of the Bids. If the Bidder selected as the contractor fails to perform its agreement to execute a contract in accordance with the terms of its Bid and furnish a performance bond and a labor and materials or payment bond, as required by the Bidding Documents, an award shall be made to the next lowest responsible and eligible Bidder. The ninety (90) day time limit shall not be applicable to a second or subsequent award made after the expiration of the time limit with the consent of the next lowest responsible and eligible bidder, and made because the original award made within the time limit was invalid, or because a bidder failed to execute the Agreement or to provide a performance and labor and materials or payment bond.

Any Bidder who fails to perform its agreement to execute a contract and furnish a performance bond and labor and materials or payment bond shall forfeit its Bid deposit which shall become property of the Owner, but shall not exceed the difference between its Bid price and the Bid price of the next lowest responsible and eligible bidder.

The Owner will notify the selected Bidder and all other Bidders of the award.

The Owner will submit, to the selected Bidder, a Notice of Award and at least one unsigned copy of the agreement between the Springfield Water and Sewer Commission and the Contractor. The selected Bidder will be required to return to the Springfield Water and Sewer Commission within ten (10) business days of the date of notice of award, all copies of the Agreement between the Springfield Water and Sewer Commission and the Contractor executed by the Contractor together with, its performance bond, its labor and materials or payment bond; all required certificates of insurance; and any other required forms.

Failure of the Bidder to submit all the required documents in a timely fashion may result in the withdrawal of the award. The Owner will return one fully signed copy of the Agreement to the Contractor. Time is of the essence in the performance of the Agreement.

In the event there is a discrepancy between the unit prices and the extended totals, the unit prices shall govern. In the event that there is a discrepancy between the unit prices written in words and written in figures, the unit prices written in words shall govern. No bid will be accepted which does not contain a unit price or lump sum as indicated for each of the applicable items enumerated in the proposal form.

Bids for any item of work contained in the bid proposal which are abnormally high or low may be cause for rejection by the Owner of the total bid. Due to the nature of this contract where the exact scope of work cannot be exactly defined, unbalanced bids may not be acceptable and therefore may be rejected.

#### ARTICLE 15 AFFIRMATIVE ACTION PROGRAM:

Minimum Wage Rates as determined by the Executive Office of Labor and 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.

#### ARTICLE 16 ITEMS NOT LISTED IN THE BID:

The lump sum and unit price items listed in the bid form are intended to cover all items of work to be done and materials and work to be furnished to fully complete the work in accordance with the Specifications, Details, and Drawings. Appurtenant items of work shown on the Drawings or Details or specified or required, and parts of the work, materials, and equipment not listed separately and not shown or specified but necessary to complete the work but not listed separately under list of items in the bid, shall be provided and shall be considered and included in the cost of payment under the various applicable bid items of work, and no separate payment will be made for such items. It shall be the responsibility of the Contractor to verify any missing or incomplete data.

#### ARTICLE 17 BALANCED BIDDING:

Bids should be made on each separate item of work shown in the bid (proposal) with reasonable relation to the probable cost of doing the work included in such items, and the right is reserved to reject wholly any bid in case an item or items thereof are obviously unbalanced or appear to the Owner to be so unbalanced as to affect or to be liable to affect adversely any interests of the Owner. The attention of the bidder is called to the fact that unbalancing of bids may adversely affect the Contractor if certain portions of the work are increased or decreased as provided in the Specifications, Details, and Drawings.

#### ARTICLE 18 PRICES:

Bidder shall state the proposed price for the work; which price is to cover all the expenses incidental to the completion of the work in full conformity with the Contract,

Specifications and Details, Special Provisions, and Drawings.

In the event that there is a discrepancy between the unit prices and the extended totals, the unit prices shall govern. In the event that there is a discrepancy between the unit prices written in words and written in figures, the unit prices written in words shall govern. No bid will be accepted which does not contain a unit price or lump sum as indicated for each of the applicable items enumerated in the Proposal Form.

ARTICLE 19 UNCERTAINTY OF QUANTITIES:

The quantities listed in the bid (Proposal) are approximate and are given only for use in comparing bids and to indicate approximately the total amount of the Contract, and the Owner does not expressly or by implication represent that the actual amounts of work will even approximately correspond therewith, but does call particular attention to the uncertainty in the quantities of the work involved which cannot be predicted in advance. The work under certain items may be materially greater or less than those given in the bid as may be necessary in the judgment of the Owner to complete the work contemplated in the Contract. Attention is particularly called to the fact that the quantity of work to be done under some bid items may be largely dependent on subsurface ground conditions encountered and, therefore, the quantities of work to be done under the various items may vary substantially from the estimated quantities or may even be omitted.

Under the Contract, the Owner reserves the right to increase or decrease the approximate quantities for, or to omit entirely any of the items as listed in the bid.

Only such quantities of the respective items of work actually performed and accepted will be paid for.

ARTICLE 20 ACCESS TO SITE:

Representatives of the Owner shall have access to the work wherever it is in preparation or progress, and the Contractor shall provide proper facilities for such access and inspection.

ARTICLE 21 CONTRACT:

A contract in the form set forth hereinafter will be required to be executed by the successful bidder and the Springfield Water and Sewer Commission. The attention of all bidders, therefore, is called to the form of said proposed contract and the provisions thereof. Executed original counterparts of the contract security bonds will be required.

ARTICLE 22 WORK ON STATE MUNICIPAL, AND PRIVATE PROPERTY:

Particular attention is hereby directed to the fact that portions of the work included under this Contract may be done within the limits of properties that are State-owned,

municipally-owned, and/or privately-owned. The Contractor shall be responsible for coordinating the prosecution of the work of this Contract with the various property owners, and for providing the work in accordance with any additional requirements as specified herein.

ARTICLE 23 PAYMENT FOR DRAWINGS AND DOCUMENTS:

See Invitation to Bid.

ARTICLE 24 CORRECTIONS:

Erasures or other changes in the bid must be explained or noted over the signature of the bidder.

ARTICLE 25 INSURANCE REQUIREMENTS:

The Contractor agrees to indemnify and defend the Springfield Water and Sewer Commission, Tighe & Bond Inc. and their agents, and employees, and hold them harmless from loss, liability, damage, claims, demands and costs and expenses and reasonable in-house and outside attorney's fees, of any person or persons arising out of, or based upon, personal injury, death or property damage resulting directly from any negligent act or omission on the part of the Contractor, its agents, employees, subcontractors, and licensees in connection with this contract. The Owner and Engineer reserves the right to select outside counsel, subject to the approval of the Contractor and not to be unreasonably withheld or delayed, to defend any such actions.

The Springfield Water and Sewer Commission; Tighe & Bond Inc; shall be named as an ADDITIONAL INSURED and as a certificate holder on each of the insurance policies obtained pursuant to this contract.

Upon execution of the contract, the Contractor will provide copies of certificate of insurance to the Springfield Water and Sewer Commission.

The Bidder's attention is directed to Article 5 "BONDS AND INSURANCE" contained in the General Conditions and in the Supplementary Conditions.

ARTICLE 26 REQUIREMENTS FOR FOREIGN CORPORATIONS:

The attention of all bidders is called to the provision of the General Laws, Chapter 30, Section 39L, as amended by Chapter 3 of the Acts of 1967, which provides that awarding authority may not enter into a contract for construction work and may not approve as a subcontractor furnishing labor and materials for a part of any such work a foreign corporation which has not filed with the awarding authority a certificate of the State Secretary of the Commonwealth of Massachusetts stating that such corporation has complied with Sections 3 and 5 of Chapter 181 and the date of such compliance. The term "foreign corporation" means a corporation not incorporated under the laws of the

Commonwealth of Massachusetts.

ARTICLE 27 PRE-CONSTRUCTION CONFERENCE:

The Contractor shall attend a pre-construction conference scheduled by the Owner after award of the contract, but prior to the actual commencement of work at the site. One item of discussion will be the Contractor's construction schedule.

In planning the Contractor's construction schedule the Contractor is invited to attend other pre-construction conferences which the Owner may conduct for other contiguous construction projects.

ARTICLE 28 TRAFFIC CONTROL AND PEDESTRIAN SAFETY:

The Bidder's attention is directed to the Contract requirements set forth in Section 01550 – TRAFFIC REGULATION and Section 02315.3.3.B - EXCAVATION, BACKFILL, COMPACTION, AND DEWATERING of the Technical Specifications.

ARTICLE 29 MINIMUM WAGE RATES

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.

Added by St. 1973, c. 1164.

**IMPORTANT - READ CAREFULLY**

If the bidder is NOT subject to the Massachusetts Workers' Compensation Law, M.G.L. c. 152, the bidder MUST complete and submit with its bid the following affidavit entitled "WORKERS' COMPENSATION INSURANCE COVERAGE." (See page 00100-14)

**FAILURE TO SUBMIT THE AFFIDAVIT MAY RESULT IN THE REJECTION OF  
YOUR BID.**

**ARTICLE 30 GUARANTEE**

The contractor guarantees that the Work and Services to be performed under the Contract, and all workmanship, materials and equipment performed, furnished, used or installed in the construction of the same shall be free from defects and flaws, and shall be performed and furnished in strict accordance with the Drawings, Specifications, and other contract documents, that the strength of all parts of all manufactured equipment shall be adequate and as specified and that the performance test requirements of the Contract shall be fulfilled. This guarantee shall be for a period of one year from and after the date of completion and acceptance of the Work as stated in the final estimate. If part of the Work is accepted in accordance with that subsection of this AGREEMENT titled "Partial Acceptance", the guarantee for that part of the Work shall be for a period of one year from the date fixed for such acceptance.

If at any time within the said period of guarantee any part of the Work requires repairing, correction or replacement, the Owner may notify the contractor in writing to make the required repairs, correction or replacements. If the Contractor neglects to commence making such repairs, corrections or replacements to the satisfaction of the Owner within seven (7) days from the date of receipt of such notice, or having commenced fails to prosecute such Work with diligence, the Owner may employ other persons to make said repairs, correction or replacements, and charge the costs, including compensation for additional professional services, to the Contractor.

**ARTICLE 31 MANUFACTURER'S EXPERIENCE:**

Whenever it is written that an equipment manufacturer must have a specified period of experience with his product, equipment which does not meet the specified experience period can be considered if the equipment supplier or manufacturer is willing to provide an "Efficiency Guarantee Bond" or cash deposit for the duration of the specified time period which will guarantee replacement of that equipment in the event of failure.

**ARTICLE 32 MASSACHUSETTS SALES TAX AND USE TAX:**

Materials and equipment purchased and installed for this project is exempt from Massachusetts Sales and Use Tax. The Bidder shall take this into account when calculating the bid. A tax exemption number will be provided to the Contractor.



ARTICLE 33 SAFETY AND HEALTH REGULATIONS:

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 any applicable Massachusetts regulations. Contractors shall be familiar with the requirements of these regulations.

ARTICLE 34 DIESEL RETROFIT PROGRAM: (NOT USED)

ARTICLE 35 OSHA SAFETY TRAINING – CHAPTER 306 OF THE ACTS OF 2004

All Contractor employees and sub-contractor employees to be employed at the worksite will have successfully completed a course in construction safety and health approved by the United States Occupational Safety and Health Administration that is a least 10 hours in duration at the time the employee begins work and shall furnish documentation of successful completion of said course with the first certified payroll report for each employee.

ARTICLE 36 AMERICAN IRON AND STEEL REQUIREMENTS:

This project is subject to the American Iron and Steel requirements of P.L. 113-76, the Consolidated Appropriations Act of 2014.

ARTICLE 37 PRICE ADJUSTMENTS:

This Contract contains Base Prices for Diesel Fuel and Gasoline; and Portland Cement Contained In Cast-in-place Concrete and provisions for price adjustments for those commodities in accordance with Chapter 30, Section 39M of the Massachusetts General Laws. Reference Sections 00811, 00812, 00814 for Price Adjustment Clauses.

The Base Price(s) are specified below and will be updated five days prior to the final bid opening date.

Price adjustments will be paid only when the variance between the Base Price and the Period Price for the month during which the cost is incurred exceeds plus or minus five percent (5%). A price adjustment will either result in additional compensation to the Contractor or repayment to the Commission, depending on whether there is an increase or decrease.

Price adjustments will be based on the actual quantity included in a monthly Application for Payment, as supported by paid invoices, and will be made after the work has been performed, using the applicable Period Price.

The Contractor will be compensated for price adjustments from the allowance bid items in the Bid Items List in Section 00300.

The Commission will be repaid from retainage.

The entire difference between the Base Price and Period Price for the month in which the cost was incurred will be paid.

Base Prices and basis of payment are as follows (as of 8/19/24):

A. Diesel Fuel and Gasoline

Diesel Fuel - Base Price: \$4.693 PER GALLON (including state tax)

Gasoline - Base Price: \$3.341 PER GALLON (including state tax)

1. Price adjustments will be based on the Period Price of Gasoline and Diesel Fuel for each monthly period as it appears on the Massachusetts Department of Transportation (MassDOT) website

[<https://www.mass.gov/info-details/massdot-current-contract-price-adjustments>.]

2. The price adjustment only applies to actual fuel usage during each month for site dedicated equipment requiring gasoline or diesel fuel, including but not limited to construction equipment, trucks, and bypass pumps.

3. The price adjustment will be determined by multiplying the number of gallons used during the applicable monthly period times the difference between the Base Price and the Period Price of Diesel Fuel or Gasoline.

B. Liquid Asphalt

Base Price - \$712.50 PER TON

1. Price adjustments will be based on the New Liquid Asphalt Period Price for each monthly period as it appears on the MassDOT website. The Period Price will be posted on the MassDOT website within two (2) business days following receipt of this issue.

2. The Price Adjustment only applies to the actual virgin liquid asphalt content in the mixture placed.

3. The Price Adjustment will be determined by multiplying the number of tons of hot mix asphalt mixtures placed during the applicable monthly period times the liquid asphalt content percentage times the difference between the Base Price and the Period Price of Liquid Asphalt.

C. Portland Cement Contained In Cast-in-place Concrete

Base Price - \$452.13 PER TON

1. Price adjustments will only be made on contracts using greater than 100 cubic yards of concrete containing Portland cement.
2. Price adjustments will be based on the Period Price of Portland cement for each monthly period as it appears on the MassDOT website. The Period Price will be posted on the MassDOT website the Wednesday immediately following the publication of the monthly price in ENR.
3. The price adjustment only applies to the actual Portland cement content in the mix placed based on the approved concrete mix design. No adjustments will be made for any cement replacement materials such as fly ash or ground granulated blast furnace slag.
4. The price adjustment will be based on the variance between the Base Price and the Period Price for the Portland cement component only and will not include transportation or other charges.
5. The price adjustment will be determined by multiplying the number of cubic yards of Portland cement concrete placed during each month times the Portland cement content percentage times the variance between the Base Price and the Period Price of Portland cement.

AFFIDAVIT  
WORKERS' COMPENSATION INSURANCE COVERAGE

RE: Contract for \_\_\_\_\_

Bidder: \_\_\_\_\_ ("the BIDDER")

I, \_\_\_\_\_, \_\_\_\_\_, do hereby state that:  
(print name) (title)

1. I am authorized to sign this document on behalf of the BIDDER and bind the BIDDER hereto;
2. the BIDDER is not subject to the Commonwealth of Massachusetts Workers' Compensation Law, M.G.L. c. 152;
3. in the event the BIDDER is awarded this contract and hires any employees for this contract which would subject it to such insurance law, the BIDDER shall provide the Springfield Water and Sewer Commission with a certificate of insurance indicating workers' compensation insurance coverage pursuant to the specification requirements prior to the commencement of work by those employees; and
4. the BIDDER understands that its failure to comply with the requirement set forth in paragraph 3 may result in the termination of its contract with the Springfield Water and Sewer Commission.

Signed under the penalties of perjury.

Dated: \_\_\_\_\_

\_\_\_\_\_  
(Signature)

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## SECTION 00200

### REQUIRED FORMS

#### PART 1 GENERAL

##### 1.01 SCOPE OF WORK

A. The checklist below is included for the bidders' convenience and in no way waive or abridge the Owner's right to reject any or all bids. Bidders are cautioned to include these required form(s):

1. Sealed Bid
  - a. Bid Form (Copy provided under Bid Form Section)
  - b. Contractors Certification (Copy provided under Bid Form Section)
  - c. Corporate Certificate (Copy provided under Bid Form Section)
2. Contractor's Bid Bond
  - a. To be provided by Contractor (5%)
3. Equal Employment Opportunity Statement (SWSC form appended herein)
4. Tax Certification and Affidavit (SWSC blank form appended herein)
5. Corporate Certificate (SWSC blank form appended herein)
6. Certificate of Non-Collusion (SWSC blank form appended herein)
7. Debarment Disclosure Form (SWSC blank form appended herein)
8. OSHA Safety Training Certification (SWSC blank form appended herein)
9. Commonwealth of Massachusetts Worker's Compensation Law, MGL c. 152, Worker's Compensation Insurance Affidavit (if applicable).
10. Statement of Bidder's Qualifications
  - a. To be provided by Contractor to demonstrate compliance with Bidder's Eligibility requirements detailed in Invitation to Bidders Section

B. In order to be determined to be a Successful Bidder, the Bidder must:

1. Present clearly defined submittals as required, with completed required forms.

C. The following forms must be submitted to the Commission before the Commission can

## SECTION 00200

### REQUIRED FORMS

enter into a formal Contract Agreement with the successful Bidder:

1. Signed Agreement
2. Contractor's Performance Bond (100%)
3. Contractor's Payment Bond (100%)
4. Certificate of Insurance- Naming Commission as "additional insured"

END OF SECTION

## TAX CERTIFICATION AFFIDAVIT FOR CONTRACTS

\_\_\_\_\_  
Individual Social Security Number

\_\_\_\_\_  
State Identification Number

\_\_\_\_\_  
Federal Identification Number

Pursuant to M.G.L. Ch. 62c, sec. 49a.

Company: \_\_\_\_\_

P.O. Box (if any): \_\_\_\_\_ Street Address Only: \_\_\_\_\_

City/State/Zip Code: \_\_\_\_\_

Telephone Number: \_\_\_\_\_ Fax Number: \_\_\_\_\_

**Please Identify if the bidder/proposer is a:**

Corporation \_\_\_\_\_

Individual \_\_\_\_\_

Name of Individual: \_\_\_\_\_

Partnership \_\_\_\_\_

Names of all Partners: \_\_\_\_\_

Limited Liability Company \_\_\_\_\_

Names of all Managers: \_\_\_\_\_

Limited Liability Partnership \_\_\_\_\_

Names of Partners: \_\_\_\_\_

Limited Partnership \_\_\_\_\_

Names of all General Partners: \_\_\_\_\_

Pursuant to M.G.L. c. 62C, Section 49A, I/WE certify under penalties of perjury that I/WE, to my/our best knowledge and belief, have filed all Massachusetts tax returns and paid all Massachusetts taxes as required under law, as well as paid all contributions and payments in lieu of contributions pursuant to M.G.L., c. 151A, Section 19A(b).

I/WE further certify that I/WE have complied with all federal, state and local laws relating to taxes, including but not limited to the withholding and reporting of any income taxes for employees and contractors, and the withholding and remittance of child support.

The contractor must be in compliance **at the time it submits its bid and afterwards if selected as the contractor**, with all Federal, Commonwealth of Massachusetts and Local Tax Laws.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Social Security or Federal ID No.

\_\_\_\_\_  
Date

**YOU MUST FILL THIS FORM OUT COMPLETELY AND YOU MUST FILE THIS FORM WITH YOUR BID/CONTRACT SUBMISSION. TAX AFFIDAVITS THAT ARE NOT SIGNED WILL BE REJECTED.**

Springfield Reservoir Culvert  
Replacement Project  
SWSC Bid No. 27-13

00200 A1



## COLLUSION OR FRAUD STATEMENT FOR PUBLIC CONTRACTS

The undersigned certifies under penalties of perjury that this bid or proposal is in all respects bona fide, fair, and made in good faith without collusion or fraud with any other person. As used in this section the word "person" shall mean any natural person, business, joint venture, partnership, corporation, union, committee, club, any other organization, entity or legal entity, or group of individuals.

By: \_\_\_\_\_  
(Printed Authorized Person's Name)

By: \_\_\_\_\_  
(Authorized Person's Signature)

Its: \_\_\_\_\_  
(Corporate Title)

\_\_\_\_\_  
(Corporate Name)

Date: \_\_\_\_\_

**DEBARMENT DISCLOSURE FORM**

PUBLIC CONTRACTS - DEBARMENT  
CHAPTER 550, ACTS OF 1991

The said undersigned certifies under penalties of perjury that the said undersigned is not presently debarred from doing public construction work in the Commonwealth of Massachusetts under the provisions of Section 29F of Chapter 29 of the General Laws, or any other applicable debarment provisions of any other Chapter of the General Laws, or any Rule or Regulation promulgated thereunder.

Date: \_\_\_\_\_

Name of Bidder: \_\_\_\_\_

By: \_\_\_\_\_  
Signature

\_\_\_\_\_  
Print Name & Title of Person Signing

\_\_\_\_\_  
Address

\_\_\_\_\_  
City, State, ZIP

THIS FORM MUST BE SIGNED & RETURNED WITH YOUR BID OFFER.

## **EQUAL EMPLOYMENT OPPORTUNITY STATEMENT**

It is the policy of the Springfield Water and Sewer Commission not to discriminate against any employee or applicant for employment because of age, race, color, religion, sex, national origin, disability, or political affiliation.

The Springfield Water and Sewer Commission shall insure that applicants are employed and that employees are treated, during employment, without discrimination based on age, race, color, religion, sex, national origin, disability, or political affiliation. Such action shall include, but not limited to, the following: employment, promotion, transfer, recruitment advertising, layoff or termination, rate of pay or other forms of compensation, medical and other benefits, and selection of training, including apprenticeships.

Unanimously Voted May 1, 1997  
Springfield Water and Sewer Commission

The undersigned certifies that the Bidder/Proposer has read the above Springfield Water and Sewer Commission Equal Opportunity Employment Statement and Massachusetts Affirmative Action requirements:

By: \_\_\_\_\_  
(Printed Authorized Person's Name)

By: \_\_\_\_\_  
(Authorized Person's Signature)

Its: \_\_\_\_\_  
(Corporate Title)

\_\_\_\_\_  
(Corporate Name)

Date: \_\_\_\_\_

OSHA SAFETY TRAINING CERTIFICATION

**Chapter 306 of the Acts of 2004**  
**An Act Relative to the Health and Safety on Construction Projects**

GENERAL CONTRACTOR'S CERTIFICATION - BID FORM

\_\_\_\_\_ (Name of General Bidder) hereby  
certifies that it, and all its subcontractors who are not filed subbidders shall:

(1) who shall certify that all employees to be employed at the worksite will have successfully completed a course in construction safety and health approved by the United States Occupational Safety and Health Administration that is at least 10 hours in duration at the time the employee begins work and who shall furnish documentation of successful completion of said course with the first certified payroll report for each employee.

Signed under the penalties of perjury. \_\_\_\_\_ (date)

\_\_\_\_\_  
Signature of authorized representative of contractor

\_\_\_\_\_  
Print name of authorized representative of contractor

**RETURN THIS FORM WITH YOUR BID**

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## STATEMENT OF BIDDER'S QUALIFICATIONS

All questions must be answered and the data given must be clear and comprehensive. This statement must be notarized. If necessary, questions may be answered on separate attached sheets. The Bidder may submit any additional information it desires.

The bidder must provide references including telephone number and contact names in response to the questions in this section. References will be used in determining the responsibility of the bidder. The Commission reserves the right to use itself as a reference.

1. Name of Bidder

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2. Business Address

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3. The names, titles, and residences of all persons and parties interested in this Proposal as principals are as follows:

Note: Give the first and last names in full. In the case of corporation, give names of officers and directors; in the case of a partnership, give names of all partners.

IMPORTANT: IMPORTANT: Be sure residences and last 4 digits of Social Security

| Name | Title | Address | Social Security (last 4) # |
|------|-------|---------|----------------------------|
|------|-------|---------|----------------------------|

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Bidder's Name \_\_\_\_\_

STATEMENT OF BIDDER'S

QUALIFICATIONS  
00200 A6-1

4. The date the company was organized.

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5. If a corporation, where incorporated.

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6. How many years have you been engaged in the **construction of drainage systems** under your present firm or trade name?

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7. Please explain the general character of work performed by your company.

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8. List all projects that your organization are currently performing or have been awarded at the time of this bid? Provide the following information:

| Name and<br>Address of<br>Owner for<br>Whom Work<br>is Being<br>Done | Whether<br>Work Being<br>Done as<br>Contractor<br>or Sub-<br>contractor | Description<br>of Work | Approximate<br>Amount of<br>Contract | Approximate<br>Completion<br>Date of<br>Work |
|----------------------------------------------------------------------|-------------------------------------------------------------------------|------------------------|--------------------------------------|----------------------------------------------|
|----------------------------------------------------------------------|-------------------------------------------------------------------------|------------------------|--------------------------------------|----------------------------------------------|

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Bidder's Name \_\_\_\_\_

STATEMENT OF BIDDER'S

Springfield Reservoir Culvert  
Replacement Project  
SWSC Bid No. 27-13

QUALIFICATIONS  
00200 A6-2

9. What is your annual gross revenue (last year and projected for the next two years), what is your current revenue commitment (in dollars)?

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10. Has your present organization ever failed to complete any work awarded to it? If so, state when, where, and why.

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11. Has your present organization ever defaulted on a contract? If so, state when, where, and why.

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12. Submit a preliminary project schedule with number of crews and construction sequencing proposed for the project.

Bidder's Name \_\_\_\_\_

STATEMENT OF BIDDER'S

Springfield Reservoir Culvert  
Replacement Project  
SWSC Bid No. 27-13

QUALIFICATIONS  
00200 A6-3



13. What project(s) has/have your organization completed of character similar to this project? Provide the following information:

| Name and<br>Address of<br>Owner for<br>Whom Work<br>Was Done | State Whether<br>Work Was<br>Done as<br>Contractor<br>or Sub-Description<br>of Work | Approximate<br>Amount of<br>Contract | Approximate<br>Completion<br>Date of<br>Work |
|--------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------|----------------------------------------------|
|--------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------|----------------------------------------------|

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14. Describe equipment available for the performance of this contract by setting forth make, model and year, size, number, and type for each such piece of equipment (a) owned, (b) currently rented or (c) to be rented. Bidder must set forth description of all equipment it plans to use whether rented or owned.

(a) Owned

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Bidder's Name \_\_\_\_\_

STATEMENT OF BIDDER'S

Springfield Reservoir Culvert  
Replacement Project  
SWSC Bid No. 27-13

QUALIFICATIONS  
00200 A6-4

(b, c) Rented

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15. Describe the background and experience of the principal members of your organization, including the officers.

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16. Provide three (3) similar, successfully completed projects within the past five (5) years, involving the construction of storm drainage systems and/or culvert replacement projects of a similar size and scope of the Project including cast-in-place concrete structures. State specific information (size and complexity) including referral and contact information.

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Bidder's Name \_\_\_\_\_

STATEMENT OF BIDDER'S

17. Who will be the contractor's project manager? State such person's qualifications. Also list names of any other key and/or supervisory employees who will be participating in this contract and their qualifications (years of experience, etc.).

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18. Who will be the contractor's full time on-site superintendent? Submit such person's resume for review by Owner/Engineer. The Project Superintendent must have a minimum of 10 years construction experience; demonstrate ability to manage a budget, schedule, and crew coordination; demonstrate experience in traffic management, community relations with local residents, utility coordination, contaminated soil management, and permit compliance. Also list names of other key and/or supervisory employees who will be participating in this contract and their qualifications (years of experience, etc.).

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19. Submit the number, size and equipment of crews to be established to complete the work as specified.

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Bidder's Name \_\_\_\_\_

STATEMENT OF BIDDER'S

20. Give below the name and address of one or more banks and the contact person's name(s) and phone number(s), at the bank(s), which have information that would enable them to advise regarding the financial ability of your company.

Name of Bank / Contact Person

Address / Phone Number

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21. The apparent low bidder shall furnish a detailed financial statement and furnish any other information that may be required by the Springfield Water and Sewer Commission.

22. What is your available credit? The apparent low bidder shall furnish written evidence.

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23. Employer Identification No. (Treasurer's No.)

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24. Give below the name and address of the bidder's Surety / Bonding company and the contact person's name and phone number, at the Surety / Bonding company, which has information that would enable them to advise regarding the status of existing bonds and bonding capability of your company.

Name of Surety or Bonding Company / Contact Person

Address / Phone Number

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25. Give below the name, company (or owner), address and phone number of at least five references (Owner or Engineer/Architect) who have information that would enable them to advise your performance on past or existing projects of the general nature similar to this Project.

Bidder's Name \_\_\_\_\_

STATEMENT OF BIDDER'S

Name of Owner or Company / Contact Person

Address / Phone Number

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26. Is your organization currently or has your organization been previously involved in any lawsuits regarding work performed within the last three years? If so, please provide the approximate value of dispute, and name(s) and address(s) of opposing party.

Name of Opposing Party / Contact Person

Address / Phone Number

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27. Name, Signature, Social Security number and Title of officer preparing this proposal.

Name\_\_\_\_\_

Signature\_\_\_\_\_

Social Security

Number\_\_\_\_\_Title\_\_\_\_\_

Bidder's Name \_\_\_\_\_

STATEMENT OF BIDDER'S

28. The undersigned hereby authorizes and requests any person, firm or corporation to furnish any information requested by the Springfield Water and Sewer Commission in verification of the recitals comprising this Statement of Bidder's Qualifications.

Dated at \_\_\_\_\_ this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_

\_\_\_\_\_  
(Signature)

Tel. No. \_\_\_\_\_

By \_\_\_\_\_

Title \_\_\_\_\_

State of \_\_\_\_\_)

County of \_\_\_\_\_)

\_\_\_\_\_, being duly sworn,

deposes and says that he/she is

\_\_\_\_\_ of

\_\_\_\_\_  
(Name of Organization)

and that the answers to the foregoing questions and all statements therein contained are true and correct.

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_

\_\_\_\_\_  
(Notary Public)

My commission expires \_\_\_\_\_, 20\_\_\_\_

Bidder's Name \_\_\_\_\_

STATEMENT OF BIDDER'S

QUALIFICATIONS  
00200 A6-9

Springfield Reservoir Culvert  
Replacement Project  
SWSC Bid No. 27-13

## CORPORATE CERTIFICATION

I \_\_\_\_\_ a resident of \_\_\_\_\_ in the  
 \*\* (Clerk/Secretary) (City/Town)  
 State of \_\_\_\_\_ **DO HEREBY CERTIFY** that I am the Clerk/Secretary of  
 \_\_\_\_\_ a Corporation duly organized and existing under and  
 \_\_\_\_\_ (Bidder/Proposer)  
 by virtue of the laws of the State of \_\_\_\_\_ and that I have custody of the  
 \_\_\_\_\_ (State)  
 records of such Corporation; and that as of the date herein below recited  
 \_\_\_\_\_ is the \_\_\_\_\_  
 \* (Printed Authorized Person's Name) (Corporate Office)  
 authorized to execute and deliver in the name and on behalf of the Corporation the following:

**IN WITNESS WHEREOF**, I have hereunto set my hand and affixed the Corporate Seal of such Corporation the \_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_.

(Affix  
Seal  
Here)

By: \_\_\_\_\_  
 \*\* (Clerk / Secretary)

- \* This must be the name of the person authorized in the Firm's by-laws to sign contracts.
- \*\* Since an Officer of the Firm cannot certify himself / herself this document must be signed someone other than the person signing the Contract Agreement.

## GENERAL CONTRACTOR'S CERTIFICATION

A contractor will not be eligible for award of a contract unless such contractor has submitted the following certification, which is deemed a part of the resulting contract:

\_\_\_\_\_  
(Contractor Name)

Certifies that they:

1. Will not discriminate in their employment practices;
2. Intend to use the following listed construction trades in the work under the contract:

\_\_\_\_\_  
\_\_\_\_\_

and

3. Will make good faith efforts to comply with the minority employee and women employee workforce participation ratio goals and specific affirmative action steps contained herein; and
4. Are in compliance with all applicable federal and state laws, rules, and regulations governing fair labor and employment practices; and
5. Will provide the provisions of the "Supplemental Equal Employment Opportunity, Non-Discrimination and Affirmative Action Program" to each and every subcontractor employed on the Project and will incorporate the terms of this Section into all subcontracts and work orders entered into on the Project.
6. Agree to comply with all provisions contained herein.

\_\_\_\_\_  
Signature of authorized representative of Contractor

\_\_\_\_\_  
Date

\_\_\_\_\_  
Printed name of authorized representative of Contractor



**SPRINGFIELD WATER AND SEWER COMMISSION  
SPRINGFIELD, MASSACHUSETTS**

Springfield Reservoir Culvert Replacement Project  
SWSC Bid No. 27-13

**BID FORM**

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 Springfield Water and Sewer Commission, 250 M Street Extension, Agawam, Massachusetts, 01001, 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.

Bids for this Contract are subject to the provisions of M.G.L. Chapter 30, Section 39M inclusive.

If a Notice of Award accompanied by at least six unsigned copies of the Agreement and all other applicable Contract Documents is delivered to the undersigned within thirty days, excluding Saturdays, Sundays, and SWSC holidays after the actual date of the opening of the Bids, the undersigned will within five days, excluding Saturdays, Sundays, and SWSC 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 hereby agrees that the Contract Time shall commence upon receipt of written authorization to proceed from the OWNER, and that the Work will be substantially completed and ready for final payment in accordance with the General Conditions within 180 days.

Bidder proposes to furnish all labor and materials required for construction of the Springfield Reservoir Culvert Replacements Bid No. 27-13, Ludlow, MA in accordance with the accompanying Bidding Documents prepared by Tighe & Bond, Inc., for the Contract Price specified below, subject to additions and deductions according to the terms of the Bidding Documents.

A Performance Bond in the amount of 100% of the total Contract Price must be provided by the General Contractor.

Bidder acknowledges receipt of the following addenda:

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\*Insert corporation, partnership, or individual as applicable.

Unit and lump sum prices and extended amounts are to be shown in both words and figures. In case of discrepancy, the amount shown in words will govern.

BID ITEMS

| Item #    | Estimated Quantity | Units    | Description of the Work and Unit Price Bid Written in Words and Numbers            | Amount   |
|-----------|--------------------|----------|------------------------------------------------------------------------------------|----------|
| CULVERT 1 |                    |          |                                                                                    |          |
| 1         | 1                  | Lump Sum | Culvert 1 – Mobilization and Demobilization<br>_____ Dollars<br>( _____ ) Lump Sum | \$ _____ |
| 2         | 1                  | Lump Sum | Culvert 1 – Miscellaneous Work<br>_____ Dollars<br>( _____ ) Lump Sum              | \$ _____ |
| 3         | 1                  | Lump Sum | Culvert 1 - Demolition<br>_____ Dollars<br>( _____ ) Lump Sum                      | \$ _____ |
| 4         | 1                  | Lump Sum | Culvert 1 - Wetlands Restoration<br>_____ Dollars<br>( _____ ) Lump Sum            | \$ _____ |
| 5         | 1                  | Lump Sum | Culvert 1 – Headwalls (Both)<br>_____ Dollars<br>( _____ ) Lump Sum                | \$ _____ |
| 6         | 1                  | Lump Sum | Culvert 1 – Stream Bypass<br>_____ Dollars<br>( _____ ) Lump Sum                   | \$ _____ |

| Item # | Estimated Quantity | Units       | Description of the Work and Unit Price Bid Written in Words and Numbers                                              | Amount   |
|--------|--------------------|-------------|----------------------------------------------------------------------------------------------------------------------|----------|
| 7      | 26                 | Linear Foot | Culvert 1 – 6-ft. W x 5 ft H Precast Concrete Box Culvert (w/stone lining)<br>_____ Dollars<br>( _____ ) Linear Foot | \$ _____ |
| 8      | 20                 | Cubic Yard  | Culvert 1 - Ordinary Borrow<br>_____ Dollars<br>( _____ ) per Cubic Yard                                             | \$ _____ |
| 9      | 6                  | Cubic Yard  | Culvert 1 - Processed Gravel Borrow<br>_____ Dollars<br>( _____ ) per Cubic Yard                                     | \$ _____ |
| 10     | 15                 | Cubic Yard  | Culvert 1 – Road – Gravel Base<br>_____ Dollars<br>( _____ ) per Cubic Yard                                          | \$ _____ |
| 11     | 15                 | Tons        | Culvert 1 – Road – Asphalt<br>_____ Dollars<br>( _____ ) per Ton                                                     | \$ _____ |
| 12     | 60                 | Linear Foot | Culvert 1 – Guard Rail<br>_____ Dollars<br>( _____ ) per Linear Foot                                                 | \$ _____ |
| 13     | 100                | Square Foot | Culvert 1 – Loam & Seed/Surface Restoration<br>_____ Dollars<br>( _____ ) per Square Foot                            | \$ _____ |

| Item #    | Estimated Quantity | Units       | Description of the Work and Unit Price Bid Written in Words and Numbers                                                                   | Amount    |
|-----------|--------------------|-------------|-------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| 14        | 160                | Linear Foot | Culvert 1 - Straw Wattles<br>_____ Dollars<br>( _____ ) per Linear Foot                                                                   | \$ _____  |
| 15        | 10                 | CY          | Culvert 1 - Rock Excavation<br>_____ Dollars<br>( _____ ) per Cubic Yard                                                                  | \$ _____  |
| 16        | 1                  | Allow       | Monthly Price Adjustment for Gasoline<br>Two Hundred Dollars and Zero Cents<br>_____ Dollars<br>( \$200.00 ) Allowance                    | \$ 200.00 |
| 17        | 1                  | Allow       | Monthly Price Adjustment for Diesel Fuel<br>Two Hundred Dollars and Zero Cents<br>_____ Dollars<br>( \$200.00 ) Allowance                 | \$ 200.00 |
| 18        | 1                  | Allow       | Monthly Price Adjustment for Portland Cement in Concrete<br>One Hundred Dollars and Zero Cents<br>_____ Dollars<br>( \$100.00 ) Allowance | \$ 100.00 |
| CULVERT 2 |                    |             |                                                                                                                                           |           |
| 19        | 1                  | Lump Sum    | Culvert 2 – Mobilization and Demobilization<br>_____ Dollars<br>( _____ ) Lump Sum                                                        | \$ _____  |
| 20        | 1                  | Lump Sum    | Culvert 2 – Miscellaneous Work<br>_____ Dollars<br>( _____ ) Lump Sum                                                                     | \$ _____  |

| Item # | Estimated Quantity | Units       | Description of the Work and Unit Price Bid Written in Words and Numbers                                               | Amount   |
|--------|--------------------|-------------|-----------------------------------------------------------------------------------------------------------------------|----------|
| 21     | 1                  | Lump Sum    | Culvert 2 - Demolition<br>_____ Dollars<br>( _____ ) Lump Sum                                                         | \$ _____ |
| 22     | 1                  | Lump Sum    | Culvert 2 - Wetlands Restoration<br>_____ Dollars<br>( _____ ) Lump Sum                                               | \$ _____ |
| 23     | 1                  | Lump Sum    | Culvert 2 – Headwalls (Both)<br>_____ Dollars<br>( _____ ) Lump Sum                                                   | \$ _____ |
| 24     | 1                  | Lump Sum    | Culvert 2 – Stream Bypass<br>_____ Dollars<br>( _____ ) Lump Sum                                                      | \$ _____ |
| 25     | 26                 | Linear Foot | Culvert 2 – 3-ft. W x 2 ft H Precast Concrete Box Culvert (no stone lining)<br>_____ Dollars<br>( _____ ) Linear Foot | \$ _____ |
| 26     | 10                 | Cubic Yard  | Culvert 2 - Ordinary Borrow<br>_____ Dollars<br>( _____ ) per Cubic Yard                                              | \$ _____ |
| 27     | 4                  | Cubic Yard  | Culvert 2 - Processed Gravel Borrow<br>_____ Dollars<br>( _____ ) per Cubic Yard                                      | \$ _____ |

| Item # | Estimated Quantity | Units       | Description of the Work and Unit Price Bid Written in Words and Numbers                                           | Amount    |
|--------|--------------------|-------------|-------------------------------------------------------------------------------------------------------------------|-----------|
| 28     | 15                 | Cubic Yard  | Culvert 2 – Road – Gravel Base<br>_____ Dollars<br>( _____ ) per Cubic Yard                                       | \$ _____  |
| 29     | 15                 | Tons        | Culvert 2 – Road – Asphalt<br>_____ Dollars<br>( _____ ) per Ton                                                  | \$ _____  |
| 30     | 60                 | Linear Foot | Culvert 2 – Guard Rail<br>_____ Dollars<br>( _____ ) per Linear Foot                                              | \$ _____  |
| 31     | 80                 | Square Foot | Culvert 2 – Loam & Seed/Surface Restoration<br>_____ Dollars<br>( _____ ) per Square Foot                         | \$ _____  |
| 32     | 150                | Linear Foot | Culvert 2 - Straw Wattles<br>_____ Dollars<br>( _____ ) per Linear Foot                                           | \$ _____  |
| 33     | 5                  | CY          | Culvert 2 - Rock Excavation<br>_____ Dollars<br>( _____ ) per Cubic Yard                                          | \$ _____  |
| 34     | 1                  | Allow       | Culvert 2 - Monthly Price Adjustment for Gasoline<br>Two Hundred Dollars and Zero Cents<br>( \$200.00 ) Allowance | \$ 200.00 |

| Item # | Estimated Quantity | Units | Description of the Work and Unit Price Bid Written in Words and Numbers                                                                            | Amount           |
|--------|--------------------|-------|----------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| 35     | 1                  | Allow | Culvert 2 - Monthly Price Adjustment for Diesel Fuel<br><u>Two Hundred Dollars and Zero Cents</u><br>( <u>\$200.00</u> ) Allowance                 | \$ <u>200.00</u> |
| 36     | 1                  | Allow | Culvert 2 - Monthly Price Adjustment for Portland Cement in Concrete<br><u>One Hundred Dollars and Zero Cents</u><br>( <u>\$100.00</u> ) Allowance | \$ <u>100.00</u> |

Total amount of Bid based on Engineer's estimate of quantities for Items 1 through 36 inclusive.

\_\_\_\_\_ \$ \_\_\_\_\_  
 (Amount in Words) (Amount in Figures)



The above unit and lump sum prices shall include all labor, equipment, materials, overhead, profit, insurance, and other costs to cover the finished work of the several kinds called for.

NOTE: The award will be based upon the Proposed Contract Price and will be made in accordance with the provisions of MGL Chapter 30, Section 39M. The quantities designated throughout the Bid Schedule, however, are estimates only, and the Unit Price provided for a category of Work shall be the basis for the entire term of the Contract, for additions to or deletions from the Total Contract Price for Work of the category, so long as the number of units of work remains within fifteen percent (15%) of the estimated quantity or twenty five (25)% of the estimated quantity for items relating to soil management, handling, and/or disposal.

This project is being bid under Chapter 30, Section 39M of the Massachusetts General Laws. The Bidder understands that the Owner reserves the right to reject any or all bids and to waive any informalities in the bidding. The Bidder understands that the Owner shall determine if this bid is responsible and eligible in accordance with M.G.L. c.30, s39M based in part on information contained in the Statement of Bidder's Qualifications submitted as part of this bid form.

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 and where Federal approval is required, the time period for holding bids is 30 days, Saturdays, Sundays and holidays excluded after Federal approval. Upon receipt of written notice of the acceptance of this bid, Bidder shall execute the formal Contract attached within 10 calendar days and deliver a Performance and Payment Surety Bonds as required in the General Conditions. The Bid Security (5% of Bid) attached in the sum of \_\_\_\_\_ Dollars, (\$ \_\_\_\_\_) is to become the property of the Owner in the event the Contract and Bond are not executed within the time above set forth as liquidated damages for the delay and additional expense to the Owner caused thereby.

The undersigned hereby declares that he has carefully examined the site of the proposed Work and fully informed and satisfied himself as to the conditions there existing, the character and requirements of the proposed Work, the difficulties attendant upon its execution and the accuracy of all estimated quantities stated in this FORMS FOR GENERAL BID, and he has carefully read and examined the Drawings, the annexed proposed CONTRACT and the Specifications and other Contract Documents therein referred to and knows and understands the terms and provisions thereof.

The undersigned hereby declares that he understands that information relative to subsurface and other conditions, natural phenomena, existing pipes and other structures (surface and/or subsurface) has been furnished only for his information and convenience without any warranty or guarantee, expressed or implied, that the subsurface and/or other conditions, natural phenomena, existing pipes and other structures (surface and/or subsurface) actually encountered will be the same as those shown on the Drawings or in any of the other Contract Documents and he agrees that he shall not use or be entitled to use any such information made available to him through the Contract Documents or otherwise or obtained by him in his own examination of the site, as a basis of or ground for any claim against the Owner or the Engineer arising from or by reason of any variance which may exist between the aforesaid information made available to or acquired by him and the subsurface and/or other conditions, natural phenomena, existing pipes and other structures (surface and/or subsurface) actually encountered during the construction work, and he has made due allowance therefore in this Bid.

The undersigned hereby declares that he understands that the quantities of work tabulated in this Bid or indicated on the Drawings or in the Specifications or other Contract Documents are only approximate and are subject to increase or decrease as deemed necessary by the Engineer.

The undersigned agrees that, if this Bid is accepted he will contract with the Owner, as provided in the copy of the Contract Documents deposited in the office of the Engineer, this FORMS FOR GENERAL BID form being part of said Contract Documents, and that he will perform all the work and furnish all the materials and equipment, and provide all labor, services, plant, machinery, apparatus, appliances, tools, supplies and all other things required by the Contract Documents in the manner and within the time therein prescribed and according to the requirements of the Engineer as therein set forth, and that he will take in full payment therefore the lump sum or unit price applicable to each item of the Work as stated in the schedule below.

The undersigned certifies under penalties of perjury that no officer, agent, or employee of the Owner is directly or indirectly interested in this BID.

The undersigned certifies under 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 paragraph the word "person" shall mean any natural person, joint venture, partnership, corporation or other business or legal entity.

The undersigned hereby certifies that he is able to furnish labor that can work in harmony with all other elements of labor employed or to be employed in the work.

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 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.

Pursuant to M.G.L.c.62C, s49A the undersigned certifies under the penalties of perjury that the Bidder, to the Bidder's best knowledge and belief, has filed all state tax returns and paid all State Taxes required under law

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; and is not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency.

The undersigned bidder agrees that the undersigned will fully comply with Subpart C of 2 CFR Part 180 and 2 CFR Part 1532, entitled Responsibilities of Participants Regarding Transactions (Doing Business with Other Persons). The undersigned shall not award any subcontracts or purchase any materials from suppliers that appear on the Excluded Parties List System. The undersigned shall include this requirement in each subcontract and require it to be included in all subcontracts regardless of tier. The undersigned shall maintain reasonable records to demonstrate compliance with these requirements.

Respectfully submitted,

Date: \_\_\_\_\_ Name of General Bidder: \_\_\_\_\_

Federal Employer Identification Number : \_\_\_\_\_

By (signature) : \_\_\_\_\_

Title and Name of Person Signing the Bid : \_\_\_\_\_

Business Address : \_\_\_\_\_

City, State, and Zip Code : \_\_\_\_\_

## CERTIFICATE OF AUTHORITY

At a duly authorized meeting of the Board of Directors of the \_\_\_\_\_  
(name of corporation)

held on \_\_\_\_\_ Directors were present or waived notice, it was voted that \_\_\_\_\_  
(date)

\_\_\_\_\_ of this company be and hereby is authorized to execute contracts and bonds  
(name and title)

in the name and behalf of said company, and affix its Corporate Seal thereto, and such execution  
of any contract or bond of obligation in this company's name on its behalf of such \_\_\_\_\_  
(OFFICER)  
under seal of the company shall be valid and binding upon this company.

A TRUE COPY,

ATTEST: \_\_\_\_\_

Place of Business:

\_\_\_\_\_  
\_\_\_\_\_

I hereby certify that I am the \_\_\_\_\_ of the \_\_\_\_\_  
(Title) (Name of Corporation)

that \_\_\_\_\_ is the duly elected \_\_\_\_\_ of said  
(Name of Officer) (Title)

company, and the above vote has not been amended or rescinded and remains in full force and  
effect as of the date of this contract.

Signature: \_\_\_\_\_

(Corporate Seal)

Name/Title: \_\_\_\_\_

Date: \_\_\_\_\_

COMMONWEALTH OF MASSACHUSETTS, SS. \_\_\_\_\_, 2024

Then personally appeared the above named \_\_\_\_\_ and acknowledged the foregoing instrument to be his/her free act and deed before me.

NOTARY PUBLIC \_\_\_\_\_

My commission expires: \_\_\_\_\_

**THE BIDDER SHALL STATE THE NAMES OF ALL SUBCONTRACTORS THAT  
HE/SHE PROPOSES TO USE**

**PROPOSED SUBCONTRACTORS**

If none, write "none" \_\_\_\_\_.

\*Description of Work \_\_\_\_\_

Proposed Subcontractor  
Name \_\_\_\_\_

Address \_\_\_\_\_

\*Description of Work \_\_\_\_\_

Proposed Subcontractor  
Name \_\_\_\_\_

Address \_\_\_\_\_

\*Description of Work \_\_\_\_\_

Proposed Subcontractor  
Name \_\_\_\_\_

Address \_\_\_\_\_

\*Description of Work \_\_\_\_\_

Proposed Subcontractor  
Name \_\_\_\_\_

Address \_\_\_\_\_

\*Insert description of work and subcontractors' names as may be required.

This is to certify that the names of the above-mentioned subcontractors are submitted with full knowledge and consent of the respective parties. The Bidder warrants that none of the proposed subcontractors have any conflict of interest as respects this Contract.

Bidder \_\_\_\_\_  
(Name)

By \_\_\_\_\_  
(Signature and Title)

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**SPRINGFIELD WATER AND SEWER COMMISSION**

**SPRINGFIELD, MASSACHUSETTS**

Springfield Reservoir Culvert Replacement Project

**SWSC Contract No. 20270060**

**AGREEMENT**

THIS AGREEMENT is dated as of the \_\_\_\_ day of \_\_\_\_\_ in the year \_\_\_\_ by and between Springfield Water and Sewer Commission acting by and through its Board of Water Commissioners (hereinafter called COMMISSION, SWSC or OWNER), duly authorized therefor, acting herein solely for said Commission and without personal liability to the City/Town, and \_\_\_\_\_ (hereinafter called CONTRACTOR). COMMISSION AND CONTRACTOR, in consideration of the mutual covenants hereinafter set forth, agree as follows:

**ARTICLE 1. WORK**

- 1.1 CONTRACTOR shall perform the Work as specified or indicated in these Contract Documents. The scope of work is summarized in Section "Summary of Work" and described herein these specifications.

**ARTICLE 2. OWNER AND ENGINEER**

- 2.1 The Project has been designed by that Tighe & Bond Inc., 53 Southampton Rd, Westfield, MA 01085 who is hereinafter called ENGINEER and who is to act as COMMISSION'S representative, assume all duties and responsibilities, and have the rights and authority assigned to ENGINEER in the Contract Documents in connection with completion of the Work in accordance with the Contract Documents.

**ARTICLE 3. CONTRACT TIMES**

- 3.1 The Work will be substantially completed within **180 days** from the date of the Notice to Proceed and completed and ready for final payment in accordance with the General Conditions no later than **210 days** from the date of the Notice to Proceed.
- 3.2 Project Schedule: Contractor shall submit a work schedule within 7 calendar days of receipt of signed Agreement.
- 3.3 CONTRACTOR agrees that the Work shall be prosecuted diligently and uninterruptedly and at such rate of progress as will ensure full completion thereof within the Contract Time stated above. It is expressly understood and agreed, by and between CONTRACTOR and OWNER, that the Contract Time is reasonable



for the completion of the Work.

3.4 Work hours shall be defined as follows:

3.4.1 Normal work hours: Monday-Friday, 7:00 a.m. to 3:30 p.m.

3.4.2 Extended work hours: Monday-Friday, 7:00 a.m. to 5:00 p.m.

3.4.3 No work on Saturdays unless authorized by SWSC in writing.

3.4.4 No work is allowed on Sundays or Commission observed holidays.

**ARTICLE 4. CONTRACT PRICE**

4.1 COMMISSION shall pay CONTRACTOR for completion of the Work in accordance with the Contract Documents an amount in current funds equal to the prices stipulated in the CONTRACTOR's BID Form attached to this Agreement.

**ARTICLE 5. APPLICATION FOR PAYMENT**

CONTRACTOR shall submit Applications for Payment in accordance with Article 14 of the General Conditions. Applications for Payment will be reviewed and certified by ENGINEER as provided in the General Conditions.

5.1 CONTRACTOR shall prepare a Schedule of Values (SOV) and submit for ENGINEER and OWNER's review and approval. The SOV shall be broken down into sufficient work tasks that detail the sequence of work and capture all bid items. Applications for Payments shall be based on the Approved SOV. Applications for Payments shall be based on the Approved SOV. No applications for payment will be accepted unless the SOV is approved by the Engineer and Owner.

5.2 CONTRACTOR shall submit Applications for Payment in accordance with the approved SOV. Applications for Payment will be reviewed by the Engineer and processed by OWNER as provided in the Conditions of the Contract.

5.3 Retainage shall be held in the amount of 5% until satisfactory substantial completion of the Work. Upon substantial completion the OWNER shall pay the CONTRACTOR the entire balance due on the contract less (1) a retention based on its estimate of the fair value of its claims against the CONTRACTOR and of the cost of completing the incomplete and unsatisfactory items of work and less (2) a retention for direct payments to work and less (2) a retention for

direct payments to subcontractors based on demands for same in accordance with the provisions of M.G.L. Chapter 30, Section 39F, or based on the record of payments by the CONTRACTOR to the subcontractors under this Contract if such record of payment indicates that the CONTRACTOR has not paid subcontractors as provided in Section 39F.

- 5.4 Contractor shall submit to the Owner and Engineer weekly certified payroll and statements of compliance. No application for payment can be approved without certified payroll and statements of compliance sheets are submitted to-date.

## **ARTICLE 6. PROGRESS AND FINAL PAYMENTS**

- 6.1 OWNER will make payments on account of the Contract Price on the basis of CONTRACTOR's Applications for Payment. All payments will be on the basis of the progress of the Work measured by the approved SOV and certified by the ENGINEER. No payment can be reviewed or approved without an agreeable SOV.
- 6.2 OWNER will make progress and final payments after review and acceptance of the received applications for payment, in accordance with the applicable Massachusetts General Law.
- 6.3 Progress payments will be made for the approved amounts less 5% retainage.

## **ARTICLE 7. LIQUIDATED DAMAGES**

- 7.1 CONTRACTOR and OWNER recognize that time is of the essence and that Owner will suffer financial and other losses if the Work is not completed within the times specified in Paragraph 3.1 above, plus any extensions thereof allowed in accordance with the Contract. 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 \$500.00 for each day that expires after the time (as duly adjusted pursuant to the Contract) specified in Paragraph 3.1 above for Substantial Completion until the Work is substantially complete.

## **ARTICLE 8. ASSURANCE**

- 8.1 CONTRACTOR has familiarized himself/herself with the nature and extent of the Contract Documents, Work, locality, and with all local conditions and Federal, State and local laws, ordinances, rules and regulations that in any manner may

affect cost, progress or performance of the Work.

- 8.2 CONTRACTOR has studied carefully all and the physical conditions at the site or otherwise affecting cost, progress or performance of the Work which were relied upon by OWNER in the preparation of the Drawings and Specifications and which have been identified in Article 4 of the Supplementary Conditions.
- 8.3 CONTRACTOR has made or caused to be made examinations, investigations and tests and studies of such reports and related data in addition to those referred to in the above paragraph as CONTRACTOR deems necessary for the performance of the Work at the Contract Price within the Contract Time and in accordance with the other terms and conditions of the Contract Documents; and no additional examinations, investigations, tests, reports or similar data are or will be required for such purposes.
- 8.4 CONTRACTOR has correlated the results of all such observations, examinations, investigations, tests, reports and data with the terms and conditions of the Contract Documents.
- 8.5 CONTRACTOR has given OWNER written notice of any conflict, error or discrepancy that CONTRACTOR has discovered in the Contract Documents and the written resolution thereof by OWNER is acceptable to CONTRACTOR.
- 8.6 CONTRACTOR agrees that the Contract Documents are sufficient in scope and detail to indicate and convey understanding of all terms and conditions for performance of the Work.

## **ARTICLE 9. CONTRACT DOCUMENTS**

The Contract Documents which comprise the entire agreement between COMMISSION and CONTRACTOR concerning the Work consist of the following:

- 9.1 Invitation to Bid.
- 9.2 Instructions to Bidders.
- 9.3 CONTRACTOR's Bid Form.
- 9.4 This Agreement.
- 9.5 Performance Bond, EJCDC Document C-610, 2002 edition, Performance Bond; EJCDC Document C610, 2002.

- 9.6 Payment Bond, EJCDC Document C-615, 2002 edition, Payment Bond; EJCDC Document C615, 2002.
- 9.7 Standard General Conditions of the Construction Contract, EJCDC Document C-700, 2002 edition.
- 9.8 Certificate of Insurance
- 9.9 Supplementary Conditions
- 9.9 Specifications (Included in these Contract Documents).
- 9.10 Contract Documents
- 9.11 Addenda numbers \_\_\_\_\_ to \_\_\_\_\_, inclusive.
- 9.12 Any modification, including Change Orders, duly delivered after execution of Agreement.

#### **ARTICLE 10. MISCELLANEOUS**

- 10.1 Terms used in this Agreement which are defined in Article 1 of the General Conditions will have the meanings indicated in the General Conditions.
- 10.2 Neither OWNER nor CONTRACTOR shall, without the prior written consent of the other, assign or sublet in whole or in part any interest under any of the Contract Documents; and, specifically but without limitation, CONTRACTOR shall not assign any monies due or to become due without the prior written consent of OWNER. In case CONTRACTOR assigns all or any part of any monies due or to become due under this Contract, the instrument of assignment shall contain a clause substantially to the effect that it is agreed that the right of the assignee in and to any monies due or to become due to CONTRACTOR shall be subject to prior claims of all persons, firms and corporations for services rendered or materials supplied for the performance of the Work called for in this Contract.
- 10.3 COMMISSION and CONTRACTOR each binds itself, its partners, successors, assigns, and legal representatives to all covenants, agreements, and obligations contained in the Contract Documents.
- 10.4 The Contract Documents constitute the entire agreement between OWNER and CONTRACTOR and may only be altered, amended or repealed by a Modification.
- 10.5 The Contractor warrants that any products developed hereunder do not infringe upon or violate any patent, copyright, trade secret, or any other propriety right of

any third party. In the event of any claim alleging the aforementioned against the Owner, the Owner shall promptly notify Contractor and the Contractor shall defend such claim, in the Owner's name but at Contractor's expense, and shall indemnify the Owner against any loss, cost, expense or liability arising out of such claim, whether or not such claim is successful.

- 10.6 The Contractor, its employees and its subcontractors shall keep confidential all propriety information and material to which its employees, or its subcontractors may be exposed in the course of work hereunder, including, but not limited to, proprietary information of third parties.
- 10.7 The Contractor shall defend, indemnify and hold the Owner harmless from and against any loss, cost, liability or expense (including reasonable counsel fees) arising out of any breach or claimed breach of this provision.
- 10.8 Contractor agrees that all reports, studies, analysis, specifications, recommendations and all other materials of whatsoever nature, prepared by Contractor for use under this project, or furnished the Contractor by the Owner for use under this project, are to be considered confidential, and that Contractor will neither publish, circulate, nor use any of the foregoing, without first obtaining the written approval of the Owner.
- 10.9 The Contractor agrees that it will not issue any news releases to the public press or any publications wholly or partly related to its Work under this Agreement without first obtaining the prior written consent of the Owner. The Contractor further agrees that it will not make speeches, engage in public appearances, publish articles or otherwise publicize its Work under this Agreement without prior written approval of the Owner.
- 10.10 No action shall lie or be maintained against the Owner on any claim based upon this Agreement, or arising out of this Agreement, or out of anything in connection with this Agreement unless such action shall be commenced within four (4) months from completion of the Work hereunder or the earlier termination of this Agreement. Any justifiable dispute arising hereunder shall be brought in a state court located in Hampden County, in the City of Springfield, Massachusetts or federal court of competent jurisdiction located in the City of Springfield. The parties agree that this Contract shall be construed under, and enforced in accordance with the laws of the Commonwealth of Massachusetts, without regard of conflict of law principles.
- 10.11 The Contractor represents that it, its employees, and its subcontractors possess the professional and technical expertise necessary to perform the Work hereunder.

- 10.12 The Contractor shall be liable to and hereby agrees to indemnify, defend and hold harmless the Owner and each member, officer, agent, and employee of the Owner against all claims against any of them for bodily injury or wrongful death or property damage including that which may be sustained by him or caused by any error, omission, negligent act or intentional act of the Contractor or any one employed by the Contractor in the execution or performance of this Agreement.
- 10.13 All Work to be performed under this Agreement shall be performed with the Contractor's own employees, except that the Contractor may be permitted, as provided herein, to subcontract any area of services to be performed.
- 10.13.1 None of the services performed hereunder may be subcontracted nor may this Agreement or the rights or obligations hereunder be assigned without the prior written consent of the Owner, such consent shall not be unreasonably withheld.
- 10.14 No member of the Commission or any officer or employee of the Owner shall be liable personally under or by reason of this Agreement or any of its provisions.
- 10.15 In the event that any claim is made, action is brought, proceeding is instituted, or hearing is called which is in any way related to the subject matter of this Agreement or to the Work Products produced or findings, methods or conclusions made or utilized by the Contractor as a result thereof, the Contractor shall diligently render to the Owner any and all assistance, including testimony, which the Owner may require of the Contractor. The parties understand and acknowledge that any fee paid hereunder to the Contractor does not include such assistance or testimony, and that in the event that Contractor is required to perform such services it will be reasonable compensated therefore.
- 10.16 The Contractor covenants that neither it nor any officer of the corporation nor any partner of the partnership, as the case may be, has any interest nor shall it acquire any interest, directly or indirectly, which would conflict in any manner or degree with the performance of the Work hereunder. The Contractor further covenants that, in the performance of this Agreement, no person having such interest shall be employed by it. It is expressly understood that breach of any of the covenants contained herein is a material breach of this Agreement and shall entitle the Owner to recover immediate damages.
- 10.17 The relationship of the Contractor to the Owner is that of an independent contractor. In accordance with its status as such, the Contractor covenants that it,

its employees, and its subcontractors will conduct themselves consistent with such status; will neither hold themselves out as nor claim to be an officer or employee of the Owner by reason hereof; and will not, by reason hereof, make any claim, demand or application to or for any right or privilege applicable to an officer or employee of the Owner, including, but not limited to, Worker's Compensation coverage, unemployment insurance benefits, Social Security coverage, or retirement membership or credit.

- 10.18 The Contractor hereby represents that to the best of its knowledge neither it nor any of its personnel has been the subject of any investigation, nor have any of them been convicted or indicted for commission of any crime involving misconduct, corruption, bribery, or fraud in connection with any public contract in the Commonwealth of Massachusetts or any other jurisdiction, except as has been specifically disclosed in writing to the Owner, and that should any such conviction or indictment be obtained or any such investigation commenced prior to the expirations of the term hereof, regardless of the date of the occurrence giving rise to the subject matter of such conviction, indictment or investigation, it will be disclosed in writing to the Owner. Breach of this provision is expressly understood to constitute a material breach of this Agreement.

IN WITNESS WHEREOF, the SPRINGFIELD WATER AND SEWER COMMISSION, acting by and through the Board of Water Commissioners, with the approval of the Executive Director, and \_\_\_\_\_, **CONTRACTOR** have executed this Agreement. All portions of the Contract Documents have been signed, initialed, or identified by COMMISSION and CONTRACTOR or identified by ENGINEER on their behalf.

This Agreement will be effective on \_\_\_\_\_, \_\_\_\_\_, 2026 (which is the Effective Date of the Agreement as a sealed instrument on the day and year the same is signed by all parties hereto, on the date noted).

**THE CONTRACTOR:**

\_\_\_\_\_:

**Sign:** \_\_\_\_\_

**Print:** \_\_\_\_\_

**Title:** \_\_\_\_\_

**Date Signed:** \_\_\_\_\_



SPRINGFIELD WATER AND SEWER COMMISSION:

Approved:

---

JOSHUA D. SCHIMMEL, EXECUTIVE DIRECTOR

---

DATE

Reviewed:

---

DIRECTOR OF LEGAL AFFAIRS

---

DATE

Approved as to Appropriation:

---

COMPTROLLER

---

DATE

Reviewed:

---

CHIEF PROCUREMENT OFFICER

---

DATE

ADDRESS FOR GIVING NOTICES:

SPRINGFIELD WATER AND SEWER COMMISSION  
250 M STREET EXTENSION  
AGAWAM, MA 01001

Note: If CONTRACTOR is a corporation, an affidavit giving the principal the right to sign the Agreement must accompany the executed Agreement.

END OF SECTION

NOTICE OF AWARD

TO: \_\_\_\_\_

PROJECT DESCRIPTION: \_\_\_\_\_

The Owner has considered the Proposal submitted by you for the above described Work on \_\_\_\_\_ 20\_\_ in response to its Advertisement for Bids and Instructions to Bidders.

You are hereby notified that your Proposal has been accepted for Items totalling the amount of \$\_\_\_\_\_.

You are required to provide written verification of receipt of this Notice Of Award within 5 days of the date included below.

You are required by the Instructions to Bidders to execute the Contract Agreement and furnish the required Contractor's Performance Bond, Payment Bond and certificates of insurance within ten (10) days from the date of this Notice of Award.

If you fail to execute said Agreement and to furnish said Bonds and Insurance within ten (10) days from the date of this Notice, said Owner will be entitled to consider all your rights arising out of the Owner's acceptance of your Proposal as abandoned and as a forfeiture of your Bid Bond. The Owner will be entitled to such other rights as may be granted by law.

Dated this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_.

\_\_\_\_\_  
(Owner)

By \_\_\_\_\_

Title \_\_\_\_\_

NOTICE OF AWARD

ACCEPTANCE OF NOTICE

Receipt of the above Notice of Award is hereby acknowledged, this the \_\_\_\_\_ day  
of \_\_\_\_\_, 20\_\_\_\_\_.

By \_\_\_\_\_

Title \_\_\_\_\_

NOTICE OF AWARD

NOTICE TO PROCEED

To: \_\_\_\_\_ Date: \_\_\_\_\_  
(Contractor)  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_ Project: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

You are hereby notified to commence the Work in accordance with the Agreement dated \_\_\_\_\_, 20\_\_\_\_, on or before \_\_\_\_\_, 20\_\_\_\_, and you are to complete all work within 180 calendar days thereafter. The date of completion of all work is therefore, \_\_\_\_\_, 20\_\_\_\_.

You are required to provide written verification of receipt of this Notice To Proceed within 5 days of the date included below.

\_\_\_\_\_  
(Owner)  
By \_\_\_\_\_  
Title \_\_\_\_\_

ACCEPTANCE OF NOTICE

Receipt of the above Notice to Proceed is hereby acknowledged, this the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

By \_\_\_\_\_  
Title \_\_\_\_\_

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## 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 (*Name and Address*):

### 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 Performance 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.*

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.

1. If Contractor performs the Contract, Surety and Contractor have no obligation under this Bond, except to participate in conferences as provided in Paragraph 2.1.
2. If there is no Owner Default, Surety's obligation under this Bond shall arise after:
  - 2.1 Owner has notified Contractor and Surety, at the addresses described in Paragraph 9 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
  - 2.2 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 2.1; and
  - 2.3 Owner has agreed to pay the Balance of the Contract Price to:
    1. Surety in accordance with the terms of the Contract; or
    2. Another contractor selected pursuant to Paragraph 3.3 to perform the Contract.
3. When Owner has satisfied the conditions of Paragraph 2, Surety shall promptly, and at Surety's expense, take one of the following actions:
  - 3.1 Arrange for Contractor, with consent of Owner, to perform and complete the Contract; or
  - 3.2 Undertake to perform and complete the Contract itself, through its agents or through independent contractors; or
  - 3.3 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 5 in excess of the Balance of the Contract Price incurred by Owner resulting from Contractor Default; or
  - 3.4 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.
4. If Surety does not proceed as provided in Paragraph 3 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 3.4, 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.
5. After Owner has terminated Contractor's right to complete the Contract, and if Surety elects to act under Paragraph 3.1, 3.2, or 3.3 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 the 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:

- 5.1 The responsibilities of Contractor for correction of defective Work and completion of the Contract;
- 5.2 Additional legal, design professional, and delay costs resulting from Contractor's Default, and resulting from the actions of or failure to act of Surety under Paragraph 3; and
- 5.3 Liquidated damages, or if no liquidated damages are specified in the Contract, actual damages caused by delayed performance or non-performance of Contractor.

6. 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.

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

8. 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.

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

10. 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.

#### 11. Definitions.

- 11.1 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.
- 11.2 Contract: The agreement between Owner and Contractor identified on the signature page, including all Contract Documents and changes thereto.
- 11.3 Contractor Default: Failure of Contractor, which has neither been remedied nor waived, to perform or otherwise to comply with the terms of the Contract.
- 11.4 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 otherwise comply with the other terms thereof.

FOR INFORMATION ONLY – *(Name, Address and Telephone)*

Surety Agency or Broker:

Owner's Representative *(Engineer or other party)*:



## 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*):

### 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 sufficient compliance.
6. When a Claimant has satisfied the conditions of Paragraph 4, the Surety shall promptly and at Surety's expense take the following actions:
  - 6.1 Send an answer to that Claimant, with a copy to Owner, within 45 days after receipt of the claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed.
  - 6.2 Pay or arrange for payment of any undisputed amounts.
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.

FOR INFORMATION ONLY – (*Name, Address, and Telephone*)

Surety Agency or Broker:

Owner's Representative (*Engineer or other*):

## CHANGE ORDER

Project Name: Springfield Reservoir Culvert Replacement

CWSRF Number: N/A

SWSC Contract Number: 20270060

Change Order Number: \_\_\_\_\_

Contract Amount (As Bid): \$ ##,###,###.##

Change in Contract Price (previous change orders): \$ 0

Change in Contract Price (this change order): \$ ##,###.##

Adjusted Contract Price (including this change order  
and all other change orders): \$ ##,###,###.##

Change order extends the time to complete the work by # calendar days.

Completion date is [month day, year].

Change order check by: \_\_\_\_\_.

Resident Engineer

Date

Change order is requested by: Springfield Water and Sewer Commission

Change order is recommended by: Tighe & Bond

\_\_\_\_\_  
Consultant Engineer

\_\_\_\_\_  
Date

The undersigned agree to the terms of the change order.

\_\_\_\_\_  
Contractor

\_\_\_\_\_  
Date

OWNER:

\_\_\_\_\_  
Joshua D. Schimmel, Exec. Dir.

\_\_\_\_\_  
Date

\_\_\_\_\_  
Director of Legal Affairs

\_\_\_\_\_  
Date

Certification of Appropriation under M.G.L. c.44, s.31C: Adequate funding in an amount sufficient to cover the total cost of this change order is available.

\_\_\_\_\_  
Comptroller

\_\_\_\_\_  
Date

\_\_\_\_\_  
Chief Procurement Officer

\_\_\_\_\_  
Date

\_\_\_\_\_  
Director of Engineering

\_\_\_\_\_  
Date

This document has important legal consequences; consultation with an attorney is encouraged with respect to its use or modification. This document should be adapted to the particular circumstances of the contemplated Project and the controlling Laws and Regulations.

# STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

Prepared by

**ENGINEERS JOINT CONTRACT DOCUMENTS COMMITTEE**

and

Issued and Published Jointly by



AMERICAN COUNCIL OF ENGINEERING COMPANIES

ASSOCIATED GENERAL CONTRACTORS OF AMERICA

AMERICAN SOCIETY OF CIVIL ENGINEERS

PROFESSIONAL ENGINEERS IN PRIVATE PRACTICE  
*A Practice Division of the*  
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Endorsed by



CONSTRUCTION SPECIFICATIONS INSTITUTE

These General Conditions have been prepared for use with the Suggested Forms of Agreement Between Owner and Contractor (EJCDC C-520 or C-525, 2007 Editions). Their provisions are interrelated and a change in one may necessitate a change in the other. Comments concerning their usage are contained in the Narrative Guide to the EJCDC Construction Documents (EJCDC C-001, 2007 Edition). For guidance in the preparation of Supplementary Conditions, see Guide to the Preparation of Supplementary Conditions (EJCDC C-800, 2007 Edition).

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# STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

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## 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. *Agreement*—The written instrument which is evidence of the agreement between Owner and Contractor covering the Work.
  3. *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.
  4. *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.
  5. *Bid*—The offer or proposal of a Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.
  6. *Bidder*—The individual or entity who submits a Bid directly to Owner.
  7. *Bidding Documents*—The Bidding Requirements and the proposed Contract Documents (including all Addenda).
  8. *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.
  9. *Change Order*—A document recommended by Engineer which is signed by Contractor and Owner 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.
  10. *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.
  11. *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.

12. *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 submittals, and the reports and drawings of subsurface and physical conditions are not Contract Documents.
13. *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).
14. *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.
15. *Contractor*—The individual or entity with whom Owner has entered into the Agreement.
16. *Cost of the Work*—See Paragraph 11.01 for definition.
17. *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.
18. *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.
19. *Engineer*—The individual or entity named as such in the Agreement.
20. *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.
21. *General Requirements*—Sections of Division 1 of the Specifications.
22. *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.
23. *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.
24. *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.
25. *Liens*—Charges, security interests, or encumbrances upon Project funds, real property, or personal property.
26. *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.

27. *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.
28. *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.
29. *Owner*—The individual or entity with whom Contractor has entered into the Agreement and for whom the Work is to be performed.
30. *PCBs*—Polychlorinated biphenyls.
31. *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.
32. *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.
33. *Project*—The total construction of which the Work to be performed under the Contract Documents may be the whole, or a part.
34. *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.
35. *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.
36. *Resident Project Representative*—The authorized representative of Engineer who may be assigned to the Site or any part thereof.
37. *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.
38. *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.
39. *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.

40. *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.
41. *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.
42. *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.
43. *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.
44. *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.
45. *Successful Bidder*—The Bidder submitting a responsive Bid to whom Owner makes an award.
46. *Supplementary Conditions*—That part of the Contract Documents which amends or supplements these General Conditions.
47. *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 Subcontractor.
48. *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.
49. *Unit Price Work*—Work to be paid for on the basis of unit prices.
50. *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.
51. *Work Change Directive*—A written statement to Contractor issued on or after the Effective Date of the Agreement and signed by Owner and recommended by 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 words and terms discussed in Paragraph 1.02.B through F are not defined but, when used in the Bidding Requirements or Contract Documents, have the indicated 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 information in the Contract Documents and with the design concept of the 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 that 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. In no event will the Contract Times commence to run later than the sixtieth day after the day of Bid opening or the thirtieth day after the Effective Date of the Agreement, whichever date is earlier.



## 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 indicating the times (numbers of days or dates) for starting and completing the various stages of the Work, including any Milestones specified in the Contract Documents;
  - 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; Designation of Authorized Representatives*

- A. Before any Work at the Site is started, a conference attended by Owner, Contractor, Engineer, 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.
- B. At this conference Owner and Contractor each shall designate, in writing, a specific individual to act as its authorized representative with respect to the services and responsibilities under the Contract. Such individuals shall have the authority to transmit instructions, receive information, render decisions relative to the Contract, and otherwise act on behalf of each respective party.

## 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 reasonably may be inferred from the Contract Documents or from prevailing custom or trade usage as being required to produce the indicated 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, Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, 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 discovers, or has actual knowledge of, 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 (a) any applicable Law or Regulation, (b) any standard, specification, manual, or code, or (c) any instruction of any Supplier, then 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 had actual knowledge 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, or code, or the instruction of any Supplier (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 its consultants, including electronic media editions; or
2. reuse any 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 adaptation by Engineer.

#### B. The prohibitions 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. Unless otherwise stated in the Supplementary Conditions, the data furnished by Owner or Engineer to Contractor, or by 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 known to Owner of explorations and tests of subsurface conditions at or contiguous to the Site; and
  - 2. those drawings known to Owner of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities).
- B. *Limited Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the 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 officers, directors, members, partners, employees, agents, consultants, or subcontractors 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 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, neither Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors shall 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 provided by others; 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:* The Supplementary Conditions identify those reports and drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at the Site.
- B. *Limited Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the 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 officers, directors, members, partners, employees, agents, consultants, or subcontractors 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. Promptly after consulting with Engineer, Owner shall take such actions as are necessary to permit Owner to timely obtain required permits and provide Contractor the written notice required by Paragraph 4.06.E.
- 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 written notice to Contractor: (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, members, 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, members, 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 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 or attorney-in-fact must be accompanied by a certified copy of that individual's authority to bind the surety. The evidence of authority shall show that it is effective on the date the agent or attorney-in-fact signed each bond.
- 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 and loss payee 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 and loss payee 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.
- C. Failure of Owner to demand such certificates or other evidence of Contractor's full compliance with these insurance requirements or failure of Owner to identify a deficiency in compliance from the evidence provided shall not be construed as a waiver of Contractor's obligation to maintain such insurance.
- D. Owner does not represent that insurance coverage and limits established in this Contract necessarily will be adequate to protect Contractor.
- E. The insurance and insurance limits required herein shall not be deemed as a limitation on Contractor's liability under the indemnities granted to Owner in the Contract Documents.

#### 5.04 *Contractor's Insurance*

- A. Contractor shall purchase and maintain such 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, be written on an occurrence basis, 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, members, 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 contractual liability insurance covering Contractor's indemnity obligations under Paragraphs 6.11 and 6.20;
  4. 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);
  5. 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
  6. include completed operations coverage:
    - a. Such insurance shall remain in effect for two years after final payment.
    - b. 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, Owner shall purchase and maintain property insurance upon the Work at the Site in the amount of the full replacement cost thereof (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by Laws and Regulations). 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, members, 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 a loss payee;
  - 2. be written on a Builder's Risk "all-risk" 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 that 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 loss payee to whom a certificate of insurance has been issued.
- B. Owner shall purchase and maintain such equipment breakdown 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,

members, 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 a loss payee.

- C. All the policies of insurance (and the certificates or other evidence thereof) required to be purchased and maintained in accordance with this 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 loss payee 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.
- E. If Contractor requests in writing that other special insurance be included in the property insurance policies provided under this Paragraph 5.06, Owner shall, if possible, include such insurance, and the cost thereof will be charged to Contractor by appropriate Change Order. Prior to commencement of the Work at the Site, Owner shall in writing advise Contractor whether or not such other insurance has been procured by Owner.

#### 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 as loss payees (and the officers, directors, members, 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 loss payees thereunder. Owner and Contractor waive all rights against each other and their respective officers, directors, members, 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 as loss payees (and the officers, directors, members, 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 Owner as trustee or otherwise payable under any policy so issued.
- B. Owner waives all rights against Contractor, Subcontractors, and Engineer, and the officers, directors, members, 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, members, 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 Owner and made payable to Owner as fiduciary for the loss payees, as their interests may appear, subject to the requirements of any applicable mortgage clause and of Paragraph 5.08.B. Owner 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, and the Work and the cost thereof covered by an appropriate Change Order.
- B. Owner 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 Owner's exercise of this power. If such objection be made, Owner 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, Owner as fiduciary shall adjust and settle the loss with the insurers and, if required in writing by any party in interest, Owner 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.

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; and
  - 3) it has a proven record of performance and availability of responsive service.
- 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 if 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 requirements for review by Engineer will be as set forth in Paragraph 6.05.A.2.d, as supplemented by 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) 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 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 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; and
  - 4) 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 a Change Order in the case of a substitute and 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 so proposed or submitted by Contractor, Contractor shall reimburse Owner for the reasonable charges of Engineer for evaluating each such proposed substitute. Contractor shall also reimburse Owner for the reasonable 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 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 a loss payee 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, Engineer, and all other individuals or entities identified in the Supplementary Conditions to be listed as insureds or loss payees (and the officers, directors, members, 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, Owner shall indemnify and hold harmless Contractor, and its officers, directors, members, partners, employees, agents, consultants, and subcontractors 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 specified in the Contract Documents, but not identified as being subject to payment of any license fee or royalty to others required by patent rights or copyrights.
- C. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, 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 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, members, 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. Such responsibility does not relieve Subcontractors of their responsibility for the safety of persons or property in the performance of their work, nor for compliance with applicable safety Laws and Regulations. 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. Contractor shall comply with the applicable requirements of Owner's safety programs, if any. The Supplementary Conditions identify any Owner's safety programs that are applicable to the Work.
- D. Contractor shall inform Owner and Engineer of the specific requirements of Contractor's safety program with which Owner's and Engineer's employees and representatives must comply while at the Site.
- E. 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 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).
- F. 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 accepted 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:

- a. 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;
- b. determined and verified all field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information with respect thereto;
- c. determined and verified the suitability of all materials offered with respect to the indicated application, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work; and
- d. determined and verified all information relative to Contractor's responsibilities for means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto.

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 officers, directors, members, partners, employees, agents, consultants, and subcontractors 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, members, 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 officers, directors, members, partners, employees, agents, consultants, or subcontractors 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, members, 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 through 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, provide a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work, and 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 such work; provided, however, that Contractor may cut or alter others' 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 wrongful actions or inactions.
- C. Contractor shall be liable to Owner and any other contractor under direct contract to Owner for the reasonable direct delay and disruption costs incurred by such other contractor as a result of Contractor's wrongful 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 with respect to 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 relating to existing surface or subsurface structures at the Site.

### 8.06 *Insurance*

- A. Owner's responsibilities, if any, with 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 with 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. Upon request of Contractor, Owner shall furnish Contractor reasonable evidence that financial arrangements have been made to satisfy Owner's obligations under the Contract Documents.

#### 8.12 *Compliance with Safety Program*

A. While at the Site, Owner's employees and representatives shall comply with the specific applicable requirements of Contractor's safety programs of which Owner has been informed pursuant to Paragraph 6.13.D.

### **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.

#### 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 believes 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.

#### 9.10 *Compliance with Safety Program*

- A. While at the Site, Engineer's employees and representatives shall comply with the specific applicable requirements of Contractor's safety programs of which Engineer has been informed pursuant to Paragraph 6.13.D.

### **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, 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.D.

## 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 the provisions of any bond require notice to be given to a surety 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), 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 Times 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 not include any of the costs itemized in Paragraph 11.01.B, and shall include only the following items:

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 on the Work. 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, as 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, express and courier services, 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.
- 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 quantity of any item of Unit Price Work performed by Contractor differs materially and significantly 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 Paragraphs 12.01.C.2.a and 12.01.C.2.b 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.C.
- D. Owner, Engineer, and their officers, directors, members, partners, employees, agents, consultants, or subcontractors 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. 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, inspection, and testing. Contractor shall provide them proper and safe conditions for such access and advise them of Contractor's 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. Owner 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 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, Contractor shall, if requested by Engineer, uncover such Work 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 written 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 for 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 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, the results of any subsequent tests called for in the Contract Documents, a final determination of quantities and classifications for Unit Price Work under Paragraph 9.07, and 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. 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. there are other items entitling Owner to a set-off against the amount recommended; or
  - d. 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 remedies the reasons for such action.
3. Upon a subsequent determination 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 and subject to interest as provided in the Agreement.

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, Contractor, and Engineer shall make an 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 remove its property and 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, Owner, and Engineer will follow the procedures of Paragraph 14.04.A through D 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 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.6;
  - 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 might in any way be responsible, or which might in any way result in liens or other burdens on Owner's property, 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.

**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 repeated 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. Either Owner or Contractor may 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 and the other party to the Contract. 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 the 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.



## **SECTION 00750**

### **SUPPLEMENTARY CONDITIONS**

These Supplementary Conditions amend or supplement the Standard General Conditions of the Construction Contract, EJCDC C-700 (2007 Edition) 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.

The terms used in these Supplementary Conditions have the meanings stated in the General Conditions. Additional terms used in these Supplementary Conditions have the meanings stated below, which are applicable to both the singular and plural thereof.

The address system used in these Supplementary Conditions is the same as the address system used in the General Conditions, with the prefix "SC" added thereto.

#### **ARTICLE 1. DEFINITIONS AND TERMINOLOGY**

##### **SC-1.01.A.12**

Add the following language at the beginning of the definition entitled "Contract Documents" in the General Conditions:

“The Invitation to Bid, Instructions to Bidders” SC-1.01.A.44

Delete the definition of Substantial Completion in the General Conditions in its entirety and add the following in its place:

“*Substantial Completion* – The Work required by the Contract has been completed except for work having a Contract Price of less than one percent of the then adjusted total contract price, or substantially all of the Work has been completed and opened to Owner's use except for minor incomplete or unsatisfactory work items that do not materially impair the usefulness of the Work required by the Contract.”

##### **SC-1.02.E**

Delete paragraph 1.02.E of the General Conditions in its entirety and insert the following in its place:

“E. The words “furnish”, “furnish and install”, “install”, and “provide” or words with similar meaning shall be interpreted, unless otherwise specifically stated, to mean “furnish and install complete in place and ready for service.”

Add

the following new paragraph immediately after paragraph 1.02.F of the General Conditions:

- “G. The terms used in these Supplementary Conditions which are defined in the Standard General Conditions of the Construction Contract (EJCDC C-700, 2007 Edition) have the meanings assigned to them in the General Conditions.”

## **ARTICLE 2. PRELIMINARY MATTERS**

### **SC-2.01**

Delete paragraph 2.01.B of the General Conditions in its entirety and insert the following in its place:

- “B. Before any Work at the Site is started, Contractor shall deliver to Owner, with a copy to Engineer, certificates of insurance (and other evidence of insurance requested by Owner) which Contractor is required to purchase and maintain in accordance with the requirements of Article 5.
1. Contractor shall include and identify on the certificate of insurance, indemnification as required by Article 6.20 of the General Conditions.
  2. Contractor acknowledges that the Springfield Water and Sewer Commission (SWSC) has no responsibility as a generator, treater, storer, or disposer of hazardous or toxic substances, including but not limited to asbestos-cement pipe found or identified in connection with the Project. Contractor agrees to defend, indemnify, and hold harmless the Springfield Water and Sewer Commission from any claim or liability, arising out of Contractor’s performance of Work under the Agreement and made or brought against the Springfield Water and Sewer Commission for any actual or threatened environmental pollution or contamination except to the extent that either the Springfield Water and Sewer Commission has negligently caused or contributed to any such pollution or contamination. This indemnification includes reasonable attorney fees and expenses incurred by the Springfield Water and Sewer Commission in defense of such claim.”

### **SC-2.03**

Delete paragraph 2.03.A of the General Conditions in its entirety and insert the following in its place:

- “A. The Contract Times will commence to run on the date specified in the written Notice to Proceed.”

### ARTICLE 3. CONTRACT DOCUMENTS: INTENT, AMENDING, REUSE

#### SC-3.01

Add the following new paragraphs immediately after paragraph 3.01.A of the General Conditions:

- “1. Each and every provision of law and clause required by law to be inserted in the Contract shall be deemed to be inserted herein, and the Contract shall be read and enforced as though they were included herein. If through mistake or otherwise any such provision is not inserted, or is not correctly inserted, then upon the application of either party, the Contract shall forthwith be physically amended to make such insertion.
2. Sections of Division 1 – General Requirements govern the execution of the work of all sections of the specifications.”

Add the following new paragraphs immediately after paragraph 3.01.C of the General Conditions:

“D. Priority/Conflict

1. Priority Among Contract Documents. In the event of conflict among the Contract Documents, the Contract Documents shall be construed according to the following priorities except as may otherwise be specifically stated:

|                   |                                                 |
|-------------------|-------------------------------------------------|
| Highest Priority: | Modifications to Contract Documents via Addenda |
| Second Priority:  | Agreement                                       |
| Third Priority:   | Addenda-later date to take precedence           |
| Fourth Priority:  | Supplementary General Conditions                |
| Fifth Priority:   | General Conditions                              |
| Sixth Priority:   | Drawings and Specifications                     |

- E. If there is a conflict between the Drawings and Specifications, the figured dimensions shall govern over the scaled dimensions. Detailed Drawings shall govern over the general Drawings. Larger scale Drawings shall take precedence over smaller scale Drawings. Drawings shall govern over Shop Drawings. Whenever there is a conflict concerning quality or quantity between or among notes, specifications, dimensions, details, or schedules in the Specifications or in

the Drawings, or between the Specifications and the Drawings, or in all other instances not specifically noted above, the Contractor shall provide, unless otherwise directed by a Modification of the Contract, the better quality or greater quantity of Work at no increase in the Contract Sum or in the Contract Times.

- F. It is the intent of the Specification and Contract Documents to obtain an operable Project. Equipment, components, systems, etc. therein shall be made operable by the Contractor.
- G. The Contract Drawings may be supplemented from time to time with additional Drawings by the Engineer as may be required to illustrate the Work or, as the Work progresses, with additional Drawings by the Contractor, subject to the approval of the Engineer. Supplementary Drawings, when issued by the Engineer or by the Contractor, after approval by the Engineer, shall be furnished in sufficient quantity to all those who, in the opinion of the Engineer, are affected by such Drawings.”

#### **ARTICLE 4. AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS; REFERENCE POINTS**

SC-4.01

Delete Paragraph 4.01.B of the General Conditions in its entirety.

SC-4.03

Delete paragraphs 4.03.A.1 and 4.03.A.2 in their entirety.

Add the following new paragraph immediately after paragraph 4.03.C of the General Conditions:

- “D. Adjustments resulting from actual subsurface or latent physical conditions from those indicated will be in accordance with Massachusetts General Law, Chapter 30, Section 39N and the applicable provisions of the Contract Documents.”

SC-4.04

Change “of” to “or” in paragraph 4.04.A.1 of the General Conditions.

Delete the following words from the first sentence of paragraph 4.04.B.1 of the General Conditions:

“or not shown or indicated with reasonable accuracy”

Delete the following words from the second sentence of paragraph 4.04.B.2 of the General Conditions:

“or not shown or indicated with reasonable accuracy”

Add the following new paragraph immediately after paragraph 4.04.B.2 of the General Conditions:

- “3. The Owner, Engineer, and Engineer’s Consultants shall not be liable to Contractor for any claims, costs, losses, or damages incurred or sustained by Contractor or in connection with any other project or anticipated project.”

#### SC-4.05

Add the following new paragraph following paragraph 4.05.A of the General Conditions:

- “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 and satisfactory construction and completion of the entire Work. Contractor shall furnish personnel to assist Engineer in checking lines and grades.”

#### SC-4.06

Delete the words “The Supplementary Conditions” in paragraph 4.06.A of the General Conditions and replace with “Contract Documents”.

### **ARTICLE 5. BONDS AND INSURANCE**

#### SC-5.01

Amend paragraph 5.01.B of the General Conditions by adding the following language to the end of the paragraph:

“Every bid bond, every performance bond, and every payment bond issued for any construction work in the Commonwealth of Massachusetts shall be the bond of a surety company organized pursuant to Massachusetts General Laws, Chapter 175, Section 105 or of a surety company authorized to do business in the Commonwealth of Massachusetts under the provisions of Massachusetts General Laws, Chapter 175, Section 106 and be approved by the U. S. Department of Treasury and acceptable as sureties and reinsurers on federal bonds under Title 31 of the United States Code, sections 9304 to 9308.”

#### SC-5.03

Delete paragraph 5.03.B of the General Conditions in its entirety.

SC-

## 5.04

The limits of liability for the insurance required by paragraph 5.04 of the General Conditions shall provide the following coverages for not less than the following amounts or greater where required by Laws and Regulations:

5.04.A.1 and 5.04.A.2 Worker's Compensation, etc. under paragraphs 5.04.A.1 and 5.04.A.2 of the General Conditions:

- |     |                                                     |                                                               |
|-----|-----------------------------------------------------|---------------------------------------------------------------|
| (1) | Worker's Compensation<br>Coverage B (Each Accident) | \$500,000                                                     |
| (2) | Worker's Compensation<br>Disease (Each Employee)    | \$500,000                                                     |
| (3) | Employer's Liability                                | \$1,000,000 Each accident<br>\$1,000,000 Disease per employee |

5.04.A.3, 5.04.A.4, and 5.04.A.5 Contractor's Liability Insurance under paragraphs 5.04.A.3 through 5.04.A.5 of the General Conditions which shall also include completed operations and product liability coverages and eliminate the exclusion with respect to property under the care, custody, and control of Contractor:

- |     |                                                                                                                                                            |             |
|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| (1) | General Aggregate<br>(Except Products—Completed Operations)                                                                                                | \$2,000,000 |
| (2) | Products--Completed Operations<br>Aggregate                                                                                                                | \$1,000,000 |
| (3) | Personal and Advertising<br>Injury (Per Person/Organization)                                                                                               | \$1,000,000 |
| (4) | Each Occurrence<br>(Bodily Injury and Property Damage)                                                                                                     | \$1,000,000 |
| (5) | Property Damage Liability<br>Insurance, including Collapse and<br>Underground coverages. If blasting is<br>to be used, also include explosion<br>coverage. | \$2,000,000 |
| (6) | Excess Liability:                                                                                                                                          |             |
|     | General Aggregate                                                                                                                                          | \$5,000,000 |
|     | Each Occurrence                                                                                                                                            | \$2,000,000 |

(6) Commercial Protective Liability:

General Aggregate \$5,000,000

Each Occurrence \$2,000,000

5.04.A.6 Automobile Liability:

(1) Bodily Injury:

Each Person \$1,000,000

Each Accident \$1,000,000

Property Damage:

Each Accident \$1,000,000

or

(2) Combined Single Limit  
(Bodily Injury and Property Damage):

Each Accident \$5,000,000

5.04.A.7 Pollution Liability

Combined single limit each occurrence \$1,000,000

Annual Aggregate \$3,000,000

SC-5.04.B.3 The Contractual Liability coverage required by paragraph 5.04.B.3 in the General Conditions shall provide coverage for not less than the following amounts:

(1) General Aggregate \$5,000,000

(2) Each Occurrence  
(Bodily Injury and Property Damage) \$1,000,000

Builder's Risk (Fire Insurance) in an amount equal to the insurable value of the Contract.

SC-5.05

Delete paragraph 5.05. of the General Conditions in its entirety and insert the following in its place:

“5.05A. Contractor shall name the following as additional insured with full coverage as described above, SPRINGFIELD WATER AND SEWER COMMISSION, and its affiliates, successors, and/or assigns as named insured.”

SC-5.06

Delete the first sentence of Paragraph 5.06.A of the General Conditions and replace with the following:

“A. Contractor shall purchase and maintain property insurance upon the Work at the Site, written on the completed value form, in an amount equal to the total bid price for the completed construction.”

Delete the last sentence in paragraph 5.06.A and paragraphs 5.06.A.1 through 5.06.A.7, 5.06.B, and 5.06.C.

SC-5.07

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

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

SC-5.08

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

SC-5.10

Delete paragraph 5.10.A of the General Conditions in its entirety.

**ARTICLE 6. CONTRACTOR'S RESPONSIBILITIES**

SC-6.02

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

“C. Regular working hours shall be defined as 8 hours per day, Monday through Friday, excluding holidays, between the hours of 7:00 AM and 3:30 PM. Requests to work other than regular working hours shall be submitted to Engineer and Owner 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 Owner for additional engineering and/or inspection costs incurred as a result of unscheduled overtime



work in excess of the regular working hours stipulated in paragraph SC-6.02.C or otherwise allowed by the Owner. At Owner's option, such costs may either be deducted from the Contractor's monthly payment request or deducted from retention prior to release of final payment."

#### SC-6.06

Delete the words "Supplementary Conditions" in the first sentence of paragraph 6.06.B of the General Conditions and replace with "Instructions to Bidders".

Add the following new paragraph immediately after paragraph 6.06.C.2 of the General Conditions:

- "3. Contractor shall make payments to subcontractors in accordance with Massachusetts General Laws, Chapter 30, Section 39F."

Add the following new paragraph immediately following paragraph 6.06.D of the General Conditions:

- "1. Owner or Engineer may furnish to any such Subcontractor, Supplier, or other person or organization, to the extent practicable, information about amounts paid to Contractor in accordance with Contractor's Applications for Payment on account of the particular Subcontractor's, Suppliers, other persons, or other organization's Work."

#### SC-6.07

Delete paragraphs 6.07.A, 6.07.B, and 6.07.C in their entirety and replace with the following:

- "A. Contractor shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work of any invention, design, process, products, or device which is the subject of patent rights or copyrights held by others. Contractor shall indemnify and hold harmless Owner and Engineer, and anyone directly or indirectly employed by either of them from and against all claims, damages, losses and expenses, including attorney's fees, arising out of any infringement of patent rights or copyrights incident to the use in the performance of the Work or furnished by them in fulfillment of the requirements of this Contract. In the event of any claim or action by law on account of such patents or fees, it is agreed that the Owner may retain out of the monies which are, or which may become due the Contractor under this Contract, a sum of money sufficient to protect itself against loss, and to retain the same until said claims are paid or are satisfactorily adjusted."

#### SC-6.08

Delete the words "or, if there are no Bids...to the Work" from the third and fourth sentences of

paragraph 6.08.A of the General Conditions and replace with “and the Contractor shall pay all charges of utility owners for connections to the Work”.

#### SC-6.09

Delete paragraph 6.09.B of the General Conditions in its entirety and replace with the following:

- “B. If Contractor observes that the Specifications or Drawings are at variance with any Laws or Regulations, they shall give Engineer prompt written notice thereof. If Contractor performs any Work knowing it to be contrary to such Laws or Regulations, and without such notice to Engineer, they shall bear all costs arising therefrom. The Contractor shall, at all times, observe and comply with and shall cause all their agents and employees and all their Subcontractor to observe and comply with all such existing Laws or Regulations, and shall protect and indemnify the Owner and the Engineer and the municipalities in which Work is being performed, and their officers and agents against any claim, civil penalty, fine or liability arising from or based on the violation of any such Law or Regulation, whether by themselves or their employees or any of their Subcontractors.”

#### SC-6.10

Add the following new paragraph immediately after paragraph 6.10.A of the General Conditions:

- “1. The materials and supplies to be used in the Work under this Contract are exempt from the Sales and Use Tax of the Commonwealth of Massachusetts. Contractor shall obtain the proper certificates, maintain the necessary records, and otherwise comply with all applicable requirements governing the exemption from sales tax.”

#### SC-6.13

After the word “Contractor” in the first sentence of paragraph 6.13.B of the General Conditions, insert the words “, subject to provisions of paragraph 6.09.B”.

#### SC-6.17

Add the following new paragraph immediately after paragraph 6.17.E of the General Conditions:

- “F. The accuracy of all such information submitted by the Contractor is the responsibility of the Contractor. In reviewing Shop Drawings, Samples, and similar submittals, the Engineer shall be entitled to rely upon the Contractor’s representation that such information is correct and accurate.”

#### SC-6.19

After

the first sentence of paragraph 6.19.A of the General Conditions, insert the following:

“All materials or equipment delivered to the Site shall be accompanied by certificates, signed by an authorized officer of the supplier, and notarized guaranteeing that the materials or equipment conform to specification requirements. Such certificates shall be immediately turned over to the Engineer. Materials or equipment delivered to the Site without such certificates will be subject to rejection.”

#### SC-6.20

After the words “claims, costs” in the first sentence of paragraph 6.20.A of the General Conditions insert the words “, civil penalties, fines,”.

Add the following new paragraph immediately after paragraph 6.20.C.2 of the General Conditions:

- “3. Nothing in the Contract Documents shall create or give to third parties any claim or right of action against the Contractor, the Owner, or the Engineer beyond such as may legally exist irrespective of the Contract.”

#### SC-6.21

Add the following new paragraph immediately after Paragraph 6.21.E

“6.21.F Contractor shall comply with all applicable provisions of the Massachusetts General Laws, Chapter 30, Section 39R regarding Contractor’s records.”

### **ARTICLE 7. OTHER WORK AT THE SITE**

#### SC-7.02

Delete paragraph 7.02 of the General Conditions in its entirety.

#### SC-7.03

Delete the words “Owner and” from paragraph 7.03.B of the General Conditions.

Delete the words “Owner and” from paragraph 7.03.C of the General Conditions.

Add the following new paragraph immediately after paragraph 7.03.C of the General Conditions:

- “D. 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 any other person, Contractor shall promptly attempt to settle with such other

contractor by agreement, or to otherwise resolve the dispute by law. Contractor shall, to the fullest extent permitted by Laws and Regulations, defend, indemnify and hold Owner, Engineer, and Engineer's Consultants, harmless from and against all claims, damages, losses, and expenses (including, but not limited to, fees of engineers, architects, attorneys, and other professionals, and court costs) arising directly, indirectly, or consequentially out of any action, legal or equitable, brought by any separate contractor against Owner, Engineer, or Engineer's Consultants, to the extent based on a claim arising out of the 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, or Engineer's Consultants or permit any action against any of them to be maintained and continued in its name or for its benefit in any court which seeks to impose liability on or to recover damages from Owner, Engineer, or Engineer's Consultants, on such damage or claim. 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 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 12.02. The Contractor hereby agrees that the Contractor shall have no claim for damages of any kind against the Owner, the Engineer, or the Engineer's consultants on account of any delay in the performance or furnishing of the Work and/or any delay or suspension of any portion of the Work, whether such delay is caused by the Owner, the Engineer, the Engineer's consultants or otherwise. The Contractor acknowledges that the Contractor's sole remedy for any such delay and/or suspension will be an extension of time in accordance with Article 12.02."

## **ARTICLE 8. OWNER'S RESPONSIBILITIES**

### **SC-8.06**

Delete paragraph 8.06 of the General Conditions in its entirety.

### **SC-8.07**

Delete paragraph 8.07 of the General Conditions in its entirety.

### **SC-8.11**

Delete paragraph 8.11 of the General Conditions in its entirety.

## **ARTICLE 9. ENGINEER'S STATUS DURING CONSTRUCTION**

SC-9.01

Delete paragraph 9.01.A of the General Conditions in its entirety and replace with the following:

- “A. Engineer will be the Owner’s representative during the construction period, and Engineer’s instructions shall be carried into effect promptly and efficiently.”

SC-9.02

Delete paragraph 9.02.A of the General Conditions in its entirety.

SC-9.03

Add the following new paragraph immediately after paragraph 9.03.A of the General Conditions:

- “1. Engineer will furnish a Resident Project Representative and assistants to assist Engineer in observing the performance of the Work. The duties and responsibilities of the Resident Project Representative will be as enumerated in a document entitled "Duties, Responsibilities, and Limitations of the Authority of Resident Project Representative" and will be made available to Contractor at the start of his work.”

SC-9.04

Add the following new paragraph immediately after paragraph 9.04.A of the General Conditions:

- “1. Engineer’s interpretations will be made in accordance with Massachusetts General Laws, Chapter 30, Section 39P.”

SC-9.09

Add the following new paragraphs immediately after paragraph 9.09.E of the General Conditions:

- “F. Except upon written instructions of the Engineer, the Resident Project Representative:
  - 1. Shall not authorize any deviation from the Contract Documents or approve any substitute materials or equipment.
  - 2. Shall not exceed limitations of Engineer’s authority as set forth in the Contract Documents.
  - 3. Shall not undertake any of the responsibilities of Contractor, Subcontractors, or Contractor’s superintendent, or expedite the Work.
  - 4. Shall not advise on or issue directions relative to any aspect of the means,

methods, techniques, sequences, or procedures of construction unless such is specifically called for in the Contract.

5. Shall not advise on or issue directions as to safety precautions and programs in connection with the Work.”

## **ARTICLE 10. CHANGES IN THE WORK; CLAIMS**

### **SC-10.01A**

Add the following new paragraph immediately after paragraph 10.01.A of the General Conditions:

- “1. Upon request of the Owner or the Engineer, the Contractor shall without cost to the Owner submit to the Engineer, in such form as the Engineer may require, an accurate written estimate of the cost of any such proposed extra Work or change. The estimate shall indicate the quantity and unit cost of each item of materials, and the number of hours of work and hourly rate for each class of labor, as well as the description and amounts of all other costs chargeable under the terms of this Article. Unit labor costs for the installation of each item of materials shall be shown if required by the Engineer. The contractor shall promptly revise and resubmit such estimate if the Engineer determines that it is not in compliance with the requirements of this Article, or that it contains errors of fact or mathematical errors. If required by the Engineer, in order to establish the exact cost of new Work added or previously required Work omitted, the Contractor shall obtain and furnish to the Engineer bona fide proposals from recognized suppliers for furnishing any material included in such Work. Such estimates shall be furnished promptly so as to occasion no delay in the Work, and shall be furnished at the Contractor’s expense. The Contractor shall state in the estimate any extension of time required for the completion of the Work if the change or extra work is ordered.”

## **ARTICLE 11. COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK**

### **SC-11.01**

After the words “in Paragraph 11.01.B” in the last sentence of paragraph 11.01.A of the General Conditions, add the words “and no claims for extra cost shall be considered based on an escalation of labor costs throughout the period of the Contract”.

In the second sentence of paragraph 11.01.A.1 delete the word "superintendents".

Add the following sentence to the end of paragraph 11.01.A.2 of the General Conditions:

“No claims for extra cost shall be considered based on an escalation of material costs throughout the period of the Contract.”

Delete the second sentence of paragraph 11.01.A.3 of the General Conditions in its entirety.

Delete paragraph 11.01.A.4 of the General Conditions in its entirety.

Delete paragraph 11.01.A.5.a of the General Conditions in its entirety.

Delete paragraph 11.01.A.5.f of the General Conditions in its entirety.

Delete paragraph 11.01.A.5.g of the General Conditions in its entirety.

Delete paragraph 11.01.A.5.h of the General Conditions in its entirety.

SC-11.03

Delete the words “materially and significantly” from paragraph 11.03.D.1 and insert the words “by more than plus or minus twenty percent (20%)”.

## **ARTICLE 12. CHANGE OF CONTRACT PRICE; CHANGE OF CONTRACT TIME**

SC-12.03

In the second sentence of paragraph 12.03.A of the General Conditions, replace the words “include, but not be limited to,” with “limited to”.

Delete paragraph 12.03.B of the General Conditions in its entirety.

## **ARTICLE 13. TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK**

SC-13.03

Delete paragraph 13.03.B of the General Conditions in its entirety and replace with the following:

“B. Owner shall employ and pay for inspections and testing services specifically noted as such in the Contract. All others required shall be the responsibility of the Contractor.”

Delete paragraph 13.03.C of the General Conditions in its entirety and replace with the following:

“C. If the Contract Documents, laws, ordinances,

rules, regulations, or orders of any public authority having jurisdiction require any Work to be specifically inspected, tested, or approved by some public body, Contractor shall assume full responsibility therefore, pay all costs in connection therewith, and furnish Engineer the required certificates of inspection, testing, or approval.”

Add the following new paragraph immediately after paragraph 13.03.F of the General Conditions:

- “G. The Owner reserves the right to independently perform at its own expense, laboratory tests on random samples of material or performance tests on equipment delivered to the Site. These tests, if made, will be conducted in accordance with the appropriate referenced standards or Specification requirements. The entire shipment represented by a given sample, samples, or piece of equipment may be rejected on the basis of the failure of samples or pieces of equipment to meet specified test requirements. All rejected materials or equipment shall be removed from the Site, whether stored or installed in the Work, and the required replacement shall be made, all at no additional cost to the Owner.”

#### SC-13.05

After the words “conform to the Contract Documents” in the first sentence of paragraph 13.05.A of the General Conditions, add the words “or if the Work interferes with the operation of the existing facility”.

Add the following sentence to the end of paragraph 13.05.A of the General Conditions:

“If Owner stops work pursuant to this paragraph, Contractor shall be entitled to no extension of Contract Times or increase in Contract Price.”

#### SC-13.06

Add the following new paragraph immediately after paragraph 13.06.B of the General Conditions:

- “C. At any time during the progress of the Work and up to the date of final acceptance, the Engineer shall have the right to reject any Work which does not conform to the requirements of the Contract Documents, even though such Work has been previously inspected and paid for. Any omissions or failure on the part of the Engineer to disapprove or reject any Work or materials at the time of inspection shall not be construed as an acceptance of any defective Work or materials.”



## **ARTICLE 14. PAYMENTS TO CONTRACTOR AND COMPLETION**

### **SC-14.01**

Add the following new paragraph immediately after paragraph 14.01.A of the General Conditions:

- “B. The Contractor shall submit for the Engineer’s approval, a complete breakdown of all lump sum items in the Proposal. This breakdown, modified as directed by the Engineer, will be used as a basis for preparing estimates and establishing progress payments.

### **SC-14.02**

Add the following new paragraphs immediately after paragraph 14.02.A.1 of the General Conditions:

- “a. Only the following items of material and equipment will be accepted for delivery at the site or at a local bonded warehouse and included in progress estimates in advance of actual requirement, subject to all conditions stated below.
  - i. Pre-Cast Concrete Special Structures.
- b. Materials and equipment listed above will not be included in progress estimates until the requirements stated herein have been fulfilled.
- c. The Contractor must present an invoice to the Engineer for each item of material or equipment he is requesting payment for. The invoice must be broken down to show the costs for the actual materials.
- d. Sufficient monies have been allocated in the payment requisition line items to cover all of the costs listed in "a" above, plus the costs of physically installing the items of work.
- e. The materials have been submitted and approved for use in this Project.
- f. The Contractor has, at the time of delivery, given the Engineer written notice of the delivery using the form provided by the Engineer.
- g. The material is acceptably stored and protected. Storage in a bonded warehouse will require proof of bonding, and insurance coverage specifically for the item being stored.
- h. The manufacturer's short and/or long term storage requirements have been received by the Engineer, prior to payment.

- i. The Contractor has established a program to implement the manufacturer's required storage procedures. Said program to consist of at the very least a written schedule of daily, weekly, monthly, routine maintenance requirements for each piece of equipment. A copy of this schedule to be presented to the Engineer prior to each requisition submittal, signed by the Contractor, stating that the required maintenance has been performed.
- j. Signed, notarized Title Transfers, format to be furnished by the Engineer, must be furnished for each item of equipment.
- k. When the above have been complied with to the satisfaction of the Engineer, payment will be authorized for the full invoice values of the item, less normal retainage and less all costs for O&M Manuals, installation, incidental items included for payment, spare parts, start-up certification, training, testing, final acceptance testing, and installation.”

Delete paragraph 14.02.A.3 of the General Conditions in its entirety and replace with the following:

- “3. Progress payment request shall include the percentage of the total amount of the Contract which has been completed from the start-up of the Project to and including the last day of the preceding month, or other mutually agreed upon day of the month accompanied by such data and supporting evidence as Owner or Engineer may require.”

Add the following new paragraphs immediately after paragraph 14.02.A.3 of the General Conditions:

- “4. Forms to be used shall be prepared by the Contractor and submitted to the Engineer for approval.
- 5. At the option of the Owner, partial payment up to the estimated value, less retainage, may be allowed for any materials and equipment not incorporated in the Work, pursuant to the following conditions:
  - a. Major equipment items stored off site shall be stored in a bonded warehouse and properly maintained during storage.
  - b. Equipment or materials stored on the Site shall be properly stored, protected, and maintained.
  - c. For any partial payment the Contractor shall submit, with their monthly progress payment from each material or equipment manufacturer, bills or invoices indicating actual material cost.
  - d. Contractor shall submit evidence that they have paid for materials or

equipment stored and for which the Engineer has authorized partial payment and previous progress payments, prior to submission of the next monthly payment request.”

Delete the words “10 days” from the first sentence of paragraph 14.02.B.1 of the General Conditions and insert the words “30 days”.

Delete the words “as provided in the Agreement” from paragraph 14.02.D.3 of the General Conditions and insert the words “equal to the federal funds rate as established from time to time by the Federal Open Market Committee of the United States Federal Reserve”.

#### SC-14.04

Delete paragraphs 14.04.A through 14.04.D of the General Conditions in their entirety and replace with the following:

- “A. Contractor may, in writing to Owner and Engineer, certify that the entire Project is substantially complete and request that Engineer issue a certificate of Substantial Completion. Within a reasonable time thereafter, Owner, Contractor, and Engineer shall make an inspection of the Project to determine the status of completion. If Engineer and Owner do not consider the Project substantially complete, Engineer will notify Contractor in writing giving their reasons therefor. If Engineer and Owner consider the Project substantially complete, Engineer will prepare and deliver to Owner a tentative certificate of Substantial Completion and the responsibilities between Owner and Contractor for maintenance, heat, and utilities. There shall be attached to the certificate a tentative list of items to be completed or corrected before Substantial Completion, and the certificate shall fix the time within which such items shall be completed or corrected, said time to be within Contract Time.”

#### SC-14.05

Delete paragraph 14.05.A of the General Conditions in its entirety and replace with the following:

- “A. Prior to Substantial Completion of the Project, Owner may request Contractor in writing to permit them to use a specified part of the Project which they believe they may use without significant interference with construction of the other parts of the Project. If Contractor agrees, they will certify to Owner and Engineer that said part of the Project is substantially complete and request the Engineer to issue a certificate of Substantial Completion for that part of the Project. Within a reasonable time thereafter, Owner, Contractor, and Engineer shall make an inspection of that part of the Project to determine its status of completion. If Engineer and Owner do not consider that it is substantially complete, Engineer will notify Contractor in writing giving their

reasons therefor. If Engineer and Owner consider that part of the Project to be substantially complete, Engineer will execute and deliver to Owner and Contractor a certificate to that effect, fixing the date of Substantial Completion as to that part of the Project, attaching thereto a tentative list of items to be completed or corrected before Substantial Completion of the entire Project, and fixing the responsibility between Owner and Contractor for maintenance, heat, and utilities as to that part of the Project. Owner shall have the right to exclude Contractor from any part of the Project which Engineer has so certified to be substantially complete, but Owner shall allow Contractor reasonable access to complete items on the tentative list”.

## **ARTICLE 15. SUSPENSION OF WORK AND TERMINATION**

### **SC-15.01**

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

- “A. Owner may order, at any time and without cause, suspension of the Work in accordance with Massachusetts General Laws, Chapter 30, Section 39O.”

Insert the following new paragraph immediately after paragraph 15.01.A of the General Conditions:

- “B. Should the Owner suspend Work due to repeated unsafe Work conducted by the Contractor, the Contractor shall not be allowed any adjustment in Contract Price or extension of Contract Times attributed to this delay.”

### **SC-15.02**

After the word “jurisdiction” in paragraph 15.02.A.2 of the General Conditions, add the words “(including those governing employee safety)”.

Delete paragraph 15.02.D of the General Conditions in its entirety.

### **SC-15.05**

Add the following new paragraphs immediately after paragraph 15.04 of the General Conditions:

#### **“15.05 Assignment of Contract**

- A. Contractor shall not assign, transfer, convey or otherwise dispose of the Contract, or of their legal right, title, or interest in or to the same or to any part thereof, without the prior written consent of the Owner. Contractor shall not assign by  
power

of attorney or otherwise any monies due to them and payable under this Contract without the prior written consent of the Owner. Such consent, if given, will in no way relieve the Contractor from any of the obligations of this Contract. Owner shall not be bound to abide by or observe the requirements of any such assignment.”

## **ARTICLE 16. DISPUTE RESOLUTION**

### **SC-16.01**

Delete paragraph 16.01 of the General Conditions in its entirety and insert in place thereof the following:

- “A. It is the express intention and agreement of the parties that all disputes related to this Agreement or to any rights or any relationship between the parties arising therefrom shall be solely and exclusively initiated and maintained through legal proceedings in the courts of the Commonwealth located in Hampden County, Massachusetts. The Contractor and Owner each irrevocably consents to the jurisdiction of such courts in any such actions or proceedings, and waives its right to a trial by jury.
- B. Contractor shall carry on the Work and maintain the progress schedule during the dispute resolution proceedings, unless otherwise agreed by Contractor and Owner in writing.”

## **ARTICLE 17. MISCELLANEOUS**

### **SC-17.01**

Add the following new paragraph immediately after paragraph 17.01.A of the General Conditions:

- “B. No oral statement of any person whomsoever shall in any manner or degree modify or otherwise affect the terms of this Contract. Any notice to the Contractor, from Owner and Engineer, relative to any part of this Contract shall be in writing.”

### **SC-17.06**

Add the following sentence to 17.06.A: “The headings or titles of any article, paragraph, subparagraph, section, subsection, or part of the Contract Documents shall not be deemed to limit or restrict the article, paragraph, section, or part.”

Add the following new paragraphs immediately after paragraph 17.06 of the General Conditions:

#### “17.07 Legal Address of Contractor

- A. Contractor’s business address and his office at or near the site of the Work are both hereby designated as places to which communications shall be delivered. The depositing of any letter, notice, or other communication in a postpaid wrapper directed to the Contractor’s business address in a post office box regularly maintained by the Post Office Department or the delivery at either designated address of any letter, notice, or other communication by mail or otherwise shall be deemed sufficient service thereof upon Contractor, and the date of such service shall be the date of receipt. The first-named address may be changed at any time by an instrument in writing, executed and acknowledged by Contractor and delivered to Engineer. Service of any notice, letter, or other communication upon the Contractor personally shall likewise be deemed sufficient service.

#### 17.08 Wage Rates

- A. The requirements and provisions of all applicable laws and any amendments thereto as to the employment of labor, and the schedules of minimum wage rates established in accordance with such laws shall be a part of these Contract Documents.
- B. The said schedules of wages shall continue to be the minimum rates to be paid during the life of this contract and a legible copy of said schedules shall be kept posted in a conspicuous place at the site of the Work.”

SC-18

Add the following new paragraphs immediately after Article 17 of the General Conditions:

“ARTICLE 18 – LIQUIDATED DAMAGES FOR FAILURE TO COMPLETE WORK ON TIME

#### 18.01 Liquidated Damages

- A. If the Contractor shall fail to complete the Work within the Contract Times, or extension of time granted by the Owner in accordance with Article 12, then the Contractor will pay to the Owner the amount for liquidated damages as specified in the Contract for each calendar day that the Contractor shall be in default after the time stipulated in the Contract Documents.
- B. The Contractor shall not be charged with liquidated damages or any excess cost when delay in completion of the Work is due to the following and the Contractor

has

promptly given written notice of such delay to the Owner or Engineer.

- C. To any preference, priority, or allocation order duly issued by the Owner.
- D. To unforeseeable causes beyond the control and without the fault or negligence of the Contractor, including but not restricted to, acts of God, or of the public enemy, acts of the Owner, acts of another Contractor in the performance of a contract with the Owner, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes; and abnormal and unforeseeable weather; and
- E. To any delays of Subcontractors occasioned by any of the causes specified in Paragraphs 18.01.C and 18.01.D of this Article.”

## **PART II – ADDITIONAL PROVISIONS**

State 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 SC-3.01 of the Supplementary Conditions.

- 1.1. 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 violation of the foregoing shall be deemed null, void and of no effect.
- 2.0. MASSACHUSETTS WAGE RATES
  - 2.1. Minimum Wage Rates as determined by the Commissioner of Department of Labor and Industries under the provision of the Massachusetts General Laws, Chapter 149, Section 26 to 27D, as amended, apply to this project. It is the responsibility of the Contractor, before the bid opening, to request, if necessary, any additional information on Minimum Wage Rates for those tradespeople who may be employed for the proposed work under this Contract.
  - 2.2. The schedule of Minimum Wage Rates is included in the Supplementary Conditions Part IV – Wage Determination Schedules.
- 3.0. CHANGE ORDERS
  - 3.1. Following the Notice of Award and prior to execution of the Contract the prospective contractor shall submit to the Engineer for review documentation that will assist in developing the markup percentage to be used as Direct Labor. Prior to execution of the Contract by the Owner, the prospective contractor will work out an agreement on what percentage markup shall be used as Direct Labor Costs and

this agreement shall become a part of the Contract Documents at the time the Contract is executed.

4.0. RECORD DRAWINGS

4.1. The Owner shall be responsible for the preparation of all record drawings required by this Contract. This responsibility may be delegated to the Owner's representative. The responsibility for preparation of record drawings shall not be delegated or transferred to the Contractor. The preparation and maintenance of as-built drawings and as-built data remains the responsibility of the Contractor and shall be maintained and provided to the Engineer as specified elsewhere in the Technical Specifications.

5.0. UTILITY UNDERGROUND PLANT DAMAGE PREVENTION SYSTEM

5.1. All excavation within public or private ways are subject to the requirements of Massachusetts General Laws, Chapter 82, Section 40.

6.0 The Contractor is responsible for submitting for and obtaining all building construction permits for this Project. The Contractor will pay for all building construction permit fees.

7.0 Markups are limited to the not to exceed amounts defined in the Agreement.

**END OF SECTION**



## WEEKLY CERTIFIED PAYROLL REPORT AND WORKFORCE PARTICIPATION FORM

**CERTIFIED PAYROLL REPORT:** Pursuant to MGL c. 149, s. 27B, **every contractor and subcontractor is required to submit a true and accurate copy of their certified weekly payroll records** to the awarding authority by first-class mail or e-mail. In addition, each weekly payroll must be accompanied by a statement of compliance signed by the employer. Failure to comply may result in the commencement of a criminal action or the issuance of a civil citation.

**WORKFORCE PARTICIPATION GOALS:** The Commonwealth of Massachusetts has set the following goals for workforce participation for minorities and women. The participation goals for this project shall be 15.3% for minorities and 6.9% for women. The Contractor shall strive to achieve on this project the labor workforce participation goals contained herein. **The Contractor shall enter the number of hours worked in each trade by each employee, identified as woman, minority, or non-minority below.**

| Company Name:                      |                     |                            |                        |                     | Address:                          |                |              |     |     | Phone No.:                     |     |                 |     |                   | Payroll No.:                                 |                      |                                |                        |                  |                             |                     |               |  |  |
|------------------------------------|---------------------|----------------------------|------------------------|---------------------|-----------------------------------|----------------|--------------|-----|-----|--------------------------------|-----|-----------------|-----|-------------------|----------------------------------------------|----------------------|--------------------------------|------------------------|------------------|-----------------------------|---------------------|---------------|--|--|
|                                    |                     |                            |                        |                     |                                   |                |              |     |     |                                |     |                 |     |                   |                                              |                      |                                |                        |                  |                             |                     |               |  |  |
| Employer's Signature:              |                     |                            |                        |                     | Title:                            |                |              |     |     | Contract No.:                  |     | Tax Payer ID #: |     | Work Week Ending: |                                              |                      |                                |                        |                  |                             |                     |               |  |  |
|                                    |                     |                            |                        |                     |                                   |                |              |     |     |                                |     |                 |     |                   |                                              |                      |                                |                        |                  |                             |                     |               |  |  |
| Awarding Authority Name:           |                     |                            |                        |                     | Public Works Project Name:        |                |              |     |     | Public Works Project Location: |     |                 |     |                   | Min. Wage Rate Sheet Number:                 |                      |                                |                        |                  |                             |                     |               |  |  |
|                                    |                     |                            |                        |                     |                                   |                |              |     |     |                                |     |                 |     |                   |                                              |                      |                                |                        |                  |                             |                     |               |  |  |
| General / Prime Contractor's Name: |                     |                            |                        |                     | Subcontractor's Name:             |                |              |     |     |                                |     |                 |     |                   | Employer Hourly Fringe Benefit Contributions |                      |                                |                        |                  |                             |                     |               |  |  |
|                                    |                     |                            |                        |                     |                                   |                |              |     |     |                                |     |                 |     |                   | (B+C+D+E) (A x F)                            |                      |                                |                        |                  |                             |                     |               |  |  |
| Employee Name & Complete Address   | Work Classification | Project Hours Non-Minority | Project Hours Minority | Project Hours Women | Employee is OSHA 10 certified (?) | Appr. Rate (%) | Hours Worked |     |     |                                |     |                 |     |                   | Project Hours (A)<br>All Other Hours         | Hourly Base Wage (B) | Health & Welfare Insurance (C) | ERISA Pension Plan (D) | Supp. Unemp. (E) | Total Hourly Prev. Wage (F) | Project Gross Wages | Check No. (H) |  |  |
|                                    |                     |                            |                        |                     |                                   |                | Su.          | Mo. | Tu. | We.                            | Th. | Fr.             | Sa. | Total Gross Wages |                                              |                      |                                |                        |                  |                             |                     |               |  |  |
|                                    |                     |                            |                        |                     |                                   |                |              |     |     |                                |     |                 |     |                   |                                              |                      |                                |                        |                  |                             |                     |               |  |  |
|                                    |                     |                            |                        |                     |                                   |                |              |     |     |                                |     |                 |     |                   |                                              |                      |                                |                        |                  |                             |                     |               |  |  |
|                                    |                     |                            |                        |                     |                                   |                |              |     |     |                                |     |                 |     |                   |                                              |                      |                                |                        |                  |                             |                     |               |  |  |
|                                    |                     |                            |                        |                     |                                   |                |              |     |     |                                |     |                 |     |                   |                                              |                      |                                |                        |                  |                             |                     |               |  |  |
|                                    |                     |                            |                        |                     |                                   |                |              |     |     |                                |     |                 |     |                   |                                              |                      |                                |                        |                  |                             |                     |               |  |  |
|                                    |                     |                            |                        |                     |                                   |                |              |     |     |                                |     |                 |     |                   |                                              |                      |                                |                        |                  |                             |                     |               |  |  |
|                                    |                     |                            |                        |                     |                                   |                |              |     |     |                                |     |                 |     |                   |                                              |                      |                                |                        |                  |                             |                     |               |  |  |
|                                    |                     |                            |                        |                     |                                   |                |              |     |     |                                |     |                 |     |                   |                                              |                      |                                |                        |                  |                             |                     |               |  |  |

**APPRENTICESHIP DOCUMENTATION:**

Please answer the questions below.

- (1) Are any apprentice employees identified above?
- (2) If yes, are all apprentice employees identified above currently registered with the MA DLS Division of Apprentice Standards?
- (3) If yes, is a copy of the apprentice ID card issued by the MA DLS Division of Apprentice Standards included for all apprentice employees identified above?

|                                               |                                              |
|-----------------------------------------------|----------------------------------------------|
| YES <input style="width: 40px;" type="text"/> | NO <input style="width: 40px;" type="text"/> |
| YES <input style="width: 40px;" type="text"/> | NO <input style="width: 40px;" type="text"/> |
| YES <input style="width: 40px;" type="text"/> | NO <input style="width: 40px;" type="text"/> |

# WEEKLY STATEMENT OF COMPLIANCE

In accordance with Massachusetts General Law c. 149, §27B, a true and accurate record must be kept of all persons employed on the public works project for which the enclosed rates have been provided. A Payroll Form is available from the Department of Labor Standards (DLS) at [mass.gov/dols/pw](http://mass.gov/dols/pw) and includes all the information required to be kept by law. Every contractor or subcontractor is required to keep these records and preserve them for a period of three years from the date of completion of the contract.

On a weekly basis, every contractor and subcontractor is required to submit a certified copy of their weekly payroll records to the awarding authority; this includes the payroll forms and the Statement of Compliance form. The certified payroll records must be submitted either by regular mail or by e-mail to the awarding authority. Once collected, the awarding authority is required to preserve those records for three years from the date of completion of the project.

Each such contractor and subcontractor shall furnish weekly **and** within 15 days after completion of its portion of the work, to the awarding authority directly by first-class mail or email, a statement, executed by the contractor, subcontractor or by any authorized officer thereof who supervised the payment of wages, this form, accompanied by their payroll:

|                                                                                                                                                                                                                                                                                |                       |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|
| <b>WEEKLY STATEMENT OF COMPLIANCE</b>                                                                                                                                                                                                                                          |                       |
| _____, 20____                                                                                                                                                                                                                                                                  |                       |
| I, _____                                                                                                                                                                                                                                                                       | _____, _____          |
| (Name of signatory party)                                                                                                                                                                                                                                                      | (Title)               |
| do hereby state:                                                                                                                                                                                                                                                               |                       |
| That I pay or supervise the payment of the persons employed by                                                                                                                                                                                                                 |                       |
| _____                                                                                                                                                                                                                                                                          | _____ on the _____    |
| (Contractor, subcontractor or public body)                                                                                                                                                                                                                                     | (Building or project) |
| and that all mechanics and apprentices, teamsters, chauffeurs and laborers employed on said project have been paid in accordance with wages determined under the provisions of sections twenty-six and twenty-seven of chapter one hundred and forty nine of the General Laws. |                       |
| Signature                                                                                                                                                                                                                                                                      | _____                 |
| Title                                                                                                                                                                                                                                                                          | _____                 |



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

|                             |                                                                                                                                                                             |                      |                                |
|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|--------------------------------|
| <b>Awarding Authority:</b>  | Springfield - Sewer and Water Commission                                                                                                                                    | <b>City/Town:</b>    | LUDLOW                         |
| <b>Wage Request No:</b>     | 20260924121209                                                                                                                                                              | <b>Job Location:</b> | 1149 Center Street, Ludlow, MA |
| <b>Description of Work:</b> | #1 a stone culvert replaced with a 72" x 60" box culvert lined with 2-foot deep stone infill. # 2 replaces a 24" corr metal pipe w 36"x 24" box culvert w/out stone infill. |                      |                                |
| <b>Contract Number:</b>     | IFB No 27-13                                                                                                                                                                |                      |                                |

### §§ 26-27D Construction Project

This Prevailing Wage Schedule establishes the minimum wage rates that employees on this public works construction project must be paid. The project's Wage Request Number is listed above and on all pages of this Schedule. This schedule applies **only** to this specific project.

#### Awarding Authority Responsibilities

- You must include this Prevailing Wage Schedule (PWS) or an appropriate reference to it in all advertisements and calls for bids.
- The PWS must be incorporated in its entirety into all contracts for this project (G.L. c. 149, § 27).
- The wage rates on this PWS will remain in effect for the duration of the project. **Exception:** You must request an updated schedule for any multi-year construction project no later than 2 weeks before the project's yearly anniversary date.
  - For CM AT RISK projects, the anniversary date is the earlier of the signing date of: (a) the GMP Amendment; or (b) the first amendment to permit procurement of construction services.
  - For all other construction projects, the anniversary date is the date the contract was signed by the Awarding Authority and the General Contractor.
- You must also request an updated PWS if you have not opened bids or selected a contractor within 90 days of the date of issuance on this PWS.
  - For CM AT RISK projects, the earlier of (a) the signing date of the GMP Amendment; or (b) the bid for the first construction scope of work must be within 90 days of the date of issuance on this Schedule.
- You must provide any updated PWS to all contractors working on the project, including general and sub-contractors.
- You must keep the contractors' weekly certified payroll records and Statements of Compliance on file for **3 years**.
- Awarding authorities have other prevailing wage responsibilities not listed above. Learn more at: [\[Prevailing wage: for awarding authorities | Mass.gov\]](#) and G.L. c. 149, §§ 26-27D.

#### Contractor Responsibilities

- You must pay all employees who perform construction work on this project at least the wage rate listed on this PWS. **Warning!** If you do not follow this requirement, you can face civil fines, criminal charges, or private lawsuits.
- You must post this PWS at the worksite where it can be easily seen. (G.L. c. 149, § 27)
- You must file weekly payroll reports and a Statement of Compliance with the awarding authority (**not** DLS). You can file payroll reports by mail or email and must keep them on file for 3 years. Each weekly payroll report must include each employees' name, address, occupational classification(s), hours worked, and wages paid. Find a sample report at: [mass.gov/dols/pw](http://mass.gov/dols/pw).
- You cannot pay any employees at the apprentice rates listed on this PWS unless they are registered with the Massachusetts Division of Apprentice Standards (DAS). Qualifying apprentices must be paid at the applicable step rate and must carry their apprentice ID card during all work hours on the project. Apprentices **not** registered with DAS must be paid at the listed journeyworker's rate, even if they are registered with a different federal/state public agency or private entity. For every week in which apprentice rates are paid, a copy of each apprentice's apprentice ID card issued by DAS shall be attached to the certified payroll records.
- If you don't know what classification or rate applies to the work being performed, you must ask DLS; paying the wrong rate subjects you to enforcement.
- Please contact DLS if you have any questions about the Prevailing Wage Schedule: (617) 626-6953 or [DLS.Feedback@mass.gov](mailto:DLS.Feedback@mass.gov)

Employees who are **not** paid the wage listed on the Prevailing Wage Schedule (PWS) may file a complaint with the Attorney General's Fair Labor

Division: [www.mass.gov/ago/fld](http://www.mass.gov/ago/fld); (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 3)                                      |                |           |         |         |         |                           |            |
| For apprentice rates see "Apprentice- PILE DRIVER"                 |                |           |         |         |         |                           |            |
| AIR TRACK OPERATOR                                                 | 6/1/2026       | \$37.75   | \$10.90 | \$9.75  | \$8.62  | \$0.00                    | \$67.02    |
| LABORERS                                                           | 12/7/2026      | \$39.05   | \$10.90 | \$9.75  | \$8.62  | \$0.00                    | \$68.32    |
| LABORERS - ZONE 3 (BUILDING & SITE)                                | 6/7/2027       | \$40.45   | \$10.90 | \$9.75  | \$8.62  | \$0.00                    | \$69.72    |
|                                                                    | 12/6/2027      | \$41.85   | \$10.90 | \$9.75  | \$8.62  | \$0.00                    | \$71.12    |
|                                                                    | 6/5/2028       | \$43.35   | \$10.90 | \$9.75  | \$8.62  | \$0.00                    | \$72.62    |
|                                                                    | 12/4/2028      | \$44.85   | \$10.90 | \$9.75  | \$8.62  | \$0.00                    | \$74.12    |
| For apprentice rates see "Apprentice- LABORER"                     |                |           |         |         |         |                           |            |
| AIR TRACK OPERATOR (HEAVY & HIGHWAY)                               | 6/1/2026       | \$37.74   | \$10.90 | \$9.75  | \$6.60  | \$0.00                    | \$64.99    |
| LABORERS                                                           | 12/1/2026      | \$39.03   | \$10.90 | \$9.75  | \$6.60  | \$0.00                    | \$66.28    |
| LABORERS - ZONE 3 (HEAVY & HIGHWAY)                                |                |           |         |         |         |                           |            |
| For apprentice rates see "Apprentice- LABORER (Heavy and Highway)" |                |           |         |         |         |                           |            |
| ASBESTOS WORKER (PIPES & TANKS)                                    | 12/1/2025      | \$40.32   | \$14.50 | \$4.30  | \$6.25  | \$0.00                    | \$65.37    |
| HEAT & FROST INSULATORS LOCAL 6                                    |                |           |         |         |         |                           |            |
| HEAT & FROST INSULATORS LOCAL 6 (SPRINGFIELD)                      |                |           |         |         |         |                           |            |
| ASPHALT RAKER                                                      | 6/1/2026       | \$37.25   | \$10.90 | \$9.75  | \$8.62  | \$0.00                    | \$66.52    |
| LABORERS                                                           | 12/7/2026      | \$38.55   | \$10.90 | \$9.75  | \$8.62  | \$0.00                    | \$67.82    |
| LABORERS - ZONE 3 (BUILDING & SITE)                                | 6/7/2027       | \$39.95   | \$10.90 | \$9.75  | \$8.62  | \$0.00                    | \$69.22    |
|                                                                    | 12/6/2027      | \$41.35   | \$10.90 | \$9.75  | \$8.62  | \$0.00                    | \$70.62    |
|                                                                    | 6/5/2028       | \$42.85   | \$10.90 | \$9.75  | \$8.62  | \$0.00                    | \$72.12    |
|                                                                    | 12/4/2028      | \$44.35   | \$10.90 | \$9.75  | \$8.62  | \$0.00                    | \$73.62    |
| For apprentice rates see "Apprentice- LABORER"                     |                |           |         |         |         |                           |            |
| ASPHALT RAKER (HEAVY & HIGHWAY)                                    | 6/1/2026       | \$37.24   | \$10.90 | \$9.75  | \$6.60  | \$0.00                    | \$64.49    |
| LABORERS                                                           | 12/1/2026      | \$38.53   | \$10.90 | \$9.75  | \$6.60  | \$0.00                    | \$65.78    |
| LABORERS - ZONE 3 (HEAVY & HIGHWAY)                                |                |           |         |         |         |                           |            |
| For apprentice rates see "Apprentice- LABORER (Heavy and Highway)" |                |           |         |         |         |                           |            |
| BARCO-TYPE JUMPING TAMPER                                          | 6/1/2026       | \$37.25   | \$10.90 | \$9.75  | \$8.62  | \$0.00                    | \$66.52    |
| LABORERS                                                           | 12/7/2026      | \$38.55   | \$10.90 | \$9.75  | \$8.62  | \$0.00                    | \$67.82    |
| LABORERS - ZONE 3 (BUILDING & SITE)                                | 6/7/2027       | \$39.95   | \$10.90 | \$9.75  | \$8.62  | \$0.00                    | \$69.22    |
|                                                                    | 12/6/2027      | \$41.35   | \$10.90 | \$9.75  | \$8.62  | \$0.00                    | \$70.62    |

**Construction**

| Classification | Effective Date | Base Wage | Health  | Pension | Annuity | Supplemental Unemployment | Total Rate |
|----------------|----------------|-----------|---------|---------|---------|---------------------------|------------|
|                | 6/5/2028       | \$42.85   | \$10.90 | \$9.75  | \$8.62  | \$0.00                    | \$72.12    |
|                | 12/4/2028      | \$44.35   | \$10.90 | \$9.75  | \$8.62  | \$0.00                    | \$73.62    |

For apprentice rates see "Apprentice- LABORER"

|                                     |           |         |         |        |        |        |         |
|-------------------------------------|-----------|---------|---------|--------|--------|--------|---------|
| BLOCK PAVER, RAMMER / CURB SETTER   | 6/1/2026  | \$37.75 | \$10.90 | \$9.75 | \$8.62 | \$0.00 | \$67.02 |
| LABORERS                            | 12/7/2026 | \$39.05 | \$10.90 | \$9.75 | \$8.62 | \$0.00 | \$68.32 |
| LABORERS - ZONE 3 (BUILDING & SITE) | 6/7/2027  | \$40.45 | \$10.90 | \$9.75 | \$8.62 | \$0.00 | \$69.72 |
|                                     | 12/6/2027 | \$41.85 | \$10.90 | \$9.75 | \$8.62 | \$0.00 | \$71.12 |
|                                     | 6/5/2028  | \$43.35 | \$10.90 | \$9.75 | \$8.62 | \$0.00 | \$72.62 |
|                                     | 12/4/2028 | \$44.85 | \$10.90 | \$9.75 | \$8.62 | \$0.00 | \$74.12 |

For apprentice rates see "Apprentice- LABORER"

|                                                     |           |         |         |        |        |        |         |
|-----------------------------------------------------|-----------|---------|---------|--------|--------|--------|---------|
| BLOCK PAVER, RAMMER / CURB SETTER (HEAVY & HIGHWAY) | 6/1/2026  | \$37.74 | \$10.90 | \$9.75 | \$6.60 | \$0.00 | \$64.99 |
| LABORERS                                            | 12/1/2026 | \$39.03 | \$10.90 | \$9.75 | \$6.60 | \$0.00 | \$66.28 |
| LABORERS - ZONE 3 (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) | 8/1/2026 | \$58.56 | \$12.84 | \$15.57 | \$5.89 | \$0.00 | \$92.86 |
| BRICKLAYERS LOCAL 3                                          | 2/1/2027 | \$59.96 | \$12.84 | \$15.57 | \$5.89 | \$0.00 | \$94.26 |
| BRICKLAYERS LOCAL 3 (SPRINGFIELD/PITTSFIELD)                 |          |         |         |         |        |        |         |

**Apprentice: BRICK/STONE/ARTIFICIAL MASONRY (INCL. MASONRY WATERPROOFING)****Effective Date: 8/1/2026**

| Step | Percent | Apprentice Base Wage | Health  | Pension | Annuity | Supplemental Unemployment | Total Rate |
|------|---------|----------------------|---------|---------|---------|---------------------------|------------|
| 1    | 50.00   | \$29.28              | \$12.84 | \$15.57 | \$5.89  | \$0.00                    | \$63.58    |
| 2    | 60.00   | \$35.14              | \$12.84 | \$15.57 | \$5.89  | \$0.00                    | \$69.44    |
| 3    | 70.00   | \$40.99              | \$12.84 | \$15.57 | \$5.89  | \$0.00                    | \$75.29    |
| 4    | 80.00   | \$46.85              | \$12.84 | \$15.57 | \$5.89  | \$0.00                    | \$81.15    |

**Construction**

| Classification                                                                                                     | Effective Date | Base Wage                   | Health        | Pension        | Annuity        | Supplemental Unemployment        | Total Rate        |
|--------------------------------------------------------------------------------------------------------------------|----------------|-----------------------------|---------------|----------------|----------------|----------------------------------|-------------------|
| <b>Apprentice: BRICK/STONE/ARTIFICIAL MASONRY (INCL. MASONRY WATERPROOFING)</b><br><b>Effective Date: 8/1/2026</b> |                |                             |               |                |                |                                  |                   |
| <b>Step</b>                                                                                                        | <b>Percent</b> | <b>Apprentice Base Wage</b> | <b>Health</b> | <b>Pension</b> | <b>Annuity</b> | <b>Supplemental Unemployment</b> | <b>Total Rate</b> |
| 5                                                                                                                  | 90.00          | \$52.70                     | \$12.84       | \$15.57        | \$5.89         | \$0.00                           | \$87.00           |
| <b>Apprentice: BRICK/STONE/ARTIFICIAL MASONRY (INCL. MASONRY WATERPROOFING)</b><br><b>Effective Date: 2/1/2027</b> |                |                             |               |                |                |                                  |                   |
| <b>Step</b>                                                                                                        | <b>Percent</b> | <b>Apprentice Base Wage</b> | <b>Health</b> | <b>Pension</b> | <b>Annuity</b> | <b>Supplemental Unemployment</b> | <b>Total Rate</b> |
| 1                                                                                                                  | 50.00          | \$29.98                     | \$12.84       | \$15.57        | \$5.89         | \$0.00                           | \$64.28           |
| 2                                                                                                                  | 60.00          | \$35.98                     | \$12.84       | \$15.57        | \$5.89         | \$0.00                           | \$70.28           |
| 3                                                                                                                  | 70.00          | \$41.97                     | \$12.84       | \$15.57        | \$5.89         | \$0.00                           | \$76.27           |
| 4                                                                                                                  | 80.00          | \$47.97                     | \$12.84       | \$15.57        | \$5.89         | \$0.00                           | \$82.27           |
| 5                                                                                                                  | 90.00          | \$53.96                     | \$12.84       | \$15.57        | \$0.00         | \$0.00                           | \$82.37           |
| <b>Apprentice to Journeyworker Ratio: 1:5</b>                                                                      |                |                             |               |                |                |                                  |                   |
| 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       | \$37.25                     | \$10.90       | \$9.75         | \$8.62         | \$0.00                           | \$66.52           |
| LABORERS                                                                                                           | 12/7/2026      | \$38.55                     | \$10.90       | \$9.75         | \$8.62         | \$0.00                           | \$67.82           |
| LABORERS - ZONE 3 (BUILDING & SITE)                                                                                | 6/7/2027       | \$39.95                     | \$10.90       | \$9.75         | \$8.62         | \$0.00                           | \$69.22           |
|                                                                                                                    | 12/6/2027      | \$41.35                     | \$10.90       | \$9.75         | \$8.62         | \$0.00                           | \$70.62           |
|                                                                                                                    | 6/5/2028       | \$42.85                     | \$10.90       | \$9.75         | \$8.62         | \$0.00                           | \$72.12           |
|                                                                                                                    | 12/4/2028      | \$44.35                     | \$10.90       | \$9.75         | \$8.62         | \$0.00                           | \$73.62           |
| For apprentice rates see "Apprentice- LABORER"                                                                     |                |                             |               |                |                |                                  |                   |
| CARPENTER                                                                                                          | 9/1/2026       | \$44.76                     | \$9.19        | \$11.25        | \$6.90         | \$0.00                           | \$72.10           |
| CARPENTERS                                                                                                         | 3/1/2027       | \$45.66                     | \$9.19        | \$11.25        | \$6.90         | \$0.00                           | \$73.00           |
| CARPENTERS LOCAL 336 - HAMPDEN HAMPSHIRE FRANKLIN                                                                  |                |                             |               |                |                |                                  |                   |

Construction

| Classification                  | Effective Date | Base Wage            | Health | Pension | Annuity | Supplemental Unemployment | Total Rate |
|---------------------------------|----------------|----------------------|--------|---------|---------|---------------------------|------------|
| <b>Apprentice: CARPENTER</b>    |                |                      |        |         |         |                           |            |
| <b>Effective Date: 9/1/2026</b> |                |                      |        |         |         |                           |            |
| Step                            | Percent        | Apprentice Base Wage | Health | Pension | Annuity | Supplemental Unemployment | Total Rate |
| 1                               | 45.00          | \$20.14              | \$9.19 | \$0.00  | \$1.38  | \$0.00                    | \$30.71    |
| 2                               | 45.00          | \$20.14              | \$9.19 | \$0.00  | \$1.38  | \$0.00                    | \$30.71    |
| 3                               | 55.00          | \$24.62              | \$9.19 | \$0.00  | \$2.76  | \$0.00                    | \$36.57    |
| 4                               | 55.00          | \$24.62              | \$9.19 | \$0.00  | \$2.76  | \$0.00                    | \$36.57    |
| 5                               | 70.00          | \$31.33              | \$9.19 | \$11.25 | \$4.14  | \$0.00                    | \$55.91    |
| 6                               | 70.00          | \$31.33              | \$9.19 | \$11.25 | \$4.14  | \$0.00                    | \$55.91    |
| 7                               | 80.00          | \$35.81              | \$9.19 | \$11.25 | \$5.52  | \$0.00                    | \$61.77    |
| 8                               | 80.00          | \$35.81              | \$9.19 | \$11.25 | \$5.52  | \$0.00                    | \$61.77    |

| <b>Apprentice: CARPENTER</b>    |         |                      |        |         |         |                           |            |
|---------------------------------|---------|----------------------|--------|---------|---------|---------------------------|------------|
| <b>Effective Date: 3/1/2027</b> |         |                      |        |         |         |                           |            |
| Step                            | Percent | Apprentice Base Wage | Health | Pension | Annuity | Supplemental Unemployment | Total Rate |
| 1                               | 45.00   | \$20.55              | \$9.19 | \$0.00  | \$1.40  | \$0.00                    | \$31.14    |
| 2                               | 45.00   | \$20.55              | \$9.19 | \$0.00  | \$1.40  | \$0.00                    | \$31.14    |
| 3                               | 55.00   | \$25.11              | \$9.19 | \$0.00  | \$2.76  | \$0.00                    | \$37.06    |
| 4                               | 55.00   | \$25.11              | \$9.19 | \$0.00  | \$2.76  | \$0.00                    | \$37.06    |
| 5                               | 70.00   | \$31.96              | \$9.19 | \$11.21 | \$4.14  | \$0.00                    | \$56.50    |
| 6                               | 70.00   | \$31.96              | \$9.19 | \$11.21 | \$4.14  | \$0.00                    | \$56.50    |
| 7                               | 80.00   | \$36.53              | \$9.19 | \$11.23 | \$5.52  | \$0.00                    | \$62.47    |
| 8                               | 80.00   | \$36.53              | \$9.19 | \$11.23 | \$5.52  | \$0.00                    | \$62.47    |

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 |
| CARPENTERS-ZONE 3 (Wood Frame)     |           |         |        |        |        |        |         |
| All Aspects of New Wood Frame Work |           |         |        |        |        |        |         |

| <b>Apprentice: CARPENTER WOOD FRAME</b> |         |                      |        |         |         |                           |            |
|-----------------------------------------|---------|----------------------|--------|---------|---------|---------------------------|------------|
| <b>Effective Date: 10/1/2025</b>        |         |                      |        |         |         |                           |            |
| 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    |
| 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    |



## Construction

| Classification                          | Effective Date | Base Wage            | Health | Pension | Annuity | Supplemental Unemployment | Total Rate |
|-----------------------------------------|----------------|----------------------|--------|---------|---------|---------------------------|------------|
| <b>Apprentice: CARPENTER WOOD FRAME</b> |                |                      |        |         |         |                           |            |
| <b>Effective Date: 10/1/2026</b>        |                |                      |        |         |         |                           |            |
| 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              | 7/1/2026 | \$49.32 | \$13.20 | \$16.30 | \$2.93 | \$1.69 | \$83.44 |
| PLASTERERS AND CEMENT MASONS LOCAL 534 | 1/1/2027 | \$50.51 | \$13.20 | \$16.30 | \$2.93 | \$1.69 | \$84.63 |
| Plasterers and Cement Masons - Zone 2  | 7/1/2027 | \$51.70 | \$13.20 | \$16.30 | \$2.93 | \$1.69 | \$85.82 |
|                                        | 1/1/2028 | \$52.89 | \$13.20 | \$16.30 | \$2.93 | \$1.69 | \$87.01 |

| <b>Apprentice: CEMENT MASONRY/PLASTERING</b> |         |                      |         |         |         |                           |            |
|----------------------------------------------|---------|----------------------|---------|---------|---------|---------------------------|------------|
| <b>Effective Date: 7/1/2026</b>              |         |                      |         |         |         |                           |            |
| Step                                         | Percent | Apprentice Base Wage | Health  | Pension | Annuity | Supplemental Unemployment | Total Rate |
| 1                                            | 50.00   | \$24.66              | \$13.20 | \$16.30 | \$0.00  | \$0.00                    | \$54.16    |
| 2                                            | 60.00   | \$29.59              | \$13.20 | \$16.30 | \$2.93  | \$1.69                    | \$63.71    |
| 3                                            | 65.00   | \$32.06              | \$13.20 | \$16.30 | \$2.93  | \$1.69                    | \$66.18    |
| 4                                            | 70.00   | \$34.52              | \$13.20 | \$16.30 | \$2.93  | \$1.69                    | \$68.64    |
| 5                                            | 75.00   | \$36.99              | \$13.20 | \$16.30 | \$2.93  | \$1.69                    | \$71.11    |
| 6                                            | 80.00   | \$39.46              | \$13.20 | \$16.30 | \$2.93  | \$1.69                    | \$73.58    |
| 7                                            | 90.00   | \$44.39              | \$13.20 | \$16.30 | \$2.93  | \$0.00                    | \$76.82    |

| <b>Apprentice: CEMENT MASONRY/PLASTERING</b> |         |                      |         |         |         |                           |            |
|----------------------------------------------|---------|----------------------|---------|---------|---------|---------------------------|------------|
| <b>Effective Date: 1/1/2027</b>              |         |                      |         |         |         |                           |            |
| Step                                         | Percent | Apprentice Base Wage | Health  | Pension | Annuity | Supplemental Unemployment | Total Rate |
| 1                                            | 50.00   | \$25.26              | \$16.30 | \$16.30 | \$0.00  | \$0.00                    | \$57.86    |
| 2                                            | 60.00   | \$30.31              | \$16.30 | \$16.30 | \$2.93  | \$1.69                    | \$67.53    |
| 3                                            | 65.00   | \$32.83              | \$16.30 | \$16.30 | \$2.93  | \$1.69                    | \$70.05    |
| 4                                            | 70.00   | \$35.36              | \$16.30 | \$16.30 | \$2.93  | \$1.69                    | \$72.58    |
| 5                                            | 75.00   | \$37.88              | \$16.30 | \$16.30 | \$2.93  | \$1.69                    | \$75.10    |
| 6                                            | 80.00   | \$40.41              | \$16.30 | \$16.30 | \$2.93  | \$1.69                    | \$77.63    |
| 7                                            | 90.00   | \$45.46              | \$16.30 | \$16.30 | \$2.93  | \$0.00                    | \$80.99    |

Apprentice to Journeyworker Ratio: 1:5

**Construction**

| Classification                      | Effective Date | Base Wage | Health  | Pension | Annuity | Supplemental Unemployment | Total Rate |
|-------------------------------------|----------------|-----------|---------|---------|---------|---------------------------|------------|
| CHAIN SAW OPERATOR                  | 6/1/2026       | \$37.25   | \$10.90 | \$9.75  | \$8.62  | \$0.00                    | \$66.52    |
| LABORERS                            | 12/7/2026      | \$38.55   | \$10.90 | \$9.75  | \$8.62  | \$0.00                    | \$67.82    |
| LABORERS - ZONE 3 (BUILDING & SITE) | 6/7/2027       | \$39.95   | \$10.90 | \$9.75  | \$8.62  | \$0.00                    | \$69.22    |
|                                     | 12/6/2027      | \$41.35   | \$10.90 | \$9.75  | \$8.62  | \$0.00                    | \$70.62    |
|                                     | 6/5/2028       | \$42.85   | \$10.90 | \$9.75  | \$8.62  | \$0.00                    | \$72.12    |
|                                     | 12/4/2028      | \$44.35   | \$10.90 | \$9.75  | \$8.62  | \$0.00                    | \$73.62    |

For apprentice rates see "Apprentice- LABORER"

|                            |          |         |         |         |         |        |         |
|----------------------------|----------|---------|---------|---------|---------|--------|---------|
| DELEADER (BRIDGE)          | 1/1/2026 | \$59.56 | \$10.35 | \$12.00 | \$12.60 | \$0.00 | \$94.51 |
| PAINTERS LOCAL 35          |          |         |         |         |         |        |         |
| PAINTERS LOCAL 35 - ZONE 3 |          |         |         |         |         |        |         |

**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**

|                                     |           |         |         |        |        |        |         |
|-------------------------------------|-----------|---------|---------|--------|--------|--------|---------|
| 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 3 (BUILDING & SITE) | 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 3 (BUILDING & SITE)  | 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 3 (BUILDING & SITE) | 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"

**Construction**

| Classification                                                                                                                                  | Effective Date | Base Wage | Health  | Pension | Annuity | Supplemental<br>Unemployment | Total<br>Rate |
|-------------------------------------------------------------------------------------------------------------------------------------------------|----------------|-----------|---------|---------|---------|------------------------------|---------------|
| DEMO: CONCRETE CUTTER/SAWYER<br>LABORERS                                                                                                        | 6/1/2026       | \$50.30   | \$10.90 | \$9.75  | \$9.65  | \$0.00                       | \$80.60       |
| LABORERS - ZONE 3 (BUILDING & SITE)                                                                                                             | 12/7/2026      | \$51.80   | \$10.90 | \$9.75  | \$9.65  | \$0.00                       | \$82.10       |
|                                                                                                                                                 | 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<br>LABORERS                                                                                                           | 6/1/2026       | \$50.05   | \$10.90 | \$9.75  | \$9.65  | \$0.00                       | \$80.35       |
| LABORERS - ZONE 3 (BUILDING & SITE)                                                                                                             | 12/7/2026      | \$51.55   | \$10.90 | \$9.75  | \$9.65  | \$0.00                       | \$81.85       |
|                                                                                                                                                 | 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<br>LABORERS                                                                                                              | 6/1/2026       | \$49.30   | \$10.90 | \$9.75  | \$9.65  | \$0.00                       | \$79.60       |
| LABORERS - ZONE 3 (BUILDING & SITE)                                                                                                             | 12/7/2026      | \$50.80   | \$10.90 | \$9.75  | \$9.65  | \$0.00                       | \$81.10       |
|                                                                                                                                                 | 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"                                                                                                  |                |           |         |         |         |                              |               |
| DIVER<br>PILE DRIVER LOCAL 56<br>PILE DRIVER LOCAL 56 (ZONE 3)                                                                                  | 8/1/2024       | \$78.11   | \$10.08 | \$11.62 | \$12.67 | \$0.00                       | \$112.48      |
| 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<br>PILE DRIVER LOCAL 56<br>PILE DRIVER LOCAL 56 (ZONE 3)                                                                           | 8/1/2024       | \$49.19   | \$10.08 | \$11.62 | \$12.67 | \$0.00                       | \$83.56       |
| 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)<br>PILE DRIVER LOCAL 56<br>PILE DRIVER LOCAL 56 (ZONE 3)                                                                | 8/1/2024       | \$83.69   | \$10.08 | \$11.62 | \$12.67 | \$0.00                       | \$118.06      |
| For apprentice rates see "Apprentice- PILE DRIVER"                                                                                              |                |           |         |         |         |                              |               |
| DIVER/SLURRY (EFFLUENT)<br>PILE DRIVER LOCAL 56<br>PILE DRIVER LOCAL 56 (ZONE 3)                                                                | 8/1/2024       | \$117.16  | \$10.08 | \$11.62 | \$12.67 | \$0.00                       | \$151.53      |
| For apprentice rates see "Apprentice- PILE DRIVER"                                                                                              |                |           |         |         |         |                              |               |
| DRAWBRIDGE OPERATOR (Construction)<br>DRAWBRIDGE - SEIU LOCAL 888<br>DRAWBRIDGE - SEIU LOCAL 888                                                | 7/1/2020       | \$26.77   | \$6.67  | \$3.93  | \$0.00  | \$0.16                       | \$37.53       |
| ELECTRICIAN (Including Core Drilling)<br>ELECTRICIANS LOCAL 7<br>ELECTRICIANS LOCAL 7                                                           | 6/28/2026      | \$54.41   | \$14.00 | \$8.43  | \$7.03  | \$0.00                       | \$83.87       |
|                                                                                                                                                 | 1/3/2027       | \$55.56   | \$14.25 | \$8.47  | \$7.09  | \$0.00                       | \$85.37       |

Construction

| Classification | Effective Date | Base Wage | Health | Pension | Annuity | Supplemental Unemployment | Total Rate |
|----------------|----------------|-----------|--------|---------|---------|---------------------------|------------|
|----------------|----------------|-----------|--------|---------|---------|---------------------------|------------|

| Apprentice: ELECTRICIAN (Including Core Drilling) |         |                      |         |         |         |                           |            |
|---------------------------------------------------|---------|----------------------|---------|---------|---------|---------------------------|------------|
| Effective Date: 6/28/2026                         |         |                      |         |         |         |                           |            |
| Step                                              | Percent | Apprentice Base Wage | Health  | Pension | Annuity | Supplemental Unemployment | Total Rate |
| 1                                                 | 40.00   | \$21.76              | \$7.80  | \$0.63  | \$0.00  | \$0.00                    | \$30.19    |
| 2                                                 | 45.00   | \$24.48              | \$7.80  | \$0.70  | \$0.00  | \$0.00                    | \$32.98    |
| 3                                                 | 50.00   | \$27.21              | \$14.00 | \$7.53  | \$0.00  | \$0.00                    | \$48.74    |
| 4                                                 | 55.00   | \$29.93              | \$14.00 | \$7.61  | \$0.00  | \$0.00                    | \$51.54    |
| 5                                                 | 65.00   | \$35.37              | \$14.00 | \$9.84  | \$0.00  | \$0.00                    | \$59.21    |
| 6                                                 | 70.00   | \$38.09              | \$14.00 | \$11.30 | \$0.00  | \$0.00                    | \$63.39    |

| Apprentice: ELECTRICIAN (Including Core Drilling) |         |                      |         |         |         |                           |            |
|---------------------------------------------------|---------|----------------------|---------|---------|---------|---------------------------|------------|
| Effective Date: 1/3/2027                          |         |                      |         |         |         |                           |            |
| Step                                              | Percent | Apprentice Base Wage | Health  | Pension | Annuity | Supplemental Unemployment | Total Rate |
| 1                                                 | 40.00   | \$22.22              | \$7.95  | \$0.63  | \$0.00  | \$0.00                    | \$30.80    |
| 2                                                 | 45.00   | \$25.00              | \$7.95  | \$0.70  | \$0.00  | \$0.00                    | \$33.65    |
| 3                                                 | 50.00   | \$27.78              | \$14.25 | \$7.53  | \$0.00  | \$0.00                    | \$49.56    |
| 4                                                 | 55.00   | \$30.56              | \$14.25 | \$7.61  | \$0.00  | \$0.00                    | \$52.42    |
| 5                                                 | 65.00   | \$36.11              | \$14.25 | \$9.84  | \$0.00  | \$0.00                    | \$60.20    |
| 6                                                 | 70.00   | \$38.89              | \$14.25 | \$11.30 | \$0.00  | \$0.00                    | \$64.44    |

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         |         |                      |         |         |         |                           |            |
| Step                             | Percent | Apprentice Base Wage | Health  | Pension | Annuity | Supplemental Unemployment | Total Rate |
| 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         |         |                      |         |         |         |                           |            |
| Step                             | Percent | Apprentice Base Wage | Health  | Pension | Annuity | Supplemental Unemployment | Total Rate |
| 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    |

**Construction**

| Classification                                                       | Effective Date | Base Wage                       | Health        | Pension        | Annuity        | Supplemental<br>Unemployment         | Total<br>Rate         |
|----------------------------------------------------------------------|----------------|---------------------------------|---------------|----------------|----------------|--------------------------------------|-----------------------|
| <b>Apprentice: ELEVATOR CONSTRUCTOR</b>                              |                |                                 |               |                |                |                                      |                       |
| <b>Effective Date: 1/1/2027</b>                                      |                |                                 |               |                |                |                                      |                       |
| <b>Step</b>                                                          | <b>Percent</b> | <b>Apprentice<br/>Base Wage</b> | <b>Health</b> | <b>Pension</b> | <b>Annuity</b> | <b>Supplemental<br/>Unemployment</b> | <b>Total<br/>Rate</b> |
| 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               |
| <b>Apprentice to Journeyworker Ratio: 1:1</b>                        |                |                                 |               |                |                |                                      |                       |
| 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       | \$37.24                         | \$10.90       | \$9.75         | \$6.60         | \$0.00                               | \$64.49               |
| LABORERS                                                             | 12/1/2026      | \$38.53                         | \$10.90       | \$9.75         | \$6.60         | \$0.00                               | \$65.78               |
| LABORERS - ZONE 3 (HEAVY & HIGHWAY)                                  |                |                                 |               |                |                |                                      |                       |
| For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"   |                |                                 |               |                |                |                                      |                       |
| FIELD ENG.INST/ROD-BLDG,SITE,HVY/HWY                                 | 6/1/1999       | \$18.84                         | \$4.80        | \$4.10         | \$0.00         | \$0.00                               | \$27.74               |
| OPERATING ENGINEERS LOCAL 98                                         |                |                                 |               |                |                |                                      |                       |
| OPERATING ENGINEERS LOCAL 98                                         |                |                                 |               |                |                |                                      |                       |
| FIELD ENG.PARTY CHIEF:BLDG,SITE,HVY/HWY                              | 6/1/1999       | \$21.33                         | \$4.80        | \$4.10         | \$0.00         | \$0.00                               | \$30.23               |
| OPERATING ENGINEERS LOCAL 98                                         |                |                                 |               |                |                |                                      |                       |
| OPERATING ENGINEERS LOCAL 98                                         |                |                                 |               |                |                |                                      |                       |
| FIELD ENG.SURVEY CHIEF-BLDG,SITE,HVY/HWY                             | 6/1/1999       | \$22.33                         | \$4.80        | \$4.10         | \$0.00         | \$0.00                               | \$31.23               |
| OPERATING ENGINEERS LOCAL 98                                         |                |                                 |               |                |                |                                      |                       |
| OPERATING ENGINEERS LOCAL 98                                         |                |                                 |               |                |                |                                      |                       |
| FIRE ALARM INSTALLER                                                 | 6/28/2026      | \$54.41                         | \$14.00       | \$8.43         | \$7.03         | \$0.00                               | \$83.87               |
| ELECTRICIANS LOCAL 7                                                 | 1/3/2027       | \$55.56                         | \$14.25       | \$8.47         | \$7.09         | \$0.00                               | \$85.37               |
| ELECTRICIANS LOCAL 7                                                 |                |                                 |               |                |                |                                      |                       |
| For apprentice rates see "Apprentice- ELECTRICIAN"                   |                |                                 |               |                |                |                                      |                       |
| FIRE ALARM REPAIR / MAINTENANCE                                      | 6/28/2026      | \$54.41                         | \$14.00       | \$8.43         | \$7.03         | \$0.00                               | \$83.87               |
| / COMMISSIONING                                                      | 1/3/2027       | \$55.56                         | \$14.25       | \$8.47         | \$7.09         | \$0.00                               | \$85.37               |
| ELECTRICIANS LOCAL 7                                                 |                |                                 |               |                |                |                                      |                       |
| ELECTRICIANS LOCAL 7                                                 |                |                                 |               |                |                |                                      |                       |
| For apprentice rates see "Apprentice- TELECOMMUNICATIONS TECHNICIAN" |                |                                 |               |                |                |                                      |                       |
| FLAGGER & SIGNALER (HEAVY & HIGHWAY)                                 | 6/1/2026       | \$29.21                         | \$10.90       | \$9.75         | \$6.60         | \$0.00                               | \$56.46               |
| LABORERS                                                             | 12/1/2026      | \$29.21                         | \$10.90       | \$9.75         | \$6.60         | \$0.00                               | \$56.46               |
| LABORERS - ZONE 3 (HEAVY & HIGHWAY)                                  |                |                                 |               |                |                |                                      |                       |
| For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"   |                |                                 |               |                |                |                                      |                       |
| FLOORCOVERER                                                         | 9/1/2026       | \$45.29                         | \$8.56        | \$11.25        | \$6.90         | \$0.00                               | \$72.00               |
| FLOORCOVERERS LOCAL 2168                                             | 3/1/2027       | \$46.19                         | \$8.56        | \$11.25        | \$6.90         | \$0.00                               | \$72.90               |
| FLOORCOVERERS LOCAL 2168 ZONE III                                    |                |                                 |               |                |                |                                      |                       |

Construction

| Classification                  | Effective Date | Base Wage            | Health | Pension | Annuity | Supplemental Unemployment | Total Rate |
|---------------------------------|----------------|----------------------|--------|---------|---------|---------------------------|------------|
| <b>Apprentice: FLOORCOVERER</b> |                |                      |        |         |         |                           |            |
| <b>Effective Date: 9/1/2026</b> |                |                      |        |         |         |                           |            |
| Step                            | Percent        | Apprentice Base Wage | Health | Pension | Annuity | Supplemental Unemployment | Total Rate |
| 1                               | 45.00          | \$20.38              | \$8.56 | \$0.00  | \$1.38  | \$0.00                    | \$30.32    |
| 2                               | 45.00          | \$20.38              | \$8.56 | \$0.00  | \$1.38  | \$0.00                    | \$30.32    |
| 3                               | 55.00          | \$24.91              | \$8.56 | \$0.00  | \$2.76  | \$0.00                    | \$36.23    |
| 4                               | 55.00          | \$24.91              | \$8.56 | \$0.00  | \$2.76  | \$0.00                    | \$36.23    |
| 5                               | 70.00          | \$31.70              | \$8.56 | \$11.25 | \$4.14  | \$0.00                    | \$55.65    |
| 6                               | 70.00          | \$31.70              | \$8.56 | \$11.25 | \$4.14  | \$0.00                    | \$55.65    |
| 7                               | 80.00          | \$36.23              | \$8.56 | \$11.25 | \$5.52  | \$0.00                    | \$61.56    |
| 8                               | 80.00          | \$36.23              | \$8.56 | \$11.25 | \$5.52  | \$0.00                    | \$61.56    |

| <b>Apprentice: FLOORCOVERER</b> |         |                      |        |         |         |                           |            |
|---------------------------------|---------|----------------------|--------|---------|---------|---------------------------|------------|
| <b>Effective Date: 3/1/2027</b> |         |                      |        |         |         |                           |            |
| Step                            | Percent | Apprentice Base Wage | Health | Pension | Annuity | Supplemental Unemployment | Total Rate |
| 1                               | 45.00   | \$20.79              | \$8.56 | \$0.00  | \$1.38  | \$0.00                    | \$30.73    |
| 2                               | 45.00   | \$20.79              | \$8.56 | \$0.00  | \$1.38  | \$0.00                    | \$30.73    |
| 3                               | 55.00   | \$25.40              | \$8.56 | \$0.00  | \$2.76  | \$0.00                    | \$36.72    |
| 4                               | 55.00   | \$25.40              | \$8.56 | \$0.00  | \$2.76  | \$0.00                    | \$36.72    |
| 5                               | 70.00   | \$32.33              | \$8.56 | \$11.25 | \$4.14  | \$0.00                    | \$56.28    |
| 6                               | 70.00   | \$32.33              | \$8.56 | \$11.25 | \$4.14  | \$0.00                    | \$56.28    |
| 7                               | 80.00   | \$36.95              | \$8.56 | \$11.25 | \$5.52  | \$0.00                    | \$62.28    |
| 8                               | 80.00   | \$36.95              | \$8.56 | \$11.25 | \$5.52  | \$0.00                    | \$62.28    |

|                         |  |  |  |  |  |  |  |
|-------------------------|--|--|--|--|--|--|--|
| <b>Apprentice Notes</b> |  |  |  |  |  |  |  |
| Steps are 750 hrs.      |  |  |  |  |  |  |  |

**Apprentice to Journeyworker Ratio: 1:1**

|                                                    |          |         |         |        |        |        |         |
|----------------------------------------------------|----------|---------|---------|--------|--------|--------|---------|
| GLAZIER (GLASS PLANK/AIR BARRIER/INTERIOR SYSTEMS) | 6/1/2026 | \$44.73 | \$11.20 | \$8.40 | \$6.05 | \$0.00 | \$70.38 |
| GLAZIERS LOCAL 1333                                | 6/1/2027 | \$46.73 | \$11.60 | \$8.55 | \$6.60 | \$0.00 | \$73.48 |
| GLAZIERS LOCAL 1333                                | 6/1/2028 | \$48.73 | \$12.00 | \$8.70 | \$7.20 | \$0.00 | \$76.63 |

| <b>Apprentice: GLAZIER (GLASS PLANK/AIR BARRIER/INTERIOR SYSTEMS)</b> |         |                      |         |         |         |                           |            |
|-----------------------------------------------------------------------|---------|----------------------|---------|---------|---------|---------------------------|------------|
| <b>Effective Date: 6/1/2026</b>                                       |         |                      |         |         |         |                           |            |
| Step                                                                  | Percent | Apprentice Base Wage | Health  | Pension | Annuity | Supplemental Unemployment | Total Rate |
| 1                                                                     | 50.00   | \$22.37              | \$11.20 | \$8.40  | \$6.05  | \$0.00                    | \$48.02    |
| 2                                                                     | 56.25   | \$25.16              | \$11.20 | \$8.40  | \$6.05  | \$0.00                    | \$50.81    |
| 3                                                                     | 62.50   | \$27.96              | \$11.20 | \$8.40  | \$6.05  | \$0.00                    | \$53.61    |
| 4                                                                     | 68.75   | \$30.75              | \$11.20 | \$8.40  | \$6.05  | \$0.00                    | \$56.40    |
| 5                                                                     | 75.00   | \$33.55              | \$11.20 | \$8.40  | \$6.05  | \$0.00                    | \$59.20    |
| 6                                                                     | 81.25   | \$36.34              | \$11.20 | \$8.40  | \$6.05  | \$0.00                    | \$61.99    |

**Construction**

| Classification                                                                                           | Effective Date | Base Wage                   | Health        | Pension        | Annuity        | Supplemental Unemployment        | Total Rate        |
|----------------------------------------------------------------------------------------------------------|----------------|-----------------------------|---------------|----------------|----------------|----------------------------------|-------------------|
| <b>Apprentice: GLAZIER (GLASS PLANK/AIR BARRIER/INTERIOR SYSTEMS)</b><br><b>Effective Date: 6/1/2026</b> |                |                             |               |                |                |                                  |                   |
| <b>Step</b>                                                                                              | <b>Percent</b> | <b>Apprentice Base Wage</b> | <b>Health</b> | <b>Pension</b> | <b>Annuity</b> | <b>Supplemental Unemployment</b> | <b>Total Rate</b> |
| 7                                                                                                        | 87.50          | \$39.14                     | \$11.20       | \$8.40         | \$6.05         | \$0.00                           | \$64.79           |
| 8                                                                                                        | 93.75          | \$41.93                     | \$11.20       | \$8.40         | \$6.05         | \$0.00                           | \$67.58           |
| <b>Apprentice: GLAZIER (GLASS PLANK/AIR BARRIER/INTERIOR SYSTEMS)</b><br><b>Effective Date: 6/1/2027</b> |                |                             |               |                |                |                                  |                   |
| <b>Step</b>                                                                                              | <b>Percent</b> | <b>Apprentice Base Wage</b> | <b>Health</b> | <b>Pension</b> | <b>Annuity</b> | <b>Supplemental Unemployment</b> | <b>Total Rate</b> |
| 1                                                                                                        | 50.00          | \$23.37                     | \$11.60       | \$8.55         | \$6.60         | \$0.00                           | \$50.12           |
| 2                                                                                                        | 56.25          | \$26.29                     | \$11.60       | \$8.55         | \$6.60         | \$0.00                           | \$53.04           |
| 3                                                                                                        | 62.50          | \$29.21                     | \$11.60       | \$8.55         | \$6.60         | \$0.00                           | \$55.96           |
| 4                                                                                                        | 68.75          | \$32.13                     | \$11.60       | \$8.55         | \$6.60         | \$0.00                           | \$58.88           |
| 5                                                                                                        | 75.00          | \$35.05                     | \$11.60       | \$8.55         | \$6.60         | \$0.00                           | \$61.80           |
| 6                                                                                                        | 81.25          | \$37.97                     | \$11.60       | \$8.55         | \$6.60         | \$0.00                           | \$64.72           |
| 7                                                                                                        | 87.50          | \$40.89                     | \$11.60       | \$8.55         | \$6.60         | \$0.00                           | \$67.64           |
| 8                                                                                                        | 93.75          | \$43.81                     | \$11.60       | \$8.55         | \$6.60         | \$0.00                           | \$70.56           |
| <b>Apprentice to Journeyworker Ratio: 3:1</b>                                                            |                |                             |               |                |                |                                  |                   |
| HVAC (DUCTWORK)                                                                                          | 7/1/2026       | \$43.48                     | \$13.24       | \$11.01        | \$9.92         | \$2.13                           | \$79.78           |
| SHEETMETAL WORKERS LOCAL 63                                                                              | 1/1/2027       | \$43.48                     | \$13.54       | \$11.01        | \$11.12        | \$2.13                           | \$81.28           |
| SHEETMETAL WORKERS LOCAL 63                                                                              | 7/1/2027       | \$44.98                     | \$13.54       | \$11.01        | \$11.12        | \$2.13                           | \$82.78           |
|                                                                                                          | 1/1/2028       | \$46.48                     | \$13.54       | \$11.01        | \$11.12        | \$2.13                           | \$84.28           |
| For apprentice rates see "Apprentice- SHEET METAL WORKER"                                                |                |                             |               |                |                |                                  |                   |
| HVAC (ELECTRICAL CONTROLS)                                                                               | 6/28/2026      | \$54.41                     | \$14.00       | \$8.43         | \$7.03         | \$0.00                           | \$83.87           |
| ELECTRICIANS LOCAL 7                                                                                     | 1/3/2027       | \$55.56                     | \$14.25       | \$8.47         | \$7.09         | \$0.00                           | \$85.37           |
| ELECTRICIANS LOCAL 7                                                                                     |                |                             |               |                |                |                                  |                   |
| For apprentice rates see "Apprentice- ELECTRICIAN"                                                       |                |                             |               |                |                |                                  |                   |
| HVAC (TESTING AND BALANCING - AIR)                                                                       | 7/1/2026       | \$43.48                     | \$13.24       | \$11.01        | \$9.92         | \$2.13                           | \$79.78           |
| SHEETMETAL WORKERS LOCAL 63                                                                              | 1/1/2027       | \$43.48                     | \$13.54       | \$11.01        | \$11.12        | \$2.13                           | \$81.28           |
| SHEETMETAL WORKERS LOCAL 63                                                                              | 7/1/2027       | \$44.98                     | \$13.54       | \$11.01        | \$11.12        | \$2.13                           | \$82.78           |
|                                                                                                          | 1/1/2028       | \$46.48                     | \$13.54       | \$11.01        | \$11.12        | \$2.13                           | \$84.28           |
| For apprentice rates see "Apprentice- SHEET METAL WORKER"                                                |                |                             |               |                |                |                                  |                   |
| HVAC (TESTING AND BALANCING -WATER)                                                                      | 9/17/2026      | \$54.26                     | \$13.85       | \$10.85        | \$7.10         | \$0.00                           | \$86.06           |
| PLUMBERS & PIPEFITTERS LOCAL 104                                                                         | 3/17/2027      | \$56.26                     | \$13.85       | \$10.85        | \$7.10         | \$0.00                           | \$88.06           |
| PLUMBERS & PIPEFITTERS LOCAL 104                                                                         | 9/17/2027      | \$60.26                     | \$13.85       | \$10.85        | \$7.10         | \$0.00                           | \$92.06           |
|                                                                                                          | 3/17/2028      | \$60.26                     | \$13.85       | \$10.85        | \$7.10         | \$0.00                           | \$92.06           |
|                                                                                                          | 9/17/2028      | \$62.26                     | \$13.85       | \$10.85        | \$7.10         | \$0.00                           | \$94.06           |
|                                                                                                          | 3/17/2029      | \$64.26                     | \$13.85       | \$10.85        | \$7.10         | \$0.00                           | \$96.06           |
| For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"                                |                |                             |               |                |                |                                  |                   |
| HVAC MECHANIC                                                                                            | 9/17/2026      | \$54.26                     | \$13.85       | \$10.85        | \$7.10         | \$0.00                           | \$86.06           |

**Construction**

| Classification                   | Effective Date | Base Wage | Health  | Pension | Annuity | Supplemental<br>Unemployment | Total<br>Rate |
|----------------------------------|----------------|-----------|---------|---------|---------|------------------------------|---------------|
| PLUMBERS & PIPEFITTERS LOCAL 104 | 3/17/2027      | \$56.26   | \$13.85 | \$10.85 | \$7.10  | \$0.00                       | \$88.06       |
| PLUMBERS & PIPEFITTERS LOCAL 104 | 9/17/2027      | \$60.26   | \$13.85 | \$10.85 | \$7.10  | \$0.00                       | \$92.06       |
|                                  | 3/17/2028      | \$60.26   | \$13.85 | \$10.85 | \$7.10  | \$0.00                       | \$92.06       |
|                                  | 9/17/2028      | \$62.26   | \$13.85 | \$10.85 | \$7.10  | \$0.00                       | \$94.06       |
|                                  | 3/17/2029      | \$64.26   | \$13.85 | \$10.85 | \$7.10  | \$0.00                       | \$96.06       |

For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"

|                                     |           |         |         |        |        |        |         |
|-------------------------------------|-----------|---------|---------|--------|--------|--------|---------|
| HYDRAULIC DRILLS (HEAVY & HIGHWAY)  | 6/1/2026  | \$37.74 | \$10.90 | \$9.75 | \$6.60 | \$0.00 | \$64.99 |
| LABORERS                            | 12/1/2026 | \$39.03 | \$10.90 | \$9.75 | \$6.60 | \$0.00 | \$66.28 |
| LABORERS - ZONE 3 (HEAVY & HIGHWAY) |           |         |         |        |        |        |         |

For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"

|                                               |          |         |         |         |         |        |         |
|-----------------------------------------------|----------|---------|---------|---------|---------|--------|---------|
| INSULATOR (PIPES & TANKS)                     | 9/1/2026 | \$47.22 | \$16.15 | \$11.46 | \$11.49 | \$0.00 | \$86.32 |
| HEAT & FROST INSULATORS LOCAL 6               |          |         |         |         |         |        |         |
| HEAT & FROST INSULATORS LOCAL 6 (SPRINGFIELD) |          |         |         |         |         |        |         |

**Apprentice: INSULATOR (PIPES & TANKS)****Effective Date: 9/1/2026**

| Step | Percent | Apprentice<br>Base Wage | Health  | Pension | Annuity | Supplemental<br>Unemployment | Total<br>Rate |
|------|---------|-------------------------|---------|---------|---------|------------------------------|---------------|
| 1    | 50.00   | \$23.61                 | \$16.15 | \$11.21 | \$5.75  | \$0.00                       | \$56.72       |
| 2    | 60.00   | \$28.33                 | \$16.15 | \$11.26 | \$6.89  | \$0.00                       | \$62.63       |
| 3    | 70.00   | \$33.05                 | \$16.15 | \$11.31 | \$8.04  | \$0.00                       | \$68.55       |
| 4    | 80.00   | \$37.78                 | \$16.15 | \$11.36 | \$9.19  | \$0.00                       | \$74.48       |

**Apprentice to Journeyworker Ratio: 1:4**

|                                        |           |         |        |         |         |        |         |
|----------------------------------------|-----------|---------|--------|---------|---------|--------|---------|
| IRONWORKER/WELDER                      | 3/16/2026 | \$42.46 | \$9.25 | \$12.75 | \$11.25 | \$0.00 | \$75.71 |
| IRONWORKERS LOCAL 7                    |           |         |        |         |         |        |         |
| IRONWORKERS LOCAL 7 (SPRINGFIELD AREA) |           |         |        |         |         |        |         |

**Apprentice: IRONWORKER/WELDER****Effective Date: 3/16/2026**

| Step | Percent | Apprentice<br>Base Wage | Health | Pension | Annuity | Supplemental<br>Unemployment | Total<br>Rate |
|------|---------|-------------------------|--------|---------|---------|------------------------------|---------------|
| 1    | 70.00   | \$29.72                 | \$9.25 | \$12.75 | \$1.25  | \$0.00                       | \$52.97       |
| 2    | 80.00   | \$33.97                 | \$9.25 | \$12.75 | \$1.25  | \$0.00                       | \$57.22       |
| 3    | 90.00   | \$38.21                 | \$9.25 | \$12.75 | \$1.25  | \$0.00                       | \$61.46       |
| 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  | \$37.25 | \$10.90 | \$9.75 | \$8.62 | \$0.00 | \$66.52 |
| LABORERS                             | 12/7/2026 | \$38.55 | \$10.90 | \$9.75 | \$8.62 | \$0.00 | \$67.82 |
| LABORERS - ZONE 3 (BUILDING & SITE)  | 6/7/2027  | \$39.95 | \$10.90 | \$9.75 | \$8.62 | \$0.00 | \$69.22 |
|                                      | 12/6/2027 | \$41.35 | \$10.90 | \$9.75 | \$8.62 | \$0.00 | \$70.62 |
|                                      | 6/5/2028  | \$42.85 | \$10.90 | \$9.75 | \$8.62 | \$0.00 | \$72.12 |
|                                      | 12/4/2028 | \$44.35 | \$10.90 | \$9.75 | \$8.62 | \$0.00 | \$73.62 |



## Construction

| Classification                                 | Effective Date | Base Wage | Health  | Pension | Annuity | Supplemental Unemployment | Total Rate |
|------------------------------------------------|----------------|-----------|---------|---------|---------|---------------------------|------------|
| For apprentice rates see "Apprentice- LABORER" |                |           |         |         |         |                           |            |
| LABORER                                        | 6/1/2026       | \$37.00   | \$10.90 | \$9.75  | \$8.62  | \$0.00                    | \$66.27    |
| LABORERS                                       | 12/7/2026      | \$38.30   | \$10.90 | \$9.75  | \$8.62  | \$0.00                    | \$67.57    |
| LABORERS - ZONE 3 (BUILDING & SITE)            | 6/7/2027       | \$39.70   | \$10.90 | \$9.75  | \$8.62  | \$0.00                    | \$68.97    |
|                                                | 12/6/2027      | \$41.10   | \$10.90 | \$9.75  | \$8.62  | \$0.00                    | \$70.37    |
|                                                | 6/5/2028       | \$42.60   | \$10.90 | \$9.75  | \$8.62  | \$0.00                    | \$71.87    |
|                                                | 12/4/2028      | \$44.10   | \$10.90 | \$9.75  | \$8.62  | \$0.00                    | \$73.37    |

| Apprentice: LABORER      |         |                      |         |         |         |                           |            |
|--------------------------|---------|----------------------|---------|---------|---------|---------------------------|------------|
| Effective Date: 6/1/2026 |         |                      |         |         |         |                           |            |
| Step                     | Percent | Apprentice Base Wage | Health  | Pension | Annuity | Supplemental Unemployment | Total Rate |
| 1                        | 60.00   | \$22.20              | \$10.90 | \$9.75  | \$8.62  | \$0.00                    | \$51.47    |
| 2                        | 70.00   | \$25.90              | \$10.90 | \$9.75  | \$8.62  | \$0.00                    | \$55.17    |
| 3                        | 80.00   | \$29.60              | \$10.90 | \$9.75  | \$8.62  | \$0.00                    | \$58.87    |
| 4                        | 90.00   | \$33.30              | \$10.90 | \$9.75  | \$8.62  | \$0.00                    | \$62.57    |

| Apprentice: LABORER       |         |                      |         |         |         |                           |            |
|---------------------------|---------|----------------------|---------|---------|---------|---------------------------|------------|
| Effective Date: 12/7/2026 |         |                      |         |         |         |                           |            |
| Step                      | Percent | Apprentice Base Wage | Health  | Pension | Annuity | Supplemental Unemployment | Total Rate |
| 1                         | 60.00   | \$22.98              | \$10.90 | \$9.75  | \$8.62  | \$0.00                    | \$52.25    |
| 2                         | 70.00   | \$26.81              | \$10.90 | \$9.75  | \$8.62  | \$0.00                    | \$56.08    |
| 3                         | 80.00   | \$30.64              | \$10.90 | \$9.75  | \$8.62  | \$0.00                    | \$59.91    |
| 4                         | 90.00   | \$34.47              | \$10.90 | \$9.75  | \$8.62  | \$0.00                    | \$63.74    |

Apprentice to Journeyworker Ratio: 1:5

|                                     |           |         |         |        |        |        |         |
|-------------------------------------|-----------|---------|---------|--------|--------|--------|---------|
| LABORER (HEAVY & HIGHWAY)           | 6/1/2026  | \$36.99 | \$10.90 | \$9.75 | \$6.60 | \$0.00 | \$64.24 |
| LABORERS                            | 12/1/2026 | \$38.28 | \$10.90 | \$9.75 | \$6.60 | \$0.00 | \$65.53 |
| LABORERS - ZONE 3 (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   | \$22.19              | \$10.90 | \$9.75  | \$6.60  | \$0.00                    | \$49.44    |
| 2                                     | 70.00   | \$25.89              | \$10.90 | \$9.75  | \$6.60  | \$0.00                    | \$53.14    |
| 3                                     | 80.00   | \$29.59              | \$10.90 | \$9.75  | \$6.60  | \$0.00                    | \$56.84    |
| 4                                     | 90.00   | \$33.29              | \$10.90 | \$9.75  | \$6.60  | \$0.00                    | \$60.54    |

| Apprentice: LABORER (HEAVY & HIGHWAY) |         |                      |        |         |         |                           |            |
|---------------------------------------|---------|----------------------|--------|---------|---------|---------------------------|------------|
| Effective Date: 12/1/2026             |         |                      |        |         |         |                           |            |
| Step                                  | Percent | Apprentice Base Wage | Health | Pension | Annuity | Supplemental Unemployment | Total Rate |
|                                       |         |                      |        |         |         |                           |            |

**Construction**

| Classification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Effective Date                                                     | Base Wage            | Health  | Pension | Annuity | Supplemental Unemployment | Total Rate |      |         |                      |        |         |         |                           |            |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|----------------------|---------|---------|---------|---------------------------|------------|------|---------|----------------------|--------|---------|---------|---------------------------|------------|---|-------|---------|---------|--------|--------|--------|---------|---|-------|---------|---------|--------|--------|--------|---------|---|-------|---------|---------|--------|--------|--------|---------|---|-------|---------|---------|--------|--------|--------|---------|
| <div>Apprentice: LABORER (HEAVY &amp; HIGHWAY)</div> <div>Effective Date: 12/1/2026</div> <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>60.00</td><td>\$22.97</td><td>\$10.90</td><td>\$9.75</td><td>\$6.60</td><td>\$0.00</td><td>\$50.22</td></tr><tr><td>2</td><td>70.00</td><td>\$26.80</td><td>\$10.90</td><td>\$9.75</td><td>\$6.60</td><td>\$0.00</td><td>\$54.05</td></tr><tr><td>3</td><td>80.00</td><td>\$30.62</td><td>\$10.90</td><td>\$9.75</td><td>\$6.60</td><td>\$0.00</td><td>\$57.87</td></tr><tr><td>4</td><td>90.00</td><td>\$34.45</td><td>\$10.90</td><td>\$9.75</td><td>\$6.60</td><td>\$0.00</td><td>\$61.70</td></tr></tbody></table> |                                                                    |                      |         |         |         |                           |            | Step | Percent | Apprentice Base Wage | Health | Pension | Annuity | Supplemental Unemployment | Total Rate | 1 | 60.00 | \$22.97 | \$10.90 | \$9.75 | \$6.60 | \$0.00 | \$50.22 | 2 | 70.00 | \$26.80 | \$10.90 | \$9.75 | \$6.60 | \$0.00 | \$54.05 | 3 | 80.00 | \$30.62 | \$10.90 | \$9.75 | \$6.60 | \$0.00 | \$57.87 | 4 | 90.00 | \$34.45 | \$10.90 | \$9.75 | \$6.60 | \$0.00 | \$61.70 |
| Step                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Percent                                                            | Apprentice Base Wage | Health  | Pension | Annuity | Supplemental Unemployment | Total Rate |      |         |                      |        |         |         |                           |            |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |
| 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 60.00                                                              | \$22.97              | \$10.90 | \$9.75  | \$6.60  | \$0.00                    | \$50.22    |      |         |                      |        |         |         |                           |            |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |
| 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 70.00                                                              | \$26.80              | \$10.90 | \$9.75  | \$6.60  | \$0.00                    | \$54.05    |      |         |                      |        |         |         |                           |            |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |
| 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 80.00                                                              | \$30.62              | \$10.90 | \$9.75  | \$6.60  | \$0.00                    | \$57.87    |      |         |                      |        |         |         |                           |            |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |
| 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 90.00                                                              | \$34.45              | \$10.90 | \$9.75  | \$6.60  | \$0.00                    | \$61.70    |      |         |                      |        |         |         |                           |            |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |
| Apprentice to Journeyworker Ratio: 1:5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                    |                      |         |         |         |                           |            |      |         |                      |        |         |         |                           |            |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                    |                      |         |         |         |                           |            |      |         |                      |        |         |         |                           |            |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |
| LABORER: CARPENTER TENDER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 6/1/2026                                                           | \$37.00              | \$10.90 | \$9.75  | \$8.62  | \$0.00                    | \$66.27    |      |         |                      |        |         |         |                           |            |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |
| LABORERS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 12/7/2026                                                          | \$38.30              | \$10.90 | \$9.75  | \$8.62  | \$0.00                    | \$67.57    |      |         |                      |        |         |         |                           |            |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |
| LABORERS - ZONE 3 (BUILDING & SITE)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 6/7/2027                                                           | \$39.70              | \$10.90 | \$9.75  | \$8.62  | \$0.00                    | \$68.97    |      |         |                      |        |         |         |                           |            |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 12/6/2027                                                          | \$41.10              | \$10.90 | \$9.75  | \$8.62  | \$0.00                    | \$70.37    |      |         |                      |        |         |         |                           |            |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 6/5/2028                                                           | \$42.60              | \$10.90 | \$9.75  | \$8.62  | \$0.00                    | \$71.87    |      |         |                      |        |         |         |                           |            |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 12/4/2028                                                          | \$44.10              | \$10.90 | \$9.75  | \$8.62  | \$0.00                    | \$73.37    |      |         |                      |        |         |         |                           |            |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |
| For apprentice rates see "Apprentice- LABORER"                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                    |                      |         |         |         |                           |            |      |         |                      |        |         |         |                           |            |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                    |                      |         |         |         |                           |            |      |         |                      |        |         |         |                           |            |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |
| LABORER: CEMENT FINISHER TENDER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 6/1/2026                                                           | \$37.00              | \$10.90 | \$9.75  | \$8.62  | \$0.00                    | \$66.27    |      |         |                      |        |         |         |                           |            |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |
| LABORERS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 12/7/2026                                                          | \$38.30              | \$10.90 | \$9.75  | \$8.62  | \$0.00                    | \$67.57    |      |         |                      |        |         |         |                           |            |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |
| LABORERS - ZONE 3 (BUILDING & SITE)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 6/7/2027                                                           | \$39.70              | \$10.90 | \$9.75  | \$8.62  | \$0.00                    | \$68.97    |      |         |                      |        |         |         |                           |            |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 12/6/2027                                                          | \$41.10              | \$10.90 | \$9.75  | \$8.62  | \$0.00                    | \$70.37    |      |         |                      |        |         |         |                           |            |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 6/5/2028                                                           | \$42.60              | \$10.90 | \$9.75  | \$8.62  | \$0.00                    | \$71.87    |      |         |                      |        |         |         |                           |            |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 12/4/2028                                                          | \$44.10              | \$10.90 | \$9.75  | \$8.62  | \$0.00                    | \$73.37    |      |         |                      |        |         |         |                           |            |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |
| For apprentice rates see "Apprentice- LABORER"                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                    |                      |         |         |         |                           |            |      |         |                      |        |         |         |                           |            |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                    |                      |         |         |         |                           |            |      |         |                      |        |         |         |                           |            |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |
| LABORER: HAZARDOUS WASTE/ASBESTOS REMOVER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 6/1/2026                                                           | \$36.92              | \$10.90 | \$9.75  | \$8.75  | \$0.00                    | \$66.32    |      |         |                      |        |         |         |                           |            |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |
| LABORERS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 12/7/2026                                                          | \$38.22              | \$10.90 | \$9.75  | \$8.75  | \$0.00                    | \$67.62    |      |         |                      |        |         |         |                           |            |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |
| LABORERS - ZONE 3 (BUILDING & SITE)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 6/7/2027                                                           | \$39.62              | \$10.90 | \$9.75  | \$8.75  | \$0.00                    | \$69.02    |      |         |                      |        |         |         |                           |            |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 12/6/2027                                                          | \$41.02              | \$10.90 | \$9.75  | \$8.75  | \$0.00                    | \$70.42    |      |         |                      |        |         |         |                           |            |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 6/5/2028                                                           | \$42.52              | \$10.90 | \$9.75  | \$8.75  | \$0.00                    | \$71.92    |      |         |                      |        |         |         |                           |            |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 12/4/2028                                                          | \$44.02              | \$10.90 | \$9.75  | \$8.75  | \$0.00                    | \$73.42    |      |         |                      |        |         |         |                           |            |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |
| For apprentice rates see "Apprentice- LABORER"                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                    |                      |         |         |         |                           |            |      |         |                      |        |         |         |                           |            |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                    |                      |         |         |         |                           |            |      |         |                      |        |         |         |                           |            |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |
| LABORER: MASON TENDER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 6/1/2026                                                           | \$40.00              | \$10.90 | \$9.75  | \$8.62  | \$0.00                    | \$69.27    |      |         |                      |        |         |         |                           |            |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |
| LABORERS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 12/7/2026                                                          | \$41.30              | \$10.90 | \$9.75  | \$8.62  | \$0.00                    | \$70.57    |      |         |                      |        |         |         |                           |            |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |
| LABORERS - ZONE 3 (BUILDING & SITE)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 6/7/2027                                                           | \$42.70              | \$10.90 | \$9.75  | \$8.62  | \$0.00                    | \$71.97    |      |         |                      |        |         |         |                           |            |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 12/6/2027                                                          | \$44.10              | \$10.90 | \$9.75  | \$8.62  | \$0.00                    | \$73.37    |      |         |                      |        |         |         |                           |            |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 6/5/2028                                                           | \$45.60              | \$10.90 | \$9.75  | \$8.62  | \$0.00                    | \$74.87    |      |         |                      |        |         |         |                           |            |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 12/4/2028                                                          | \$47.10              | \$10.90 | \$9.75  | \$8.62  | \$0.00                    | \$76.37    |      |         |                      |        |         |         |                           |            |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |
| For apprentice rates see "Apprentice- LABORER"                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                    |                      |         |         |         |                           |            |      |         |                      |        |         |         |                           |            |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                    |                      |         |         |         |                           |            |      |         |                      |        |         |         |                           |            |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |
| LABORER: MASON TENDER (HEAVY & HIGHWAY)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 6/1/2026                                                           | \$37.24              | \$10.90 | \$9.75  | \$6.60  | \$0.00                    | \$64.49    |      |         |                      |        |         |         |                           |            |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |
| LABORERS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 12/1/2026                                                          | \$38.53              | \$10.90 | \$9.75  | \$6.60  | \$0.00                    | \$65.78    |      |         |                      |        |         |         |                           |            |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |
| LABORERS - ZONE 3 (HEAVY & HIGHWAY)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | For apprentice rates see "Apprentice- LABORER (Heavy and Highway)" |                      |         |         |         |                           |            |      |         |                      |        |         |         |                           |            |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                    |                      |         |         |         |                           |            |      |         |                      |        |         |         |                           |            |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |
| LABORER: MULTI-TRADE TENDER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 6/1/2026                                                           | \$37.00              | \$10.90 | \$9.75  | \$8.62  | \$0.00                    | \$66.27    |      |         |                      |        |         |         |                           |            |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |
| LABORERS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 12/7/2026                                                          | \$38.30              | \$10.90 | \$9.75  | \$8.62  | \$0.00                    | \$67.57    |      |         |                      |        |         |         |                           |            |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |   |       |         |         |        |        |        |         |

**Construction**

| Classification                      | Effective Date | Base Wage | Health  | Pension | Annuity | Supplemental Unemployment | Total Rate |
|-------------------------------------|----------------|-----------|---------|---------|---------|---------------------------|------------|
| LABORERS - ZONE 3 (BUILDING & SITE) | 6/7/2027       | \$39.70   | \$10.90 | \$9.75  | \$8.62  | \$0.00                    | \$68.97    |
|                                     | 12/6/2027      | \$41.10   | \$10.90 | \$9.75  | \$8.62  | \$0.00                    | \$70.37    |
|                                     | 6/5/2028       | \$42.60   | \$10.90 | \$9.75  | \$8.62  | \$0.00                    | \$71.87    |
|                                     | 12/4/2028      | \$44.10   | \$10.90 | \$9.75  | \$8.62  | \$0.00                    | \$73.37    |

For apprentice rates see "Apprentice- LABORER"

|                                     |           |         |         |        |        |        |         |
|-------------------------------------|-----------|---------|---------|--------|--------|--------|---------|
| LABORER: TREE REMOVER               | 6/1/2026  | \$37.00 | \$10.90 | \$9.75 | \$8.62 | \$0.00 | \$66.27 |
| LABORERS                            | 12/7/2026 | \$38.30 | \$10.90 | \$9.75 | \$8.62 | \$0.00 | \$67.57 |
| LABORERS - ZONE 3 (BUILDING & SITE) | 6/7/2027  | \$39.70 | \$10.90 | \$9.75 | \$8.62 | \$0.00 | \$68.97 |
|                                     | 12/6/2027 | \$41.10 | \$10.90 | \$9.75 | \$8.62 | \$0.00 | \$70.37 |
|                                     | 6/5/2028  | \$42.60 | \$10.90 | \$9.75 | \$8.62 | \$0.00 | \$71.87 |
|                                     | 12/4/2028 | \$44.10 | \$10.90 | \$9.75 | \$8.62 | \$0.00 | \$73.37 |

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  | \$37.25 | \$10.90 | \$9.75 | \$8.62 | \$0.00 | \$66.52 |
| LABORERS                            | 12/7/2026 | \$38.55 | \$10.90 | \$9.75 | \$8.62 | \$0.00 | \$67.82 |
| LABORERS - ZONE 3 (BUILDING & SITE) | 6/7/2027  | \$39.95 | \$10.90 | \$9.75 | \$8.62 | \$0.00 | \$69.22 |
|                                     | 12/6/2027 | \$41.35 | \$10.90 | \$9.75 | \$8.62 | \$0.00 | \$70.62 |
|                                     | 6/5/2028  | \$42.85 | \$10.90 | \$9.75 | \$8.62 | \$0.00 | \$72.12 |
|                                     | 12/4/2028 | \$44.35 | \$10.90 | \$9.75 | \$8.62 | \$0.00 | \$73.62 |

For apprentice rates see "Apprentice- LABORER"

|                                       |           |         |         |        |        |        |         |
|---------------------------------------|-----------|---------|---------|--------|--------|--------|---------|
| LASER BEAM OPERATOR (HEAVY & HIGHWAY) | 6/1/2026  | \$37.24 | \$10.90 | \$9.75 | \$6.60 | \$0.00 | \$64.49 |
| LABORERS                              | 12/1/2026 | \$38.53 | \$10.90 | \$9.75 | \$6.60 | \$0.00 | \$65.78 |
| LABORERS - ZONE 3 (HEAVY & HIGHWAY)   |           |         |         |        |        |        |         |

For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"

|                                                |          |         |         |         |        |        |         |
|------------------------------------------------|----------|---------|---------|---------|--------|--------|---------|
| MARBLE & TILE FINISHERS                        | 8/1/2026 | \$47.05 | \$12.84 | \$15.10 | \$5.68 | \$0.00 | \$80.67 |
| BRICKLAYERS LOCAL 3                            | 2/1/2027 | \$48.17 | \$12.84 | \$15.10 | \$5.68 | \$0.00 | \$81.79 |
| BRICKLAYERS LOCAL 3 (SPR/PITT) - MARBLE & TILE |          |         |         |         |        |        |         |

**Apprentice: MARBLE & TILE FINISHERS****Effective Date: 8/1/2026**

| Step | Percent | Apprentice Base Wage | Health  | Pension | Annuity | Supplemental Unemployment | Total Rate |
|------|---------|----------------------|---------|---------|---------|---------------------------|------------|
| 1    | 50.00   | \$23.53              | \$12.84 | \$15.10 | \$5.41  | \$0.00                    | \$56.88    |
| 2    | 60.00   | \$28.23              | \$12.84 | \$15.10 | \$5.41  | \$0.00                    | \$61.58    |
| 3    | 70.00   | \$32.94              | \$12.84 | \$15.10 | \$5.41  | \$0.00                    | \$66.29    |
| 4    | 80.00   | \$37.64              | \$12.84 | \$15.10 | \$5.41  | \$0.00                    | \$70.99    |
| 5    | 90.00   | \$42.35              | \$12.84 | \$15.10 | \$5.41  | \$0.00                    | \$75.70    |

**Apprentice: MARBLE & TILE FINISHERS****Effective Date: 2/1/2027**

| Step | Percent | Apprentice Base Wage | Health  | Pension | Annuity | Supplemental Unemployment | Total Rate |
|------|---------|----------------------|---------|---------|---------|---------------------------|------------|
| 1    | 50.00   | \$24.09              | \$12.84 | \$15.10 | \$5.68  | \$0.00                    | \$57.71    |
| 2    | 60.00   | \$28.90              | \$12.84 | \$15.10 | \$5.68  | \$0.00                    | \$62.52    |

## Construction

| Classification                                                                    | Effective Date | Base Wage            | Health  | Pension | Annuity | Supplemental Unemployment | Total Rate |
|-----------------------------------------------------------------------------------|----------------|----------------------|---------|---------|---------|---------------------------|------------|
| <b>Apprentice: MARBLE &amp; TILE FINISHERS</b><br><b>Effective Date: 2/1/2027</b> |                |                      |         |         |         |                           |            |
| Step                                                                              | Percent        | Apprentice Base Wage | Health  | Pension | Annuity | Supplemental Unemployment | Total Rate |
| 3                                                                                 | 70.00          | \$33.72              | \$12.84 | \$15.10 | \$5.68  | \$0.00                    | \$67.34    |
| 4                                                                                 | 80.00          | \$38.54              | \$12.84 | \$15.10 | \$5.68  | \$0.00                    | \$72.16    |
| 5                                                                                 | 90.00          | \$43.35              | \$12.84 | \$15.10 | \$5.68  | \$0.00                    | \$76.97    |
| <b>Apprentice to Journeyworker Ratio: 1:5</b>                                     |                |                      |         |         |         |                           |            |
| MILLWRIGHT (Zone 3)                                                               | 1/5/2026       | \$45.20              | \$10.58 | \$11.47 | \$9.75  | \$0.00                    | \$77.00    |
| MILLWRIGHTS LOCAL 1121                                                            |                |                      |         |         |         |                           |            |
| MILLWRIGHTS LOCAL 1121 - Zone 3                                                   |                |                      |         |         |         |                           |            |

| <b>Apprentice: MILLWRIGHT (Zone 3)</b><br><b>Effective Date: 1/5/2026</b> |         |                      |         |         |         |                           |            |
|---------------------------------------------------------------------------|---------|----------------------|---------|---------|---------|---------------------------|------------|
| Step                                                                      | Percent | Apprentice Base Wage | Health  | Pension | Annuity | Supplemental Unemployment | Total Rate |
| 1                                                                         | 55.00   | \$24.86              | \$10.58 | \$0.00  | \$5.36  | \$0.00                    | \$40.80    |
| 2                                                                         | 65.00   | \$29.38              | \$10.58 | \$0.00  | \$6.34  | \$0.00                    | \$46.30    |
| 3                                                                         | 75.00   | \$33.90              | \$10.58 | \$11.47 | \$7.31  | \$0.00                    | \$63.26    |
| 4                                                                         | 85.00   | \$38.42              | \$10.58 | \$11.47 | \$8.29  | \$0.00                    | \$68.76    |

|                                                              |  |  |  |  |  |  |  |
|--------------------------------------------------------------|--|--|--|--|--|--|--|
| <b>Apprentice Notes</b>                                      |  |  |  |  |  |  |  |
| Step 1&2 Appr. indentured after 1/6/2020 receive no pension, |  |  |  |  |  |  |  |

**Apprentice to Journeyworker Ratio: 1:4**

|                                     |           |         |         |        |        |        |         |
|-------------------------------------|-----------|---------|---------|--------|--------|--------|---------|
| MORTAR MIXER                        | 6/1/2026  | \$37.25 | \$10.90 | \$9.75 | \$8.62 | \$0.00 | \$66.52 |
| LABORERS                            | 12/7/2026 | \$38.55 | \$10.90 | \$9.75 | \$8.62 | \$0.00 | \$67.82 |
| LABORERS - ZONE 3 (BUILDING & SITE) | 6/7/2027  | \$39.95 | \$10.90 | \$9.75 | \$8.62 | \$0.00 | \$69.22 |
|                                     | 12/6/2027 | \$41.35 | \$10.90 | \$9.75 | \$8.62 | \$0.00 | \$70.62 |
|                                     | 6/5/2028  | \$42.85 | \$10.90 | \$9.75 | \$8.62 | \$0.00 | \$72.12 |
|                                     | 12/4/2028 | \$44.35 | \$10.90 | \$9.75 | \$8.62 | \$0.00 | \$73.62 |

For apprentice rates see "Apprentice- LABORER"

|                                           |           |         |         |         |        |        |         |
|-------------------------------------------|-----------|---------|---------|---------|--------|--------|---------|
| Operating Engineers 98 - Classification 1 | 6/1/2026  | \$47.55 | \$14.80 | \$12.50 | \$3.50 | \$0.00 | \$78.35 |
| OPERATING ENGINEERS LOCAL 98              | 12/1/2026 | \$49.51 | \$14.80 | \$12.50 | \$3.50 | \$0.00 | \$80.31 |
| OPERATING ENGINEERS LOCAL 98              | 6/1/2027  | \$51.16 | \$14.80 | \$12.50 | \$3.50 | \$0.00 | \$81.96 |
|                                           | 12/1/2027 | \$52.80 | \$14.80 | \$12.50 | \$3.50 | \$0.00 | \$83.60 |

Bulldozer; Shovels; Backhoe; Combination Backhoe Loader 3/4 yd & Over; Grader; Trenching Machine; Front End Loader over 5.5 yds; Automatic Grader-Excavator, Micro Pile & Other Pile Driving Machine; Geothermal Drill; John Henry Rock Drill; Horizontal Drilling Machine; Concrete Pump with Boom.

| <b>Apprentice: Operating Engineers 98 - Classification 1</b><br><b>Effective Date: 6/1/2026</b> |         |                      |        |         |         |                           |            |
|-------------------------------------------------------------------------------------------------|---------|----------------------|--------|---------|---------|---------------------------|------------|
| Step                                                                                            | Percent | Apprentice Base Wage | Health | Pension | Annuity | Supplemental Unemployment | Total Rate |

**Construction**

| Classification                                                                                                                                                               | Effective Date | Base Wage      | Health                      | Pension       | Annuity        | Supplemental Unemployment | Total Rate                                  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------------|-----------------------------|---------------|----------------|---------------------------|---------------------------------------------|
| <b>Apprentice: Operating Engineers 98 - Classification 1</b><br><b>Effective Date: 6/1/2026</b>                                                                              |                |                |                             |               |                |                           |                                             |
|                                                                                                                                                                              | <b>Step</b>    | <b>Percent</b> | <b>Apprentice Base Wage</b> | <b>Health</b> | <b>Pension</b> | <b>Annuity</b>            | <b>Supplemental Unemployment Total Rate</b> |
|                                                                                                                                                                              | 1              | 60.00          | \$28.53                     | \$14.80       | \$12.50        | \$3.50                    | \$0.00 \$59.33                              |
|                                                                                                                                                                              | 2              | 70.00          | \$33.29                     | \$14.80       | \$12.50        | \$3.50                    | \$0.00 \$64.09                              |
|                                                                                                                                                                              | 3              | 80.00          | \$38.04                     | \$14.80       | \$12.50        | \$3.50                    | \$0.00 \$68.84                              |
|                                                                                                                                                                              | 4              | 90.00          | \$42.80                     | \$14.80       | \$12.50        | \$3.50                    | \$0.00 \$73.60                              |
| <b>Apprentice: Operating Engineers 98 - Classification 1</b><br><b>Effective Date: 12/1/2026</b>                                                                             |                |                |                             |               |                |                           |                                             |
|                                                                                                                                                                              | <b>Step</b>    | <b>Percent</b> | <b>Apprentice Base Wage</b> | <b>Health</b> | <b>Pension</b> | <b>Annuity</b>            | <b>Supplemental Unemployment Total Rate</b> |
|                                                                                                                                                                              | 1              | 60.00          | \$29.71                     | \$14.80       | \$12.50        | \$3.50                    | \$0.00 \$60.51                              |
|                                                                                                                                                                              | 2              | 70.00          | \$34.66                     | \$14.80       | \$12.50        | \$3.50                    | \$0.00 \$65.46                              |
|                                                                                                                                                                              | 3              | 80.00          | \$39.61                     | \$14.80       | \$12.50        | \$3.50                    | \$0.00 \$70.41                              |
|                                                                                                                                                                              | 4              | 90.00          | \$44.56                     | \$14.80       | \$12.50        | \$3.50                    | \$0.00 \$75.36                              |
| <b>Apprentice to Journeyworker Ratio: 1:6</b>                                                                                                                                |                |                |                             |               |                |                           |                                             |
| Operating Engineers 98 - Classification 10                                                                                                                                   | 6/1/2026       | \$51.05        | \$14.80                     | \$12.50       | \$3.50         | \$0.00                    | \$81.85                                     |
| OPERATING ENGINEERS LOCAL 98                                                                                                                                                 | 12/1/2026      | \$53.01        | \$14.80                     | \$12.50       | \$3.50         | \$0.00                    | \$83.81                                     |
| OPERATING ENGINEERS LOCAL 98                                                                                                                                                 | 6/1/2027       | \$54.66        | \$14.80                     | \$12.50       | \$3.50         | \$0.00                    | \$85.46                                     |
|                                                                                                                                                                              | 12/1/2027      | \$56.30        | \$14.80                     | \$12.50       | \$3.50         | \$0.00                    | \$87.10                                     |
| Crawler & Truck Crane; Dragline; Derrick; Clamshell; Tower Crane; Self-Propelled Hydraulic Crane; Boom Truck.                                                                |                |                |                             |               |                |                           |                                             |
| Operating Engineers 98 - Classification 2                                                                                                                                    | 6/1/2026       | \$47.24        | \$14.80                     | \$12.50       | \$3.50         | \$0.00                    | \$78.04                                     |
| OPERATING ENGINEERS LOCAL 98                                                                                                                                                 | 12/1/2026      | \$49.20        | \$14.80                     | \$12.50       | \$3.50         | \$0.00                    | \$80.00                                     |
| OPERATING ENGINEERS LOCAL 98                                                                                                                                                 | 6/1/2027       | \$50.85        | \$14.80                     | \$12.50       | \$3.50         | \$0.00                    | \$81.65                                     |
|                                                                                                                                                                              | 12/1/2027      | \$52.49        | \$14.80                     | \$12.50       | \$3.50         | \$0.00                    | \$83.29                                     |
| Front End Loader 4 - 5.5 yds; Scraper over 21 yds; Sonic & Vibratory Hammers; Mechanic; Forklift over 3 ton; Asphalt Paver; Transfer Machine; Road Planer / Milling Machine. |                |                |                             |               |                |                           |                                             |
| Operating Engineers 98 - Classification 3                                                                                                                                    | 6/1/2026       | \$47.02        | \$14.80                     | \$12.50       | \$3.50         | \$0.00                    | \$77.82                                     |
| OPERATING ENGINEERS LOCAL 98                                                                                                                                                 | 12/1/2026      | \$48.98        | \$14.80                     | \$12.50       | \$3.50         | \$0.00                    | \$79.78                                     |
| OPERATING ENGINEERS LOCAL 98                                                                                                                                                 | 6/1/2027       | \$50.63        | \$14.80                     | \$12.50       | \$3.50         | \$0.00                    | \$81.43                                     |
|                                                                                                                                                                              | 12/1/2027      | \$52.27        | \$14.80                     | \$12.50       | \$3.50         | \$0.00                    | \$83.07                                     |
| Scraper up to 21 yds; Front End Loader up to 4 yds; Pumpcrete Machine; Concrete Batch Plant on Site; Grout Pumps; Well Point Operator; Hydro-Vac Truck; Grease Truck.        |                |                |                             |               |                |                           |                                             |
| Operating Engineers 98 - Classification 3A                                                                                                                                   | 6/1/2026       | \$46.41        | \$14.80                     | \$12.50       | \$3.50         | \$0.00                    | \$77.21                                     |
| OPERATING ENGINEERS LOCAL 98                                                                                                                                                 | 12/1/2026      | \$48.37        | \$14.80                     | \$12.50       | \$3.50         | \$0.00                    | \$79.17                                     |
| OPERATING ENGINEERS LOCAL 98                                                                                                                                                 | 6/1/2027       | \$50.02        | \$14.80                     | \$12.50       | \$3.50         | \$0.00                    | \$80.82                                     |
|                                                                                                                                                                              | 12/1/2027      | \$51.66        | \$14.80                     | \$12.50       | \$3.50         | \$0.00                    | \$82.46                                     |
| Asphalt Roller; Self-Powered Rollers & Compactors; Tractors; York Rakes.                                                                                                     |                |                |                             |               |                |                           |                                             |
| Operating Engineers 98 - Classification 4                                                                                                                                    | 6/1/2026       | \$43.79        | \$14.80                     | \$12.50       | \$3.50         | \$0.00                    | \$74.59                                     |
| OPERATING ENGINEERS LOCAL 98                                                                                                                                                 | 12/1/2026      | \$45.75        | \$14.80                     | \$12.50       | \$3.50         | \$0.00                    | \$76.55                                     |
| OPERATING ENGINEERS LOCAL 98                                                                                                                                                 | 6/1/2027       | \$47.40        | \$14.80                     | \$12.50       | \$3.50         | \$0.00                    | \$78.20                                     |
|                                                                                                                                                                              | 12/1/2027      | \$49.04        | \$14.80                     | \$12.50       | \$3.50         | \$0.00                    | \$79.84                                     |

**Construction**

| Classification                                                                 | Effective Date | Base Wage | Health  | Pension | Annuity | Supplemental Unemployment | Total Rate |
|--------------------------------------------------------------------------------|----------------|-----------|---------|---------|---------|---------------------------|------------|
| Hoists; Conveyors; Power Pavement Breaker; Power Broom; Generators over 30 KW. |                |           |         |         |         |                           |            |
| Operating Engineers 98 - Classification 5                                      | 6/1/2026       | \$42.67   | \$14.80 | \$12.50 | \$3.50  | \$0.00                    | \$73.47    |
| OPERATING ENGINEERS LOCAL 98                                                   | 12/1/2026      | \$44.63   | \$14.80 | \$12.50 | \$3.50  | \$0.00                    | \$75.43    |
| OPERATING ENGINEERS LOCAL 98                                                   | 6/1/2027       | \$46.28   | \$14.80 | \$12.50 | \$3.50  | \$0.00                    | \$77.08    |
|                                                                                | 12/1/2027      | \$47.92   | \$14.80 | \$12.50 | \$3.50  | \$0.00                    | \$78.72    |
| Compressor (315 to 900 cu ft.); Pumps (4 - 6 in. discharge).                   |                |           |         |         |         |                           |            |
| PAINTER (BRIDGES/TANKS)                                                        | 1/1/2026       | \$59.56   | \$10.35 | \$12.00 | \$12.60 | \$0.00                    | \$94.51    |
| PAINTERS LOCAL 35                                                              |                |           |         |         |         |                           |            |
| PAINTERS LOCAL 35 - ZONE 3                                                     |                |           |         |         |         |                           |            |

**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 | \$42.03 | \$10.35 | \$12.00 | \$8.35 | \$0.00 | \$72.73 |
| * 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 3                                                                     |          |         |         |         |        |        |         |

**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   | \$21.02              | \$10.35 | \$0.00  | \$0.00  | \$0.00                    | \$31.37    |
| 2    | 55.00   | \$23.12              | \$10.35 | \$0.00  | \$4.59  | \$0.00                    | \$38.06    |
| 3    | 60.00   | \$25.22              | \$10.35 | \$0.00  | \$5.01  | \$0.00                    | \$40.58    |
| 4    | 65.00   | \$27.32              | \$10.35 | \$0.00  | \$5.43  | \$0.00                    | \$43.10    |
| 5    | 70.00   | \$29.42              | \$10.35 | \$12.00 | \$5.85  | \$0.00                    | \$57.62    |
| 6    | 75.00   | \$31.52              | \$10.35 | \$12.00 | \$6.26  | \$0.00                    | \$60.13    |
| 7    | 80.00   | \$33.62              | \$10.35 | \$12.00 | \$6.68  | \$0.00                    | \$62.65    |
| 8    | 90.00   | \$37.83              | \$10.35 | \$12.00 | \$7.52  | \$0.00                    | \$67.70    |

**Apprentice to Journeyworker Ratio: 1:1**

|                                       |          |         |         |         |        |        |         |
|---------------------------------------|----------|---------|---------|---------|--------|--------|---------|
| PAINTER (SPRAY OR SANDBLAST, REPAINT) | 1/1/2026 | \$39.35 | \$10.35 | \$12.00 | \$8.35 | \$0.00 | \$70.05 |
| PAINTERS LOCAL 35                     |          |         |         |         |        |        |         |

**Construction**

| Classification             | Effective Date | Base Wage | Health | Pension | Annuity | Supplemental<br>Unemployment | Total<br>Rate |
|----------------------------|----------------|-----------|--------|---------|---------|------------------------------|---------------|
| PAINTERS LOCAL 35 - ZONE 3 |                |           |        |         |         |                              |               |

**Apprentice: PAINTER (SPRAY OR SANDBLAST, REPAINT)**

Effective Date: 1/1/2026

| Step | Percent | Apprentice<br>Base Wage | Health  | Pension | Annuity | Supplemental<br>Unemployment | Total<br>Rate |
|------|---------|-------------------------|---------|---------|---------|------------------------------|---------------|
| 1    | 50.00   | \$19.68                 | \$10.35 | \$0.00  | \$0.00  | \$0.00                       | \$30.03       |
| 2    | 55.00   | \$21.64                 | \$10.35 | \$0.00  | \$4.59  | \$0.00                       | \$36.58       |
| 3    | 60.00   | \$23.61                 | \$10.35 | \$0.00  | \$5.01  | \$0.00                       | \$38.97       |
| 4    | 65.00   | \$25.58                 | \$10.35 | \$0.00  | \$5.43  | \$0.00                       | \$41.36       |
| 5    | 70.00   | \$27.55                 | \$10.35 | \$12.00 | \$5.85  | \$0.00                       | \$55.75       |
| 6    | 75.00   | \$29.51                 | \$10.35 | \$12.00 | \$6.26  | \$0.00                       | \$58.12       |
| 7    | 80.00   | \$31.48                 | \$10.35 | \$12.00 | \$6.68  | \$0.00                       | \$60.51       |
| 8    | 90.00   | \$35.42                 | \$10.35 | \$12.00 | \$7.52  | \$0.00                       | \$65.29       |

Apprentice to Journeyworker Ratio: 1:1

|                                |          |         |         |         |        |        |         |
|--------------------------------|----------|---------|---------|---------|--------|--------|---------|
| PAINTER / TAPER (BRUSH, NEW) * | 1/1/2026 | \$40.63 | \$10.35 | \$12.00 | \$8.35 | \$0.00 | \$71.33 |
|--------------------------------|----------|---------|---------|---------|--------|--------|---------|

\* 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 3

**Apprentice: PAINTER / TAPER (BRUSH, NEW) \***

Effective Date: 1/1/2026

| Step | Percent | Apprentice<br>Base Wage | Health  | Pension | Annuity | Supplemental<br>Unemployment | Total<br>Rate |
|------|---------|-------------------------|---------|---------|---------|------------------------------|---------------|
| 1    | 50.00   | \$20.32                 | \$10.35 | \$0.00  | \$0.00  | \$0.00                       | \$30.67       |
| 2    | 55.00   | \$22.35                 | \$10.35 | \$0.00  | \$4.59  | \$0.00                       | \$37.29       |
| 3    | 60.00   | \$24.38                 | \$10.35 | \$0.00  | \$5.01  | \$0.00                       | \$39.74       |
| 4    | 65.00   | \$26.41                 | \$10.35 | \$0.00  | \$5.43  | \$0.00                       | \$42.19       |
| 5    | 70.00   | \$28.44                 | \$10.35 | \$12.00 | \$5.85  | \$0.00                       | \$56.64       |
| 6    | 75.00   | \$30.47                 | \$10.35 | \$12.00 | \$6.26  | \$0.00                       | \$59.08       |
| 7    | 80.00   | \$32.50                 | \$10.35 | \$12.00 | \$6.68  | \$0.00                       | \$61.53       |
| 8    | 90.00   | \$36.57                 | \$10.35 | \$12.00 | \$7.52  | \$0.00                       | \$66.44       |

Apprentice to Journeyworker Ratio: 1:1

|                                  |          |         |         |         |        |        |         |
|----------------------------------|----------|---------|---------|---------|--------|--------|---------|
| PAINTER / TAPER (BRUSH, REPAINT) | 1/1/2026 | \$37.95 | \$10.35 | \$12.00 | \$8.35 | \$0.00 | \$68.65 |
|----------------------------------|----------|---------|---------|---------|--------|--------|---------|

PAINTERS LOCAL 35

PAINTERS LOCAL 35 - ZONE 3

**Apprentice: PAINTER / TAPER (BRUSH, REPAINT)**

Effective Date: 1/1/2026

| Step | Percent | Apprentice<br>Base Wage | Health  | Pension | Annuity | Supplemental<br>Unemployment | Total<br>Rate |
|------|---------|-------------------------|---------|---------|---------|------------------------------|---------------|
| 1    | 50.00   | \$18.98                 | \$10.35 | \$0.00  | \$0.00  | \$0.00                       | \$29.33       |
| 2    | 55.00   | \$20.87                 | \$10.35 | \$0.00  | \$4.59  | \$0.00                       | \$35.81       |

Construction

| Classification                                                                         | Effective Date | Base Wage            | Health  | Pension | Annuity | Supplemental Unemployment | Total Rate |
|----------------------------------------------------------------------------------------|----------------|----------------------|---------|---------|---------|---------------------------|------------|
| <b>Apprentice: PAINTER / TAPER (BRUSH, REPAINT)</b><br><b>Effective Date: 1/1/2026</b> |                |                      |         |         |         |                           |            |
| Step                                                                                   | Percent        | Apprentice Base Wage | Health  | Pension | Annuity | Supplemental Unemployment | Total Rate |
| 3                                                                                      | 60.00          | \$22.77              | \$10.35 | \$0.00  | \$5.01  | \$0.00                    | \$38.13    |
| 4                                                                                      | 65.00          | \$24.67              | \$10.35 | \$0.00  | \$5.43  | \$0.00                    | \$40.45    |
| 5                                                                                      | 70.00          | \$26.57              | \$10.35 | \$12.00 | \$5.85  | \$0.00                    | \$54.77    |
| 6                                                                                      | 75.00          | \$28.46              | \$10.35 | \$12.00 | \$6.26  | \$0.00                    | \$57.07    |
| 7                                                                                      | 80.00          | \$30.36              | \$10.35 | \$12.00 | \$6.68  | \$0.00                    | \$59.39    |
| 8                                                                                      | 90.00          | \$34.16              | \$10.35 | \$12.00 | \$7.52  | \$0.00                    | \$64.03    |
| <b>Apprentice to Journeyworker Ratio: 1:1</b>                                          |                |                      |         |         |         |                           |            |
| PAINTER TRAFFIC MARKINGS (HEAVY/HIGHWAY)                                               | 6/1/2026       | \$36.99              | \$10.90 | \$9.75  | \$6.60  | \$0.00                    | \$64.24    |
| LABORERS                                                                               | 12/1/2026      | \$38.28              | \$10.90 | \$9.75  | \$6.60  | \$0.00                    | \$65.53    |
| LABORERS - ZONE 3 (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       | \$49.19              | \$10.08 | \$11.62 | \$12.67 | \$0.00                    | \$83.56    |
| PILE DRIVER LOCAL 56                                                                   |                |                      |         |         |         |                           |            |
| PILE DRIVER LOCAL 56 (ZONE 3)                                                          |                |                      |         |         |         |                           |            |
| For apprentice rates see "Apprentice- PILE DRIVER"                                     |                |                      |         |         |         |                           |            |
| PILE DRIVER                                                                            | 8/1/2024       | \$49.19              | \$10.08 | \$11.62 | \$12.67 | \$0.00                    | \$83.56    |
| PILE DRIVER LOCAL 56                                                                   |                |                      |         |         |         |                           |            |
| PILE DRIVER LOCAL 56 (ZONE 3)                                                          |                |                      |         |         |         |                           |            |
| <b>Apprentice: PILE DRIVER</b><br><b>Effective Date: 8/1/2024</b>                      |                |                      |         |         |         |                           |            |
| Step                                                                                   | Percent        | Apprentice Base Wage | Health  | Pension | Annuity | Supplemental Unemployment | Total Rate |
| 1                                                                                      | 45.00          | \$22.14              | \$10.08 | \$0.00  | \$2.53  | \$0.00                    | \$34.75    |
| 2                                                                                      | 55.00          | \$27.05              | \$10.08 | \$0.00  | \$5.07  | \$0.00                    | \$42.20    |
| 3                                                                                      | 70.00          | \$34.43              | \$10.08 | \$11.62 | \$7.60  | \$0.00                    | \$63.73    |
| 4                                                                                      | 80.00          | \$39.35              | \$10.08 | \$11.62 | \$10.14 | \$0.00                    | \$71.19    |
| <b>Apprentice to Journeyworker Ratio: 1:5</b>                                          |                |                      |         |         |         |                           |            |
| PIPELAYER                                                                              | 6/1/2026       | \$37.25              | \$10.90 | \$9.75  | \$8.62  | \$0.00                    | \$66.52    |
| LABORERS                                                                               | 12/7/2026      | \$38.55              | \$10.90 | \$9.75  | \$8.62  | \$0.00                    | \$67.82    |
| LABORERS - ZONE 3 (BUILDING & SITE)                                                    | 6/7/2027       | \$39.95              | \$10.90 | \$9.75  | \$8.62  | \$0.00                    | \$69.22    |
|                                                                                        | 12/6/2027      | \$41.35              | \$10.90 | \$9.75  | \$8.62  | \$0.00                    | \$70.62    |
|                                                                                        | 6/5/2028       | \$42.85              | \$10.90 | \$9.75  | \$8.62  | \$0.00                    | \$72.12    |
|                                                                                        | 12/4/2028      | \$44.35              | \$10.90 | \$9.75  | \$8.62  | \$0.00                    | \$73.62    |
| For apprentice rates see "Apprentice- LABORER"                                         |                |                      |         |         |         |                           |            |



**Construction**

| Classification                                                     | Effective Date | Base Wage | Health  | Pension | Annuity | Supplemental Unemployment | Total Rate |
|--------------------------------------------------------------------|----------------|-----------|---------|---------|---------|---------------------------|------------|
| PIPELAYER (HEAVY & HIGHWAY)                                        | 6/1/2026       | \$37.24   | \$10.90 | \$9.75  | \$6.60  | \$0.00                    | \$64.49    |
| LABORERS                                                           | 12/1/2026      | \$38.53   | \$10.90 | \$9.75  | \$6.60  | \$0.00                    | \$65.78    |
| LABORERS - ZONE 3 (HEAVY & HIGHWAY)                                |                |           |         |         |         |                           |            |
| For apprentice rates see "Apprentice- LABORER (Heavy and Highway)" |                |           |         |         |         |                           |            |

|                                  |           |         |         |         |        |        |         |
|----------------------------------|-----------|---------|---------|---------|--------|--------|---------|
| PLUMBER & PIPEFITTER             | 9/17/2026 | \$54.26 | \$13.85 | \$10.85 | \$7.10 | \$0.00 | \$86.06 |
| PLUMBERS & PIPEFITTERS LOCAL 104 | 3/17/2027 | \$56.26 | \$13.85 | \$10.85 | \$7.10 | \$0.00 | \$88.06 |
| PLUMBERS & PIPEFITTERS LOCAL 104 | 9/17/2027 | \$60.26 | \$13.85 | \$10.85 | \$7.10 | \$0.00 | \$92.06 |
|                                  | 3/17/2028 | \$60.26 | \$13.85 | \$10.85 | \$7.10 | \$0.00 | \$92.06 |
|                                  | 9/17/2028 | \$64.26 | \$13.85 | \$10.85 | \$7.10 | \$0.00 | \$96.06 |
|                                  | 3/17/2029 | \$64.26 | \$13.85 | \$10.85 | \$7.10 | \$0.00 | \$96.06 |

| Apprentice: PLUMBER & PIPEFITTER |         |                      |         |         |         |                           |            |
|----------------------------------|---------|----------------------|---------|---------|---------|---------------------------|------------|
| Effective Date: 9/17/2026        |         |                      |         |         |         |                           |            |
| Step                             | Percent | Apprentice Base Wage | Health  | Pension | Annuity | Supplemental Unemployment | Total Rate |
| 1                                | 45.00   | \$24.42              | \$13.85 | \$10.85 | \$0.00  | \$0.00                    | \$49.12    |
| 2                                | 50.00   | \$27.13              | \$13.85 | \$10.85 | \$0.00  | \$0.00                    | \$51.83    |
| 3                                | 55.00   | \$29.84              | \$13.85 | \$10.85 | \$0.00  | \$0.00                    | \$54.54    |
| 4                                | 60.00   | \$32.56              | \$13.85 | \$10.85 | \$0.00  | \$0.00                    | \$57.26    |
| 5                                | 65.00   | \$35.27              | \$13.85 | \$10.85 | \$0.00  | \$0.00                    | \$59.97    |
| 6                                | 70.00   | \$37.98              | \$13.85 | \$10.85 | \$0.00  | \$0.00                    | \$62.68    |
| 7                                | 75.00   | \$40.70              | \$13.85 | \$10.85 | \$0.00  | \$0.00                    | \$65.40    |
| 8                                | 80.00   | \$43.41              | \$13.85 | \$10.85 | \$0.00  | \$0.00                    | \$68.11    |
| 9                                | 85.00   | \$46.12              | \$13.85 | \$10.85 | \$7.10  | \$0.00                    | \$77.92    |
| 10                               | 85.00   | \$46.12              | \$13.85 | \$10.85 | \$7.10  | \$0.00                    | \$77.92    |

| Apprentice: PLUMBER & PIPEFITTER |         |                      |         |         |         |                           |            |
|----------------------------------|---------|----------------------|---------|---------|---------|---------------------------|------------|
| Effective Date: 3/17/2027        |         |                      |         |         |         |                           |            |
| Step                             | Percent | Apprentice Base Wage | Health  | Pension | Annuity | Supplemental Unemployment | Total Rate |
| 1                                | 45.00   | \$25.32              | \$13.85 | \$10.85 | \$0.00  | \$0.00                    | \$50.02    |
| 2                                | 50.00   | \$28.13              | \$13.85 | \$10.85 | \$0.00  | \$0.00                    | \$52.83    |
| 3                                | 55.00   | \$30.94              | \$13.85 | \$10.85 | \$0.00  | \$0.00                    | \$55.64    |
| 4                                | 60.00   | \$33.76              | \$13.85 | \$10.85 | \$0.00  | \$0.00                    | \$58.46    |
| 5                                | 65.00   | \$36.57              | \$13.85 | \$10.85 | \$0.00  | \$0.00                    | \$61.27    |
| 6                                | 70.00   | \$39.38              | \$13.85 | \$10.85 | \$0.00  | \$0.00                    | \$64.08    |
| 7                                | 75.00   | \$42.20              | \$13.85 | \$10.85 | \$0.00  | \$0.00                    | \$66.90    |
| 8                                | 80.00   | \$45.01              | \$13.85 | \$10.85 | \$0.00  | \$0.00                    | \$69.71    |
| 9                                | 85.00   | \$47.82              | \$13.85 | \$10.85 | \$7.10  | \$0.00                    | \$79.62    |
| 10                               | 85.00   | \$47.82              | \$13.85 | \$10.85 | \$7.10  | \$0.00                    | \$79.62    |

| Apprentice Notes   |  |  |  |  |  |  |  |
|--------------------|--|--|--|--|--|--|--|
| **1:1,2:5,3:9,4:12 |  |  |  |  |  |  |  |

Apprentice to Journeyworker Ratio: 1:1

|                            |           |         |         |         |        |        |         |
|----------------------------|-----------|---------|---------|---------|--------|--------|---------|
| PNEUMATIC CONTROLS (TEMP.) | 9/17/2026 | \$54.26 | \$13.85 | \$10.85 | \$7.10 | \$0.00 | \$86.06 |
|----------------------------|-----------|---------|---------|---------|--------|--------|---------|

**Construction**

| <b>Classification</b>                                                     | <b>Effective Date</b> | <b>Base Wage</b> | <b>Health</b> | <b>Pension</b> | <b>Annuity</b> | <b>Supplemental<br/>Unemployment</b> | <b>Total<br/>Rate</b> |
|---------------------------------------------------------------------------|-----------------------|------------------|---------------|----------------|----------------|--------------------------------------|-----------------------|
| PLUMBERS & PIPEFITTERS LOCAL 104                                          | 3/17/2027             | \$56.26          | \$13.85       | \$10.85        | \$7.10         | \$0.00                               | \$88.06               |
| PLUMBERS & PIPEFITTERS LOCAL 104                                          | 9/17/2027             | \$60.26          | \$13.85       | \$10.85        | \$7.10         | \$0.00                               | \$92.06               |
|                                                                           | 3/17/2028             | \$62.26          | \$13.85       | \$10.85        | \$7.10         | \$0.00                               | \$94.06               |
|                                                                           | 9/17/2028             | \$62.26          | \$13.85       | \$10.85        | \$7.10         | \$0.00                               | \$94.06               |
|                                                                           | 3/17/2029             | \$64.26          | \$13.85       | \$10.85        | \$7.10         | \$0.00                               | \$96.06               |
| For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER" |                       |                  |               |                |                |                                      |                       |
| PNEUMATIC DRILL/TOOL OPERATOR (HEAVY & HIGHWAY)                           | 6/1/2026              | \$37.24          | \$10.90       | \$9.75         | \$6.60         | \$0.00                               | \$64.49               |
| LABORERS                                                                  | 12/1/2026             | \$38.53          | \$10.90       | \$9.75         | \$6.60         | \$0.00                               | \$65.78               |
| LABORERS - ZONE 3 (HEAVY & HIGHWAY)                                       |                       |                  |               |                |                |                                      |                       |
| For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"        |                       |                  |               |                |                |                                      |                       |
| POWDERMAN & BLASTER                                                       | 6/1/2026              | \$38.00          | \$10.90       | \$9.75         | \$8.62         | \$0.00                               | \$67.27               |
| LABORERS                                                                  | 12/7/2026             | \$39.30          | \$10.90       | \$9.75         | \$8.62         | \$0.00                               | \$68.57               |
| LABORERS - ZONE 3 (BUILDING & SITE)                                       | 6/7/2027              | \$40.70          | \$10.90       | \$9.75         | \$8.62         | \$0.00                               | \$69.97               |
|                                                                           | 12/6/2027             | \$42.10          | \$10.90       | \$9.75         | \$8.62         | \$0.00                               | \$71.37               |
|                                                                           | 6/5/2028              | \$43.60          | \$10.90       | \$9.75         | \$8.62         | \$0.00                               | \$72.87               |
|                                                                           | 12/4/2028             | \$45.10          | \$10.90       | \$9.75         | \$8.62         | \$0.00                               | \$74.37               |
| For apprentice rates see "Apprentice- LABORER"                            |                       |                  |               |                |                |                                      |                       |
| POWDERMAN & BLASTER (HEAVY & HIGHWAY)                                     | 6/1/2026              | \$37.99          | \$10.90       | \$9.75         | \$6.60         | \$0.00                               | \$65.24               |
| LABORERS                                                                  | 12/1/2026             | \$39.28          | \$10.90       | \$9.75         | \$6.60         | \$0.00                               | \$66.53               |
| LABORERS - ZONE 3 (HEAVY & HIGHWAY)                                       |                       |                  |               |                |                |                                      |                       |
| For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"        |                       |                  |               |                |                |                                      |                       |
| READY-MIX CONCRETE DRIVER                                                 | 5/1/2024              | \$26.14          | \$11.82       | \$7.25         | \$0.00         | \$0.00                               | \$45.21               |
| TEAMSTERS 404 - Construction Service (Northampton)                        |                       |                  |               |                |                |                                      |                       |
| TEAMSTERS 404 - Construction Service (Northampton)                        |                       |                  |               |                |                |                                      |                       |
| RIDE-ON MOTORIZED BUGGY OPERATOR                                          | 6/1/2026              | \$37.25          | \$10.90       | \$9.75         | \$8.62         | \$0.00                               | \$66.52               |
| LABORERS                                                                  | 12/7/2026             | \$38.55          | \$10.90       | \$9.75         | \$8.62         | \$0.00                               | \$67.82               |
| LABORERS - ZONE 3 (BUILDING & SITE)                                       | 6/7/2027              | \$39.95          | \$10.90       | \$9.75         | \$8.62         | \$0.00                               | \$69.22               |
|                                                                           | 12/6/2027             | \$41.35          | \$10.90       | \$9.75         | \$8.62         | \$0.00                               | \$70.62               |
|                                                                           | 6/5/2028              | \$42.85          | \$10.90       | \$9.75         | \$8.62         | \$0.00                               | \$72.12               |
|                                                                           | 12/4/2028             | \$44.35          | \$10.90       | \$9.75         | \$8.62         | \$0.00                               | \$73.62               |
| For apprentice rates see "Apprentice- LABORER"                            |                       |                  |               |                |                |                                      |                       |
| ROOFER (Coal tar pitch)                                                   | 7/16/2026             | \$44.73          | \$10.85       | \$8.95         | \$10.00        | \$0.00                               | \$74.53               |
| ROOFERS LOCAL 248                                                         |                       |                  |               |                |                |                                      |                       |
| ROOFERS LOCAL 248                                                         |                       |                  |               |                |                |                                      |                       |
| For apprentice rates see "Apprentice- ROOFER"                             |                       |                  |               |                |                |                                      |                       |
| ROOFER (Inc.Roofing Waterproofing &Roofing Damproofing)                   | 7/16/2026             | \$44.23          | \$10.85       | \$8.95         | \$10.00        | \$0.00                               | \$74.03               |
| ROOFERS LOCAL 248                                                         |                       |                  |               |                |                |                                      |                       |
| ROOFERS LOCAL 248                                                         |                       |                  |               |                |                |                                      |                       |
| ROOFER SLATE / TILE / PRECAST CONCRETE                                    | 7/16/2026             | \$44.73          | \$10.85       | \$8.95         | \$10.00        | \$0.00                               | \$74.53               |
| ROOFERS LOCAL 248                                                         |                       |                  |               |                |                |                                      |                       |
| ROOFERS LOCAL 248                                                         |                       |                  |               |                |                |                                      |                       |
| For apprentice rates see "Apprentice- ROOFER"                             |                       |                  |               |                |                |                                      |                       |
| SHEETMETAL WORKER                                                         | 7/1/2026              | \$43.48          | \$13.24       | \$11.01        | \$9.92         | \$2.13                               | \$79.78               |
| SHEETMETAL WORKERS LOCAL 63                                               | 1/1/2027              | \$43.48          | \$13.54       | \$11.01        | \$11.12        | \$2.13                               | \$81.28               |

Construction

| Classification              | Effective Date | Base Wage | Health  | Pension | Annuity | Supplemental Unemployment | Total Rate |
|-----------------------------|----------------|-----------|---------|---------|---------|---------------------------|------------|
| SHEETMETAL WORKERS LOCAL 63 | 7/1/2027       | \$44.98   | \$13.54 | \$11.01 | \$11.12 | \$2.13                    | \$82.78    |
|                             | 1/1/2028       | \$46.48   | \$13.54 | \$11.01 | \$11.12 | \$2.13                    | \$84.28    |

| Apprentice: SHEETMETAL WORKER |         |                      |         |         |         |                           |            |
|-------------------------------|---------|----------------------|---------|---------|---------|---------------------------|------------|
| Effective Date: 7/1/2026      |         |                      |         |         |         |                           |            |
| Step                          | Percent | Apprentice Base Wage | Health  | Pension | Annuity | Supplemental Unemployment | Total Rate |
| 1                             | 45.00   | \$19.57              | \$5.96  | \$4.95  | \$0.00  | \$0.85                    | \$31.33    |
| 2                             | 50.00   | \$21.74              | \$6.62  | \$5.51  | \$0.00  | \$0.94                    | \$34.81    |
| 3                             | 55.00   | \$23.91              | \$7.28  | \$9.91  | \$0.00  | \$1.15                    | \$42.25    |
| 4                             | 60.00   | \$26.09              | \$7.94  | \$9.91  | \$0.00  | \$1.23                    | \$45.17    |
| 5                             | 65.00   | \$28.26              | \$8.60  | \$9.91  | \$0.00  | \$1.31                    | \$48.08    |
| 6                             | 70.00   | \$30.44              | \$9.27  | \$9.91  | \$0.00  | \$1.39                    | \$51.01    |
| 7                             | 75.00   | \$32.61              | \$9.93  | \$9.91  | \$0.00  | \$1.47                    | \$53.92    |
| 8                             | 80.00   | \$34.78              | \$10.59 | \$9.91  | \$9.92  | \$1.78                    | \$66.98    |
| 9                             | 85.00   | \$36.96              | \$11.25 | \$9.91  | \$9.92  | \$1.86                    | \$69.90    |
| 10                            | 90.00   | \$39.13              | \$11.92 | \$9.91  | \$9.92  | \$1.94                    | \$72.82    |

| Apprentice: SHEETMETAL WORKER |         |                      |         |         |         |                           |            |
|-------------------------------|---------|----------------------|---------|---------|---------|---------------------------|------------|
| Effective Date: 1/1/2027      |         |                      |         |         |         |                           |            |
| Step                          | Percent | Apprentice Base Wage | Health  | Pension | Annuity | Supplemental Unemployment | Total Rate |
| 1                             | 45.00   | \$19.57              | \$6.09  | \$4.95  | \$0.00  | \$0.85                    | \$31.46    |
| 2                             | 50.00   | \$21.74              | \$6.77  | \$5.51  | \$0.00  | \$0.94                    | \$34.96    |
| 3                             | 55.00   | \$23.91              | \$7.45  | \$9.91  | \$0.00  | \$1.15                    | \$42.42    |
| 4                             | 60.00   | \$26.09              | \$8.36  | \$9.91  | \$0.00  | \$1.23                    | \$45.59    |
| 5                             | 65.00   | \$28.26              | \$8.86  | \$9.91  | \$0.00  | \$1.31                    | \$48.34    |
| 6                             | 70.00   | \$30.44              | \$9.48  | \$9.91  | \$0.00  | \$1.39                    | \$51.22    |
| 7                             | 75.00   | \$32.61              | \$10.15 | \$9.91  | \$0.00  | \$1.47                    | \$54.14    |
| 8                             | 80.00   | \$34.78              | \$10.83 | \$9.91  | \$11.12 | \$1.78                    | \$68.42    |
| 9                             | 85.00   | \$36.96              | \$11.51 | \$9.91  | \$11.12 | \$1.86                    | \$71.36    |
| 10                            | 90.00   | \$39.13              | \$12.18 | \$9.91  | \$11.12 | \$1.94                    | \$74.28    |

Apprentice to Journeyworker Ratio: 1:3

|                                          |           |         |         |         |        |        |         |
|------------------------------------------|-----------|---------|---------|---------|--------|--------|---------|
| 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                         | 7/1/2026  | \$56.54 | \$13.60 | \$7.45  | \$9.41 | \$0.00 | \$87.00 |
| SPRINKLER FITTERS LOCAL 669              | 10/1/2026 | \$56.54 | \$13.60 | \$7.45  | \$9.41 | \$0.00 | \$87.00 |
| SPRINKLER FITTERS LOCAL 669              | 1/1/2027  | \$56.54 | \$14.55 | \$7.50  | \$9.41 | \$0.00 | \$88.00 |
|                                          | 4/1/2027  | \$59.83 | \$14.55 | \$7.50  | \$9.41 | \$0.00 | \$91.29 |
|                                          | 7/1/2027  | \$59.83 | \$14.55 | \$7.50  | \$9.41 | \$0.00 | \$91.29 |

Construction

| Classification | Effective Date | Base Wage | Health  | Pension | Annuity | Supplemental Unemployment | Total Rate |
|----------------|----------------|-----------|---------|---------|---------|---------------------------|------------|
|                | 10/1/2027      | \$59.83   | \$14.55 | \$7.50  | \$9.41  | \$0.00                    | \$91.29    |
|                | 1/1/2028       | \$59.83   | \$15.50 | \$7.55  | \$9.41  | \$0.00                    | \$92.29    |

| Apprentice: SPRINKLER FITTER |         |                      |         |         |         |                           |            |
|------------------------------|---------|----------------------|---------|---------|---------|---------------------------|------------|
| Effective Date: 7/1/2026     |         |                      |         |         |         |                           |            |
| Step                         | Percent | Apprentice Base Wage | Health  | Pension | Annuity | Supplemental Unemployment | Total Rate |
| 1                            | 43.00   | \$28.36              | \$9.64  | \$0.00  | \$0.00  | \$0.00                    | \$38.00    |
| 2                            | 48.00   | \$31.66              | \$9.64  | \$0.00  | \$0.00  | \$0.00                    | \$41.30    |
| 3                            | 52.00   | \$34.29              | \$13.60 | \$7.45  | \$1.15  | \$0.00                    | \$56.49    |
| 4                            | 56.00   | \$36.93              | \$13.60 | \$7.45  | \$1.15  | \$0.00                    | \$59.13    |
| 5                            | 59.00   | \$38.91              | \$13.60 | \$7.45  | \$1.40  | \$0.00                    | \$61.36    |
| 6                            | 64.00   | \$42.21              | \$13.60 | \$7.45  | \$1.40  | \$0.00                    | \$64.66    |
| 7                            | 68.00   | \$44.85              | \$13.60 | \$7.45  | \$1.40  | \$0.00                    | \$67.30    |
| 8                            | 72.00   | \$47.48              | \$13.60 | \$7.45  | \$1.40  | \$0.00                    | \$69.93    |
| 9                            | 76.00   | \$50.12              | \$13.60 | \$7.45  | \$1.40  | \$0.00                    | \$72.57    |
| 10                           | 80.00   | \$52.76              | \$13.60 | \$7.45  | \$1.40  | \$0.00                    | \$75.21    |

| Apprentice: SPRINKLER FITTER |         |                      |        |         |         |                           |            |
|------------------------------|---------|----------------------|--------|---------|---------|---------------------------|------------|
| Effective Date: 10/1/2026    |         |                      |        |         |         |                           |            |
| Step                         | Percent | Apprentice Base Wage | Health | Pension | Annuity | Supplemental Unemployment | Total Rate |
| 1                            | 43.00   | \$28.36              | \$0.00 | \$0.00  | \$0.00  | \$0.00                    | \$28.36    |
| 2                            | 48.00   | \$31.66              | \$0.00 | \$0.00  | \$0.00  | \$0.00                    | \$31.66    |
| 3                            | 52.00   | \$34.29              | \$0.00 | \$0.00  | \$1.15  | \$0.00                    | \$35.44    |
| 4                            | 56.00   | \$36.93              | \$0.00 | \$0.00  | \$1.15  | \$0.00                    | \$38.08    |
| 5                            | 59.00   | \$38.91              | \$0.00 | \$0.00  | \$1.40  | \$0.00                    | \$40.31    |
| 6                            | 64.00   | \$42.21              | \$0.00 | \$0.00  | \$1.40  | \$0.00                    | \$43.61    |
| 7                            | 68.00   | \$44.85              | \$0.00 | \$0.00  | \$1.40  | \$0.00                    | \$46.25    |
| 8                            | 72.00   | \$47.48              | \$0.00 | \$0.00  | \$1.40  | \$0.00                    | \$48.88    |
| 9                            | 76.00   | \$50.12              | \$0.00 | \$0.00  | \$1.40  | \$0.00                    | \$51.52    |
| 10                           | 80.00   | \$52.76              | \$0.00 | \$0.00  | \$1.40  | \$0.00                    | \$54.16    |

Apprentice to Journeyworker Ratio: 1:1

|                              |           |         |         |        |        |        |         |
|------------------------------|-----------|---------|---------|--------|--------|--------|---------|
| TELECOMMUNICATION TECHNICIAN | 6/28/2026 | \$54.41 | \$14.00 | \$8.43 | \$7.03 | \$0.00 | \$83.87 |
| TELECOMMUNICATION TECHNICIAN | 1/3/2027  | \$55.56 | \$14.25 | \$8.47 | \$7.09 | \$0.00 | \$85.37 |
| ELECTRICIANS LOCAL 7         |           |         |         |        |        |        |         |
| ELECTRICIANS LOCAL 7         |           |         |         |        |        |        |         |

For apprentice rates and ratios see "Apprentice- ELECTRICIAN"

| Apprentice: TELECOMMUNICATION TECHNICIAN |         |                      |        |         |         |                           |            |
|------------------------------------------|---------|----------------------|--------|---------|---------|---------------------------|------------|
| Effective Date: 6/28/2026                |         |                      |        |         |         |                           |            |
| Step                                     | Percent | Apprentice Base Wage | Health | Pension | Annuity | Supplemental Unemployment | Total Rate |
| 1                                        | 40.00   | \$21.76              | \$7.80 | \$0.63  | \$0.00  | \$0.00                    | \$30.19    |
| 2                                        | 45.00   | \$24.48              | \$7.80 | \$0.70  | \$0.00  | \$0.00                    | \$32.98    |

Construction

| Classification                                                                      | Effective Date | Base Wage            | Health  | Pension | Annuity | Supplemental Unemployment | Total Rate |
|-------------------------------------------------------------------------------------|----------------|----------------------|---------|---------|---------|---------------------------|------------|
| <b>Apprentice: TELECOMMUNICATION TECHNICIAN</b><br><b>Effective Date: 6/28/2026</b> |                |                      |         |         |         |                           |            |
| Step                                                                                | Percent        | Apprentice Base Wage | Health  | Pension | Annuity | Supplemental Unemployment | Total Rate |
| 3                                                                                   | 50.00          | \$27.21              | \$14.00 | \$7.53  | \$0.00  | \$0.00                    | \$48.74    |
| 4                                                                                   | 55.00          | \$29.93              | \$14.00 | \$7.61  | \$0.00  | \$0.00                    | \$51.54    |
| 5                                                                                   | 65.00          | \$35.37              | \$14.00 | \$9.84  | \$0.00  | \$0.00                    | \$59.21    |
| 6                                                                                   | 70.00          | \$38.09              | \$14.00 | \$11.30 | \$0.00  | \$0.00                    | \$63.39    |
| <b>Apprentice: TELECOMMUNICATION TECHNICIAN</b><br><b>Effective Date: 1/3/2027</b>  |                |                      |         |         |         |                           |            |
| Step                                                                                | Percent        | Apprentice Base Wage | Health  | Pension | Annuity | Supplemental Unemployment | Total Rate |
| 1                                                                                   | 40.00          | \$22.22              | \$7.95  | \$0.63  | \$0.00  | \$0.00                    | \$30.80    |
| 2                                                                                   | 45.00          | \$25.00              | \$7.95  | \$0.70  | \$0.00  | \$0.00                    | \$33.65    |
| 3                                                                                   | 50.00          | \$27.78              | \$14.25 | \$7.53  | \$0.00  | \$0.00                    | \$49.56    |
| 4                                                                                   | 55.00          | \$30.56              | \$14.25 | \$7.61  | \$0.00  | \$0.00                    | \$52.42    |
| 5                                                                                   | 65.00          | \$36.11              | \$14.25 | \$9.84  | \$0.00  | \$0.00                    | \$60.20    |
| 6                                                                                   | 70.00          | \$38.89              | \$14.25 | \$11.30 | \$0.00  | \$0.00                    | \$64.44    |
| <b>Apprentice to Journeyworker Ratio: 1:1</b>                                       |                |                      |         |         |         |                           |            |
| TERRAZZO FINISHERS                                                                  | 8/1/2026       | \$69.09              | \$12.84 | \$15.57 | \$8.02  | \$0.00                    | \$105.52   |
| BRICKLAYERS LOCAL 3                                                                 | 2/1/2027       | \$70.49              | \$12.84 | \$15.57 | \$8.02  | \$0.00                    | \$106.92   |
| BRICKLAYERS LOCAL 3 (SPR/PITT) - MARBLE & TILE                                      |                |                      |         |         |         |                           |            |

| <b>Apprentice: TERRAZZO FINISHERS</b><br><b>Effective Date: 8/1/2026</b> |         |                      |         |         |         |                           |            |
|--------------------------------------------------------------------------|---------|----------------------|---------|---------|---------|---------------------------|------------|
| 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    |

| <b>Apprentice: TERRAZZO FINISHERS</b><br><b>Effective Date: 2/1/2027</b> |         |                      |         |         |         |                           |            |
|--------------------------------------------------------------------------|---------|----------------------|---------|---------|---------|---------------------------|------------|
| Step                                                                     | Percent | Apprentice Base Wage | Health  | Pension | Annuity | Supplemental Unemployment | Total Rate |
| 1                                                                        | 50.00   | \$35.25              | \$12.84 | \$15.57 | \$8.02  | \$0.00                    | \$71.68    |
| 2                                                                        | 60.00   | \$42.29              | \$12.84 | \$15.57 | \$8.02  | \$0.00                    | \$78.72    |
| 3                                                                        | 70.00   | \$49.34              | \$12.84 | \$15.57 | \$8.02  | \$0.00                    | \$85.77    |
| 4                                                                        | 80.00   | \$56.39              | \$12.84 | \$15.57 | \$8.02  | \$0.00                    | \$92.82    |
| 5                                                                        | 90.00   | \$63.44              | \$12.84 | \$15.57 | \$8.02  | \$0.00                    | \$99.87    |

## Construction

| Classification                                 | Effective Date | Base Wage | Health  | Pension | Annuity | Supplemental Unemployment | Total Rate |
|------------------------------------------------|----------------|-----------|---------|---------|---------|---------------------------|------------|
| Apprentice to Journeyworker Ratio: 1:5         |                |           |         |         |         |                           |            |
| TERRAZZO MECHANIC                              | 8/1/2026       | \$70.17   | \$12.84 | \$15.57 | \$7.99  | \$0.00                    | \$106.57   |
| BRICKLAYERS LOCAL 3                            | 2/1/2027       | \$71.57   | \$12.84 | \$15.57 | \$7.99  | \$0.00                    | \$107.97   |
| BRICKLAYERS LOCAL 3 (SPR/PITT) - MARBLE & TILE |                |           |         |         |         |                           |            |

| Apprentice: TERRAZZO MECHANIC |         |                      |         |         |         |                           |            |
|-------------------------------|---------|----------------------|---------|---------|---------|---------------------------|------------|
| 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    |
| 5                             | 90.00   | \$63.15              | \$12.84 | \$15.57 | \$7.99  | \$0.00                    | \$99.55    |

| Apprentice: TERRAZZO MECHANIC |         |                      |         |         |         |                           |            |
|-------------------------------|---------|----------------------|---------|---------|---------|---------------------------|------------|
| Effective Date: 2/1/2027      |         |                      |         |         |         |                           |            |
| Step                          | Percent | Apprentice Base Wage | Health  | Pension | Annuity | Supplemental Unemployment | Total Rate |
| 1                             | 50.00   | \$35.79              | \$12.84 | \$15.57 | \$7.99  | \$0.00                    | \$72.19    |
| 2                             | 60.00   | \$42.94              | \$12.84 | \$15.57 | \$7.99  | \$0.00                    | \$79.34    |
| 3                             | 70.00   | \$50.10              | \$12.84 | \$15.57 | \$7.99  | \$0.00                    | \$86.50    |
| 4                             | 80.00   | \$57.26              | \$12.84 | \$15.57 | \$7.99  | \$0.00                    | \$93.66    |
| 5                             | 90.00   | \$64.41              | \$12.84 | \$15.57 | \$7.99  | \$0.00                    | \$100.81   |

### 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               |           |         |         |         |         |        |         |
| 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" |           |         |         |         |         |        |         |
| 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)                      |           |         |         |         |         |        |         |

**Construction**

| Classification                                                                   | Effective Date | Base Wage | Health  | Pension | Annuity | Supplemental<br>Unemployment | Total<br>Rate |
|----------------------------------------------------------------------------------|----------------|-----------|---------|---------|---------|------------------------------|---------------|
| For apprentice rates see "Apprentice- LABORER"                                   |                |           |         |         |         |                              |               |
| TUNNEL WORK - COMPRESSED AIR (HAZ. WASTE)<br>LABORERS                            | 6/1/2026       | \$63.48   | \$10.90 | \$9.75  | \$10.25 | \$0.00                       | \$94.38       |
| LABORERS (COMPRESSED AIR)                                                        | 12/1/2026      | \$64.98   | \$10.90 | \$9.75  | \$10.25 | \$0.00                       | \$95.88       |
| For apprentice rates see "Apprentice- LABORER"                                   |                |           |         |         |         |                              |               |
| TUNNEL WORK - FREE AIR<br>LABORERS                                               | 6/1/2026       | \$53.55   | \$10.90 | \$9.75  | \$10.25 | \$0.00                       | \$84.45       |
| LABORERS (FREE AIR TUNNEL)                                                       | 12/1/2026      | \$55.05   | \$10.90 | \$9.75  | \$10.25 | \$0.00                       | \$85.95       |
| For apprentice rates see "Apprentice- LABORER"                                   |                |           |         |         |         |                              |               |
| TUNNEL WORK - FREE AIR (HAZ. WASTE)<br>LABORERS                                  | 6/1/2026       | \$55.55   | \$10.90 | \$9.75  | \$10.25 | \$0.00                       | \$86.45       |
| LABORERS (FREE AIR TUNNEL)                                                       | 12/1/2026      | \$57.05   | \$10.90 | \$9.75  | \$10.25 | \$0.00                       | \$87.95       |
| For apprentice rates see "Apprentice- LABORER"                                   |                |           |         |         |         |                              |               |
| VAC-HAUL<br>TEAMSTERS JOINT COUNCIL NO. 10                                       | 6/1/2026       | \$42.24   | \$16.17 | \$21.78 | \$0.00  | \$0.00                       | \$80.19       |
| TEAMSTERS JOINT COUNCIL NO. 10 ZONE B                                            | 12/1/2026      | \$42.24   | \$16.17 | \$23.52 | \$0.00  | \$0.00                       | \$81.93       |
|                                                                                  | 1/1/2027       | \$42.24   | \$16.77 | \$23.52 | \$0.00  | \$0.00                       | \$82.53       |
| For apprentice rates see "Apprentice- LABORER"                                   |                |           |         |         |         |                              |               |
| WAGON DRILL OPERATOR<br>LABORERS                                                 | 6/1/2026       | \$37.25   | \$10.90 | \$9.75  | \$8.62  | \$0.00                       | \$66.52       |
| LABORERS - ZONE 3 (BUILDING & SITE)                                              | 12/7/2026      | \$38.55   | \$10.90 | \$9.75  | \$8.62  | \$0.00                       | \$67.82       |
|                                                                                  | 6/7/2027       | \$39.95   | \$10.90 | \$9.75  | \$8.62  | \$0.00                       | \$69.22       |
|                                                                                  | 12/6/2027      | \$41.35   | \$10.90 | \$9.75  | \$8.62  | \$0.00                       | \$70.62       |
|                                                                                  | 6/5/2028       | \$42.85   | \$10.90 | \$9.75  | \$8.62  | \$0.00                       | \$72.12       |
|                                                                                  | 12/4/2028      | \$44.35   | \$10.90 | \$9.75  | \$8.62  | \$0.00                       | \$73.62       |
| For apprentice rates see "Apprentice- LABORER"                                   |                |           |         |         |         |                              |               |
| WAGON DRILL OPERATOR (HEAVY & HIGHWAY)<br>LABORERS                               | 6/1/2026       | \$37.24   | \$10.90 | \$9.75  | \$6.60  | \$0.00                       | \$64.49       |
| LABORERS - ZONE 3 (HEAVY & HIGHWAY)                                              | 12/1/2026      | \$38.53   | \$10.90 | \$9.75  | \$6.60  | \$0.00                       | \$65.78       |
| For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"               |                |           |         |         |         |                              |               |
| WATER METER INSTALLER<br>PLUMBERS & PIPEFITTERS LOCAL 104                        | 9/17/2026      | \$54.26   | \$13.85 | \$10.85 | \$7.10  | \$0.00                       | \$86.06       |
| PLUMBERS & PIPEFITTERS LOCAL 104                                                 | 3/17/2027      | \$56.26   | \$13.85 | \$10.85 | \$7.10  | \$0.00                       | \$88.06       |
|                                                                                  | 9/17/2027      | \$60.26   | \$13.85 | \$10.85 | \$7.10  | \$0.00                       | \$92.06       |
|                                                                                  | 3/17/2028      | \$62.26   | \$13.85 | \$10.85 | \$7.10  | \$0.00                       | \$94.06       |
|                                                                                  | 9/17/2028      | \$62.26   | \$13.85 | \$10.85 | \$7.10  | \$0.00                       | \$94.06       |
|                                                                                  | 3/17/2029      | \$64.26   | \$13.85 | \$10.85 | \$7.10  | \$0.00                       | \$96.06       |
| 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.



**NOTICE: - This is NOT the official version of the Massachusetts General Laws (MGL). While reasonable efforts have been made to assure the accuracy of the data provided, do not rely on this information without first checking an official edition of the MGL.**

**If you are in need of legal advice or counsel, consult an attorney.**

## **MASSACHUSETTS GENERAL LAWS**

**(Updated to July 12, 2013)**

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**CHAPTER 30. GENERAL PROVISIONS RELATIVE TO STATE DEPARTMENTS, COMMISSIONS, OFFICERS AND EMPLOYEES Chapter 30: Section 38A Price adjustment clause**

Contracts for road, bridge, water, and sewer projects awarded as a result of a proposal or invitation for bids under chapter 7C, section 11C of Chapter 25A, section 39M of this chapter and sections 44A to 44H, inclusive, of chapter 149 shall include a price adjustment clause for each of the following materials: fuel, both diesel and gasoline; asphalt; concrete; and steel. A base price for each material shall be set by the awarding authority or agency and shall be included in the bid documents at the time the project is advertised. The awarding authority or agency shall also identify in the bid documents the price index to be used for each material. The price adjustment clause shall provided for a contract adjustment to be made on a monthly basis when the monthly cost change exceeds plus or minus 5 per cent.

**Chapter 30: Section 39F Construction contracts; assignment and subrogation; subcontractor defined; enforcement of claim for direct payment; deposit, reduction of disputed amounts**

Section 39F. (1) Every contract awarded pursuant to sections forty-four A to L, inclusive, of chapter one hundred and forty-nine shall contain the following subparagraphs (a) through (i) and every contract awarded pursuant to section thirty-nine M of chapter thirty shall contain the following subparagraphs (a) through (h) and in each case those subparagraphs shall be binding between the general contractor and each subcontractor.

(a) Forthwith after the general contractor receives payment on account of a periodic estimate, the general contractor shall pay to each subcontractor the amount paid for the labor performed and the materials furnished by that subcontractor, less any amount specified in any court proceedings barring such payment and also less any amount claimed due from the subcontractor by the general contractor.

(b) Not later than the sixty-fifth day after each subcontractor substantially completes his work in accordance with the plans and specifications, the entire balance due under the subcontract less amounts retained by the awarding authority as the estimated cost of completing the incomplete and unsatisfactory items of work, shall be due the subcontractor; and the awarding authority shall pay that amount to the general contractor. The general contractor shall forthwith pay to the subcontractor the full amount received from the awarding authority less any amount specified in any court proceedings barring such payment and also less any amount claimed due from the subcontractor by the general contractor.

(c) Each payment made by the awarding authority to the general contractor pursuant to subparagraphs (a) and (b) of this paragraph for the labor performed and the materials furnished by a subcontractor shall be made to the general contractor for the account of that subcontractor; and the awarding authority shall take reasonable steps to compel the general contractor to make each such payment to each such subcontractor. If the awarding authority has received a demand for direct payment from a subcontractor for any amount which has already been included in a payment to the general contractor or which is to be included in a payment to the general contractor for payment to the subcontractor as provided in subparagraphs (a) and (b), the awarding authority shall act upon the demand as provided in this section.

(d) If, within seventy days after the subcontractor has substantially completed the subcontract work, the subcontractor has not received from the general contractor the balance due under the subcontract including any amount due for extra labor and materials furnished to the general contractor, less any amount retained by the awarding authority as the estimated cost of completing the incomplete and unsatisfactory items of work, the subcontractor may demand direct payment of that balance from the awarding authority. The demand shall be by a sworn statement delivered to or sent by certified mail to the awarding authority, and a copy shall be delivered to or sent by certified mail to the general contractor at the same time. The demand shall contain a detailed breakdown of the balance due under the subcontract and also a statement of the status of completion of the subcontract work. Any demand made after substantial completion of the subcontract work shall be valid even if delivered or mailed prior to the seventieth day after the subcontractor has substantially completed the subcontract work. Within ten days after the subcontractor has delivered or so mailed the demand to the awarding authority and delivered or so mailed a copy to the general contractor, the general contractor may reply to the demand. The reply shall be by a sworn statement delivered to or sent by certified mail to the awarding authority and a copy shall be delivered to or sent by certified mail to the subcontractor at the same time. The reply shall contain a detailed breakdown of the balance due under the subcontract including any amount due for extra labor and materials furnished to the general contractor and of the amount due for each claim made by the general contractor against the subcontractor.

(e) Within fifteen days after receipt of the demand by the awarding authority, but in no event prior to the seventieth day after substantial completion of the subcontract work, the awarding authority shall make direct payment to the subcontractor of the balance due under the subcontract including any amount due for extra labor and materials furnished to the general contractor, less any amount (i) retained by the awarding authority as the estimated cost of completing the incomplete or unsatisfactory items of work, (ii) specified in any court proceedings barring such payment, or (iii) disputed by the general contractor in the sworn reply; provided, that the awarding authority shall not deduct from a direct payment any amount as provided in part (iii) if the reply is not sworn to, or for which the sworn reply does not contain the detailed breakdown required by subparagraph (d). The awarding authority shall make further direct payments to the subcontractor

forthwith after the removal of the basis for deductions from direct payments made as provided in parts (i) and (ii) of this subparagraph.

(f) The awarding authority shall forthwith deposit the amount deducted from a direct payment as provided in part (iii) of subparagraph (e) in an interest-bearing joint account in the names of the general contractor and the subcontractor in a bank in Massachusetts selected by the awarding authority or agreed upon by the general contractor and the subcontractor and shall notify the general contractor and the subcontractor of the date of the deposit and the bank receiving the deposit. The bank shall pay the amount in the account, including accrued interest, as provided in an agreement between the general contractor and the subcontractor or as determined by decree of a court of competent jurisdiction.

(g) All direct payments and all deductions from demands for direct payments deposited in an interest-bearing account or accounts in a bank pursuant to subparagraph (f) shall be made out of amounts payable to the general contractor at the time of receipt of a demand for direct payment from a subcontractor and out of amounts which later become payable to the general contractor and in the order of receipt of such demands from subcontractors. All direct payments shall discharge the obligation of the awarding authority to the general contractor to the extent of such payment.

(h) The awarding authority shall deduct from payments to a general contractor amounts which, together with the deposits in interest-bearing accounts pursuant to subparagraph (f), are sufficient to satisfy all unpaid balances of demands for direct payment received from subcontractors. All such amounts shall be earmarked for such direct payments, and the subcontractors shall have a right in such deductions prior to any claims against such amounts by creditors of the general contractor.

(i) If the subcontractor does not receive payment as provided in subparagraph (a) or if the general contractor does not submit a periodic estimate for the value of the labor or materials performed or furnished by the subcontractor and the subcontractor does not receive payment for same when due less the deductions provided for in subparagraph (a), the subcontractor may demand direct payment by following the procedure in subparagraph (d) and the general contractor may file a sworn reply as provided in that same subparagraph. A demand made after the first day of the month following that for which the subcontractor performed or furnished the labor and materials for which the subcontractor seeks payment shall be valid even if delivered or mailed prior to the time payment was due on a periodic estimate from the general contractor. Thereafter the awarding authority shall proceed as provided in subparagraph (e), (f), (g) and (h).

(2) Any assignment by a subcontractor of the rights under this section to a surety company furnishing a bond under the provisions of section twenty-nine of chapter one hundred forty-nine shall be invalid. The assignment and subrogation rights of the surety to amounts included in a demand for direct payment which are in the possession of the

awarding authority or which are on deposit pursuant to subparagraph (f) of paragraph (1) shall be subordinate to the rights of all subcontractors who are entitled to be paid under this section and who have not been paid in full.

(3) "Subcontractor" as used in this section (i) for contracts awarded as provided in sections forty-four A to forty-four H, inclusive, of chapter one hundred forty-nine shall mean a person who files a sub-bid and receives a subcontract as a result of that filed sub-bid or who is approved by the awarding authority in writing as a person performing labor or both performing labor and furnishing materials pursuant to a contract with the general contractor, (ii) for contracts awarded as provided in paragraph (a) of section thirty-nine M of chapter thirty shall mean a person approved by the awarding authority in writing as a person performing labor or both performing labor and furnishing materials pursuant to a contract with the general contractor, and (iii) for contracts with the commonwealth not awarded as provided in forty-four A to forty-four H, inclusive, of chapter one hundred forty-nine shall also mean a person contracting with the general contractor to supply materials used or employed in a public works project for a price in excess of five thousand dollars.

(4) A general contractor or a subcontractor shall enforce a claim to any portion of the amount of a demand for direct payment deposited as provided in subparagraph (f) of paragraph 1 by a petition in equity in the superior court against the other and the bank shall not be a necessary party. A subcontractor shall enforce a claim for direct payment or a right to require a deposit as provided in subparagraph (f) of paragraph 1 by a petition in equity in the superior court against the awarding authority and the general contractor shall not be a necessary party. Upon motion of any party the court shall advance for speedy trial any petition filed as provided in this paragraph. Sections fifty-nine and fifty-nine B of chapter two hundred thirty-one shall apply to such petitions. The court shall enter an interlocutory decree upon which execution shall issue for any part of a claim found due pursuant to sections fifty-nine and fifty-nine B and, upon motion of any party, shall advance for speedy trial the petition to collect the remainder of the claim. Any party aggrieved by such interlocutory decree shall have the right to appeal therefrom as from a final decree. The court shall not consolidate for trial the petition of any subcontractor with the petition of one or more subcontractors or the same general contract unless the court finds that a substantial portion of the evidence of the same events during the course of construction (other than the fact that the claims sought to be consolidated arise under the same general contract) is applicable to the petitions sought to be consolidated and that such consolidation will prevent unnecessary duplication of evidence. A decree in any such proceeding shall not include interest on the disputed amount deposited in excess of the interest earned for the period of any such deposit. No person except a subcontractor filing a demand for direct payment for which no funds due the general contractor are available for direct payment shall have a right to file a petition in court of equity against the awarding authority claiming a demand for direct payment is premature and such subcontractor must file the petition before the awarding authority has made a direct

payment to the subcontractor and has made a deposit of the disputed portion as provided in part (iii) of subparagraph (e) and in subparagraph (f) of paragraph (1).

(5) In any petition to collect any claim for which a subcontractor has filed a demand for direct payment the court shall, upon motion of the general contractor, reduce by the amount of any deposit of a disputed amount by the awarding authority as provided in part (iii) of subparagraph (e) and in subparagraph (f) of paragraph (1) any amount held under a trustee writ or pursuant to a restraining order or injunction.

## **CHAPTER 30. GENERAL PROVISIONS RELATIVE TO STATE DEPARTMENTS, COMMISSIONS, OFFICERS AND EMPLOYEES**

### **Chapter 30: Section 39I Deviations from plans and specifications**

Section 39I. Every contractor having a contract for the construction, alteration, maintenance, repair or demolition of, or addition to, any public building or public works for the commonwealth, or of any political subdivision thereof, shall perform all the work required by such contract in conformity with the plans and specifications contained therein. No wilful and substantial deviation from said plans and specifications shall be made unless authorized in writing by the awarding authority or by the engineer or architect in charge of the work who is duly authorized by the awarding authority to approve such deviations. In order to avoid delays in the prosecution of the work required by such contract such deviation from the plans or specifications may be authorized by a written order of the awarding authority or such engineer or architect so authorized to approve such deviation. Within thirty days thereafter, such written order shall be confirmed by a certificate of the awarding authority stating: (1) If such deviation involves any substitution or elimination of materials, fixtures or equipment, the reasons why such materials, fixtures or equipment were included in the first instance and the reasons for substitution or elimination, and, if the deviation is of any other nature, the reasons for such deviation, giving justification therefor; (2) that the specified deviation does not materially injure the project as a whole; (3) that either the work substituted for the work specified is of the same cost and quality, or that an equitable adjustment has been agreed upon between the contracting agency and the contractor and the amount in dollars of said adjustment; and (4) that the deviation is in the best interest of the contracting authority.

Such certificate shall be signed under the penalties of perjury and shall be a permanent part of the file record of the work contracted for.

Whoever violates any provision of this section wilfully and with intent to defraud shall be punished by a fine of not more than five thousand dollars or by imprisonment for not more than six months, or both.

**CHAPTER 30. GENERAL PROVISIONS RELATIVE TO STATE DEPARTMENTS,  
COMMISSIONS, OFFICERS AND EMPLOYEES**

**Chapter 30: Section 39J Public construction contracts; effect of decisions of  
contracting body or administrative board**

Section 39L. The commonwealth and every county, city, town, district, board, commission or other public body which, as the awarding authority, requests proposals, bids or sub-bids for any work in the construction, reconstruction, alteration, remodeling, repair or demolition of any public building or other public works (1) shall not enter into a contract for the work with, and shall not approve as a subcontractor furnishing labor and materials for a part of the work, a foreign corporation which has not filed with the awarding authority a certificate of the state secretary stating that the corporation has complied with requirements of section 15.03 of subdivision A of Part 15 of chapter 156D and the date of compliance, and further has filed all annual reports required by section 16.22 of subdivision B of Part 16 of said chapter 156D, and (2) shall report to the state secretary and to the department of corporations and taxation any foreign corporation performing work under such contract or subcontract, and any person, other than a corporation, performing work under such contract or subcontract, and residing or having a principal place of business outside the commonwealth.

**CHAPTER 30. GENERAL PROVISIONS RELATIVE TO STATE DEPARTMENTS,  
COMMISSIONS, OFFICERS AND EMPLOYEES**

**Chapter 30: Section 39L Public construction work by foreign corporations;  
restrictions and reports**

Section 39L. The commonwealth and every county, city, town, district, board, commission or other public body which, as the awarding authority, requests proposals, bids or sub-bids for any work in the construction, reconstruction, alteration, remodeling, repair or demolition of any public building or other public works (1) shall not enter into a contract for the work with, and shall not approve as a subcontractor furnishing labor and materials for a part of the work, a foreign corporation which has not filed with the awarding authority a certificate of the state secretary stating that the corporation has complied with requirements of section 15.03 of subdivision A of Part 15 of chapter 156D and the date of compliance, and further has filed all annual reports required by section 16.22 of subdivision B of Part 16 of said chapter 156D, and (2) shall report to the state secretary and to the department of corporations and taxation any foreign corporation performing work under such contract or subcontract, and any person, other than a corporation, performing work under such contract or subcontract, and residing or having a principal place of business outside the commonwealth.



## **CHAPTER 30. GENERAL PROVISIONS RELATIVE TO STATE DEPARTMENTS, COMMISSIONS, OFFICERS AND EMPLOYEES**

### **Chapter 30: Section 39M Contracts for construction and materials; manner of awarding**

Section 38A. Contracts for road and bridge projects awarded as a result of a proposal or invitation for bids under section 39M shall include a price adjustment clause for each of the following materials: fuel, both diesel and gasoline; asphalt; concrete; and steel. Contracts for water and sewer projects awarded as a result of a proposal or invitation for bids under said section 39M shall include a price adjustment clause for fuel, both diesel and gasoline; liquid asphalt; and portland cement contained in cast-in-place concrete. A base price for each material shall be set by the awarding authority or agency and shall be included in the bid documents at the time the project is advertised. The awarding authority or agency shall also identify in the bid documents the price index to be used for each material. The price adjustment clause shall provide for a contract adjustment to be made on a monthly basis when the monthly cost change exceeds plus or minus 5 per cent.

Section 39M. (a) Every contract for the construction, reconstruction, alteration, remodeling or repair of any public work, or for the purchase of any material, as hereinafter defined, by the commonwealth, or political subdivision thereof, or by any county, city, town, district, or housing authority, and estimated by the awarding authority to cost more than ten thousand dollars, and every contract for the construction, reconstruction, installation, demolition, maintenance or repair of any building by a public agency, as defined by subsection one of section forty-four A of chapter one hundred and forty-nine, estimated to cost more than \$25,000 but not more than \$100,000, shall be awarded to the lowest responsible and eligible bidder on the basis of competitive bids publicly opened and read by such awarding authority forthwith upon expiration of the time for the filing thereof; provided, however, that such awarding authority may reject any and all bids, if it is in the public interest to do so. Every bid for such contract shall be accompanied by a bid deposit in the form of a bid bond, or cash, or a certified check on, or a treasurer's or cashier's check issued by, a responsible bank or trust company, payable to the awarding authority. The amount of such bid deposit shall be five per cent of the value of the bid. Any person submitting a bid under this section shall, on such bid, certify as follows:

The undersigned certifies under 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 paragraph the word "person" shall mean any natural person, joint venture, partnership, corporation or other business or legal entity.

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(Name of person signing bid)

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(Company)

This paragraph shall not apply to the award of any contract subject to the provisions of sections forty-four A to forty-four J, inclusive, of chapter one hundred and forty-nine and every such contract shall continue to be awarded as provided therein. In cases of extreme emergency caused by enemy attack, sabotage or other such hostile actions or resulting from an imminent security threat explosion, fire, flood, earthquake, hurricane, tornado or other such catastrophe, an awarding authority may, without competitive bids and notwithstanding any general or specific law, award contracts otherwise subject to this paragraph to perform work and to purchase or rent materials and equipment, all as may be necessary for temporary repair and restoration to service of any and all public work in order to preserve the health and safety of persons or property; provided, that this exception shall not apply to any permanent reconstruction, alteration, remodeling or repair of any public work.

(b) Specifications for such contracts, and specifications for contracts awarded pursuant to the provisions of said sections forty-four A to forty-four L of said chapter one hundred and forty-nine, shall be written to provide for full competition 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 therefor, in either instance such writing to be prepared after reasonable investigation. Every such contract shall provide that an item equal to that named or described in the said specifications may be furnished; and an item shall be considered equal to the item so named or described if, in the opinion of the awarding authority: (1) it is at least equal in quality, durability, appearance, strength and design, (2) it will perform at least equally the function imposed by the general design for the public work being contracted for or the material being purchased, and (3) it conforms substantially, even with deviations, to the detailed requirements for the item in the said specifications. For each item of material the specifications shall provide for either a minimum of three named brands of material or a description of material which can be met by a minimum of three manufacturers or producers, and for the equal of any one of said name or described materials.

(c) The term "lowest responsible and eligible bidder" shall mean the bidder: (1) whose bid is the lowest of those bidders possessing the skill, ability and integrity necessary for the faithful performance of the work; (2) who shall certify, that he is able to furnish labor that can work in harmony with all other elements of labor employed or to be employed in the work; (3) who shall certify that all employees to be employed at the worksite will have successfully completed a course in construction safety and health approved by the United States Occupational Safety and Health Administration that is at least 10 hours in duration at the time the employee begins work and who shall furnish documentation of successful completion of said course with the first certified payroll report for each

employee; (4) who, where the provisions of section 8B of chapter 29 apply, shall have been determined to be qualified thereunder; and (5) who obtains within 10 days of the notification of contract award the security by bond required under section 29 of chapter 149; provided that for the purposes of this section the term "security by bond" shall mean the bond of a surety company qualified to do business under the laws of the commonwealth and satisfactory to the awarding authority; provided further, that if there is more than 1 surety company, the surety companies shall be jointly and severally liable.

(d) The provisions of this section shall not apply (1) to the extent that they prevent the approval of such specifications by any contributing federal agency, (2) to materials purchased under specifications of the state department of highways at prices established by the said department pursuant to advertisement and bidding in connection with work to be performed under the provisions of chapter eighty-one or chapter ninety, (3) to any transaction between the commonwealth and any of its political subdivisions or between the commonwealth and any public service corporation, and (4) to any contract of not more than twenty-five thousand dollars awarded by a governmental body, as defined by section two of chapter thirty B, in accordance with the provisions of section five of said chapter thirty B; and (5) to any contract solely for the purchase of material awarded by a governmental body, as defined by section 2 of chapter 30B, in accordance with section 5 of said chapter 30B.

(e) The word "material" as used in this section shall mean and include any article, assembly, system, or any component part thereof.



## **CHAPTER 30. GENERAL PROVISIONS RELATIVE TO STATE DEPARTMENTS, COMMISSIONS, OFFICERS AND EMPLOYEES**

### **Chapter 30: Section 39N Construction contracts; equitable adjustment in contract price for differing subsurface or latent physical conditions**

Section 39N. Every contract subject to section forty-four A of chapter one hundred and forty-nine or subject to section thirty-nine M of chapter thirty shall contain the following paragraph in its entirety and an awarding authority may adopt reasonable rules or regulations in conformity with that paragraph concerning the filing, investigation and settlement of such claims:

If, during the progress of the work, the contractor or the awarding authority discovers that the actual subsurface or latent physical conditions encountered at the site differ substantially or materially from those shown on the plans or indicated in the contract documents either the contractor or the contracting authority may request an equitable adjustment in the contract price of the contract applying to work affected by the differing site conditions. A request for such an adjustment shall be in writing and shall be delivered by the party making such claim to the other party as soon as possible after such conditions are discovered. Upon receipt of such a claim from a contractor, or upon its own initiative, the contracting authority shall make an investigation of such physical conditions, and, if they differ substantially or materially from those shown on the plans or indicated in the contract documents or from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the plans and contract documents and are of such a nature as to cause an increase or decrease in the cost of performance of the work or a change in the construction methods required for the performance of the work which results in an increase or decrease in the cost of the work, the contracting authority shall make an equitable adjustment in the contract price and the contract shall be modified in writing accordingly.

## **CHAPTER 30. GENERAL PROVISIONS RELATIVE TO STATE DEPARTMENTS, COMMISSIONS, OFFICERS AND EMPLOYEES**

### **Chapter 30: Section 39O Contracts for construction and materials; suspension, delay or interruption due to order of awarding authority; adjustment in contract price; written claim**

Section 39O. Every contract subject to the provisions of section thirty-nine M of this chapter or subject to section forty-four A of chapter one hundred forty-nine shall contain the following provisions (a) and (b) in their entirety and, in the event a suspension, delay, interruption or failure to act of the awarding authority increases the cost of performance to any subcontractor, that subcontractor shall have the same rights against the general contractor for payment for an increase in the cost of his performance as provisions (a) and (b) give the general contractor against the awarding authority, but nothing in provisions (a) and (b) shall in any way change, modify or alter any other rights which the general contractor or the subcontractor may have against each other.

(a) The awarding authority may order the general contractor in writing to suspend, delay, or interrupt all or any part of the work for such period of time as it may determine to be appropriate for the convenience of the awarding authority; provided however, that if there is a suspension, delay or interruption for fifteen days or more or due to a failure of the awarding authority to act within the time specified in this contract, the awarding authority shall make an adjustment in the contract price for any increase in the cost of performance of this contract but shall not include any profit to the general contractor on such increase; and provided further, that the awarding authority shall not make any adjustment in the contract price under this provision for any suspension, delay, interruption or failure to act to the extent that such is due to any cause for which this contract provides for an equitable adjustment of the contract price under any other contract provisions.

(b) The general contractor must submit the amount of a claim under provision (a) to the awarding authority in writing as soon as practicable after the end of the suspension, delay, interruption or failure to act and, in any event, not later than the date of final payment under this contract and, except for costs due to a suspension order, the awarding authority shall not approve any costs in the claim incurred more than twenty days before the general contractor notified the awarding authority in writing of the act or failure to act involved in the claim.

**CHAPTER 30. GENERAL PROVISIONS RELATIVE TO STATE DEPARTMENTS,  
COMMISSIONS, OFFICERS AND EMPLOYEES**

**Chapter 30: Section 39P Contracts for construction and materials; awarding  
authority's decisions on interpretation of specifications, etc.; time limit; notice**

Section 39P. Every contract subject to section thirty-nine M of this chapter or section forty-four A of chapter one hundred forty-nine which requires the awarding authority, any official, its architect or engineer to make a decision on interpretation of the specifications, approval of equipment, material or any other approval, or progress of the work, shall require that the decision be made promptly and, in any event, no later than thirty days after the written submission for decision; but if such decision requires extended investigation and study, the awarding authority, the official, architect or engineer shall, within thirty days after the receipt of the submission, give the party making the submission written notice of the reasons why the decision cannot be made within the thirty day period and the date by which the decision will be made.





## **CHAPTER 30. GENERAL PROVISIONS RELATIVE TO STATE DEPARTMENTS, COMMISSIONS, OFFICERS AND EMPLOYEES**

### **Chapter 30: Section 39R Definitions; contract provisions; management and financial statements; enforcement**

Section 39R. (a) The words defined herein shall have the meaning stated below whenever they appear in this section:

(1) "Contractor" means any person, corporation, partnership, joint venture, sole proprietorship, or other entity awarded a contract pursuant to sections thirty-eight A 1/2 to thirty-eight O, inclusive, of chapter seven and any contract awarded or executed pursuant to section eleven C of chapter twenty-five A, section thirty-nine M of chapter thirty, or sections forty-four A to forty-four H, inclusive, of chapter one hundred and forty-nine, which is for an amount or estimated amount greater than one hundred thousand dollars.

(2) "Contract" means any contract awarded or executed pursuant to sections thirty-eight A 1/2 to thirty-eight O, inclusive, of chapter seven and any contract awarded or executed pursuant to section eleven C of chapter twenty-five A, section thirty-nine M of chapter thirty, or sections forty-four A through forty-four H, inclusive, of chapter one hundred and forty-nine, which is for amount or estimated amount greater than one hundred thousand dollars.

(3) "Records" means books of original entry, accounts, checks, bank statements and all other banking documents, correspondence, memoranda, invoices, computer printouts, tapes, discs, papers and other documents or transcribed information of any type, whether expressed in ordinary or machine language.

(4) "Independent Certified Public Accountant" means a person duly registered in good standing and entitled to practice as a certified public accountant under the laws of the place of his residence or principal office and who is in fact independent. In determining whether an accountant is independent with respect to a particular person, appropriate consideration should be given to all relationships between the accountant and that person or any affiliate thereof. Determination of an accountant's independence shall not be confined to the relationships existing in connection with the filing of reports with the awarding authority.

(5) "Audit", when used in regard to financial statements, means an examination of records by an independent certified public accountant in accordance with generally accepted accounting principles and auditing standards for the purpose of expressing a *certified* opinion thereon, or, in the alternative, a qualified opinion or a declination to express an opinion for stated reasons.

(6) "Accountant's Report", when used in regard to financial statements, means a document in which an independent certified public accountant indicates the scope of the audit which he has made and sets forth his opinion regarding the financial statements taken as a whole with a listing of noted exceptions and qualifications, or an assertion to the effect that an overall opinion cannot be expressed. When an overall opinion cannot be expressed the reason therefor shall be stated. An accountant's report shall include as a part thereof a signed statement by the responsible corporate officer attesting that management has fully disclosed all material facts to the independent certified public accountant, and that the audited financial statement is a true and complete statement of the financial condition of the contractor.

(7) "Management", when used herein, means the chief executive officers, partners, principals or other person or persons primarily responsible for the financial and operational policies and practices of the contractor.

(8) Accounting terms, unless otherwise defined herein, shall have a meaning in accordance with generally accepted accounting principles and auditing standards.

(b) Subsection (a)(2) hereof notwithstanding, every agreement or contract awarded or executed pursuant to sections thirty-eight A 1/2 to thirty-eight O, inclusive, of chapter seven, or eleven C of chapter twenty-five A, and pursuant to section thirty-nine M of chapter thirty or to section forty-four A through H, inclusive, of chapter one hundred and forty-nine, shall provide that:

(1) The contractor shall make, and keep for at least six years after final payment, books, records, and accounts which in reasonable detail accurately and fairly reflect the transactions and dispositions of the contractor, and

(2) until the expiration of six years after final payment, the office of inspector general, and the commissioner of capital asset management and maintenance shall have the right to examine any books, documents, papers or records of the contractor or of his subcontractors that directly pertain to, and involve transactions relating to, the contractor or his subcontractors, and

(3) if the agreement is a contract as defined herein, the contractor shall describe any change in the method of maintaining records or recording transactions which materially affect any statements filed with the awarding authority, including in his description the date of the change and reasons therefor, and shall accompany said description with a letter from the contractor's independent certified public accountant approving or otherwise commenting on the changes, and

(4) if the agreement is a contract as defined herein, the contractor has filed a statement of management on internal accounting controls as set forth in paragraph (c) below prior to the execution of the contract, and

(5) if the agreement is a contract as defined herein, the contractor has filed prior to the execution of the contracts and will continue to file annually, an audited financial statement for the most recent completed fiscal year as set forth in paragraph (d) below.

(c) Every contractor awarded a contract shall file with the awarding authority a statement of management as to whether the system of internal accounting controls of the contractor and its subsidiaries reasonably assures that:

(1) transactions are executed in accordance with management's general and specific authorization;

(2) transactions are recorded as necessary

i. to permit preparation of financial statements in conformity with generally accepted accounting principles, and

ii. to maintain accountability for assets;

(3) access to assets is permitted only in accordance with management's general or specific authorization; and

(4) the recorded accountability for assets is compared with the existing assets at reasonable intervals and appropriate action was taken with respect to any difference.

Every contractor awarded a contract shall also file with the awarding authority a statement prepared and signed by an independent certified public accountant, stating that he has examined the statement of management on internal accounting controls, and expressing an opinion as to

(1) whether the representations of management in response to this paragraph and paragraph (b) above are consistent with the result of management's evaluation of the system of internal accounting controls; and

(2) whether such representations of management are, in addition, reasonable with respect to transactions and assets in amounts which would be material when measured in relation to the applicant's financial statements.

(d) Every contractor awarded a contract by the commonwealth or by any political subdivision thereof shall annually file with the commissioner of capital asset management and maintenance during the term of the contract a financial statement

prepared by an independent certified public accountant on the basis of an audit by such accountant. The final statement filed shall include the date of final payment. All statements shall be accompanied by an accountant's report. Such statements shall be made available to the awarding authority upon request.

(e) The office of inspector general, the commissioner of capital asset management and maintenance and any other awarding authority shall enforce the provisions of this section. The commissioner of capital asset management and maintenance may after providing an opportunity for the inspector general and other interested parties to comment, promulgate pursuant to the provisions of chapter thirty A such rules, regulations and guidelines as are necessary to effectuate the purposes of this section. Such rules, regulations and guidelines may be applicable to all awarding authorities. A contractor's failure to satisfy any of the requirements of this section may be grounds for debarment pursuant to section forty-four C of chapter one hundred and forty-nine.

(f) Records and statements required to be made, kept or filed under the provisions of this section shall not be public records as defined in section seven of chapter four and shall not be open to public inspection; provided, however, that such records and statements shall be made available pursuant to the provisions of clause (2) of paragraph (b).

## **CHAPTER 82. THE LAYING OUT, ALTERATION, RELOCATION AND DISCONTINUANCE OF PUBLIC WAYS, AND SPECIFIC REPAIRS THEREON**

### **EXCAVATIONS; NOTICES; PENALTIES**

#### **Chapter 82: Section 40 Definitions**

Section 40. The following words, as used in this section and sections 40A to 40E, inclusive, shall have the following meanings:—

“Company”, natural gas pipeline company, petroleum or petroleum products pipeline company, public utility company, cable television company, and municipal utility company or department that supply gas, electricity, telephone, communication or cable television services or private water companies within the city or town where such excavation is to be made.

“Description of excavation location”, such description shall include the name of the city or town, street, way, or route number where appropriate, the name of the streets at the nearest intersection to the excavation, the number of the buildings closest to the excavation or any other description, including landmarks, utility pole numbers or other information which will accurately define the location of the excavation.

“Emergency”, a condition in which the safety of the public is in imminent danger, such as a threat to life or health or where immediate correction is required to maintain or restore essential public utility service.

“Excavation”, an operation for the purpose of movement or removal of earth, rock or the materials in the ground including, but not limited to, digging, blasting, augering, backfilling, test boring, drilling, pile driving, grading, plowing in, hammering, pulling in, jacking in, trenching, tunneling and demolition of structures, excluding excavation by tools manipulated only by human power for gardening purposes and use of blasting for quarrying purposes.

“Excavator”, any entity including, but not limited to, a person, partnership, joint venture, trust, corporation, association, public utility, company or state or local government body which performs excavation operations.

“Premark”, to delineate the general scope of the excavation or boring on the paved surface of the ground using white paint, or stakes or other suitable white markings on nonpaved surfaces. No premarking shall be acceptable if such marks can reasonably interfere with traffic or pedestrian control or are misleading to the general public. Premarking shall not be required of any continuous excavation that is over 500 feet in length.

“Safety zone”, a zone designated on the surface by the use of standard color-coded markings which contains the width of the facilities plus not more than 18 inches on each side.

“Standard color-coded markings”, red - electric power lines, cables, conduit or light cables; yellow - gas, oil, street petroleum, or other gaseous materials; orange - communications cables or conduit, alarm or signal lines; blue - water, irrigation and slurry lines; green - sewer and drain lines; white - premark of proposed excavation.

“System”, the underground plant damage prevention system as defined in section 76D of chapter 164.

#### **Chapter 82: Section 40A Excavations; notice**

Section 40A. No excavator installing a new facility or an addition to an existing facility or the relay or repair of an existing facility shall, except in an emergency, make an excavation, in any public or private way, any company right-of-way or easement or any public or privately owned land or way, unless at least 72 hours, exclusive of Saturdays, Sundays and legal holidays but not more than 30 days before the proposed excavation is to be made, such excavator has premarked not more than 500 feet of the proposed excavation and given an initial notice to the system. Such initial notice shall set forth a description of the excavation location in the manner as herein defined. In addition, such initial notice shall indicate whether any such excavation will involve blasting and, if so, the date and the location at which such blasting is to occur.

The notice requirements shall be waived in an emergency as defined herein; provided, however, that before such excavation begins or during a life-threatening emergency, notification shall be given to the system and the initial point of boring or excavation shall be premarked. The excavator shall ensure that the underground facilities of the utilities in the area of such excavation shall not be damaged or jeopardized.

In no event shall any excavation by blasting take place unless notice thereof, either in the initial notice or a subsequent notice accurately specifying the date and location of such blasting shall have been given and received at least 72 hours in advance, except in the case of an unanticipated obstruction requiring blasting when such notice shall be not less than four hours prior to such blasting. If any such notice cannot be given as aforesaid because of an emergency requiring blasting, it shall be given as soon as may be practicable but before any explosives are discharged.

#### **Chapter 82: Section 40B Designation of location of underground facilities**

Section 40B. Within 72 hours, exclusive of Saturdays, Sundays and legal holidays, from the time the initial notice is received by the system or at such time as the company and the excavator agree, such company shall respond to the initial notice or subsequent notice

by designating the location of the underground facilities within 15 feet in any direction of the premarking so that the existing facilities are to be found within a safety zone. Such safety zone shall be so designated by the use of standard color-coded markings. The providing of such designation by the company shall constitute prima facie evidence of an exercise of reasonable precaution by the company as required by this section; provided, however, that in the event that the excavator has given notice as aforesaid at a location at which because of the length of excavation the company cannot reasonably designate the entire location of its facilities within such 72 hour period, then such excavator shall identify for the company that portion of the excavation which is to be first made and the company shall designate the location of its facilities in such portion within 72 hours and shall designate the location of its facilities in the remaining portion of the location within a reasonable time thereafter. When an emergency notification has been given to the system, the company shall make every attempt to designate its facilities as promptly as possible.

#### **Chapter 82: Section 40C Excavator's responsibility to maintain designation markings; damage caused by excavator**

Section 40C. After a company has designated the location of its facilities at the location in accordance with section 40B, the excavator shall be responsible for maintaining the designation markings at such locations, unless such excavator requests remarking at the location due to the obliteration, destruction or other removal of such markings. The company shall then remark such location within 24 hours following receipt of such request.

When excavating in close proximity to the underground facilities of any company when such facilities are to be exposed, non-mechanical means shall be employed, as necessary, to avoid damage in locating such facility and any further excavation shall be performed employing reasonable precautions to avoid damage to any underground facilities including, but not limited to, any substantial weakening of structural or lateral support of such facilities, penetration or destruction of any pipe, main, wire or conduit or the protective coating thereof, or damage to any pipe, main, wire or conduit.

If any damage to such pipe, main, wire or conduit or its protective coating occurs, the company shall be notified immediately by the excavator responsible for causing such damage.

The making of an excavation without providing the notice required by section 40A with respect to any proposed excavation which results in any damage to a pipe, main, wire or conduit, or its protective coating, shall be prima facie evidence in any legal or administrative proceeding that such damage was caused by the negligence of such person.

#### **Chapter 82: Section 40D Local laws requiring excavation permits; public ways**

Section 40D. Nothing in this section shall affect or impair local ordinances or by-laws requiring a permit to be obtained before excavation in a public way or on private property; but notwithstanding any general or special law, ordinance or by-law to the contrary, to the extent that any permit issued under the provisions of the state building code or state fire code requires excavation by an excavator on a public way or on private property, the permit shall not be valid unless the excavator notifies the system as required pursuant to sections 40 and 40A, before the commencement of the excavation, and has complied with the permitting requirements of chapter 82A.

**Chapter 82: Section 40D Section 40E Violations of Secs. 40A to 40E; punishment**

Section 40E. Any person or company found by the department of telecommunications and energy, after a hearing, to have violated any provision of sections 40A to 40E, inclusive, shall be fined \$1,000 for the first offense and not less than \$5,000 nor more than \$10,000 for any subsequent offense within 12 consecutive months as set forth by the rules of said department; provided, however, that nothing herein shall be construed to require forfeiture of any penal sum by a state or local government body for violation of section 40A or 40C; and provided, further, that nothing herein shall be construed to require the forfeiture of any penal sum by a residential property owner for the failure to premark for an excavation on such person's residential property.





Commonwealth of Massachusetts  
Executive Office of Energy and Environmental Affairs

## Department of Environmental Protection

**Address:** 100 Cambridge Street, Suite 900, Boston MA 02114 | **Phone:** 617-292-5500

**Maura T. Healey**  
Governor

**Kim Driscoll**  
Lieutenant Governor

**Rebecca Tepper**  
Secretary

**Bonnie Heiple**  
Commissioner

August 4, 2026

Ryan Wingerter  
Town of Agawam  
250 Main Street  
Agawam, MA 01001

DEP WQC Authorization #  
26-WW07-0008-APP  
401 WQC Application Completion on 6/11/26

RE: Application for: BRP WW 07  
401 Water Quality Certification for Major Dredging Project

AT: Springfield Reservoir Culvert Replacements Project  
1149 Center Street, Ludlow, MA 01056  
Ludlow Reservoir Watershed

Dear Mr. Wingerter:

The Department of Environmental Protection (MassDEP) has reviewed your application for a 401 Water Quality Certification for Major Dredging (Certification), as referenced above and is basing its certification upon an evaluation of the information contained in the application which is relevant to water quality considerations. In accordance with the provisions of Section 401 of the Federal Clean Water Act (33 U.S.C. § 1251 *et seq.*), M.G.L. c. 21, §§ 26-53, and 314 CMR 9.00, MassDEP has determined there is reasonable assurance the project or activity, as conditioned herein, will be conducted in a manner which will not violate applicable water quality standards (314 CMR 4.00) and other appropriate requirements of state law.

The waters of the Springfield Reservoir which are located in the Ludlow Reservoir Watershed, are designated in the Massachusetts Surface Water Quality Standards as Class B. Such waters are intended “as habitat for fish, other aquatic life and wildlife, and for primary and secondary contact recreation.” Antidegradation provisions of these Standards require that

Springfield Reservoir Culvert Replacement Major Dredge Project,  
Ludlow, MA  
401 WQC 26-WW07-0008-APP

“existing uses and the level of water quality necessary to protect the existing uses shall be maintained and protected.”

The Springfield Reservoir Culvert Replacements Project will replace two (2) existing culverts in order to maintain access around Springfield Reservoir and to better convey flowing water during heavy stormflows and minimize the potential for culvert failure and roadway collapse (Project) in Outstanding Resource Waters (ORWs). The proposed Project includes replacing Culvert #1 with a six-foot wide by five feet high box culvert featuring a natural stone bottom and replacing Culvert #2 with a three-foot wide by two-foot-high concrete box culvert. The replacement crossings meet the Massachusetts *River and Stream Crossing Standards* to the extent practicable. No discharge of dredged or fill material for the impoundment or detention of stormwater is proposed. The Project will not generate additional stormwater runoff, increase impervious area, or create a new point source discharge. Discharge of dredged or fill material to an ORW is proposed by the public water supplier in the performance of their responsibilities and duties to protect the quality of the water in the watersheds. Additionally, per 314 CMR 9.06(3)(c) discharge of dredged and fill material will be the result of replacement of existing and lawfully located structures.

The work will result in the dredging of approximately 110 cubic yards (CYs) of sediment from the stream channel in the areas adjacent to the Project Area. The dredged sediment will be re-used on-site or be transported off-site to a landfill or approved disposal facility.

The project is subject to MassDEP review pursuant to 314 CMR 9.04(2) and (4). Work below the Mean Annual High-Water Line and within BVW at these locations will result in cumulative temporary impacts of approximately 1,715 sf to BVW and Land Under Water (LUWW) and 110 cy dredging as summarized below: • Approximately 195 sf of impacts to BVW resulting from the installation of temporary erosion controls, grading, and the bypass pipe at Culvert #1. • Approximately 1,085 sf of impacts to LUWW resulting from the installation of erosion controls, dewatered work area, and culvert replacement activities at Culvert #1. • Approximately 435 sf of impacts to LUWW resulting from the installation of erosion controls, dewatered work area, and culvert replacement activities at Culvert #2. • Approximately 55 cy of dredge from Culvert #1 and 55 cy of dredge from Culvert #2 will result from the replacement of the culverts to achieve the necessary elevation.

Sediment Chemistry Results: The analytical results were compared to MassDEP's *Interim Policy for Sampling, Analysis, Handling and Tracking Requirements for Dredged Sediment*

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*Reuse and Disposal (COMM-94-007).* All of the results were either non-detect or below the Reportable Concentration (“RC”) S-1 criteria of the Massachusetts Contingency Plan (“MCP”).

Public Notice: The Certification Application public notice was published in The Register Newspaper on April 22, 2026. No comments were received by MassDEP during the 21-day public comment period pursuant to 314 CMR 9.05(3)(e), which ended on May 21, 2026. Since the Project is within an Outstanding Resource Water (ORW), the public notice was also published in the Office of Energy & Environmental Affairs’ (EEA) Massachusetts Environmental Policy Act (MEPA) Environmental Monitor on May 8, 2026.

Section 61 Findings: Pursuant to M.G.L. Chapter 30, Sections 61 to 62H inclusive [the Massachusetts Environmental Policy Act (“MEPA”)], the project, as referenced in the Water Quality Certification Application, # 26-WW07-0008-APP, did not meet or exceed a related MEPA review threshold pursuant to 301 CMR 11.03. Therefore, no review under MEPA is required.

Pursuant to 314 CMR 4.00, 314 CMR 9.01(3), 314 CMR 9.04(5), 314 CMR 9.05(1), 314 CMR 9.05(4), 314 CMR 9.06(1), 314 CMR 9.07(1), 314 CMR 9.07(3), 314 CMR 9.07(6), and 314 CMR 9.09(1), the following Special Conditions are necessary to: ensure that the discharge of dredged or fill material, dredging and associated construction practices and activities, and construction sequencing are implemented in such a manner as to prevent water quality degradation to the Waters of the United States within the Commonwealth; ensure that practicable steps have been taken to avoid and minimize water quality impacts and adverse impacts to Bordering or Isolated Vegetated Wetlands, land under water or ocean, intertidal zone, Special Aquatic Sites, and to the Aquatic Ecosystem; minimize water quality impacts from turbidity and sedimentation caused by construction activities and ongoing operation of a project; maintain a record of the dredged material to ensure appropriate management in its transport and end use; and protect the public health and maintain the chemical, physical, and biological integrity of the Waters of the United States within the Commonwealth.

**Therefore, based on information currently in the record, MassDEP grants a Certification for this project subject to the following conditions to maintain or attain water quality, to minimize any damage to the environment that may result from the project, and to ensure compliance with appropriate provisions of state law. MassDEP certifies that there is reasonable assurance the project or activity, as conditioned**

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**herein, will be conducted in a manner which will not violate applicable water quality standards (314 CMR 4.00) and other appropriate requirements of state law.**

1. The Contractor shall take all steps necessary to assure that the proposed activities will be conducted in a manner that will avoid violations of the anti-degradation provisions of the Massachusetts Surface Water Quality Standards that protect all waters, including wetlands.
2. Prior to the start of work, or for any portion of the work thereafter, MassDEP shall be notified of any change(s) in the proposed project or plans that may affect waters or wetlands. MassDEP will determine whether the change(s) requires a revision to this Certification.
3. Dredging in accordance with this Certification may begin following the 21-day appeal period and once all other permits have been received.
4. All work shall be performed in accordance with the following documents and plans.
  - Application for 401 Major Dredge Permit, Accela Application #26-WW07-0008-APP dated April 30, 2026, with attachments.
  - Plans entitled “Springfield Water and Sewer Commission Springfield Reservoir Culvert Replacement Ludlow, MA”, consisting of 11 sheets, various scales, dated January 2026, prepared by Tighe and Bond.
  - Correspondence from Jason Stolarski of the Massachusetts Division of Marine Fisheries (DMF) to Carlene Eaton (Tighe & Bond), dated February 4, 2026, providing project review comments. DMF will not impose any time of year (TOY) restriction for the Project.
  - Dredging and Disposal Operations Plan
5. The Department shall be notified, attention Elizabeth Stefanik (elizabeth.a.stefanik@mass.gov), one week prior to the start of in-water work so that Department staff may inspect the work for compliance with the terms and conditions of this Certification. MassDEP shall be notified if there are modifications and or deletions of work as specified in the plans. Depending on the nature and the scope of any change, approval by the Department may be required.

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6. The applicant and its contractor shall allow agents of the Department to enter the project sites to verify compliance with the conditions of this Certification.
7. The term of the Certification remains in effect for the same duration as the federal permit that requires it.
8. Future maintenance dredging is not authorized under this 401 WQC.
9. Inflow streams shall be maintained throughout construction of the project.
10. Daily inspection of the dredging activity and nourishment placement activities shall be conducted by the contractor. If any material other than compatible nourishment material is observed, the applicant shall direct the dredging contractor to cease dredging operation and conduct an investigation regarding the nature of the to the suspected material. If the suspected material is determined to be incompatible as nourishment material, the applicant shall remove the suspect material and dispose it appropriately after consultation with the Department.
11. All equipment/machinery shall be stored above the High Water Mark ("HWM") and outside any wetland resource areas when not in use.
12. Storing, servicing, or cleaning of equipment, including but not limited to fueling, changing, adding, or applying lubricants or hydraulic fluids, or washing/rinsing of trucks or equipment, shall be performed outside resource areas.
13. During the project period, there shall be no discharge or spillage of fuel, oil, or other pollutants, including sediments, onto any part of the site. The applicant shall take all reasonable precautions to prevent the release of pollutants by ignorance, accident, or vandalism.
14. No later than four weeks after issuance of this 401 WQC, the applicant shall submit a notification procedure outlining the reporting process to MassDEP for incidents relating to dredging activities that impact surrounding resource areas and habitats including, but not limited to, observed dead or distressed fish or other aquatic organisms, observed oily sheen on the surface of the water, a sediment spill, a turbidity plume beyond the deployed BMPs, and a barge or equipment accident/spill. If at any time during implementation of the project such an incident occurs, the applicant shall immediately notify MassDEP and all site related activities impacting the water shall cease until the source of the problem is identified and adequate mitigating measures are deployed to the satisfaction of MassDEP.

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15. Upon completion of the project, remnants of project debris shall be removed and disposed of appropriately at an offsite facility.
16. MassDEP shall be notified in writing of the name and location of the upland licensed facility accepting the dredged material for disposal or reuse as daily cover material. If the licensed facility is located out of state, documentation shall be provided to MassDEP that the dredged material disposal/reuse has been approved and will be accepted by the receiving state in accordance with 314 CMR 9.07(13)(b). The dredged material shall not be transported to the facility without concurrence of MassDEP.
17. A Material Shipping Record ("MSR") shall be used to track the dredged material to the licensed upland facility. A fully executed copy of the MSR shall be provided to MassDEP within 30 days of final shipment to the reuse location or facility.
18. BMPs shall be implemented during transportation of the dredged material to the licensed receiving facility. At a minimum, when transported upon public roadways, all dredged material shall have no free liquid as determined by the Paint Filter Test or other suitably analogous methodology acceptable to MassDEP, and a tarpaulin or other means shall be used to cover the dredged material during transport.
19. Within 30 days of the completion of dredging and filling, photographs of the affected areas depicting pre, during and post dredge (activities) conditions shall be submitted to Elizabeth Stefanik, [elizabeth.a.stefanik@mass.gov](mailto:elizabeth.a.stefanik@mass.gov) at MassDEP.

Failure to comply with this 401 WQC is grounds for enforcement, including civil and criminal penalties, under M.G.L. c. 21, § 42, 314 CMR 9.00, M.G.L. c. 21A, § 16, 310 CMR 5.00, or other possible actions/penalties as authorized by the General Laws of the Commonwealth.

This Certification does not relieve the applicant of the obligation to comply with other appropriate state or federal statutes or regulations. Any changes made to the project as described in the previously submitted Certification Application or supplemental documents will require further notification to and, if an amendment is required, approval by MassDEP.

**NOTICE OF APPEAL RIGHTS**

Springfield Reservoir Culvert Replacement Major Dredge Project,  
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Certain persons shall have a right to request an adjudicatory hearing concerning 401 WQCs by MassDEP when an application is required:

- a. the applicant or property owner;
- b. any person aggrieved by the decision who has submitted written comments during the public comment period;
- c. any ten persons of the Commonwealth pursuant to M.G.L. c. 30A where a group member has submitted written comments during the public comment period; or
- d. any governmental body or private organization with a mandate to protect the environment, which has submitted written comments during the public comment period.

Any person aggrieved, any ten (10) persons of the Commonwealth, or a governmental body or private organization with a mandate to protect the environment may appeal without having submitted written comments during the public comment period only when the claim is based on new substantive issues arising from material changes to the scope or impact of the activity and not apparent at the time of public notice. To request an adjudicatory hearing pursuant to M.G.L. c. 30A, § 10, a Notice of Claim must be made in writing, provided that the request is made by certified mail or hand delivery to MassDEP, with the appropriate filing fee specified within 310 CMR 4.10 along with a DEP Fee Transmittal Form within twenty-one (21) days from the date of issuance of this Certificate.

Case Administrator  
Massachusetts Department of Environmental Protection  
Office of Appeals and Dispute Resolution  
100 Cambridge Street, Suite 900  
Boston, MA 02114

A copy of the request shall at the same time be sent by certified mail or hand delivery to the issuing office of the Wetlands Program at:

Department of Environmental Protection  
100 Cambridge Street, Suite 900  
Boston, MA 02114

Springfield Reservoir Culvert Replacement Major Dredge Project,  
Ludlow, MA  
401 WQC 26-WW07-0008-APP

A Notice of Claim for Adjudicatory Hearing shall comply with MassDEP's Rules for Adjudicatory Proceedings, 310 CMR 1.01(6), and shall contain the following information pursuant to 314 CMR 9.10(3):

- a. the 401 WQC Permit Application Number;
- b. the complete name of the applicant and address of the project;
- c. the complete name, address, and fax and telephone numbers of the party filing the request, and, if represented by counsel or other representative, the name, fax and telephone numbers, and address of the attorney;
- d. if claiming to be a party aggrieved, the specific facts that demonstrate that the party satisfies the definition of "aggrieved person" found at 314 CMR 9.02;
- e. a clear and concise statement that an adjudicatory hearing is being requested;
- f. a clear and concise statement of (1) the facts which are grounds for the proceedings, (2) the objections to this Certificate, including specifically the manner in which it is alleged to be inconsistent with the MassDEP's Water Quality Regulations, 314 CMR 9.00, and (3) the relief sought through the adjudicatory hearing, including specifically the changes desired in the final written 401 WQC; and
- g. a statement that a copy of the request has been sent by certified mail or hand delivery to the applicant, the owner (if different from the applicant), the conservation commission of the city or town where the activity will occur, the Department of Conservation and Recreation (when the certificate concerns projects in Areas of Critical Environmental Concern), the public or private water supplier where the project is located (when the certificate concerns projects in Outstanding Resource Waters), and any other entity with responsibility for the resource where the project is located.

The hearing request along with a DEP Fee Transmittal Form and a valid check or money order payable to the Commonwealth of Massachusetts in the amount of one hundred dollars (\$100) must be mailed to:

Commonwealth of Massachusetts  
Department of Environmental Protection  
Commonwealth Master Lockbox  
PO Box 4062  
Boston, MA 02211

The request will be dismissed if the filing fee is not paid, unless the appellant is exempt or granted a waiver. The filing fee is not required if the appellant is a city or town (or municipal agency), county, or district of the Commonwealth of Massachusetts, or a municipal



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housing authority. MassDEP may waive the adjudicatory hearing filing fee pursuant to 310 CMR 4.06(2) for a person who shows that paying the fee will create an undue financial hardship. A person seeking a waiver must file an affidavit setting forth the facts believed to support the claim of undue financial hardship together with the hearing request as provided above.

Failure to comply with this certification is grounds for enforcement, including civil and criminal penalties, under MGL c.21 §42, 314 CMR 9.00, MGL c. 21A §16, 310 CMR 5.00, or other possible actions/penalties as authorized by the General Laws of the Commonwealth.

Should you have any questions relative to this 401 WQC, please contact Elizabeth Stefanik, 617-947-7835, [elizabeth.a.stefanik@mass.gov](mailto:elizabeth.a.stefanik@mass.gov).

Sincerely,



Timothy Jones  
Dir. Wetlands & Waterways

ecc:

Ryan Wingerter, Town of Agawam, 250 Main Street, Agawam, MA 01001,  
[ryanwingerter@waterandsewer.org](mailto:ryanwingerter@waterandsewer.org)

Carlene Eaton, Tighe and Bond, 485 Corey Street, Apartment B, Agawam, MA 01001,  
[ceaton@tighebond.com](mailto:ceaton@tighebond.com)

Michael McHugh, MassDEP Western Regional Office (WERO), 436 Dwight Street,  
Springfield, MA 01103, [michael.mchugh@mass.gov](mailto:michael.mchugh@mass.gov)

Department of the Army, New England District, Corps of Engineers, 696 Virginia Road,  
Concord, MA 01742, [cenae-r-ma@usace.army.mil](mailto:cenae-r-ma@usace.army.mil)

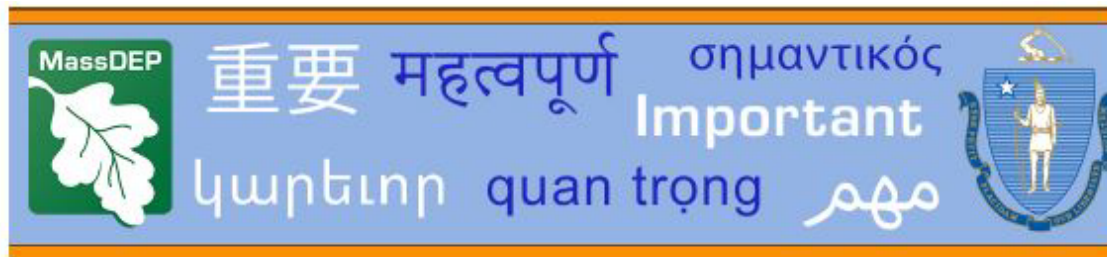
Jason Stolarski, MA Division of Marine Fisheries (DMF), 30 Emerson Avenue, Gloucester,  
MA 01930, [jason.stolarski@mass.gov](mailto:jason.stolarski@mass.gov)

Nathan Margason, United States (US) Environmental Protection Agency (EPA), 5 Post  
Office Square, Suite 100, Boston, MA 02109, [margason.nathan@epa.gov](mailto:margason.nathan@epa.gov)

Sean Duffey, MA Office of Coastal Zone Management (CZM), 100 Cambridge Street,  
Suite 900, Boston, MA 02114, [sean.duffey@mass.gov](mailto:sean.duffey@mass.gov)

Attachments: Communication for Non-English Speaking Parties document  
Plans of Record

Springfield Reservoir Culvert Replacement Major Dredge Project,  
Ludlow, MA  
401 WQC 26-WW07-0008-APP



### Communication for Non-English-Speaking Parties

***This document is important and should be translated immediately.***

If you need this document translated, please contact MassDEP's Director of Environmental Justice at the telephone number listed below.

#### **Español Spanish**

Este documento es importante y debe ser traducido inmediatamente. Si necesita traducir este documento, póngase en contacto con el Director de Justicia Ambiental de MassDEP (*MassDEP's Director of Environmental Justice*) en el número de teléfono que figura más abajo.

#### **Português Portuguese**

Este documento é importante e deve ser traduzido imediatamente. Se você precisar traduzir este documento, entre em contato com o Diretor de Justiça Ambiental do MassDEP no número de telefone listado abaixo.

#### **繁體中文 Chinese Traditional**

本文檔很重要，需要即刻進行翻譯。  
如需對本文檔進行翻譯，請透過如下列示電話號碼與 MassDEP 的環境司法總監聯絡。

#### **简体中文 Chinese Simplified**

这份文件非常重要，需要立即翻译。  
如果您需要翻译这份文件，请通过下方电话与 MassDEP 环境司法主任联系。

#### **Ayisyen Kreyòl Haitian Creole**

Dokiman sa a enpòtan epi yo ta dwe tradui l imedyatman. Si w bezwen tradui dokiman sa a, tanpri kontakte Direktè. Jistis Anviwònmanal MassDEP a nan nimewo telefòn ki endike anba a.

#### **Việt Vietnamese**

Tài liệu này và quan trọng và phải được dịch ngay. Nếu quý vị cần bản dịch của tài liệu này, vui lòng liên hệ với Giám Đốc Phòng Công Lý Môi Trường của MassDEP theo số điện thoại được liệt kê bên dưới.

#### **ប្រទេសកម្ពុជា Khmer/Cambodian**

ឯកសារនេះមានសារៈសំខាន់  
ហើយគួរតែត្រូវបានបកប្រែឱ្យបានឆាប់រហ័ស។  
ប្រសិនបើអ្នកត្រូវការអោយឯកសារនេះបកប្រែ  
សូមទាក់ទងនាយកដ្ឋានយុត្តិធម៌បរិស្ថានរបស់  
MassDEP តាមរយៈលេខទូរស័ព្ទដែលបានរាយនាមខាងក្រោម។

#### **Kriolu Kabuverdianu Cape Verdean**

Es dokumentu sta important i tenki ser tradusidu immediatamenti. Se nho ta presisa ke es dokumentu sta tradisidu, por favor kontata O Diretor di Justisia di Environman di DEP ku es numero di telefoni menxionadu di baixo.

Contact Deneen Simpson 857-406-0738

Massachusetts Department of Environmental Protection  
100 Cambridge Street 9<sup>th</sup> Floor Boston, MA 02114

TTY# MassRelay Service 1-800-439-2370 • <https://www.mass.gov/environmental-justice>  
(Version revised 8.2.2023) 310 CMR 1.03(5)(a)

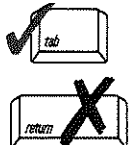


Massachusetts Department of Environmental Protection  
Bureau of Water Resources - Wetlands  
**WPA Form 2 – Determination of Applicability**  
Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Ludlow  
Municipality

## A. General Information

**Important:**  
When filling out  
forms on the  
computer, use only  
the tab key to move  
your cursor - do not  
use the return key.



From:

Ludlow Conservation Commission  
Conservation Commission

To: Applicant

Springfield Water and Sewer Commission  
Name  
250 Main Street  
Mailing Address  
Agawam MA 01001  
City/Town State Zip Code  
413-452-1300  
Phone Number  
ryan.wingerter@waterandsewer.org  
Email Address

Property Owner (if different from applicant):

Name  
Mailing Address  
City/Town State Zip Code  
Phone Number  
Email Address (if known)

1. Project Location:

West Side Drive  
Street Address  
42.22205  
Latitude (Decimal Degrees Format with 5 digits  
after decimal e.g. XX.XXXXX)  
N/A Roadway/ROW  
Assessors Map/Plat Number

Ludlow  
City/Town  
-72.42464  
Longitude (Decimal Degrees Format with 5  
digits after decimal e.g. -XX.XXXXX)  
Parcel/Lot Number

[How to find Latitude  
and Longitude](#)

[and how to convert to  
decimal degrees](#)

2. Date Request Filed:

November 25, 2025

## B. Determination

Pursuant to the authority of M.G.L. c. 131, § 40, the Conservation Commission considered your Request for Determination of Applicability, with its supporting documentation, and made the following Determination.

Project Description (if applicable):

Replacement of two (2) existing culvert crossings to maintain access around Springfield Reservoir.

Title and Date (or Revised Date if applicable) of Final Plans and Other Documents:

|                                                                                             |           |
|---------------------------------------------------------------------------------------------|-----------|
| Figure 1 - Site Location Map, Figure 2 - Priority Resources Map                             | June 2025 |
| Title                                                                                       | Date      |
| Figure 3 - Project Locus and Project Sites, Figure 4A - Wetland Resource Areas - Culvert #1 | June 2025 |
| Title                                                                                       | Date      |
| Figure 4B - Wetland Resource Areas - Culvert #2, Figure 5 - Rare Species                    | June 2025 |
| Title                                                                                       | Date      |



Massachusetts Department of Environmental Protection  
Bureau of Water Resources - Wetlands

**WPA Form 2 – Determination of Applicability**

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Ludlow

Municipality

**B. Determination (cont.)**

The following Determination(s) is/are applicable to the proposed site and/or project relative to the Wetlands Protection Act and regulations:

**Positive Determination**

Note: No work within the jurisdiction of the Wetlands Protection Act may proceed until a final Order of Conditions (issued following submittal of a Notice of Intent or Abbreviated Notice of Intent) has been received from the issuing authority (i.e., Conservation Commission or the Department of Environmental Protection).

- ☐ 1. The area described on the referenced plan(s) is an area subject to jurisdiction under the Act. Removing, filling, dredging, or altering of the area requires the filing of a Notice of Intent.
- ☐ 2a. The boundary delineations of the following resource areas described on the referenced plan(s) are confirmed as accurate. Therefore, the resource area boundaries confirmed in this Determination are binding as to all decisions rendered pursuant to the Wetlands Protection Act and its regulations regarding such boundaries for as long as this Determination is valid.
- ☐ 2b. The boundaries of Wetlands Resource Area(s) and Buffer Zone(s) listed below are not confirmed by this Determination, regardless of whether such boundaries are contained on the plans attached to this Determination or to the Request for Determination.
- ☐ 3. The work described on referenced plan(s) and document(s) is within an area subject to jurisdiction under the Act and will remove, fill, dredge, or alter that area. Therefore, said work requires the filing of a Notice of Intent.
- ☐ 4. The work described on referenced plan(s) and document(s) is within the Buffer Zone and will alter an Area subject to jurisdiction under the Act. Therefore, said work requires the filing of a Notice of Intent
- ☐ 5. The area and/or work described on referenced plan(s) and document(s) is subject to review and approval by:

\_\_\_\_\_  
Name of Municipality

Pursuant to the following municipal wetland ordinance or bylaw:

\_\_\_\_\_  
Name

\_\_\_\_\_  
Ordinance or Bylaw Citation



Massachusetts Department of Environmental Protection  
Bureau of Water Resources - Wetlands

**WPA Form 2 – Determination of Applicability**

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Ludlow  
Municipality

**B. Determination (cont.)**

- ☐ 6. The following area and/or work, if any, is subject to a municipal ordinance or bylaw but not subject to the Massachusetts Wetlands Protection Act:
- ☐ 7. If a Notice of Intent is filed for the work in the Riverfront Area described on referenced plan(s) and document(s), which includes all or part of the work described in the Request, the applicant must consider the following alternatives. (Refer to the wetland regulations at 10.58(4)(c) 2. for more information about the scope of alternatives requirements):
- ☐ Alternatives limited to the lot on which the project is located.
  - ☐ Alternatives limited to the lot on which the project is located, the subdivided lots, and any adjacent lots formerly or presently owned by the same owner.
  - ☐ Alternatives limited to the original parcel on which the project is located, the subdivided parcels, any adjacent parcels, and any other land which can reasonably be obtained within the municipality.
  - ☐ Alternatives extend to any sites which can reasonably be obtained within the appropriate region of the state.

**Negative Determination**

Note: No further action under the Wetlands Protection Act is required by the applicant. However, if the Department is requested to issue a Superseding Determination of Applicability, work may not proceed on this project unless the Department fails to act on such request within 35 days of the date the request is post-marked for certified mail or hand delivered to the Department. Work may then proceed at the owner's risk only upon notice to the Department and to the Conservation Commission. Requirements for requests for Superseding Determinations are listed at the end of this document.

- ☐ 1. The area described in the Request is not an area subject to jurisdiction under the Act or the Buffer Zone.
- ☒ 2. The work described in the Request is within an area subject to jurisdiction under the Act, but will not remove, fill, dredge, or alter that area. Therefore, said work does not require the filing of a Notice of Intent.
- ☐ 3. The work described in the Request is within the Buffer Zone, as defined in the regulations, but will not alter an Area subject to jurisdiction under the Act. Therefore, said work does not require the filing of a Notice of Intent, subject to the following conditions (if any).
- ☐ 4. The work described in the Request is not within an Area subject to jurisdiction under the Act (including the Buffer Zone). Therefore, said work does not require the filing of a Notice of Intent, unless and until said work alters an Area subject to jurisdiction under the Act.



Massachusetts Department of Environmental Protection  
Bureau of Water Resources - Wetlands

**WPA Form 2 – Determination of Applicability**

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Ludlow  
Municipality

**B. Determination (cont.)**

- ☐ 5. The area described in the Request is subject to jurisdiction under the Act. Since the work described therein meets the requirements for the following exemption, as specified in the Act and the regulations, no Notice of Intent is required:

Exempt Activity (site applicable statutory/regulatory provisions)

- ☐ 6. The area and/or work described in the Request is not subject to additional review and approval by:

Name of Municipality

Pursuant to a municipal wetlands' ordinance or bylaw.

Name

Ordinance or Bylaw Citation

**C. Authorization**

This Determination is issued to the applicant and delivered as follows:

- ☐ By hand delivery on

Date

- ☒ By certified mail, return receipt request on

12/16/2025

Date

7012 2210 0001 0473 9014

Certified Mail Number

A copy of this Determination has been sent on the same date, considered the date of issuance, to the appropriate DEP Regional Office and the property owner (if not the applicant) in the manner as follows:

**DEP**

- ☒ By eDEP DOA Submittal Platform (Attach this form and supporting documents)

- ☐ By USPS mail

- ☐ By hand delivery

Date

Date

**Property Owner (if not applicant)**

- ☐ By mail

- ☐ By hand delivery

Date

Date



Massachusetts Department of Environmental Protection  
Bureau of Water Resources - Wetlands  
**WPA Form 2 – Determination of Applicability**  
Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Ludlow  
Municipality

**C. Authorization (cont.)**

This Determination is valid for **three years** from the date of issuance (except Determinations for Vegetation Management Plans which are valid for the duration of the Plan). This Determination does not relieve the applicant from complying with all other applicable federal, state, or local statutes, ordinances, bylaws, or regulations.

This Determination must be signed by a majority of the Conservation Commission. As noted above, a copy must be sent to the appropriate DEP Regional Office (see <https://www.mass.gov/service-details/massdep-regional-offices-by-community>) and the property owner (if different from the applicant) on the same date that the Applicant is issued this Determination.

Ludlow Conservation Commission

Issuing Authority

Signatures:

Signature Angela Tierney  
Signature Penny Lebel  
Signature Joseph G. Chaloux  
Signature \_\_\_\_\_

Printed Name Angela Tierney  
Printed Name Penny Lebel  
Printed Name JOSEPH G. CHALOUX  
Printed Name \_\_\_\_\_

Signature \_\_\_\_\_  
Signature \_\_\_\_\_  
Signature \_\_\_\_\_  
Signature \_\_\_\_\_

Printed Name \_\_\_\_\_  
Printed Name \_\_\_\_\_  
Printed Name \_\_\_\_\_  
Printed Name \_\_\_\_\_

**D. Appeals**

The applicant, owner, any person aggrieved by this Determination, any owner of land abutting the land upon which the proposed work is to be done, or any ten residents of the city or town in which such land is located, are hereby notified of their right to request the appropriate Department of Environmental Protection Regional Office (see <https://www.mass.gov/service-details/massdep-regional-offices-by-community>) to issue a Superseding Determination of Applicability. The request must be made by certified mail or hand delivery to the Department, with the appropriate filing fee and Fee Transmittal Form (see Request for Departmental Action Fee Transmittal Form) as provided in 310 CMR 10.03(7) within ten business days from the date of issuance of this Determination. A copy of the request shall at the same time be sent by certified mail or hand delivery to the Conservation Commission and to the applicant if he/she is not the appellant. The request shall state clearly and concisely the objections to the Determination which is being appealed. To the extent that the Determination is based on a municipal ordinance or bylaw and not on the Massachusetts Wetlands Protection Act or regulations, the Department of Environmental Protection has no appellate jurisdiction.



Massachusetts Department of Environmental Protection  
Bureau of Resource Protection - Wetlands  
**Request for Departmental Action Fee  
Transmittal Form**

DEP File Number: \_\_\_\_\_

Provided by DEP \_\_\_\_\_

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

**A. Request Information**

1. Location of Project

a. Street Address \_\_\_\_\_ b. City/Town, Zip \_\_\_\_\_  
c. Check number \_\_\_\_\_ d. Fee amount \_\_\_\_\_

2. Person or party making request (if appropriate, name the citizen group's representative):

Name \_\_\_\_\_  
Mailing Address \_\_\_\_\_  
City/Town \_\_\_\_\_ State \_\_\_\_\_ Zip Code \_\_\_\_\_  
Phone Number \_\_\_\_\_ Fax Number (if applicable) \_\_\_\_\_

3. Applicant (as shown on Determination of Applicability (Form 2), Order of Resource Area Delineation (Form 4B), Order of Conditions (Form 5), Restoration Order of Conditions (Form 5A), or Notice of Non-Significance (Form 6)):

Name \_\_\_\_\_  
Mailing Address \_\_\_\_\_  
City/Town \_\_\_\_\_ State \_\_\_\_\_ Zip Code \_\_\_\_\_  
Phone Number \_\_\_\_\_ Fax Number (if applicable) \_\_\_\_\_

4. DEP File Number: \_\_\_\_\_

**B. Instructions**

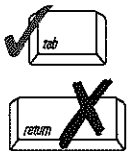
1. When the Departmental action request is for (check one):

- ☐ Superseding Order of Conditions – Fee: \$120 (single family house projects) or \$245 (all other projects)  
☐ Superseding Determination of Applicability – Fee: \$120  
☐ Superseding Order of Resource Area Delineation – Fee: \$120

Send this form and check or money order, payable to the *Commonwealth of Massachusetts*, to:

Department of Environmental Protection  
Box 4062  
Boston, MA 02211

**Important:**  
When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.







**Massachusetts Department of Environmental Protection**  
Bureau of Resource Protection - Wetlands

DEP File Number: \_\_\_\_\_

**Request for Departmental Action Fee  
Transmittal Form**

\_\_\_\_\_  
Provided by DEP

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

**B. Instructions (cont.)**

2. On a separate sheet attached to this form, state clearly and concisely the objections to the Determination or Order which is being appealed. To the extent that the Determination or Order is based on a municipal bylaw, and not on the Massachusetts Wetlands Protection Act or regulations, the Department has no appellate jurisdiction.
3. Send a **copy** of this form and a **copy** of the check or money order with the Request for a Superseding Determination or Order by certified mail or hand delivery to the appropriate DEP Regional Office (see <https://www.mass.gov/service-details/massdep-regional-offices-by-community>).
4. A copy of the request shall at the same time be sent by certified mail or hand delivery to the Conservation Commission and to the applicant, if he/she is not the appellant.

DOCUMENT 00811  
SPECIAL PROVISIONS  
MONTHLY PRICE ADJUSTMENT FOR HOT MIX ASPHALT (HMA) MIXTURES  
ENGLISH UNITS  
Revised: 02/02/2009

This provision applies to all projects using greater than 100 tons of hot mix asphalt (HMA) mixtures containing liquid asphalt cement as stipulated in the Notice to Contractors section of the bid documents.

The Price Adjustment will be based on the variance in price for the liquid asphalt component only from the Base Price to the Period Price. It shall not include transportation or other charges. This Price Adjustment will occur on a monthly basis.

**Base Price**

The Base Price of liquid asphalt on a project as listed in the Notice to Contractors section of the bid documents is a fixed price determined at the time of bid by the Department by using the same method as for the determination of the Period Price detailed below.

**Period Price**

Please note that, starting December 15, 2008, two sets of period prices will be posted each month on the MassHighway website at <http://www.mhd.state.ma.us/>. They will be labeled "New Asphalt Period Price Method" and "Old Asphalt Period Price Method".

**New Asphalt Period Price Method**

The "New Asphalt Period Price Method" is for contracts bid after December 15, 2008 and will show the Period Price of liquid asphalt for each monthly period as determined by MassHighway using the average selling price per standard ton of PG64-28 paving grade (primary binder classification) asphalt, FOB manufacturer's terminal, as listed under the "East Coast Market - New England, Boston, Massachusetts area" section of the Poten & Partners, Inc. "Asphalt Weekly Monitor". This average selling price is listed in the issue having a publication date of the second Friday of the month and will be posted as the Period Price for that month. MassHighway will post this Period Price on this website within two (2) business days following their receipt of the relevant issue of the "Asphalt Weekly Monitor". Poten and Partners has granted MassHighway the right to publish this specific asphalt price information sourced from the Asphalt Weekly Monitor.

**Old Asphalt Period Price Method**

The "Old Asphalt Period Price Method" Period Price will be for contracts bid on or before December 15, 2008 and will contain liquid asphalt prices as determined by the old or previous method. These prices will continue to be posted on MassHighway's website until all contracts using the "Old Asphalt Period Price Method" Period Price have been closed.

**New and Old Asphalt Period Price Methods**

The paragraphs below apply to both the New and the Old Asphalt Period Price Methods.

The Contract Price of the hot mix asphalt mixture will be paid under the respective item in the Contract. The price adjustment, as herein provided, upwards or downwards, will be made after the work has been performed, using the monthly period price for the month during which the work was performed.

The Price Adjustment applies only to the actual virgin liquid asphalt content in the mixture placed on the job in accordance with the Standard Specifications for Highways and Bridges, Division III, Section M3.11.03.

The Price Adjustment will be a separate payment item. It will be determined by multiplying the number of tons of hot mix asphalt mixtures placed during each monthly period times the liquid asphalt content percentage times the variance in price between Base Price and Period Price of liquid asphalt.

This Price Adjustment will be paid only if the variance from the Base Price is 5% or more for a monthly period. The complete adjustment will be paid in all cases with no deduction of the 5% from either upward or downward adjustments.

No Price Adjustment will be allowed beyond the Completion Date of this Contract, unless there is a Department-approved extension of time.

\*\*\*\*\* END OF DOCUMENT \*\*\*\*\*

DOCUMENT 00812

SPECIAL PROVISIONS  
MONTHLY PRICE ADJUSTMENT FOR DIESEL FUEL AND GASOLINE –  
ENGLISH UNITS

Revised: 01/26/2009

This monthly fuel price adjustment is inserted in this contract because the national and worldwide energy situation has made the future cost of fuel unpredictable. This adjustment will provide for either additional compensation to the Contractor or repayment to the Commonwealth, depending on an increase or decrease in the average price of diesel fuel or gasoline.

This adjustment will be based on fuel usage factors for various items of work developed by the Highway Research Board in Circular 158, dated July 1974. These factors will be multiplied by the quantities of work done in each item during each monthly period and further multiplied by the variance in price from the Base Price to the Period Price.

The Base Price of Diesel Fuel and Gasoline will be the price as indicated in the Department's web site ([www.mhd.state.ma.us](http://www.mhd.state.ma.us)) for the month in which the contract was bid, which includes State Tax.

The Period Price will be the average of prices charged to the State, including State Tax for the bulk purchases made during each month.

This adjustment will be effected only if the variance from the Base Price is 5% or more for a monthly period. The complete adjustment will be paid in all cases with no deduction of the 5% from either upward or downward adjustments.

No adjustment will be paid for work done beyond the extended completion date of any contract.

Any adjustment (increase or decrease) to estimated quantities made to each item at the time of final payment will have the fuel price adjustment figured at the average period price for the entire term of the project for the difference of quantity.

The fuel price adjustment will apply only to the following items of work at the fuel factors shown:

| ITEMS COVERED                                                                                                                                                       | FUEL FACTORS          |                      |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|----------------------|
|                                                                                                                                                                     | Diesel                | Gasoline             |
| Excavation: and Borrow Work:<br>Items 120, 120.1, 121, 123, 124, 125, 127, 129.3, 140, 140.1, 141, 142, 143, 144., 150, 150.1, 151 and 151.1<br>(Both Factors used) | 0.29<br>Gallons / CY. | 0.15<br>Gallons / CY |
| Surfacing Work:<br>All Items containing Hot Mix Asphalt                                                                                                             | 2.90<br>Gallons / Ton | Does Not Apply       |

\*\*\*\*\* END OF DOCUMENT \*\*\*\*\*

DOCUMENT 00814

SPECIAL PROVISIONS  
PRICE ADJUSTMENT FOR PORTLAND CEMENT CONCRETE MIXES

January 12, 2009

This provision applies to all projects using greater than 100 Cubic Yards (76 Cubic Meters) of Portland cement concrete containing Portland cement as stipulated in the Notice to Contractors section of the Bid Documents. This Price Adjustment will occur on a monthly basis.

The Price Adjustment will be based on the variance in price for the Portland cement component only from the Base Price to the Period Price. It shall not include transportation or other charges.

The Base Price of Portland cement on a project is a fixed price determined at the time of bid by the Department by using the same method as for the determination of the Period Price (see below) and found in the Notice to Contractors.

The Period Price of Portland cement will be determined by using the latest published price, in dollars per ton (U.S.), for Portland cement (Type I) quoted for Boston, U.S.A. in the **Construction Economics** section of *ENR Engineering News-Record* magazine or at the ENR website <http://www.enr.com> under **Construction Economics**. The Period Price will be posted on the MassHighway website the Wednesday immediately following the publishing of the monthly price in ENR, which is normally the first week of the month.

The Contract Price of the Portland cement concrete mix will be paid under the respective item in the Contract. The price adjustment, as herein provided, upwards or downwards, will be made after the work has been performed, using the monthly period price for the month during which the work was performed.

The price adjustment applies only to the actual Portland cement content in the mix placed on the job in accordance with the Standard Specifications for Highways and Bridges, Division III, Section M4.02.01. No adjustments will be made for any cement replacement materials such as fly ash or ground granulated blast furnace slag.

The Price Adjustment will be a separate payment item. It will be determined by multiplying the number of cubic yards of Portland cement concrete placed during each monthly period times the Portland cement content percentage times the variance in price between the Base Price and Period Price of Portland cement.

This Price Adjustment will be paid only if the variance from the Base Price is 5% or more for a monthly period. The complete adjustment will be paid in all cases with no deduction of the 5% from either upward or downward adjustments.

No Price Adjustment will be allowed beyond the Completion Date of this Contract, unless there is a Department-approved extension of time.

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\*

END OF DOCUMENT

## SECTION 01110

## SUMMARY OF WORK

## PART 1 GENERAL

## 1.1 SUMMARY

## A. Section Includes

1. Work of the Contract is shown and described in Drawings and Project Manual entitled:

**Springfield Reservoir Culvert Replacement Project**

Springfield Water and Sewer Commission

Town of Ludlow, MA

Tighe &amp; Bond, Inc.

Consulting Engineers

Westfield, Massachusetts

2. The Work includes the following major items:
  - a. Furnishing and installation of approximately 26 linear feet of 72" x 60" precast concrete box culvert with 2-foot deep stone infill and new headwalls to replace an existing stone culvert at the same location.
  - b. Furnishing and installation of approximately 26 linear feet of 36" x 24" precast concrete box culvert with no stone infill and new headwalls to replace an existing 24" corrugated metal pipe culvert at the same location.
  - c. Demolition and removal of the existing culverts
  - d. Clearing and grubbing, including cutting of select trees
  - e. Temporary stream flow diversion system for stream crossing including coffer dam
  - f. Bank protection for existing stream and discharge slope stability with rip rap
  - g. Site restoration

## B. Related Requirements

1. Section 00800 - Supplementary Conditions

## 1.2 SUBMITTALS

## A. Informational Submittals

1. Submit copies of permits or approvals required for the Work, prior to initiating the Work.

## 1.3 EXISTING SYSTEM DESCRIPTION

- A. Both existing culverts convey water from streams to the Springfield Reservoir. Springfield Reservoir is surround by a gravel access road used by Springfield Water and Sewer Commission personnel to access to the Reservoir, as well as the public as a walking trail. The existing culverts are failing and have begun to erode the existing banks.

#### 1.4 PROJECT/SITE CONDITIONS

##### A. Permits

1. Obtain the permits and approvals listed below:
  - a. US EPA Dewatering General Permit
  - b. Permits and licenses of a temporary nature necessary to perform the Work.
  - c. Permits for disposal of construction wastes including disposal of cleared and grubbed materials.
  - d. Other permits or licenses required for the Contractor's operations or required elsewhere in the Contract Documents and not included herein.
2. Comply with the permits and approvals listed below:
  - a. MassDEP 401 Water Quality Certification permit. A copy of the permit is included in Section 00800.
  - b. Negative Determination of Applicability (Town of Ludlow Conservation Commission) A copy of the permit is included in Section 00800.
  - c. Section 401 Individual Water Quality Certificate (Massachusetts Department of Environmental Protection-MassDEP) A copy of the permit is included in Section 00800.
  - d. Section 404 Self-Verification Notification (United States Army Corps of Engineers - New England District) A copy of the permit is included in Section 00800.
3. Obtain required time extensions to permits obtained by the Contractor, if construction authorized by permits has not been completed by the expiration date noted on these permits.
4. Permits require that a representative of the permitting authority or the Owner be present on site during construction or given the opportunity to observe conditions prior to backfilling or otherwise proceeding with construction. Notify the Owner, Engineer, and the permitting authority prior to performing Work that is governed by the permit.
5. Obtain permits and approvals from appropriate jurisdictional agencies and property owners for use of premises not furnished by the Owner, and for all off-site areas.
6. Submit copies of permits prior to performance of Work authorized by permits.

##### B. Existing Conditions

1. Use of Premises and Off-site Work
  - a. The Work shall occur on the Owner's property within the limits of Work shown on the Drawings.
  - b. Land owned by the Owner is available for staging and is shown on the Drawings.
  - c. Obtain permits and approvals for use of any land and access thereto that is deemed necessary for the Work, where such land is not available for use by the Owner, including land for temporary construction facilities, access and egress, or for storage of materials. Confine apparatus and storage to such additional areas.
  - d. Obtain permits and written approvals from appropriate jurisdictional agencies for the use of premises not available for use by the Owner, including all offsite staging areas, borrow pits and waste areas. Submit copies of all permits and approvals to the Owner prior to using areas.
  - e. Provide for the disposal of waste materials off-site in accordance with all applicable laws.
  - f. Adhere to the limits of Work as indicated, to minimize obstruction to traffic and inconvenience to the Owner, general public, and residents in the vicinity of the Work, and to protect people and property. Keep fire hydrants on or adjacent to the Work accessible to fire fighting equipment at all times.
  - g. Make temporary provisions for the use of sidewalks and maintain functioning gutters, stormwater systems, drainage ditches, and culverts.
  - h. Maintain public access to businesses and residences including driveways and parking lots at all times during the Work.

## **PART 2 PRODUCTS**

### **2.1 MATERIALS FURNISHED BY OWNER**

- A. The Owner will not furnish any materials, labor or equipment under this Contract.

## **PART 3 EXECUTION – NOT USED**

### **END OF SECTION**

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**SECTION 01140****WORK RESTRICTIONS****PART 1 GENERAL****1.1 SUMMARY**

- A. Section Includes
  - 1. Work Schedule
  - 2. Construction Constraints
  - 3. Vehicle Access
  - 4. Available Work Area
  - 5. Site Usage Plan
- B. Related Requirements
  - 1. Section 01310 - Coordination
  - 2. Section 01325 - Scheduling of Construction
  - 3. Section 01580 – Stream Flow Diversion

**1.2 SUBMITTALS**

- A. Incorporate the requirements of this Section in the project schedule submitted under Section 01325.
- B. Action Submittals
  - 1. Submit site usage plan within 30 days of the Notice to Proceed.

**1.3 WORK SCHEDULE**

- A. Conduct the Work during daylight hours on Monday through Friday, and within the time between 7:00 a.m. and 3:30 p.m. No work is to be done on Owner's holidays, Saturdays, Sundays or outside of the work hours described above without prior approval of the Owner.
- B. Cold weather work during winter months is permissible provided work complies with all specification requirements.

**PART 2 PRODUCTS – NOT USED****PART 3 EXECUTION****3.1 CONSTRUCTION CONSTRAINTS**

- A. The following are constraints for the Work. Incorporate these constraints into the schedule required to be submitted under Section 01325.
  - 1. All components of the existing facility must remain in operation throughout construction of the new facility unless otherwise specified herein or in Section 01310.

2. At no time will the Contractor obstruct any day-to-day activities of the Owner's operations or the Owner's staff.
3. Obtain permits and approvals for use of any land and access thereto that is deemed necessary for the Work, where such land is not available for use by the Owner, including land for temporary construction facilities, access and egress, or for storage of materials. Confine apparatus and storage to such additional areas.
4. Obtain permits and written approvals from appropriate jurisdictional agencies for the use of premises not available for use by the Owner, including all offsite staging areas, borrow pits and waste areas. Submit copies of all permits and approvals to the Owner prior to using areas.
5. Provide for the disposal of waste materials off-site in accordance with all applicable laws.
6. Install stream flow diversion prior to any demolition in accordance with Section 01580.
7. Contractor shall assume full responsibility for security of all his and his subcontractors' materials and equipment stored on the site.
8. If directed by the Owner, Contractor shall move any stored items which interfere with operations of the Owner.

### 3.2 VEHICLE ACCESS

- A. The existing road must be maintained for Owner access. Existing road is used by the Owner only. Coordinate with Owner as needed regarding possible road closures. Road may not be closed without prior approval.
- B. The Owner reserves the right to require rescheduling or reactivation of temporary shutdowns if an emergency occurs in the distribution system.

### 3.3 SITE USAGE PLAN

- A. Submit a site usage plan showing all proposed staging areas, locations of all office and storage trailers, and material laydown areas. The site usage plan should be a drawing showing the proposed locations and shall include on-site traffic modifications and temporary utilities as may be applicable.
- B. For pedestrian safety, temporary fences, barricades, and other devices shall be implemented to deter public access from work areas. A safety plan and work schedule need to be established for each location.

### END OF SECTION

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## SECTION 01290

## APPLICATION AND CERTIFICATES FOR PAYMENT

## PART 1 GENERAL

## 1.1 SUMMARY

- A. Section Includes
  - 1. Definition and description of measurement and payment to be used for the Work
  - 2. Payment procedures
  - 3. Payment requests for stored materials
- B. Related Requirements
  - 1. Section 01295 - Schedule of Values

## 1.2 GENERAL

- A. The following paragraphs describe payment procedures for the work to be done under the respective items in the Bid Form.
- B. Each lump sum and unit price will be deemed to include an amount considered by the Contractor to be adequate to cover the Contractor's overhead and profit for each separately identified item.
- C. Except as provided for in Section 01295, no separate measurement or payment will be made for Work called for in Division 0 or Division 1 of the Contract Specifications, unless specifically covered under the Bid items listed below. All costs associated with this Work will be considered incidental to the Contract Bid price.
- D. Division 2 through Division 3 Work will be measured and paid for at the Contractor's unit Bid price or lump sum Bid price as indicated on the Bid form. Those payable Work items, and related prices as Bid, will be the basis for all compensation to the Contractor for Work performed under this Contract. Work not specifically included as a Bid item, but which is required to properly and satisfactorily complete the Work is considered ancillary and incidental to the Bid item Work, and payment for such Work is considered to be included in the values as Bid for payable items. Compensation for all unit Bid price Work will be made based on the measured quantity of Work under the appropriate Bid items.

## 1.3 CULVERT 1 - LUMP SUM ITEMS

- A. Each lump sum price stated in the Bid form shall constitute full compensation for all labor, equipment and materials necessary and required to complete the work specified under that particular item, and also all costs for doing related work as set forth in the Contract Documents or implied in carrying out their intent.
- B. Item 1 – Culvert 1 - Springfield Reservoir Culvert Replacement – Miscellaneous Work
  - 1. Measurement

- a. There will be no measurement of quantities for lump sum items. Periodic partial payments for this Work, included under the Agreement, shall be based on the percent completion of each work item listed in the Schedule of Values provided under Section 01295 estimated by the Contractor and approved by the Engineer.

2. Payment

- a. The lump sum payment shall be full compensation for furnishing all labor, materials, tools, equipment, and services necessary for the construction of the Springfield Reservoir Culvert Replacement, excluding Items 2 through 14, in its entirety as detailed in the Contract Documents.

C. Item 2 – Culvert 1 - Demolition

1. Measurement

- a. There will be no measurement for demolition as this Work will be on a lump sum basis. Periodic partial payments for this Work, included under the Agreement, shall be based on the percent completion of demolition work as listed in the Schedule of Values provided under Section 01295 estimated by the Contractor and approved by the Engineer.

2. Payment

- a. Payment of the lump sum Bid price will be full compensation for all labor, equipment and materials required for or incidental to the demolition Work. Demolition work includes but is not limited to the demolition of the existing culvert, stone walls, and associated items.

D. Item 3 – Culvert 1 - Wetlands Restoration

1. Measurement

- a. There will be no measurement for wetlands restoration as this Work will be on a lump sum basis.

2. Payment

- a. Payment of the lump sum Bid price will be full compensation for all labor, equipment and materials required for or incidental to the wetlands restoration Work. Wetlands restoration work includes providing erosion control blankets in wetland restoration areas, wetland plantings and seed mixture, as well as associated permit requirements, as shown on the Drawings and outlined in Specification Section 02670.
- b. Payments will be made on a monthly basis as a percentage of the lump sum Bid and the amount of Work for that particular month.

E. Item 4 – Culvert 1 - Headwalls

1. Measurement

- a. There will be no measurement for the headwalls (both upstream and downstream ends) as this Work will be on a lump sum basis. Periodic

partial payments for this Work, included under the Agreement, shall be based on the percent completion of the headwalls installation work as listed in the Schedule of Values provided under Section 01295 estimated by the Contractor and approved by the Engineer.

2. Payment

- a. Payment of the lump sum Bid price will be full compensation for all labor, equipment and materials required for or incidental to installing both headwalls as show on the Drawings and outlined in the Specifications.

F. Item 5 – Culvert 1 – Stream Bypass

1. Measurement

- a. Measurement for stream bypass will be on a Lump Sum basis.

2. Payment

- a. Payment of the Bid price for stream bypass will be full compensation for all labor, equipment, and materials required for or incidental to bypassing the stream as shown on the drawings and outlined in the specifications.

1.4 CULVERT 1 - UNIT PRICE ITEMS

- A. Each unit price stated in the Bid form shall constitute full compensation for all labor, equipment and materials necessary and required to complete the Work specified under that particular item, and also all costs for doing related work as set forth in the Contract Documents or implied in carrying out their intent.

- B. Payment of the unit price items will only be made for the actual quantity of Work performed in accordance with the Contract Documents.

C. Item 6 - Culvert 1 – 6-ft. W x 5 ft H Precast Concrete Box Culvert (w/stone lining)

1. Measurement

- a. Measurement for the installation of 6-foot wide by 5-foot high box culvert will be on a linear foot basis.

2. Payment

- a. Payment of the Bid price for 6-foot wide by 5-foot high box culvert will be full compensation for providing the culvert, including dewatering, temporary shoring (if necessary), excavation, backfilling and compaction for the culvert construction, and all labor, equipment, and materials required for or incidental to the Work.

D. Item 7 – Culvert 1 - Ordinary Borrow

1. Measurement

- a. Measurement for ordinary borrow will be on a cubic yard basis. The depth of ordinary borrow will be actual depth placed in the completed Work, but in no case will this exceed the depth approved by the Engineer.

2. Payment
  - a. Payment of the Bid price for ordinary borrow will be full compensation for furnishing, hauling, placing, spreading, and compacting, and includes all labor, equipment, and materials required for or incidental to the Work.
- E. Item 8 – Culvert 1 - Processed Gravel Borrow
  1. Measurement
    - a. Measurement for processed gravel borrow will be on a cubic yard basis. The depth of processed gravel borrow shall be the actual depth placed in the completed Work, but in no case shall this exceed the depth approved by the Engineer.
  2. Payment
    - a. Payment of the Bid price for processed gravel borrow will be full compensation for furnishing, hauling, placing, spreading, and compacting, and include all labor, equipment and materials required for or incidental to the Work.
- F. Item 9 – Culvert 1 – Road - Gravel Base, Compacted
  1. Measurement
    - a. Measurement for road gravel base will be on a cubic yard basis. The depth of ordinary borrow will be actual depth placed in the completed Work, but in no case will this exceed the depth approved by the Engineer.
  2. Payment
    - a. Payment of the Bid price for road gravel base will be full compensation for furnishing, hauling, placing, spreading, and compacting, and includes all labor, equipment, and materials required for or incidental to the Work.
- G. Item 10 – Culvert 1 - Road – Asphalt
  1. Measurement
    - a. Measurement for road asphalt will be on a cubic yard basis. The depth of ordinary borrow will be actual depth placed in the completed Work, but in no case will this exceed the depth approved by the Engineer.
  2. Payment
    - a. Payment of the Bid price for road asphalt will be full compensation for furnishing, hauling, placing, spreading, and compacting, and includes all labor, equipment, and materials required for or incidental to the Work.

H. Item 11 – Culvert 1 – Guard Rail

1. Measurement

- a. Measurement for guard rail will be on a linear foot basis. The length of guard rail will be actual length provided, but in no case will this exceed the length approved by the Engineer.

2. Payment

- a. Payment of the Bid price for guard rail will be full compensation for all labor, equipment, and materials required for or incidental to the Work.

I. Item 12 – Culvert 1 – Loam & Seed/Surface Restoration

1. Measurement

- a. Measurement for loam & seed/surface restoration will be on a square yard basis. The depth of ordinary borrow will be actual depth placed in the completed Work, but in no case will this exceed the depth approved by the Engineer.

2. Payment

- a. Payment of the Bid price for loam & seed/surface restoration will be full compensation for all labor, equipment, and materials required for or incidental to the Work.

J. Item 13 – Culvert 1 - Straw Wattles

1. Measurement

- a. Measurement for straw wattles will be on a linear foot basis. The length of straw wattles will be the actual approved length of straw wattles and siltation fence measured in place by the Engineer.

2. Payment

- a. Payment of the Bid price for straw wattles will be full compensation for the installation and removal of the straw wattles, and the restoration of the area disturbed by their placement including all labor, equipment and materials required for or incidental to the Work.

K. Item 14 – Culvert 1 - Rock Excavation

1. Measurement

- a. Measurement for rock excavation will be on a cubic yard basis as measured in the field by the Engineer.
- b. Rock with earth overburden shall be stripped of earth and exposed so that the rock can be profiled prior to removal. Excavation between the surface and the top of rock will be paid for under the lump sum item.

2. Payment

- a. Payment of the bid price for rock excavation will be full compensation for all excavation, backfill, compaction, removal and proper off-site disposal of the material, and all labor, equipment and materials required for or incidental to the work.
- b. Boulders less than 1 cubic yard will be paid for as part of the miscellaneous work lump sum item and will not be paid for as part of rock excavation.
- c. Payment for rock excavation will be at the bid price regardless of the depth at which it is encountered.

**L. Item 15 – Culvert 1 - Monthly Price Adjustment For Gasoline**

**1. Measurement**

- a. This Contract contains a price adjustment for gasoline. The value provided in the Bid Form is an allowance for budgeting purposes only. The value is neither a limit nor a guarantee of payment. Payment to the Contractor for increases in the price of gasoline, or credits due to the Owner for decreases in the price of gasoline, will be determined in accordance with the following procedure.
  - 1) The Base Price for gasoline for this Project is outlined in Section 00100, Instructions to Bidders.
  - 2) The price adjustment shall be based on the variance in price for gasoline from the Base Price to the Period Price and shall occur on a monthly basis.
  - 3) The Period Price shall be as published by the Massachusetts Department of Transportation for the calendar month in which the Work was completed.
  - 4) The price adjustment will be determined by multiplying the number of cubic yards of excavation and borrow (as defined in the next paragraph) paid during each one-month period by 0.15 gallons per cubic yard, multiplied by the variance in price between Base Price and Period Price of gasoline.
  - 5) The price adjustment will be paid only if the variance of the Period Price from the Base Price is 5 percent or more for a given month. The adjustment will be paid with no deduction of the 5 percent from either upward or downward adjustments.
- b. No price adjustments will be made for Work completed beyond the date of Final Completion.

**M. Item 16 – Culvert 1 - Monthly Price Adjustment For Diesel Fuel**

**1. Measurement**

- a. This Contract contains a price adjustment for diesel fuel. The value provided in the Bid Form is an allowance for budgeting purposes only. The value is neither a limit nor a guarantee of payment. Payment to the



Contractor for increases in the price of diesel fuel, or credits due to the Owner for decreases in the price of diesel fuel, will be determined in accordance with the following procedure.

- 1) The Base Price for diesel fuel for this Project is outlined in Section 00100, Instructions to Bidders.
- 2) The price adjustment shall be based on the variance in price for diesel fuel from the Base Price to the Period Price and shall occur on a monthly basis.
- 3) The Period Price shall be as published by the Massachusetts Department of Transportation for the calendar month in which the Work was completed.
- 4) The price adjustment will be determined by multiplying the number of cubic yards of excavation and borrow (as defined in the next paragraph) paid during each one-month period by 0.29 gallons per cubic yard, and adding that to the tons of hot mix asphalt (as defined in the next paragraph) paid during each one-month period by 2.90 gallons per ton. The total number of gallons calculated shall then be multiplied by the variance in price between Base Price and Period Price of diesel fuel.
- 5) The price adjustment will be paid only if the variance of the Period Price from the Base Price is 5 percent or more for a given month. The adjustment will be paid with no deduction of the 5 percent from either upward or downward adjustments.

- b. No price adjustments will be made for Work completed beyond the date of Final Completion.

N. Item 17 – Culvert 1 - Monthly Price Adjustment For Portland Cement In Concrete

1. Measurement

- a. This Contract contains a price adjustment for Portland cement contained in cast-in-place concrete. The value provided in the Bid Form is an allowance for budgeting purposes only. The value is neither a limit nor a guarantee of payment. Payment to the Contractor for increases in the price of Portland cement, or credits due to the Owner for decreases in the price of Portland cement, will be determined in accordance with the following procedure.
  - 1) The Base Price for Portland cement for this Project is outlined in Section 00100, Instructions to Bidders.
  - 2) The price adjustment shall be based on the variance in price for the Portland cement component only of cast-in-place concrete from the Base Price to the Period Price. It shall not include transportation or other charges. The price adjustment shall occur on a monthly basis.

- 3) The Period Price shall be as published by the Massachusetts Department of Transportation for the calendar month in which the Work was completed.
  - 4) The Contract price adjustment will be paid only for the Portland cement component of cast-in-place concrete paid under the following Items: Concrete Footings and Headwalls.
  - 5) For the aforementioned items subject to the Contract price adjustment, the Portland cement content of cast-in-place concrete mixtures shall be calculated based on 0.305 tons of Portland cement per cubic yard of cast-in-place concrete, regardless of actual Portland cement content of individual concrete mix designs.
  - 6) The price adjustment will be determined by multiplying the number of cubic yards of cast-in-place concrete paid during each one-month period by the Portland cement content, times the variance in price between Base Price and Period Price of Portland cement.
  - 7) The price adjustment will be paid only if the variance of the Period Price from the Base Price is 5 percent or more for a given month. The adjustment will be paid with no deduction of the 5 percent from either upward or downward adjustments.
- b. No price adjustments will be made for Work completed beyond the date of Final Completion.

#### 1.5 CULVERT 2 – LUMP SUM ITEMS

- A. Item 18 – Culvert 2 - Springfield Reservoir Culvert Replacement – Miscellaneous Work
1. Measurement
    - a. There will be no measurement of quantities for lump sum items. Periodic partial payments for this Work, included under the Agreement, shall be based on the percent completion of each work item listed in the Schedule of Values provided under Section 01295 estimated by the Contractor and approved by the Engineer.
  2. Payment
    - a. The lump sum payment shall be full compensation for furnishing all labor, materials, tools, equipment, and services necessary for the construction of the Springfield Reservoir Culvert Replacement, excluding Items 19 through 31, in its entirety as detailed in the Contract Documents.
- B. Item 19 – Culvert 2 - Demolition
1. Measurement

- a. There will be no measurement for demolition as this Work will be on a lump sum basis. Periodic partial payments for this Work, included under the Agreement, shall be based on the percent completion of demolition work as listed in the Schedule of Values provided under Section 01295 estimated by the Contractor and approved by the Engineer.
  - 2. Payment
    - a. Payment of the lump sum Bid price will be full compensation for all labor, equipment and materials required for or incidental to the demolition Work. Demolition work includes but is not limited to the demolition of the existing culvert, stone walls, and associated items.
- C. Item 20 – Culvert 2 - Wetlands Restoration
- 1. Measurement
    - a. There will be no measurement for wetlands restoration as this Work will be on a lump sum basis.
  - 2. Payment
    - a. Payment of the lump sum Bid price will be full compensation for all labor, equipment and materials required for or incidental to the wetlands restoration Work. Wetlands restoration work includes providing erosion control blankets in wetland restoration areas, wetland plantings and seed mixture, as well as associated permit requirements, as shown on the Drawings and outlined in Specification Section 02670.
    - b. Payments will be made on a monthly basis as a percentage of the lump sum Bid and the amount of Work for that particular month.
- D. Item 21 – Culvert 2 - Headwalls
- 1. Measurement
    - a. There will be no measurement for the headwalls (both upstream and downstream ends) as this Work will be on a lump sum basis. Periodic partial payments for this Work, included under the Agreement, shall be based on the percent completion of the headwalls installation work as listed in the Schedule of Values provided under Section 01295 estimated by the Contractor and approved by the Engineer.
  - 2. Payment
    - a. Payment of the lump sum Bid price will be full compensation for all labor, equipment and materials required for or incidental to installing both headwalls as show on the Drawings and outlined in the Specifications.
- E. Item 22 – Culvert 2 – Stream Bypass
- 1. Measurement

- a. Measurement for stream bypass will be on a Lump Sum basis. The depth of rip rap will be actual depth placed in the completed Work, but in no case will this exceed the depth approved by the Engineer.

2. Payment

- a. Payment of the Bid price for stream bypass will be full compensation for all labor, equipment, and materials required for or incidental to bypassing the stream as shown on the drawing and outline in the specifications.

1.6 CULVERT 2 - UNIT PRICE ITEMS

- A. Each unit price stated in the Bid form shall constitute full compensation for all labor, equipment and materials necessary and required to complete the Work specified under that particular item, and also all costs for doing related work as set forth in the Contract Documents or implied in carrying out their intent.

- B. Payment of the unit price items will only be made for the actual quantity of Work performed in accordance with the Contract Documents.

- C. Item 23 – Culvert 2 – 3-ft. W x 2 ft H Precast Concrete Box Culvert (no stone lining)

1. Measurement

- a. Measurement for the installation of 3-foot wide by 2-foot high box culvert will be on a linear foot basis.

2. Payment

- a. Payment of the Bid price for 3-foot wide by 2-foot high box culvert will be full compensation for providing the culvert, including dewatering, temporary shoring (if necessary), excavation, backfilling and compaction for the culvert construction, and all labor, equipment, and materials required for or incidental to the Work.

- D. Item 24 – Culvert 2 - Ordinary Borrow

1. Measurement

- a. Measurement for ordinary borrow will be on a cubic yard basis. The depth of ordinary borrow will be actual depth placed in the completed Work, but in no case will this exceed the depth approved by the Engineer.

2. Payment

- a. Payment of the Bid price for ordinary borrow will be full compensation for furnishing, hauling, placing, spreading, and compacting, and includes all labor, equipment, and materials required for or incidental to the Work.

- E. Item 25 – Culvert 2 - Processed Gravel Borrow

1. Measurement

- a. Measurement for processed gravel borrow will be on a cubic yard basis. The depth of processed gravel borrow shall be the actual depth placed in

the completed Work, but in no case shall this exceed the depth approved by the Engineer.

2. Payment

- a. Payment of the Bid price for processed gravel borrow will be full compensation for furnishing, hauling, placing, spreading, and compacting, and include all labor, equipment and materials required for or incidental to the Work.

F. Item 26 – Culvert 2 – Road - Gravel Base

1. Measurement

- a. Measurement for road gravel base will be on a cubic yard basis. The depth of ordinary borrow will be actual depth placed in the completed Work, but in no case will this exceed the depth approved by the Engineer.

2. Payment

- a. Payment of the Bid price for road gravel base will be full compensation for furnishing, hauling, placing, spreading, and compacting, and includes all labor, equipment, and materials required for or incidental to the Work.

G. Item 27 – Culvert 2 - Road – Asphalt

1. Measurement

- a. Measurement for road asphalt will be on a cubic yard basis. The depth of ordinary borrow will be actual depth placed in the completed Work, but in no case will this exceed the depth approved by the Engineer.

2. Payment

- a. Payment of the Bid price for road asphalt will be full compensation for furnishing, hauling, placing, spreading, and compacting, and includes all labor, equipment, and materials required for or incidental to the Work.

H. Item 28 – Culvert 2 - Guard Rail

1. Measurement

- a. Measurement for guard rail will be on a linear foot basis. The length of guard rail will be actual length provided, but in no case will this exceed the length approved by the Engineer.

2. Payment

- a. Payment of the Bid price for ordinary borrow will be full compensation for all labor, equipment, and materials required for or incidental to the Work.

I. Item 29 – Culvert 2 – Loam & Seed/Surface Restoration

1. Measurement

- a. Measurement for loam & seed/surface restoration will be on a square yard basis. The depth of ordinary borrow will be actual depth placed in the completed Work, but in no case will this exceed the depth approved by the Engineer.
  - 2. Payment
    - a. Payment of the Bid price for loam & seed will be full compensation for furnishing, hauling, placing, spreading, and compacting, and includes all labor, equipment, and materials required for or incidental to the Work.
- J. Item 30 – Culvert 2 - Straw Wattles
- 1. Measurement
    - a. Measurement for straw wattles will be on a linear foot basis. The length of straw wattles will be the actual approved length of straw wattles and measured in place by the Engineer.
  - 2. Payment
    - a. Payment of the Bid price for straw wattles will be full compensation for the installation and removal of the straw wattles, and the restoration of the area disturbed by their placement including all labor, equipment and materials required for or incidental to the Work.
- K. Item 31 – Culvert 2 - Rock Excavation
- 1. Measurement
    - a. Measurement for rock excavation will be on a cubic yard basis as measured in the field by the Engineer.
    - b. Rock with earth overburden shall be stripped of earth and exposed so that the rock can be profiled prior to removal. Excavation between the surface and the top of rock will be paid for under the lump sum item.
  - 2. Payment
    - a. Payment of the bid price for rock excavation will be full compensation for all excavation, backfill, compaction, removal and proper off-site disposal of the material, and all labor, equipment and materials required for or incidental to the work.
    - b. Boulders less than 1 cubic yard will be paid for as part of the miscellaneous work lump sum item and will not be paid for as part of rock excavation.
    - c. Payment for rock excavation will be at the bid price regardless of the depth at which it is encountered.
- L. Item 32 – Culvert 2 - Monthly Price Adjustment For Gasoline
- 1. Measurement

- a. This Contract contains a price adjustment for gasoline. The value provided in the Bid Form is an allowance for budgeting purposes only. The value is neither a limit nor a guarantee of payment. Payment to the Contractor for increases in the price of gasoline, or credits due to the Owner for decreases in the price of gasoline, will be determined in accordance with the following procedure.
  - 1) The Base Price for gasoline for this Project is outlined in Section 00100, Instructions to Bidders.
  - 2) The price adjustment shall be based on the variance in price for gasoline from the Base Price to the Period Price and shall occur on a monthly basis.
  - 3) The Period Price shall be as published by the Massachusetts Department of Transportation for the calendar month in which the Work was completed.
  - 4) The price adjustment will be determined by multiplying the number of cubic yards of excavation and borrow (as defined in the next paragraph) paid during each one-month period by 0.15 gallons per cubic yard, multiplied by the variance in price between Base Price and Period Price of gasoline.
  - 5) The price adjustment will be paid only if the variance of the Period Price from the Base Price is 5 percent or more for a given month. The adjustment will be paid with no deduction of the 5 percent from either upward or downward adjustments.
- b. No price adjustments will be made for Work completed beyond the date of Final Completion.

**M. Item 33 – Culvert 2 - Monthly Price Adjustment For Diesel Fuel**

**1. Measurement**

- a. This Contract contains a price adjustment for diesel fuel. The value provided in the Bid Form is an allowance for budgeting purposes only. The value is neither a limit nor a guarantee of payment. Payment to the Contractor for increases in the price of diesel fuel, or credits due to the Owner for decreases in the price of diesel fuel, will be determined in accordance with the following procedure.
  - 1) The Base Price for diesel fuel for this Project is outlined in Section 00100, Instructions to Bidders.
  - 2) The price adjustment shall be based on the variance in price for diesel fuel from the Base Price to the Period Price and shall occur on a monthly basis.
  - 3) The Period Price shall be as published by the Massachusetts Department of Transportation for the calendar month in which the Work was completed.

- 4) The price adjustment will be determined by multiplying the number of cubic yards of excavation and borrow (as defined in the next paragraph) paid during each one-month period by 0.29 gallons per cubic yard, and adding that to the tons of hot mix asphalt (as defined in the next paragraph) paid during each one-month period by 2.90 gallons per ton. The total number of gallons calculated shall then be multiplied by the variance in price between Base Price and Period Price of diesel fuel.
  - 5) The price adjustment will be paid only if the variance of the Period Price from the Base Price is 5 percent or more for a given month. The adjustment will be paid with no deduction of the 5 percent from either upward or downward adjustments.
- b. No price adjustments will be made for Work completed beyond the date of Final Completion.

N. Item 24 – Culvert 2 - Monthly Price Adjustment For Portland Cement In Concrete

1. Measurement

- a. This Contract contains a price adjustment for Portland cement contained in cast-in-place concrete. The value provided in the Bid Form is an allowance for budgeting purposes only. The value is neither a limit nor a guarantee of payment. Payment to the Contractor for increases in the price of Portland cement, or credits due to the Owner for decreases in the price of Portland cement, will be determined in accordance with the following procedure.
  - 1) The Base Price for Portland cement for this Project is outlined in Section 00100, Instructions to Bidders.
  - 2) The price adjustment shall be based on the variance in price for the Portland cement component only of cast-in-place concrete from the Base Price to the Period Price. It shall not include transportation or other charges. The price adjustment shall occur on a monthly basis.
  - 3) The Period Price shall be as published by the Massachusetts Department of Transportation for the calendar month in which the Work was completed.
  - 4) The Contract price adjustment will be paid only for the Portland cement component of cast-in-place concrete paid under the following Items: Concrete Footings and Headwalls.
  - 5) For the aforementioned items subject to the Contract price adjustment, the Portland cement content of cast-in-place concrete mixtures shall be calculated based on 0.305 tons of Portland cement per cubic yard of cast-in-place concrete, regardless of actual Portland cement content of individual concrete mix designs.



- 6) The price adjustment will be determined by multiplying the number of cubic yards of cast-in-place concrete paid during each one-month period by the Portland cement content, times the variance in price between Base Price and Period Price of Portland cement.
  - 7) The price adjustment will be paid only if the variance of the Period Price from the Base Price is 5 percent or more for a given month. The adjustment will be paid with no deduction of the 5 percent from either upward or downward adjustments.
- b. No price adjustments will be made for Work completed beyond the date of Final Completion.

## 1.7 PAYMENT PROCEDURES

### A. Informal submittal: Unless otherwise directed by the Engineer:

1. Make an informal submittal of request for payment by filling in, electronically (in Excel® format) pertinent portions of EJCDC C-620, Contractor's Application for Payment, plus continuation sheet or sheets.
2. Make this preliminary submittal to the Engineer at the last regular job meeting of each month.
3. Revise the preliminary submittal as approved by the Engineer and incorporate the approved payments into the formal submittal.

### B. Formal submittal: Unless otherwise directed by the Engineer:

1. Make formal submittal of request for payment by filling in the agreed data, by typewriter or electronically on EJCDC C-620, Contractor's Application for Payment, plus continuation sheet or sheets.
2. Sign and notarize the Application for Payment.
3. Submit the original of the Application for Payment, plus six identical copies of the continuation sheet or sheets, to the Engineer.
4. The Engineer will compare the formal submittal with the approved informal submittal and, if acceptable, will sign the Contractor's Application for Payment, and present the Application to the Owner.
5. Provide a signed and notarized Certificate for Stored Materials and proof of storage in a dry, watertight, heated and insured warehouse facility.

### C. Retainage

1. A 5% retainage amount shall be withheld from each Request for Payment.
2. The retainage amount may be lowered to 1% after Substantial Completion of the Project.

3. Upon completion of the project activities and after demobilization, the Contractor's last Request for Payment shall include the retainage amount.

#### 1.8 PAYMENT REQUESTS FOR STORED MATERIALS

- A. No payment for materials stored off-site will be paid to the Contractor unless approved by the Owner.
- B. Requests for payment for stored materials shall be made in accordance with Section 00700 and shall be accompanied by the attached "Certificate for Stored Materials" form. Payment for stored materials shall not exceed the value actually paid by the Contractor for the stored materials as evidenced by the accompanying bill of sale, invoice, or other documentation. Final payment shall be made upon delivery to the project site and acceptance by the Engineer.
- C. Request for payments for stored materials on-site shall follow the same procedures and may be approved for the full paid amount if accepted by the Engineer.
- D. Partial payment requests for materials stored or so-called "engineering costs" by equipment manufacturers will not be allowed. All such costs shall be distributed proportionately among the various items of equipment/hardware to be furnished.

#### PART 2 PRODUCTS - NOT USED

#### PART 3 EXECUTION - NOT USED

#### END OF SECTION

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CERTIFICATE FOR STORED MATERIALS

\_\_\_\_\_  
Tighe & Bond Project No.

We, \_\_\_\_\_, request payment for materials and/or equipment not incorporated in the work included under our firm's contract with \_\_\_\_\_ as listed below.

We hereby certify under penalty of perjury, that the materials not incorporated in the work have been delivered and are securely stored at the site or at \_\_\_\_\_ and that we have title to said materials free and clear of all Liens, as evidenced by the attached bill of sale, invoice, or other documentation.

We also certify that an inventory of said materials and/or equipment has been compiled for the purposes of this monthly partial payment request. This list of materials and/or equipment, including unit prices for said material not incorporated in the work for which payment is hereby requested, consisting of \_\_\_\_\_ pages and dated \_\_\_\_\_, is signed and attached hereto.

We acknowledge that payments made based on this request for materials and/or equipment not incorporated in the work does not relieve the contractor of its responsibility for furnishing all materials and equipment required for the satisfactory completion of the project pursuant to the contractual requirements.

We further certify that we can and will adequately protect said materials and/or equipment until they are incorporated in the work; that they meet the requirements of the specifications, and that they will be needed for incorporation in the work in the near future.

IN WITNESS WHEREOF, we, the said \_\_\_\_\_ h-  
ereunto set our hand and seal this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_.

\_\_\_\_\_  
Contractor's Firm Name

SIGNED, SEALED AND DELIVERED IN THE PRESENCE OF

By \_\_\_\_\_

Title \_\_\_\_\_

\_\_\_\_\_  
Notary Public

SCHEDULE OF STORED MATERIALS

Job No. \_\_\_\_\_  
Contract No. \_\_\_\_\_  
Contractor: \_\_\_\_\_  
Location: \_\_\_\_\_  
\_\_\_\_\_

Date \_\_\_\_\_  
Pay Estimate \_\_\_\_\_

| Item | Description | Supplier/Manufacturer | Quantity Stored<br>and not<br>Incorporated | Unit \$ | Certified Value |
|------|-------------|-----------------------|--------------------------------------------|---------|-----------------|
|      |             |                       |                                            |         |                 |
|      |             |                       |                                            |         |                 |
|      |             |                       |                                            |         |                 |
|      |             |                       |                                            |         |                 |
|      |             |                       |                                            |         |                 |
|      |             |                       |                                            |         |                 |
|      |             |                       |                                            |         |                 |
|      |             |                       |                                            |         |                 |
|      |             |                       |                                            |         |                 |

Signature: \_\_\_\_\_  
Contractor's Principal

Total Amount Due for Stored Materials \_\_\_\_\_

Title: \_\_\_\_\_

CERTIFICATE FOR STORED MATERIALS\_\_\_\_\_  
Tighe & Bond Project No.

We, \_\_\_\_\_, request payment for materials and/or equipment not incorporated in the work included under our firm's contract with \_\_\_\_\_ as listed below.

We hereby certify under penalty of perjury, that the materials not incorporated in the work have been delivered and are securely stored at the site or at \_\_\_\_\_ and that we have title to said materials free and clear of all Liens, as evidenced by the attached bill of sale, invoice, or other documentation.

We also certify that an inventory of said materials and/or equipment has been compiled for the purposes of this monthly partial payment request. This list of materials and/or equipment, including unit prices for said material not incorporated in the work for which payment is hereby requested, consisting of \_\_\_\_\_ pages and dated \_\_\_\_\_, is signed and attached hereto.

We acknowledge that payments made based on this request for materials and/or equipment not incorporated in the work does not relieve the contractor of its responsibility for furnishing all materials and equipment required for the satisfactory completion of the project pursuant to the contractual requirements.

We further certify that we can and will adequately protect said materials and/or equipment until they are incorporated in the work; that they meet the requirements of the specifications, and that they will be needed for incorporation in the work in the near future.

IN WITNESS WHEREOF, we, the said \_\_\_\_\_ h-  
ereunto set our hand and seal this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_.

\_\_\_\_\_  
Contractor's Firm Name

SIGNED, SEALED AND DELIVERED IN THE PRESENCE OF

By \_\_\_\_\_

Title \_\_\_\_\_

\_\_\_\_\_  
Notary Public

SCHEDULE OF STORED MATERIALS

Job No. \_\_\_\_\_  
Contract No. \_\_\_\_\_  
Contractor: \_\_\_\_\_  
Location: \_\_\_\_\_  
\_\_\_\_\_

Date \_\_\_\_\_  
Pay Estimate \_\_\_\_\_

| Item | Description | Supplier/Manufacturer | Quantity Stored<br>and not<br>Incorporated | Unit \$ | Certified Value |
|------|-------------|-----------------------|--------------------------------------------|---------|-----------------|
|      |             |                       |                                            |         |                 |
|      |             |                       |                                            |         |                 |
|      |             |                       |                                            |         |                 |
|      |             |                       |                                            |         |                 |
|      |             |                       |                                            |         |                 |
|      |             |                       |                                            |         |                 |
|      |             |                       |                                            |         |                 |
|      |             |                       |                                            |         |                 |
|      |             |                       |                                            |         |                 |

Signature: \_\_\_\_\_  
Contractor's Principal

Total Amount Due for Stored Materials \_\_\_\_\_

Title: \_\_\_\_\_

**SECTION 01295****SCHEDULE OF VALUES****PART 1 GENERAL****1.1 SUMMARY**

- A. Section Includes
  - 1. Schedule of Values

**1.2 SUBMITTALS**

- A. Action Submittals
  - 1. Submit 3 copies of the Schedule of Values for approval within 10 days after the Effective Date of the Agreement.

**1.3 SCHEDULE OF VALUES**

- A. Schedule of Values shall be a detailed breakdown of the lump sum Work items showing values allocated to the various elements of the Work.
- B. The format of the Schedule of Values shall be a breakdown by Specification Section and content and shall be submitted on EJCDC C-620, Contractor's Application for Payment. The Engineer may require additional detailed documentation to support the values in the form of executed purchase orders, subcontracts, or other agreements.
- C. The Engineer will determine the level of breakdown and detail required. The breakdown shall include materials, installation, and start-up for equipment and controls where applicable. The final document will be the basis of payment requests for the duration of the Contract. No progress payment will be made until the Schedule of Values is approved by the Engineer.
- D. An unbalanced Schedule of Values providing overpayment on items of work performed first will not be accepted.
- E. An item for bonds and insurance may be included in the Schedule of Values. If included, requests for payment including values for bonds and insurance shall be accompanied by matching invoices.

**PART 2 PRODUCTS – NOT USED****PART 3 EXECUTION – NOT USED****END OF SECTION**

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## SECTION 01310

## COORDINATION

## PART 1 GENERAL

## 1.1 SUMMARY

- A. Section Includes
  - 1. Project Management
  - 2. Coordination
  - 3. Project Meetings
- B. Related Requirements
  - 1. Section 01140 - Work Restrictions
  - 2. Section 01325 - Scheduling of Construction

## 1.2 SUBMITTALS

- A. Incorporate the requirements of this Section, as well as Work which may impact the existing system operation, or the operations of any adjacent utility, in the project schedule submitted under Section 01325.
- B. Informational Submittals
  - 1. Submit to the affected utility company, the Owner, and the Engineer, in writing, all requests for temporary shutdowns of facilities or interruption of operations. No shutdowns of the water system or interruptions to existing operations will be permitted except as outlined in this Section. Submit requests at least 2 weeks prior to the beginning of the Work requiring shutdown or interruption. No shutdown shall occur without the approval of the utility company or the Owner.
  - 2. At the pre-construction conference, supply to the Owner the cell phone number of a responsible person who may be contacted during off-hours for emergencies 24 hours a day, seven days a week.
  - 3. Prepare a contact list of phone numbers, including cell phone numbers, and emails for all Project personnel and submit to the Engineer at the pre-construction conference. Include Contractor, Owner, Engineer, and Town personnel including police, fire, and ambulance.

## 1.3 PROJECT MANAGEMENT

- A. Retain a full-time Superintendent, satisfactory to the Owner and Engineer. The Superintendent shall not be changed except with the consent of the Owner and Engineer. The Superintendent shall be in full charge of the Work.
- B. Complete the Work in a continuous uninterrupted operation. Use sufficient personnel and adequate equipment to complete the Work within the Contract Time.

## 1.4 COORDINATION

- A. Do not interfere with the operation of the existing facilities.



- B. The existing road must be maintained for Owner access. Existing road is used by the Owner only. Coordinate with Owner as needed regarding possible road closures. Road may not be closed without prior approval.
- C. The Owner reserves the right to require rescheduling or reactivation of temporary shutdowns if an emergency occurs in the distribution system.
- D. Coordinate with appropriate utility companies, as well as with the Owner, where the Work crosses or is adjacent to existing utilities.

## 1.5 PROJECT MEETINGS

### A. Pre-Construction Conference

- 1. The Contractor shall be prepared to discuss the following subjects at the Pre-Construction Conference. Documentation for these items is required to be submitted within the time frames included in individual specification sections.
  - a. Project scheduling
  - b. Sequencing of critical path Work items
  - c. Shop Drawing procedures
  - d. Project changes and clarification procedures
  - e. Use of sites, access to Work areas, office and storage areas, security and temporary facilities
  - f. Contractor safety plan and representative
  - g. Progress payments and procedures
  - h. Required documentation
  - i. Project personnel contact list

### B. Progress Meetings

- 1. Progress meetings will be held every 2 weeks during active construction and at other times as requested by the Owner or as required by the Progress of the Work.
- 2. The Contractor's Superintendent shall attend all progress meetings.
- 3. At a minimum, progress meetings will review Work progress, schedule, Shop Drawing submission schedule, Applications for Payment, and other matters needing discussion and resolution.
- 4. Review the schedule with all parties to be affected by upcoming work.
- 5. Review the monthly construction report required under Section 01325.

## PART 2 PRODUCTS - NOT USED

## PART 3 EXECUTION

### 3.1 GENERAL

- A. Notify Springfield Water and Sewer Commission at 413-310-3501 and DIGSAFE at 1-888-344-7233 at least 72 hours prior to any digging, trenching, rock removal, demolition, borings, backfill, grading, landscaping, or any other earth moving operations.

### 3.2 COORDINATION WITH THE OWNER'S OPERATIONS

- A. Notify the Owner and Engineer, in writing, a minimum of 1 week in advance of commencing Work on site. Work on site shall not occur until all required permits are obtained.
- B. Notify the Owner and Engineer, in writing, a minimum of 1 week before commencing any work which may affect the Owner's operations.
- C. Perform all construction activities so as to avoid interference with operations of the facility and the work of others.
- D. Coordinate the following operations with the Owner and the Engineer:
  - 1. Operation of existing valves. The opening and closing of existing valves will be performed by the Owner.
- E. The Owner has the authority to order the Work stopped which could unreasonably result in stopping the necessary functions of the Owner's facilities. Any costs and/or delays associated with these work stoppages due to the Contractor's operation shall be borne by the Contractor.

### 3.3 SEQUENCE OF CONSTRUCTION

- A. Constructing the proposed improvements while maintaining existing operations will require a specific sequence of construction. The Contractor will be allowed reasonable flexibility in scheduling the construction activities. Provide a detailed construction schedule as required in Section 01325.

### 3.4 SHUTDOWNS

- A. Rescheduling or reactivation of any temporary shutdowns may be required if an emergency occurs in the distribution system, such as a major pipeline break or fire.
- B. Furnish all labor, materials, tools and equipment necessary to provide temporary light, ventilation, safety personnel and equipment, gas monitoring equipment, supports and braces necessary to perform the tie-in work in a safe and secure manner. Observe all safety regulations in force at the existing facilities.

END OF SECTION

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## SECTION 01320

## CONSTRUCTION PHOTOGRAPHS

## PART 1 GENERAL

## 1.1 SUMMARY

## A. Section Includes

1. Photographs taken at specified intervals before, during and after construction.

## 1.2 SUBMITTALS

## A. Informational Submittals

1. Submit electronic files of each photograph on a CD or USB flash drive.

## PART 2 PRODUCTS

## 2.1 CONSTRUCTION PHOTOGRAPHS

## A. Electronic files shall be in .jpg format.

## B. File name for each photograph shall provide a description of the photograph.

## PART 3 EXECUTION

## 3.1 PRE-CONSTRUCTION PHOTOGRAPHY

- A. Prior to the commencement of any Work under this Contract, take a minimum of 10 photographs. The photographs will serve as a record of the original conditions where construction activities will occur.
- B. The area to be photographed shall include, but not be limited to, the area within and adjacent to the proposed construction, including roadways, utilities, driveways, landscaping, trees, structures and buildings.

## 3.2 PROGRESS PHOTOGRAPHY

- A. Take construction photographs of active work areas at least every 2 weeks throughout the life of the Contract. The photographs shall be indicative of the work that is currently in progress. A minimum of 10 photographs shall be taken at each scheduled interval at each location where Work is in progress.
- B. Take photographs after demolition and prior to backfilling and grading.
- C. Take photographs of all utility abandonments.
- D. Take photographs of all relocated utility connections.

## 3.3 POST-CONSTRUCTION PHOTOGRAPHY

- A. Provide post construction photography after all Work has been completed at each location. The locations to be photographed and the number of photographs required shall be as specified in Paragraph 3.1 for the preconstruction photography.

END OF SECTION

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Construction Photographs.docx

## SECTION 01325

## SCHEDULING OF CONSTRUCTION

## PART 1 GENERAL

## 1.1 SUMMARY

- A. Section Includes
  - 1. Progress Schedule
- B. Related Requirements
  - 1. Section 01140 - Work Restrictions
  - 2. Section 01310 - Coordination

## 1.2 REFERENCES

- A. The Use of CPM in Construction - A Manual for General Contractors and the Construction Industry, an Associated General Contractors (AGC) of America publication.

## 1.3 PROGRESS SCHEDULE

- A. Network Analysis
  - 1. Prepare an electronic network analysis using the critical path method under concepts and methods outlined in the current edition of AGC's "The Use of CPM in Construction - A Manual for General Contractors and the Construction Industry."
- B. Graphically show the order and interdependence of activities, sequence of Work, how the start of a given activity depends on completion of preceding activities, and how completion of an activity may restrain the start of subsequent activities.
- C. The Work shall be planned by the Contractor and his Project field superintendent in coordination with all Subcontractors and Suppliers whose Work is shown on the Progress Schedule.
- D. Include, at a minimum, the following activities on the Progress Schedule:
  - 1. Project mobilization
  - 2. Submittal and approval of Shop Drawings
  - 3. Procurement of equipment and critical materials
  - 4. Completion of stream flow diversion system installation
  - 5. Installation of equipment and critical materials
  - 6. Fabrication of special equipment and material, and its installation and testing
  - 7. Final inspecting and testing
  - 8. Punchlist
  - 9. Final cleanup

10. Other activities that may be critical to the Progress Schedule
  11. All activities of the Owner and the Engineer which affect progress and/or affect required dates for completion of the Work
- E. Take into consideration Shop Drawing submittal and approval time, the delivery times of equipment and materials, Subcontractors' Work, availability and abilities of workmen, weather conditions, any restrictions in operations at the Work site, and all other items that may affect completion of the Work within the Contract Time.
  - F. The Progress Schedule shall reflect the requirements and constraints outlined in Section 01310, Coordination.
  - G. The Progress Schedule shall reflect Work restrictions outlined in Section 01140.
  - H. Show information in such detail that duration times of activities will range from one to 15 days. The selection and number of activities shall be subject to the approval of the Owner and Engineer.
  - I. The Progress Schedule should show preceding and following event numbers for each activity, description of each activity, and activity duration in calendar days.
  - J. Submit the Progress Schedule on maximum sheet size 30-inches high by the width required.

#### 1.4 SUBMITTALS

- A. Informational Submittals
  1. Submit four prints of the preliminary Progress Schedule prepared in accordance with Article 2.05 of Section 00700 and the requirements of this section. Progress schedule must be submitted within 10 days after the Effective Date of the Agreement. Progress Schedule must be approved by the Owner and Engineer before the first progress payment will be made.
  2. Revised analyses - Within 10 days after receipt of the review comments, submit four prints of the Progress Schedule revised in accordance with those comments.
  3. Periodic reports - On the first progress meeting of each month, submit four prints of the updated Progress Schedule, as well as a report of construction activities in the prior month.
  4. Before initiating the Work, submit an estimated monthly rate of Contractor payments for the project. If the payment schedule deviates from the original projection, submit a revised rate of expenditure schedule.

#### 1.5 PERIODIC REPORTS

- A. At the first scheduled progress meeting of each month, present four copies of a construction report which details the Work performed during the preceding period. The report shall include the following at a minimum:
  1. Actual progress of Work. Update the Progress Schedule accordingly.
  2. The Progress Schedule, or revised Progress Schedule, should show the portions of the Progress Schedule impacted by the Work progress.

3. Activities or portions of activities completed during the reporting period, and their total value as basis for Contractor's periodic request for payment. Payment made will be based on the total value of such activities completed or partially completed after verification by the Engineer.
4. State the percentage of the Work actually completed and scheduled as of the report date, and the progress along the critical path in terms of days ahead of or behind the dates defined in the Progress Schedule.
5. If the Work is behind the dates set forth in the Progress Schedule, also report progress along other paths with negative slack.
6. Include a narrative which includes:
  - a. A description of problem areas, anticipated and current
  - b. Delaying factors and their impact
  - c. An explanation of corrective actions taken or proposed
7. Show the date of latest revision.

**PART 2 PRODUCTS – NOT USED**

**PART 3 EXECUTION – NOT USED**

**END OF SECTION**

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## SECTION 01330

## SUBMITTAL PROCEDURES

## PART 1 GENERAL

## 1.1 SUMMARY

- A. Section Includes
  - 1. Action Submittals
  - 2. Informational Submittals
  - 3. Electronic Submittal via Procore

## 1.2 DEFINITIONS

- A. Action Submittals – includes written and graphic information submitted by Contractor that requires Owner and Engineer’s approval.
- B. Informational Submittals – includes information submitted by Contractor that does not require Owner or Engineer’s approval. The Engineer will acknowledge receipt of such documents and provide comments when the submittals lack the detail required by the Contract Documents.

## 1.3 ACTION SUBMITTALS

- A. Shop Drawings
  - 1. Shop Drawings as defined in the General Conditions, and as specified in individual work sections include, but are not necessarily limited to, custom-prepared data such as fabrication and erection/installation drawings, schedule information, piece part drawings, actual shop work manufacturing instructions, special wiring diagrams, coordination drawings, individual system or equipment inspection and test reports including performance curves and certification, as applicable to the Work.
  - 2. Shop Drawings shall be of standardized sizes to enable the Owner to maintain a permanent record of the submissions. Approved standard size drawings shall be
    - a. 24 inches by 36 inches
    - b. 22 inches by 34 inches
    - c. 11 inches by 17 inches
    - d. 8.5 inches by 11 inches
  - 3. Submit Shop Drawings at the proper time to prevent delays in delivery of materials. Coordinate submittals for related or interdependent equipment.
  - 4. Advise the Engineer in writing of any deviations from the requirements of the Contract Documents.



5. Check all Shop Drawings regarding measurements, size of members, materials, and details to determine if they conform to the Contract Documents. Shop Drawings found to be inaccurate, not in compliance, or otherwise in error shall be returned to the Subcontractors or Suppliers for correction before submission to the Engineer. Drawings that are current shall be marked with the date, name, and approval stamp of the Contractor.
  6. All details on Shop Drawings submitted for approval shall show clearly the relation of the various parts to the main members and lines of the structure, and where correct fabrication of the work depends upon field measurements, such measurements shall be made and noted on the Shop Drawings before being submitted for approval.
  7. Detailed installation drawings (sewers, equipment, piping, electrical conduits and controls, HVAC work, and plumbing, etc.) shall be drawn to scale and fully dimensioned.
  8. No material or equipment shall be purchased or fabricated until the required Shop Drawings have been submitted and approved. Materials and equipment and the work involved in their installation or incorporation into the Work shall then be as shown in and represented by the Shop Drawings.
  9. Until the necessary approval has been given, do not proceed with any portion of the work, the design or details of which are dependent upon the design or details of work, materials, equipment or other features for which approval is required.
  10. If submitted equipment requires modifications to the structures, piping, layout, or other details shown on the Drawings, details of the proposed modifications must also be submitted for approval. If such equipment and modifications are approved, perform all Work necessary to make such modifications at no additional cost to the Owner.
- B. Product Data: Product data as specified in individual Sections, include, but are not necessarily limited to, standard prepared data for manufactured products (catalog data), such as the manufacturer's product specification and installation instructions, availability of colors and patterns, manufacturer's printed statements of compliances and applicability, roughing-in diagrams and templates, catalog cuts, product photographs, standard wiring diagrams, printed performance curves and operational-range diagrams, production or quality control inspection and test reports and certifications, mill reports, product operating and maintenance instructions and recommended spare-parts listing, and printed product warranties, as applicable to the Work.
- C. Samples and color selection charts: Provide sample, when requested by individual Specification to establish conformance with the Specifications, and as necessary to define color, texture and pattern selections available.
- D. Product Substitutions: In accordance with Section 01630.
- E. Operation and Maintenance Manuals: In accordance with Section 01770.
- F. Schedule of Values: In accordance with Section 01295.

G. Site Usage Plan: In accordance with Section 01140.

#### 1.4 INFORMATIONAL SUBMITTALS

##### A. Schedule of Submittals

1. Submit a preliminary Schedule of Submittals within 10 days of the Effective Date of the Agreement in accordance with Article 2.05 of Section 00700.

##### B. Schedule of Manufacturers and Suppliers

1. Submit a schedule of manufacturers and Suppliers within 7 days after Notice to Proceed including the names and addresses of the manufacturers and Suppliers of materials and equipment to be incorporated into the Work.

##### C. Schedule of Major Products

1. Submit a schedule of major products within 30 days after Notice to Proceed including a complete list of major products proposed for use, with specification section number, name of manufacturer, trade name, and model number of each product.

##### D. Product Listing and Manufacturers Qualifications

1. For products specified only by reference standards, give manufacturer, trade name, model or catalog designation and reference standards. Specifically identify the products, the anticipated schedule for delivery and storage, and the estimated value thereof for materials which the Contractor intends to request approval for off-site storage.

##### E. Certificates of Compliance

1. General:
  - a. Submit sworn certificates from the manufacturer or material supplier that the materials and fabrications provided under the Specification section conform with the Contract Documents.
  - b. Certificates shall be signed by an officer of the manufacturer's corporation and witnessed by a Notary Public.
2. Welding: Submit in accordance with individual Specification sections.
3. Installer: Prepare written statements on manufacturer's letterhead certifying that installer complies with requirements as specified in individual Specification sections.
4. Material Test: Prepared by qualified testing agency, on testing agency's standard form, indicating and interpreting test results of material for compliance with requirements.
5. Certificates of Successful Testing or Inspection: Submit when testing or inspection is required by Laws and Regulations or governing agency, or when specified in individual Specification sections.
6. Manufacturer's Certificate of Compliance: In accordance with individual Specification sections.

- F. Application for Payment
  - 1. Submit applications for payment in accordance with Section 01290, Application and Certificate for Payment.
  - 2. Submit schedule of stored materials when requesting payment for materials not yet installed.
- G. Construction Photography and Videography: Provide preconstruction, progress, and post-construction photography and videography in accordance with Section 01320.
- H. Contract Closeout Submittals: In accordance with Section 01770.
- I. Contractor Design Data
  - 1. Written and graphic information
  - 2. List of assumptions
  - 3. List of performance and design criteria
  - 4. Summary of loads or load diagram
  - 5. Calculations
  - 6. List of applicable codes and regulations
  - 7. Name and version of software
  - 8. Information requested in individual Specification section
- J. Manufacturer's Instructions: Written or published information that documents manufacturer's recommendations, guidelines, and procedures in accordance with individual Specification sections.
- K. Schedules - Submit construction progress schedules and schedule updates in accordance with Section 01325.
- L. Statement of Qualifications: Submit evidence of qualification, certification, or registration as required in Contract Documents to verify qualifications of professional land surveyor, engineer, materials testing laboratory, specialty subcontractor, trade, specialist, consultant, installer, and other professionals.
- M. Submittals Required by Laws, Regulations, and Governing Agencies
  - 1. Submit promptly notifications, reports, certifications, payrolls, and other required information as may be required, directly to the applicable federal, state, or local governing agency or their representative.
  - 2. Transmit to Engineer for Owner's records, one copy of correspondence and transmittals (including enclosures and attachments) between Contractor and governing agency.
- N. Test and Inspection Reports
  - 1. Submit test and inspection reports as required by individual Specification sections.

2. Test and inspection reports shall contain signature of person responsible for test or report.
  3. Reports shall include identification of product and Specification, project name, date and time of test, type of test, location, test results, corrective action required if report indicates test is not in compliance with Contract Documents, interpretation of test results, and other information as required in individual Specification sections.
- O. Equipment Data: Submit information on equipment to be used in the performance of the Work as required by individual Specification sections.
- P. Testing and Start-up Data: Prepare and submit testing procedures proposed to perform testing required by individual Specification sections.
- Q. Vendor Training Plan: At least two weeks prior to scheduling training of Owner's personnel, submit lesson plans for vendor training in accordance with individual Specification section and manufacturer's Operations and Maintenance Manuals.
- R. Health & Safety Plans: When specified in individual Specification sections, prepare and submit a Health and Safety Plan modified or supplemented to include job-specific considerations.
- S. Submittals stamped by another Professional Engineer: When specified in individual Specification sections, prepare and submit calculations and/or drawings stamped by a Professional Engineer licensed in the State where the work is being performed.
- T. Coordination Drawings: When specified in individual Specification sections, prepare and submit drawings to show how multiple system and interdisciplinary work will be coordinated. Examples are conduit routing diagrams, duct layouts, utility coordination drawings, sprinkler plans etc.
- U. Work Plans: When specified in individual Specification sections, prepare and submit copies of all work plans needed to demonstrate to the Owner that Contractor has adequately thought-out the means and methods of construction and their interface with existing facilities.
- V. Erosion Control Plan: When specified in Contract Documents or required by local ordinances or regulations, prepare and submit copies of erosion control plans.
- W. Traffic Control Plan: When specified in Contract Documents or required by local ordinances or regulations, prepare and submit copies of traffic control plans.
- X. Shutdown Requests: Submit notification of any outages required (electrical, flow processes, etc.) as may be required to tie-in new work into existing facilities. Unless otherwise specified, provide outage requests a minimum of 7 days' notice shall be provided.
- Y. Equipment Data: When specified in other Specification sections, information on equipment used by the Contractor to complete the Work, such as compaction equipment and closed-circuit television inspection equipment.

## 1.5 PROCEDURES

### A. Coordination

1. Prepare and submit documentation in advance of fabrication and product manufacturer, so that the installation will not be delayed, other related work can be properly coordinated, and there is adequate time for review and resubmission, if required.
  2. Provide no less than 30 days for review of submittals from the time received by the Engineer. For submittals of major equipment, that require more than 30 days to review, due to complexity and detail or those requiring review by multiple engineering disciplines, Engineer will notify Contractor of the circumstances and identify the anticipated date when the submittal will be returned.
  3. Re-submittals will be subject to same review time.
  4. No extension of time will be authorized due to failure to provide approvable submittals sufficiently in advance of the Work.
- B. Review Shop Drawings, product data, and samples prior to submission and verify and determine:
1. Field measurements
  2. Conformance with the Contract Documents. Advise the Engineer in writing of any deviations from the requirements of the Contract Documents.
  3. Delete or strike out information that is not applicable to the Work.
- C. Upload the electronic submittal files via Procore. Access to Procore will be provided by the Engineer. Files must be in .pdf format. The submittals will be returned in electronic .pdf format via Procore.
- D. In addition to the electronic submission requirement, submit one hard copy of each submittal.
1. Samples – Provide one unless otherwise noted in the individual Specification section. Sample will be retained by Engineer in the field.
- E. Numbering: Submissions shall be accompanied by a transmittal form referencing the project name and applicable Specification section. Submittals shall be numbered sequentially, with the applicable Specification section and a hyphen preceding the number. (*e.g.* Submittal number 11330-01). Resubmittals shall bear the same transmittal number with a revision number commencing with "1" (*e.g.* Submittal number 11330-01-1).
- F. Provide a copy of the Submittal Certification Form (copy attached at the end of this section) which shall be attached to every copy of each submittal as required under Article 7.16 A.2 of Section 00700. Apply the Contractor's stamp and initials or signature certifying that the submission has been thoroughly reviewed for completeness, compliance with the Contract Documents, coordination with adjacent construction and dimensional compatibility. Items submitted without the stamp or that are incomplete will be returned by the Engineer for rework and resubmission.
- G. Provide a copy of the PE Certification Form (copy attached at the end of this section) which shall be attached to every copy of each submittal stamped by another

Professional Engineer. Items submitted without the completed certification form will be returned by the Engineer for resubmission.

- H. Distribute copies of reviewed submittals along with the Engineer's transmittal to concerned parties with instructions to promptly report any inability to comply with the provisions or integrate the requirements with interfacing work.
- I. Partial and Incomplete Submittals
  - 1. 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.
  - 2. Engineer will return entire submittals if preliminary review deems it incomplete including:
    - a. Missing or incomplete Submittal Certification Form
    - b. Insufficient number of copies
    - c. Missing content
  - 3. Partial submittals may be considered, at Engineer's option, only when necessary to expedite the Project.
  - 4. Partial submittals shall be clearly identified as such on the transmittal to identify missing components.
- J. Submittals not required by the Specification will be returned without review or action code.
- K. Resubmission
  - 1. Make corrections and modifications required by the Engineer and resubmit until approved.
  - 2. Clearly identify changes made to submittals and indicate other changes that have been made other than those requested by the Engineer.
  - 3. A maximum of two re-submissions of each shop drawing will be reviewed, checked and commented upon without charge to the Contractor (total of 3 submittals). Any additional submissions which are required by the Engineer to fulfill the stipulations of the Contract Documents will be charged to the Contractor as described in paragraph 7.16.E.2 of Section 00700.
- L. Distribution
  - 1. Distribute approved Shop Drawings and approved product data to the Project Site and elsewhere as required to communicate the information to Suppliers, Subcontractors, and field personnel.

## 1.6 ENGINEER'S REVIEW

- A. The Engineer will review submittals for design, general methods of construction and detailing. The Engineer's review and approval of submittals shall not be construed as

a complete check nor does it relieve the Contractor from responsibility for any departures or deviations from the requirements of the Contract Documents unless he has, in writing, called the Engineer's attention to such deviations at the time of submission. It will not extend to means, methods, technique, sequences, or procedures of construction (except where specifically and expressly called for by the Contract Documents) or to safety precautions or programs incident thereto.

- B. The Engineer's review of the submittals shall not relieve the Contractor from the responsibility for proper fitting of the Work, or the responsibility of furnishing any work required by the Contract Documents which may not be indicated on the submittals. The Contractor shall be solely responsible for any quantities shown on the submittals.
- C. If the Contractor considers any correction indicated on the submittals to constitute a change to the Contract Documents, the Contractor shall provide written notice to the Engineer at least 7 working days prior to release for manufacture.
- D. When the submittals have been completed to the satisfaction of the Engineer, the Contractor shall carry out the construction in accordance therewith and shall make no further changes therein except upon written instructions from the Engineer.
- E. Action submittals as defined in paragraph 1.2 will be reviewed and returned under one of the following codes:
  - 1. Approved (Action Code 1) is assigned when there are no notations or comments on the submittal. Equipment or materials may be released for manufacture, provided that it complies with requirements of the Contract Documents.
  - 2. Approved as Noted (Action Code 2) is assigned when there are notations or comments on the submittal, but the equipment or materials may still be released for manufacture. All notations and comments must be incorporated in the final product. Resubmission is not necessary.
  - 3. Revise and Resubmit (Action Code 3) is assigned when there are notations and comments requiring a resubmittal of the package. Work cannot proceed until the submittal is revised and resubmitted for review.
  - 4. Not Approved (Action Code 4) is assigned when the submittal contains non-specified items or does not meet the requirements of the Contract Documents. It may also be assigned when there is a significant amount of missing material required for the Engineer to perform a complete review. The entire package must be resubmitted, revised to bring the submittal into conformance. It may be necessary to resubmit using a different manufacturer/vendor to meet the requirements of the Contract Documents.
- F. Informational submittals as defined in paragraph 1.2 do not require approval by the Engineer. Such submittals will be returned under one of the following codes:
  - 1. Receipt Acknowledged (Action Code 5) is assigned when the submittal is provided for documentation purposes and is acknowledged as received. Comments may be noted using this action code.
  - 2. Revise and Resubmit (Action Code 6) is assigned when there are notations and comments requiring a resubmittal of the package.

PART 2 PRODUCTS – NOT USED

PART 3 EXECUTION – NOT USED

END OF SECTION

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Submittal Procedures.docx



**SUBMITTAL CERTIFICATION FORM**

PROJECT: \_\_\_\_\_  
ENGINEER: \_\_\_\_\_ ENGINEER'S PROJECT NO.: \_\_\_\_\_  
CONTRACTOR: \_\_\_\_\_ CONTRACTOR'S PROJECT  
NO.: \_\_\_\_\_

TRANSMITTAL NO.: \_\_\_\_\_ SUBMITTAL NO.: \_\_\_\_\_  
SPECIFICATION NO.: \_\_\_\_\_ DRAWING NO: \_\_\_\_\_  
DESCRIPTION: \_\_\_\_\_  
MANUFACTURER: \_\_\_\_\_

The above referenced submittal has been reviewed by the undersigned and I/we certify that the materials and/or equipment meets or exceeds the project specification requirements; that field measurements, dimensions, quantities, specified performance criteria, installation requirements, materials, catalog numbers and related materials have been verified; that all materials with respect to intended use, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the work has been determined and verified; that review includes all information related to the contractor's sole responsibility for means, methods, techniques, sequences, and procedures of construction and safety; and item has been coordinated with the overall project with:

NO DEVIATIONS

A COMPLETE LIST OF DEVIATIONS AS FOLLOWS:

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SUBMITTED BY: \_\_\_\_\_ DATE: \_\_\_\_\_

GENERAL CONTRACTOR'S STAMP

**PE CERTIFICATION FORM**

The undersigned hereby certifies that he/she is a Professional Engineer registered in the Commonwealth of Massachusetts and that he/she has been employed by

\_\_\_\_\_ to design  
(Name of Contractor)

\_\_\_\_\_  
(Insert PE Responsibilities)

In accordance with Specification section \_\_\_\_\_ for the

\_\_\_\_\_  
(Name of Project)

The undersigned further certifies that he/she has performed the said design in conformance with all applicable local, state and federal codes, rules and regulations; and, that his/her signature and PE stamp have been affixed to all calculations and drawings used in, and resulting from, the design.

The undersigned hereby agrees to make all original design drawings and calculations available to the

\_\_\_\_\_  
(Insert Name of Owner)

or Owner's representative within seven days following written request therefor by the Owner.

\_\_\_\_\_  
PE Name

\_\_\_\_\_  
Contractor's Name

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Title

\_\_\_\_\_  
Title

\_\_\_\_\_  
Address

\_\_\_\_\_  
Address

## SECTION 01350

## HEALTH &amp; SAFETY PLAN

## PART 1 GENERAL

## 1.1 SUMMARY

## A. The Contractor shall:

1. develop a site-specific Health and Safety Plan (HASP) specifically addressing the potential hazards that may be encountered at the work site. The HASP shall include the information described in this specification (as applicable) and meet all applicable OSHA requirements.
2. furnish all labor, equipment, materials, and employee training for effective implementation of the HASP and worker health and safety protection of all Contractor personnel.
3. furnish all labor, equipment, materials, and employee training to effectively complete any required air monitoring and/or decontamination.
4. review the requirements and data provided for the project and supplement the HASP with any additional measures deemed necessary to fully comply with applicable regulatory requirements and to adequately protect personnel on the site.
5. maintain a copy of the HASP at the worksite, accessible to employees working at the site.
6. post the emergency response plan section of the HASP, inclusive of emergency alerting and response procedures and directions to the nearest hospital, in a visible location for all workers to see.

## 1.2 SITE-SPECIFIC PROJECT CONDITIONS

## A. The nature of the materials present at the site may require use of special protective clothing and the possible use of respiratory protective equipment, which is intended to help minimize worker exposure to known or suspected site hazards.

1. Levels of personal protection are established in reference standards and generally described for Levels C and D herein. It is anticipated that a majority of the Work to be performed on this project may be performed at Personnel Protection Level D.
2. The Contractor shall be responsible for determining if a higher level of personnel protection is required based on the criteria outlined in the Contractor's HASP. In the event that the Contractor determines that a level of protection higher than Level D is required, the Contractor's personnel shall take the necessary steps outlined in the Contractor's HASP.
3. The Contractor shall notify the Engineer and Owner in writing prior to implementing any upgrades in personal protection. The Engineer will review

the Contractor's notification and determine the need to notify other applicable agencies.

### 1.3 REFERENCES

- A. OSHA 29 CFR Part 1910 (General Industry standards)
- B. OSHA 29 CFR Part 1926 (Construction Standards)
- C. Massachusetts Contingency Plan, 310 CMR 40

### 1.4 DEFINITIONS

- A. CHMM: Certified Hazardous Materials Manager, as certified by the Institute of Hazardous Materials Management.
- B. CIH: Certified Industrial Hygienist, as certified by the American Board of Industrial Hygiene®.
- C. CSP: Certified Safety Professional, as certified by the Board of Certified Safety Professionals.
- D. Site Safety and Health Official (SSHO): The individual located at a job site who is responsible to the Contractor and has the authority and knowledge necessary to implement the HASP and verify compliance with applicable safety and health requirements.

### 1.5 SUBMITTALS

- A. On-site Work shall not begin until the HASP has been submitted by the Contractor and accepted by the Owner/Engineer.
- B. Informational Submittals
  - 1. Submit the following within thirty (30) days after the Effective Date of the Agreement.
    - a. A site-specific HASP, including the information described in this Specification as applicable.
      - 1) The HASP must be reviewed, approved, and signed by Contractor representative, with specific responsibility for safety for the Contracting company.
      - 2) The Engineer's review is only to determine if the HASP is consistent with the minimum requirements of this specification. Engineer has no control over contractor's health & safety and the means and methods of health & safety implementation. Engineer also does not perform health & safety monitoring of Contractor's Work.
      - 3) The review will not determine the adequacy of the HASP to address all potential hazards, as that remains the sole responsibility of the Contractor.
    - b. Documentation of qualifications and experience of the SSHO.

- c. Applicable health and safety training records.

#### 1.6 CONTRACTOR'S RESPONSIBILITIES

- A. The Contractor is solely responsible for the health and safety of workers employed by the Contractor, any subcontractor, vendors/manufacturers, site visitors and anyone directly or indirectly employed by any of them.
- B. Provide a designated SSHO for the project.
- C. Pre-arrange emergency medical care services at a nearby hospital or medical clinic, including establishment of an emergency notification process and emergency routes of travel.
- D. Conduct pre-entry and weekly safety meetings with all site personnel, documenting attendance and topics covered.
- E. Develop and implement the site-specific HASP, inclusive of the elements in contained in this specification.
- F. For projects where contaminated media are known, likely, or suspected to be encountered:
  - 1. monitor air quality in and around the work area using appropriate air monitoring equipment.
  - 2. develop and implement a respiratory protection program per 29 CFR §1910.134 and 29 CFR §1926.103 for all workers authorized to wear respirators.
  - 3. record all air quality readings and maintain records on site.
  - 4. stop work and/or upgrade respiratory protection or personal protective equipment levels if action levels established in the HASP are exceeded.
  - 5. ensure that the degree and type of respiratory protection provided is protective for the monitored concentrations and individual chemical parameters.
  - 6. lawfully dispose of all personal protective equipment that cannot be decontaminated.

#### 1.7 HEALTH & SAFETY PLAN (HASP) REQUIREMENTS

- A. The following items shall be included/addressed in the HASP:
  - 1. a safety and health risk or hazard analysis for each site task and operation in the workplan;
    - a. a physical hazard evaluation and hazard control plan shall be included covering, but not limited to the following, as applicable:
      - 1) equipment operation;
      - 2) confined space entry;
      - 3) slips, trips, and falls;
      - 4) building collapse;

- 5) falling debris;
  - 6) encountering unmarked utilities;
  - 7) cold and heat stress;
  - 8) hot work (cutting and welding);
  - 9) drum and container handling;
  - 10) trench and/or excavation entry.
2. the employee safety and health training program covering each site task and operation in the workplan.
  3. personal protective equipment to be used for each site task and operation in the workplan.
  4. site control measures to address visitors, delivery personnel, and to protect the worksite from unauthorized access.
  5. an emergency response plan for the safe and effective response to foreseeable emergencies;
    - a. including, but not limited to the following:
      - 1) a map indicating the route to a nearby hospital or medical clinic for emergency medical care;
      - 2) procedures for emergency medical treatment and first aid;
      - 3) site evacuation routes and procedures;
      - 4) emergency alerting and response procedures.

## **PART 2 PRODUCTS**

### **2.1 AIR MONITORING EQUIPMENT**

- A. If organic vapors or total hydrocarbons are known, likely, or suspected to be encountered during the work:
  1. provide and maintain a portable photo-ionization detector (PID) or flame-ionization detector (FID) capable of detecting organic vapors or total hydrocarbons. Equipment shall be sensitive to the 0.5 parts per million (PPM) level.
- B. If hazardous atmospheres (oxygen, hydrogen sulfide, carbon monoxide, methane, etc.) are known, likely, or suspected to be encountered during the work:
  1. provide and maintain an applicable multi-gas analyzer to measure concentrations in applicable work environments (i.e. confined spaces, trenches, tunnels, buildings, etc.).
- C. If there is a potential for the accumulation of explosive gas:
  1. provide and maintain an explosimeter (LEL meter).

- D. If there is a potential for visible dust emissions or the site, dust monitoring must be considered.
  - 1. The Contractor is responsible for monitoring fugitive dust emissions in accordance with applicable local, state, and federal regulations.
  - 2. Equipment shall be sensitive to particulate matter less than 10 micrometer in size (PM<sub>10</sub>) at a level of 100 micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ).
  - 3. Contractor shall outline the dust monitoring program in their HASP, including applicable action levels.
- E. All air monitoring equipment shall remain the property of the Contractor.
- F. All air monitoring equipment readings must be recorded and be available for federal, state, and/or local regulatory personnel to review.

## 2.2 PERSONAL PROTECTIVE EQUIPMENT (PPE)

- A. All PPE must conform to the OSHA requirements, as indicated in the previous Reference Standards Section. Various PPE to be furnished by the Contractor under different levels of protection for their own personnel and subcontractor's personnel include, but are not limited to, the following:
  - 1. Level D Protection:
    - a. Coveralls or Tyvek
    - b. Gloves
    - c. Safety boots/shoes
    - d. Safety glasses
    - e. Hearing protection (for high noise operations)
    - f. Hard hat with optional face shield
  - 2. Level C Protection:
    - a. Air-purifying respirator
    - b. Chemical protective overalls or Coveralls (e.g., Saran coated Tyvek)
    - c. Gloves, inner (disposable, surgical type)
    - d. Gloves, outer (Neoprene, Nitrile, Viton or Butyl)
    - e. Boots, chemical protective, steel toe and shank (Neoprene or Nitrile)
    - f. Booties, chemical protective (disposable PVC)
    - g. Hard hat
    - h. Face shield (if necessary)
  - 3. Levels B and A represent increased levels of personal protection and are described in the Reference Standards.

4. Contractor is fully responsible for all PPE selection (including the various stages of protection), proper use, maintenance, and continuous monitoring.

### **PART 3 EXECUTION**

#### **3.1 HEALTH AND SAFETY PLANNING AND IMPLEMENTATION**

- A. Implement the HASP throughout the execution of all applicable work.
- B. The Contractor shall perform all monitoring as detailed in the HASP.
- C. Contractor(s) shall implement routine health and safety meetings and any follow-up supplemental briefings.
- D. Provide applicable health and safety training for all personnel who may come in contact with or be exposed to various dangerous, hazardous, or changing site conditions.
- E. Personnel who have not received applicable training and who are not equipped with the required PPE, shall not be permitted access to the site by the Contractor during the course of the work that may result in potential exposures to unsafe or hazardous site conditions.

#### **3.2 PERSONNEL AND EQUIPMENT DECONTAMINATION**

- A. All equipment shall be provided to the work site free of contamination. Engineer may prohibit from the site any equipment which in his opinion has not been thoroughly decontaminated prior to arrival. Any decontamination of Contractor's equipment prior to arrival at the site shall be at the expense of Contractor. Contractor is prohibited from decontaminating equipment on the project site which is not thoroughly decontaminated prior to arrival.
- B. Contractor shall furnish labor, materials, tools, and equipment for decontamination of all personnel, equipment and supplies which are used to handle contaminated materials.
- C. Properly store and dispose of contaminated PPE and all other generated decontamination waste.

#### **3.3 INCIDENT REPORTING**

- A. The Contractor shall comply with all accident and/or incident reporting requirements, including the following:
  1. Should any unforeseen safety-related factor, hazard, or condition become evident during the course of the work, the Contractor must immediately take action to establish, maintain, and secure the site and working conditions. This shall be followed by immediate notice to the Owner and Engineer.
  2. If injury to any person on-site occurs, the Contractor shall immediately report the incident to the Owner and Engineer. Corrective actions shall be implemented.

**END OF SECTION**



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Health & Safety Plan.docx

## SECTION 01450

## QUALITY CONTROL

## PART 1 GENERAL

## 1.1 SUMMARY

- A. Section Includes
  - 1. Quality assurance and control of the Work
  - 2. Testing and inspection services
  - 3. Product test reports
  - 4. Manufacturer's field service
- B. Related Requirements
  - 1. Section 01451 - Independent Testing Services
  - 2. Testing requirements are described in various Sections of the Project Manual.

## 1.2 SUBMITTALS

- A. Informational Submittals
  - 1. Product test reports

## 1.3 QUALITY ASSURANCE

- A. Monitor quality control over Suppliers, products, services, site conditions, and workmanship to produce Work of specified quality.
- B. Comply fully with manufacturer's instructions. Should these instructions conflict with the Specifications, request clarification from the Owner before proceeding.
- C. Comply with specified standards as a minimum quality for the Work except when more stringent tolerances, codes, or requirements indicate higher standards or more precise workmanship.

## 1.4 TESTING SERVICES FURNISHED BY CONTRACTOR

- A. Furnish all testing services required for materials and equipment proposed to be used in the Work, and quality control tests made in the field including:
  - 1. Concrete materials and mix designs
  - 2. Concrete in place
  - 3. Modified proctor analyses for all borrow materials used on the Project
  - 4. Modified proctor analysis of all subgrade material to be compacted during surface preparation and fine grading and compaction work
  - 5. Sieve analyses for all borrow materials used on the Project
  - 6. Soil structure and nutrient analyses for all loam and topsoil used on the Project

7. Compaction tests performed during trench backfilling and compaction, rough grading and site preparation, fine grading and compaction of roadway and sidewalk subgrades, and placement of roadway and sidewalk subbase materials
  8. Design of asphalt mixtures
  9. Asphalt in place
  10. Field welded joints
  11. All other tests and engineering data as required in the Contract Documents.
- B. Testing agencies must meet the requirements of Section 01451.
  - C. An independent commercial testing laboratory, with current Massachusetts certification, shall perform all tests that require the services of a laboratory to determine compliance with the Contract Documents. Independent testing laboratory requirements are defined under Section 01451.
  - D. Secure and deliver the required number of samples to the laboratory as required by the Contract Documents.
  - E. Notify Owner and Engineer of time, location and material being sampled.
  - F. Schedule necessary testing laboratory services.
  - G. Furnish written reports of each test within 48 hours of completion of testing.
  - H. Notify the Engineer 48 hours prior to operations requiring inspections and laboratory testing services so the Engineer may witness testing. All failed test areas shall be re-worked and re-tested until passing results are obtained.
  - I. The Owner may hire its own independent testing laboratory for quality control tests made in the field or laboratory on materials and equipment during and after their incorporation in the Work. Cooperate with the Owner and independent testing laboratory and furnish samples of materials, design, mix, equipment, tools, storage, and assistance as requested.
  - J. Re-work all failed test areas until passing results are obtained. All re-tests required as a result of the Contractor's failure to perform the work in accordance with the Contract Documents shall be at the Contractor's expense.

#### 1.5 CODE COMPLIANCE TESTING

- A. Provide inspections and tests required by codes or ordinances, or by a legally constituted authority having jurisdiction over the Work.

#### 1.6 PRODUCT TEST REPORTS

- A. Submit 2 copies of product test reports where required by the Contract Documents.

#### 1.7 SUPPLIERS' FIELD SERVICE

- A. Provide qualified field service and installation personnel from material and equipment Suppliers to observe site conditions, installation techniques, quality of workmanship, equipment start-up, adjustment, and performance test where required by the Contract

Documents. Observations are to be reported and incorporated in the Work procedures.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION

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**SECTION 01451****INDEPENDENT TESTING SERVICES****PART 1 GENERAL****1.1 SUMMARY****A. Section Includes**

1. Independent testing services including geotechnical and concrete,
2. Testing laboratory services

**B. Related Requirements**

1. Section 01450 - Quality Control
2. Section 02315 - Excavation, Backfill, Compaction and Dewatering
3. Section 02320 - Borrow Material
4. Section 03485 - Precast Concrete Structures

**1.2 REFERENCES****A. General**

1. ASTM E329 - Standard Specifications for Agencies Engaged in the Testing and/or Inspection of Materials used in Construction

**B. Soil Testing**

1. American Association of State Highway and Transportation Officials (AASHTO)

**C. Concrete Testing**

1. Cement and Concrete Reference Laboratory (CCRL)
- 2.

**1.3 SUBMITTALS****A. Informational Submittals**

1. Qualifications, experience, and certifications of each proposed testing service
2. Certificate of calibration for testing equipment
3. Inspection and test reports

**1.4 QUALITY ASSURANCE****A. General**

1. Comply with the requirements of Section 01450, Quality Control, for testing and inspection requirements.
2. Testing services shall have the following general qualifications:

- a. Minimum five years as a firm with the type of testing specified.
  - b. Ability to provide timely field testing services to minimize the impact of the testing requirements on construction progress.
  - c. Certification to perform the specified services in the state in which the Work is to be performed.
3. Testing services proposed by the Contractor shall be subject to review by the Owner and Engineer. Any testing firm not acceptable to the Owner or Engineer will be rejected.
- B. All testing agencies and laboratories must meet the requirements of ASTM E329.
- C. Testing company shall have been in business for a minimum of the last 5 years providing applicable testing services.
- D. Testing equipment shall be calibrated at maximum 12 month intervals by devices of accuracy traceable to National Bureau of Standards. Submit copy of certificate of calibration made by accredited calibration agency.
- E. Testing shall be in accordance with applicable codes and regulations referenced in individual Specification Sections, and with selected standards of the American Society for Testing and Materials.

## **PART 2 PRODUCTS – NOT USED**

## **PART 3 EXECUTION**

### **3.1 TESTING SERVICES – GENERAL**

- A. Provide testing services meeting the following:
- 1. Provide qualified personnel promptly on notice.
  - 2. Perform inspections required by the Contract Documents. Sample and test materials and observe methods of construction to determine compliance with applicable standards and with the requirements of the Contract Documents.
  - 3. Take specimens and samples for testing, as required in individual Specification Sections. Provide all sampling equipment and deliver all specimens and Samples.
  - 4. Promptly notify the Owner and the Engineer of irregularities or deficiencies in the Work which are observed during performance of services.
  - 5. Promptly submit 2 copies of reports of inspections and tests to the Owner, and one copy to the Engineer including:
    - a. Date issued
    - b. Project title and number
    - c. Testing laboratory or agency name and address
    - d. Name and signature of inspector
    - e. Date of inspection or sampling

- f. Record of temperature and weather
  - g. Date of test
  - h. Identification of product and Specification Section
  - i. Location of Project
  - j. Type of inspection or test
  - k. Results of tests and observations regarding compliance with Contract Documents
- B. Perform additional tests and services as required to assure compliance with the Contract Documents.
  - C. Obtain Owner's approval of testing laboratory before performing testing services.
  - D. Coordinate with testing laboratory.

### 3.2 GEOTECHNICAL TESTING

- A. Provide field testing and laboratory services for geotechnical soil testing required in Sections 02315 and 02320.

### 3.3 CONCRETE TESTING

- A. Provide qualified independent field and laboratory testing service to perform the concrete testing required in Division 3 of the specifications.
- B. The concrete testing laboratory shall have been inspected by the CCRL within the past five years.
- C. The testing laboratory shall be licensed by the Commonwealth of Massachusetts.
- D. Field testing technicians shall have a Grade 1 concrete field technician license as issued by the American Concrete Institute (ACI).

### 3.4 COORDINATION WITH TESTING LABORATORY

- A. Provide testing laboratory personnel access to site and manufacturer's operations.
- B. Provide laboratory with representative samples of materials to be tested in required quantities.
- C. Furnish labor and facilities:
  - 1. To provide access to Work to be tested.
  - 2. To facilitate inspections and tests.
  - 3. For laboratory's exclusive use for storage and curing of test samples.
  - 4. to provide forms for preparing concrete test beams and cylinders.
- D. Notify laboratory sufficiently in advance of operations to allow for assignment of personnel and scheduling of tests.
- E. Arrange with laboratory and pay for additional inspections, samples, and tests required for Contractor's convenience.

END OF SECTION

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Independent Testing Services.docx



**SECTION 01550****TRAFFIC REGULATION****PART 1 GENERAL****1.1 SUMMARY****A. Section Includes**

1. Traffic requirements

**1.2 PAYMENT PROCEDURES**

1. Refer to Section 01290, Application and Certificate for Payment for procedures relating to payment for the Work.

**1.3 REFERENCES**

- A. Manual of Uniform Traffic Control Devices, U.S. Department of Transportation

**1.4 TRAFFIC REQUIREMENTS**

- A. Adhere to all applicable Ludlow Town ordinances that relate to traffic control. Coordinate and meet with Owner authorities to review applicable requirements and develop a traffic control plan consistent with referenced documents for approval by the Owner.
- B. Afford Owner access along roadway as needed. See Section 01140 for coordination regarding vehicle access.

**PART 2 PRODUCTS – NOT USED****PART 3 EXECUTION – NOT USED****END OF SECTION**

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## SECTION 01570

## TEMPORARY CONTROLS

## PART 1 GENERAL

## 1.1 SUMMARY

- A. Section Includes
  - 1. Dust control
  - 2. Drainage and erosion control
  - 3. Straw wattles and siltation fence
  - 4. Mulch
- B. Related Requirements
  - 1. Section 02920 – Lawns and Grasses
  - 2. Section 01580 – Stream Flow Diversion

## 1.2 SUBMITTALS

- A. Informational Submittals
  - 1. Materials proposed for use in dust control
  - 2. Straw wattles, siltation fence, and mulch

## PART 2 PRODUCTS

## 2.1 STRAW WATTLES

- A. Straw wattles required for siltation control shall be wire tied wattles of the type normally used for siltation or erosion control or construction projects.

## 2.2 FILTER FABRIC

- A. Filter fabric siltation fencing shall be a woven filter fabric having a weight of at least 2.5 ounces per square yard, a thickness of at least 17 mils, a coefficient of permeability of not less than 0.0009 centimeters per second and allows a water flow rate of a minimum 40 gallons per minute per square yard. The material shall have a high sediment filtration capacity, high slurry flow and minimum clogging characteristics. The material shall be equal to FW-300 as manufactured by Mirafi, Inc., Charlotte, North Carolina; Amoco 2130 by Nilex, Inc., Centennial, CO; MISF 180 by Mutual Industries, PA; or equal.

## 2.3 MULCH

- A. Hay mulch shall consist of mowed cured grass, clover, alfalfa, timothy, oats, or wheat. No salt hay shall be used.

## PART 3 EXECUTION

## 3.1 DUST CONTROL

- A. Prevent dust from becoming a nuisance or hazard. During construction, excavated material and open or stripped areas are to be policed and controlled to prevent spreading of the material.
- B. Control dust during the work on-site using calcium chloride and/or water.
- C. Submit for approval materials proposed for use for dust control, prior to start of the Work.

### 3.2 DRAINAGE AND EROSION CONTROL

- A. Control erosion and siltation during the construction through mulching, straw wattles, siltation fencing, diversion and control of storm water run-off, ponding areas and similar methods.
- B. Discharge surface runoff from any disturbances to the site into silt containment basins or into the existing stream. Utilize siltation prevention measures including straw wattles and siltation fences before discharge.

### 3.3 STRAW WATTLES AND SILTATION FENCE

- A. Place and maintain straw wattles and a staked filter fabric siltation fence along the entire length of the proposed construction between the area of construction and the stream or its surrounding wetlands where shown on the Drawings or required by permit.
- B. Install straw wattles as shown on the Drawings. Replace deteriorated haybales. Remove and dispose of the haybales following the successful growth of vegetation in the areas disturbed by the construction. Haybales shall not be removed until their removal is approved by the Engineer.
- C. Install a filter fabric siltation fence in addition to the staked haybales, prior to construction and remove after full surface restoration has been achieved. Install the siltation fence parallel and immediately adjacent to the haybales as shown on the Drawings. Install as follows:
  - 1. Hand shovel excavate a small trench on the upstream side of the desired fence line location.
  - 2. Unroll the siltation fence system, position the post in the back of the trench (downhill side), and hammer the post at least 1½ feet into the ground.
  - 3. Lay the bottom 6 inches of the fabric into the trench to prevent undermining by storm water run-off.
  - 4. Backfill the trench and compact.

### 3.4 RESTORATION

- A. Provide erosion control, seed and mulch and netting for surface restoration of areas disturbed during construction activities.
- B. Provide temporary stabilization of disturbed areas that remain inactive greater than 14 consecutive days to minimize erosion. Methods to minimize erosion may include but are not limited to:
  - 1. Spreading straw and/or providing temporary planting stabilization.

2. Installing jute netting.
  3. Preparing surfaces to increase the runoff flow path, reduce the runoff flow velocity, or create small storage pockets to retain surface flows. Methods of accomplishing this include using mechanical devices such as track equipment or sheep's foot rollers.
- C. Restore the ground surface in brush and/or woodland areas by machine spreading of existing stripped surface soils (loam and humus), liming, fertilizing, seeding and mulching, as well as installing jute netting where required by steep slopes.
  - D. Salvage existing loam and topsoil and stockpile this material for re-spreading where originally removed. On backfilling, grading shall be returned to preconstruction contours and the stockpile of loam shall be spread over areas disturbed during construction activities.
  - E. Place mulch on seeded areas. Use jute netting on areas having a slope greater than 3 horizontal to 1 vertical, to anchor the mulch until a satisfactory growth is obtained. If seeding is not possible because of the time of the year, apply mulch and netting to stabilize the area until such time as seed can be sown.
  - F. Provide grading, refertilizing, reseeding, remulching and/or netting to maintain the restored areas until the Work is accepted by the Owner.
  - G. Seed shall be as specified under Section 02920.

### 3.5 CLEANING

- A. Remove any sediment that builds up around the straw wattles or siltation fencing.

#### END OF SECTION

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## SECTION 01580

## STREAM FLOW DIVERSION

## PART 1 GENERAL

## 1.1 SUMMARY

## A. Section Includes

1. Stream flow diversion

## 1.2 SUBMITTALS

## A. Informational Submittals

1. Submit a specific, detailed description of the proposed stream flow diversion system that is in accordance with the Drawings.
2. Submit detailed plans and descriptions outlining all provisions and precautions to be taken by the Contractor regarding the handling of existing flows. This plan must include such items as schedules, locations, elevations, capacities of equipment, materials and all other incidental items necessary and/or required to ensure proper protection of the facilities, including protection of the access and discharge locations from damage due to the discharge flows. No construction shall begin until all provisions and requirements have been approved.
3. Submittals shall include the following:
  - a. Manufacturer's drawings and catalog cuts, including descriptive literature indicating product characteristics on the pipe, accessories, and cofferdam materials
  - b. Schedule and method of installation and maintenance of gravity diversion piping including suction and discharge
  - c. Downstream discharge plan
  - d. Method of protecting diversion area from erosion and damage
  - e. Sections showing gravity diversion pipe depth, embedment, select fill and special backfill
  - f. Provisions for vehicle access on roadway
  - g. Any temporary pipe supports and anchoring required
  - h. Plans for access to gravity diversion locations indicated on the drawings
  - i. Cofferdam materials and orientation

## 1.3 QUALITY ASSURANCE

- A. Demonstrate that the stream flow diversion system is automated and is capable of functioning without the assistance of an operator.

- B. Demonstrate sufficient service and repair parts in stock to fulfill any service or repair within 3 hours.
- C. Demonstrate sufficient service staff and trucks to mobilize to repair or service equipment within 1 hour of a service call, 24 hours per day, 7 days per week.
- D. Provide a list of cell phone and pager numbers to call for twenty-four hour service while temporary stream flow diversion system is in place.
- E. The stream flow diversion system shall meet the requirements of all codes and regulatory agencies having jurisdiction.
- F. Obtain required approvals for placement of the temporary stream flow diversion system adjacent to the existing stream.
- G. No construction shall begin until the related project submittals are approved and all provisions of the work have been coordinated with the Owner and Engineer.

#### 1.4 SYSTEM REQUIREMENTS

- A. Afford Owner access along the existing road as needed.
- B. Be responsible for temporary controls required to prevent intrusion of stream water into the outfall construction area during installation.
- C. Any stream flow diversion equipment shall be automated and capable of functioning without the assistance of an operator.

### PART 2 PRODUCTS

#### 2.1 PIPE AND FITTINGS

- A. Corrugated high-density polyethylene (HDPE) pipe shall be manufactured in accordance with ASTM D3350.
- B. The pipe and fittings shall be free of foreign inclusions and visible defects and shall allow for a positive flow. The ends of the pipe shall be cut squarely and cleanly so as not to adversely affect joining.
- C. The nominal size of the pipe and fittings is based on the nominal inside diameter of the pipe. Corrugated fittings may be either molded or fabricated by the manufacturer. Fittings and gaskets supplied by manufacturers other than the supplier of the pipe shall not be permitted without the approval of the Engineer.

#### 2.2 COFFERDAM

- A. Submit proposed materials for cofferdam to Engineer for approval. Submittal shall be in accordance with Section 1.2 above.

#### 2.3 SYSTEM DESCRIPTION

- A. General
  - 1. Provide all necessary means to safely convey the stream flow past the work area. The Contractor will not be permitted to stop or impede the stream flows under any circumstances.

2. Make all arrangements for stream flow diversion during the time when precipitation is not anticipated. In-stream work shall be limited to a period of time when dry weather is anticipated. This time period shall be coordinated with the Owner and Engineer.
3. Protect water resources, wetlands, and other natural resources in accordance with the appropriate project permits.

### **PART 3 EXECUTION**

#### **3.1 FIELD QUALITY CONTROL AND MAINTENANCE**

- A. Test:
  1. Perform leakage and pressure tests of the stream flow diversion piping using clean water prior to actual operation. Give the Engineer 24 hour notice prior to testing.
- B. Inspection:
  1. Inspect the stream flow diversion system regularly (every 2 hours) to ensure that the system is working correctly.
- C. Maintenance Service:
  1. Maintain spare parts on hand at all times.
- D. Extra Materials:
  1. Keep spare parts for pumps and piping on site as required.
  2. Maintain adequate hoisting equipment for each pump and accessories on the site.
- E. Installation and Removal
  1. Upon completion of the stream flow diversion system operations, and after the receipt of written permission from the Engineer, remove all the piping, restore all surfaces and existing conditions to pre-construction condition. Adhere to any and all applicable project permits.

#### **END OF SECTION**

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**SECTION 01600****PRODUCT REQUIREMENTS****PART 1 GENERAL****1.1 SUMMARY**

- A. Section Includes
  - 1. Products and Materials
  - 2. Product Delivery Requirements
  - 3. Packaging, Handling and Storage Requirements
  - 4. Inspection of Offsite Work

**1.2 QUALITY ASSURANCE**

- A. Review all contract Drawings and Specifications with respect to specific system characteristics, applicability of materials and equipment for the intended purposes, sizes, orientation, and interface with other systems, both existing and proposed, and certify that the materials and equipment proposed will perform as specified prior to submitting shop drawings.
- B. Provide sworn certificates as to quality and quantity of materials where specified or requested by the Engineer.
- C. Obtain concurrence of the Engineer prior to processing, fabricating, or delivering material or equipment.

**1.3 PRODUCTS AND MATERIALS**

- A. Furnish products of qualified manufacturers suitable for intended use. Furnish products of each type by a single manufacturer unless specified otherwise.
- B. Use only new and first quality material in the Work. Material shall conform to the requirements of these Specifications and be approved by the Engineer. If, after trial, it is found that sources of supply that have been approved do not furnish a uniform product, or if the product from any source proves unacceptable at any time, the Contractor shall furnish approved materials from other approved sources.
- C. Immediately remove defective materials and equipment from the site, at no additional cost to the Owner. The Contractor may be required to furnish sworn certificates as to the quality and quantity of materials before materials are incorporated in the Work.
- D. Engineer has the right to approve the source of supply of all material prior to delivery.

**1.4 PRODUCT DELIVERY REQUIREMENTS**

- A. Transport and handle products in accordance with manufacturer's instructions.
- B. Promptly inspect shipments to ensure products comply with requirements, quantities are correct, and products are undamaged.
- C. Provide equipment and personnel to handle products by methods to prevent soiling, disfigurement, or damage.



- D. Progressively deliver materials and equipment to the Site so there will be neither delay in progress of the Work nor an accumulation of material that is not to be used within a reasonable time.
- E. Deliver products to the Site in their manufacturer's original container, with labels intact and legible.
  - 1. Maintain packaged materials with seals unbroken and labels intact until time of use.
  - 2. The Engineer may reject as non-complying such material and products that do not bear identification satisfactory to the Engineer as to the manufacturer, grade, quality, source, and other pertinent information.

#### 1.5 PACKAGING, HANDLING AND STORAGE REQUIREMENTS

- A. Provide storage and handling of all materials and equipment required for the Work.
- B. Except as otherwise indicated in the Contract Documents, determine and comply with the manufacturer's recommendations on product storage, handling, and protection. Provide manufacturer's documentation on recommended storage procedures when requested by the Engineer.
- C. Familiarize workmen with hazards associated with materials, equipment, and chemicals specified herein and take all necessary safety precautions.
- D. Areas available on the construction site for storage of material and equipment shall be as shown on the Drawings or approved by the Owner.
- E. Materials and equipment to be incorporated in the Work shall be handled and stored by the manufacturer, fabricator, supplier, and Contractor before, during and after shipment in a manner to prevent warping, twisting, bending, breaking, chipping, rusting, and any injury, theft, or damage of any kind to the material or equipment.
- F. Protect finished surfaces including floor surfaces, stairs, joints, and soffits of passageways from damage until accepted by the Engineer.
- G. Promptly remove materials from the site of the Work which have become damaged or are unfit for the use intended or specified. The Contractor will not be compensated for the damaged materials or their removal costs.
- H. Handle, haul, and distribute all materials and all surplus materials on the different portions of the Work, as necessary or required. Provide suitable and adequate storage room for materials and equipment during the progress of the Work, and be responsible for the protection, loss of, or damage to materials and equipment furnished, until the final completion and acceptance of the Work.
- I. Storage and demurrage charges by transportation companies and vendors shall be borne by the Contractor.
- J. All materials and equipment to be incorporated in the Work shall be placed so as to not damage any part of the Work or existing facilities and so that free access can be had at all times to all parts of the Work and to all public utility installations in the vicinity of the Work. Keep materials and equipment neatly piled and compactly stored in such locations as will cause a minimum of inconvenience to the Owner.

- K. No material or equipment will be permitted to be stored in any of the Owner's facilities, unless otherwise approved by the Engineer.
- L. Do not store material or equipment in any wetland or environmentally sensitive area. Stockpile sites shall be level, devoid of mature stands of natural vegetation, and removed from drainage facilities and features, wetlands, and stream corridors.
- M. Contractor shall be fully responsible for loss or damage to stored materials and equipment.
- N. No item judged rusty, corroded or otherwise damaged during storage will be accepted. Any electrical or instrumentation item determined by the Engineer to be damaged shall be removed from the Site and replaced by a completely new item in first class condition. Items not properly stored will not be considered for any partial payment.
- O. Provide protective and preventive maintenance during storage consisting of manually exercising equipment where required, inspecting mechanical surfaces for signs of corrosion or other damage, lubricating, applying any coatings as recommended by the equipment manufacturer as necessary for its protection and other precautions as necessary to assure proper protection of equipment stored.
- P. Treat ferrous surfaces not receiving finish coats of paint with rust preventive coating, and protect non-ferrous metal work and devices with suitable wrappings.

#### 1.6 INSPECTION OF OFFSITE WORK

- A. The Owner and Engineer will inspect Work performed away from the construction site during fabrication, manufacture, or testing, or before shipment. Give 2 weeks written notice regarding the place and time where such fabrication, manufacture, testing, or shipping will be done.

#### PART 2 PRODUCTS – NOT USED

#### PART 3 EXECUTION – NOT USED

#### END OF SECTION

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## SECTION 01630

## PRODUCT SUBSTITUTION DURING CONSTRUCTION

## PART 1 GENERAL

## 1.1 SUMMARY

- A. Section Includes
  - 1. Product substitution procedures

## 1.2 CONTRACTOR'S OPTIONS

- A. For materials or equipment (hereinafter products) specified only by performance or reference standard, select product meeting that standard, by any Supplier. To the maximum extent possible, provide products of the same generic kind from a single source.
- B. For products specified by naming several products or manufacturers, select any one of the products or Suppliers named, which fully complies with the Drawings and Specifications. Another "or-equal" product can also be considered by the Engineer if it complies with the provisions of Article 7.04, Section 00700. If a product proposed by the Contractor does not qualify as an "or-equal" item, then it can be considered as a proposed substitute item, and the Contractor must comply with the requirements of Article 7.05, Section 00700.
- C. For products specified by naming products or manufacturers and followed by words indicating that no "or-equal" item or substitution is permitted, there is no option and no substitution will be allowed.
- D. Where more than one choice is available as a Contractor's option, select product that is compatible with other products already selected or specified.

## 1.3 SUBSTITUTIONS

- A. If in the Engineer's sole discretion a product proposed by the Contractor does not qualify as an "or-equal" item under the provisions of Article 7.04 of Section 00700, it can be considered a proposed substitute item. Submit information required under Article 7.05, Section 00700 for proposed substitutes.
- B. The Engineer will consider written requests from the Contractor for substitutions within 30 days after the Notice to Proceed. After this period, requests will be considered only in case of unavailability of product or other conditions beyond control of the Contractor.
- C. Submit 5 copies of request for substitutions. Submit a separate request for each proposed substitution. In addition to the submittal requirements outlined in Article 7.05 of Section 00700, include the following in each substitution request:
  - 1. For products or Suppliers:
    - a. Product identification, including Supplier & manufacturer's name and address.

- b. Manufacturer's literature with product description, performance and test data, and reference standards.
  - c. Samples, if appropriate.
  - d. Name and address of similar projects on which product was used, and date of installation.
- 2. For construction methods (if specified):
  - a. Detailed description of proposed method.
  - b. Drawings illustrating method.
- 3. Such other data as the Engineer may require to establish that the proposed substitution is equal to the product, Supplier or method specified.
- D. The substitution request shall include written certification and statements that are outlined in Article 7.05 of Section 00700.
- E. A request constitutes a representation that Contractor:
  - 1. Has investigated proposed product and determined that it meets or exceeds quality level of specified product.
  - 2. Will provide same or better guarantees, warranties or bonds for proposed substitution as for specified product.
  - 3. Will coordinate installation and make changes to other Work which may be required for the Work to be complete with no additional cost to Owner.
  - 4. Waives all claims for additional costs or time extension which may subsequently become apparent.
  - 5. Will reimburse Owner for review or redesign services associated with re-approval by authorities having jurisdiction.
- F. A proposed substitution will not be accepted if:
  - 1. Acceptance will require changes in the design concept or a substantial revision of the Contract Documents.
  - 2. It will delay completion of the Work.
  - 3. It is intended or implied on a Shop Drawing and is not accompanied by a formal request for substitution from the Contractor.
- G. The Contractor is responsible for all costs relating to substitution requests.
- H. Approval of a substitution does not relieve the Contractor from the requirement for submission of Shop Drawings as set forth in the Contract Documents.

**PART 2 PRODUCTS – NOT USED**

**PART 3 EXECUTION – NOT USED**

**END OF SECTION**

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Product Substitution During Construction.docx

**SECTION 01720****FIELD ENGINEERING****PART 1 GENERAL****1.1 SUMMARY****A. Section Includes**

1. Establishment of lines, benchmarks, and elevations required to layout and construct the Work

**1.2 SUBMITTALS****A. Informational Submittals**

1. Submit the qualifications of the Registered Professional Engineer and/or Registered Land surveyor to be hired to perform various portions of the Work, as applicable.
2. Submit documentation verifying the accuracy of field engineering work.
3. Submit certificate signed by registered (licensed) engineer or surveyor certifying that elevations and locations of Work are in conformance with Contract Documents. Explain deviations.

**1.3 RECORDS**

- A. Maintain a complete, accurate log of control and survey work as it progresses.

**1.4 QUALITY ASSURANCE**

- A. Employ a qualified engineer, registered with the Commonwealth of Massachusetts as a Professional Engineer or a competent surveyor, registered with the Commonwealth of Massachusetts as a Land Surveyor, as required for the particular characteristics of the work being performed.

**PART 2 PRODUCTS - NOT USED****PART 3 EXECUTION****3.1 PROCEDURES**

- A. The Registered Professional Engineer or Land Surveyor provided shall establish and maintain lines, elevations and reference marks needed during the progress of the Work and shall re-establish stakes and marks placed by the Engineer that are lost or destroyed through the course of the Work. Verify such work by instrument or other appropriate means.
- B. The Engineer shall be permitted at all times to check the lines, elevations and reference marks, set by the Contractor, who shall correct any errors disclosed by such check. Such a check shall not be construed to be an approval of the Contractor's work and shall not relieve or diminish the responsibility of the Contractor for the accurate and satisfactory construction and completion of the entire Work.

- C. Make, check, and be responsible for measurements and dimensions necessary for the proper construction of and the prevention of misfittings in the Work.
- D. Furnish all protective stakes and temporary structures for marking and maintaining points and lines for the building of the Work, and give the Engineer such facilities and materials for verifying said lines and points as he may require.
- E. Revisions to the layout and elevations of the Work as defined by the Contract Documents shall be approved by the Engineer.
- F. Maintain and prepare final record drawings of field engineering layouts and as-built survey conducted after completion of the Work.
- G. Submit the pre-construction letter of certification as outlined in Part 1 above.

END OF SECTION

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**SECTION 01725****PRESERVATION AND RESTORATION OF PROJECT FEATURES****PART 1 GENERAL****1.1 SUMMARY****A. Section Includes**

1. Protection and replacement of trees, shrubs, signs, property markers, fences, and related project features.
2. Taking precautions, providing programs, and taking actions necessary to protect public and private property and facilities that are outside the demolition scope from damage.

**1.2 DEFINITIONS****A. Underground Structures**

1. Underground structures are defined to include, but not be limited to, sewer, water, gas, and other piping, and manholes, chambers, electrical and signal conduits, tunnels and other existing subsurface work located within or adjacent to the limits of the Work.
2. Underground structures known to the Engineer are shown on the Drawings to the extent that locations are available. This information is shown for the assistance of the Contractor in accordance with the best information available, but is not guaranteed to be correct or complete. The Contractor shall be responsible for checking on the actual locations of water, sewer, gas electric and telephone service connection lines to avoid potential interferences.

**B. Surface Structures**

1. Surface structures are defined as existing buildings, structures and other facilities above the ground surface. Included with such structures are their foundations or any extension below the surface. Surface structures include, but are not limited to, buildings, tanks, walls, bridges, roads, dams, channels, open drainage, piping, poles, wires, posts, signs, markers, curbs, walks and all other facilities that are visible above the ground surface.

**PART 2 PRODUCTS – NOT USED****PART 3 EXECUTION****3.1 REPAIR/RESTORATION**

- A. Trees, shrubs, and similar items shall not be removed except where indicated on the Drawings. Items to be removed shall be clearly marked as directed by the Engineer. If objects not to be removed are damaged or removed, they shall be repaired or replaced to their original condition.
- B. Trees and shrubs on private property, which are removed or damaged by the Contractor shall be replaced in kind.



- C. Signs, fences, property markers, walls, guard rails and other public or private property that are outside the demolition scope shall be replaced in kind if damaged. Supports and protective devices required shall be provided.
- D. Underground and Surface Structures
  - 1. In the event of damage, injury or loss to existing utilities and structures that were not indicated to be removed or abandoned, whether shown on the Drawings or not, make all reasonable efforts to facilitate repairs and to mitigate the impact of such events upon the utility or structure owner's normal operations. Restore the existing utility or structure to the condition required by the owner of the utility or structure or at least to the condition found immediately prior to the Work. In the event that the utility owner elects to make the repairs, provide all reasonable access and assistance, and reimburse the utility owner for the cost of repairs. If utility service is interrupted due to damage to facilities, alternate facilities shall be provided.
  - 2. All other existing surface facilities, including but not limited to, guard rails, posts, guard cables, signs, poles, markers and curbs which are temporarily removed to facilitate the Work shall be replaced and restored to their original condition at the Contractor's expense unless otherwise indicated in other sections of these specifications.
  - 3. Wherever water, sewer, gas or petroleum mains, electric or telephone lines, cables or other utilities and structures are encountered and may be in any way interfered with, inform the Engineer and the appropriate utility company. Cooperate with the Engineer and utility company in the protection, removal, relocation, and replacement of structures and facilities.
  - 4. Prior to proceeding with any demolition or construction, notify in writing owners of utilities and structures within the vicinity of the proposed Work.
  - 5. Work affecting water distribution systems, which will take fire hydrants out of service, must be coordinated with the local fire department. The Contractor shall be prepared to restore fire flows in the event of an emergency or to provide for temporary fire flow service in accordance with the requirements of the local fire department.
  - 6. Materials used for relocation or replacement of utilities and structures shall be of an equivalent material, type, class, grade and construction as the existing or as approved by the respective owners thereof, unless otherwise shown or specified.
  - 7. When any survey monument or property marker, whether of stone, concrete, wood or metal, is in the line of any trench or other demolition or construction work and may have to be removed, notify the Engineer in advance of removal. Under no circumstances shall any monument or marker be removed or disturbed by the Contractor or by any of his Subcontractors, employees or agents, without the permission of the Engineer. Monuments or markers removed or disturbed shall be reset by a land surveyor licensed in the State where the Work is located at the Contractor's expense. Should any monuments or markers be destroyed through accident, neglect or as a result of the Work under this Contract, the

Contractor shall, at his own expense, employ a land surveyor licensed in the State where the Work is located to re-establish the monument or marker.

### 3.2 PROTECTION

- A. The construction of certain portions of the project may require excavation within the root systems of trees. Roots with a diameter of 2 inches or more within the excavation shall not be cut. If necessary, excavation shall be made with small powered equipment or by hand to comply with this requirement. It may be necessary to excavate from more than one direction to avoid damage to the roots.
- B. The trunks of trees that are to remain and are within the swing radius of the excavating machine bucket when fully extended shall be wrapped with burlap and 2 inch by 4 inch protective wood slats (8 inch spacing maximum) wired around the circumference of the trees to protect them from damage.
- C. Tree limbs shall not be cut except upon written approval of the Owner and the Engineer. Tree limbs cut shall be painted with approved forestry paint manufactured specifically for that purpose.
- D. Underground and Surface Structures
  - 1. Contractor's attention is directed to the necessity of making his own investigations in order to ensure that no damage to existing structures, drain or sewer lines, conduits, irrigation systems, or other underground and surface structures occurs.
  - 2. Sustain in their places and protect from direct or indirect injury underground and surface structures designated to remain within or adjacent to the limits of the Work. Such sustaining and supporting shall be done carefully and as required by the party owning or controlling such structure. Before proceeding with the work of sustaining and supporting such structure, satisfy the Engineer that the methods and procedures to be used have been approved by the party owning same.
  - 3. Pay utility service company charges related to the temporary support of utility poles if required to complete the Work.
  - 4. Assume risks associated with the presence of underground and surface structures within or adjacent to the limits of the Work. The Contractor shall be responsible for damage and expense for direct or indirect injury caused by his Work to any structure. Immediately repair damage caused by the Work to the satisfaction of the owner of the damaged structure.
  - 5. Protection of installed features is the Contractor's responsibility. Objects that are installed under the contract that do not meet the requirements of the Contract based on appearance, vandalism, workmanship, or for any other aesthetic reason, shall be corrected or removed and replaced at no additional cost to the owner.

END OF SECTION

## SECTION 01770

## CLOSEOUT PROCEDURES

## PART 1 GENERAL

## 1.1 SUMMARY

## A. Section Includes

1. Documentation required for the transfer of the completed Work to the Owner
2. Final Cleaning

## 1.2 SUBMITTALS

## A. Closeout Submittals

1. As-built drawings
2. Evidence of payment and release of liens
3. List of Subcontractors, service organizations, and principal vendors

## 1.3 SUBSTANTIAL COMPLETION

- A. Refer to Article 15.03 in 00700, General Conditions, for procedures relating to obtaining Substantial Completion. Refer to 00500, Agreement, for Contract Times.

## 1.4 PROJECT CLOSEOUT DOCUMENTS

- A. As-Built Drawings - Submit as-built drawings for review, approval, or comment. The as-built drawings shall show the completed work, including all deviations from the original Drawings. As-built drawings shall depict the location of all piping installed under this Contract, as well as field changes. Take swing ties to all underground work from a minimum of two horizontal locations. Vertical dimensions to all below grade work shall also be obtained. At a minimum, the following information shall be shown on the as-built drawings.
  1. Ties to each end of the proposed culvert from two horizontal measurements to permanent surface reference points, and depth below permanent grade. Permanent surface reference points are manholes, catch basins, power poles, and above-grade structures.
  2. Depth of ledge at changes in profile but not more than 25-foot intervals.
- B. Provide warranties and bonds for items so listed in pertinent sections of the Project Manual.
- C. Provide evidence of compliance with requirements of governmental agencies having jurisdiction.
- D. As specified in Article 15.06.A of Section 00700, provide evidence that all Work, materials and equipment will pass to Owner free and clear of any Liens or other title defects upon final payment. Such evidence may take the form of receipts or releases from all Subcontractors and Suppliers and an affidavit from Contractor as to the

completeness of the receipts and releases as described in Section 00700 Article 15.06.A.3.

- E. Provide list of Subcontractors, service organizations, and principal vendors, including names, addresses, and telephone numbers where they can be reached for emergency service at all times including nights, weekends, and holidays.

#### 1.5 FINAL PAYMENT

- A. Refer to Article 15.05 and 15.06 in 00700, General Conditions, for procedures relating to final inspection and payment.
- B. The Contract shall be considered complete and final payment made, only when:
  - 1. All provisions of the Contract Documents have been strictly adhered to.
  - 2. The project and premises have been left in good order, including removal of all temporary construction, Contractor-owned and extraneous materials.

#### PART 2 PRODUCTS – NOT USED

#### PART 3 EXECUTION

##### 3.1 CLEANING

- A. Remove and entirely dispose of material or debris that has washed, flowed or has been placed in existing watercourses, ditches, gutters, drains, pipe, or structures, for work done under the Contract work limits. Leave ditches, channels, drains, pipes, structures, and watercourses in a clean and neat condition upon completion of the Work.
- B. Restore or replace any public or private property damaged or removed during the course of the Work. Property shall be returned to a condition at least equal to that existing immediately prior to the beginning of operations. Complete all highway or driveway, walk, and landscaping work using suitable materials, equipment and methods. Perform restoration of existing property, signs or structures promptly as work progresses; do not leave restoration work until the end of the Contract Time.

END OF SECTION

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## SECTION 02230

## SITE CLEARING

## PART 1 GENERAL

## 1.1 SUMMARY

- A. Section Includes
  - 1. Clearing and Grubbing
  - 2. Stripping and Stockpiling of Soil and Sod

## PART 2 PRODUCTS – NOT USED

## PART 3 EXECUTION

## 3.1 CLEARING AND GRUBBING

- A. Confine all work to the limits of construction as indicated in the Drawings, as well as any temporary easements obtained for the Work.
- B. Carry out all clearing and grubbing in accordance with the Contract Documents. Minimize removal of all vegetation with particular care to protect all trees. In residential yard areas, remove only those trees specifically identified by Engineer.
- C. Prior to commencing Work, all temporary erosion and pollution control devices shall be installed at locations shown on the Drawings or as ordered.
- D. Burning of trees, brush, and stumps will not be permitted. Provide a satisfactory method of disposal.
- E. If sufficient quantities of material are available on-site, a chipper may be used for branches, limbs, etc. obtained during clearing, to produce woodchips. The chips shall be the property of the Contractor and shall be removed from the Site by the Contractor.
- F. In all cleared areas and under all embankments, grub and remove stumps of all trees, brush and major roots.
- G. For tree trimming and pruning, painting with an approved tree dressing or paint will be required on all cuts 2 inches or over in diameter. Apply the dressing or paint no later than two days after the cuts are made. All limbs and branches which require removal and all stubs, regardless of age, must be cut flush either to a union with the next larger sound limb or branch or flush to the trunk of the tree. The cutting shall be performed by experienced arborist. Trained tree climbers are required for pruning of tall growth. Take care not to damage major root systems of trees and shrubs to remain during grading operations. Repair an injury to limbs, bark or roots of such plants, or replace the plants at no additional cost to the Owner. If within one (1) year of the acceptance of the Project, any tree affected by the Work dies, replace it with a tree of equal value as determined by the Engineer.
- H. All trees and branches 4 inches to 12 inches in diameter shall be cut in 4 foot lengths and stockpiled on a site designated by the Engineer and shall remain the property of the Owner. Satisfactorily dispose of all remaining wood, stumps, brush, twigs,

leaves, roots and trash as soon as practicable and in such a manner as not to detract from the appearance of the area.

### 3.2 STRIPPING TOPSOIL AND UNSUITABLE MATERIAL

- A. As necessary to properly complete the work, and in areas to be excavated, all stumps, roots, foreign matter and unsuitable earth shall be stripped from the ground surface. Topsoil and loam which is deemed suitable by the Engineer shall be stockpiled and used, where possible, for finished surfacing and to construct earth beams and graded mounds.
- B. Keep stockpile of salvage material separate from the other stockpiles of excavated material.
- C. Excess topsoil is the property of the Contractor and shall be legally disposed of off-site.
- D. Unsuitable earth, stumps, roots and foreign matter shall be legally disposed of off-site by the Contractor.

### 3.3 DISPOSAL OF CLEARED AND GRUBBED MATERIALS

- A. All cleared and grubbed unsuitable materials unless otherwise noted shall become the property of the Contractor and shall be removed from the Site and disposed of in compliance with Federal, State and local Laws and Regulations.
- B. Dutch Elm Wood
  - 1. Dispose of Dutch Elm diseased wood in accordance with the provisions of Massachusetts General Law, Chapter 87, Section 5 and Chapter 132, Sections 8 and 11, as amended; and in accordance with any additional local Regulations.
  - 2. Dispose of elm trees or limbs immediately after cutting or removal and in such a manner as to prevent the spread of Dutch Elm disease. Accomplish by covering them with earth to a depth of at least 6 inches in areas outside the right-of-way locations where the Contractor has arranged for disposal.
  - 3. Where the work includes the removal and disposal of stumps of elm trees, completely dispose of such stumps immediately after cutting in the manner specified above.

### 3.4 CLEANING UP

- A. During construction, maintain the Project Site and adjacent areas clean and free of all rubbish, debris, surplus materials and unnecessary construction equipment.
- B. Where material or debris has washed, flowed or in any way accumulated in watercourses, ditches, gutters, drains, pipes or structures during the course of the Contractor's operations, such material or debris shall be entirely removed and satisfactorily disposed of as necessary, and upon completion of the work shall be cleaned, flushed and left in neat conditions to the satisfaction of the Engineer.
- C. Restore or replace, when and as directed, any public or private property damaged by the Work to a condition at least equal to that existing immediately prior to the beginning of operations. All drainage structures, curbstones, signs, guardrails, fences

and stone walls which are removed or damaged as a result of the work under this contract shall be reset or replaced as required.

### 3.5 PROTECTION

- A. Save trees and shrubs that are specifically designated by the Engineer not to be cut, removed, destroyed or trimmed from harm and injury. All damage done to trees by the Contractor's operation and all branches of trees extending within the roadway shall be trimmed and painted where cut or as necessary to provide adequate vertical clearance for construction, including selective trimming of such trees as directed.
- B. Use all necessary precautions to prevent injury to other desirable growth in all areas. If the existing ground in the area is disturbed by any of the Work or equipment, rough-grade, loam and seed the disturbed areas. After removal, dispose of all stumps including the major root systems where the material will not cause obstructions to streams and will not detract from the appearance of the roadside.

END OF SECTION

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## SECTION 02315

## EXCAVATION, BACKFILL, COMPACTION AND DEWATERING

## PART 1 GENERAL

## 1.1 SUMMARY

## A. Section Includes

1. Excavation, backfill and compaction for subsurface utilities
  - a. In this Section, the term “pipe” refers to a box culvert.
2. Removal, handling and disposal of rock not covered under Section 02410
3. Temporary dewatering systems

## B. Related Sections

1. Section 01570 - Temporary Controls
2. Section 02320 - Borrow Materials
3. Section 02410 - Rock Excavation

## 1.2 REFERENCES

- A. ASTM D1557-07 - Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft<sup>3</sup> (2,700 kN-m/m<sup>3</sup>))
- B. ASTM D1556-07 - Standard Test Method for Density and Unit Weight of Soil in Place by the Sand-Cone Method
- C. ASTM D2487-06e1 - Standard Practice for Classification of Soils for Engineering Purposes (Unified Soil Classification System)
- D. ASTM D6938-08a - Standard Test Method for In-Place Density and Water Content of Soil and Soil-Aggregate by Nuclear Methods (Shallow Depth)
- E. 29 CFR Part 1926 Subpart P - OSHA Excavation Regulations 1926.650 through 1926.652 including Appendices A through F
- F. 520 CMR 14.00 Excavation and Trench Safety
- G. 780 CMR 1705.0 Requirements for Structural Tests and Inspections
- H. Commonwealth of Massachusetts Highway Department “Standard Specifications for Highways and Bridges,” 1988 Edition as amended

## 1.3 DEFINITIONS

- A. Benching - A method of protecting employees from cave-ins by excavating the sides of an excavation to form one or a series of horizontal levels or steps, usually with vertical or near-vertical surfaces between levels.
- B. Excavation - Any man-made cut, cavity, trench, or depression in an earth surface, formed by earth removal.



- C. Protective System - A method of protecting employees from cave-ins, from material that could fall or roll from an excavation face or into an excavation, or from the collapse of adjacent structures. Protective systems include earth retention systems, sloping and benching systems, shield systems, and other systems that provide the necessary protection.
- D. Registered Professional Engineer - A person who is registered as a professional engineer in the state where the work is to be performed. However, a professional engineer, registered in any state is deemed to be a "registered professional engineer" within the meaning of this standard when approving designs for "manufactured protective systems" or "tabulated data" to be used in interstate commerce.
- E. Shield System - A structure that is designed to withstand the forces imposed on it by a cave-in and thereby protects employees within the structure. Shields can be permanent structures or can be designed to be portable and moved along as work progresses. Additionally, shields can be either pre-manufactured or job-built in accordance with 29 CFR 1926.652(c)(3) or (c)(4). Shields used in trenches are usually referred to as "trench boxes" or "trench shields."
- F. Sloping - A method of protecting employees from cave-ins by excavating to form sides of an excavation that are inclined away from the excavation so as to prevent cave-ins. The angle of incline required to prevent a cave-in varies with differences in such factors as the soil type, environmental conditions of exposure, and application of surcharge loads.
- G. Temporary Dewatering System - A system to lower and control water to maintain stable, undisturbed subgrades at the lowest excavation levels. Dewatering shall be provided for all pipelines, structures and for all other miscellaneous excavations.
- H. Trench - A narrow excavation (in relation to its length) made below the surface of the ground, of at least three feet in depth. In general, the depth is greater than the width, but the width of a trench (measured at the bottom) is not greater than 15 feet (4.6 m).

#### 1.4 SUBMITTALS

- A. Performance data for the compaction equipment to be utilized
- B. Construction methods that will be utilized for the removal of rock
- C. Modified Proctor Test (ASTM D1557) results and soil classification (ASTM D2487) for all proposed backfill materials at the frequency specified below:
  - 1. For suitable soil materials removed during Excavation, perform one test for every 1,000 cubic yards of similar soil type. Similarity of soil types will be as determined by the Engineer.
  - 2. For borrow materials; perform tests at frequency specified in Section 02320, Borrow Materials.
- D. Compaction test results (i.e. ASTM D6938 or ASTM D1556) at a frequency of one test for every 100 cubic yards of material backfilled or at a minimum of one test per lift. The Engineer will determine the locations and lifts to be tested. The Contractor shall plan his operations to allow adequate time for laboratory tests and to permit taking of field density tests during compaction.

1. Methods and equipment proposed for compaction shall be subject to prior review by the Engineer. Compaction generally shall be done with vibrating equipment. Static rolling without vibration may be required by the Engineer on sensitive soils that become unstable under vibration. Displacement of, or damage to existing utilities or structure shall be avoided. Any utility or structure damaged thereby shall be replaced or repaired as directed by the Engineer.
2. Additional compaction testing may be required when there is evidence of a change in the quality of moisture control or the effectiveness of compaction.
  - a. Any costs associated with correcting and retesting as a result of a failure to meet compaction requirements shall be borne by the Contractor.
3. If all compaction test results within the initial 25% of the total anticipated number of tests indicate compacted field densities equal to or greater than the project requirements, the Engineer may reduce frequency of compaction testing. In no case will the frequency be reduced to less than one test for every 500 cubic yards of material backfilled.
4. The Contractor is cautioned that compaction testing by nuclear methods may not be effective where trenches are so narrow that trench walls impact the attenuation of the gamma radiation, when adjacent to concrete that impacts the accuracy of determining moisture content, or where oversize particles (i.e. large cobbles or coarse gravels) are present. In these cases, other field density testing methods may be required.

E. Dewatering plan for the excavation locations.

## 1.5 QUALITY ASSURANCE

- A. All Excavation, Trenching, and related Earth Retention Systems shall comply with the requirements of OSHA excavation safety standards (29 CFR Part 1926 Subpart P), 520 CMR 14.00, and other State and local requirements. Where conflict between OSHA and State regulations exists, the more stringent requirements shall apply.
- B. Employ the services of a dewatering specialist or firm when well points, deep wells, recharge systems, or equal systems are required. Specialist shall have completed at least 5 successful dewatering projects of equal size and complexity and with equal systems.

## 1.6 PROJECT CONDITIONS

- A. Notify Dig Safe and SWSC and obtain Dig Safe identification numbers.
- B. Notify utility owners in reasonable advance of the work and request the utility owner to stake out on the ground surface the underground facilities and structures. Notify the Engineer in writing of any refusal or failure to stake out such underground utilities after reasonable notice.

## PART 2 PRODUCTS

### 2.1 SOIL MATERIALS

- A. Fill material is subject to the approval of the Engineer and may be either material removed from excavations or borrow from off site. Fill material, whether from the excavations or from borrow, shall be of such nature that after it has been placed and properly compacted, it will make a dense, stable fill.
- B. Satisfactory fill materials shall include materials classified by ASTM D 2487 as GW, GP, GM, GP-GM, GW-GM, GC, GP-GC, SW, and SP. Additional requirements are included in Section 02320.
- C. Satisfactory fill materials shall not contain trash, refuse, vegetation, masses of roots, individual roots more than 18 inches long or more than 1/2 inch in diameter, or stones over 6 inches in diameter. Unless otherwise stated in the Contract Documents, organic matter shall not exceed minor quantities and shall be well distributed.
- D. Satisfactory fill materials shall not contain frozen materials nor shall backfill be placed on frozen material.
- E. Excavated surface and/or pavement materials such as gravel or trap rock that are salvaged may be used as a sub-grade material, if processed to the required gradation and compacted to the required degree of compaction. In no case shall salvaged materials be substituted for the required gravel base.

## 2.2 CONTROLLED DENSITY FILL

- A. Controlled density fill shall be flowable, excavatable and shall require no vibration for placement. Compressive strength at 28 days shall be 30 to 80 psi and the slump shall be 10 to 12 inches.

## 2.3 DEWATERING MATERIALS

- A. Provide straw wattles and silt fence in accordance with Section 01570.
- B. Provide silt filter bags (Dandy Dewatering Bag, Dirtbag, JMP Environ-Protection Filter Bag, or equal) of adequate size to match flow rate.
- C. Provide dewatering equipment and materials for engineered dewatering systems.

# PART 3 EXECUTION

## 3.1 PREPARATION

- A. Public Safety and Convenience
  - 1. Adhere to the requirements of 520 CMR 14.00 for all excavation work.
  - 2. Take precautions for preventing injuries to persons or damage to property in or about the Work.
  - 3. Provide safe access for the Owner and Engineer at site during construction.
  - 4. Do not obstruct site drainage, natural watercourses or other provisions made for drainage.

## 3.2 CONSTRUCTION

- A. Excavation

1. Perform excavation to the lines and grades indicated on the Drawings. Backfill unauthorized over-excavation in accordance with the provisions of this Section.
2. Excavate with equipment selected to minimize damage to existing utilities or other facilities. Hand excavate as necessary to locate utilities or avoid damage.
3. Sawcut the existing pavement in the vicinity of the excavation prior to the start of excavation in paved areas, so as to prevent damage to the paving outside the requirements of construction.
4. Perform excavation in such a manner as to prevent disturbance of the final subgrade. The Engineer or Owner may require the final six inches of excavation be performed by hand, with the use of a smooth-faced bucket, or other means acceptable to the Engineer or Owner, at no additional cost if subgrade disturbance is considered excessive as judged by the Engineer or Owner.
5. During excavation, material satisfactory for backfill shall be stockpiled in an orderly manner at a distance from the sides of the excavation equal to at least one half the depth of the excavation, but in no case closer than 2 feet.
  - a. Excavated material not required or not suitable for backfill shall be removed from the site.
  - b. Perform grading to prevent surface water from flowing into the excavation.
  - c. Pile excavated material in a manner that will endanger neither the safety of personnel in the excavation nor the Work itself. Avoid obstructing sidewalks and driveways.
  - d. Hydrants under pressure, valve pit covers, valve boxes, manholes, curb stop boxes, fire and police call boxes, or other utility controls shall be left unobstructed and accessible until the Work is completed.
6. Grade or create berms or swales to direct surface water from excavations to appropriate structures designed to accommodate storm water. If no structures exist, direct water to areas that minimize impacts to adjacent structures and properties.
7. Make trenches as narrow as practicable and keep the sides of the trenches undisturbed until backfilling has been completed.
8. Perform the excavation in such a manner as to prevent disturbance of the final subgrade. If excessive subgrade disturbance is occurring, as judged by the Owner or Engineer, then the final 6 inches of the excavation shall be performed by hand, with the use of a smooth-faced bucket, or other means acceptable to the Engineer or Owner.
  - a. Grade the excavation bottom to provide uniform bearing and support for the bottom quadrant of each section of pipe.
  - b. Remove stones greater than 6 inches in any dimension from the bottom of the trench to prevent point bearing.

9. If satisfactory materials are not encountered at the design subgrade level, excavate unsatisfactory materials to the depth directed by the Engineer and properly dispose of the material. Backfill the resulting extra depth of excavation with satisfactory fill materials and compact in accordance with the provisions of this Section.

**B. Backfill and Compaction**

1. Unless otherwise specified or indicated on the Drawings, use satisfactory material removed during excavation for backfilling trenches. The Engineer may require stockpiling, drying, blending and reuse of materials from sources on the Project.
2. Spread and compact the material promptly after it has been deposited. When, in the Engineer's judgment, equipment is inadequate to spread and compact the material properly, reduce the rate of placing of the fill or employ additional equipment.
3. Prior to backfilling or placement of structures, excavated subgrades shall be proof compacted with either 10 passes of a 10-ton vibratory drum roller for open excavations or 6 passes of a large, reversible, walk behind vibratory compactor capable of exerting a minimum force of 2,000 pounds in trench or pit excavations. Soft or weak spots shall be over-excavated and replaced with compacted Granular Fill or compacted Crushed Stone wrapped in a non-woven geotextile, as directed by the Owner or their representative. If proof compaction will prove detrimental to the subgrade due to the presence of groundwater, static rolling may be allowed at the discretion of the Engineer or Owner.
4. Soil bearing surfaces shall be protected against freezing and the elements before and after concrete placement. If construction is performed during freezing weather, structures shall be backfilled as soon as possible after they are constructed. Insulating blankets or other means shall be used for protection against freezing at the discretion of the Engineer or Owner.
5. When excavated material is specified for backfill and there is an insufficient amount of this material at a particular location on the Project due to rejection of a portion thereof, consideration will be given to the use of excess material from one portion of the Project to make up the deficiency existing on other portions of the Project.
  - a. Use borrow material if there is no excess of excavated material available at other portions of the Project.
6. Backfilling and compaction methods shall attain 92 % of maximum dry density at optimum moisture content as determined in accordance with ASTM D1557.
7. Do not place stone or rock fragment larger than six inches in greatest dimension in the backfill.
8. Maximum loose lift height for backfilling existing or borrow material shall be 12 inches, unless satisfactory compaction is demonstrated otherwise to the

Engineer through field-testing. In no case shall loose lift height for backfilling exceed 3 feet.

9. Do not drop large masses of backfill material into the trench endangering the pipe or adjacent utilities.
10. Install pipe in rock excavated trenches on a dense graded stone bedding with a minimum depth of 6 inches.
11. Backfill from the bottom of the trench to the centerline of the pipe with the specified material. This initial backfill is to be placed in layers of no more than 6 inches and thoroughly tamped under and around the pipe. This initial backfilling shall be deposited in the trench for its full width on both sides of the pipe, fittings and appurtenances simultaneously.
12. The Contractor shall not place backfill against or on structures until they have attained sufficient strengths to support the loads to which they will be subjected, without distortion, cracking, or other damage. As soon as possible after the structures are adequate, they shall be backfilled with suitable backfill material.
13. Place and compact backfill in six inch layers, from a point one foot over the pipe. Exercise care to protect and prevent damage to the structures.
14. Install impervious trench dams where stone borrow is used for pipe bedding to prevent groundwater from following along the stone bedding. Install dams every 20 feet.

C. Dewatering

1. Obtain the following construction dewatering permits, as required:
  - a. US EPA Dewatering General Permit
2. Provide, operate and maintain adequate pumping, diversion and drainage facilities in accordance with the approved dewatering plan to maintain the excavated area sufficiently dry from groundwater and/or surface runoff so as not to adversely affect construction procedures nor cause excessive disturbance of underlying natural ground. Locate dewatering system components so that they do not interfere with construction under this or other contracts.
3. Conduct operations so as to prevent at all times the accumulation of water, ice and snow in excavations or in the vicinity of excavated areas so as to prevent water from interfering with the progress or quality of the work.
4. Take actions necessary to ensure that dewatering discharges comply with permits applicable to the Project. Dispose of water from the trenches and excavations in such a manner as to avoid public nuisance, injury to public health or the environment, damage to public or private property, or damage to the work completed or in progress.
5. Repair any damage resulting from the failure of the dewatering operations and any damage resulting from the failure to maintain all the areas of work in a suitable dry condition.

6. Exercise care to ensure that water does not collect in the bell or collar holes to sufficient depth to wet the bell or collar of pipes waiting to be jointed.
7. Take precautions to protect new work from flooding during storms or from other causes. Control the grading in the areas surrounding all excavations so that the surface of the ground will be properly sloped to prevent water from running into the excavated area. Where required, provide temporary ditches for drainage. Upon completion of the work, all areas shall be restored to original condition.
8. Brace or otherwise protect pipelines and structures not stable against uplift during construction.
9. Do not excavate until the dewatering system is operational and the excavation may proceed without disturbance to the final subgrade.
10. Unless otherwise specified, continue dewatering uninterrupted until the structures, pipes, and appurtenances to be installed have been completed such that they will not float or be otherwise damaged by an increase in groundwater elevation.
11. Temporarily lower the groundwater level at least two feet below excavations to limit potential “boils,” loss of fines, or softening of the ground. If any of these conditions are observed, submit a modified dewatering plan to the Engineer within 48 hours. Implement the approved modified plan and repair any damage incurred.
12. When subgrades are soft, weak, or unstable due to improper dewatering techniques, remove and replace the materials in accordance with Section 02320 at no cost to the Owner.
13. Notify the Engineer immediately if any settlement or movement is detected of survey points adjacent to excavations being dewatered. If settlement is deemed by the Engineer to be related to the dewatering, submit a modified dewatering plan to the Engineer within 24 hours. Implement the approved modified plan and repair any damage incurred to the adjacent structure at no cost to the Owner.
14. Dewatering discharge:
  - a. Install sand and gravel, or crushed stone, filters in conjunction with sumps, well points, and/or deep wells to prevent the migration of fines from the existing soil during the dewatering operation.
  - b. Transport pumped or drained water without interference to other work, damage to pavement, other surfaces, or property. Pump water through a silt filter bag or other approved sedimentation device prior to discharge to grade of drainage system.
  - c. Do not discharge water into any sanitary sewer system.
  - d. Provide separately controllable pumping lines.
  - e. The Engineer reserves the right to sample discharge water at any time.

15. Install erosion/sedimentation controls for velocity dissipation at point discharges onto non-paved surfaces.
16. Removal
  - a. Do not remove dewatering system without written approval from the Engineer.
  - b. Backfill and compact sumps or ditches with screened gravel or crushed stone in accordance with Section 02320.
  - c. Remove well points and deep wells. Backfill abandoned well holes with cement grout having a water cement ratio of 1 to 1 by volume.

### 3.3 PROTECTION

#### A. Protection of Existing Structures

1. All existing foundations, conduits, wall, pipes, wires, poles, fences, property line markers and other items which the Engineer decides must be preserved in place without being temporarily or permanently relocated, shall be carefully supported and protected from damage by the Contractor. Should such items be damaged, they shall be restored by the Contractor to at least as good condition as that in which they were found immediately before the Work began.

#### B. Accommodation of Traffic

1. Road shall not be unnecessarily obstructed. The Contractor shall take such measures at his own expense to keep the street or road open and safe for two-way traffic unless otherwise indicated.
2. Construct and maintain such adequate and proper bridges over excavations as may be necessary or as directed for the safe accommodation of pedestrians and vehicles. Provide substantial barricades at crossings of trenches, or along the trench to protect the traveling public.
3. Where deemed necessary, such additional passageways as may be directed shall be maintained free of such obstructions. All material piles, open excavations, equipment, and pipe which may serve as obstructions to traffic shall be protected by proper lights, signage, or guards as necessary.
4. All traffic controls shall be in accordance with the Manual on Uniform Traffic Control Devices for Streets and Highways, latest edition.

#### C. Erosion and Sedimentation Control

1. Take all necessary steps to prevent soil erosion.
2. Plan the sequence of construction so that only the smallest practical area of land is exposed at any one time during construction.
3. Temporary vegetation and/or mulching shall be used to protect critical areas exposed during construction as judged by the Engineer.

END OF SECTION



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## SECTION 02320

## BORROW MATERIALS

## PART 1 GENERAL

## 1.1 SUMMARY

- A. Section Includes
  - 1. Processed Gravel Borrow
  - 2. Stone Borrow (Rip Rap)
  - 3. Ordinary Borrow
- B. Related Sections
  - 1. Section 02315 – Excavation, Backfill, Compaction and Dewatering

## 1.2 REFERENCES

- A. ASTM C136 - Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates
- B. ASTM D1557 – Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lb./ft<sup>3</sup>)
- C. ASTM D2434 - Standard Test Method for Permeability of Granular Soils (Constant Head)
- D. ASTM D2487 - Standard Classification of Soils for Engineering Purposes (Unified Soil Classification System)
- E. AASHTO – Standard Specification for Transportation Materials and Methods of Sampling and Testing, 1986 Edition as amended
- F. Commonwealth of Massachusetts Highway Department “Standard Specification for Highways and Bridges,” 1988 Edition as amended

## 1.3 SUBMITTALS

- A. Representative Samples of borrow materials taken from the source. Tag, label, and package the Samples as requested by Engineer. Provide access to the borrow site for field evaluation and inspection.
- B. Provide sieve analysis (ASTM C136) and permeability analysis (ASTM D2434) from certified soils testing laboratory for all borrow materials. Take and test a sample, at no additional cost to the Owner for each 1,500 c.y. of borrow material placed.
- C. Provide modified proctor analysis (ASTM D1557) from certified soils testing laboratory for all borrow materials. Perform one test unless more frequent testing is deemed necessary by the Engineer or Owner due to material variation.
- D. The Engineer reserves the right to require more frequent testing than that which is specified above should the borrow characteristics change.

#### 1.4 QUALITY ASSURANCE

- A. No borrow shall be placed prior to the approval of Samples by the Engineer.

#### 1.5 PROJECT/SITE CONDITIONS

- A. Existing Conditions

1. Comply with any environmental requirements and restrictions.
2. Keep all public and private roadway surfaces clean during hauling operations and promptly and thoroughly remove any borrow or other debris that may be brought upon the surface before it becomes compacted by traffic. Frequently clean and keep clean the wheels of all vehicles used for hauling to avoid bringing any dirt upon the paved surfaces.

### PART 2 PRODUCTS

#### 2.1 PROCESSED GRAVEL BORROW

- A. The compacted Processed Gravel Borrow to be used for gravel access roads or other areas where a firm, free-draining subgrade is needed shall consist of inert material that is hard, durable stone and coarse sand, free from loam and clay, surface coatings and deleterious materials. The coarse aggregate shall have a percentage of wear, by the Los Angeles Abrasion Test, of not more than 50.
- B. Gradation requirements shall conform to the following:

| <b>Sieve</b> | <b>Percent Passing</b> |
|--------------|------------------------|
| 3"           | 100                    |
| 1 ½"         | 70 – 100               |
| ¾"           | 50 – 85                |
| No. 4        | 30 – 60                |
| No. 200      | 0 - 10                 |

- C. Stockpile the processed materials in such a manner to minimize segregation of particle sizes. All processed gravel shall come from approved stockpiles.

#### 2.2 STONE BORROW

- A. Dumped Riprap Borrow

1. Stone used for dumped riprap shall be hard, durable, subangular in shape, resistant to weathering and shall meet the gradation requirement specified. Neither breadth nor thickness of a single stone should be less than one-third its length. Rounded stone or boulders will not be accepted unless authorized by the Engineer. Stone shall be free from overburden, spoil, shale, or organic material and shall meet the gradation requirement as specified.

| <b>Size of Stone</b> | <b>Maximum Percent of Total Weight<br/>Smaller Than Given Size</b> |
|----------------------|--------------------------------------------------------------------|
| 400 lb.              | 100                                                                |

|         |    |
|---------|----|
| 300 lb. | 80 |
| 200 lb. | 50 |
| *25 lb. | 10 |

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\*No more than 5% by weight shall pass a 2" sieve.

2. Each load of riprap shall be reasonably well graded from the smallest to the maximum size specified. Stones smaller than the specified 10% size and spall will not be permitted in an amount exceeding 10% by weight of each load.

### 2.3 ORDINARY BORROW

- A. Ordinary borrow shall have the physical characteristics of soils designated as type GW, GP, GM, SW, SP or SM, under USCS and shall not be specified as gravel borrow, sand borrow, special borrow material or other particular kind of borrow. It shall have properties such that it may be readily spread and compacted for the formation of embankments. The borrow shall not include rocks with a major dimension greater than 8 inches.

## PART 3 EXECUTION

### 3.1 INSTALLATION

- A. Prior to the placement of borrow material, site preparation shall be completed as required by the Contract Documents, and approved by the Engineer.
- B. Ensure that all materials are properly stockpiled on site to prevent contamination by other materials.
- C. Place borrow material over the entire area in uniform lifts and compact in accordance with Section 02315.
- D. Utilize on-site soils prior to using off-site borrow provided on-site soils meet the requirements of the specifications.
- E. Processed gravel is intended to provide a stable foundation for driveways, sidewalk and roadway repair where a gravel base has been specified.
- F. Borrow shall be used as a replacement for unsuitable materials where poor soil conditions are encountered during the progress of the work, where approved by the Engineer. Borrow type will be determined by the Engineer. Borrow material used as a replacement for unsuitable soil is not intended to be an aid to dewatering.
- G. Shape borrow used for pipe foundation material so that it supports the pipe properly and will not damage the pipe, bells, collars, or the pipe fittings.
- H. Place all borrow to keep it free of other materials and to prevent segregation.

END OF SECTION

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**SECTION 02410****ROCK EXCAVATION****PART 1 GENERAL****1.1 SUMMARY****A. Section Includes**

1. Rock excavation for trenches and structures.

**B. Related Sections**

1. Section 02315 – Excavation, Backfill, Compaction and Dewatering

**1.2 DESCRIPTION**

- A. Removal of boulders greater than 1 cubic yard in volume is included under this Section of work. Removal of boulders under 1 cubic yard in volume is not considered part of this work and is considered a part of the work specified under Section 02315.
- B. Rock excavation shall mean solid ledge rock or solid concrete which in the opinion of the Engineer requires for its removal, drilling, hammering, or breaking up with power operated hand tools.
- C. Material removed solely with a power-operated excavator bucket or loose, previously blasted ledge, broken stone, weathered rock, cemented gravel, hardpan, glacial till, concrete, asphalt or masonry which may be encountered during trenching operations is not considered rock excavation.

**1.3 SUBMITTALS**

- A. Construction methods that will be utilized for the removal of rock on the project.
- B. Conduct pre-construction structure survey prior to start of blasting.
  1. Conduct pre-construction structure survey on structures within areas affected by work that may be damaged by blasting. Include aboveground structures within at least 200 feet of areas to be blasted.
  2. The purpose of the survey is to document existing conditions of structures prior to rock removal. The survey is intended to be used as evidence in ascertaining whether and to what extent damage may have occurred as a result of rock removal.
  3. Record information for each structure surveyed:
    - a. Age and type of construction
    - b. Location and character of cracks
    - c. Evidence of settlement and leakage
    - d. Other pertinent information
  4. Supplement written records with photographs or videotape recording.

5. Submit copies of written records and photographs or videotapes to respective property owner, as well as to the Engineer with the property owner's permission, prior to the start of rock removal.

**PART 2 PRODUCTS – NOT USED**

**PART 3 EXECUTION**

**3.1 BACKFILL**

- A. Backfill must be with material from the excavation or where the excavated material is considered unsuitable for backfill, with material wasted from other area of the job or, when directed by the Engineer in writing, with ordinary borrow. No stones, rocks, or boulders shall be used as backfill.
- B. Minimum pipe bedding requirements shall be per Section 02315.

**END OF SECTION**

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**SECTION 02503****TESTING OF SANITARY SEWER AND STORM DRAINAGE SYSTEMS****PART 1 GENERAL****1.1 SUMMARY****A. Section Includes**

1. Testing of Storm Drainage Systems

**PART 2 PRODUCTS – NOT USED****PART 3 EXECUTION****3.1 TESTING OF STORM DRAINAGE SYSTEMS**

- A. Visually inspect all storm drainage structures included in the Work to ensure that all structures are clean of debris and sediment, and have frames, covers, grates, inverts, sumps, and other required appurtenances.

**B. Test Failures**

1. In case leakage or deflection exceeds the above specified amount, locate the failure and repair it in accordance with applicable Sections of this Contract.
2. Pipelines with shear-type breaks, “fishmouths” or damaged gaskets, cracked bells or couplings, hairline fractures, or structural damage shall be replaced. Mechanical sleeve couplings, poured concrete collars or similar repairs are not permitted. The use of pressure grouting repair techniques will not be allowed without the written consent of the Engineer.
3. After repairs have been made, re-test the line and repeat the process of repairing and re-testing until satisfactory test results, as specified in this Section, are obtained.

**C. Alignment of Drains**

1. Lay drains accurately to line and grade.
2. If excessive deviation in either the horizontal or vertical alignment is observed by the Engineer, the alignment is considered unacceptable.
3. If the alignment is unacceptable, remove and replace the pipe to the proper grade.

**END OF SECTION**

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**SECTION 02670****CONSTRUCTION IN WETLANDS****PART 1 GENERAL****1.1 SUMMARY**

- A. Section Includes
  - 1. Restoration of wetlands

**1.2 RELATED SECTIONS**

- A. Section 01570 – Temporary Controls
- B. Section 02315 – Excavation, Backfill and Compaction

**1.3 REFERENCES**

- A. MADEP Section 401 Water Quality Certification included in 00800.
- B. Negative Determination of Applicability (Town of Ludlow Conservation Commission) included in 00800.
- C. Section 401 Individual Water Quality Certificate (Massachusetts Department of Environmental Protection-MassDEP) included in 00800.
- D. Section 404 Self-Verification Notification (United States Army Corps of Engineers - New England District) included in 00800.

**1.4 SUBMITTALS**

- A. Submit a description of methods, sequence of construction, and types of equipment proposed for completing the Work in this Section to ensure compliance with Permits.

**1.5 WORK RESTRICTIONS**

- A. Work associated with permits shall not begin until the applicable municipal, state and federal agencies have been notified in accordance with the permit conditions.
- B. Open trenches within wetland areas are restricted to a maximum of three pipe lengths at any one time.
- C. Equipment refueling is not permitted within 100 feet of wetland areas.
- D. The placement of soil stockpiles is restricted within 50 feet of wetland areas.

**PART 2 PRODUCTS****2.1 MATERIALS**

- A. Straw wattles, siltation fencing, silt sacks and other erosion control products referred to in this section are detailed on the Drawings and specified in Section 01570, Temporary Controls.
- B. Silt bags described for use during dewatering in this section are specified in Section 02315, Excavation, Backfill, Compaction, and Dewatering.



- C. Provide wetland seed mixture for wetland restoration activities. Seed mixture shall be New England Wetmix, as manufactured by New England Wetland Plants, Inc. or equal.
- D. Provide erosion control blankets for wetland restoration activities.
  - 1. Erosion control blanket shall be a short-term 100% biodegradable jute mat.

### **PART 3 EXECUTION**

#### **3.1 GENERAL**

- A. Limit storage of equipment and materials in the buffer zone, where possible.
- B. Servicing equipment in wetland areas is prohibited. Limit equipment servicing in the buffer zone, where possible.
- C. Do not use calcium chloride or other chemicals for dust control in wetland areas or buffer zones. Use water only for dust control.

#### **3.2 WETLAND RESTORATION**

- A. Rough grade soils with construction equipment.
- B. Final grade soils by hand so that contours correspond with adjacent non-impacted wetland contours and are restored to preconstruction conditions.
- C. Spread and incorporate wetland seed mix over wetland area, as shown on the Drawings.
  - 1. Seed the impacted wetland areas by hand broadcasting, at an application rate of one pound of seed per 2,500 square feet.
  - 2. Incorporate the wetland seed mix into the soils in the area occupied by the temporary road and the construction mat road, as shown on the Drawings.
- D. Install Erosion Control Blanket across extent of restored wetland area, as shown on the Drawings
  - 1. Install erosion control blanket in accordance with the manufacturer's instructions.
  - 2. Staple the blanket to ensure that it stays in the proper position to maximize protection capacities.
- E. Plant required live stakes or tubelings as outlined below in Paragraph 3.3, and as shown on the Drawings.
- F. Seed, mulch and stabilize all disturbed areas within one week of disturbance.
- G. Do not drive over restored wetlands.
- H. Remove all erosion controls upon establishment of vegetation.
- I. Wetland restoration activities will be monitored by the Owner's site representative.

**END OF SECTION**

## SECTION 02845

## GUARD RAIL

## PART 1 GENERAL

## 1.1 SUMMARY

## A. Section Includes

1. Furnishing all labor, materials, equipment, transportation, and incidentals required to provide permanent guiderail at the locations shown on the Plans and as specified herein.
2. For the purpose of this project, “guard rail” and “guiderail” are used interchangeably.

## B. Related Sections

1. Section 02315 - Excavating, Backfilling and Compacting

## 1.2 REFERENCES

- A. State of Connecticut Department of Transportation Merritt Parkway Guiderail, Standard Sheets No. HW-910\_12(a-c).

## 1.3 SUBMITTALS

- A. Submit product data on guardrail, posts, and connections.

## 1.4 QUALITY ASSURANCE

- A. Use adequate numbers of skilled workers who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.

## PART 2 PRODUCTS

## 2.1 MATERIALS

- A. Guiderail materials shall conform to the State of Connecticut Department of Transportation Merritt Parkway Guiderail, Standard Sheets No. HW-910\_12(a-c) and as shown in the Drawings.

## PART 3 EXECUTION

## 3.1 GUIDERAIL INSTALLATION

- A. Guiderail shall be installed as detailed in the Drawings and as specified in the State of Connecticut Department of Transportation Merritt Parkway Guiderail, Standard Sheets No. HW-910\_12(a-c).
- B. Posts shall be placed at minimum 4 feet from the high point in the precast arch.
- C. Posts shall be placed a maximum of 10 feet apart center to center.

END OF SECTION

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**SECTION 02920****LAWNS AND GRASSES****PART 1 GENERAL****1.1 SUMMARY****A. Section Includes**

1. Restoration of all non-wetlands vegetated areas disturbed during construction (see Section 02670 for restoration of wetlands) including:
  - a. Disturbed grass surfaces
  - b. New loam and seed areas

**1.2 SUBMITTALS**

- A. Lawn seed mixture including percent by weight of each seed type, and manufacturer/Supplier name.
- B. Suitable laboratory analysis of the topsoil to determine the quantity of fertilizer and lime to be applied.
- C. Lime and starter fertilizer application rates based on laboratory soil tests.
- D. A sworn certificate indicating each variety of seed, weed content, germination of seed, net weight, date of shipment and manufacturer's name shall accompany each seed shipment.

**1.3 QUALITY ASSURANCE**

- A. Place seed only between the periods from April 15<sup>th</sup> to June 1<sup>st</sup>, and from August 15<sup>th</sup> to October 1<sup>st</sup>, unless otherwise approved by the Engineer.

**PART 2 PRODUCTS****2.1 MATERIALS****A. Loam**

1. Loam from offsite, as required for Work, shall be taken from a well-drained, arable site, and shall be free of subsoil, large stones, earth clods, sticks, stumps, clay lumps, roots or other objectionable, extraneous matter or debris. Loam shall also be free of quack-grass rhizomes, Agropyron Repens, and the nut-like tubers of nutgrass, Cyperus Esculentus, and all other primary noxious weeds. Loam shall not be delivered or used for planting while in a frozen or muddy condition. Topsoil as delivered to the Site or stockpiled shall have pH between 6.0 and 7.0 and shall contain not less than 5 percent or more than 8 percent organic matter as determined by loss of ignition of moisture-free Samples dried at 100 degrees Celsius.
2. Onsite loam may be available from stripping of onsite topsoil. Onsite topsoil shall be tested as specified below and shall be amended as necessary to meet Specification requirements for loam.

3. Soil Analysis: The Contractor shall submit representative Samples of loam, which he intends to bring onto the Site, and Samples of loam from onsite sources, to a Soil and Plant Testing Laboratory acceptable to the Engineer. All reports shall be sent to the Engineer for approval. Samples of loam to be brought to the Site must be approved prior to delivery of soil. Deficiencies in the loam shall be corrected by the Contractor, as directed by the Engineer after review of the testing agency report by a soils consultant. Testing reports shall include the following tests and recommendations.
  - a. Mechanical gradation (sieve analysis) shall be performed and compared to the USDA Soil Classification System.
  - b. The silt clay content shall be determined by a Hydrometer Test.
  - c. Percent of organics shall be determined by an Ash Burn Test or Walkley/Black Test.
  - d. Chemical analysis shall be undertaken for Nitrate Nitrogen, Ammonium Nitrogen, Phosphorus, Potassium, Calcium, Aluminum, Soluble Salts, and acidity (pH).
  - e. Soil analysis tests shall show recommendations for soil additives to correct soils deficiencies as necessary, and for additives necessary to accomplish particular lawn and planting objectives noted.
  - f. All tests shall be performed in accordance with the current standards of the Association of Official Agriculture Chemists.
4. Loam for General Lawn and Site Restoration Areas: Loam shall conform to the following grain size distribution for material passing the #10 sieve:

| U.S. Sieve Size Number | Percent Passing |         |
|------------------------|-----------------|---------|
|                        | Minimum         | Maximum |
| 10                     | 100             | ----    |
| 18                     | 84              | 100     |
| 35                     | 63              | 72      |
| 140                    | 26              | 40      |
| 270                    | 22              | 34      |
| 0.002 mm               | 2               | 5       |

<sup>1</sup>The ratio of the particle size for 80% passing ( $D_{80}$ ) to the particle size for 30% passing ( $D_{30}$ ) shall be 6 or less ( $D_{80}/D_{30} < 6$ ).

<sup>2</sup>Maximum size shall be one-inch largest dimension. The maximum retained on the #10 sieve shall be 20% by weight of the total sample.

<sup>3</sup>Tests shall be by combined hydrometer and wet sieving in compliance with ASTM D422 after destruction of organic matter by ignition.

<sup>4</sup>The organic content shall be between 4.0 and 6.0 percent.

5. Place a minimum of 4 inches of loam.

**B. Typical Sand Amendment**

1. Sand to be mixed with topsoil shall meet the following requirements. The material shall be uniformly graded coarse sand consisting of clean, inert, rounded grains of quartz or other durable rock and free from loam or clay, surface coatings, mica, other deleterious materials with the following gradation.

| U.S. Sieve Size Number | Percent Passing |         |
|------------------------|-----------------|---------|
|                        | Minimum         | Maximum |
| 10                     | 100             | ----    |
| 18                     | 60              | 80      |
| 35                     | 35              | 55      |
| 60                     | 8               | 20      |
| 140                    | 0               | 8       |
| 270                    | 0               | 3       |
| 0.002 mm               | 0               | 0.3     |

<sup>1</sup>Maximum size shall be one-inch largest dimension. The maximum retained on the #10 sieve shall be 10% by weight of the total sample.

<sup>2</sup>The ratio of the particle size for 70% passing ( $D_{70}$ ) to the particle size for 20% passing ( $D_{20}$ ) shall be 3.0 or less ( $D_{70}/D_{20} < 3.0$ ).

<sup>3</sup>Tests shall be combined hydrometer and wet sieving in compliance with ASTM D422 after destruction of organic matter by ignition.

**C. Starter Fertilizer**

1. Starter fertilizer shall bear the manufacturer's name and guaranteed statement of analysis, and shall be applied in accordance with the manufacturer's directions.
2. Starter fertilizer shall be Scott's Starter Fertilizer, or equal, with timed nitrogen release to prevent burning.

**D. Lime**

1. Lime shall be an agricultural type ground limestone.
2. Lime shall be pelletized type for prolonged time release to soil.
3. Lime shall be applied at the rates recommended in the soil analysis.

**E. Seed**

1. Seed shall be of the previous year's crop.
2. Required properties:
  - a. Purity > 90%
  - b. Germination > 80%
  - c. Crop < 0.5%

- d. Weed < 0.3%
  - e. Noxious Weed – 0%
  - f. Inert < 8%
3. Grass seed shall conform to the following mixture in proportion by weight and weed content and shall pass the minimum percentages of purity and germination as indicated for same.

| <b>Natural Area Seed Mix</b>        | <b>% Weight</b> |
|-------------------------------------|-----------------|
| Kentucky 31 Fescue                  | 40%             |
| Palmer Perennial Ryegrass           | 30%             |
| Birds Foot Trefoil (Empire Variety) | 15%             |
| Red Clover                          | 5%              |
| White Clover                        | 5%              |
| Redtop (Streaker Variety)           | 5%              |

4. All seed shall comply with State and Federal seed Laws and Regulations.

### **PART 3 EXECUTION**

#### **3.1 RESTORATION**

- A. In locations where the Work passes through existing grass, weed brush or tree-surfaced areas that are not covered by a specific lawn repair item, surface restoration shall be as follows:
  - 1. After completion of backfilling, the existing loam and organic ground cover materials that were salvaged during excavation shall be returned to the top of the trench.
  - 2. After natural settlement and compaction has taken place, the trench surface shall be harrowed, dragged and raked as necessary to produce a smooth and level surface.
  - 3. The area is then to be sowed with “orchard grass” or “rye grass” or other such materials to hold the soil and produce a growth similar to that existing prior to construction.

#### **3.2 PREPARATION**

- A. After rough grading of the subgrade has been completed and approved, the subgrade surface shall be scarified to a depth of four (4) inches. Then furnish and install a layer of loam providing a rolled four (4) inch thickness. Any depressions which may occur during rolling shall be filled with additional loam, regraded and rerolled until the surface is true to the finished lines and grades. All loam necessary to complete the Work under this section shall be supplied by the Contractor.
- B. The ground surface shall be fine graded and raked to prepare the surface of the loam for lime, fertilizer and seed.

- C. The loam shall be prepared to receive seed by removing stones and grading to eliminate water pockets and irregularities prior to placing seed. Finish grading shall result in straight uniform grades and smooth, even surfaces without irregularities to low points.
- D. All stones over one-half ( $\frac{1}{2}$ ) inch in diameter remaining on the surface after raking shall be removed.
- E. Shape the areas to the lines and grades required. The Contractor's attention is directed to the scheduling of Loaming and Seeding of graded areas to permit sufficient time for the stabilization of these areas.
- F. All areas disturbed by construction within the property lines and not covered by structures, pavement, or bark mulch shall be loamed and seeded.
- G. Limestone shall be thoroughly incorporated into the loam layer at a minimum rate of 3 ton per acre or more as recommended by the loam analysis in order to provide a pH value of 5.5 to 6.5.
- H. Fertilizer shall be spread on the top layer of loam at the minimum rate of 500 pounds per acre or more as recommended by the loam analysis and worked into the surface

### 3.3 LOAM AND SEED AREAS

- A. For temporary protection of disturbed areas, seed shall be applied at the following rates:
 

|                           |                                  |
|---------------------------|----------------------------------|
| Winter Rye (fall seeding) | 2.5 pounds per 1,000 square feet |
| Oats (spring seeding)     | 2.5 pounds per 1,000 square feet |
| Mulch                     | 1.5 tons per acre                |
- B. The seed mixtures shall be applied at a minimum rate of 200 pounds per acre, or 4.5 pounds per 1,000 square feet.
- C. Seed shall be sown at the rates indicated above by rotary or drop spreader. Sowing shall be done on a calm, dry day. Immediately before seeding, the soil shall be lightly raked. One half the seed shall be sown in one direction and the other half at right angles to the original direction. It shall be lightly raked into the soil to a depth not over  $\frac{1}{4}$  inch and rolled with a hand roller weighing not over 100 pounds per linear foot of width.
  - 1. Straw mulch shall be applied immediately after seeding at a rate of 1.5 to 2 tons per acre. Mulch that blows or washes away shall be replaced immediately and anchored using appropriate techniques.
  - 2. The surface shall be watered and kept moist with a fine spray as required, without eroding the soil, until the grass is well established. Any areas, which are not satisfactorily covered with grass, shall be reseeded, and all noxious weeds shall be removed.
- D. Unless otherwise approved, seeding shall be done between the periods from April 15<sup>th</sup> to June 1<sup>st</sup>, and August 15<sup>th</sup> to October 1<sup>st</sup>, when soil conditions and weather are suitable for such Work.

### 3.4 MAINTENANCE

- A. Maintenance shall include watering, weeding, removal of stones and other foreign objects over one half ( $\frac{1}{2}$ ) inch in diameter, cutting the grass until final acceptance. Mow at least weekly, removing no more than 30-40 percent of the leaf tissue using well sharpened blades. Mow grass between one (1) and two (2) inches high in the spring and fall. Mowing heights shall be an additional one-half to an inch in the summer to reduce temperature stress. Leave the clippings in place to help recycle essential plant nutrients needed for growth. All bare or dead spots which become apparent shall be properly prepared, re-loamed, limed, aerated, fertilized, and reseeded as many times as necessary to secure a good growth. The entire area shall be maintained, watered and cut until final acceptance of the lawn installation.
- B. The dressed and seeded areas shall be sprinkled with water as necessary from time to time. Signs and barricades should be placed to protect the seeded areas.
- C. To be acceptable, seeded areas shall consist of a uniform stand without bare or dead spots of at least 90 percent established permanent grass species, with uniform count of at least 200 plants per square foot.
- D. The Engineer shall determine whether maintenance shall continue in any part.
- E. After all necessary corrective Work and clean-up has been completed, and maintenance instructions have been received by the Owner, the Engineer will certify in writing the acceptance of the lawns.
- F. Substantial Completion will not be achieved until the seeded areas have demonstrated a satisfactory stand of growth as determined by the Engineer. Seeded areas not demonstrating satisfactory stands as outlined above, as determined by the Engineer, shall be renovated, reseeded and maintained meeting all requirements as specified herein.

END OF SECTION

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## SECTION 03485

## PRECAST CONCRETE STRUCTURES

## PART 1 GENERAL

## 1.1 SUMMARY

## A. Section Includes

1. 6' wide x 5' high Precast Concrete Box Culvert
2. 3' wide x 2' high Precast Concrete Box Culvert
3. Precast Concrete Headwalls

## B. Related Sections

1. Section 02315 - Excavation, Backfill, Compaction and Dewatering

## 1.2 REFERENCES

## A. Commonwealth of Massachusetts State Building Code, most recent edition.

## B. Precast Concrete Institute (PCI)

1. MNL-116 - Manual for Quality Control for Plants and Production of Structural Precast Concrete Products.

## C. American Concrete Institute (ACI)

1. ACI 301 - Specifications for Structural Concrete for Buildings, (included as part of this specification).
2. ACI 318 - Building Code Requirements for Reinforced Concrete.
3. ACI 350 - Environmental Engineering Concrete Structures.

## D. American Society for Testing and Materials (ASTM)

1. ASTM A615 - Specification for Deformed and Plain Billet - Steel Bars for Concrete Reinforcement.
2. ASTM C33 - Standard Specification for Concrete Aggregates.
3. ASTM C39 - Standard Method of Testing for Compressive Strength of Cylindrical Concrete Specimens.
4. ASTM C150 - Standard Specification for Portland Cement.
5. ASTM C260 - Standard Specification for Air-Entraining Admixtures for Concrete.
6. ASTM C494 - Standard Specification for Chemical Admixtures for Concrete.
7. ASTM C877 - Standard Specification for External Sealing Bands for Concrete Pipe, Manholes, and Precast Box Sections.

8. ASTM C990 - Standard Specification for Joints for Concrete Pipe, Manholes and Precast Box Sections using Preformed Flexible Joint Sealants.
9. ASTM C1577 - Standard Specification for Precast Reinforced Concrete Box Sections for Culverts, Storm Drains, and Sewers Designed According to AASHTO LRFD.

### 1.3 SUBMITTALS

- A. Submit to the Engineer, as provided in Section 01330, material specifications, and shop drawings for all materials specified and furnished under this Section. Submittals shall detail size and elevations of all structure penetrations, sleeve materials and sleeve elevations.
- B. The drawings show a generalized configuration for the precast concrete structures. Submittals shall include separate scaled, detailed drawings for each precast concrete structure.
- C. Submit to the Engineer shop drawings sealed by an Engineer registered in the Commonwealth of Massachusetts, and material specifications for all materials specified and furnished under this Section. Submittals shall include: details of underground structures, accessories, fittings, connections, size and elevations of all structure penetrations, sleeve materials and sleeve elevations.
- D. Submit structural design calculations including verification of adequate anti-flotation features prepared and sealed by an Engineer registered in the Commonwealth of Massachusetts.
- E. Submit manufacturer's data on structures, and associated specialty products.
- F. Submit Certificates of Compliance for reinforcing steel and concrete.

### 1.4 QUALITY ASSURANCE

- A. Design Criteria
  1. Precast concrete units shall be designed for all applicable dead loads and wall live loads, weight of soil of at least 120 pcf and H-20 truck loading.
  2. Precast unit shall be designed in accordance with ACI 318 and ACI 350.
  3. Comply with applicable requirements of American Society for Testing and Materials (ASTM) standards pertaining to construction and materials for precast structures.
  4. The box culvert sections shall be monolithically cast and designed in accordance with ASTM C1577
- B. Fabricator Qualifications – Contractor shall employ a firm that has at least 5 years successful experience in fabrication of precast concrete units similar to units required for this project.
- C. Contractor's Qualifications - Firms with at least 3 years of successful installation on projects with structures, similar to those required for project.
- D. Allowable Tolerances

1. Dimensional and erection tolerances shall be in accordance with PCI MNL-116 or as modified herein.
  2. Compression test results shall be evaluated in accordance with ACI 214. Concrete strength level will be considered satisfactory if the average of all sets of 3 consecutive strength test results equal or exceed the specified compressive strength and no individual strength test results fall below the specific compressive strength by more than 500 psi.
- E. Source Quality Control
1. One set of 4 compression test cylinders shall be made for each day's production for each type of precast Unit. Make compression test specimens in accordance with ASTM C31. Obtain concrete for specimens from actual production batch. Cure specimens using same methods used for curing precast units.
  2. 2 specimens shall be tested at 28 days for acceptance, one shall be tested prior to removing forms, and one shall be tested at seven days. Compression tests shall be conducted in accordance with ASTM C39. Do not remove precast units from forms unless strength tests have been completed and results are equal to, or greater than, minimum required values.
- F. Provide 7 day written notification to the Owner's Project Representative prior to casting the structures. The Engineer may sample the concrete and inspect reinforcement placement at the time of fabrication.
- G. The quality of all materials, the process of manufacture, and the finished sections shall be subject to inspection and approval by the Owner's Project Representative. Such inspection may be made at the place of manufacture, or on the work after delivery, or at both places, and the materials shall be subject to rejection at any time on account of failure to meet any of the Specifications requirements, even though samples may have been accepted as satisfactory at the place of manufacture. Material rejected after delivery to the job shall be marked for identification and shall be removed from the job at once. All materials, which have been damaged after delivery will be rejected, and if already installed, shall be acceptably repaired, if permitted, or removed and replaced, entirely at the Contractor's expense.
- H. At the time of inspection, the materials will be carefully examined for compliance with these Specifications, and with the approved manufacturer's drawings. All sections shall be inspected for general appearance, dimension, "scratch-strength," blisters, cracks, roughness, soundness, etc. The surface shall be dense and close-textured.
- I. Imperfections in sections may be repaired, subject to the approval of the Owner's Project Representative, after demonstration by the manufacturer that strong and permanent repairs result. Repairs shall be carefully inspected before final approval. Cement mortar used for repairs shall have a minimum compressive strength of 4,000 psi. at 7 days and 5,000 psi. at 28 days, when tested in 3 inch by 6 inch cylinders stored in the standard manner. Epoxy mortar may be utilized for repairs subject to the approval of the Engineer.

- J. Plans and calculations for the precast structures shall be approved and stamped by a Structural/Civil Professional Engineer registered in the Commonwealth of Massachusetts.

## 1.5 DELIVERY, STORAGE, AND HANDLING

- A. Equip and protect factory-fabricated product to prevent damage, including chipping and cracking during transportation, storage and handling. Do not install damaged units; replace, and remove damaged units from project site at the Contractor's expense.
- B. Lift and support units only at designated lift points. Provide permanent lifting hooks on the top.
- C. Protect all lifting devices from rusting by applying red lead primer.
- D. Do not store units on soft ground.
- E. Provide setting diagrams and instructions as required for installation.

## PART 2 PRODUCTS

### 2.1 CONCRETE MATERIALS

- A. Portland Cement - ASTM C150, Type III.
- B. Aggregates - ASTM C33, and as herein specified. Provide aggregates from a single source for exposed concrete.
- C. Local aggregates not complying with ASTM C33, but which have shown by special test or actual service to produce concrete of adequate strength and durability, may be used when acceptable to Engineer.
- D. Water - Potable and free from foreign materials in amounts harmful to concrete and embedded steel.
- E. Air-Entraining Admixture - ASTM C260, not containing calcium chloride.
- F. Water-Reducing Admixture - ASTM C494, Type A, not containing calcium chloride.
- G. Calcium Chloride - Not permitted.

### 2.2 FORM MATERIALS

- A. Forms shall be of metal or wood. If unlined wood forms are used, they shall be of selected material with tongue and groove joints and shall be kept continuously wet to prevent shrinking and warping due to exposure to the elements. Nonstaining form oil shall be used.
- B. Forms shall be sufficiently tight to prevent leakage of mortar.
- C. Forms shall be accurately constructed, mortar-tight, of sufficient strength to withstand pressures due to concrete placing operations and temperature changes.
- D. Coat surface of forms with bond-breaking compound before reinforcement is placed. Provide a commercial formulation form-coating compound that will not bond with, stain, nor adversely affect concrete surfaces, and will not impair subsequent treatments

of concrete surfaces requiring bond or adhesion. Apply in compliance with manufacturer's instructions.

### 2.3 REINFORCEMENT

- A. Reinforcement shall be clean of loose rust and mill scale, earth and other materials, which reduce or destroy bond with concrete.
- B. Reinforcing steel shall be new billet steel conforming to ASTM Specification A615 (latest edition), Grade 60.
- C. Reinforcement shall be accurately positioned, supported, and secured against displacement by formwork construction, or concrete placement operations. Locate and support reinforcement by metal chairs, runners, bolsters, spacers and hangers, as required. Welding of reinforcement is strictly prohibited
- D. Place reinforcement to obtain at least the minimum coverage for concrete reinforcing protection. Minimum allowable cover shall be  $\frac{3}{4}$  inch.

### 2.4 GROUT MATERIALS

- A. Non-metallic Shrinkage-Resistant Grout - Pre-mixed, non-metallic, non-corrosive, non-staining product containing selected silica sands, Portland cement, shrinkage compensating agents, plasticizing and water reducing agents. Compressive strength not less than 10,000 psi. at 28 days.
  - 1. Products - Subject to compliance with requirements, provide one of the following:
    - a. Eucocrete; Euclid Chemical Co.
    - b. Crystex; L&M Construction Chemicals
    - c. Masterflow 713; Master Builders
    - d. Five Star Grout; U.S. Grout Corp.
    - e. Upcon; Bostik Construction Products
    - f. or equal.

### 2.5 EXTERIOR JOINT WRAP

- A. Exterior joint wrap shall provide a permanent flexible water and soil barrier, be resistant to puncture, tear and abrasions, and bond aggressively to concrete. Wrap shall comply with ASTM C877.

### 2.6 PROPORTIONING AND DESIGN OF MIXES

- A. Prepare design mixes for each type of concrete required.
- B. Design mixes may be prepared by independent testing facility or by qualified precast manufacturing plant personnel, at precast manufacturer's option.
- C. Produce standard-weight concrete consisting of the specified Portland cement, aggregates, admixtures, and water to produce the following properties.
  - 1. Compressive strength; 5,000 psi. minimum at 28 days.

2. Air entrainment shall be 4.5% plus or minus 1%.

**D. Admixtures**

1. Use air-entraining admixture in concrete, unless otherwise indicated.
2. Use water-reducing admixtures in strict compliance with manufacturer's directions. Admixtures to increase cement dispersion, or provide increased workability for low-slump concrete, may be used.
3. Use amounts as recommended by admixture manufacturer for climatic conditions prevailing at time of placing. Adjust quantities of admixtures as required to maintain quality control.

**2.7 FABRICATION**

- A. General - Fabricate precast concrete units complying with manufacturing and testing procedures, quality control recommendations, and dimensional tolerances specified for the type of unit required.
- B. Clean reinforcement of the loose rust and mill scale, earth and other materials that reduce or destroy bond with concrete.
- C. Place concrete in a continuous operation to prevent formation of seams or planes of weakness in precast units. Thoroughly consolidate placed concrete by internal and external vibration without dislocation or damage to reinforcement and built-in items.
- D. Identification - Provide permanent markings to identify pickup points and orientation in structure, complying with markings indicated on final shop drawings. Imprint date of casting on each precast unit on a surface, which will not show in finished structure.
- E. Fabricate precast concrete units as detailed in accordance with approved erection drawings and to meet requirements of these specifications.
- F. Each precast module shall be provided with formed male and female joints to ensure accurate joint surfaces and tolerance for a watertight seal. All joints between adjoining precast modules shall be sealed when modules are set in the field utilizing a vulcanized butyl rubber compound sealant conforming to AASHTO M-198 (latest revision). Sealant shall be "Conseal CS-102" as manufactured by Concrete Sealants, New Carlisle, Ohio or equivalent.
- G. All surfaces of the precast structure shall be smooth, even and free from roughness, irregularities and other defects, and shall be suitable for receiving the interior and exterior finishes specified elsewhere herein.
- H. The precast concrete structures shall be constructed to the lengths, widths and heights as shown on the Drawings. The structures shall be designed to adequately and safely support all live and dead loads to which the structure will be subjected, and to withstand all conditions which may be encountered. Structural drawings and calculations shall be prepared, signed and sealed by a registered Professional Engineer in the State in which the structure is to be installed, and shall be included with the submittal by the Contractor.
  1. Design calculations shall verify that the structure has been designed to withstand the burial depth, submergence due to flooding, anti-flotation, if applicable, and

the dead and live loads anticipated for the structure. The structures shall have adequate wall, floor and roof thickness and steel reinforcement sufficient for the depth of burial shown on the Plans.

2. Roof slab/ceiling designs shall account for the loads imposed on the slab by the weight of pumps or other equipment that will be lifted from their positions for maintenance purposes by lifting hooks or other hoisting equipment installed in the slab.
- I. The precast concrete structures shall have minimum wall, floor and roof thickness of 6 inches. The structures shall have a design loading in accordance with AASHTO-HS20-44 and be constructed of 5,000 psi. 28 days strength concrete. Reinforcing steel shall be in accordance with ASTM A615 Grade 60 with a minimum of 1 inch of concrete cover.

## 2.8 ACCEPTABLE PRECAST STRUCTURE MANUFACTURERS

- A. Manufacturers - Subject to compliance with requirements, provide prefabricated unit of one of the following:
  1. Arrow Concrete Products, Inc.
  2. American Precast Corp.
  3. Chase Precast
  4. Old Castle/Rotondo & Sons, Inc.
  5. Ditullio & Sons, Inc.
  6. Utility Vault Co.
  7. TRENWA
  8. or equal

## 2.9 BITUMINOUS DAMPPROOFING

- A. General: Provide products recommended by manufacturer for designated application.
- B. Odor Elimination: For interior and concealed-in-wall uses, provide type of bituminous dampproofing material warranted by manufacturer to be substantially odor free after drying for 24 hours under normal conditions.
  1. Cold-Applied, Asphalt Emulsion dampproofing: Asphalt-based emulsions recommended by the manufacturer for dampproofing use when applied according to the manufacturer's instructions.
  2. Brush or Spray Grade: Emulsified asphalt mastic, prepared with mineral-colloid emulsifying agents and containing fibers other than asbestos, complying with ASTM D 1227, Type II, Class 1.
  3. Asphalt-Coated Glass Fabric: Karnak #31 Fiberglass Membrane, ASTM D 1668, Type I.

## PART 3 EXECUTION

### 3.1 INSPECTION

- A. Installer must examine areas and conditions under which each structure is to be installed, and notify Contractor in writing of those conditions detrimental to proper completion of work. Do not proceed with work until unsatisfactory conditions have been corrected in manner acceptable to Contractor.

### **3.2 INSTALLATION OF FACTORY-FABRICATED UNITS**

- A. General - Install structure as indicated, in accordance with manufacturer's written instructions, and in accordance with recognized industry practices to ensure compliance with requirements and intended purposes.
- B. Precast Concrete Units - Place precast concrete sections as indicated.
  - 1. Install rubber joint gasket at joints between sections.
  - 2. Apply bituminous mastic coating at joints between sections.
  - 3. Apply butyl rubber sheet patch at exterior of all joints.
  - 4. Apply bonding agent to enhance the adhesion of the grout to the concrete floor.

### **3.3 INSTALLATION OF PRECAST CONCRETE BOX CULVERTS**

- A. Install in accordance with manufacturer's written instructions, and in accordance with recognized industry practices.
- B. Provide silt-tight box culvert joints by installing a pre-extruded butyl rubber gasket between each box culvert section per ASTM C990 and wrapping each joint with an exterior joint wrap.

### **3.4 DAMPPROOFING**

- A. Below-grade outer surfaces of precast units shall be given two coats of bituminous dampproofing at the rate of 30-60 sq. ft. per gallon in accordance with manufacturer's instructions.

### **3.5 BACKFILLING**

- A. General - Delay backfilling of excavation until after Owner's Project Representative's inspection has been completed. Backfilling shall be in accordance with Section 02315.

**END OF SECTION**

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