

BID DOCUMENTS AND SPECIFICATIONS FOR:

**MASSACHUSETT AVE SIDEWALK**  
**RECONSTRUCTION PROJECT**  
**Arlington, Massachusetts**

Bid # 20-23

April 2020

Prepared for:

Department of Public Works  
Town of Arlington, Massachusetts

Prepared by: Vanasse Hangen Brustlin, Inc.

**SEALED BIDS will be received:**

Date: Thursday May 7, 2020

Time: 10:00 AM

Place: Office of the Purchasing Agent

730 Massachusetts Avenue

Arlington, MA 02476



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**TOWN OF ARLINGTON  
MASSACHUSETTS**

**INVITATION TO BID**

**BID No. 20-23 MASSACHUSETT AVE SIDEWALK RECONSTRUCTION  
PROJECT**

Sealed bids for Massachusetts Ave. Sidewalk Reconstruction Project for the Town of Arlington, Massachusetts, will be received at the Purchasing Department, 730 Massachusetts Avenue, Arlington, MA 02476 until **10:00 AM prevailing time, on Thursday, May 7, 2020** at which time and place said bids will be publicly opened and read aloud.

All bids must be in a sealed envelope plainly marked: **BID No. 20-23  
MASSACHUSETT AVE SIDEWALK RECONSTRUCTION PROJECT**

The work under this Contract consists of sidewalk reconstruction along approximately 1,400 feet of Massachusetts Avenue in Arlington, MA. The proposed design replaces the existing brick sidewalk along approximately 1,400 feet of Massachusetts Avenue, approximately 550 feet of Broadway, approximately 350 feet of Franklin Street, approximately 150 feet of Medford Street, and approximately 100 feet of Alton Street with cement concrete sidewalk.

The proposed work includes unclassified excavation, cement concrete sidewalk and wheelchair ramps, stamped cement concrete accent bands, loam and seed, trees, concrete driveways, porous flexible pavement, granite curb, pavement markings, signs, and other incidental work.

***Bid Security in the form of a bid bond, cash, certified check, treasurer's or cashier's check payable to the Owner, is required in the amount of five percent of the bid, in accordance with Section 00200, INSTRUCTIONS TO BIDDERS.***

Contract Documents and plans are available for down load and review on the Town Website:

**[www.arlingtonma.gov/purchasing](http://www.arlingtonma.gov/purchasing)**

The selected contractor shall furnish a performance bond and a payment bond in amount at least equal to one hundred percent (100%) of the contract price as stipulated in Section 00700 GENERAL CONDITIONS of these specifications.

By-law of the Town of Arlington, Title 1, Article 16, Minority/Woman Workforce Participation in Construction Projects which exceed \$200,000.00 is part and parcel of the bid.

Minimum Wage Rates as determined by the Commissioner of the Division of Occupational Safety of the Executive Office of Labor and Workforce Development under the provisions of the Massachusetts General Laws Chapter 149, Section 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.

All bids for this project are subject to applicable bidding laws of Massachusetts, including General Laws Chapter 30, Section 39M as amended.

The Bidder agrees that this bid shall be good and may not be withdrawn for a period of 30 working days, Saturdays, Sundays and legal holidays excluded after the opening of bids.

The Owner reserves the right to waive any informalities or to reject any or all bids.

TOWN OF ARLINGTON

Adam W. Chapdelaine  
Town Manager

## **INSTRUCTIONS TO BIDDERS**

1. COMPLEMENTARY DOCUMENT
  - A. INVITATION TO BID, including herewith, is complementary to this document and shall be reviewed by bidder for specific instruction which are not repeated herein.
  
2. STATUTES REGULATING COMPETITIVE BIDDING
  - A. Bidding procedures and award of general contract and subcontracts shall be in accordance with the provisions of Chapter 30, Section 39M and Chapter 149, Section 44A through 44L inclusive, of the General Laws of the Commonwealth of Massachusetts, including all current amendments.
  - B. In the event of any discrepancy or inconsistency between the provisions of these Bid and Contract Documents and the above-mentioned statutes, the provisions of the above-mentioned statutes shall govern. In such event, the application of all remaining provisions not in conflict to any circumstance other than that in which the conflict occurs shall not be affected thereby.
  
3. BIDDER'S QUALIFICATIONS
  - A. DCPO Certification not required.
  - B. The Contractors' Update Statements are not public records and will not be open to public inspection.
  
4. INTERPRETATION OF DOCUMENTS: NOTIFICATION OF ERRORS
  - A. Interpretations of the provisions of the Bid and Contract Documents will be made by the designer upon written request of any general bidder or subbidder, provided that such request is received by the Designer at least seven (7) days prior to the date of the applicable bid opening, and that the Designer considers such interpretation to be of sufficient importance. Oral or telephone interpretations will not generally be made, and if made shall be strictly informal and not legally valid or binding.
  - B. Such written interpretations shall be in the form of Addenda to the Bid and Contract Documents.
  - C. Bidders are urged to communicate all errors and discrepancies found in the Bid and Contract Documents to the Designer. Telephone calls pointing out any such errors or discrepancies will be taken by the Designer, but only for the purpose of receiving the information in order that it may be properly processed, and not for interpretation or clarification.

5. EXAMINATION OF BIDDING AND CONTRACT DOCUMENTS

- A. Each Bidder shall carefully examine the Bid and Contract Documents to obtain a thorough understanding of the work of his bid in addition to the work of related trades. In addition, each General Bidder shall personally visit the site to thoroughly acquaint himself/herself with the conditions as they exist hereon.
- B. Failure of any Bidder to thoroughly examine the Bid and Contract Documents or to visit and examine the site shall in no way relieve him/her of any obligation with respect to his/her bid or of any responsibility assigned to him under the Contract.

6. PRE-BID CONFERENCE

N/A

7. MODIFICATION AND WITHDRAWAL OF BIDS

- A. Modification of withdrawal of Bids will be permitted after the submission of such bids provided clearly written, readily understandable instructions for same are received by the Owner in writing prior to the time established for opening of such bids. No Bid may be withdrawn after that time, except as otherwise provided herein or by law.

8. ADDENDA

- A. Addenda may be required during the bidding period to modify, clarify or interpret the Bid and Contract Documents. It is intended, but not guaranteed, that such Addenda shall be mailed by the Owner to all persons or parties to whom Bid and Contract Documents have been issued (Bidders of Record). Failure to receive such Addenda shall in no way relieve any bidder from the execution of its provisions. All bidders are cautioned to verify the number of Addenda which have been issued and to secure any needed copies from the Designer before submitting a Bid.

9. FORM FOR BIDS

- A. The Owner will make available, to every person applying therefor, a Bid Form. Each bona fide Bidder will be furnished forms for his proposal upon request. Such forms will be made available at the Owner's office during the regular office hours throughout the bidding period. Bids must be submitted on the forms provided by Owner or of forms included in the bid documents of the Project Manual.

- B. All blank spaces provided on the bid forms shall be filled in with ink or typewriter. Where space is provided, sums shall be expressed in both words and figures. In case of a discrepancy between the two, the written words shall govern.
- C. No interlineations, additional, alterations or erasures shall be made on the forms.

10. ALTERNATES

- A. Each Bidder shall bid on alternatives listed. In the event that any alternate does not involve a change in the amount of the Bid, the Bidder shall so indicate by using the words "No Change" in the space provided for that alternate.
- B. General Bidders shall enter on the form for General Bid a single amount for each alternate, each amount to consist of the total of all the subbidders' amounts for the given alternate plus the amount of for work of the alternate to be performed by the General Contractor.
- C. If alternate(s) are accepted, they shall be accepted in the order listed. The low bidder will be determined on the basis of the sum of the Base Bid and the alternates accepted.

11. SUBMISSION OF BIDS

- A. The Bid Form shall be properly executed and enclosed with the required bid deposit in a sealed envelope plainly marked on the outside with the following information.

Bid For:

\_\_\_\_\_

SUBMITTED  
BY:

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

\_\_\_\_\_  
(Address of Bidder)

- B. If Bids are mailed; the above required envelope shall be enclosed in a second envelope identified with the above markings and mailed to the place of bid opening, as described in the Invitation to Bid. Mailed Bids must be received before the time scheduled for opening of Bids.

12. PERFORMANCE AND PAYMENT BONDS

- A. The Performance and Labor and Materials Payment Bonds required of the General Contractor shall each be in the amount of 100% of the contract sum from a surety company qualified to do business under the laws of the Commonwealth of Massachusetts and approved by the Owner.

13. FOREIGN CORPORATIONS

- A. The attention of bidders is called to General Laws, Chapter 30, Section 39L, as amended by Acts of 1967, Chapter 3, under which the Owner may not enter into a contract with a foreign corporation as a subcontractor unless the foreign corporation has filed with the Owner a certificate by the State Secretary stating that the foreign corporation has complied with General Laws Chapter 181, Sections 3 and 5 and stating the date of such compliance.

14. AWARD OF CONTRACT

- A. The Contract will be awarded to the lowest responsible and eligible bidder except in the event of a substitution as provided by under Chapter 149, Sections 44E and 44F of the above-reference General Laws.

15. COMMENCEMENT AND COMPLETION OF WORK

- A. The successful bidder, upon completion of the Contract Agreement, shall commence the work of the Contract within seven (7) calendar days from receipt of written Notice to Proceed issued by the Owner within fourteen (14) calendar days after said execution of the Contract Agreement, and shall therefore diligently and continuously carry on the work in such manner as to substantially complete the work on or before September 1, 2020 except as noted herein.

16. LIQUIDATED DAMAGES

- A. The attention of bidders is particularly called to the requirements as to the conditions of employment to be observed, the minimum wage rates to be paid under the Contract and affirmative action to ensure equal employment opportunity.
- B. Contractor shall make full good faith efforts to secure at least ten percent (10%) of the Labor and Materials incorporated in the Work from Minority Business Enterprises and five percent (5%) of the Labor and Materials incorporated in the Work from Women Business Enterprises certified by the Commonwealth of Massachusetts and consistent with the Federal Equal Employment Opportunity requirements attached hereto as Attachment A. Satisfactory documentation of such effort shall be furnished promptly upon request by Owner.

C. The Owner is an equal employment opportunity employer and has an active Affirmative Action Plan (AAP). For more information, direct correspondence to Patricia M. Libby, Affirmative Action Officer for the Town of Arlington.

**BID FORM**

For: **MASSACHUSETT AVE SIDEWALK RECONSTRUCTION PROJECT** t

(Bid #20-23) Proposal (BID) of \_\_\_\_\_  
(hereinafter called "Bidder") a corporation, organized and existing under the laws of  
the Commonwealth of Massachusetts.

\_\_\_\_\_ doing business as \_\_\_\_\_  
(corporation, proprietorship, partnership)

to the TOWN OF ARLINGTON hereinafter called "Owner". Gentlemen:

A. The Bidder, in compliance with your invitation for bids for the  
**MASSACHUSETT AVE SIDEWALK RECONSTRUCTION PROJECT**,  
Arlington Massachusetts, having examined the plan and specifications with  
related documents and the site of the proposed project including the availability of  
materials and labor, hereby proposes to furnish all labor, materials and supplies,  
and to construct the project in accordance with the Contract Documents, within  
the time set forth therein, and at the prices stated below. These prices are to cover  
all expenses incurred in performing the work required under the Contract  
Documents, of which this proposal is a part.

Bidder hereby agrees to commence work under this Contract on or before a date  
to be specified in the written "Notice to Proceed" from the Owner, and to  
complete the work by August 28, 2019. The Bidder further agrees to pay as  
liquidated damages, the sum of \$1,000.00 for each consecutive calendar day  
thereafter that the works remains incomplete, as provided in the Instruction to  
Bidders, Modifications to General Conditions. Required completion dates are as  
follows:

B. Bidder acknowledges receipt of the following addendum:

\_\_\_\_\_ Dated \_\_\_\_\_  
\_\_\_\_\_ Dated \_\_\_\_\_  
\_\_\_\_\_ Dated \_\_\_\_\_

C. Bidder agrees to perform all work described in the specifications and shown on the  
drawings, for the following lump sum price of:

1. Total Proposed Base Bid Contract Price:

\_\_\_\_\_ Dollars (\$ \_\_\_\_\_)

2. Bid Deposit on total bid price, including alternates, in the sum of:

\_\_\_\_\_ Dollars (\$ \_\_\_\_\_) in

the form of \_\_\_\_\_ is submitted herewith in  
accordance with the INSTRUCTION FOR BIDDERS and is to become property of the Owner in

the event the Contract and bonds are not executed within the time above set forth, as liquidated damages for the delay and additional expense to the Owner caused thereby.

3. The Bid does not include premiums on Performance/Labor and Materials Bond. Cost of required Bond Premiums (for base bid and any and all alternates):

Bid Premiums Add \$ \_\_\_\_\_

4. Alternates

NONE

**5. Schedule of Values – Base Bid:**

- This Schedule of Values shall be completed and submitted with the Official Bid. The Value of Schedules will be used for the purposes of determining the cost associated with construction or contract change.
- The sum of the total of all items MUST equal the Lump Sum Price listed on the previous sheet for the Base Bid.

- D. If the Bid is accepted by the Owner, the undersigned agrees to complete the entire work provided to be done under the contract within the time stipulated by the Owner.

# Supplemental Form for General Bid



## Supplemental Form for General Bid

Project: Massachusetts Avenue Sidewalk Reconstruction

Location: Arlington, Massachusetts

| Item Number | Quantity | Item with Unit Bid Price<br>Written in Words                                  | Unit Price |       | Amount  |       |
|-------------|----------|---|------------|-------|---------|-------|
|             |          |   | Dollars    | Cents | Dollars | Cents |
| 102.51      | 42       | INDIVIDUAL TREE PROTECTION<br>at _____<br>EACH                                |            |       |         |       |
| 103.        | 2        | TREE REMOVED - DIAMETER UNDER 24<br>INCHES<br>at _____<br>EACH                |            |       |         |       |
| 120.1       | 1600     | UNCLASSIFIED EXCAVATION<br>at _____<br>PER CUBIC YARD                         |            |       |         |       |
| 151.        | 1300     | GRAVEL BORROW<br>at _____<br>PER CUBIC YARD                                   |            |       |         |       |
| 170.        | 4300     | FINE GRADING AND COMPACTING -<br>SUBGRADE AREA<br>at _____<br>PER SQUARE YARD |            |       |         |       |

## Supplemental Form for General Bid

| Item Number | Quantity | Item with Unit Bid Price<br>Written in Words                                | Unit Price |       | Amount  |       |
|-------------|----------|---|------------|-------|---------|-------|
|             |          |   | Dollars    | Cents | Dollars | Cents |
| 220.7       | 4        | SANITARY STRUCTURE ADJUSTED<br>at _____<br>EACH                             |            |       |         |       |
| 358.        | 25       | GATE BOX ADJUSTED<br>at _____<br>EACH                                       |            |       |         |       |
| 440.        | 12500    | CALCIUM CHLORIDE FOR ROADWAY<br>DUST CONTROL<br>at _____<br>PER POUND       |            |       |         |       |
| 450.23      | 60       | SUPERPAVE SURFACE COURSE - 12.5 (SSC<br>- 12.5)<br>at _____<br>PER TON      |            |       |         |       |
| 450.31      | 40       | SUPERPAVE INTERMEDIATE COURSE -<br>12.5 (SIC - 12.5)<br>at _____<br>PER TON |            |       |         |       |
| 450.41      | 30       | SUPERPAVE BASE COURSE - 25.0 (SBC -<br>25.0)<br>at _____<br>PER TON         |            |       |         |       |
| 451.1       | 50       | FLEXIBLE POROUS PAVEMENT FOR TREE<br>WELLS (4'X6')<br>at _____<br>EACH      |            |       |         |       |

## Supplemental Form for General Bid

| Item Number | Quantity | Item with Unit Bid Price<br>Written in Words                              | Unit Price |       | Amount  |       |
|-------------|----------|---|------------|-------|---------|-------|
|             |          |   | Dollars    | Cents | Dollars | Cents |
| 451.2       | 1        | FLEXIBLE POROUS PAVEMENT FOR TREE WELLS (4'X19')<br>at _____<br>EACH      |            |       |         |       |
| 451.3       | 1        | FLEXIBLE POROUS PAVEMENT FOR TREE WELLS (4' DIAMETER)<br>at _____<br>EACH |            |       |         |       |
| 452.        | 25       | ASPHALT EMULSION FOR TACK COAT<br>at _____<br>PER GALLON                  |            |       |         |       |
| 482.3       | 4000     | SAWCUTTING ASPHALT PAVEMENT<br>at _____<br>PER FOOT                       |            |       |         |       |
| 482.4       | 430      | SAWCUTTING PORTLAND CEMENT CONCRETE<br>at _____<br>PER FOOT               |            |       |         |       |
| 504.        | 200      | GRANITE CURB TYPE VA4 - STRAIGHT<br>at _____<br>PER FOOT                  |            |       |         |       |
| 504.1       | 50       | GRANITE CURB TYPE VA4 - CURVED<br>at _____<br>PER FOOT                    |            |       |         |       |

## Supplemental Form for General Bid

| Item Number | Quantity | Item with Unit Bid Price<br>Written in Words                                       | Unit Price |       | Amount  |       |
|-------------|----------|--|------------|-------|---------|-------|
|             |          |  | Dollars    | Cents | Dollars | Cents |
| 509.        | 230      | GRANITE TRANSITION CURB FOR<br>WHEELCHAIR RAMPS - STRAIGHT<br>at _____<br>PER FOOT |            |       |         |       |
| 509.1       | 190      | GRANITE TRANSITION CURB FOR<br>WHEELCHAIR RAMPS - CURVED<br>at _____<br>PER FOOT   |            |       |         |       |
| 514.        | 8        | GRANITE CURB INLET - STRAIGHT<br>at _____<br>EACH                                  |            |       |         |       |
| 516.        | 16       | GRANITE CURB CORNER TYPE-A<br>at _____<br>EACH                                     |            |       |         |       |
| 517.        | 4        | GRANITE CURB CORNER TYPE-B<br>at _____<br>EACH                                     |            |       |         |       |
| 580.        | 2200     | CURB REMOVED AND RESET<br>at _____<br>PER FOOT                                     |            |       |         |       |
| 697.1       | 25       | SILT SACK<br>at _____<br>EACH  |            |       |         |       |

## Supplemental Form for General Bid

| Item Number | Quantity | Item with Unit Bid Price<br>Written in Words                            | Unit Price |       | Amount  |       |
|-------------|----------|---|------------|-------|---------|-------|
|             |          |   | Dollars    | Cents | Dollars | Cents |
| 701.        | 2700     | CEMENT CONCRETE SIDEWALK<br>at _____<br>PER SQUARE YARD                 |            |       |         |       |
| 701.1       | 430      | CEMENT CONCRETE SIDEWALK AT<br>DRIVEWAYS<br>at _____<br>PER SQUARE YARD |            |       |         |       |
| 701.2       | 440      | CEMENT CONCRETE WHEELCHAIR RAMP<br>at _____<br>PER SQUARE YARD          |            |       |         |       |
| 701.3       | 310      | STAMPED CEMENT CONCRETE ACCENT<br>BAND<br>at _____<br>PER SQUARE YARD   |            |       |         |       |
| 707.15      | 7        | PARK BENCH REMOVED AND RESET<br>at _____<br>EACH                        |            |       |         |       |
| 707.21      | 1        | TRASH RECEPTACLE REMOVED AND<br>RESET<br>at _____<br>EACH               |            |       |         |       |
| 707.22      | 4        | TRASH RECEPTACLE REMOVED AND<br>DISCARDED<br>at _____<br>EACH           |            |       |         |       |

## Supplemental Form for General Bid

| Item Number | Quantity | Item with Unit Bid Price<br>Written in Words         | Unit Price |       | Amount  |       |
|-------------|----------|--|------------|-------|---------|-------|
|             |          |  | Dollars    | Cents | Dollars | Cents |
| 707.91      | 3        | BICYCLE RACK - REMOVED AND RESET<br>at _____<br>EACH |            |       |         |       |
| 715.2       | 6        | P.O. BOX REMOVED AND RESET<br>at _____<br>EACH       |            |       |         |       |
| 716.        | 15       | PLANTER REMOVED AND RESET<br>at _____<br>EACH        |            |       |         |       |
| 748.        | 1        | MOBILIZATION<br>at _____<br>LUMP SUM                 |            |       |         |       |
| 751.        | 20       | LOAM BORROW<br>at _____<br>PER CUBIC YARD            |            |       |         |       |
| 751.2       | 100      | STRUCTURAL SOIL<br>at _____<br>PER CUBIC YARD        |            |       |         |       |
| 765.        | 110      | SEEDING<br>at _____<br>PER SQUARE YARD               |            |       |         |       |

## Supplemental Form for General Bid

| Item Number | Quantity | Item with Unit Bid Price<br>Written in Words                               | Unit Price |       | Amount  |       |
|-------------|----------|--|------------|-------|---------|-------|
|             |          |  | Dollars    | Cents | Dollars | Cents |
| 776.528     | 7        | MAPLE-RED-'BOWHALL' 2.5-3INCH<br>CALIPER<br>at<br>_____<br>EACH            |            |       |         |       |
| 783.647     | 3        | ZELKOVA-'VILLAGE GREEN' 2.5-3 INCH<br>CALIPER<br>at<br>_____<br>EACH       |            |       |         |       |
| 811.31      | 1        | PULL BOX 12 X 12 INCHES - SD 2.031<br>at<br>_____<br>EACH                  |            |       |         |       |
| 811.37      | 37       | ELECTRIC HANDHOLE ADJUSTED<br>at<br>_____<br>EACH                          |            |       |         |       |
| 823.84      | 12       | LIGHT POLE REMOVED AND RESET<br>at<br>_____<br>EACH                        |            |       |         |       |
| 851.1       | 90       | TRAFFIC CONES FOR TRAFFIC<br>MANAGEMENT<br>at<br>_____<br>PER DAY          |            |       |         |       |
| 852.        | 330      | SAFETY SIGNING FOR TRAFFIC<br>MANAGEMENT<br>at<br>_____<br>PER SQUARE FOOT |            |       |         |       |

## Supplemental Form for General Bid

| Item Number | Quantity | Item with Unit Bid Price<br>Written in Words  | Unit Price |       | Amount  |       |
|-------------|----------|---|------------|-------|---------|-------|
|             |          |   | Dollars    | Cents | Dollars | Cents |
| 852.11      | 1000     | TEMPORARY PEDESTRIAN BARRICADE<br>at _____<br>PER FOOT                                  |            |       |         |       |
| 852.12      | 2        | TEMPORARY PEDESTRIAN CURB RAMP<br>at _____<br>EACH                                      |            |       |         |       |
| 853.1       | 6        | PORTABLE BREAKAWAY BARRICADE<br>TYPE III<br>at _____<br>EACH                            |            |       |         |       |
| 854.1       | 100      | PAVEMENT MARKING REMOVAL<br>at _____<br>PER SQUARE FOOT                                 |            |       |         |       |
| 859.        | 4500     | REFLECTORIZED DRUM<br>at _____<br>PER DAY   |            |       |         |       |
| 859.1       | 100      | REFLECTORIZED DRUM WITH<br>SEQUENTIAL FLASHING WARNING<br>LIGHTS<br>at _____<br>PER DAY |            |       |         |       |
| 860.104     | 290      | 4 INCH REFLECTORIZED WHITE LINE<br>(PAINTED)<br>at _____<br>PER FOOT                    |            |       |         |       |

## Supplemental Form for General Bid

| Item Number | Quantity | Item with Unit Bid Price<br>Written in Words   | Unit Price |       | Amount  |       |
|-------------|----------|--|------------|-------|---------|-------|
|             |          |  | Dollars    | Cents | Dollars | Cents |
| 864.011     | 16       | PAVEMENT ARROWS AND LEGENDS<br>REFLECTORIZED (PAINTED)<br>at<br>_____<br>PER SQUARE FOOT |            |       |         |       |
| 866.112     | 330      | 12 INCH REFLECTORIZED WHITE LINE<br>(THERMOPLASTIC)<br>at<br>_____<br>PER FOOT           |            |       |         |       |
| 874.2       | 40       | TRAFFIC SIGN REMOVED AND RESET<br>at<br>_____<br>EACH                                    |            |       |         |       |
| 875.        | 1        | PARKING METER - EXCLUDING COST OF<br>PARKING METER<br>at<br>_____<br>EACH                |            |       |         |       |
| 875.1       | 48       | PARKING METER REMOVED AND RESET<br>at<br>_____<br>EACH                                   |            |       |         |       |
| 875.2       | 1        | PARKING METER REMOVED AND<br>STACKED<br>at<br>_____<br>EACH                              |            |       |         |       |
| 999.        | 1        | CONSTRUCTION STAKING<br>at<br>_____<br>LUMP SUM  |            |       |         |       |

## Supplemental Form for General Bid

| Item Number | Quantity | Item with Unit Bid Price<br>Written in Words   | Unit Price |       | Amount  |       |
|-------------|----------|--|------------|-------|---------|-------|
|             |          |  | Dollars    | Cents | Dollars | Cents |
| 999.1       | 1        | POLICE SERVICES<br>at<br><hr style="border: 0; border-top: 1px solid black; margin: 5px 0;"/> LUMP SUM |            |       |         |       |
| 999.2       | 1        | AS-BUILT PLANS<br>at<br><hr style="border: 0; border-top: 1px solid black; margin: 5px 0;"/> LUMP SUM  |            |       |         |       |

**Total Bid:**

- E. The undersigned agrees that for extra work, if any, performed in accordance with the AGREEMENT, he will accept compensation as stipulated therein in full payment for such extra work.
- F. Bidder understands that the Owner reserves the right to reject any and all bids.
- G. The undersigned hereby agrees that he will not withdraw the Bid within sixty (60) consecutive calendar days after the actual date of the opening of Bids and that, if the Owner accepts this Bid, the undersigned will duly execute and acknowledge the required Contract Bonds within 10 days after notification that the AGREEMENT is ready for signature.
- H. Should the undersigned fail to fulfill any of his agreements as here in before set forth, the Owner shall have the right to retain as liquidated damages the amount of the Bid security, which shall become the Owner/s property. If a bid was furnished as bid security, it is agreed that the amount thereof shall be paid as liquidated damages to the Owner by the Surety.
- I. The Undersigned certifies under penalty of perjury that this Bid is in all respect bona fide, fair and made without collusion or fraud with any other person. As used in this subsection the "person" shall mean natural person, joint venture, partnership, corporation or other business or legal entity.
- J. The undersigned certifies that he is able to furnish labor that can work in harmony with all with all laws and regulations applicable to awards made subject forty-four A.
  1. Have been in business under the present name for \_\_\_\_\_years.
  2. Ever failed to complete any work awarded? \_\_\_\_\_(Yes), \_\_\_\_\_(No). If yes, explain: \_\_\_\_\_
  3. Bank Reference: \_\_\_\_\_

K. The Bidder is required to state below all work he/she and his/her subcontractors (if subcontractors are to perform substantial portions of the work) has complete within the past 5 years of a similar character and value to that of the work included in the proposed Contract and to give references that will enable the Owners to judge the Bidder's experience, skill and business standing. The Bidder is required to list a minimum of 3 completed projects that are comparable in scope, complexity and value. For each project, include the name, location, type, date complete, construction value and owner contact.

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(add supplementary page if necessary)

L. The Bidder is required to state below all construction projects he/she currently has under contract. For each project, include the name, location, type, scheduled completion date, construction value and owner contact.

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M. The undersigned bidder hereby certifies that the tools and equipment required to meet the specified requirements of the Contract document, will be utilized in the performance of the work.

N. The undersigned further certifies under the penalty 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, or any other applicable debarment

provisions of any other chapter of the General Laws or any rule or regulation declared there under.

- O. The undersigned bidder hereby certifies he/she will comply with the minority workforce percentage ratio and specific affirmative action steps contained in the EEO/AA provisions of the Contract, including compliance with Minority/Women Business Enterprise as required under these contract provisions. The contractor receiving the award of the Contract shall be required to obtain from each of its subcontractors a copy of its bidder's certification and submit it to the contracting agency prior to the award of such subcontract, regardless of tier, that it will comply with the minority workforce ratio and specific affirmative action steps contained in these EEO/AA contract provisions.

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

\_\_\_\_\_  
Name of General Bidder

By:

\_\_\_\_\_  
Name and Title of Person Signing Bond

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

**FORM A**

**CERTIFICATE OF NON-COLLUSION**

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 section the word 'person' shall mean any natural person, joint venture, partnership, corporation or other business or legal entity.

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Authorized Name

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Authorized Signature

Date

---

Social Security Number or Federal Identification Number

---

Legal Name of Business Entity (Print or

---

Type) Address

---

City, State, Zip Code

Corporate Seal (If applicable)

**FORM B**

**CERTIFICATE OF FOREIGN CORPORATION**

The undersigned certifies that it has been duly established, organized, or chartered as a corporation under the laws of:

\_\_\_\_\_

Jurisdiction

The undersigned further certifies that it complies with the requirements of M.G.L, c. 30, sec. 39L and with the requirements of M.G.L, c. 181 relative to the registration and operation of foreign corporations within the Commonwealth of Massachusetts.

\_\_\_\_\_

Name of Person Signing the Bid or Proposal

Date

\_\_\_\_\_

Signature of Person Signing the Bid or Proposal

Date

\_\_\_\_\_

Name of Business (Print or Type)

Corporate Seal (If applicable)

**FORM C**

COMMONWEALTH OF MASSACHUSETTS

SCHEDULE FOR PARTICIPATION BY WOMEN/MINORITY BUSINESS

ENTERPRISE BIDDER CERTIFICATION

A bidder agrees to expend at least the amount of the contract set forth below if awarded, for W/MNE. For the purposes of this commitment, the designation means a business that has been certified by SOMWBA as such. The Bidder must indicate the W/MBE it intends to utilize in this document as follows: (Attach another sheet if necessary.)

| Company Name and Address | Nature of Participant | Dollar Value of Participation |
|--------------------------|-----------------------|-------------------------------|
| <hr/>                    |                       |                               |
| 1.                       |                       | \$ <u>          </u>          |
| 2.                       |                       | \$ <u>          </u>          |
| 3.                       |                       | \$ <u>          </u>          |

The undersigned hereby certifies that he or she read the terms of this condition and is authorized to bind the Bidder to the commitment herein set forth.

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Name of Person Signing the Bid or Proposal

---

Signature of Person Signing the Bid or Proposal Title

---

Name of Business (Print or Type)

Corporate Seal (If applicable)

**FORM D**

**BIDDER CERTIFICATION REGARDING PAYMENT OF PREVAILING WAGES**

The undersigned hereby certifies, under pains and penalties of perjury, that the foregoing bid is based upon the payment to laborers to be employed on the project of wages in an amount no less than the applicable wage rates established for the project by the Massachusetts Department of Labor and Industries. The undersigned bidder agrees to identify the awarding authority for, from, and against any loss, expense, damages, action, or claims, including any expense incurred in connection with any delay or stoppage of the project work, arising out of or as a result of (1) the failure of the said bid to be based upon the payment of the said applicable prevailing wage rates or (2) the failure of the bidder, if selected as the contractor, to pay laborers employed on the project the said applying prevailing wage rates.

\_\_\_\_\_  
Date

\_\_\_\_\_  
Name of Person Signing the Bid or Proposal

\_\_\_\_\_  
Signature of Person Signing the Bid or Proposal Title

\_\_\_\_\_  
Name of Business (Print or Type)

Corporate Seal (If applicable)

**FORM E**

**CERTIFICATION OF PAYMENT OF STATE TAXES**

Legislation enacted by the Commonwealth of Massachusetts, effective, 1983, requires that attestation below be signed:

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

**APPROVAL OF A CONTRACT OR ANY OTHER AGREEMENT WILL NOT BE GRANTED UNLESS THIS CERITIFCATION CLAUSE IS SIGNED BY AN AUTHORIZED CORPROATE OFFICER.**

**THE TAX PAYER IDENTIFICATION NUMBER WILL BE FURNISHED TO THE MASSACHUSETIS DPEARTMENT OF REVENUE TO DETERMINE IF TAX FILINGS AND/OR TAX PAYMENT OBLIGATIONS HAVE BEEN MET. PROVIDERS WHO FAIL TO CORRECT THIER NON-FILING AND/OR DELIQUENCY STATUS SHALL NOT HAVE A CONTRACT OR ANY OTHER AGREEMENT ISSUED, RENEWED OR EXTENDED**

\_\_\_\_\_  
(Signature of Individual) Title

\_\_\_\_\_  
Social Security Number or Federal Identification Number

\_\_\_\_\_  
Corporate Name

\_\_\_\_\_  
Name of Person Signing the Proposal (Print or Type) Date

\_\_\_\_\_  
Legal Name of Business Entity (Print or

\_\_\_\_\_  
Type) Business Address

Corporate Seal (If applicable)

**FORM F**

**CERTIFICATION OF AUTHORITY MEETING OF BOARD OF DIRECTORS**

(Note: if business entity is a partnership or individual, all owners shall sign this form.)

At a meeting of the Directors of the \_\_\_\_\_ duly called and held at

(Corporation  
)

\_\_\_\_\_ on the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_,  
(Location)

at which a quorum was present and acting, it was voted that \_\_\_\_\_, the  
(Name)

\_\_\_\_\_ of this Corporation, is hereby authorized and empowered to  
make, (Title/Position)

into, sign, seal and deliver on behalf of the Corporation a Contract for \_\_\_\_\_

with the \_\_\_\_\_, and the performance and  
payment bonds each in the amount as specified by the Owner.

I hereby certify that the above is a true and correct copy of the record, that said vote  
has not been amended or repealed and is in full force, and effect as of this date and  
that

\_\_\_\_\_ is duly elected \_\_\_\_\_ of the corporation  
(Name) (Title/Position)

\_\_\_\_\_  
Clerk or secretary of the Corporation

\_\_\_\_\_  
Date

(Note: If the Bidder is a corporation, affix corporate seal and give below the names of its  
president, treasurer, and general manager, if any; if a partnership, give full names and  
residential addresses of all partners; and if an individual, give residential address if different  
from business address.)

the required names and addresses of all person interested in this proposal, as  
Principals, are as follows:

\_\_\_\_\_

**CONTRACT FOR  
MASSACHUSETT AVE SIDEWALK RECONSTRUCTION PROJECT**

THIS AGREEMENT, made as of this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, by and between the TOWN OF ARLINGTON, MASSACHUSETTS, acting through its TOWN

MANAGER, hereinafter called the 'Owner' and \_\_\_\_\_,,  
 (Name of Contractor)  
 of \_\_\_\_\_, country of \_\_\_\_\_ and  
 State of \_\_\_\_\_, hereinafter called the 'Contractor'.

WITNESSETH; That the Contractor and the Owner for the consideration hereinafter named agrees as follow:

1. SCOPE: The Contractor will furnish at his own proper cost and expense all materials, supplies, machinery, equipment, appliances, tools, superintendence, labor, insurance and other items and services necessary to complete the work as shown and described on the Contract Documents entitled "**MASSACHUSETT AVE SIDEWALK RECONSTRUCTION PROJECT**", Arlington, Massachusetts, hereinafter called the 'Project', prepared by Green International Affiliates, Inc. hereinafter called the 'Designer', or 'Landscape Architect'.

2. CONTRACT SUM: The owner agrees to pay the contractor, and the contractor agrees to accept in full consideration for the performance of the contract, subject to additions and deductions provided for in the contract documents, in current funds, the sum of dollars (\$) , hereinafter called the 'Contract Sum' and to make payments on account thereof, as described below and elsewhere in the Contract Documents.

3. COMMENCEMENT OF WORK AND TIME OF COMPLETION: The contractor agrees to commence work on the contract within seven (7) calendar days from the receipt of written Notice to Proceed issued by the Owner and/or within fourteen (14) calendar days after execution of the contract Agreement and to thereafter diligently and continuously carry on the work. He agrees to complete the work on or before **September 1, 2020** except as herein noted.

4. LIQUIDATED DAMAGES: The Contractor agrees to pay the Owner liquidated damages for failure to complete the Project in conformance with the time allowances as set forth above at the rate of **\$1,000.00** per calendar day.

5. ALTERNATES: The following Alternates have been accepted and the Contract Sum stated in Paragraph 2 of this Agreement includes and is adjusted to reflect the total cost of each accepted alternate:

| Alternate No.  | Indicate Accepted or Rejected | Original Bid Value of Alternate |
|----------------|-------------------------------|---------------------------------|
| ADD Alt. No. 1 | <u>N/A</u>                    | _____                           |
| ADD Alt. No. 2 | <u>N/A</u>                    | _____                           |

6. PAYMENTS TO CONTRACTOR: Payments shall be made in accordance with Chapter 30, Section 39K of the General Laws of the Commonwealth of Massachusetts, including all current amendments, generally as follows:
- A. Within fifteen days after receipt from the Contractor, at the place designated by the Owner if such a place is so designated, of a period estimate requesting payment of the amount due for the preceding month, the Owner will make a periodic payment to the Contractor for the work performed during the preceding month and for the - materials not incorporated in the work but delivered and suitably stored at the site (or at some location agreed upon in writing) to which the Contractor has title or to which a subcontractor has title and has authorized to Contractor to transfer title to the Owner, less (1) a retention based on its estimate of the fair value of its claims against the Contractor and less (2) a retention for direct payments to subcontractors based on demands for same in accordance with the provisions of Section 39F, and less (3) a retention not exceeding five percent of the approved amount of the periodic payment. After the receipt of a periodic estimate requesting final payment and within sixty-five days after (a) the Contractor fully completes the work or substantially completes the work so that the value of the work remaining to be done is, in the estimate of the Owner, less than one percent of the original contract price, or (b) the Contractor substantially completes the work and the Owner takes possession for occupancy, whichever occurs first, 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 claim 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 subcontractors based on the demands for same in accordance with the provisions of 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. If the Owner fails to make payment as herein provided, there shall be added to each such payment daily interest at the rate of five percent per annum commencing on the first day after said payment is due and continuing until the payment is delivered or mailed to the Contractor, provided, that no interest shall be due, in any event, on the amount due on a periodic estimate for Final Payment until fifteen days after receipt of such a periodic estimate from the Contractor, at the place designated by the Owner if such a place is so designated. The Contractor agrees to pay to each subcontractor a portion of any such interest paid in accordance with the amount due each subcontractor.
  - B. The Owner may make changes in any periodic estimate submitted by the Contractor and the payment due on said periodic estimate shall be computed in accordance with the changes so made, but such changes or any requirement for a corrected periodic estimate shall not affect the due date for the periodic

payment or the date for the commencement of interest charges on the amount of the periodic payment computed in accordance with the changes made, as provided herein; provided that the Owner may, within seven days after receipt, return to the Contractor for correction any periodic estimate which is not in the required form or which contains computations not arithmetically correct and, in that event, the date of receipt for such periodic estimate in proper form and with arithmetically correct computations. The date of receipt of a periodic estimate received on a Saturday shall be the first working day thereafter. The provisions of Section 39G shall not apply to any contract for the construction, reconstruction, remodeling, repair or demolition of any public building to which this section applies.

7. PAYMENTS TO SUBCONTRACTORS: Payments shall be made in accordance with Chapter 30, Section 39F of the General Laws of the Commonwealth of Massachusetts, including all current amendments, generally as follows:
  - A. Forthwith after the General Contractor receives payment on account of a period estimate, the General Contractor shall pay to each Subcontractor the amount paid for the labor performed and the materials furnished 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 Owner as the estimated cost of completing the incomplete and unsatisfactory items of work, shall be due the Subcontractor, and the Owner shall pay that amount to the General Contractor. The General Contractor shall forthwith pay to the Subcontractor the full amount received from the Owner 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 Owner 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 Owner shall take reasonable steps to compel the General Contractor to make each payment to each such Subcontractor. If the Owner 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 for payment to the Subcontractor as provided in subparagraphs (A) and (B), the Owner shall act upon 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 Owner as the estimated cost of completing the incomplete and unsatisfactory items of work, the Subcontractor may demand direct payment of that balance from the Owner. The demand shall be by a sworn statement delivered to or sent by certified mail to the Owner, 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 Owner and delivered or so mailed a copy to the General Contractor, the General Contractor may reply to the demand. The reply shall be a sworn statement delivered to or sent by certified mail to the Owner 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 Owner, 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, less any amount (i) retained by the Owner 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 Owner 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 in subparagraph (D); The Owner 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 Owner 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 Owner and agreed upon by the General Contractor and the Subcontractor and shall notify the General Contractor and the Subcontractor of the date of deposit and the bank receiving the deposit. The bank shall pay the amount on 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 later become payable to the General Contractor and in order of receipt of such demands from Subcontractors. All direct payments shall discharge the obligation of the Owner to the General Contractor to the extent of such payment.

- H. The Owner 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. On all contracts for building construction subject to the provisions of Sections 44A to 44L, inclusive, of Chapter 149, periodic payments for work performed by a Subcontractor shall be made to the General Contractor for payment to the Subcontractor and shall be paid to the Subcontractor forthwith after receipt thereof by the General Contractor and without any ten day waiting period as provided above, less any amount claimed by the General Contractor in a letter containing a breakdown of the claim and sent to the Subcontractor with such payment, provided that a General Contractor, who has received a periodic estimate for a periodic payment in proper form from a Subcontractor three days, Saturdays, Sundays and holidays excluded, before the due date of the General Contractor's periodic estimate for the same periodic payment period less any amount claimed by the General Contractor in a letter containing a breakdown of the claim and sent to the Subcontractor with such payment, even though the General Contractor does not submit a periodic estimate to the Owner for that payment period; and provided, further, that the Owner shall take all reasonable steps to compel the General Contractor to make payment to the Subcontractors as provided in this paragraph, and upon the written request of a Subcontractor setting forth the amount payable but not paid, a copy of which shall be sent to the General Contractor, shall make direct payment to a Subcontractor, as provided for above, which shall discharge the obligation of the Owner to the General Contractor to extent of any such payment.
- J. The Owner shall not include in any direct payment to a Subcontractor pursuant to this section any amount claimed from that Subcontractor by the General Contractor in a letter containing a breakdown of the claim and sent to the Owner within ten days after the receipt by the General Contractor of the copy of the request of the Subcontractor to the Owner for direct payment.

## 8. CONDITIONS OF EMPLOYMENT

- A. The schedule of Minimum Wage Rates and Health and Pension Fund Contributions as determined by the Commissioner under the provisions

of the Massachusetts General Laws, Chapter 149, Sections 26 m 27D, inclusive, AS amended, is hereby made a part of this Agreement.

- B. The Contractor shall pay to any reserve police officer employed by him in any city or town the prevailing rate of wages paid to regular police officers in such city or town.
- C. No laborer, workman, mechanic, foreman or inspector working within the Commonwealth, in the employ of the Contractor, Subcontractor or any other person doing or contracting to do the whole or a part of the work contemplated by the Contract, shall be required or permitted to work more than eight hours in any one day or forty-eight hours in any one week, or more than six days in any one week, except in cases of emergency.
- D. Every employee of the Contractor or any Subcontractor shall lodge, board and trade where and with whom he elects; and no person or his agents or employees shall be directly or indirectly required, as a condition of employment that the employee to lodge, board or trade at a particular place or with a particular person.

9. SUBCONTRACTORS

- A. The Contractor will employ the following Subcontractors on the work and will pay for the execution of his as defined in the Contract Documents; and subject to the additions and deductions provided in the subject to the additions and deductions provided in the Contract Documents, the sum shown opposite his name.

| <u>Class Of Work</u> | <u>Subcontractor</u> | <u>Subcontractor Sum</u> |
|----------------------|----------------------|--------------------------|
|                      |                      |                          |
|                      |                      |                          |
|                      |                      |                          |
|                      |                      |                          |
|                      |                      |                          |
|                      |                      |                          |
|                      |                      |                          |
|                      |                      |                          |
|                      |                      |                          |

- B. The names of any additional Subcontractors whom the Contractor proposed to employ shall be submitted to the Designer for approval. No such Subcontractor shall be employed to whose standing or ability the Owner or the Designer has any reasonable objection.
10. **THE CONTRACT DOCUMENTS:** The General Conditions of the Contract, the Specifications and the Drawings, together with this Agreement, for the Contract, and they are as fully a part of the Contract as if hereto attached or herein repeated Drawings and Specifications titled: Minuteman Bikeway Improvements at Lake Street
  11. **INCORPORATION OF STATUTES BY REFERENCE:** If statutes of the Commonwealth of Massachusetts in any way relating to the construction, alterations, repair and installation of public works, particularly with reference to labor and labor rates, they shall be strictly complied with by the Contractor and it is understood that all such statutes are incorporated by reference in this Contract.

12. It is expressly agreed that this Agreement is to be executed for and in behalf of the Owner by the members of its Board of Selectmen and any of its appoints and that such persons are acting in a representative capacity for and in behalf of Owner, and that such persons shall not incur any personal liability hereunder.

IN WITNESS whereof, inhabitants of the Town of Arlington and

\_\_\_\_\_

have caused these presents to be executed by their

\_\_\_\_\_

hereunto duly authorized the day and year first written.

TOWN OF ARLINGTON

\_\_\_\_\_

Adam W. Chapdelaine, Town Manager

\_\_\_\_\_

\_\_\_\_\_

Certification:  
I hereby Certify that an  
appropriation in the amount  
of the Contract is available.

\_\_\_\_\_

Town Accountant

\_\_\_\_\_

Contractor

By: (Title)

Approved as to Matter of Form:

\_\_\_\_\_

Town Counsel

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**PERFORMANCE BOND**

KNOW ALL MEN BY THESE PRESENTS: That we

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

a \_\_\_\_\_ (Corporation, Partnership or Individual)

hereinafter called "Principal" and

\_\_\_\_\_ (Surety) of \_\_\_\_\_, State of \_\_\_\_\_, hereinafter called the "Surety", are held and firmly bound into

THE TOWN OF ARLINGTON, MASSACHUSETTS (Owner)

acting through its TOWN MANAGER

ARLINGTON, MASSACHUSETTS (City and State)

hereinafter called "Owner", in the penal sum of \_\_\_\_\_ Dollars (\$ \_\_\_\_\_) in lawful money of the United states, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION is such that Whereas, the Principal entered into a certain contract with the Owner, dated \_\_\_\_\_ day of a copy of which is hereto attached and made a part hereof for the construction of

\_\_\_\_\_ Arlington, Massachusetts

NOW, THEREFORE, if the Principal shall well, truly and faithfully perform its duties, all the undertakings, covenants, terms, conditions, and agreements of said contract during the original term thereof, and any extensions thereof which may be granted by, the Owner, with or without notice to the Surety, and if he shall satisfy all claims and demands incurred under such contract, and shall fully indemnify and save harmless the Owner from all costs and damages which it may suffer by reason of failure to do so, and shall reimburse and repay

the Owner all outlay and expense which the Owner may incur in making good any default, then this obligation shall be void; otherwise to remain in full force and effect.

PROVIDED, FURTHER, that the said Surety, for value received hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contract or to the work to be performed thereunder or the specifications accompanying the same shall in any way affect its obligation of this, Bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract or to the work or to the specifications.

PROVIDED, FURTHER, that no final settlement between the Owner and the Contractor shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

INWITNESS WHEREOF, the parties to those present have duly executed in this Bond on the day of \_\_\_\_\_

ATTEST:

\_\_\_\_\_  
Principal

By \_\_\_\_\_  
Secretary

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_  
(Address - zip code)

\_\_\_\_\_  
Witness as to Principal

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_  
(Address - zip code)

(Seal)

ATTEST:

\_\_\_\_\_  
Surety

BY \_\_\_\_\_  
(Surety)

\_\_\_\_\_  
Secretary

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_  
(Address-Zip Code)

\_\_\_\_\_  
Witness as to Surety

(Seal)

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_  
(Address-Zip Code)

NOTE: Date of Bond must not be prior to date of Contract. If Contractor is a Partnership, all partners should execute Bond.

END OF DOCUMENT

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**LABOR AND MATERIALS PAYMENT BOND**

KNOW ALL MEN BY THESE PRESENTS: That we

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

a \_\_\_\_\_  
(Corporation, Partnership of Individual)  
hereinafter called "Principal" and

\_\_\_\_\_  
(Surety)

of \_\_\_\_\_, State of \_\_\_\_\_, hereinafter called the  
"Surety", are held and firmly bound into

TOWN OF ARLINGTON, MASSACHUSETTS

(Owner)  
acting through its TOWN MANAGER

ARLINGTON, MASSACHUSETTS

(City and State)

herein called "Owner", in the penal sum of

\_\_\_\_\_, Dollars (\$) in  
lawful money of the United States, for the payment of which sum well and truly to be  
made, we bind ourselves, our heirs, executors, administrators and successors, jointly  
and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION is such that 'Whereas, the Principal  
entered into a certain contract with the Owner, dated the day of \_\_\_\_\_,  
a copy of which is hereto attached and made a part hereof for the construction of:

MINUTEMAN BIKEWAY IMPROVEMENTS AT LAKE STREET IN  
ARLINGTON, MASSACHUSETTS

NOW, THEREFORE, if the Principal shall promptly make payment to all persons,  
firms, subcontractors, and corporations furnishing materials for or performing labor  
in the prosecution of the work provided for in such contract, and any authorized  
extension or modification thereof, including all amounts due for materials, lubricants,  
oil, gasoline, coal and coke, repairs on machinery, equipment and tools, consumed or

used in connection with the construction of such work, and all insurance premiums on said work, and for all labor, performed in such work whether by subcontractor or otherwise, then this obligation shall be void; otherwise to remain in full force and effect.

PROVIDED, FURTHER, that the said surety, for value received hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract or to the work to be performed thereunder or the specifications accompanying the Same shall in any wise affect its obligation on this Bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract or to the work or to the specifications.

PROVIDED, FURTHER, that no final settlement between the Owner and the Contractor shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

IN WITNESS WHEREOF, the parties to these present have duly executed in this Bond on the day of \_\_\_\_\_,

ATTEST:

\_\_\_\_\_

Principal

BY  
Secretary

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

(Address - zip code)

\_\_\_\_\_

Witness as to Principal

(Seal)

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

(Address - zip code)

ATTEST:

\_\_\_\_\_  
Surety

\_\_\_\_\_  
Secretary

\_\_\_\_\_  
(Address-Zip Code)

\_\_\_\_\_  
Witness as to Surety

(Seal)

\_\_\_\_\_  
(Address-Zip Code)

NOTE: Date of Bond must not be prior to date of Contract. If Contractor is a Partnership, all partners should execute Bond.

END OF DOCUMENT

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**SPECIAL PROVISIONS  
TRANSPORTATION IMPROVEMENT PROJECT  
MASSACHUSETTS AVENUE  
ARLINGTON, MA**

**SCOPE OF WORK**

The work under this Contract consists of sidewalk reconstruction along approximately 1,400 feet of Massachusetts Avenue in Arlington, MA. The proposed design replaces the existing brick sidewalk along approximately 1,400 feet of Massachusetts Avenue, approximately 550 feet of Broadway, approximately 350 feet of Franklin Street, approximately 150 feet of Medford Street, and approximately 100 feet of Alton Street with cement concrete sidewalk.

The proposed work includes unclassified excavation, cement concrete sidewalk and wheelchair ramps, stamped cement concrete accent bands, loam and seed, trees, concrete driveways, porous flexible pavement, granite curb, pavement markings, signs, and other incidental work.

**All work done under this Contract shall be in conformance with the MassHighway 2020 Standard Specifications for Highways and Bridges as supplemented and amended; the 2017 Construction Standard Details; the 1996 Construction and Traffic Standard Details (as relates to the Traffic Standard Details only); the current version of the “Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD)” with revisions; the 1990 Standard Drawings for Signs and Supports; the 1968 Standard Drawings for Traffic Signals and Highway Lighting; the latest edition of American Standards for Nursery Stock, the Plans, and the Special Provisions contained in this book.**

The General Conditions, Supplementary Conditions and Special Provisions shall take precedence over the General Requirements of Division I of the Standard Specifications.

**WORK SCHEDULE**

No work that will disrupt travel on the existing roadways (lane closures, lane shifts, trenching, etc.) shall be done from 7:00AM to 9:00AM and from 4:00PM to 6:00PM.

Work on this project is restricted to a normal eight-hour day, five-day week, with the Contractor and all Subcontractors working on the same shift.

No work shall be done on this Contract on Saturdays, Sundays or holidays or on the day before or the day after a long weekend that involves a holiday without prior approval by the Engineer.

**SEQUENCE OF WORK**

The contractor shall perform the sidewalk work on this project in one-block intervals. Work on the sidewalk block under construction shall be substantially completed prior to the contractor beginning work on the next sequential sidewalk block. The contractor shall coordinate with the

Town Department of Public Works prior to the start of any construction to outline their work plan, including where work will start and to where work will sequentially progress.

### **PLANS (Supplementing Subsection 5.02)**

The Contractor shall furnish Mylar "AS-BUILT" plans of the completed project to the Engineer. These "AS-BUILT" plans shall be furnished prior to the date of final acceptance. Full compensation for these plans shall be included in the prices bid for the various Contract items of work; therefore, no additional compensation will be allowed.

The Engineer will make the original drawings available to the Contractor for use in preparing the as-built drawings. However, the Contractor may request a CADD version of the contract drawings as an alternative method for preparing the "AS-BUILT" plans. In either case, final "AS-BUILT" plans shall contain all information shown on the contract drawings and shall clearly indicate areas where changes were made during construction.

The "AS-BUILT" plans shall be titled "AS-BUILT" and stamped and dated by a Professional Engineer registered in the Commonwealth of Massachusetts. The Professional Engineer's stamp is required to certify any changes made to the contract drawings and shall not dictate responsibility for the original design drawings.

The "AS-BUILT" plans will provide a record of constructed improvements for future reference; therefore, partial plan sets will not be accepted. The Contractor may elect to use a combination of reproducible duplicates of the design drawings and revised CAD drawings to provide a complete set of "AS-BUILT" plans.

### **COOPERATION OF THE CONTRACTOR** **(Supplementing Subsections 5.05 and 5.06)**

Agents of various public service agencies, municipal and State Departments, and private site contractors may be entering on the work site to remove existing utilities, to construct or place new facilities or to make alterations to existing facilities.

The Contractor shall perform the work in cooperation with the various agencies in a manner which causes the least interference with the operations of the aforementioned agencies and shall have no claim for delay which may be due, or result, from said work of these agents.

### **CONSTRUCTION STAKING** **(Supplementing Subsection 5.07)**

The Contractor will be furnished information and ties for the survey baseline and benchmarks. The Contractor shall perform any and all survey required for the work.

**PUBLIC SAFETY AND CONVENIENCE**  
**(Supplementing Subsection 7.09)**

The Contractor shall provide necessary access for fire apparatus and other emergency vehicles through the work zones to abutting properties at all times.

Sweeping and cleaning of surfaces beyond the limits of the project required to clean up material caused by spillage or vehicular tracking during the various phases of the work shall be considered as incidental to the work being performed under the Contract and there will be no additional compensation.

**NOTICE TO OWNERS OF UTILITIES**  
**(Supplementing Subsection 7.13)**

Written notice shall be given by the Contractor to all public service corporations or municipal and State officials owning or having charge of publicly or privately owned utilities at least one week in advance of the commencement of operations that will affect the utilities. The Contractor shall, at the same time, file a copy of such notice with the Engineer.

Before commencing work on service connections, the Contractor shall be responsible for contacting the Electric Company servicing the area to obtain construction requirements, standards, and to give adequate notice of commencement of work. The Contractor's attention is further directed to the requirements of Work in the Immediate Vicinity of Certain Underground Structures and Poles herein included in these Special Provisions.

The following are the names of owners and representatives of the principal utilities affected, but completeness of this list is not guaranteed by the Town:

**TOWN OF ARLINGTON**

Arlington Fire Department  
411 Mass Ave  
Arlington, MA 02474

Chief Ryan Melly  
Phone: (781) 316-3800  
Fax: (781) 316-3808

Arlington Police Department  
112 Mystic St  
Arlington, MA 02747

Chief Juliann Flaherty  
Phone: (781) 643-1212  
Fax: (781) 316-3909

Department of Public Works  
51 Grove St  
Arlington, MA 02476

Michael Rademacher  
Director  
Phone: (781)316-3301  
Fax: (781) 316-3109

Engineering Department  
51 Grove Street  
Arlington, MA 02476

Wayne Chouinard  
Town Engineer  
Phone: (781) 316-3320  
Fax: (781) 316-3109

**ELECTRIC**

Eversource Electrical  
50 Duchaine Blvd.  
New Bedford, MA 02745

Richard Comeau  
Phone: (508) 441-5881  
[Richard.comeau@eversource.com](mailto:Richard.comeau@eversource.com)

**TELEPHONE**

Verizon  
385 Myles Standish Blvd.  
Taunton, MA 02780

Karen Mealey  
Phone: (774) 409-3160  
[karen.m.mealey@verizon.com](mailto:karen.m.mealey@verizon.com)

**GAS**

National Grid Gas  
40 Sylvan Road  
Waltham, MA 02451

Melissa Owens  
Phone: (781) 907-2845  
[Melissa.owens@nationalgrid.com](mailto:Melissa.owens@nationalgrid.com)

Tennessee Gas pipeline Company  
8 Anngina Drive  
Enfield, CT 06082

David Wood  
Phone: (860) 763-6005  
[David\\_wood@kindermorgan.com](mailto:David_wood@kindermorgan.com)

Enbridge  
8 Wilson Way  
Westwood, MA 02090

Kathy M. Aruda  
Phone: (508) 938-7728  
[kthleen.aruda@enbridge.com](mailto:kthleen.aruda@enbridge.com)

**WATER**

MWRA  
2 Griffin Way  
Chelsea, MA 02150

Ralph Francesconi  
Phone: (617) 305-5827  
[ralph.francesconi@mwra.state.ma.us](mailto:ralph.francesconi@mwra.state.ma.us)

Arlington Water & Sewer Division  
51 Grove Street  
Arlington, MA 02476

Michael Tassinari  
Phone: (781) 316-3301

**CABLE**

Crown Castle  
80 Central Street  
Boxborough, MA 01719

Mark Bonanno  
Phone: (508) 616-7818  
[mark.bonanno@crowncastle.com](mailto:mark.bonanno@crowncastle.com)

RCN  
956 Mass Avenue  
Arlington, MA 02476

Margot Jones  
Phone: (781) 316-8881  
[Margot.jones@rcn.net](mailto:Margot.jones@rcn.net)

Comcast Cable Corporation  
P.O. Box 6505, 5 Omni Way  
Chelmsford, MA 01824

Wendy Brown  
Phone: (978) 848-5163  
[Wendy\\_Brown@comcast.com](mailto:Wendy_Brown@comcast.com)

First Light  
359 Corporate Drive  
Portsmouth, NH 03801

Paulie Polacke  
Phone:  
ppolacke@firstlight.net

Eversource Fiber  
247 Station Drive, SUM SE 320  
Westwood, MA 02090

Tomi Fadipe  
Phone: (781) 441-3864  
oloruntomi.fadipe@eversource.com

**FIRE ALARM**

Arlington Fire Alarm  
112 Mystic Street  
Arlington, MA 02474

Robert Jefferson  
Phone: (781) 316-3800

**OTHER AFFECTED PARTIES ARE:**

Vanasse Hangen Brustlin, Inc.  
101 Walnut Street  
Watertown, MA 02472

Wayne Amico, P.E.  
Senior Project Manager  
Phone: (617) 607-1577

The Contractor shall make his own investigation to assure that no damage to existing structures, drainage lines, traffic signal conduits, or any other utilities, occurs as a result of construction operations.

The Contractor shall notify "Mass. DIG SAFE" and procure a DIG SAFE number of each location prior to disturbing ground in any way.

**"DIG-SAFE" Call Center: Telephone 1-888-344-7233**

**PROTECTION OF UTILITIES AND PROPERTY**  
**(Supplementing Subsection 7.13)**

The Contractor, in constructing or installing facilities alongside or near sewers, drains, water or gas pipes, electric or telephone conduits, poles, sidewalks, walls, vaults or other structures, shall sustain them securely in place. The Contractor shall coordinate with the officers and agents of the various utility companies and municipal departments to assure that the services of these structures are maintained. The Contractor shall also be responsible for the repair or replacement, at no additional cost to the Owner (Town of Arlington), of any damage to such structures caused by construction operations. The Contractor is responsible for leaving them in the same condition as they existed prior to commencement of the work. In case of damage to utilities, the Contractor shall promptly notify the utility owner and shall, if requested by the Engineer, furnish labor and equipment to work temporarily under the utility owner's direction. Pipes or other structures damaged by the operation of the Contractor may be repaired by the Town or by the utility owner which suffers the loss. The cost of such repairs shall be borne by the Contractor, without compensation therefor.

If, during construction, there is an existing utility and/or structure found to conflict with the proposed work under this Contract, the Contractor shall protect and maintain the services to the

utilities and structures. The Engineer will identify the utilities to be relocated or other such activities deemed suitable for resolution as soon as possible.

If live service connections are to be interrupted by excavations of any kind, the Contractor shall not break the service until new services are provided. Abandoned services shall be plugged off or otherwise made secure.

Full compensation for furnishing all labor, materials, tools, equipment and incidentals for doing all the work involved in protecting or repairing property as specified in this Section shall be considered included in the prices paid for the various Contract items of work, and no additional compensation will be allowed therefor.

### **TEMPORARY ACCESS TO AREA MERCHANTS AND BUSINESSES** **(Supplementing Subsections 8.02 and 8.06)**

The work is in a predominantly retail area of the Town of Arlington. Access to all properties must be maintained at all times.

The Contractor shall provide safe and ready means of ingress and egress to all public and private and professional offices and any other businesses or residences in the project area, both day and night, for the duration of the project.

### **WORK DONE BY OTHERS**

Relocation and/or resetting to new grades of all private utilities, including utility poles, made necessary by the construction of this project will be accomplished by the respective utility companies.

### **SAFETY CONTROLS FOR CONSTRUCTION OPERATIONS** **(Supplementing Subsections 850.21 AND 850.61)**

Safety controls for construction operations shall be done in accordance with the relevant provisions of Section 850 of the Standard Specifications, the Manual on Uniform Traffic Control Devices and the Traffic Management Plan.

### **MATERIAL REMOVED AND STACKED**

The Contractor shall carefully remove, transport and stack all material that, in the opinion of the Engineer or Town, is salvageable. The material shall be stored at the Arlington Department of Public Works facility located at 51 Grove Street. The Contractor shall coordinate the stacking of materials with Michael Rademacher, Director of Public Works, (781) 316-3301, to schedule drop-off time and location. All items delivered to the Arlington Department of Public Works shall be signed for by the Department of Public Works on delivery slips prepared by the Contractor. The original, signed delivery slip shall be provided to Mr. Rademacher at the Public Works Office located at 51 Grove Street in Arlington, Massachusetts. If the Department of Public Works

determines that the materials removed are not suitable, the Contractor shall discard the removed materials properly.

### **DRAINAGE**

The Contractor shall maintain the drainage system on the project to provide continuous drainage of travel lanes and construction areas.

No separate payment will be made for the maintenance of the existing drainage system or for plugging of pipes, but all costs in connection therewith shall be included in the unit prices bid for the various Contract items.

### **SAWCUTS**

Existing pavements to remain shall be sawcut at all openings for utility work, for new or reset curb and at all joints with proposed full-depth hot mix asphalt pavement, as shown on the plans and as directed by the Engineer.

### **PROPERTY BOUNDS**

The Contractor shall exercise due care when working around all property bounds which are to remain. Should any damage to a bound result from the actions of the Contractor, the bound shall be replaced and/or realigned by the Contractor as directed by the Engineer at no cost to the Owner.

### **RESTRICTED MATERIALS**

All new construction materials shall be asbestos-free including any roofing felt, adhesives, waterproofing materials, grout, or sealer that may be used in project construction.

All yellow temporary and permanent pavement markings, including all pavement marking tape, placed as part of this project shall be lead-free.

### **ARCHITECTURAL ACCESS BOARD TOLERANCES**

The Contractor is hereby notified that they are ultimately responsible for constructing all project elements in strict compliance with the current AAB/ADA rules, regulations and standards.

All construction elements in this project associated with sidewalks, walkways, wheelchair ramps and curb cuts are controlled by 521CMR – Rules and Regulations of the Architectural Access Board.

The AAB Rules and Regulations specify maximum slopes and minimum dimensions required for construction acceptance. There is no tolerance allowed for slopes greater than the maximum slope or for dimensions less than the minimum dimensions.

Contractors shall establish grade elevations at all wheelchair ramp locations and shall set transitions lengths according to the appropriate table in the Construction Standards (or to the details shown on the plans).

All wheelchair ramp joints and transition sections which define grade changes shall be formed, staked and checked prior to placing cement concrete. All grade changes are to be made at joints.

**ITEM 102.51****INDIVIDUAL TREE PROTECTION****EACH**

The work under this item shall conform to the relevant provisions of Sections 101, 644 and 771 and the following:

The purpose of this item is to prevent damage to branches, stems and root systems of existing individual trees as well as shrubs and other quality vegetation to remain, and to ensure their survival. To the extent possible, to avoid soil compaction within the root zone, construction activities including, but not limited to, vehicle movement, excavation, embankment, staging and storage of materials or equipment shall not occur underneath the canopy (drip line) of trees to remain. Where these activities will occur within 10 feet of the canopy of trees or where directed, the Contractor shall take the appropriate protective measures specified herein.

Individual Tree Protection, Item 102.51, shall be used when construction activities are likely to occur within the canopy of individual trees or where there may be any risk of damage to trees.

The Contractor shall be solely responsible for judging the full extent of the work requirements, including, but not necessarily limited to any equipment and materials necessary for providing tree protection.

As part of the contract, the Contractor shall retain the services of a certified arborist, who shall make recommendations as to the specific appropriate treatment of trees within or near the work zone.

Prior to any construction activities, the Contractor and Arborist shall walk the site with the Engineer and Town Tree Warden to identify which trees will require protection and to determine approved measures. The Arborist shall make recommendations as to appropriate methods to trees. The Engineer will have final decision as to trees and methods.

The Contractor is responsible for the protection of all existing trees and plants within and immediately adjacent to the construction area that are not designated to be removed for the length of the construction period.

**SUBMITTALS**

As part of the contract, the Contractor shall provide to the Engineer one (1) copy American National Standards Institute (ANSI) Standard Z-133.1 and A300 Standard Practices for Tree, Shrub, and Other Woody Plant Maintenance, Part 1: Pruning. These references shall be kept by the Engineer at his office for the length of the Contract.

Prior to start of work, the Contractor shall submit to the Engineer the name and certification number of the Massachusetts Certified Arborist referenced herein. Cost for Certified Arborist for all activities pertaining to this Item shall be incidental to this item.

## **ITEM 102.51 (Continued)**

### **MATERIALS**

Fence and temporary fence posts shall be subject to the approval of the Engineer.

Fencing for individual plants shall be polyethylene fencing or chain link fence (new or used).

Staking for individual tree protection fencing shall be steel posts or 2x4 lumber as directed and approved by the Engineer.

Wood chips shall conform to provisions of Wood Chip Mulch under Materials Section M6.04.3.

Trunk protection shall be 2x4 cladding, at least 8 feet in length, clad together with wire. Alternative materials shall be at the approval of the Engineer. Alternative materials shall provide adequate protection from anticipated construction activities and shall not injure or scar trunk. Trunk protection shall include burlap to separate trunk cladding from bark.

Temporary Tree Protection Fence shall be brightly colored polypropylene barricade or wooden snow fencing for tree protection or safety fencing as shown on the Contract drawings or as directed by the Engineer. Fencing shall be a minimum of 4 feet high and supported by steel or hardwood stakes spaced at a maximum of 8 feet on center or by other means acceptable to the Engineer. Fencing shall be materials and fastenings sufficient enough to provide sturdy and highly visible separation of the construction activities from the trees and existing plantings to be preserved.

As part of the contract, the Contractor shall provide water for maintaining plants in the construction area that will have exposed root systems for any period during construction.

### **CONSTRUCTION METHODS**

For individual tree protection, the Contractor shall set posts and fencing at the limits of the tree canopy. Where construction activities closer to the trees is unavoidable, the Contractor shall tie branches out of the way and place wood chips to a depth of 6 inches on the ground to protect the root systems. The Contractor shall wrap the area of the trunk of the tree with burlap prior to armoring with 2x4 cladding. Cladding for tree trunks shall extend from the base of the tree to at least 8 feet from the base.

To the extent possible, temporary landscaped fencing shall be installed at the limit of tree canopy and shall be staked and maintained vertical for the length of the contract.

Where excavation within canopy is unavoidable, the Contractor shall use equipment and methods that shall minimize damage to the tree roots, per recommendations of the Certified Arborist. Such methods may require root pruning prior to, as well as during, any excavation activities.

### **ITEM 102.51 (Continued)**

All fencing, trunk protection, branch protection, and woodchips shall be maintained throughout the duration of the contract. Protective fencing shall be repaired, and woodchip mulch replaced as necessary during the duration of the contract at no additional cost.

### **CUTTING AND PRUNING**

Some pruning of roots and branches may be a necessary part of construction. Pruning will be performed on the same side of the tree that roots have been severed.

The Contractor shall retain the services of a Massachusetts State Certified Arborist to oversee any cutting of limbs, stem or roots of existing trees. All cuts shall be clean and executed with an approved tool. Under no circumstances shall excavation in the tree protection area be made with mechanical equipment that might damage the existing root systems.

Any tree root area exposed by construction shall be covered and watered immediately. Exposed tree roots shall be protected by dampened burlap at all times until they can be covered with soil.

### **WATERING**

Water each tree within the construction area where work is in progress twice per week until the surrounding soil of each tree is saturated for the duration of construction activities.

### **REMOVAL OF PROTECTION**

After all other construction activities are complete, wood chips, temporary fencing, branch protection, and trunk protection materials shall be removed and disposed of off-site by the Contractor at no additional cost.

### **TREE DAMAGE**

The Contractor shall be held responsible for the health and survival of the existing trees in the immediate vicinity of the construction area. Damage that, in the Engineer's opinion, can be remedied by corrective measures shall be repaired immediately. Broken limbs shall be pruned according to industry standards. Wounds shall not be painted. Trees or shrubs that are damaged irreparably shall, at the Engineer's discretion, be replaced. Cost of replacement trees shall be borne by the Contractor.

### **METHOD OF MEASUREMENT AND BASIS OF PAYMENT**

Where the plans show specific, individual trees to remain and where grading or other disturbance is shown within the drip line of these trees or where the Engineer determines that an individual tree must be protected, these trees shall be protected and paid for under Item 102.51 ,Individual Tree Protection.

**ITEM 102.51 (Continued)**

Payment under this item shall be scheduled throughout the length of contract: 30 percent of value shall be paid upon installation, 30 percent approximately halfway through the contract, and the remainder to be paid at the end of the contract after completion of construction operations that would disturb plants and after the protection materials have been removed and properly disposed of off-site by the Contractor.

Compensation for Individual Tree Protection will be paid for at the contract unit price per each under Item 102.51, which price shall include full compensation for all labor, equipment, materials, and incidentals for the satisfactory completion of the work, including the services of a certified arborist, water and fertilizer, and the subsequent removal and satisfactory disposal of the protective materials upon completion of the contract.

Submittal of arborist's report is incidental to and required for payment of these items.

Cost of wood chips, as required, shall be incidental to this item.

**ITEM 120.1****UNCLASSIFIED EXCAVATION****CUBIC YARD**

The work under this item shall conform to the relevant provisions of Section 120 of the Standard Specifications and the following:

The work shall include the removal and off-site disposal of materials marked Remove on the Plans, which are not paid for under a separate item, including, but not limited to, removal and disposal of existing pavement, existing curb, and existing sidewalk, as well as existing materials shown on the drawings to be removed and reset or adjusted but which in the judgment of the Engineer are unsuitable for reuse in the proposed work and their disposal is not paid for under a separate item.

**METHOD OF MEASUREMENT AND BASIS OF PAYMENT**

Unclassified Excavation will be paid for at the Contract unit price per cubic yard, which price shall include all labor, material, equipment and incidental costs required to complete the work.

|                          |   |                    |
|--------------------------|---|--------------------|
| <b><u>ITEM 451.1</u></b> | <b><u>FLEXIBLE POROUS PAVEMENT<br/>FOR TREE WELLS (4'X6')</u></b>       | <b><u>EACH</u></b> |
| <b><u>ITEM 451.2</u></b> | <b><u>FLEXIBLE POROUS PAVEMENT<br/>FOR TREE WELLS (4'X19')</u></b>      | <b><u>EACH</u></b> |
| <b><u>ITEM 451.3</u></b> | <b><u>FLEXIBLE POROUS PAVEMENT<br/>FOR TREE WELLS (4' DIAMETER)</u></b> | <b><u>EACH</u></b> |

## **GENERAL**

The flexible porous pavement shall be made from recycled passenger tires, crushed stone and a urethane binding agent. All components, materials and compounds shall be 100% sourced and manufactured in the USA. The flexible porous paving shall be supplied by a manufacturer with at least 10 years of experience that can supply references for similar applications and installations in the USA.

## **SUBMITTALS**

The flexible porous pavement manufacturer shall submit;

- Certificates stating that materials meet or exceed the specified contract requirements.
- Site handling and storage instructions.
- Mixing and installation instructions.
- A sample that reflects the characteristics of the material to be installed. The sample, upon approval, shall be maintained as the standard of minimum quality for all the proposed surfacing and paving work required for the project.

## **CONTRACTOR**

The Contractor's craftsmen or crew chief installing the flexible porous pavement shall attend a training webinar and an on-site installation training session prior to installing the flexible porous pavement.

The Contractor shall:

- Furnish all labor, materials, tools, equipment, and incidentals required to install the flexible porous pavement.
- Provide an adequate number of skilled workers who are trained and experienced with installing flexible porous pavement and are familiar with the specified contract requirements and the methods needed for its installation.  
Install the crushed stone sub-base as described in the specifications and shown on the contract drawing unless the sub-base is installed/provided.
- Install the flexible porous pavement to the depth and width described in the plans.
- Reduce the risk of damage to the flexible porous pavement surface by not allowing track vehicles (metal or rubber), forklifts (warehouse-variable reach), main lifts (booms or scissors), and/or dumpsters or roll-off containers on the flexible porous pavement either during or following installation.

## **ITEMS 451.1, 451.2, & 451.3 (Continued)**

### **PRODUCTS**

The flexible porous pavement shall be installed over a minimum of 4" of #89 aggregate to a density of 95% minimum.

The flexible porous pavement shall be installed in accordance with the manufacturer's written instructions to an average depth of 1.5 inches over the prepared sub-base.

The flexible porous pavement shall be mixed with a urethane binding agent based on MDI Polyether Polyols and shall be free of extender oils to prevent leaching over time. Binders that use extender oils will not be acceptable.

The flexible porous pavement shall be cured and fit for use within 24 hours of installation.

The flexible porous pavement shall have a composition of 50% stone aggregate and 50% chipped rubber tires by weight.

The color of the flexible porous pavement shall be black.

### **QUALITY ASSURANCE**

The Contractor is responsible for supplying and installing a warranted material that meets, or exceeds, the manufacturer's specifications and testing:

- ASTM C 666/C/666M freeze-thaw testing with no cracks or breaks through 300 cycles of testing
- Designated as "highly permeable" under FL DOT FM 5-565 permeability testing.
  - Independent testing showing a perk rate of 2400 gph (40 gpm) per sq. ft. or higher
  - Scuff/Power Steering Resistance in accordance with ISSA TB 100 / ISSA TB 139
  - Accelerated Weathering using ASTM 4798
- Hamburg loaded wheel testing TX DOT 242-F must be equivalent or better than 2.3 rut depth at 8,000 cycles and full recovery within 24 hours
- Static creep testing TX DOT 231-F shall be equivalent to or better than a total strain of +2.703% and a permanent strain of 0.514%
- Resilient modulus testing in accordance with ASTM D 4123 shall be equivalent or better than 68,495 pounds
- Slip resistant and ADA compliant, in accordance with ASTM D 2047 testing
- Heat resilient to 400 degrees in accordance with ASTM D 4123 testing
- Sound absorbent, in accordance with ASTN C423-09a / E795-05 testing
- Compression tested and be able to withstand 250 psi without permanent deformation or damage
- Has a leachate less than 6 parts per billion and containing no organic compounds or heavy metals

### **ITEMS 451.1, 451.2, & 451.3 (Continued)**

- The material shall be resistant to the following elements: transmission, hydraulic, and brake fluids, gasoline, diesel, saltwater, oil, chlorine, ozone, bromine, and muriatic acid

### **PROJECT CONDITIONS**

The Contractor shall provide appropriate and adequate protection to adjacent areas, including, but not limited to:

- Protection of adjacent workspace from splashing of flexible porous pavement materials
- Remove all stains from exposed surfaces of paving and structures
- Remove all waste and spillage
- Provide suitable protection to assure no damage or disturbance to existing improvements or vegetation before starting work and maintain protection throughout the course of the work
- Restore and repair areas, at no additional cost to the owner, that have been damaged as a result of construction work, including existing paving on or adjacent to the site, to their original condition or repair as directed to the satisfaction of the Town

### **WEATHER**

The urethane binder is engineered based on the geographical location of the project and climate expectations during installation. KBI will provide the appropriate binder for each installation and the materials delivered will be based on project location and seasonality.

The porous flexible pavement shall not be installed when the ambient air temperature in the shade near the installation site is above 95° F or below 32° F. Temperatures below 50° F can extend the curing time and would fall outside of normal “use ready in 24 hours” guidelines.

The urethane binder shall be stored on site at between 40° F and 77° F and used within 12 months of delivery.

The Contractor shall not pave on days when rain or snow is forecast, unless a change in the weather results in favorable paving conditions as determined by the Town.

In the event of rain on days prior to installation, the sub-base must be dry and not contain any standing or moving water.

### **SAFETY AND TRAFFIC CONTROL**

When construction work will interfere with existing pedestrian traffic, the Contractor shall notify and cooperate with the Town DPW provide temporary barriers and other protections as required to assure the safety of pedestrians around the construction area.

## **ITEMS 451.1, 451.2, & 451.3 (Continued)**

### **MAINTENANCE**

Flexible porous pavement installations are designed to operate and function trouble free with only minimal routine maintenance over the lifetime of the product.

The frequency and scope of the routine maintenance required will largely be dependent on the application and project location. The key objective will be to keep the surface clean and clear of debris to maintain the hydraulic conveyance capacity of the flexible porous pavement over time as well as maintaining the aesthetic appeal of the surface.

Prior to undertaking routine maintenance of the flexible porous pavement, it is recommended that an annual inspection be completed to evaluate the condition of the surface. The following are suggested annual maintenance inspection points:

- Inspect the surface of the flexible porous pavement for evidence of sediment deposition, organic debris, staining or ponding. If any signs of clogging are noted, schedule a vacuum sweeper (no brooms or water spray) to remove deposited material. Cleaned sections may then be tested by pouring water from a five-gallon bucket to ensure full hydraulic conveyance capacity has been restored.
- Inspect the structural integrity of the flexible porous pavement surface, looking for signs of damage or surface deterioration, such as raveling, slumping, cracking, etc. Replace or repair affected areas, as necessary.
- Check for potential need to overspray/roll with urethane binder after 4-6 years.

### **PRODUCTS**

The following is a list of acceptable manufacturers:

Gregory Towson, CLT  
Emanouil, Inc  
Tyngsboro, MA 01879  
(O) 978-649-7444 x 109  
(F) 978-649-7455  
[gtowson@emanouilinc.com](mailto:gtowson@emanouilinc.com)

Daniel Antonio  
LAL Construction Co., Inc.  
Office (508)676-3962  
[dan@lalconstruction.com](mailto:dan@lalconstruction.com)

K.B. Industries  
Jamie Cabral  
727-723-3300  
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**ITEMS 451.1, 451.2, & 451.3 (Continued)**

**METHOD OF MEASUREMENT AND BASIS OF PAYMENT**

Flexible Porous Pavement for Tree Wells will be measured and paid for at the Contract unit price per each, which price shall include all labor, material, equipment and incidental costs required to complete the work.

**ITEM 697.1****SILT SACK****EACH**

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

The work under this item includes the furnishing, installation, maintenance and removal of a reusable fabric sack to be installed in drainage structures for the protection of wetlands and other resource areas and the prevention of silt and sediment from the construction site from entering the storm water collection system. Devices shall be ACF Environmental (800)-448-3636; Reed & Graham, Inc. Geosynthetics (888)-381-0800; The BMP Store (800)-644-9223; or approved equal.

**CONSTRUCTION**

Silt sacks shall be installed in retained existing catch basins and drop inlets within the project limits and as required by the Engineer and/or Town.

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

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

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

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

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

All debris accumulated in silt sacks shall be handled and disposed of as described in Item 227.3, Removal and Disposal of Drainage Structure Sediments.

**ITEM 697.1 (Continued)**

**METHOD OF MEASUREMENT AND BASIS OF PAYMENT**

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

**ITEM 701.2****CEMENT CONCRETE WHEELCHAIR RAMP****SQUARE YARD**

The work under this item shall conform to the relevant provisions of Section 701 of the Standard Specifications and the following:

All detectable warning panels shall be cast iron with no surface coating and shall be allowed to transition to their natural patina. Certain wheelchair ramps will require radial detectable warning panels, as shown in the plans.

**METHOD OF MEASUREMENT AND BASIS OF PAYMENT**

Cement Concrete Wheelchair Ramps will be measured and paid at the Contract unit price per square yard, complete in place, which price shall include all labor, materials, equipment and incidental costs required to complete the work.

**ITEM 701.3      STAMPED CEMENT CONCRETE ACCENT BAND      SQUARE YARD**

The work under this item shall conform to the relevant provisions of Sections 701 and 901 of the Standard Specifications and the following:

The stamped cement concrete accent band shall consist of stamped cement concrete that is integrally colored (i.e., incorporated throughout the mix) with brick red coloring in the locations shown on the plans.

Prior to ordering materials, the Contractor shall submit color samples for initial section of each cement concrete type to the Engineer and/or the Town for approval. Samples of other materials to be used and samples for testing shall be submitted as requested by the Engineer and/or Town.

A 1-foot by 4-foot cured “mockup” shall be constructed for review and approval by the Engineer and/or Town.

Design mixes shall be submitted for each type of integrally colored concrete.

**MANUFACTURERS**

The following is a list of acceptable manufacturers:

- L. M. Scofield Company, Douglasville, Georgia (800) 800-9900 or the appropriate local contact: Eastern Division – 201-672-9050,
- The Euclid Chemical Company, or
- Sika Chemical Corporation or approved equal.

**QUALITY ASSURANCE**

The manufacturer must have 10 years of experience in the production of specified products, and the installer must have 5 years of experience with work of similar scope and quality. The installer must comply with the requirements of ACI 301 and must obtain each specified material from the same source and maintain a high degree of consistency in workmanship throughout the project. The manufacturer's authorized representative must be given at least one week’s notice before the start of work.

The colored concrete field sample will be established as follows:

- The Engineer or Town will select a location for the 1-foot by 4-foot area.
- For accurate color, the quantity of concrete mixed to produce the sample should not be less than 3 cubic yards (or not less than 1/3 the capacity of the mixing drum on the ready-mix truck) and should always be in full cubic yard increments. Excess material shall be discarded according to local regulations.
- A mockup shall be constructed using processes and techniques intended for use on permanent work, including curing procedures. Samples of control, construction, and expansion joints shall be included in the sample panels. The mockup shall be produced by the individual workers who will perform the work for the project.

### **ITEM 701.3 (Continued)**

- Samples of cements, sands, aggregates and color additives used in the mockup shall be retained for comparison with materials used in the remaining work.
- The mockup shall remain through the completion of work for use as a quality standard for the finished work.
- The contractor shall remove the mockup when directed by the Engineer or Town.

### **DELIVERY, STORAGE, AND HANDLING**

The contractor shall comply with the manufacturer's instructions with regard to the delivery, storage, and handling of the colored admixture. The contractor shall deliver the colored admixtures in their original, unopened packaging and shall store them in dry conditions.

### **PROJECT CONDITIONS**

The following requirements must be met for the environmental conditions of the integrally colored concrete:

- Schedule placements to minimize exposure to wind and hot sun before curing materials are applied.
- Avoid placing concrete if rain, snow, or frost is forecast within 24 hours. Protect fresh concrete from moisture and freezing.
- Comply with professional practices as described in ACI 305R and ACI 306R.
- Schedule the delivery of concrete to provide consistent mix times from batching until discharge. The mix times shall meet the manufacturer's written recommendations.
- One week prior to the placement of integrally colored concrete, a meeting with the Town and/or Engineer, the Contractor, and the Subcontractor will be held to discuss the project and application materials.

### **COLORS AND PATTERNS**

The following colors shall be used for the concrete:

- The cement shall be white
- The sand shall be locally available natural sand
- The aggregate shall be the concrete producer's standard aggregate complying with the standard specifications
- The colored admixture shall be a brick red color base, as selected by the Engineer and/or Town
- The color hardener shall be selected by the Engineer and/or Town
- The stamp/imprinting pattern shall be three soldier borders (1/8" max depth and 3/8" max width of rough, sandy grouted joint), as shown on the plans, or approved equal
- The powder antiquing release agent shall be selected by the Engineer and/or Town from the manufacturer's standard colors
- The curing compound shall match the integrally colored concrete.

## **ITEM 701.3 (Continued)**

### **CONCRETE MIX DESIGN**

The minimum cement content shall be 5 sacks per cubic yard of concrete.

The slump of the concrete shall be consistent at 4 inches or less throughout the project. At no time shall the slump exceed 5 inches. If super plasticizers or mid-range water reducers are allowed, the slump shall not exceed 8 inches.

The contractor shall not add calcium chloride to mix, as it causes mottling and surface discoloration. Supplemental admixtures shall not be used unless approved by the manufacturer. The contractor shall not add water to the mix in the field. The contractor shall add colored admixture to the concrete mix according to the manufacturer's written instructions in premeasured bags, not by weight of cement content.

### **MATERIALS**

The colored admixture for the integrally colored concrete shall be comprised of the following materials:

- CHROMIX® Admixtures for Color- Conditioned Concrete including CHROMIX P® Admixtures, CHROMIX ML® Admixtures, or
- CHROMIX L® Admixtures; L. M. Scofield Company, or
- EUCON 75 by The Euclid Chemical Company, or
- PLATOCRETE 160 by Sika Chemical Corporation or approved equal.

The admixture shall be a colored, water-reducing, admixture containing no calcium chloride with coloring agents that are lime proof and ultra-violet resistant.

The colored admixture shall conform to the requirements of ACI 303.1, ASTM C979, ASTM C494 and ASSHTO M194.

Raw pigments are not an equivalent and may not be substituted.

The curing compound for the integrally colored concrete shall comply with ASTM C309 and be of the same manufacturer as the colored admixture, for use with integrally colored concrete.

LITHOCHROME® Colorwax® (L. M. SCOFIELD COMPANY) or approved equal shall be used for the exterior integrally colored concrete and shall be used to cure the exterior flatwork that will be allowed to cure naturally with only occasional maintenance.

Scofield® Cureseal-S® Matte (L. M. Scofield Company) or approved equal shall be used as the curing and sealing compound. It shall comply with ASTM C309 and be of the same manufacturer as the colored admixture, for use with integrally colored concrete.

### **ITEM 701.3 (Continued)**

LITHOTEX® Pavecrafters® imprinting tools (L. M. Scofield Company) or approved equal shall be used as the stamping/imprinting tools and materials.

The use of products other than those specified will be considered providing that the Contractor requests its use in writing within 7 days prior to the bid date. This request shall be accompanied by a certificate of compliance from the material manufacturer stating that the proposed products meet or exceed requirements specified herein, including standards ACI 303.1, ASTM C979, ASTM C494 and AASHTO M194. Documented proof that the proposed materials have a 10-year proven record of performance must also accompany the request.

### **INSTALLATION**

Precautions should be taken to ensure that the surface is uniformly troweled so that it will not be slippery. Do not over-trowel or burnish the surface. It is suggested that the surface preparation prior to stamping be prepared by float only to retain a sandier finish that is more slip resistant.

Begin imprinting operations immediately after applying dry-shake colored hardener, according to manufacturer's written instructions, including application of the powder antiquing release agent.

### **CURING**

Apply the curing and sealing compound for the integrally colored concrete according to the manufacturer's instructions using the manufacturer's recommended application techniques. Apply curing and sealing compound at a consistent time for each pour to maintain color consistency.

The curing compound shall be same color as the colored concrete and supplied by the same manufacturer of the colored admixture.

The imprinted concrete shall be cured with a liquid membrane curing compound as recommended by the manufacturer.

Precautions shall be taken in hot weather to prevent plastic cracking resulting from excessively rapid drying at surface, as described in CIP 5 *Plastic Shrinkage Cracking* published by the National Ready Mixed Concrete Association.

Do not cover the concrete with plastic sheeting.

Scofield Traction Additive (L. M. Scofield Company) or approved equal shall be added as a traction additive to the curing compound. This additive shall be a synthetic aggregate designed to be incorporated into the concrete to improve the slip resistance of the finished surface. The traction additive shall be of same manufacturer as the curing and sealing compound, for use with integrally colored concrete.

### **ITEM 701.3 (Continued)**

#### **TOLERANCES**

Minor variations in the appearance of the integrally colored concrete, which are similar to natural variations in color and appearance of uncolored concrete, are acceptable.

#### **PROTECTION OF FINISHED WORK**

Foot or vehicular traffic on the newly imprinted concrete surface shall be prohibited by barricading the installation area to protect the newly imprinted concrete. The floor surface shall be protected from damage until final inspection and acceptance by the Town.

#### **METHOD OF MEASUREMENT AND BASIS OF PAYMENT**

Stamped Cement Concrete Accent Band will be measured and paid at the Contract unit price per square yard, complete in place, which price shall include all labor, materials, equipment and incidental costs required to complete the work.

**ITEM 707.15****PARK BENCH REMOVED AND RESET****EACH**

The work under this item shall include the careful removal, storage and resetting of park benches within the project area. The park benches shall be stored and handled to protect them from wetting, staining, chipping or other damage. The Contractor shall reset the park benches after the sidewalk construction has been completed.

The park benches shall be bolted onto the cement concrete sidewalk. All hardware shall be stainless steel conforming to the latest AISI Type 304 and ASTM A193 requirements. Hardware shall be grouted in with threads down. Tamper-proof nuts shall be installed.

**METHOD OF MEASUREMENT AND BASIS OF PAYMENT**

Park Bench Removed and Reset shall be measured and paid for at the Contract unit price per each installed, which price shall include all labor, materials, equipment and incidental costs required to complete the work as described above and to the satisfaction of the Engineer.

**ITEM 707.21**

**TRASH RECEPTACLE  
REMOVED AND RESET**

**EACH**

The work under this item consists of removing the existing trash receptacles from their existing locations and resetting them on the new sidewalk at the locations specified on the plans.

**METHOD OF MEASUREMENT AND BASIS OF PAYMENT**

Trash Receptacles Removed and Reset will be measured and paid at the Contract unit price per each, complete in place, which price shall include all labor, materials, equipment and incidental costs required to complete the work.

**ITEM 707.22**

**TRASH RECEPTACLE  
REMOVED AND DISCARDED**

**EACH**

The work under this item shall include the proper removal and disposal of existing trash receptacles called out on the plans as “R&D” (remove and discard).

**METHOD OF MEASUREMENT AND BASIS OF PAYMENT**

Trash Receptacles Removed and Discarded will be measured and paid at the Contract unit price per each, which price shall include all labor, equipment and incidental costs required to complete the work.

**ITEM 707.91****BICYCLE RACK REMOVED AND RESET****EACH**

The work under this item shall conform to the relevant provisions of Section 707 of the Standard Specifications and the following:

The work under this item shall include the removal and resetting of bicycle racks within the project limits as shown on the plans.

The work shall include the careful removal, storage and resetting of bicycle racks. The bicycle racks shall be stored and handled to protect them from wetting, staining, chipping or other damage. The Contractor shall reset the bicycle racks after the sidewalk construction has been completed.

The bicycle racks shall be bolted onto the cement concrete sidewalk. All hardware shall be stainless steel conforming to the latest AISI Type 304 and ASTM A193 requirements. Hardware shall be grouted in with threads down. Tamper-proof nuts shall be installed.

**METHOD OF MEASUREMENT AND BASIS OF PAYMENT**

Bicycle rack removed and reset shall be measured and paid for at the Contract unit price per each installed, which price shall include all labor, materials, equipment and incidental costs required to complete the work as described above and to the satisfaction of the Engineer.

**ITEM 715.2****P.O. BOX REMOVED AND RESET****EACH**

The work under this item consists removing and resetting existing USPS mail collection boxes. The existing mailboxes must remain operational at all times.

The mailboxes shall be bolted onto the cement concrete sidewalk. All hardware shall be stainless steel conforming to the latest AISI Type 304 and ASTM A193 requirements. Hardware shall be grouted in with threads down. Tamper-proof nuts shall be installed

**METHOD OF MEASUREMENT AND BASIS OF PAYMENT**

P.O. Box Removed and Reset will be measured and paid at the Contract unit price per each, complete in place, which price shall include all labor, materials, equipment and incidental costs required to complete the work.

**ITEM 716.**

**PLANTER REMOVED AND RESET**

**EACH**

The work under this item consists removing any planters located within the project limits and resetting them on the new sidewalk in their original locations.

**METHOD OF MEASUREMENT AND BASIS OF PAYMENT**

Planter Removed and Reset will be measured and paid at the Contract unit price per each, complete in place, which price shall include all labor, materials, equipment and incidental costs required to complete the work.

## **ITEM 751.2**

## **STRUCTURAL SOIL**

## **CUBIC YARD**

The work under this item shall conform to the applicable requirements of Section 751 of the Standard Specifications and the following:

The work of this Section consists of providing all equipment, materials and labor necessary to supply and place Structural Soil as indicated on the Drawings and as specified herein or both. Supplying and placement of Structural Soil shall include, but not be limited to Supplying, placing, spreading and grading of all materials required in the Structural Soil system in tree pits and surrounding areas, including sand-based Structural Soil and planting pit medium.

### **REFERENCES**

- Massachusetts Department of Transportation (MassDOT): Standard Specifications for Highways and Bridges
- American Society for Testing and Materials (ASTM):
- D 75 Practice for Sampling Aggregates
- D 422 Test Method for Particle-Size Analysis of Soils
- D1557 Moisture-Density Relations of Soils and Soil-Aggregate Mixtures using 10-lb Rammer and 18-in. Drop
- A.O.A.C.: Association of Official Agricultural Chemists.
- USDA: United States Department of Agriculture
- AASHTO: American Association of State highway and Transportation Officials
- Massachusetts Department of Agriculture

### **SUBMITTALS**

Submit the following samples and submittals for approval in conformance with the requirements of this Section.

- Base Loam for use in manufacturing Structural Soil, Sand for use in manufacturing Structural Soil and the final, manufactured Structural Soil shall be sampled and tested in accordance with the following:

The Contractor shall provide a one cubic foot representative sample from each proposed source of Base Loam, Sand, and organic amendment for testing, analysis, and approval. Additionally, the Contractor shall provide one cubic foot representative samples of Structural Soil delivered to the site and stockpiled for use. Samples from on-site stockpiles of these three soil materials shall be taken as directed by the Engineer and packaged in the presence of the Engineer.

The Contractor shall deliver all samples to testing laboratories and shall have the testing report sent directly to the Engineer. Tests for gradation, organics, soil chemistry and pH shall be performed by a soil testing agency recommended by the University of Massachusetts Extension Program and approved by the Engineer and Department. Test reports shall include the following tests and recommendations.

## **ITEM 751.2 (Continued)**

- Sieve analysis shall be performed and compared to the USDA Soil Classification System. Sieve analysis shall be by combined hydrometer and wet sieving using sodium hexametaphosphate as a dispersant in compliance with ASTM D 422 after destruction of organic matter by ignition. The silt and clay content shall be determined by a hydrometer test of soil passing the #200 sieve. To facilitate review and approval of sieve analysis, provide a computer generated gradation curve from UMASS Soil & Plant Tissue Laboratory.
- Percent of organics shall be determined by the loss on ignition of oven-dried samples. Test Samples shall be oven-dried to a constant weight at a temperature of 230 degrees F, plus or minus 9 degrees.
- Chemical analysis shall be undertaken for Nitrate Nitrogen, Ammonium Nitrogen, Phosphorus, Potassium, Calcium, extractable Aluminum, Soluble Salts, and acidity (pH) and buffer (pH). Nutrient levels shall be measured in parts per million (PPM). A Conductance Meter shall be used to measure Soluble Salt levels in soils: water extracts.
- Soil analysis tests shall show recommendations for soil additives to correct soils deficiencies as necessary, and for additives necessary to accomplish particular planting objectives noted.
- All tests shall be performed in accordance with the current standards of the Association of Official Analytical Chemists.
- Limestone: Submit supplier's certification to the Engineer certifying that the limestone being supplied conforms to these Specifications.
- Fertilizer:
  - Submit product literature of planting fertilizer and 6 certificates showing composition and analysis.
  - Submit the purchasing receipt showing the total quantity purchased for the project prior to installation.
- If biosolid compost is used as an organic component of the proposed planting soil mixture, the amount of organic material used shall not exceed agronomic rates for nitrogen and phosphorus for trees and shrubs, turf or ornamental perennials. Provide certificates of agronomic rates from vendor for organic matter used in loam borrow manufacturing process.
- Provide name of manufacturer of compost, telephone number of contact person at the manufacturer, the specific site of the manufacturing of the compost.
- All testing and analysis shall be at the expense of the Contractor.
- Submit the Landscape Contractor's qualifications showing past experience with installation of Structural Soils by outlining projects of similar quality, schedule requirements and construction detailing over the last 5 years. Qualifications shall include the names of all similar projects, year completed, location, description of the scope of work including the types and quantities of planting mix installed and the name, address and telephone number of the Department or the Engineer.
- Sand: Submit sieve test results and a ten pound sample.

**ITEM 751.2 (Continued)**

**DELIVERY, HANDLING, AND STORAGE**

Do not deliver or place soils in frozen, wet, or muddy conditions. Do not deliver or place materials in an excessively moist condition.

Protect soils and mixes from absorbing excess water and from erosion at all times. Do not store materials unprotected from large rainfall events. Do not allow excess water to enter site prior to compaction. If water is introduced into the material after grading, allow material to drain to near optimum compaction moisture content.

**EXAMINATION OF CONDITIONS**

All areas to receive Structural Soil shall be inspected by the Contractor before starting work and all defects such as incorrect grading, compaction and inadequate drainage etc. shall be reported to the Engineer prior to beginning this work. The Contractor shall perform a percolation test to determine the water absorption rate of soil. A percolation rate of least 1 inch per hour is required.

The Contractor shall be responsible for judging the full extent of work requirements involved, including but not limited to the potential need for temporary storage and staging of soils, including moving soil stock piles at the site to accommodate scheduling of other work and the need to protect installed soils from compaction, erosion and contamination, as well as mitigation of inadequate drainage, including but not limited to over-excavation and installation of crushed stone in planting areas as approved by the Engineer.

**MATERIALS**

**BASE LOAM**

Base Loam as required for the work shall be free of subsoil, large stones, earth clods, sticks, stumps, clay lumps, roots or other objectionable, extraneous matter or debris. Base 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. Base Loam shall not be delivered or used for planting while in a frozen or muddy condition. Base Loam for mixing shall conform to the following grain size distribution for material passing the #10 sieve:

| <u>U.S. Sieve Size Number</u> | <u>Percent Passing</u> |                |
|-------------------------------|------------------------|----------------|
|                               | <u>Minimum</u>         | <u>Maximum</u> |
| 10                            | 100                    | --             |
| 18                            | 87                     | 100            |
| 35                            | 65                     | 92             |
| 60                            | 45                     | 80             |
| 140                           | 26                     | 46             |
| 270                           | 16                     | 32             |
| 0.002mm                       | 2                      | 5              |

**ITEM 751.2 (Continued)**

The ratio of the particle size for 80% passing (D80) to the particle size for 30% passing (D30) shall be 5 or less. (D80/D30 < 5).

Maximum size shall be one inch largest dimension. The maximum retained on the #10 sieve shall be 20% by weight of the total sample.

Tests shall be by combined hydrometer and wet sieving in compliance with ASTM D422 after destruction of organic matter by ignition.

The organic content shall be between 3.5 and 6.0 percent.

**SAND**

Sand for Sand-Based Structural Soil, for Planting Pit Medium, for amending loam shall be uniformly graded medium to coarse sand consisting of clean, inert, rounded grains of quartz or other durable rock free from loam or clay, surface coatings and deleterious materials with the following gradation.

| <u>U.S. Sieve Size Number</u> | <u>Percent Passing</u> |                |
|-------------------------------|------------------------|----------------|
|                               | <u>Minimum</u>         | <u>Maximum</u> |
| 10                            | 100                    | --             |
| 18                            | 60                     | 80             |
| 35                            | 25                     | 45             |
| 60                            | 8                      | 20             |
| 140                           | 0                      | 8              |
| 270                           | 0                      | 3              |
| 0.002mm                       | 0                      | 0.5            |

Maximum size shall be one inch largest dimension. The maximum retained on the #10 sieve shall be 10% by weight of the total sample.

The ratio of the particle size for 70% passing (D70) to the particle size for 20% passing (D20) shall be 3.0 or less. (D70/D20 <3.0)

Tests shall be by combined hydrometer and wet sieving in compliance with ASTM D422 after destruction of organic matter by ignition.

**ORGANIC AMENDMENT MATERIALS (COMPOST)**

Compost for amending planting media shall be a stable, humus-like material produced from the aerobic decomposition of organic residues. The residues, if biosolids, shall consist of compost meeting the required criteria as listed herein this Section or approved equal. The compost shall be a dark brown to black color and be capable of supporting plant growth with appropriate management practices in conjunction with addition of fertilizer and other amendments as

## **ITEM 751.2 (Continued)**

applicable, with no visible free water or dust, with no unpleasant odor, and meeting the following criteria as reported by the producer.

- The ratio of carbon to nitrogen shall be in the range of 10:1 to 25:1.
- Stability shall be assessed by either a CO<sub>2</sub> evolution test, a re-heating test, or the Solvita procedure. Protocols for each are specified by the coalition of Northeastern Governors Source Reduction Task Force (CONEG) in their 1966 report, "Model Procurement Specifications for Source Separated Compost." and the Solvita manual (version 3.5). For the CO<sub>2</sub> test, the compost respiration shall be no more than 6 mg CO<sub>2</sub>-C/gBVS day. For re-heating using the Dewar self-heating test, the maximum heat rise shall be no greater than 48 degrees F above room temperature (68 to 77 degrees F). For the Solvita test, the compost must achieve a maturity index of 6 or more. Stability tests shall be conducted by Woods End Research Laboratory, Mt. Vernon, Maine.
- Pathogens/Metals/Vector Attraction reduction shall meet 40 CFR Part 503 rule, Table 3, page 9392, Vol. 58 No. 32, and Commonwealth of Massachusetts 310 CMR 32.00 (for applications to soils with human activity).
- Organic Content shall be at least 40 percent (dry weight). One hundred percent of the material shall pass a 3/8-inch (or smaller) screen. Debris such as metal, glass, plastic, wood (other than residual chips), asphalt or masonry shall not be visible and shall not exceed one percent dry weight. Organic content shall be determined by weight loss on ignition for particles passing a number 10 sieve according to procedures performed by a soil testing agency recommended by the Ohio State University Extension Program and approved by the Landscape Architect and Department. A 3 cubic inch sub-sample of the screened and mixed compost is ground to pass the number 60 sieve. 0.07 to 0.10 ounces of ground sample, dried to a constant weight at 221 degrees F is placed into a muffle furnace. The temperature is slowly raised (41 degrees F/minute) to 842 degrees F and maintained for three hours. The sample is removed to an oven to equilibrate at 224F and the weight is taken. Organic matter is calculated as loss on ignition.
- PH: The pH shall be between 5.5 to 8.0 as determined from a 1:1 soil-distilled water suspension using a glass electrode pH meter American Society of Agronomy Methods of Soil Analysis, Part 2, 1986.
- Salinity: Electrical conductivity of a one to two soil to water ratio extract shall not exceed 2.0 mmohs/cm (dS/m).
- The compost shall be screened to 3/8 inch maximum particle size and shall contain not more than 3 percent material finer than the 200 Sieve as determined by hydrometer test on ashed material.
- Nutrient content shall be determined by the University of Massachusetts Soil Testing Laboratory or equivalent laboratory and utilized to evaluate soil required amendments for the mixed soils. Chemical analysis shall be undertaken for Nitrate Nitrogen, Ammonium Nitrogen, Phosphorus, Potassium, Calcium, Aluminum, Magnesium, Iron, Manganese, Lead, Soluble Salts, Cation Exchange Capacity, soil reaction (pH), and

## **ITEM 751.2 (Continued)**

### **SOIL ADDITIVES**

Acidulant for adjustment of Structural Soil and Planting Pit Medium pH shall be commercial grade flours of sulphur, ferrous sulfate, or aluminum sulfate that are unadulterated. Acidulants shall be delivered in unopened containers with the name of the manufacturer, material, analysis and net weight appearing on each container.

Ground limestone for adjustment of Structural Soil pH shall contain not less than 85 percent of total carbonates and shall be ground to such fineness that 40 percent will pass through 100 mesh sieve and 95 percent will pass through a 20 mesh sieve.

### **PLANTING FERTILIZER**

Commercial fertilizer for use in Structural Soil shall be a product complying with the State and United States fertilizer laws. Deliver fertilizer to the site in the original unopened containers, which shall bear the manufacturer's certificate of compliance covering analysis, which shall be furnished to the Engineer. Fertilizer shall be free of nitrogen with percentages of weight for phosphorus and potassium as recommended by soil testing and analysis. Phosphorus and potassium shall be added to the top 18 inches of the Structural Soil in 6-inch lifts as the Structural Soil is placed. Rototill fertilizer into each successive 6-inch lift. Structural Soil shall be sampled and tested after application of fertilizer to verify that amended Structural Soil meets the requirements of the soil test analysis recommendations. Submit soil test results to the Engineer for review and approval.

## **EXECUTION**

### **SUB-SURFACE CONDITIONS**

Notify the Engineer of subsurface conditions, which will affect the Contractor's ability to complete the work.

Locate and confirm the location of all underground utility lines and structures prior to the start of any excavation.

The contractor shall exercise extreme care and caution when excavating around existing utilities and shall repair any underground utilities or foundations damaged by the Contractor during the progress of this work. The cost of all repairs shall be at the Contractor's expense.

### **SITE PREPARATION**

Do not proceed with the installation of the Structural Soil material until all walls, curb footings and utility work in the area has been installed. For site elements dependent on Structural Soil for foundation support, postpone installation until immediately after the installation of Structural Soil.

## **ITEM 751.2 (Continued)**

Excavate and compact the proposed subgrade to depths, slopes and widths as shown on the Contract Documents. Maintain all required angles of repose of the adjacent materials as shown on the Contract Documents. Do not over excavate compacted subgrades of adjacent pavement or structures unless as directed by the Engineer.

Confirm that the subgrade is at the proper elevation and compacted as required. Subgrade elevations shall slope parallel to the finished grade and or toward the subsurface drain lines as shown on the Contract Documents.

Clear the excavation of all construction debris, trash, rubble and any foreign material. In the event that fuels, oils, concrete washout silts or other material harmful to plants has been spilled into the subgrade material, excavate the soil sufficiently to remove the harmful material. Fill any over excavation with approved fill and compact to the required subgrade compaction.

Protect adjacent walls, walks and utilities from damage or staining by the soil. Use plywood and or plastic sheeting as directed to cover existing concrete, metal and masonry work and other items as directed during the progress of the work.

Clean up all trash and any soil or dirt spilled on any paved surface at the end of each working day. Any damage to the paving caused by the soils installation contractor shall be repaired by the General Contractor at the General Contractor's expense.

Maintain all silt and sediment control devices required by applicable regulations. Provide adequate methods to assure that trucks and other equipment do not track soil from the site onto adjacent property and the public right of way.

## **PLANTING MEDIA MIX DESIGN**

### **Mix Design: Sand-Based Structural Soil**

The Sand-Based Structural Soil shall consist of a blend of five parts by volume of Sand, one part by volume of Base-Loam and two parts by volume of Organic Amendment. Blending of the components shall be carried out with earth moving equipment prior to placement. The components shall be blended to create a uniform mixture as determined by the Engineer. The final mix shall have an organic content between 2.5 and 3.5 percent and conform to the following gradation requirements for material passing a Number 10 sieve.

**ITEM 751.2 (Continued)**

The Structural Soil design mix shall meet the following criteria:

| <u>U.S. Sieve</u><br><u>Size Number</u> | <u>Percent</u><br><u>Passing</u><br><u>Minimum</u> | <u>Percent</u><br><u>Passing</u><br><u>Maximum</u> |
|---|--|--|
| 10                                      | 100  | -  |
| 18                                      | 68   | 90   |
| 35                                      | 38   | 63   |
| 60                                      | 18   | 39   |
| 140                                     | 9  | 18   |
| 270                                     | 4  | 9  |
| .002 mm                                 | 1  | 2  |

Maximum size shall be one inch largest dimension. The maximum retained on the #10 sieve shall be 15% by weight of the total sample.

The ratio of the particle size for 70% passing (D70) to the particle size for 20% passing (D20) shall be 3.5 or less. (D70/D20 <3.5)

Tests shall be by combined hydrometer and wet sieving in compliance with ASTM D422 after destruction of organic matter by ignition.

**Mix Design: Planting Pit Medium**

Planting pits shall be backfilled around trees with a blend of two parts by volume of Sand, to one part by volume Base Loam, and one part by volume Organic Amendment. Blending of the components shall be carried out with earth moving equipment prior to placement. The components shall be blended to create a uniform mixture as determined by the Engineer. The final mix shall have an organic content between 4 and 7 percent and conform to the following gradation requirements for material passing a Number 4 sieve.

The Planting Pit mix shall meet the following criteria:

| <u>U.S. Sieve</u><br><u>Size Number</u> | <u>Percent</u><br><u>Passing</u><br><u>Minimum</u> | <u>Percent</u><br><u>Passing</u><br><u>Maximum</u> |
|---|--|--|
| 10                                      | 100  | -  |
| 18                                      | 73   | 93   |
| 35                                      | 55   | 82   |
| 60                                      | 28   | 51   |
| 140                                     | 18   | 27   |
| 270                                     | 11   | 18   |
| .002 mm                                 | 1  | 4  |

## **ITEM 751.2 (Continued)**

Maximum size shall be one inch largest dimension. The maximum retained on the #10 sieve shall be 20% by weight of the total sample.

The ratio of the particle size for 80% passing (D70) to the particle size for 30% passing (D30) shall be 4.0 or less. (D80/D30 <4.0)

Tests shall be by combined hydrometer and wet sieving in compliance with ASTM D422 after destruction of organic matter by ignition.

### **PLACEMENT OF SAND-BASED STRUCTURAL SOIL**

Contractor shall obtain Engineer's written approval of previously completed work of rough grading of subsoil prior to commencing loam borrow or Structural Soil placement work.

Immediately prior to dumping and spreading the Structural Soil, the subgrade shall be cleaned of all debris or rubbish. Such material shall be removed from the site. After subgrade levels have been reached, and immediately prior to placing Sand-Based Structural Soil the entire subgrade area shall be thorough compacted, then loosened to a minimum depth of four inches utilizing the teeth on the bucket of a backhoe or by deep raking.

After loosening, Sand-Based Structural Soil shall be spread in lifts not greater than eight inches and compacted with a minimum of two passes of vibratory compaction equipment to a density between 90 and 94 percent Standard Proctor Maximum Dry Density in accordance with compaction standards of ASTM D1557 Method D. During the compaction process, all depressions caused by settlement or compaction shall be filled with additional Structural Soil and the surface shall be regraded and rolled until presenting a smooth and even finish corresponding to the required grades. Sand-Based Structural Soil shall be placed to a depth of two feet within the areas shown on the Drawings.

Phase the installation of the Structural Soil such that wheeled equipment does not have to travel over already installed soil. If it is determined by the Engineer that equipment must travel over already installed Structural Soil, provide one- inch thick steel plate ballast over the length and width of travel to cover Structural Soil and protect it from compaction.

### **Planting**

Contractor to follow standard planting procedures for deciduous trees as specified, provided, installed, and paid for under Section, PLANTING, unless otherwise noted herein.

### **Placement of Planting Pit Medium in Tree Pits**

After subgrade levels have been reached in tree pits, a minimum of four inches of Sand-Based Structural Soil shall be placed and compacted as a base for the root ball. After setting root balls in accordance with Section PLANTING, tree pits shall be backfilled with Planting Medium Pit as

### **ITEM 751.2 (Continued)**

described in this Section in six inch lifts and tamped to 84 to 88 percent Modified Proctor Maximum Dry Density. The surface area of each lift shall be scarified by raking prior to placing the next lift.

All plants shall be watered immediately following placement in their final locations as necessary to thoroughly moisten rootball and planting pit medium and thereafter shall be inspected frequently for watering needs and watered, as required, to provide adequate moisture in the planting pit and in the Structural Soil. The Contractor shall inspect tree pits in plant bed 24 hours after initial watering to confirm that they are draining properly. If surface water or excessively saturated plant pit soils exist, the Contractor shall immediately notify the Engineer. The Engineer will recommend remedial measures based upon site conditions.

### **ACCEPTANCE STANDARDS**

The Engineer will inspect the work upon the request of the Contractor. Request for inspection shall be received by the Engineer at least 10 Days before the anticipated date of inspection. Acceptance, Maintenance, and Guarantee shall be in accordance with Section PLANTING.

### **CLEAN-UP**

Upon completion of the Structural Soil installation operations, clean areas within the contract limits. Remove all excess fills, soils and mix stockpiles and legally dispose of all waste materials, trash and debris. Remove all tools and equipment and provide a clean, clear site. Sweep, do not wash, all paving and other exposed surfaces of dirt and mud until the paving has been installed over the Structural Soil materials. Do no washing until finished material covering Structural Soil is in place.

### **METHOD OF MEASUREMENT AND BASIS OF PAYMENT**

Structural Soil will be measured per cubic yard, installed complete-in-place, which price shall constitute full compensation for complete compliance with requirements of this item, including providing, testing, amending, placing, spreading, compacting and fine grading.

**ITEM 776.528**  
**ITEM 783.647**

**MAPLE – RED – 'BOWHALL' 2.5-3 INCH CALIPER**  
**ZELKOVA – 'GREEN VASE' 2.5-3 INCH CALIPER**

**EACH**  
**EACH**

The work under these items shall conform to the applicable requirements of Section 771 PLANTING TREES, SHRUBS AND GROUND COVER, of the Standard Specifications, latest edition, except as amended and supplemented as indicated on the drawings and as specified below.

Deciduous shade trees to have a minimum branching height of 6'8" above finished grade. Such trees may be selected at the nursery with branching lower than 6-8" height only if pruning lower branches will not be detrimental to the structure of the tree. Low branches shall be cleanly pruned by the Contractor after installation as directed by the Engineer.

#### **METHOD OF MEASUREMENT AND BASIS OF PAYMENT**

All plantings will be paid for at the Contract unit price per each, which price shall include materials, equipment, labor, and incidentals to provide plant pit excavation, soil preparation, soil amendments, planting mix preparation, loam for planting mix, soil wetting agents, wooden staking, mycorrhizal fungi planting, plant protection, aged pine bark mulch (including placement), watering, maintenance, disposal of unsuitable soils, and all other incidentals required for furnishing and installing the plantings in accordance with the drawings, and as directed by the Engineer and/or Town. Payment will not be approved until satisfactory completion of the Maintenance Period.

**ITEM 823.84****LIGHT POLE REMOVED AND RESET****EACH**

Work under this item shall consist of the removal and resetting of existing pedestrian light poles at the locations shown on the plans to match the proposed sidewalk grading in accordance with the relevant provisions of Sections 801, 813, and 820 and the following:

The light poles shall be carefully removed from their existing foundation and stockpiled in a safe and secure area on wooden blocks to prevent any damage to the existing poles. The existing wiring shall be capped and safely secured to prevent access until the pole is reinstalled. Contractor to coordinate with the DPW to shut off the power to the Light Pole circuit if required.

The existing anchor bolt nuts and washers shall be adjusted so that the reinstallation of the light pole base matches the proposed sidewalk grading to the maximum extent possible.

If a light pole base is substantially lower than the proposed plaza grade and adjustment of the anchor bolts does not allow the elevation of the light pole base to be increased by a sufficient amount to meet the proposed sidewalk grading, the Contractor shall adjust the anchor bolts by the maximum amount possible and shall construct the sidewalk around the base of the light pole as required to meet the proposed grading.

If a light pole is substantially higher than the proposed grade and adjustment of the anchor bolts does not allow the elevation of the light pole base to be decreased by a sufficient amount to meet the proposed sidewalk grading, the Contractor shall adjust the anchor bolts by the maximum amount possible and shall leave the existing light pole base above the proposed sidewalk surface.

After installation, the Contractor shall reconnect all wiring as required to provide a fully functional pedestrian light at each location.

Light poles and concrete bases that are damaged by the Contractor or due to his negligence shall be replaced with new products at no additional cost.

The Contractor shall be responsible for coordinating the adjustments with the Town of Arlington DPW. The Contractor shall contact DPW a minimum of two (2) weeks in advance of performing any work related to this item.

**METHOD OF MEASUREMENT AND BASIS OF PAYMENT**

Light Pole Removed and Reset will be measured for payment by each pole successfully removed and reset without damage.

Light Pole Removed and Reset will be paid for at the contract unit bid price per each, which price shall include all labor, material, tools and equipment, dismantling, resetting and all incidental costs required to complete the work without damage.

**ITEM 852.11**  
**ITEM 852.12**

**TEMPORARY PEDESTRIAN BARRICADE**  
**TEMPORARY PEDESTRIAN CURB RAMP**

**FOOT**  
**EACH**

## **GENERAL**

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

## **MATERIALS**

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

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

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

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

## **CONSTRUCTION METHODS**

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

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

### **ITEMS 852.11 & 852.12 (Continued)**

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

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

Removal and/or resetting of Temporary Pedestrian Barricades and Temporary Pedestrian Curb Ramps shall be considered incidental to the Contract.

### **METHOD OF MEASUREMENT AND BASIS OF PAYMENT**

Payment for Temporary Pedestrian Barricades will be made at the contract price per foot installed in place, including all incidental items. This price shall include the cost of furnishing, installing, resetting, removal, and maintaining in good working condition for the duration of the project.

Payment for Temporary Pedestrian Curb Ramps will be made at the contract price per each unit installed in place, including all incidental items. This price shall include the cost of furnishing, installing, resetting, removal, and maintaining in good working condition for the duration of the project.

**ITEM 859.1****REFLECTORIZED DRUMS WITH SEQUENTIAL  
FLASHING WARNING LIGHTS****DAY**

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

**MATERIALS**

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

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

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

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

**CONSTRUCTION METHODS**

The first ten (10) drums in any merging or shifting taper as designated in the Temporary Traffic Control Plan shall be equipped with sequential flashing warning lights. These lights shall be operating, at a minimum, between dusk and dawn when the taper is deployed.

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

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

**METHOD OF MEASUREMENT AND BASIS OF PAYMENT**

A group of ten (10) reflectorized drums with sequential flashing warning lights is considered one (1) unit and will be measured by the day. Each period of up to 24 hours during which this unit is in use will be measured as one day regardless of the number of times that the drums are positioned, repositioned, removed, or returned to service.

**ITEM 859.1 (Continued)**

Reflectorized Drums with Sequential Flashing Warning Lights will be paid for at the contract unit price per day, which shall include full compensation for furnishing, positioning, repositioning, and removing the group of ten (10) drums as directed by the Engineer.

**ITEM 860.104      4 INCH REFLECTORIZED WHITE LINE (PAINTED)      FOOT**

This work shall consist of furnishing materials and application of reflectorized painted pavement markings in accordance with the Contract Drawings, as specified in these Specifications, and where required by the Engineer.

The materials for and the application of reflectorized painted pavement markings shall be in conformance with the applicable provisions and requirements of Section 860. Reflectorized Pavement Markings of the "MassDOT Standard Specifications", except as amended herein.

The pavement markings for the parking spaces, accessible parking space and access aisle shall be 4 inches wide.

**METHOD OF MEASUREMENT AND BASIS OF PAYMENT**

Work under this item, 4 Inch Reflectorized White Line (Painted), will be measured and paid for at the Contract unit price per foot, which price shall include all labor, material, equipment and incidental costs required to complete the work.

No additional compensation shall be made for maintaining the pavement markings during the project.

**ITEM 864.011**

**PAVEMENT ARROWS AND LEGENDS  
REFLECTORIZED (PAINTED)**

**SQUARE FOOT**

Work under this item shall conform to the relevant provisions of Section 860 of the Standard Specifications and the following:

All pavement arrows and legends supplied under this item shall conform to the applicable MassDOT's standards for Pavement Arrow ReflectORIZED White (Painted) except with regard to the paint color, which shall be in conformance with the Contract Drawings.

The work under this item shall consist of providing, installing, and maintaining the accessible parking symbol pavement markings throughout construction, as shown on the plans or as directed by the Engineer and/or Town.

**METHOD OF MEASUREMENT AND BASIS OF PAYMENT**

Work under this item, Pavement Arrows and Legends ReflectORIZED (Painted), will be measured and paid for at the Contract unit price per square foot, which price shall include all labor, material, equipment and incidental costs required to complete the work.

No additional compensation shall be made for maintaining the pavement markings during the project.

**ITEM 874.2****TRAFFIC SIGN REMOVED AND RESET****EACH**

The work under this item shall conform to the relevant provisions of Section 828 of the Standard Specifications and the following:

The Contractor shall carefully remove and reset at new locations all existing signs, attachment hardware and sign support posts not included under other sign items as shown on the drawings and as directed by the Engineer.

Signs, attachment hardware and sign support posts shall be satisfactorily stored and protected until reset in the proposed work.

Signs, attachment hardware and sign support posts lost, damaged or otherwise made unsuitable for reuse while being removed, transported, stored or reset shall be replaced with new materials at no additional cost to the Owner. New attachment hardware shall be furnished and installed as necessary to replace any missing or unusable existing hardware.

Included under Item 874.2 are Warning-Regulatory and Route Marker signs, and miscellaneous directional signs.

**METHOD OF MEASUREMENT AND BASIS OF PAYMENT**

Work under this item, Traffic Sign Removed and Reset, will be measured for payment as each unit, complete in place, which price shall be at the respective Contract unit price per each, which price shall include all labor, material, equipment and incidental costs required to complete the work.

**ITEM 875 PARKING METER - EXCLUDING COST OF PARKING METER EACH**

The work under this item shall conform to the relevant provisions of Section 701 of the Standard Specifications and the following:

The Contractor shall install new parking meter posts and foundations at the locations shown on the plans and as directed by the Engineer. The Town shall supply the Contractor with parking meter heads and posts.

All parking meter posts shall be installed with an 8-inch diameter, 24-inch (minimum) deep cement concrete foundation. The parking meter post shall be centered in the foundation and positioned 18 inches from the face of the curb and plumb with the finished sidewalk grade, unless otherwise directed by the Engineer and/or Town. Contractor shall coordinate with Town for any other specific installation criteria that they require.

**METHOD OF MEASUREMENT AND BASIS OF PAYMENT**

Work under this item, Parking Meter – Excluding Cost of Parking Meter, will be paid for at the Contract unit price per each, which price shall include all labor, materials, equipment and incidental costs required to complete the work.

**ITEM 875.1****PARKING METER REMOVED AND RESET****EACH**

The work under this item shall conform to the relevant provisions of Section 701 of the Standard Specifications and the following:

The Contractor shall carefully remove and reset at new locations all existing parking meters and posts as shown on the drawings and as directed by the Engineer.

Parking meters and posts shall be satisfactorily stored and protected until reset in the proposed work.

Parking meters and posts lost, damaged or otherwise made unsuitable for reuse while being removed, transported, stored or reset shall be replaced with new materials at no additional cost to the Owner.

**METHOD OF MEASUREMENT AND BASIS OF PAYMENT**

Work under this item, Parking Meter Removed and Reset, will be measured for payment as each unit, complete in place, which price shall be at the Contract unit price per each, which price shall include all labor, material, equipment and incidental costs required to complete the work.

**ITEM 875.2****PARKING METER REMOVED AND STACKED****EACH**

The work under this item shall consist of the careful and complete removal, transport, and storage of any existing parking meters and posts called out on the plans as “R&S” (remove and stack).

The parking meters and posts, including all hardware, shall be stored at the Arlington Department of Public Works facility located at 51 Grove Street. The Contractor shall coordinate the stacking of materials with Michael Rademacher, Director of Public Works, (781) 316-3301, to schedule drop-off time and location. All items delivered to the Arlington Department of Public Works shall be signed for by the Department of Public Works on delivery slips prepared by the Contractor. The original, signed delivery slip shall be provided to Mr. Rademacher at the Public Works Office located at 51 Grove Street in Arlington, Massachusetts. If the Department of Public Works determines that the materials removed are not suitable, the Contractor shall discard the removed materials properly.

**METHOD OF MEASUREMENT AND BASIS OF PAYMENT**

Work under this item, Parking Meter Removed and Stacked, will be paid for at the Contract unit price per each, which price shall include all labor, materials, equipment and incidental costs required to complete the work.

**ITEM 999.****CONSTRUCTION STAKING****LUMP SUM**

Under this item, the Contractor shall layout and set all lines, grades, and measurements necessary for construction of the work. The Engineer shall provide information on the baseline system and elevation control available.

All staking shall be directed and performed by qualified engineering or surveying personnel who are trained, experienced and skilled in construction layout of the type required under this Contract. The Contractor shall submit the qualifications of the survey personnel to the Owner for review and approval. The Owner reserves the right to reject any personnel which, in the Owner's judgment, are not adequately qualified. The Owner also reserves the right to evaluate the performance of the survey personnel during the course of the work and to require the replacement of any personnel whose work, in the judgment of the Owner, is unsatisfactory.

The Engineer may check the layout as established by the Contractor at any time as the work progresses. The Contractor shall be informed of the results of these checks, but the Engineer by doing so in no way relieves the Contractor of his responsibility for the accuracy of the layout work. The Contractor shall correct or replace any deficient layout and construction work which may be the result of inaccuracies in the Contractor's layout at no additional cost to the Owner.

**METHOD OF MEASUREMENT AND BASIS OF PAYMENT**

Payment for Construction Staking shall be paid at the Contract lump sum price for Item 999., which price shall include all labor, material, equipment and incidental cost to complete the work.

**ITEM 999.1****POLICE SERVICES****LUMP SUM**

The Contractor shall furnish police services required to direct traffic on existing roadways where traffic is maintained.

The Contractor shall provide such police officers as may be deemed necessary by either the Engineer and/or Town for the direction and control of all traffic traveling within and through the project area. The police officers shall be obtained from the Town Police Department as applicable. The police officers shall be paid by the Contractor at the prevailing rate of wages established by the Town of Arlington.

**ALLOWANCE FOR POLICE SERVICES**

An allowance of Thirty Seven Thousand Dollars (\$37,000.00) for the furnishing of police services has been included in all bids. This allowance is determined by multiplying the number of hours estimated as necessary by the prevailing hourly rate of wages established for such services. The Contractor shall submit certified copies of itemized bills of services rendered for review and approval by the Engineer and/or Town. The allowance will be adjusted to the actual amount paid for authorized and approved police services as stipulated and shall include other payments due to any legal requirements of the State and Federal governments.

**METHOD OF MEASUREMENT AND BASIS OF PAYMENT**

The quantity to be paid for under this item shall be the actual amount paid by the Contractor to provide satisfactory police services as stipulated and required. Any overhead costs shall be included in the prices bid for the other items of the Contract.

**ITEM 999.2****AS-BUILT PLANS****LUMP SUM**

The Contractor shall furnish Mylar "AS-BUILT" plans of the completed project to the Engineer. These "AS-BUILT" plans shall be furnished prior to the date of final acceptance.

The Engineer will make PDFs of the original drawings available to the Contractor for use in preparing the as-built drawings. However, the Contractor may request a CADD version of the contract drawings as an alternative method for preparing the "AS-BUILT" plans. In either case, final "AS-BUILT" plans shall contain all information shown on the contract drawings and shall clearly indicate changes that were made during construction.

The "AS-BUILT" plans shall be titled "AS-BUILT" and stamped and dated by a Professional Engineer registered in the Commonwealth of Massachusetts. The Professional Engineer's stamp is required to certify any changes made to the contract drawings and shall not dictate responsibility for the original design drawings.

The "AS-BUILT" plans shall provide a record of constructed improvements for future reference; therefore, partial plan sets will not be accepted. The Contractor may elect to use a combination of reproducible duplicates of the design drawings and revised CAD drawings to provide a complete set of "AS-BUILT" plans.

**METHOD OF MEASUREMENT AND BASIS OF PAYMENT**

Payment for "AS-BUILT" plans shall be paid at the Contract lump sum price for Item 999.2, which price shall include all labor, material, equipment and incidental cost to complete the stamped "AS-BUILT" plans and delivered them to the Town of Arlington.

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# STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

Prepared by

**ENGINEERS JOINT CONTRACT DOCUMENTS COMMITTEE**

and

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## GENERAL CONDITIONS

### ARTICLE 1 - DEFINITIONS AND TERMINOLOGY

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#### 1.01 *Defined Terms*

A. Wherever used in the Contract Documents and printed with initial or all capital letters, the terms listed below will have the meanings indicated which are applicable to both the singular and plural thereof.

1. *Addenda*--Written or graphic instruments issued prior to the opening of Bids which clarify, correct, or change the Bidding Requirements or the 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. *Bidding Documents*--The Bidding Requirements and the proposed Contract Documents (including all Addenda issued prior to receipt of Bids).

7. *Bidding Requirements*--The Advertisement or Invitation to Bid, Instructions to Bidders, Bid security form, if any, and the Bid form with any supplements.

8. *Bonds*--Performance and payment bonds and other instruments of security.

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*--The Contract Documents establish the rights and obligations of the parties and include the Agreement, Addenda (which pertain to the Contract Documents), CONTRACTOR's Bid (including documentation accompanying the Bid and any post Bid documentation submitted prior to the Notice of Award) when attached as an exhibit to the Agreement, the Notice to Proceed, the Bonds, these General Conditions, the Supplementary Conditions, the Specifications and the Drawings as the same are more specifically identified in the Agreement, together with all Written Amendments, Change Orders, Work Change Directives, Field Orders, and ENGINEER's written interpretations and clarifications issued on or after the Effective Date of the Agreement. Approved Shop Drawings and the reports and drawings of subsurface and physical conditions are not Contract Documents. Only printed or hard copies of the items listed in this paragraph are Contract Documents. Files in electronic media format of text, data, graphics, and the like that may be furnished by OWNER to CONTRACTOR 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 Substantial Completion; and (ii) 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.A 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. *ENGINEER's Consultant*--An individual or entity having a contract with ENGINEER to furnish services as ENGINEER's independent professional associate or consultant with respect to the Project and who is identified as such in the Supplementary Conditions.

21. *Field Order*--A written order issued by ENGINEER which requires minor changes in the Work but which does not involve a change in the Contract Price or the Contract Times.

22. *General Requirements*--Sections of Division 1 of the Specifications. The General Requirements pertain to all sections of the Specifications.

23. *Hazardous Environmental Condition*--The presence at the Site of Asbestos, PCBs, Petroleum, Hazardous Waste, or Radioactive Material in such quantities or circumstances that may present a substantial danger to persons or property exposed thereto in connection with the Work.

24. *Hazardous Waste*--The term Hazardous Waste shall have the meaning provided in Section 1004 of the Solid Waste Disposal Act (42 USC Section 6903) as amended from time to time.

25. *Laws and Regulations; Laws or Regulations*--Any and all applicable laws, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.

26. *Liens*--Charges, security interests, or encumbrances upon Project funds, real property, or personal property.

27. *Milestone*--A principal event specified in the Contract Documents relating to an intermediate completion date or time prior to Substantial Completion of all the Work.

28. *Notice of Award*--The written notice by OWNER to the apparent successful bidder stating that upon timely compliance by the apparent successful bidder with the conditions precedent listed therein, OWNER will sign and deliver the Agreement.

29. *Notice to Proceed*--A written notice given by OWNER to CONTRACTOR fixing the date on which the Contract Times will commence to run and on which CONTRACTOR shall start to perform the Work under the Contract Documents.

30. *OWNER*--The individual, entity, public body, or authority with whom CONTRACTOR has entered into the Agreement and for whom the Work is to be performed.

31. *Partial Utilization*--Use by OWNER of a substantially completed part of the Work for the purpose for which it is intended (or a related purpose) prior to Substantial Completion of all the Work.

32. *PCBs*--Polychlorinated biphenyls.

33. *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.

34. *Project*--The total construction of which the Work to be performed under the Contract Documents may be the whole, or a part as may be indicated elsewhere in the Contract Documents.

35. *Project Manual*--The bound documentary information prepared for bidding and constructing the Work. A listing of the contents of the Project Manual, which may be bound in one or more volumes, is contained in the table(s) of contents.

36. *Radioactive Material*--Source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954 (42 USC Section 2011 et seq.) as amended from time to time.

37. *Resident Project Representative*--The authorized representative of ENGINEER who may be assigned to the Site or any part thereof.

38. *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.

39. *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.

40. *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.

41. *Specifications*--That part of the Contract Documents consisting of written technical descriptions of materials, equipment, systems, standards, and workmanship as applied to the Work and certain administrative details applicable thereto.

42. *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.

43. *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.

44. *Supplementary Conditions*--That part of the Contract Documents which amends or supplements these General Conditions.

45. *Supplier*--A manufacturer, fabricator, supplier, distributor, materialman, or vendor having a direct contract with CONTRACTOR or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by CONTRACTOR or any Subcontractor.

46. *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.

47. *Unit Price Work*--Work to be paid for on the basis of unit prices.

48. *Work*--The entire completed 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.

49. *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.

50. *Written Amendment*--A written statement modifying the Contract Documents, signed by OWNER and CONTRACTOR on or after the Effective Date of the Agreement and normally dealing with the nonengineering or nontechnical rather than strictly construction-related aspects of the Contract Documents.

1.02 Terminology

A. Intent of Certain Terms or Adjectives

1. Whenever in the Contract Documents the terms "as allowed," "as approved," or terms of like effect or import are used, or 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 action or determination will be solely to evaluate, in general, the completed Work for compliance with the requirements of and information in the Contract Documents and conformance with the design concept of the completed Project as a functioning whole as shown or indicated in the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective 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 9.10 or any other provision of the Contract Documents.

B. Day

1. The word "day" shall constitute a calendar day of 24 hours measured from midnight to the next midnight.

C. Defective

1. The word "defective," when modifying the word "Work," refers to Work that is unsatisfactory, faulty, or deficient in that it does not conform to the Contract Documents or does not meet the requirements of any inspection, reference standard, test, or approval referred to in the Contract Documents, or 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).

D. 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.

E. Unless stated otherwise in the Contract Documents, words or phrases which have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.

ARTICLE 2 - PRELIMINARY MATTERS

2.01 Delivery of Bonds

A. When CONTRACTOR delivers the executed Agreements to OWNER, CONTRACTOR shall also deliver to OWNER such Bonds as CONTRACTOR may be required to furnish.

2.02\* Copies of Documents

A. OWNER shall furnish to CONTRACTOR up to ten copies of the Contract Documents. 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 com-

mence 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.

\*See Supplementary Conditions

#### 2.05\* *Before Starting Construction*

A. *CONTRACTOR's Review of Contract Documents:* Before undertaking each part of the Work, CONTRACTOR shall carefully study and compare the Contract Documents and check and verify pertinent figures therein and all applicable field measurements. CONTRACTOR shall promptly report in writing to ENGINEER any conflict, error, ambiguity, or discrepancy which CONTRACTOR may discover and shall obtain a written interpretation or clarification from ENGINEER before proceeding with any Work affected thereby; however, CONTRACTOR shall not be liable to OWNER or ENGINEER for failure to report any conflict, error, ambiguity, or discrepancy in the Contract Documents unless CONTRACTOR knew or reasonably should have known thereof.

B. *Preliminary Schedules:* Within ten days after the Effective Date of the Agreement (unless otherwise specified in the General Requirements), CONTRACTOR shall submit to ENGINEER for its 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 Shop Drawing and Sample submittals which will list each required submittal and the times for submitting, reviewing, and processing such submittal; 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.

\* C. *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.

#### 2.06 *Preconstruction Conference*

A. Within 20 days after the Contract Times start to run, but before any Work at the Site is started, a conference attended by 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.B, procedures for handling Shop Drawings and other submittals, processing Applications for Payment, and maintaining required records.

#### 2.07 *Initial Acceptance of Schedules*

A. Unless otherwise provided in the Contract Documents, at least ten 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.B. CONTRACTOR shall have an additional ten 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 any specified Milestones and 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 Shop Drawing and Sample 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.

\*See Supplementary Conditions

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

#### 3.01\* *Intent*

A. The Contract Documents are complementary; what is called for by one is as binding as if called for by all.

B. It is the intent of the Contract Documents to describe a functionally complete Project (or part thereof) to be constructed in accordance with the Contract Documents. Any labor, documentation, services, materials, or equipment that may reasonably be inferred from the Contract Documents or from prevailing custom or trade usage as being required to produce the intended result will be provided whether or not specifically called for at no additional cost to OWNER.

C. Clarifications and interpretations of the Contract Documents shall be issued by ENGINEER as provided in Article 9.

#### 3.02 *Reference Standards*

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

1. Reference to standards, specifications, manuals, or codes of any technical society, organization, or association, or to Laws or Regulations, whether such reference be specific or by implication, shall mean the standard, specification, manual, code, or Laws or Regulations in effect at the time of opening of Bids (or on the Effective Date of the Agreement if there were no Bids), except as may be otherwise specifically stated in the Contract Documents.

2. No provision of any such standard, specification, manual or code, or any instruction of a Supplier shall be effective to change the duties or responsibilities of OWNER, CONTRACTOR, or ENGINEER, or any of their subcontractors, consultants, agents, or employees from those set forth in the Contract Documents, nor shall any such provision or instruction be effective to assign to OWNER, ENGINEER, or any of ENGINEER's Consultants, agents, or employees 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. If, during the performance of the Work, CONTRACTOR discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents or between the Contract Documents and any provision of any Law or Regulation applicable to the performance of the Work or of any standard, specification, manual or code, or of any instruction of any Supplier, CONTRACTOR shall report it to ENGINEER in writing at once. 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; provided, however, that CONTRACTOR shall not be liable to OWNER or ENGINEER for failure to report any such conflict, error, ambiguity, or discrepancy unless CONTRACTOR knew or reasonably should have known thereof.

##### B. *Resolving Discrepancies*

1. Except as may be otherwise specifically stated in the Contract Documents, the provisions of the Contract Documents shall take precedence in resolving any conflict, error, ambiguity, or discrepancy between the provisions of the Contract Documents and:

a. the provisions of any standard, specification, manual, code, or instruction (whether or not specifically incorporated by reference in the Contract Documents); or

b. the provisions of any Laws or Regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).

### 3.04 *Amending and Supplementing Contract Documents*

A. The Contract Documents may be amended to provide for additions, deletions, and revisions in the Work or to modify the terms and conditions thereof in one or

\*See Supplementary Conditions

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: (i) a Field Order; (ii) ENGINEER's approval of a Shop Drawing or Sample; or (iii) ENGINEER's written interpretation or clarification.

### 3.05 *Reuse of Documents*

A. CONTRACTOR and any Subcontractor or Supplier or other individual or entity performing or furnishing any of the Work under a direct or indirect contract with OWNER: (i) shall not have or acquire any title to or ownership rights in any of the Drawings, Specifications, or other documents (or copies of any thereof) prepared by or bearing the seal of ENGINEER or ENGINEER's Consultant, including electronic media editions; and (ii) shall not reuse any of such Drawings, Specifications, other documents, or copies thereof on extensions of the Project or any other project without written consent of OWNER and ENGINEER and specific written verification or adaption by ENGINEER. This prohibition will survive final payment, completion, and acceptance of the Work, or termination or completion of the Contract. Nothing herein shall preclude CONTRACTOR from retaining copies of the Contract Documents for record purposes.

## ARTICLE 4 - AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL 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, CONTRACTOR may make a Claim therefor as provided in paragraph 10.05.

B. Upon reasonable written request, OWNER shall furnish CONTRACTOR with a current statement of record legal title and legal description of the lands upon which the Work is to be performed and OWNER's interest therein as necessary for giving notice of or filing a mechanic's or construction lien against such lands in accordance with applicable Laws and Regulations.

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

### 4.02\* *Subsurface and Physical Conditions*

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

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

B. *Limited Reliance by CONTRACTOR on Technical Data Authorized:* CONTRACTOR may rely upon the general accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such "technical data" is identified in the Supplementary Conditions. Except for such reliance on such "technical data," CONTRACTOR may not rely upon or make any Claim against OWNER, ENGINEER, or any of ENGINEER's Consultants with respect to:

1. the completeness of such reports and drawings for CONTRACTOR's purposes, includ-

ing, 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.

\*See Supplementary Conditions

#### 4.03 *Differing Subsurface or Physical Conditions*

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

1. is of such a nature as to establish that any "technical data" on which CONTRACTOR is entitled to rely as provided in paragraph 4.02 is materially inaccurate; or

2. is of such a nature as to require a change in the Contract Documents; or

3. differs materially from that shown or indicated in the Contract Documents; or

4. is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents; then CONTRACTOR shall, promptly after becoming aware thereof and before further disturbing the subsurface or physical conditions or performing any Work in connection therewith (except in an emergency as required by paragraph 6.16.A), notify OWNER and ENGINEER in writing about such condition. CONTRACTOR shall not further disturb such condition or perform any Work in connection therewith (except as afore said) 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 9.08 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 in respect of 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 within the time and as required by paragraph 4.03.A.

3. If OWNER and CONTRACTOR are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, a Claim may be

made therefor as provided in paragraph 10.05. However, OWNER, ENGINEER, and ENGINEER's Consultants shall not be liable to CONTRACTOR for any claims, costs, losses, or damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by CONTRACTOR on or in connection with any other project or anticipated project.

#### 4.04 *Underground Facilities*

A. *Shown or Indicated:* The information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or contiguous to the Site is based on information and data furnished to OWNER or ENGINEER by the owners of such Underground Facilities, including OWNER, or by others. Unless it is otherwise expressly provided in the Supplementary Conditions:

1. OWNER and ENGINEER shall not be responsible for the accuracy or completeness of any such information or data; and

2. the cost of all of the following will be included in the Contract Price, and CONTRACTOR shall have full responsibility for:

a. reviewing and checking all such information and data,

b. locating all Underground Facilities shown or indicated in the Contract Documents,

c. coordination of the Work with the owners of such Underground Facilities, including OWNER, during construction, and

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

#### B. *Not Shown or Indicated*

1. If an Underground Facility is uncovered or revealed at or contiguous to the Site which was not shown or indicated, or not shown or indicated with reasonable accuracy in the Contract Documents, CONTRACTOR shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or

performing any Work in connection therewith (except in an emergency as required by paragraph 6.16.A), identify the owner of such Underground Facility and give written notice to that owner and to OWNER and ENGINEER. ENGINEER will promptly review the Underground Facility and determine the extent, if any, to which a change is required in the Contract Documents to reflect and document the consequences of the existence or location of the Underground Facility. During such time, CONTRACTOR shall be responsible for the safety and protection of such Underground Facility.

2. If ENGINEER concludes that a change in the Contract Documents is required, a Work Change Directive or a Change Order will be issued to reflect and document such consequences. An equitable adjustment shall be made in the Contract Price of Contract Times, or both, to the extent that they are attributable to the existence or location of any Underground Facility that was not shown or indicated or not shown or indicated with reasonable accuracy in the Contract Documents and that CONTRACTOR did not know of and could not reasonably have been expected to be aware of or to have anticipated. If OWNER and CONTRACTOR are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment in Contract Price or Contract Times, OWNER or CONTRACTOR may make a Claim therefor as provided in paragraph 10.05.

#### 4.05\* *Reference Points*

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

#### 4.06 *Hazardous Environmental Condition at Site*

A. *Reports and Drawings:* Reference is made to the Supplementary Conditions for the identification of those reports and drawings relating to a Hazardous Environmental Condition identified at the Site, if any, that have been utilized by the ENGINEER in the preparation of the Contract Documents.

B. *Limited Reliance by CONTRACTOR on Technical Data Authorized:* CONTRACTOR may rely upon the general accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such "technical data" is identified in the Supplementary Conditions. Except for such reliance on such "technical data," CONTRACTOR may not rely upon or make any Claim against OWNER, ENGINEER or any of ENGINEER's Consultants 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

\*See Supplementary Conditions

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); and (iii) notify OWNER and ENGINEER (and promptly thereafter confirm such notice in writing). OWNER shall promptly consult with ENGINEER concerning the necessity for OWNER to retain a qualified expert to evaluate such condition or take corrective action, if any.

E. CONTRACTOR shall not be required to resume Work in connection with such condition or in any affected area until after OWNER has obtained any required permits related thereto and delivered to CONTRACTOR written notice: (i) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work; or (ii) specifying any special conditions under which such Work may be resumed safely. If OWNER and CONTRACTOR cannot agree as to entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times, or both, as a result of such Work stoppage or such special conditions under which Work is agreed to be resumed by CONTRACTOR, either party may make a Claim therefor as provided in paragraph 10.05.

F. If after receipt of such written notice CONTRACTOR does not agree to resume such Work based on a reasonable belief it is unsafe, or does not agree to resume such Work under such special conditions, then OWNER may order the portion of the Work that is in the area affected by such condition to be deleted from the Work. If OWNER and CONTRACTOR cannot agree as to entitlement to or on the amount or extent, if any, of an adjustment in Contract Price or Contract Times as a result of deleting such portion of the Work, then either party may make a Claim therefor as provided in paragraph 10.05. OWNER may have such deleted portion of the Work performed by OWNER's own forces or others in accordance with Article 7.

G. To the fullest extent permitted by Laws and Regulations, OWNER shall indemnify and hold harmless CONTRACTOR, Subcontractors, ENGINEER, ENGINEER's Consultants and the officers, directors, partners, employees, agents, other 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.E 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, ENGINEER, ENGINEER's Consultants, and the officers, directors, partners, employees, agents, other 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.F 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 are not intended to apply to a Hazardous Environmental Condition uncovered or revealed at the Site.

\*See Supplementary Conditions

## 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 CONTRACTOR's obligations under the Contract Documents. These Bonds shall remain in effect at least until one year after the date when final payment becomes due, except as provided otherwise by Laws or Regulations or by the Contract Documents. CONTRACTOR shall also furnish such other Bonds as are required by the Contract Documents.

B.\* All Bonds shall be in the form prescribed by the Contract Documents except as provided otherwise by Laws or Regulations, and shall be executed by such sureties as are named in the current list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Compa-

nies" as published in Circular 570 (amended) by the Financial Management Service, Surety Bond Branch, U.S. Department of the Treasury. All Bonds signed by an agent must be accompanied by a certified copy of such agent's authority to act.

C. If the surety on any Bond furnished by CONTRACTOR is declared bankrupt or becomes insolvent or its right to do business is terminated in any state where any part of the Project is located or it ceases to meet the requirements of paragraph 5.01.B, CONTRACTOR shall within 20 days thereafter substitute another Bond and surety, both of which shall comply with the requirements of paragraphs 5.01.B and 5.02.

### 5.02 *Licensed Sureties and Insurers*

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

### 5.03 *Certificates of Insurance*

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

### 5.04\* *CONTRACTOR's Liability Insurance*

A. CONTRACTOR shall purchase and maintain such liability and other insurance as is appropriate for the Work being performed and as will provide protection from claims set forth below which may arise out of or result from CONTRACTOR's performance of the Work and CONTRACTOR's other obligations under the Contract Documents, whether it is to be performed by CONTRACTOR, any Subcontractor or Supplier, or by anyone directly or indirectly employed by any of them to

perform any of the Work, or by anyone for whose acts any of them may be liable:

1. claims under workers' compensation, disability benefits, and other similar employee benefit acts;

2. claims for damages because of bodily injury, occupational sickness or disease, or death of CONTRACTOR's employees;

3. claims for damages because of bodily injury, sickness or disease, or death of any person other than CONTRACTOR's employees;

4. claims for damages insured by reasonably available personal injury liability coverage which are sustained: (i) by any person as a result of an offense directly or indirectly related to the employment of such person by CONTRACTOR, or (ii) 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 so required by this paragraph 5.04 to be purchased and maintained shall:

\*See Supplementary Conditions

1. with respect to insurance required by paragraphs 5.04.A.3 through 5.04.A.6 inclusive, include as additional insureds (subject to any customary exclusion in respect of professional liability) OWNER, ENGINEER, ENGINEER's Consultants, and any other individuals or entities identified in the Supplementary Conditions, all of whom shall be listed as additional insureds, and include coverage for the respective officers, directors, partners, employees, agents, and other consultants and subcontractors of each and any of all such additional insureds, and the insurance afforded to these additional insureds shall provide primary coverage for all claims covered thereby;

2. include at least the specific coverages and be written for not less than the limits of liability provided in the Supplementary Conditions or required by Laws or Regulations, whichever is greater;

3. include completed operations insurance;

4. include contractual liability insurance covering CONTRACTOR's indemnity obligations under paragraphs 6.07, 6.11, and 6.20;

5. contain a provision or endorsement that the coverage afforded will not be canceled, materially changed or renewal refused until at least thirty days prior written notice has been given to OWNER and CONTRACTOR and to each other additional insured identified in the Supplementary Conditions to whom a certificate of insurance has been issued (and the certificates of insurance furnished by the CONTRACTOR pursuant to paragraph 5.03 will so provide);

6. remain in effect at least until final payment and at all times thereafter when CONTRACTOR may be correcting, removing, or replacing defective Work in accordance with paragraph 13.07; and

7. with respect to completed operations insurance, and any insurance coverage written on a claims-made basis, remain in effect for at least two years after final payment (and 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, ENGINEER, ENGINEER's Consultants, and any other individuals or entities identified in the Supplementary Conditions, and the officers, directors, partners, employees, agents, and other consultants and subcontractors of each and any of them, each of whom is deemed to have an insurable interest and shall be listed as an additional insured;

2. be written on a Builder's Risk "all-risk" or open peril or special causes of loss policy form that shall at least include insurance for physical loss or damage to the Work, temporary buildings, false work, 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, 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);

\*See Supplementary Conditions

4. cover materials and equipment stored at the Site or at another location that was agreed to in writing by OWNER prior to being incorporated in the Work, provided that such materials and equipment have been included in an Application for Payment recommended by ENGINEER;

5. allow for partial utilization of the Work by OWNER;

6. include testing and startup; and

7. be maintained in effect until final payment is made unless otherwise agreed to in writing by OWNER, CONTRACTOR, and ENGINEER with

30 days written notice to each other additional insured to whom a certificate of insurance has been issued.

B.\* OWNER shall purchase and maintain such boiler and machinery insurance or additional property insurance as may be required by the Supplementary Conditions or Laws and Regulations which will include the interests of OWNER, CONTRACTOR, Subcontractors, ENGINEER, ENGINEER's Consultants, and any other individuals or entities identified in the Supplementary Conditions, each of whom is deemed to have an insurable interest and shall be listed as an insured or additional insured.

C.\* All the policies of insurance (and the certificates or other evidence thereof) required to be purchased and maintained in accordance with paragraph 5.06 will contain a provision or endorsement that the coverage afforded will not be canceled or materially changed or renewal refused until at least 30 days prior written notice has been given to OWNER and CONTRACTOR and to each other additional insured to whom a certificate of insurance has been issued and will contain waiver provisions in accordance with paragraph 5.07.

D.\* OWNER shall not be responsible for purchasing and maintaining any property insurance specified in this paragraph 5.06 to protect the interests of CONTRACTOR, Subcontractors, or others in the Work to the extent of any deductible amounts that are identified in the Supplementary Conditions. The risk of loss within such identified deductible amount will be borne by CONTRACTOR, Subcontractors, or others suffering any such loss, and if any of them wishes property insurance coverage within the limits of such amounts, each may purchase and maintain it at the purchaser's own expense.

E.\* If CONTRACTOR requests in writing that other special insurance be included in the property insurance policies provided under paragraph 5.06, OWNER shall, if possible, include such insurance, and the cost thereof will be charged to CONTRACTOR by appropriate Change Order or Written Amendment. 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, ENGINEER, ENGINEER's Consultants, and all other

individuals or entities identified in the Supplementary Conditions to be listed as insureds or additional insureds (and the officers, directors, partners, employees, agents, and other consultants and subcontractors of each and any of them) in such policies and will provide primary coverage for all losses and damages caused by the perils or causes of loss covered thereby. All such policies shall contain provisions to the effect that in the event of payment of any loss or damage the insurers will have no rights of recovery against any of the insureds or additional insureds thereunder. OWNER and CONTRACTOR waive all rights against each other and their respective officers, directors, partners, employees, agents, and other 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, ENGINEER, ENGINEER's Consultants, and all other individuals or entities identified in the Supplementary Conditions to be listed as insureds or additional insureds (and the officers, directors, partners, employees, agents, and other 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, ENGINEER, ENGINEER's Consultants, and the officers, directors, partners, employees, agents, and other consultants and subcontractors of each and any of them for:

\*See Supplementary Conditions

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 peril 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, ENGINEER, or ENGINEER's Consultants and the officers, directors, partners, employees, agents, and other 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 insureds, 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 or Written Amendment.

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 2.05.C. 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

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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

\*See Supplementary Conditions

the Contract Documents. CONTRACTOR shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction, but 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. CONTRACTOR shall be responsible to see that the completed Work complies accurately with the Contract Documents.

B. At all times during the progress of the Work, CONTRACTOR shall assign a competent resident superintendent thereto who shall not be replaced without written notice to OWNER and ENGINEER except under extraordinary circumstances. The superintendent will be CONTRACTOR's representative at the Site and shall have authority to act on behalf of CONTRACTOR. All communications given to or received from the superintendent shall be binding on CONTRACTOR.

6.02 *Labor; Working Hours*

A. CONTRACTOR shall provide competent, suitably qualified personnel to survey, lay out, and construct the Work 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, and CONTRACTOR will not permit overtime work or the performance of Work on 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 General Requirements, 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 warranties and guarantees specifically called for 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. 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 (or Milestones). Such adjustments will conform generally to the progress schedule then in effect and additionally will comply with any provisions of the General Requirements applicable thereto.

2. Proposed adjustments in the progress schedule that will change the Contract Times (or Milestones) shall be submitted in accordance with the requirements of Article 12. Such adjustments may only be made by a Change Order or Written Amendment in accordance with Article 12.

#### 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: (i) it is at least equal in quality, durability, appearance, strength, and design characteristics; (ii) it will reliably perform at least equally well the function imposed by the design concept of the completed Project as a functioning whole, and;

b. CONTRACTOR certifies that: (i) there is no increase in cost to the OWNER; and (ii) it will conform substantially, even with deviations, to the detailed requirements of the item named in the Contract Documents.

#### 2. *Substitute Items*

a. If in ENGINEER's sole discretion an item of material or equipment proposed by CONTRACTOR does not qualify as an "or-equal" item under paragraph 6.05.A.1, it will be considered a proposed substitute item.

b. CONTRACTOR shall submit sufficient information as provided below to allow ENGINEER to determine that the item of material or equipment proposed is essentially equivalent to that named and an acceptable substitute therefor. Requests for review of proposed substitute items of material or equipment will not be accepted by ENGINEER from anyone other than CONTRACTOR.

c. The procedure for review by ENGINEER will be as set forth in paragraph 6.05.A.2.d, as supplemented in the General Requirements and as ENGINEER may decide is appropriate under the circumstances.

d. CONTRACTOR shall first 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 shall certify

that the proposed substitute item will perform adequately the functions and achieve the results called for by the general design, be similar in substance to that specified, and be suited to the same use as that specified. The application will state the extent, if any, to which the use of the proposed substitute item will prejudice CONTRACTOR's achievement of Substantial Completion on time, whether or not use of the proposed substitute item in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with OWNER for work on the Project) to adapt the design to the proposed substitute item and whether or not incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty. All variations of the proposed substitute item from that specified will be identified in the application, and available engineering, sales, maintenance, repair, and replacement services will be indicated. The application will also 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, all of which will be considered by ENGINEER in evaluating the proposed substitute item. ENGINEER may require CONTRACTOR to furnish additional data about the proposed substitute item.

B. *Substitute Construction Methods or Procedures:* If a specific means, method, technique, sequence, or procedure of construction is shown or indicated in and 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 procedure for review by ENGINEER will be similar to that provided in subparagraph 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 will be the sole judge of acceptability. No "or-equal" or substitute will be ordered, installed or utilized until ENGINEER's review is complete, which will be evidenced by either a Change Order for a

substitute or an approved Shop Drawing for an "or equal." ENGINEER will advise CONTRACTOR in writing of any negative determination.

D. *Special Guarantee:* OWNER may require CONTRACTOR to furnish at CONTRACTOR's expense a special performance guarantee or other surety with respect to any substitute.

E. *ENGINEER's Cost Reimbursement:* ENGINEER will record time required by ENGINEER and ENGINEER's Consultants in evaluating substitute proposed or submitted by CONTRACTOR pursuant to paragraphs 6.05.A.2 and 6.05.B and in making changes in the Contract Documents (or in the provisions of any other direct contract with OWNER for work on the Project) occasioned thereby. Whether or not ENGINEER approves a substitute item so proposed or submitted by CONTRACTOR, CONTRACTOR shall reimburse OWNER for the charges of ENGINEER and ENGINEER's Consultants for evaluating each such 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 or Written Amendment signed. 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 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 shall it create any obligation on the part of OWNER or ENGINEER to pay or to see to the payment of any moneys due any such Subcontractor, Supplier, or other individual or entity except as may otherwise be required by Laws and Regulations.

D. CONTRACTOR shall be solely responsible for scheduling and coordinating the Work of Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work under a direct or indirect contract with CONTRACTOR.

E. CONTRACTOR shall require all Subcontractors, Suppliers, and such other individuals or entities performing or furnishing any of the Work to communicate with ENGINEER through CONTRACTOR.

F. The divisions and sections of the Specifications and the identifications of any Drawings shall not control CONTRACTOR in dividing the Work among Subcontractors or Suppliers or delineating the Work to be performed by any specific trade.

G. All Work performed for CONTRACTOR by a Subcontractor or Supplier will be pursuant to an appropriate agreement between CONTRACTOR and the Subcontractor or Supplier which specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract Documents for the benefit of OWNER and ENGINEER. Whenever any such agreement is with a Subcontractor or Supplier who is listed as an additional insured on the property insurance provided in paragraph 5.06, the agreement between the CONTRAC-

TOR and the Subcontractor or Supplier will contain provisions whereby the Subcontractor or Supplier waives all rights against OWNER, CONTRACTOR, ENGINEER, ENGINEER's Consultants, and all other individuals or entities identified in the Supplementary Conditions to be listed as insureds or additional insureds (and the officers, directors, partners, employees, agents, and other 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. To the fullest extent permitted by Laws and Regulations, CONTRACTOR shall indemnify and hold harmless OWNER, ENGINEER, ENGINEER's Consultants, and the officers, directors, partners, employees or agents, and other consultants 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. CONTRACTOR shall pay all charges of utility owners for connections to the Work, and OWNER shall pay all charges of such utility owners for capital costs related thereto, such as plant investment fees.

#### 6.09 *Laws and Regulations*

A. CONTRACTOR shall give all notices and comply with all Laws and Regulations applicable to the performance of the Work. Except where otherwise expressly required by applicable Laws and Regulations, neither OWNER nor ENGINEER shall be responsible for monitoring CONTRACTOR's compliance with any Laws or Regulations.

B. If CONTRACTOR performs any Work knowing or having reason to know that it is contrary to Laws or Regulations, CONTRACTOR shall bear all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such Work; however, it shall not be CONTRACTOR's primary responsibility to make certain that the Specifications and Drawings are in accordance with Laws and Regulations, but this shall not relieve CONTRACTOR of CONTRACTOR's obligations under paragraph 3.03.

C. Changes in Laws or Regulations not known at the time of opening of Bids (or, on the Effective Date of the Agreement if there were no Bids) having an effect on the cost or time of performance of the Work may 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,

\*See Supplementary Conditions

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, ENGINEER, ENGINEER's Consultant, and the officers, directors, partners, employees, agents, and other consultants 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 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, Written Amendments, Change Orders, Work Change Directives, Field Orders, and written interpretations and clarifications in good order and annotated to show changes made during construction. These record documents together with all approved Samples and a counterpart of all approved Shop Drawings will be available to ENGINEER for reference. Upon completion of the Work, these record documents, Samples, and Shop Drawings will be delivered to ENGINEER for OWNER.

#### 6.13 *Safety and Protection*

A. CONTRACTOR shall be solely responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. CONTRACTOR shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to:

1. all persons on the Site or who may be affected by the Work;
2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and
3. other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.

B. CONTRACTOR shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection. CONTRACTOR shall notify owners of adjacent property and of Underground Facilities and other utility owners when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property. 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 ENGINEER's Consultant, 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). 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 to ENGINEER for review and approval in accordance with the acceptable schedule of Shop Drawings and Sample submittals. All submittals will be identified as ENGINEER may require and in the number of copies specified in the General Requirements. The 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.E.

B.\* CONTRACTOR shall also submit six (6) Samples to ENGINEER for review and approval in accordance with the acceptable schedule of Shop Drawings and Sample submittals. Each Sample will be identified clearly as to material, Supplier, pertinent data such as catalog numbers, and the use for which intended and otherwise as ENGINEER may require to enable ENGINEER to review the submittal for the limited purposes required by paragraph 6.17.E. The numbers of each Sample to be submitted will be as specified in the Specifications.

C. Where a Shop Drawing or Sample is required by the Contract Documents or the schedule of Shop Drawings and Sample submittals acceptable to ENGINEER as required by paragraph 2.07, 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.

#### D. *Submittal Procedures*

1. Before submitting each Shop Drawing or Sample, CONTRACTOR shall have determined and verified:

a. all field measurements, quantities, dimensions, specified performance criteria, installation requirements, materials, catalog numbers, and similar information with respect thereto;

b. all materials with respect to intended use, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work;

c. all information relative to means, methods, techniques, sequences, and procedures of construction and safety precautions and programs incident thereto; and

d. CONTRACTOR shall also have reviewed and coordinated each Shop Drawing or

\*See Supplementary Conditions

Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents.

2. Each submittal shall bear a stamp or specific written indication that CONTRACTOR has satisfied CONTRACTOR's obligations under the Contract Documents with respect to CONTRACTOR's review and approval of that submittal.

3. At the time of each submittal, CONTRACTOR shall give ENGINEER specific written notice of such variations, if any, that the Shop Drawing or Sample submitted may have from the requirements of the Contract Documents, such notice to be in a written communication separate from the submittal; and, in addition, shall cause a specific notation to be made on each Shop Drawing and Sample submitted to ENGINEER for review and approval of each such variation.

#### E. *ENGINEER's Review*

1. ENGINEER will timely review and approve Shop Drawings and Samples in accordance with the schedule of Shop Drawings and Sample 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 of Shop Drawings or Samples shall not relieve CONTRACTOR from responsibility for any variation from the requirements of the Contract Documents unless CONTRACTOR has in writing called ENGINEER's attention to each such variation at the time of each submittal as required by paragraph 6.17.D.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 approval; nor will any approval by ENGINEER relieve CONTRACTOR from responsibility for complying with the requirements of paragraph 6.17.D.1.

#### F. *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, ENGINEER, and ENGINEER's Consultants that all Work will be in accordance with the Contract Documents and will not be defective. 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.

B. 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 acceptance by OWNER or any failure to do so;
6. any review and approval of a Shop Drawing or Sample submittal or the issuance of a notice of acceptability by ENGINEER;
7. any inspection, test, or approval by others; or
8. 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, ENGINEER, ENGINEER's Consultants, and the officers, directors, partners, employees, agents, and other consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to 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:

1. 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; and

2. is caused in whole or in part 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, regardless of whether or not caused in part by any negligence or omission of an individual or entity indemnified hereunder or whether liability is imposed upon such indemnified party by Laws and Regulations regardless of the negligence of any such individual or entity.

B. In any and all claims against OWNER or ENGINEER or any of their respective consultants, agents, officers, directors, partners, or employees by any employee (or the survivor or personal representative of such employee) of CONTRACTOR, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under paragraph 6.20.A shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for CONTRACTOR or any such Subcontractor, Supplier, or other individual or entity under workers' compensation acts, disability benefit acts, or other employee benefit acts.

C. The indemnification obligations of CONTRACTOR under paragraph 6.20.A shall not extend to the liability of ENGINEER and ENGINEER's Consultants or to the officers, directors, partners, employees, agents, and

other consultants and subcontractors of each and any of them 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.

ARTICLE 7 - OTHER WORK

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7.01 *Related Work at Site*

A. OWNER may perform other work related to the Project at the Site by OWNER's employees, or let 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 and each utility owner (and OWNER, if OWNER is performing the other work with OWNER's employees) proper and safe access to the Site and a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work and shall properly coordinate the Work with theirs. Unless otherwise provided in the Contract Documents, CONTRACTOR shall do all cutting, fitting, and patching of the Work that may be required to properly connect or otherwise make its several parts come together and properly integrate with such other work. CONTRACTOR shall not endanger any work of others by cutting, excavating, or otherwise altering their work and will only cut or alter their work with the written consent of ENGINEER and the others whose work will be affected. The duties and responsibilities of CONTRACTOR under this paragraph are for the benefit of

such utility owners and other contractors to the extent that there are comparable provisions for the benefit of CONTRACTOR in said direct contracts between OWNER and such utility owners and other contractors.

C. If the proper execution or results of any part of CONTRACTOR's Work depends upon work performed by others under this Article 7, CONTRACTOR shall inspect such other work and promptly report to ENGINEER in writing any delays, defects, or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of CONTRACTOR's Work. CONTRACTOR's failure to so report will constitute an acceptance of such other work as fit and proper for integration with CONTRACTOR's Work except for latent defects and deficiencies in such other work.

#### 7.02 *Coordination*

A. If OWNER intends to contract with others for the performance of other work on the Project at the Site, the following will be set forth in Supplementary Conditions:

1. the individual or entity who will have authority and responsibility for coordination of the activities among the various contractors will be identified;
2. the specific matters to be covered by such authority and responsibility will be itemized; and
3. the extent of such authority and responsibilities will be provided.

B. Unless otherwise provided in the Supplementary Conditions, OWNER shall have sole authority and responsibility for such coordination.

### ARTICLE 8 - OWNER'S RESPONSIBILITIES

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#### 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 Promptly When Due*

A. OWNER shall make payments to CONTRACTOR promptly when they are due as provided in paragraphs 14.02.C and 14.07.C.

#### 8.05 *Lands and Easements; Reports and Tests*

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

\*See Supplementary Conditions

#### 8.06\* *Insurance*

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

#### 8.07 *Change Orders*

A. OWNER is obligated to execute Change Orders as indicated in paragraph 10.03.

#### 8.08 *Inspections, Tests, and Approvals*

A. OWNER's responsibility in respect to certain inspections, tests, and approvals is set forth in paragraph 13.03.B.

8.09 *Limitations on OWNER's Responsibilities*

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

8.10 *Undisclosed Hazardous Environmental Condition*

A. OWNER's responsibility in respect to an undisclosed Hazardous Environmental Condition is set forth in paragraph 4.06.

8.11 *Evidence of Financial Arrangements*

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

ARTICLE 9 - ENGINEER'S STATUS DURING CONSTRUCTION

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9.01 *OWNER'S Representative*

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

9.02 *Visits to Site*

A. ENGINEER will make visits to the Site at intervals appropriate to the various stages of construction as ENGINEER deems necessary in order to observe as an experienced and qualified design professional the progress that has been made and the quality of the various aspects of CONTRACTOR's executed Work. Based on information obtained during such visits and

observations, ENGINEER, for the benefit of OWNER, will determine, in general, if the Work is proceeding in accordance with the Contract Documents. ENGINEER will not be required to make exhaustive or continuous inspections on the Site to check the quality or quantity of the Work. ENGINEER's efforts will be directed toward providing for OWNER a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On the basis of such visits and observations, ENGINEER will keep OWNER informed of the progress of the Work and will endeavor to guard OWNER against defective Work.

B. ENGINEER's visits and observations are subject to all the limitations on ENGINEER's authority and responsibility set forth in paragraph 9.10, and 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 responsibilities and authority and limitations thereon of any such Resident Project Representative and assistants will be as provided in paragraph 9.10 and in the Supplementary Conditions. If OWNER designates another representative or agent to represent OWNER at the Site who is not ENGINEER's Consultant, agent or employee,

\*See Supplementary Conditions

the responsibilities and authority and limitations thereon of such other individual or entity will be as provided in the Supplementary Conditions.

9.04 *Clarifications and Interpretations*

A. ENGINEER will issue with reasonable promptness such written clarifications or interpretations of the requirements of the Contract Documents as ENGINEER may determine necessary, which shall be consistent with the intent of and reasonably inferable from the Contract Docu-

ments. Such written clarifications and interpretations will be binding on OWNER and CONTRACTOR. 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, that should be allowed as a result of a written clarification or interpretation, a Claim may be made therefor as provided in paragraph 10.05.

#### 9.05 *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 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, as a result of a Field Order, a Claim may be made therefor as provided in paragraph 10.05.

#### 9.06 *Rejecting Defective Work*

A. ENGINEER will have authority to disapprove or 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.

#### 9.07 *Shop Drawings, Change Orders and Payments*

A. In connection with ENGINEER's authority as to Shop Drawings and Samples, see paragraph 6.17.

B. In connection with ENGINEER's authority as to Change Orders, see Articles 10, 11, and 12.

C. In connection with ENGINEER's authority as to Applications for Payment, see Article 14.

#### 9.08 *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.

#### 9.09 *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. Claims, disputes and other matters relating to the acceptability of the Work, the quantities and classifications of Unit Price Work, the interpretation of the requirements of the Contract Documents pertaining to the performance of the Work, and Claims seeking changes in the Contract Price or Contract Times will be referred initially to ENGINEER in writing, in accordance with the provisions of paragraph 10.05, with a request for a formal decision.

B. When functioning as interpreter and judge under this paragraph 9.09, 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. The rendering of a decision by ENGINEER pursuant to this paragraph 9.09 with respect to any such Claim, dispute, or other matter (except any which have been waived by the making or acceptance of final payment as provided in paragraph 14.07) will be a condition precedent to any exercise by OWNER or CONTRACTOR of such rights or remedies as either may otherwise have under the Contract Documents or by Laws or Regulations in respect of any such Claim, dispute, or other matter.

\*See Supplementary Conditions

#### 9.10 *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 9.10 shall also apply to ENGINEER's Consultants, Resident Project Representative, and assistants. See Article 18.

## ARTICLE 10 - CHANGES IN THE WORK; CLAIMS

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### 10.01 *Authorized Changes in the Work*

A. Without invalidating the Agreement 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 Written Amendment, a Change Order, or a Work Change Directive. Upon receipt of any such document, CONTRACTOR shall promptly proceed with the Work involved which will be performed under the

applicable conditions of the Contract Documents (except as otherwise specifically provided).

B. If OWNER and CONTRACTOR are unable to agree on entitlement to, or on the amount or extent, if any, of an adjustment in the Contract Price or Contract Times, or both, that should be allowed as a result of a Work Change Directive, a Claim may be made therefor as provided in paragraph 10.05.

### 10.02 *Unauthorized Changes in the Work*

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

### 10.03 *Execution of Change Orders*

A. OWNER and CONTRACTOR shall execute appropriate Change Orders recommended by ENGINEER (or Written Amendments) covering:

1. changes in the Work which are: (i) ordered by OWNER pursuant to paragraph 10.01.A, (ii) required because of acceptance of defective Work under paragraph 13.08.A or OWNER's correction of defective Work under paragraph 13.09, or (iii) agreed to by the parties;

2. changes in the Contract Price or Contract Times which are agreed to by the parties, including any undisputed sum or amount of time for Work actually performed in accordance with a Work Change Directive; and

3. changes in the Contract Price or Contract Times which embody the substance of any written decision rendered by ENGINEER pursuant to paragraph 10.05; provided that, in lieu of executing any such Change Order, an appeal may be taken from any such decision in accordance with the provisions of the Contract Documents and applicable Laws and Regulations, but during any such appeal, CONTRACTOR shall carry on the Work and adhere to the progress schedule as provided in paragraph 6.18.A.

10.04 *Notification to Surety*

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

10.05 *Claims and Disputes*

A. *Notice:* Written notice stating the general nature of each Claim, dispute, or other matter 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. Notice of the amount or extent of the Claim, dispute, or other matter 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, dispute, or other matter). A Claim for an adjustment in Contract Price shall be prepared in accordance with the provisions of paragraph 12.01.B. A Claim for an adjustment in Contract Time shall be prepared in accordance with the provisions of paragraph 12.02.B. Each Claim shall be accompanied by claimant's written statement that the adjustment claimed is the entire adjustment to which the claimant believes it is entitled as a result of said event. The opposing party shall submit any response to ENGINEER and the claimant within 30 days after receipt of the claimant's last submittal (unless ENGINEER allows additional time).

B. *ENGINEER's Decision:* ENGINEER will render a formal decision in writing within 30 days after receipt of the last submittal of the claimant or the last submittal of the opposing party, if any. ENGINEER's written decision on such Claim, dispute, or other matter will be final and binding upon OWNER and CONTRACTOR unless:

1. an appeal from ENGINEER's decision is taken within the time limits and in accordance with the dispute resolution procedures set forth in Article 16; or

2. if no such dispute resolution procedures have been set forth in Article 16, a written notice of intention to appeal from ENGINEER's written decision is delivered by OWNER or CONTRACTOR to the other and to ENGINEER within 30 days

after the date of such decision, and a formal proceeding is instituted by the appealing party in a forum of competent jurisdiction within 60 days after the date of such decision or within 60 days after Substantial Completion, whichever is later (unless otherwise agreed in writing by OWNER and CONTRACTOR), to exercise such rights or remedies as the appealing party may have with respect to such Claim, dispute, or other matter in accordance with applicable Laws and Regulations.

C. If ENGINEER does not render a formal decision in writing within the time stated in paragraph 10.05.B, a decision denying the Claim in its entirety shall be deemed to have been issued 31 days after receipt of the last submittal of the claimant or the last submittal of the opposing party, if any.

D. No Claim for an adjustment in Contract Price or Contract Times (or Milestones) will be valid if not submitted in accordance with this paragraph 10.05.

ARTICLE 11 - COST OF THE WORK; CASH ALLOWANCES; UNIT PRICE WORK

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11.01 *Cost of the Work*

A. *Costs Included:* The term Cost of the Work means the sum of all costs necessarily incurred and paid by CONTRACTOR in the proper performance of the Work. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, the costs to be reimbursed to CONTRACTOR will be only those additional or incremental costs required because of the change in the Work or because of the event giving rise to the Claim. Except as otherwise may be agreed to in writing by OWNER, such costs shall be in amounts no higher than those prevailing in the locality of the Project, shall include only the following items, and shall not include any of the costs itemized in paragraph 11.01.B.

1. Payroll costs for employees in the direct employ of CONTRACTOR in the performance of the Work under schedules of job classifications agreed upon by OWNER and CONTRACTOR. Such employees shall include without limitation superintendents, foremen, and other personnel employed full time at the Site. Payroll costs for employees not employed full time on the Work

shall be apportioned on the basis of their time spent on the Work. Payroll costs shall include, but not be limited to, salaries and wages plus the cost of fringe benefits, which shall include social security contributions, unemployment, excise, and payroll taxes, workers' compensation, health and retirement benefits, bonuses, sick leave, vacation and holiday pay applicable thereto. The expenses of performing Work outside of regular working hours, on Saturday, Sunday, or legal holidays, shall be included in the above to the extent authorized by OWNER.

2. Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts shall accrue to CONTRACTOR unless OWNER deposits funds with CONTRACTOR with which to make payments, in which case the cash discounts shall accrue to OWNER. All trade discounts, rebates and refunds and returns from sale of surplus materials and equipment shall accrue to OWNER, and CONTRACTOR shall make provisions so that they may be obtained.

3. Payments made by CONTRACTOR to Subcontractors for Work performed by Subcontractors. If required by OWNER, CONTRACTOR shall obtain competitive bids from subcontractors acceptable to OWNER and CONTRACTOR and shall deliver such bids to OWNER, who will then determine, with the advice of ENGINEER, which bids, if any, will be acceptable. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work plus a fee, the Subcontractor's Cost of the Work and fee shall be determined in the same manner as CONTRACTOR's Cost of the Work and fee as provided in this paragraph 11.01.

4. Costs of special consultants (including but not limited to engineers, architects, testing laboratories, surveyors, attorneys, and accountants) employed for services specifically related to the Work.

5. Supplemental costs including the following:

a. The proportion of necessary transportation, travel, and subsistence expenses of

CONTRACTOR's employees incurred in discharge of duties connected with the Work.

b. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office, and temporary facilities at the Site, and hand tools not owned by the workers, which are consumed in the performance of the Work, and cost, less market value, of such items used but not consumed which remain the property of CONTRACTOR.

c. Rentals of all construction equipment and machinery, and the parts thereof whether rented from CONTRACTOR or others in accordance with rental agreements approved by OWNER with the advice of ENGINEER, and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs shall be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts shall cease when the use thereof is no longer necessary for the Work.

d. Sales, consumer, use, and other similar taxes related to the Work, and for which CONTRACTOR is liable, imposed by Laws and Regulations.

e. Deposits lost for causes other than negligence of CONTRACTOR, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.

f. Losses and damages (and related expenses) caused by damage to the Work, not compensated by insurance or otherwise, sustained by CONTRACTOR in connection with the performance of the Work (except losses and damages within the deductible amounts of property insurance established in accordance with paragraph 5.06.D), provided such losses and damages have resulted from causes other than the negligence of CONTRACTOR, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses shall include settlements made with the written consent and approval of OWNER. No such losses, damages, and expenses shall be included in the Cost of the Work for the purpose of determining CONTRACTOR's fee.

g. The cost of utilities, fuel, and sanitary facilities at the Site.

h. Minor expenses such as telegrams, long distance telephone calls, telephone service at the Site, expressage, and similar petty cash items in connection with the Work.

i. When the Cost of the Work is used to determine the value of a Change Order or of a Claim, the cost of premiums for additional Bonds and insurance required because of the changes in the Work or caused by the event giving rise to the Claim.

j. When all the Work is performed on the basis of cost-plus, 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, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks, and other personnel employed by CONTRACTOR, whether at the Site or in CONTRACTOR's principal or branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in paragraph 11.01.A.1 or specifically covered by paragraph 11.01.A.4, all of which are to be considered administrative costs covered by the CONTRACTOR's fee.

2. Expenses of CONTRACTOR's principal and branch offices other than CONTRACTOR's office at the Site.

3. Any part of CONTRACTOR's capital expenses, including interest on CONTRACTOR's capital employed for the Work and charges against CONTRACTOR for delinquent payments.

4. Costs due to the negligence of CONTRACTOR, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not

limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property.

5. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in paragraphs 11.01.A and 11.01.B.

C. *CONTRACTOR's Fee:* When all the Work is performed on the basis of cost-plus, CONTRACTOR's fee shall be determined as set forth in the Agreement. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, CONTRACTOR's fee shall be determined as set forth in paragraph 12.01.C.

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

#### 11.02 *Cash 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 as may be acceptable to OWNER and ENGINEER. CONTRACTOR agrees that:

1. the 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

2. CONTRACTOR's costs for unloading and handling on the Site, labor, installation costs, overhead, profit, and other expenses contemplated for the 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.

B. 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. 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 9.08.

B. 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.

C. 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 any other item of Work; and

3. if 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

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12.01\* *Change of Contract Price*

A. The Contract Price may only be changed by a Change Order or by a Written Amendment. Any Claim for an adjustment in the Contract Price shall be based on written notice submitted by the party making the Claim to the ENGINEER and the other party to the Contract in accordance with the provisions of paragraph 10.05.

B.\* The value of any Work covered by a Change Order or of any Claim for an adjustment in the Contract Price will be determined as follows:

1. where the Work involved is covered by unit prices contained in the Contract Documents, by application of such unit prices to the quantities of the items involved (subject to the provisions of paragraph 11.03 ); or

2. where the Work involved is not covered by unit prices contained in the Contract Documents, by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with paragraph 12.01.C.2); or

3. where the Work involved is not covered by unit prices contained in the Contract Documents and agreement to a lump sum is not reached under paragraph 12.01.B.2, on the basis of the Cost of the Work (determined as provided in paragraph 11.01) plus a CONTRACTOR's fee for overhead and profit (determined as provided in paragraph 12.01.C).

C. *CONTRACTOR's Fee*: The CONTRACTOR's fee for overhead and profit shall be determined as follows:

1. a mutually acceptable fixed fee; or

2. if a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:

a. for costs incurred under paragraphs 11.01.A.1 and 11.01.A.2, the CONTRACTOR's fee shall be 15 percent;

b. for costs incurred under paragraph 11.01.A.3, the CONTRACTOR's fee shall be five percent;

c. where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of paragraph 12.01.C.2.a is that the Subcontractor who actually performs the Work, at whatever tier, will be paid a fee of 15 percent of the costs incurred by such Subcontractor under paragraphs 11.01.A.1 and 11.01.A.2 and that any higher tier Subcontractor and CONTRACTOR will each be paid a fee of five percent of the amount paid to the next lower tier Subcontractor;

\*See Supplementary Conditions

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 (or Milestones) may only be changed by a Change Order or by a Written Amendment. Any Claim for an adjustment in the Contract Times (or Milestones) 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 (or Milestones) covered by a Change Order or of any Claim for an adjustment in the Contract Times (or Milestones)

will be determined in accordance with the provisions of this Article 12.

#### 12.03 *Delays Beyond CONTRACTOR's Control*

A. Where CONTRACTOR is prevented from completing any part of the Work within the Contract Times (or Milestones) due to delay beyond the control of CONTRACTOR, the Contract Times (or Milestones) 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.

#### 12.04 *Delays Within CONTRACTOR's Control*

A. The Contract Times (or Milestones) will not be extended due to 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.

#### 12.05 *Delays Beyond OWNER's and CONTRACTOR's Control*

A. Where CONTRACTOR is prevented from completing any part of the Work within the Contract Times (or Milestones) due to delay beyond the control of both OWNER and CONTRACTOR, an extension of the Contract Times (or Milestones) in an amount equal to the time lost due to such delay shall be CONTRACTOR's sole and exclusive remedy for such delay.

#### 12.06 *Delay Damages*

A. In no event shall OWNER or ENGINEER be liable to CONTRACTOR, any Subcontractor, any Supplier, or any other person or organization, or to any surety for or employee or agent of any of them, for damages arising out of or resulting from:

1. delays caused by or within the control of CONTRACTOR; or

2. delays beyond the control of both OWNER and CONTRACTOR including but not limited to fires, floods, epidemics, abnormal weather conditions, acts of God, or acts or neglect by utility

owners or other contractors performing other work as contemplated by Article 7.

B. Nothing in this paragraph 12.06 bars a change in Contract Price pursuant to this Article 12 to compensate CONTRACTOR due to delay, interference, or disruption directly attributable to actions or inactions of OWNER or anyone for whom OWNER is responsible.

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

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13.01 *Notice of Defects*

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

13.02\* *Access to Work*

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

13.03\* *Tests and Inspections*

A. CONTRACTOR shall give ENGINEER timely notice of readiness of the Work for all required inspections, tests, or approvals and shall cooperate with inspection and testing personnel to facilitate required inspections or tests.

B.\* 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 said paragraph 13.04.B; and

3. as otherwise specifically provided in the Contract Documents.

C. If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested, or approved by an employee or other representative of such public body, CONTRACTOR shall assume full responsibility for arranging and obtaining such inspections, tests, or approvals, pay all costs in connection therewith, and furnish ENGINEER the required certificates of inspection or approval.

D. CONTRACTOR shall be responsible for arranging and obtaining and shall pay all costs in connection with any inspections, tests, or approvals required for OWNER's and ENGINEER's acceptance of materials or equipment to be incorporated in the Work; or acceptance of materials, mix designs, or equipment submitted for approval prior to CONTRACTOR's purchase thereof for incorporation in the Work. Such inspections, tests, or approvals shall be performed by organizations acceptable to OWNER and ENGINEER.

E. If any Work (or the work of others) that is to be inspected, tested, or approved is covered by CONTRACTOR without written concurrence of ENGINEER, it must, if requested by ENGINEER, be uncovered for observation.

F. Uncovering Work as provided in paragraph 13.03.E shall be at CONTRACTOR's expense unless CONTRACTOR has given ENGINEER timely notice of CONTRACTOR's intention to cover the same and ENGINEER has not acted with reasonable promptness in response to such notice.

13.04 *Uncovering Work*

A. If any Work is covered contrary to the written request of ENGINEER, it must, if requested by ENGINEER, be uncovered for ENGINEER's observation and replaced at CONTRACTOR's expense.

B. If ENGINEER considers it necessary or advisable that covered Work be observed by ENGINEER or inspected or tested by others, CONTRACTOR, at ENGINEER's request, shall uncover, expose, or otherwise make available for observation, inspection, or testing as ENGINEER may require, that portion of the Work in

question, furnishing all necessary labor, material, and equipment. If it is found that such 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. If, however, such 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 Milestones), 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.

\*See Supplementary Conditions

#### 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. 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).

#### 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 Laws or Regulations or 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: (i) repair such defective land or areas, or (ii) correct such defective Work or, if the defective Work has been rejected by OWNER, remove it from the Project and replace it with Work that is not defective, and (iii) 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. If CONTRACTOR does not promptly comply with the terms of such 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, and 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.

B. 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 or by Written Amendment.

C. 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.

D. CONTRACTOR's obligations under this paragraph 13.07 are in addition to any other obligation or warranty. The provisions of this paragraph 13.07 shall not be construed as a substitute for or a waiver of the provisions of any applicable statute of limitation or repose.

#### 13.08 *Acceptance of Defective Work*

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

#### 13.09 *OWNER May Correct Defective Work*

A. If CONTRACTOR fails within a reasonable time after written notice from ENGINEER to correct defective Work or to remove and replace rejected Work as required by ENGINEER in accordance with paragraph 13.06.A, or if CONTRACTOR fails to perform the Work in accordance with the Contract Documents, or if CONTRACTOR fails to comply with any other provision of the Contract Documents, OWNER may, after seven days written notice

to CONTRACTOR, correct and remedy any such deficiency.

B. In exercising the rights and remedies under this paragraph, OWNER shall proceed expeditiously. In connection with such corrective and 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 (or Milestones) 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

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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 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 pro-gress payments will be as stipulated in the Agreement.

\*See Supplementary Conditions

B. *Review of Applications*

1. ENGINEER will, within 10 days after receipt of each Application for Payment, either indicate in writing a recommendation of payment and present the Application to OWNER or return the Application to CONTRACTOR indicating in writing ENGINEER's reasons for refusing to recommend payment. In the latter case, CONTRACTOR may make the necessary corrections and resubmit the Application.

2. ENGINEER's recommendation of any payment requested in an Application for Payment will constitute a representation by ENGINEER to OWNER, based on ENGINEER's observations on the Site of the executed Work as an experienced and qualified design professional and on ENGINEER's review of the Application for Payment and the accompanying data and schedules, that to the best of ENGINEER's knowledge, information and belief:

a. the Work has progressed to the point indicated;

b. the quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, to the results of any subsequent tests called for in the Contract Documents, to a final determination of quantities and classifications for Unit Price Work under paragraph 9.08, and to any other qualifications stated in the recommendation); and

c. the conditions precedent to CONTRACTOR's being entitled to such payment appear to have been fulfilled in so far as it is ENGINEER's responsibility to observe the Work.

3. By recommending any such payment ENGINEER will not thereby be deemed to have represented that: (i) 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 (ii) that there may not be other matters or issues between the parties

that might entitle CONTRACTOR to be paid additionally by OWNER or entitle OWNER to withhold payment to CONTRACTOR.

4. Neither ENGINEER's review of CONTRACTOR's Work for the purposes of recommending payments nor ENGINEER's recommendation of any payment, including final payment, will impose responsibility on ENGINEER to supervise, direct, or control the Work or for the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for CONTRACTOR's failure to comply with Laws and Regulations applicable to CONTRACTOR's performance of the Work. Additionally, said review or recommendation will not impose responsibility on ENGINEER to make any examination to ascertain how or for what purposes CONTRACTOR has used the moneys paid on account of the Contract Price, or 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 referred to 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 Written Amendment or 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 must give CONTRACTOR immediate written notice (with a copy to ENGINEER) stating the reasons for such action and promptly pay CONTRACTOR any amount remaining after deduction of the amount so withheld. OWNER shall promptly pay CONTRACTOR the amount so withheld, or any adjustment thereto agreed to by OWNER and CONTRACTOR, when CONTRACTOR corrects to OWNER's satisfaction the reasons for such action.

3. If it is subsequently determined that OWNER's refusal of payment was not justified, the amount wrongfully withheld shall be treated as an amount due as determined by paragraph 14.02.C.1.

#### 14.03 *CONTRACTOR's Warranty of Title*

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

#### 14.04 *Substantial Completion*

A. When CONTRACTOR considers the entire Work ready for its intended use CONTRACTOR shall notify OWNER and ENGINEER in writing that the entire Work is substantially complete (except for items specifically listed by CONTRACTOR as incomplete) and request that ENGINEER issue a certificate of Substantial Completion. Promptly thereafter, 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. If ENGINEER considers the Work substantially complete, ENGINEER will prepare and 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. 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.

B. OWNER shall have the right to exclude CONTRACTOR from the Site after the date of Substantial Completion, but OWNER shall allow CONTRACTOR reasonable access to complete or correct items on the tentative list.

#### 14.05 *Partial Utilization*

A. Use by OWNER at OWNER's option of 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, may be accomplished prior to Substantial Completion of all the Work subject to the following conditions.

1. OWNER at any time may request CONTRACTOR in writing to permit OWNER to use any such part of the Work which OWNER believes to be ready for its intended use and substantially complete. If CONTRACTOR agrees that such part of the Work is substantially complete, CONTRACTOR will certify to OWNER and ENGINEER that such part of the Work is substantially complete and request ENGINEER to issue a certificate of Substantial Completion for that part of the Work. 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. 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.

2. No 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: (i) all documentation called for in the Contract Documents, including but not limited to the evidence of insurance required by subparagraph 5.04.B.7; (ii) consent of the surety, if any, to final payment; and (iii) complete and legally effective releases or waivers (satisfactory to OWNER) of all Lien rights arising out of or Liens filed in connection with the Work.

3. In lieu of the releases or waivers of Liens specified in paragraph 14.07.A.2 and as approved by OWNER, CONTRACTOR may furnish receipts or releases in full and an affidavit of CONTRACTOR that: (i) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (ii) all payrolls, material and equipment bills, and other

indebtedness connected with the Work for which OWNER or OWNER's property might in any way be responsible have been paid or otherwise satisfied. If any Subcontractor or Supplier fails to furnish such a release or receipt in full, CONTRACTOR may furnish a Bond or other collateral satisfactory to OWNER to indemnify OWNER against any Lien.

##### B. *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 will become due and, when due, 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 and recommendation of ENGINEER, and without terminating the Agreement, 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 writing which are still unsettled.

### ARTICLE 15 - SUSPENSION OF WORK AND TERMINATION

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#### 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 allowed an adjustment in the Contract Price or an extension of the Contract Times, or both, directly attributable to any such suspension if CONTRACTOR makes a Claim therefor as provided in paragraph 10.05.

#### 15.02 *OWNER May Terminate for Cause*

A. The occurrence of any one or more of the following events will justify termination for cause:

1. CONTRACTOR's persistent failure to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment or failure to adhere to the progress schedule established under paragraph 2.07 as adjusted from time to time pursuant to paragraph 6.04);

2. CONTRACTOR's disregard of Laws or Regulations of any public body having jurisdiction;

3. CONTRACTOR's disregard of the authority of ENGINEER; or

4. CONTRACTOR's violation in any substantial way of any provisions of the Contract Documents.

B. If one or more of the events identified in paragraph 15.02.A occur, OWNER may, after giving CONTRACTOR (and the surety, if any) seven days written notice, terminate the services of CONTRACTOR, 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), 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 finish the Work as OWNER may deem expedient. In such case, CONTRACTOR shall not be entitled to receive any further payment until the Work is finished. 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.

C. 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.

#### 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, elect to terminate the Contract. In such case, CONTRACTOR shall be paid (without duplication of any items):

1. for 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. for 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. for 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. for 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, the Work is suspended for more than 90 consecutive days by OWNER or under an order of court or other public authority, or ENGINEER fails to act on any Application for Payment within 30 days after it is submitted, or 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. 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. Dispute resolution methods and procedures, if any, shall be as set forth in the Supplementary Conditions. If no method and procedure has been set forth, and subject to the provisions of paragraphs 9.09 and 10.05, OWNER and CONTRACTOR may exercise such rights or remedies as either may otherwise have under the Contract Documents or by Laws or Regulations in respect of any dispute.

### ARTICLE 17 - MISCELLANEOUS\*

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#### 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 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 if 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, and 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 Agreement.

17.05 *Controlling Law*

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

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## SUPPLEMENTARY CONDITIONS

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## SUPPLEMENTARY CONDITIONS

### AMENDMENTS TO GENERAL CONDITIONS

These Supplementary Conditions amend or supplement the Standard General Conditions of the Construction Contract (No. 1910-8, 1996 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.

#### ARTICLE I. DEFINITIONS AND TERMINOLOGY

Add the following language at the beginning of definition I.QI A.12 entitled "Contract Documents" in the General-Conditions:

"The Advertisement for Bids, Instructions to Bidders, State Regulations, ..."

Delete the words "The individual or entity named as such in the Agreement" in 1.01.A.19 and insert the following in their place:

"The individual or entity duly appointed by the Owner to undertake the duties and powers herein assigned to the Engineer, acting either directly or through duly appointed representatives."

Delete the words "and who is identified as such in the Supplementary Conditions" at the end of definition 1.01 A.20, entitled "ENGINEER'S Consultant."

Delete definition 1.01 A.41 entitled "Specifications" in the General Conditions in its entirety and insert the following in its place:

"Sections included under Division 1 through Division 16 of the Contract Documents:"

#### ARTICLE 2. PRELIMINARY MATTERS

##### SC-2.05

Delete paragraph 2.0SC of the General Conditions in its entirety and insert the following in its place:

"C. Evidence of Insurance: CONTRACTOR shall deliver to OWNER, with a copy to the ENGINEER, Certificates of Insurance within 10 days after receipt of the notice of the acceptance of bid (and other evidence requested by OWNER) which CONTRACTOR is required to purchase and maintain in accordance with the requirements of Article 5."

ARTICLE 3. CONTRACT DOCUMENTS: INTENT, AMENDING, REUSE  
SC-3.0

Add the following sentence at the end of Paragraph 3.01A of the General Conditions:

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

ARTICLE 4. AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS;  
REFERENCE POINTS

SC-4.02

Delete the term "Supplementary Conditions" of paragraph 4.02 A of the General Conditions and replace it with "Contract Documents".

SC-4.04

Change "of" to "or" on line 6 of paragraph 4.04 B.2 of the General Conditions. Delete the following words from lines 8 and 9 of paragraph 4.04 B.2 of the General Conditions:

"...Or not shown or indicated with reasonable accuracy..."

SC-4.05

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

B. ENGINEER may check the lines elevations and reference marks 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 construction of the entire Work in accordance with the Contract Documents. CONTRACTOR shall furnish personnel to assist ENGINEER in checking lines and grades."

SC-4.06

Delete the term Supplementary Conditions in paragraph 4.06A of the General Conditions and replace it with "Contract Documents".

ARTICLE 5. BOND AND INSURANCE

NOTICE TO CONTRACTOR:

1. Proof of Insurance coverage shall be furnished to the OWNER in accordance with the schedule for submittal of Bonds and Agreements.
2. Additionally refer to Article 2. PRELIMINARY MATTERS, Paragraph SC-2.05.C

SC-5.01

Insert these sentences following SC-5.01.A: The Surety Company providing the bonds shall have a rating of A or better within the Best Key Rating Guide and be licensed by the Massachusetts Division of Insurance. The contractor shall pay the premiums for such Bonds.

SC-5.03

Delete the second sentence following SC-5.03.A: of the General Conditions, which beings "OWNER shall deliver to..."

SC-5.04

The limits of liability for the insurance required by paragraph 5.04A of the General Conditions shall provide coverage for not less than the following amounts or greater where required by law:

5.4 A.1 and 5.04 A.2 Worker's Compensation

|                                       |                               |
|---------------------------------------|-------------------------------|
| (1) Worker's Compensation             | Statutory Requirements        |
| (2) Coverage B - Employer's Liability | \$100,000/\$500,000/\$100,000 |

5.04 A.3, 5.04 A.4, and 5.04 A.5 Commercial General Liability Limits shall include Coverage for... independent Contractors, Personal Injury, Owners and Contractors Protective Liability, Explosion, Underground and Collapse, Broad Form Property Damage, Blanket Contractual Liability per locations/project endorsement.

|                               |                         |
|-------------------------------|-------------------------|
| Commercial General Liability  | \$1,000,000/\$2,000,000 |
| Products/completed Operations | \$2,000,000 Aggregate   |

5.4 A.6 Automobile Liability for owned, hired and non-owned vehicles:

|                     |                         |                 |
|---------------------|-------------------------|-----------------|
| (1) Bodily injury:  | \$1,000,000/\$1,000,000 | Each person     |
|                     | \$1,000,000/\$1,000,000 | Each accident   |
| (2) Property damage | \$1,000,000             | Each occurrence |

*The following indemnity agreement: shall be made part of this contract:*

1.To the fullest extent permitted by law, Contractor(s) hereby acknowledges and agrees that it shall indemnify, hold harmless and defend the Engineer, the Owner, the Engineer and any of their officers, directors, employees, agents, affiliates, subsidiaries and partners from and against all-claims, damages, losses and expenses, including but not limited to, attorney's fees, arising out of or resulting from the performance of the contractor's work under this contract, provided that any such claim, damage, loss or expense (1) is attributable to bodily injury to or destruction of tangible property (other than to the work itself) including loss of use resulting therefrom, and (2) is (CAUSED) in whole or in part by any

negligent acts omissions of the contractor, its employees, agents or contractors or anyone directly or indirectly employed by any of them, or anyone whose acts any of them may be liable.

2. The Contractor hereby acknowledges its obligation under the foregoing paragraph to indemnify the Engineer and Owner against judgments suffered because of the contractor's work and to assume the cost of defending the Engineer and Owner against claims as described in the foregoing paragraph.

A. Engineer and Owner shall be named as Additional Insured on contractors General Liability and Umbrella Liability Contractors.

The Contractual Liability required by paragraph s.04n.4 of the General Conditions shall provide coverage for not less than the following amounts:

- |  |                              |
|--|------------------------------|
| (1) Bodily injury:   | \$1,000,000 Each occurrence  |
|  | \$1,000,000 Annual aggregate |
| (2).Property damage, including explosion, collapse and underground coverage: | \$1,000,000 Each occurrence  |
|  | \$1,000,000 Annual aggregate |

SC-5.04

Add two new paragraphs immediately after paragraph-5.04B of the General Conditions, which are to read as follows:

"C. The CONTRACTOR shall also provide:

1. CONTRACTOR shall, as a minimum, purchase and maintain excess liability insurance in the umbrella form with a combined single limit of not less than \$5,000,000 per claim and in the aggregate. Evidence of such excess liability shall be delivered to OWNER in accordance with paragraph 2.0SC in the form of a certificate indicating the policy numbers and limits of liability of all underlying insurance.

A. General Liability, Workers' Compensation, Automobile Liability and Umbrella Liability Policies will contain waivers of subrogation in favor of the Engineer and Owner.

2. If the aggregate limits of liability indicated in CONTRACTOR' insurance provided in accordance with paragraphs 5.03 and 5.04 are not sufficient to cover all claims for damages arising from his operations under this Contract and from any other work performed by him or if policies of insurance do not provide that the aggregate limits of liability for bodily injury and property damage apply to each contract or project separately, CONTRACTOR shall have such policies amended so that the aggregate limits of liability required by this Contract will be available to cover all claims for damages due to operations under this Contract."

SC-5.05

Delete paragraph 5 .05 of the General Conditions in its entirety.

SC-5.06

Delete Paragraph 5.06 A of the General Conditions in its entirety and insert the following in its place:

"A. CONTRACTOR shall purchase and maintain, until final payment, property insurance upon the Work at the site in an amount equal to the total bid price for the completed construction. This insurance shall include the interests of OWNER, CONTRACTOR, Subcontractors, ENGINEER and ENGINEERS consultants in the Work, shall insure against the perils of fire and extended coverage, shall include "all risk" insurance for physical loss and damage including theft, vandalism and malicious mischief, collapse and water damage, and shall include damages, losses and expenses rising out of or resulting from any insured loss or incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers, architects, attorneys and other professionals). This insurance shall be provided on the completed value form.' If not covered under the "all risk" insurance or otherwise provided in these Supplementary Conditions, CONTRACTOR shall purchase and maintain similar property insurance on portions of the Work stored on and off the site or in transit when such portions of the Work are to be included in an Application for Payment." A \$20,000 deductible shall be acceptable. Any other deductible amount shall be approved in advance by the OWNER and any deductible amount shall be borne by the CONTRACTOR.

Delete paragraph 5.068 of the General Conditions in its entirety.

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

"C. All the policies of insurance (or the certificates or other evidence thereof) required to be purchased and maintained by CONTRACTOR in accordance with paragraphs 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 thirty days' prior written notice has been given to OWNER by certified mail and will contain waiver provisions in accordance with paragraph 5.078. The words "**Endeavor** to" shall be struck from the Certificate of Insurance in the Cancellation Statement"

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

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

SC-5.07

Amend the last sentence of paragraph 5.07A of the General Conditions by striking out the words "held by OWNER as trustee or." As so amended, paragraph 5.07A remains in effect.

SC-5.08

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

Delete paragraph 5.0813 of the General Conditions in its entirety.

SC-5.09

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

"A. If OWNER has any objection to the coverage afforded by or other provisions of the insurance required to be purchased and maintained by CONTRACTOR in accordance with this Article 5 on the basis of its not complying with the Contract Documents, OWNER will notify CONTRACTOR in writing thereof within thirty days of the date of delivery of such certificates to OWNER in accordance with paragraph 2.0SC. CONTRACTOR will provide such additional information in respect of insurance provided by him as OWNER may reasonably request."

ARTICLE 6. CONTRACTOR'S RESPONSIBILITIES

SC-6.01

Delete paragraph 6.01B of the General Conditions in its entirety and replace with the following:

"B. At the site of the Work the CONTRACTOR shall employ a full-time construction superintendent or foreman who shall have full authority to act for the CONTRACTOR. It is understood that such representative shall be acceptable to the ENGINEER and shall be one who will be continued in the capacity for the particular job involved unless the representative ceases to be on the CONTRACTOR'S payroll. If at any time during the Work the representative is deemed by the ENGINEER to be no longer acceptable, the representative shall be promptly replaced by the CONTRACTOR. All communications to the superintendent shall be as binding as if given to the CONTRACTOR."

SC-6.04

Add the following paragraph after paragraph 6.04 A.2 of the General Conditions: -

"B. The CONTRACTOR's resident superintendent shall attend weekly progress meetings at the site of the work with the ENGINEER and others as appropriate to review schedule status and such other pertinent subjects as may be listed on the agenda by the ENGINEER."

SC-6.17

In paragraph 6.17 E.1 of the General Conditions, delete the word "timely" from the first line.

SC-6.20

Delete paragraph 6.20A of the General Conditions in its entirety and replace with the following:

"A. To the fullest extent permitted by law, the CONTRACTOR shall indemnify and hold harmless the OWNER, the ENGINEER, ENGINEER'S consultants, and their agents and employees from and against all claims, damages, losses and expenses, including but not limited to attorney's fees, arising out of or resulting from the performance of the Work, provided that such claim, damage, loss or expense is attributable to bodily injury, sickness,

disease or death, or to injury to or destruction of tangible property (other than the Work itself) including loss of use resulting therefrom, but only to the extent caused in whole or in part by acts or omissions of the CONTRACTOR, a subcontractor, anyone directly or indirectly employed by them or anyone for whose acts they may be liable, regardless of whether or not such claim, damage, loss or expense is caused in part by a party indemnified hereunder. Such obligation shall apply to any such claims, damages, losses and expenses which arise and/or are incurred by any person or entity either during the performance of the Work and/or alter completion of construction. Nothing in this paragraph shall be construed to negate, abridge, or reduce other rights or obligations of indemnity or contribution which would otherwise exist as to a party or person indemnified hereunder. CONTRACTOR hereby assumes the responsibility and liability for injury to or death of any and all persons, including the CONTRACTOR's employees, and for any and all damage to property caused by, resulting from, or arising out of any act, omission or neglect on the part of the CONTRACTOR, or of any Subcontractor or of anyone directly or indirectly employed by any of them or of anyone for whose acts, any of them may be liable."

Delete paragraph 6.20C of the General Conditions in its entirety.

#### ARTICLE 8. OWNER'S RESPONSIBILITIES

##### SC-8.06

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

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

##### SC-9.01

Add a new paragraph 9.0113 after paragraph 9.01A of the General Conditions, which is to read as follows:

"B. Nothing contained in the Contract Documents shall be construed to create a contractual relationship of any kind (1) between the ENGINEER and CONTRACTOR, (2) between the OWNER and a Subcontractor or Subcontractors, or (3) between any person or entities other than the OWNER and CONTRACTOR. The ENGINEER shall, however, be entitled to performance and enforcement of obligations under the CONTRACT DOCUMENTS intended to facilitate performance of the ENGINEERS duties."

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

Delete Article 11 of the General Conditions in its entirety and replace with the following:

"A. The unit price of an item of Unit Price work shall be subject to reevaluation and adjustment under the following conditions:

(1) If the total extended bid price [Estimated Quantity times the Bid Unit Price] of a particular item of Unit Price Work amounts to 5 percent or more of the Original Contract Price and the variation in the quantity of the particular item of Unit Price Work performed by CONTRACTOR differs by more than 15 percent from the estimated quantity of such item indicated in the Agreement;  
and

(2) If there is no corresponding adjustment with respect to any other item of work; and

(3) If CONTRACTOR believes that CONTRACTOR has incurred additional expense as a result thereof, CONTRACTOR may make a claim for an adjustment in the Contract Price in accordance with Article 11- if the parties are unable to agree as to the effect of any such variations in the quantity of Unit Price Work performed. If OWNER believes that the quantity variation entitles OWNER to an adjustment in the unit price, OWNER shall be entitled to an adjustment in the unit price in an amount determined by the ENGINEER. ENGINEER shall not be liable in connection with any determination relating to adjustments which is rendered in good faith."

## ARTICLE 12. CHANGE OF CONTRACT PRICE; CHANGE OF CONTRACT TIMES

### SC-12.06

Add the following new paragraphs after paragraph 12.06 of the General Conditions:

"12.07 Liquidated Damages:

A. If the CONTRACTOR shall neglect, fail or refuse to complete the work within the time herein specified, or any proper extension thereof granted by the OWNER, then the CONTRACTOR does hereby agree, as a part consideration for the awarding of this Contract, to pay to the OWNER the amount specified in the Contract, not as a penalty but as liquidated damages for such breach of contract as hereinafter set forth, for each and every calendar day that the Contract shall be in default after the time stipulated in the Contract for completing the work. Such damages may be retained from time to time by the OWNER from progress payments or any amounts owing to the CONTRACTOR, or otherwise collected.

B. The said amount is fixed and agreed upon by and between the CONTRACTOR and the OWNER because of the impracticability and extreme difficulty of fixing and ascertaining the actual damages the OWNER would in such event sustain, and said amount is agreed to be the amount of damages which the OWNER would sustain and said amount shall be retained from time to time by the OWNER from current periodical estimates.

C. It is further agreed that time is of the essence of each and every portion of this Contract and of the specifications wherein as definite and certain length of times if fixed for the performance of any act whatsoever; and where under the Contract an additional time is allowed for the completion of any work, the new time limit fixed by such extension shall be of the essence of this Contract. Provided that the CONTRACTOR shall not be charged with liquidated damages of any excess cost when the OWNER determines that the CONTRACTOR is without fault and the CONTRACTOR'S reasons for the time extension are acceptable to the OWNER; Provided, further, that the CONTRACTOR shall not be charged with liquidated damages or any excess cost when the delay in completion of the work is due:

1) to any preference, priority or allocation order duly issued by the Government;

2) to unforeseeable cause 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 severe weather; and

3) to any delays of subcontractors or suppliers occasioned by any of the causes specified in subsections C(1) and C(2) above;

D. Provided, further, that the CONTRACTOR shall, within ten (10) days from the beginning of such delay, unless the OWNER shall grant a further period of time prior to the date of final settlement of the Contract, notify the OWNER, in writing, of the causes of the delay, who shall ascertain the facts and extent of the delay and notify the CONTRACTOR within a reasonable time of its decision in the matter."

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

SC-13.07

Delete paragraph 3.07A of the General Conditions and insert the following in its place:

"A. If within one year after the date of Substantial Completion or such longer period of time as may be prescribed by Laws or Regulations or 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, CONTRACTOR shall promptly, without cost to OWNER and in accordance with OWNER's written instructions: (i) correct such defective work, or, if it has been rejected by OWNER, remove it from the site and replace it with work that is not defective, and (ii) satisfactorily construct or remove and replace any damage to other work or the work of others therefrom. If CONTRACTOR does not begin the repairs ten (10) days of receipt of written notification and promptly comply with the terms of OWNER's written instructions, or in an emergency when delay would cause serious risk, loss or damage, OWNER may have the defective work corrected or the rejected work removed and replaced, and all claims, costs, losses and damages caused by or resulting from such removal and replacement (including but not limited to all costs of repair or replacement of work of others) will be paid by CONTRACTOR."

SC-13.09

Revise paragraph 13.09A of the General Conditions

A. Delete the word "seven" and replace it with the word "ten" so that it reads "after ten days written notice to CONTRACTOR."

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

SC-14.02

Delete paragraph 14.02A.3 and insert the following in its place:

"3. Retainage with respect to progress payments will be five percent or, if stipulated, the maximum allowed by law."

Add Paragraph 4. to read as follows:

"4. The CONTRACTOR shall submit Weekly Payroll Records Report and Statement of

Compliance verifying compliance with the Minimum Prevailing Wage Law, MGL ch. 149, Sections 26-27H. "These Statements of Compliance shall be submitted as a condition of payment for work performed during the period the reports apply."

#### SC-14.03

Delete paragraph 14.03A in its entirety and insert the following in its place:

"A CONTRACTOR warrants and guarantees that title to all work, material and equipment covered by any Application for Payment, whether incorporated in the Project or not, will pass to OWNER no later than at the time of Application for Payment free and clear of all liens. CONTRACTOR shall provide written transfer of title and a certified paid invoice provided by the supplier."

### ARTICLE 15. SUSPENSION OF WORK AND TERMINATION

#### SC-15.02

Add a new paragraph immediately after paragraph 15.02 AA of the General Conditions which is to read as follows:

"5. If the Work to be done under this Contract shall be abandoned, or if this Contract or any part thereof shall be sublet, without the previous written consent of OWNER, or if the contract or any claim thereunder shall be assigned by CONTRACTOR otherwise than as herein specified;"

### ARTICLE 17. MISCELLANEOUS

#### SC-17.06, 17.07, 17.08, 17.09

Add the following new paragraphs after paragraph 17.05 of the General Conditions:

"17.06 Assignment:

A. The CONTRACTOR shall not assign the whole or any part of this Contract or any moneys due or to become due hereunder until thirty (30) days prior notice in writing has been given to the OWNER of the intention to assign, which notice shall state the identity and address of the prospective assignee. No assignment shall be made without the OWNER's prior written consent. Such consent shall not be unreasonably withheld. In case the CONTRACTOR assigns all or any part of the moneys 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 moneys due or to become due to the CONTRACTOR shall be subject to prior claims of all persons, firms and corporations of services rendered or materials supplied for the performance of the work called for in this Contract."

#### 17.7 Liability

It is understood and agreed that members of the OWNER or the ENGINEER' or any agent or employees of the OWNER signing this Agreement shall not be personally liable hereunder for any action incurred in connection with this Agreement.

#### 17.8 State Statutes and Regulations

See Superseding Changes To General & Supplementary Conditions 12/29/04 for further modifications of the General Conditions due to state statutes and regulations.

#### 17.9 Severability

If any provision of this Agreement shall be invalid or unenforceable to any extent or in any application, then the remainder of this Agreement and of such terms and conditions, except to such extent or in such application, shall not be affected thereby, and each and every term and condition of this Agreement shall be valid and enforced to the fullest extent and in the broadest application permitted by law."

END OF SECTION

**STATE STATUTES AND REGULATIONS  
COMMONWEALTH OF MASSACHUSETTS**

- A. REVISIONS TO GENERAL CONDITIONS
  - 1. Definitions
  - 2. Subsurface Conditions Found Different
  - 3. Subcontracting
  - 4. Permits
  - 5. Contractor Records
  - 6. Massachusetts Sales and Use Tax I
  - 7. Clarifications and Interpretations
  - 8. Change of Contract Price
  - 9. Payments
  - 10. Suspension of Work and Termination
  - 11. Labor Classification and Minimum Wage Rates
- B. OTHER REGULATORY REQUIREMENTS
  - 1. Working Hours
  - 2. DEP Community Sound Level Criteria

ATTACHMENT A – Wage Rates

ATTACHMENT B

Excerpts from Chapter 149 and Chapter 30 of the Massachusetts General Law

ATTACHMENT C - (not used on this project)

Special Provisions for Minority/Women Business Enterprises and the Commonwealth of Massachusetts Supplemental Equal Employment Opportunity Anti-Discrimination and Affirmative Action Program.

ATTACHMENT D--

Change Orders

A. REVISIONS TO GENERAL CONDITIONS:

1. Definitions

The term "AWARDING AUTHORITY," as used herein, shall be considered to be synonymous with the term "OWNER," described in definition 1.01 A.30.

Delete definition 1.01 A.43 entitled "Substantial Completion" in the General Conditions in its entirety and insert the following in its place:

"Substantial Completion shall be interpreted in accordance with Massachusetts General Law Chapter 30, Section 39G or -39K as appropriate."

2. Subsurface Conditions Found Different

Add the following sentence to the end of paragraph 4.03A of the General Conditions:

"...to do so. Adjustments resulting from subsurface or latent physical conditions will be in accordance with Massachusetts General Law Chapter 30, Section 39N."

3. Subcontracting

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

"Except as required otherwise by Massachusetts General Law Chapter 149, Section 44F, for Work governed by Chapter 149, sections 44A through 44H."

4. Permits

Delete paragraph 6.08A of the General Conditions in its entirety and insert the following in its place:

"A. The AWARDING AUTHORITY shall be responsible for identifying and obtaining all federal, state, and local permits required by the nature and location of construction, including but not limited to railroad permits, building construction permits, and permits for street and highway cuts and openings. CONTRACTOR shall be responsible for obtaining all permits required of his equipment, work force, or particular operations (such as blasting) in the performance of the Work and not otherwise specified to be obtained by the AWARDING AUTHORITY. These permit fees shall be paid by CONTRACTOR. 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."

5. Contractor Records

Add a new paragraph immediately after paragraph 6.09C of the General Conditions, which is to read as follows:

"D. The CONTRACTOR shall comply with all applicable provisions Chapter 30, Section 39R of the Massachusetts General Laws Regarding, CONTRACTOR'S records."

6. Massachusetts Sales and Use Tax

Add the following paragraph after paragraph 6.10A of the General Conditions:

"B. The material and supplies to be used by the CONTRACTOR in the Work of this Contract are exempt from the Sales and Use Tax of the Commonwealth of Massachusetts. The AWARDING AUTHORITY tax exemption certificate number will be furnished to the CONTRACTOR."

7. Clarifications and Interpretations

Add the following language at the end of paragraph 9.04A of the General Conditions:

"The ENGINEER'S interpretation will be made in accordance with the requirements of Massachusetts General Law Chapter 30, Section 39P."

8. Change of Contract Price

Delete paragraphs 11.01, 11.02, and 12.01 of the General Conditions, having to do with Change of Contract Price. Changes in contract price will be governed by the section called "Change Orders" in Attachment D, Section XXX and Article 11 in the Supplementary Conditions.

9. Payments

Delete paragraph 12.028.1 of the General Conditions, in its entirety and insert the following in its place:

"1. Progress Payments will be made in accordance with the Massachusetts General Law Chapter 30, Section 39G or 39K, as applicable."

Add the following new paragraph following paragraph 14.02C.1 of the General Conditions:

"2. The CONTRACTOR shall make payments to Subcontractors in accordance with the requirements of Massachusetts General Law Chapter 30, Section 39F."

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

"1. If, on the basis of the ENGINEER's observation of the Work during construction and final inspection and, upon the ENGINEER's review of the final Application for Payment and accompanying documentation, the ENGINEER is satisfied that the Work has been completed and that the CONTRACTOR's other obligations under the Contract Documents have been fulfilled, the ENGINEER will indicate in writing his recommendation of payment and present the Application to the AWARDING AUTHORITY for payment. Thereupon the ENGINEER will give written notice to the AWARDING AUTHORITY and the CONTRACTOR that the Work is acceptable subject to the provisions of paragraph 14.15. Otherwise, the ENGINEER will return the Application to CONTRACTOR, indicating in writing the reasons for refusing to recommend final payment. In such case the CONTRACTOR shall make the

necessary corrections and resubmit the Application. If the Application and accompanying documentation are appropriate as to form and substance, the AWARDING AUTHORITY shall in accordance with the applicable Massachusetts General Law, pay the CONTRACTOR the amount recommended by the ENGINEER."

10. Suspension of Work and Termination

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

"A. The AWARDING AUTHORITY may order, at any time and without cause, the CONTRACTOR to suspend or delay the Work in accordance with Massachusetts General Law Chapter 30, Section 39-0."

11. Labor Classifications and Minimum Wage Rates

Add the following paragraphs under the heading "Wage Rates" after paragraph 17.10 of the Supplementary Conditions:

"17.11 Wage Rates

- A. Minimum wage rates as determined by the Commissioner of the Department of Labor and Industries under the provisions of Massachusetts General Laws Chapter 149, Sections 26-270 apply to this project. A copy of the wage schedule is included in the front end of the specifications under Federal Minimum Wage Rates. If, after the Notice of Award, it becomes necessary to employ any person in a trade or occupation not classified in the wage determinations, such person shall be paid at not less than such rates as shall be determined by the Commissioner. Such approved minimum rate shall be retro- active to the time of the initial employment of such person in such trade or occupation. The CONTRACTOR shall notify the AWARDING AUTHORITY of its intention to employ persons in trades or occupations not classified in the wage determinations as soon as possible in order to allow sufficient time for the AWARDING AUTHORITY to obtain approved rates for such trades or occupations.
- B. The schedule of wages referred to above are minimum rates only, and the AWARDING AUTHORITY will not consider any claims for additional compensation made by CONTRACTOR because of payment by the CONTRACTOR of any wage rate in excess of the applicable rate contained in the Contract.
- C. The said schedule of wages shall continue to be the minimum rates to be paid during the life of this Agreement and a legible copy of said schedule shall be kept posted in a conspicuous place at the site of the Work.
- D. CONTRACTOR and subcontractors shall submit a copy of weekly payroll records to the AWARDING AUTHORITY and the AWARDING AUTHORITY shall retain the records of a minimum of three years."

B. OTHER REGULATORY REQUIREMENTS:

1. Working Hours

No laborer, workman, mechanic, foreman, or inspector, working within the Commonwealth, in the employ of the CONTRACTOR, subcontractor, or other person doing or contracting to do the whole or a part of the work contemplated by this contract, shall be required or permitted to work more than eight hours in any one day or more than forty-eight hours in any one week, or more than six days in any one week, except in cases of emergency.

2. DEP Community sound Level Criteria

The Community Sound Level Criteria as established by the Commonwealth of Massachusetts Department of Environmental Protection (DEP) must be conformed to prior to the AWARDING AUTHORITY's acceptance of the structure. The following sound level criteria must be met at the construction site:

- A. The increase in the broad band noise level shall not be in excess of ten (10) dB(A) above ambient at the station boundary. The ambient level is defined as the A-weighted noise level that is exceeded ninety (90) percent of the time measured during the period in question.
- B. The primary noise source(s) shall not produce a puretone condition. Puretone is any given octave band center frequency that exceeds the two adjacent center frequencies by three (3) or more decibels.

END OF SECTION

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**SUPERSEDING CHANGES TO  
GENERAL AND SUPPLEMENTARY CONDITIONS**

1. GENERAL CONDITIONS

2.06A - insert at end: Said conference shall be scheduled and arranged by the Contractor. I

4.01B - delete

4.06G - delete

5.07B - delete

6.17E - restore the word "timely" in the first line. Delete the word "only" from the 5" line. Where "only" has been deleted, insert "to determine their general conformance with the contract documents, in accordance with good and accepted engineering practices, and".

8.02A - delete "to whom contractor makes no reasonable objection".

9.02A - Insert, after "Work" in the 6" line, "While construction is active at the project, said visits and inspections will take place at least once per week."

12.06 - delete subparts A and B, and replace with the following: "The Contractor hereby agrees that the Contractor shall have no claim for damages of any kind against the Owner or the Engineer on account of any delay in the commencement of the Work and/or any delay in, or suspension of any portion of the Work, whether such delay is caused by the Owner, the Engineer, or otherwise. The Contractor acknowledges that the Contractor's sole remedy for any such delay and/or suspension will be an extension of time as provided in these general conditions.

No claims shall be allowed on account of the failure of the Engineer to furnish Drawings, specifications or instructions or to return Shop Drawings or Samples until the expiration of the applicable time period referenced in Mass. Gen. L. c. 30, §39P, and not then unless such claim be reasonable.

No extension of time shall be granted because of seasonable or abnormal variations in temperature, humidity or precipitation, which conditions shall be wholly at the risk of the Contract, whether occurring within the time originally scheduled for completion, or within any period of extension granted. There shall be no increase in the Contract Sum on account of any additional costs or operations or conditions resulting therefrom.

14.02C - change "Ten" to "Twenty-One"

14.07A(3) - delete the first three lines through the word "Owner,". In the third line, after Contractor, substitute "shall" for "may". In the fourth line, after the word "full" insert "on behalf of both Contractor and all of its Subcontractors,".

14.09A(1) - delete -

15.03B - add after "termination" ", with respect to this project or any other project of the Contractor."

Add "15.03C. If this Contract is terminated by Owner with or without cause, and regardless of whether said termination is rightful or wrongful, in no event shall the Contractor be paid a sum which, together with prior payments to Contractor, exceeds the sum payable to Contractor under the Agreement (Section 00520), as adjusted by any agreed change orders.

## II. SUPPLEMENTARY CONDITIONS

### Article V - Bonds and Insurance

Employer's liability coverage must be \$2 million per accident, \$2 million disease limits, and \$2 million per employee disease limits.

General liability insurance limits must be \$5 million aggregate, \$2 million dollars' products/completed operations aggregate; \$2 million personal injury and advertising; and \$2 million per occurrence.

The contractual liability insurance coverage must have limits corresponding to the foregoing. At 5.04A.6, the following changes should be made to paragraph I of the indemnity clause: four lines from the bottom, the parenthesis should be removed from the word "CAUSED" and the word "CAUSED" should be changed to lower-case (caused). Also, in the last line of said clause, insert the word "for" after the word "anyone."

At SC-5.04C 1 - insert the following sentence at the end: "The Contractor's excess liability insurance coverage must follow from with its underlying liability coverages."

SC-6.20A - insert the word "defend" after the word "shall" in the first line.

SC-14.02A.3 - insert the following sentence at the end: "Retainage for the entire project will be withheld until substantial completion of the entire project, at which time retainage shall be accounted for, subject to all of the other terms and conditions of payment at the time of substantial completion.

Add the following Article SC-18.

### SC-I 8 Arbitration - J

18.1 Controversies and Claims Subject to Arbitration. Any Claim arising out of or related to the Contract, or the breach thereof, except claims relating to aesthetic effect, shall be settled by arbitration, subject to the provisions of Subparagraph 18.7. Arbitration will be conducted in accordance with the Construction Industry Arbitration Rules of the American Arbitration Association and judgment upon the award rendered by the Arbitrator or Arbitrators may be entered in any Court having jurisdiction thereof. In any such arbitration in which the amount stated in the demand is \$100,000 or less, a single arbitrator shall be appointed in accordance with the procedures set forth in the American Arbitration Association Construction Industry Arbitration Rules. In any such arbitration in which the amount stated in the demand is in excess of \$100,000, a panel of three arbitrators shall be appointed in accordance with the procedures set forth in the American Arbitration

Association Construction Industry Arbitration Rules. The parties may agree to use any arbitration service. In the absence of such agreement, the American Arbitration Association shall be utilized.

18.2 Rules For Arbitration. If the neutral arbitrator is appointed by the American Arbitration Association, the said Association shall administer the arbitration and its Construction Industry Arbitration Rules shall govern all aspects of the proceeding including the enforcement of any award. If the neutral arbitrator is not appointed by the American Arbitration Association, then the panel of arbitrators shall act as the administrator of the arbitration but the Construction Industry Arbitration Rules of the Association shall nonetheless govern all aspects of the proceeding, including the enforcement of any award. The arbitration panel shall have all the powers and duties conferred on the Association pursuant to said rules.

In addition, the following rules shall govern the selection of arbitrators and the proceedings:

18.2.1 Neither party may appoint as arbitrator an employee or an owner of that party, nor the parent, spouse or child of an employee or owner of that party.

18.2.2 After the neutral arbitrator has been appointed, neither party may engage in ex parte communication with the arbitrator appointed by that party.

18.2.3 Contract Performance During Arbitration. During arbitration proceedings, the Owner and Contractor shall otherwise continue their performances hereunder.

18.3 When a written decision of the Engineer states that the decision is final, any demand for arbitration of the matter covered by such decision must be made within two months after substantial completion of the project, as determined by the Engineer in accordance with the provisions hereof. The failure to demand arbitration within said two month period will result in the Engineer's decision becoming final and binding upon the Owner and the Contractor.

18.4 A Demand for arbitration shall be made with the time limits specified in Subparagraph 18.3, and in no event shall be made after the date when the institution of legal or equitable proceedings based on such Claim would be barred by the applicable statute of limitations.

18.5 Claims and Timely Assertion of Claims. A party who files a notice of demand for arbitration must assert in the demand all Claims then known to that party on which arbitration is permitted to be demanded. When a party fails to include a claim through oversight, inadvertence or excusable neglect, or when a Claim has matured or been acquired subsequently, the arbitrator or arbitrators may permit amendment.

18.6 Judgment on Final Award. The award rendered by the arbitrator or arbitrators shall be final, and the judgment may be entered upon it in accordance with applicable law in any court having jurisdiction thereof.

18.7 Notwithstanding any provision contained in this Paragraph 18 or elsewhere in the Contract Documents, the Owner reserves the following right in connection with claims and disputes between the Owner and Contractor:

1. the right to institute the legal action against the Contractor in any court of competent jurisdiction in-lieu of demanding arbitration pursuant to this paragraph 18, in which case the dispute or disputes which are the subject of such action shall be decided by such court, and not by arbitration.

2. the right to obtain from any court of competent jurisdiction a stay of any arbitration instituted by the Contractor, provided that the application for such stay is made before the appointment of the neutral arbitrator in such arbitration, in which case the dispute or disputes which are the subject of such arbitration shall be decided by such court, and not by arbitration;

3. the right to require the Contractor to join as a party in any arbitration between the Owner and Architect relating to the Project in which case the Contractor agrees to be bound by that decision of the arbitrator arbitrators in such arbitration.

In case the Owner elects to proceed in accordance with 18.7.1 or 18.7.2 above, the word "litigation", shall be deemed to replace the word "arbitration" wherever the latter word appears in the Contract Documents.

SC-19 MBE and WBE participation

The Contractor shall comply with the provision of G.L.c. 7 40N, and any associated regulations effective during the time of the project, relative to the participation of minority and women-owned businesses in connection with the project. At present, the current participation goals are 7.4% MBE and 4% WBE.

END OF SECTION

## EQUAL OPPORTUNITY REQUIREMENTS

### 1. EQUAL EMPLOYMENT OPPORTUNITY

A. Equal Employment Plan: The Contractor and each Subcontractor shall implement an effective affirmative action plan to assure equal employment opportunity throughout the performance of work on this project. Do not discriminate against any employee or applicant for employment because of race, color, sex, religion, age, or national origin. Affirmative action plan shall include, but not be limited to, the following:

1. Employment, upgrading, demotion, or transfer.
2. Recruitment or recruitment advertising.
3. Layoff or termination.
4. Rates of pay or other forms of compensation.
5. Selection for training, including apprenticeship.

B. Rules and Regulations: The Contractor and each Subcontractor shall comply with all applicable local, state and federal laws and regulations regarding equal employment opportunity and with the provisions of the following:

1.. Governors "Executive Order No. 74", dated July 20, 1970, entitled the "Governor's Code of Fair Practices", as amended by the Governor's Executive Order No. 116, dated May 1, 1975.

2. The Fair Employment Practices Law of the Commonwealth, Chapter 1518 of the General Laws of Massachusetts, as amended.

3. The rules and regulations of the Massachusetts Commission Against Discrimination as in force at the date of the Contract.

4. The rules, regulations and relevant orders of the United States Secretary of Labor, the Commonwealth of Massachusetts Department of Labor and Industries, and other authorities having jurisdiction as in force at the date of the Contract.

5. Governor's 'Executive Order No. 237'.

C. Employment Advertisements: State in all solicitations or advertisements for employees that all qualified applicants will receive consideration for employment without regard to race, color, sex, religion, age, or national origin.

D. Referral Notices: Direct special effort toward the recruitment of minority workers through the unions and through referral agencies representing the minority community.

E. Advising Labor Unions: Send to each labor union or representative of workers with which the Contractor has a collective bargaining agreement or other contract or understanding, a notice advising the labor union or workers' representative of the Contractor's equal employment opportunity commitment and post copies of these notices in conspicuous places available to employees and applicants for employment.

F. Posting: Post copies of equal opportunity employment notices in conspicuous places available to employees and applicants for employment and post notices setting forth the provisions of this non-discrimination equal employment opportunity clause.

G. Manning Table: Assume and be responsible for the affirmative duty of achieving the range of minority employment and women work force participation set forth in a manning table for the entire project. Submit a manning table at the request of the Owner and obtain Owners approval prior to the Award of Contract.

H. Percentage Participation: Both Contractor and Sub-contractor shall comply with requirements of Minority and Women Business percentage of Contract percentage participation requirements specified in the Minority and Women Business Enterprise Set Aside Requirements Section.

END OF SECTION

**MINORITY AND WOMEN BUSINESS  
ENTERPRISE SET ASIDE REQUIREMENTS**

1. GENERAL

A. All provisions of the Contract Documents shall be subject to all applicable provisions of law, including, without limitation, Federal, State, and Local statutes and ordinances regarding setting aside a portion of the Contract for qualified Minority and Women Business Enterprises. The Contractor shall recognize that other duties and obligations are required by laws, statutes, and ordinances which may not be provided herein, but must be considered and made a part of this Contract. In case of a conflict between the Contract Documents and applicable laws, statutes, and ordinances, the provisions of law, statutes, and ordinances shall *govern*.

2. MINORITY AND WOMEN OWNED BUSINESS ENTERPRISE SET ASIDE REQUIREMENTS

A. Requirements For minority and women business enterprise set aside requirements, provided to the Architect by the Awarding Authority Follow. The Architect does not warrant or guarantee the completeness or accuracy of this information, and every bidder and contractor shall be responsible for ascertaining the MWBE set aside requirements in the area where the work will be performed.

1. Bidders shall agree to contract with minority and women owned businesses as certified by the State Office of Minority and Women Business Assistance [SOMWBA]. "the amount of participation which shall be reserved for such enterprises shall not be less than fifteen percent [15%] of the total contract amount including accepted alternates, of which at least ten percent [10%] shall be reserved for minority business enterprises and five percent [5%] shall be reserved for womenowned business enterprises.

2. The Contractor and each Subcontractor shall furnish to the Awarding Authority, within fifteen days alter completion of its portion of the work, a certified 'Statement of Compliance' certifying compliance with minority and women business enterprise set aside requirements. Submit the 'Statement of Compliance' in a form acceptable to the Awarding Authority.

3. See Massachusetts Executive Order 237 as amended.

END OF SECTION

MINORITY AND WOMEN BUSINESS ENTERPRISE SET ASIDE REQUIREMENTS

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**BY-LAWS OF THE TOWN OF ARLINGTON**  
**TITLE 1**  
**ARTICLE 16: CONSTRUCTION PROJECTS**

ART. 15 , A.T. M. 4/22/96

**Section 1. Women Work Force Participation**

Any Town board or official in charge of a construction or reconstruction project is required to include in the contract documents the following:

ART. 17, A.T.M. 4/28/99

A. The contractor shall maintain as a goal on this project a not less than five percent ratio of women work force to total project hours in both the general contract and individual filed sub-bid contract, if applicable. The preceding sentence shall be included in all construction contracts whether entered into the Town pursuant to the provisions of M.G.L. c.149 or M.G.L. c.30 §.39M, et seq., provided however, that if entered into under Chapter 30 same shall not be deemed to apply where the projected bid price as determined by the Director of Public Works is not likely to exceed \$200,000.

B. A Labor Scheduling Table which will be used as a tool for achieving a range of women work force participation for the entire project in both the general contract and .each individual filed sub-bid contract.

**Section 2. Equal Opportunity Goal Compliance**

Any Town board or official in charge of a construction or reconstruction project is required to include in the contract documents the following:

ART. 16 A.T.M. 4/24/96; ART. 17, A.T.M. 4/28/99

A. Before starting work, the contractors (includes general contractor, for itself and its subcontractors, as well as all filed sub-bid contractors, if applicable) will submit plans for achievement of the equal opportunity goals of the contract. All contractors will be required to make a good faith effort to achieve these goals. The plan will indicate if the contractors expect to achieve the requirements during the first quarter. If there are reasons why the contractors do not expect to achieve the requirements during the first quarter year of the contract construction phase, then the contractors shall provide a plan calculated to address, to the extent reasonably possible, these obstacles to a good faith effort to achieve such goals.

B. Not more than ten days following the end of each work quarter, the contractors will report on the achievement of the goals, detailing the good faith efforts that have been made and will continue to be made and any other appropriate efforts not yet undertaken.

C. All reports will be signed by an officer or principal of the company who has the authority to contractually obligate the company.

**Section 3. Recruitment and Training**

ART. 53 ATM 5/19/97

Any board, officer, committee, or other agency of the Town, which acts on behalf of the Town in making or supervising any contract, in an amount exceeding the sum of \$100,000 for the purchase of goods or services or for the construction, renovation, or repair of buildings or other improvement of real estate, may make arrangements with contractors and other interested agencies for special programs of recruitment and training in connection with the work to be performed on such contract, with the objective of promoting equal employment opportunity for members of minority groups protected by the fair employment

laws of the Commonwealth and the United States. Any board, officer, committee or other Town agency may expend Town funds in carrying them out provided that appropriations specifically designed for such purposes have been voted by the Town Meeting.  
ART. 32, ATM 5/14/03

**Section 4. LEED**

It is the intent of the Town to reduce the life-cycle operating costs and increase the environmental efficiency of Town buildings, by adopting the goal that all construction of new Town buildings and major renovations and additions to existing Town buildings meet or exceed a Silver Certification based on the most current criteria of the Leadership in Energy and Environmental Design (LEED) Green Building Rating System promulgated by the United States Green Building Council, or comparable scoring system. The Town shall include a minimum of LEED Silver Certification, or equivalent level in comparable building scoring system, as a required element in requests for proposal or bids it issues soliciting architectural design services for construction, major renovation, and addition to its buildings, unless the Permanent Town Building Committee makes the finding that such certification is not in keeping with the use or purpose of the building or is otherwise inappropriate. No building project shall be deemed complete until LEED Silver Certification or greater, or equivalent, has been confirmed, unless the PTBC makes the finding that such certification is not in keeping with the use or purpose of the building or is otherwise inappropriate.

ART. 18, ATM 4/00, ART. 32 ATM 5/14/03

[http://www.town.arlington.ma.us/Public\\_Documents/ArlingtonMA\\_TownBylaws/title1#article16](http://www.town.arlington.ma.us/Public_Documents/ArlingtonMA_TownBylaws/title1#article16)

END OF SECTION

## INSURANCE REQUIREMENTS

### 1. GENERAL

A. This section specifies the Owner's requirements for insurance and relates to the General Conditions of the Contract for Construction and Supplementary Conditions of the Contract for Construction.

B. Provisions of the General Conditions of the Contract for Construction and Supplementary General Conditions of the Contract for Construction, which are not modified by the following insurance Requirements, remain in full effect.

### 2. INSURANCE REQUIREMENTS

A. Insurance Limits: The insurance required should be written for not less than the limits of liability required by law or the following limits, whichever is greater: State and federal Workmen's Compensation Statutory Benefits required by union contract as required.

#### GENERAL LIABILITY\*

|  |                |
|--|----------------|
| General Liability- Bodily Injury and Property Damage Each Occurrence | \$1,000,000.00 |
| General Liability — Bodily Injury and Property Damage Aggregate      | \$2,000,000.00 |

General Liability shall include coverage for the following:

- Comprehensive form
- Premise/Operations Liability
- Explosion, Collapse and Underground (XCU). Products/Completed Operations (aggregate limit \$2,000,000.00) Contractual Liability
- Independent Contractors Broad
- Form Property Damage
- Personal Injury Including Libel and Slander Coverage Broad
- Form CGL Endorsement

#### AUTOMOBILE LIABILITY\*\*

|   |                |
|---|----------------|
| Comp. Automobile Liability** Bodily Injury and Property Damage Per Accident | \$1,000,000.00 |
|---|----------------|

\*\*Provide coverage for All Owned, Non-Owned, and Hired vehicles.

#### EXCESS LIABILITY – Umbrella Form

|                 |                |
|-----------------|----------------|
| Each occurrence | \$5,000,000.00 |
| Aggregate       | \$5,000,000.00 |

B. Exclusions: The Owner's property insurance shall not cover tools, equipment, shoring, staging, forms, temporary buildings or other equipment owned or rented by the Contractor, its Subcontractors, or any Worker.

C. Named Insured: Each Insurance policy certificate of insurance provided by the Contractor shall name the Town of Arlington as an additional insured. Each insurance policy and certificate of insurance provided by the Contractor shall contain a provision that the Owner shall be notified of cancellation or restrictive amendment at least thirty (30) days prior to the effective date of such cancellation or amendment.

D. Insurance Certificates: Submit insurance certificates for the Owner's review and approval prior to commencement of the work. The Contractor and all subcontractors who are required to provide insurance under the Contract shall provide accurate and bona fide "Certificates of insurance "issued by a responsible agent of the insurance company.

1. Certificate Content: Such "Certificates of Insurance" shall clearly indicate the insurance coverage. Each "Certificate of Insurance" shall be accompanied by a sworn and duly notarized statement from the responsible agent of the insurance company issuing the certificate clearly stating that all insurance specified and required by the Contract Documents is provided and in force, and also a clear statement of all exceptions and deviations, if any, from the Contract Document issuance requirements.

2. Responsibility: The insurance agent issuing and authorizing the "Certificate of Insurance" shall be responsible and liable for the accuracy and validity of the "Certificate of Insurance". Each insured party shall certify by sworn and duly notarized statement that the "Certificate of Insurance" issued for them are bona fide.

3. Disclaimers Prohibited: "Certificates of Insurance" shall not contain any disclaimers such as: "This Certificate is issued as a matter of information only and confers no right upon the certificate holder. This Certificate does not amend, extend, or alter the coverage afforded by the policies listed below." Disclaimers are not acceptable.

4. Certificates of Insurance Can Be Relied Upon: Parties receiving "Certificates of insurance" shall be entitled to rely upon the "Certificates of insurance" and shall have the right to claim the benefits and protection provided by the insurance as it applies to them.

5. Alternate to "Certificates of Insurance": Instead of providing the "Certificates of Insurance" and the sworn statements required above, the insured may provide bona fide and accurate copies of all insurance policies and riders accompanied by a sworn and duly notarized statement from the insured that the policies, riders, and documents submitted are bona fide and valid, and that parties receiving the insurance documents may rely on the documents as satisfaction of the Contract insurance requirements.

E. The Contractor shall provide "builder's risk" insurance as described in the General Conditions of the Contract for Construction and with limits equal to the full insurable completed value of the building under construction. The "Builder's Risk" insurance shall include "all risk" insurance for physical loss and damage including theft, vandalism, and malicious mischief. The "Builder's Risk" insurance shall be amended to delete any and all endorsements relating to cancellation of the policy due to partial occupancy by the Owner.

1. Builder's Risk Deductible Amount: \$1,000,000.00

END OF SECTION

To view and print Weekly Payroll & Statement of Compliance Forms, click on [www.mass.gov/dols/pw](http://www.mass.gov/dols/pw).

PLEASE NOTE: The attached Prevailing Wage Schedule is valid for 90 days. An Awarding Authority should re-request an up to date Prevailing Wage Schedule if it has NOT opened bids or selected a contractor within 90 days of the issuance date of the attached prevailing wage schedule.

\*For MULTI-YEAR projects bid on or after 8/8/08, Awarding Authorities must request an Annual Update to this Prevailing Wage Schedule each year for the duration of the project, no later than two weeks before the anniversary date of the execution of the general contract. Annual updates are not required for projects that last LESS THAN ONE YEAR.

\*For CM AT RISK projects (bid pursuant to GL c.149A), Awarding Authorities must request a Prevailing Wage Schedule NOT sooner than 90-days before the earlier of: (a) the execution date of the GMP Amendment, or (b) the bid for the first construction scope of work.

\*For MULTI-YEAR CM AT RISK projects, Awarding Authorities must request an Annual Update to this Prevailing Wage Schedule each year for the duration of the project, no later than two weeks before the anniversary date, which is the earlier of: (a) the execution date of the GMP Amendment, or (b) the execution date of the first amendment to procure construction scopes of work.

Apprentice wages (expressed as dollar figures) and the required benefits are listed on the Prevailing Wage Schedule. For further details, please see opinion letter PW-2010-03-03.16.10 (dated March 18, 2010) at [www.mass.gov/dols/pw](http://www.mass.gov/dols/pw).

Request Prevailing Wage Rates online at: [www.mass.gov/dols/pw](http://www.mass.gov/dols/pw).

THIS IS A SYSTEM-GENERATED EMAIL. PLEASE DO NOT REPLY TO THIS EMAIL. TO CONTACT DLS REGARDING PREVAILING WAGE MATTERS, CALL 617-626-6953.

=====

APPROVAL/DENIAL COMMENTS



**THE COMMONWEALTH OF MASSACHUSETTS  
EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT  
DEPARTMENT OF LABOR STANDARDS**

**Prevailing Wage Rates**

**As determined by the Director under the provisions of the  
Massachusetts General Laws, Chapter 149, Sections 26 to 27H**

CHARLES D. BAKER  
Governor

ROSALIN ACOSTA  
Secretary

MICHAEL FLANAGAN  
Interim Director

KARYN E. POLITO  
Lt. Governor

**Awarding Authority:** Town of Arlington  
**Contract Number:** 20-23 **City/Town:** ARLINGTON  
**Description of Work:** Reconstruction of Sidewalks on Mass Ave as required.  
**Job Location:** Mass Ave

Information about Prevailing Wage Schedules for Awarding Authorities and Contractors

- This wage schedule applies only to the specific project referenced at the top of this page and uniquely identified by the “Wage Request Number” on all pages of this schedule.
- An Awarding Authority must request an updated wage schedule from the Department of Labor Standards (“DLS”) if it has not opened bids or selected a contractor within 90 days of the date of issuance of the wage schedule. For CM AT RISK projects (bid pursuant to G.L. c.149A), the earlier of: (a) the execution date of the GMP Amendment, or (b) the bid for the first construction scope of work must be within 90-days of the wage schedule issuance date.
- The wage schedule shall be incorporated in any advertisement or call for bids for the project as required by M.G.L. c. 149, § 27. The wage schedule shall be made a part of the contract awarded for the project. The wage schedule must be posted in a conspicuous place at the work site for the life of the project in accordance with M.G.L. c. 149 § 27. The wages listed on the wage schedule must be paid to employees performing construction work on the project whether they are employed by the prime contractor, a filed sub-bidder, or any sub-contractor.
- All apprentices working on the project are required to be registered with the Massachusetts Department of Labor Standards, Division of Apprentice Standards (DLS/DAS). Apprentice must keep his/her apprentice identification card on his/her person during all work hours on the project. An apprentice registered with DAS may be paid the lower apprentice wage rate at the applicable step as provided on the prevailing wage schedule. **Any apprentice not registered with DLS/DAS regardless of whether or not they are registered with any other federal, state, local, or private agency must be paid the journeyworker's rate for the trade.**
- The wage rates will remain in effect for the duration of the project, except in the case of multi-year public construction projects. For construction projects lasting longer than one year, awarding authorities must request an updated wage schedule. Awarding authorities are required to request these updates no later than two weeks before the anniversary of the date the contract was executed by the awarding authority and the general contractor. For multi-year CM AT RISK projects, awarding authority must request an annual update no later than two weeks before the anniversary date, determined as the earlier of: (a) the execution date of the GMP Amendment, or (b) the execution date of the first amendment to permit procurement of construction services. Contractors are required to obtain the wage schedules from awarding authorities, and to pay no less than these rates to covered workers. The annual update requirement is not applicable to 27F “rental of equipment” contracts.
- Every contractor or subcontractor which performs construction work on the project is required to submit weekly payroll reports and a Statement of Compliance directly to the awarding authority by mail or email and keep them on file for three years. Each weekly payroll report must contain: the employee’s name, address, occupational classification, hours worked, and wages paid. Do not submit weekly payroll reports to DLS. A sample of a payroll reporting form may be obtained at <http://www.mass.gov/dols/pw>.
- Contractors with questions about the wage rates or classifications included on the wage schedule have an affirmative obligation to inquire with DLS at (617) 626-6953.
- Employees not receiving the prevailing wage rate set forth on the wage schedule may report the violation to the Fair Labor Division of the office of the Attorney General at (617) 727-3465.
- Failure of a contractor or subcontractor to pay the prevailing wage rates listed on the wage schedule to all employees who perform construction work on the project is a violation of the law and subjects the contractor or subcontractor to civil and criminal penalties.

| Classification   | Effective Date | Base Wage | Health  | Pension | Supplemental Unemployment | Total Rate |
|--|----------------|-----------|---------|---------|---------------------------|------------|
| <b>Construction</b>  |                |           |         |         |                           |            |
| (2 AXLE) DRIVER - EQUIPMENT<br><i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE A</i>                    | 12/01/2019     | \$35.35   | \$12.41 | \$13.72 | \$0.00                    | \$61.48    |
|  | 06/01/2020     | \$36.25   | \$12.41 | \$13.72 | \$0.00                    | \$62.38    |
|  | 08/01/2020     | \$36.25   | \$12.91 | \$13.72 | \$0.00                    | \$62.88    |
|  | 12/01/2020     | \$36.25   | \$12.91 | \$14.82 | \$0.00                    | \$63.98    |
|  | 06/01/2021     | \$37.05   | \$12.91 | \$14.82 | \$0.00                    | \$64.78    |
|  | 08/01/2021     | \$37.05   | \$13.41 | \$14.82 | \$0.00                    | \$65.28    |
|  | 12/01/2021     | \$37.05   | \$13.41 | \$16.01 | \$0.00                    | \$66.47    |
| (3 AXLE) DRIVER - EQUIPMENT<br><i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE A</i>                    | 12/01/2019     | \$35.42   | \$12.41 | \$13.72 | \$0.00                    | \$61.55    |
|  | 06/01/2020     | \$36.32   | \$12.41 | \$13.72 | \$0.00                    | \$62.45    |
|  | 08/01/2020     | \$36.32   | \$12.91 | \$13.72 | \$0.00                    | \$62.95    |
|  | 12/01/2020     | \$36.32   | \$12.91 | \$14.82 | \$0.00                    | \$64.05    |
|  | 06/01/2021     | \$37.12   | \$12.91 | \$14.82 | \$0.00                    | \$64.85    |
|  | 08/01/2021     | \$37.12   | \$13.41 | \$14.82 | \$0.00                    | \$65.35    |
|  | 12/01/2021     | \$37.12   | \$13.41 | \$16.01 | \$0.00                    | \$66.54    |
| (4 & 5 AXLE) DRIVER - EQUIPMENT<br><i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE A</i>                | 12/01/2019     | \$35.54   | \$12.41 | \$13.72 | \$0.00                    | \$61.67    |
|  | 06/01/2020     | \$36.44   | \$12.41 | \$13.72 | \$0.00                    | \$62.57    |
|  | 08/01/2020     | \$36.44   | \$12.91 | \$13.72 | \$0.00                    | \$63.07    |
|  | 12/01/2020     | \$36.44   | \$12.91 | \$14.82 | \$0.00                    | \$64.17    |
|  | 06/01/2021     | \$37.24   | \$12.91 | \$14.82 | \$0.00                    | \$64.97    |
|  | 08/01/2021     | \$37.24   | \$13.41 | \$14.82 | \$0.00                    | \$65.47    |
|  | 12/01/2021     | \$37.24   | \$13.41 | \$16.01 | \$0.00                    | \$66.66    |
| ADS/SUBMERSIBLE PILOT<br><i>PILE DRIVER LOCAL 56 (ZONE 1)</i>                                  | 08/01/2019     | \$102.78  | \$9.90  | \$21.15 | \$0.00                    | \$133.83   |
| For apprentice rates see "Apprentice- PILE DRIVER"   |                |           |         |         |                           |            |
| AIR TRACK OPERATOR<br><i>LABORERS - ZONE 1</i>   | 12/01/2019     | \$39.90   | \$8.10  | \$16.60 | \$0.00                    | \$64.60    |
|  | 06/01/2020     | \$40.89   | \$8.10  | \$16.60 | \$0.00                    | \$65.59    |
|  | 12/01/2020     | \$41.87   | \$8.10  | \$16.60 | \$0.00                    | \$66.57    |
|  | 06/01/2021     | \$42.89   | \$8.10  | \$16.60 | \$0.00                    | \$67.59    |
|  | 12/01/2021     | \$43.90   | \$8.10  | \$16.60 | \$0.00                    | \$68.60    |
| For apprentice rates see "Apprentice- LABORER"   |                |           |         |         |                           |            |
| ASBESTOS REMOVER - PIPE / MECH. EQUIPT.<br><i>HEAT &amp; FROST INSULATORS LOCAL 6 (BOSTON)</i> | 12/01/2019     | \$37.00   | \$12.50 | \$8.85  | \$0.00                    | \$58.35    |
|  | 06/01/2020     | \$38.00   | \$12.50 | \$8.85  | \$0.00                    | \$59.35    |
|  | 12/01/2020     | \$39.00   | \$12.50 | \$8.85  | \$0.00                    | \$60.35    |
| ASPHALT RAKER<br><i>LABORERS - ZONE 1</i>  | 12/01/2019     | \$39.40   | \$8.10  | \$16.60 | \$0.00                    | \$64.10    |
|  | 06/01/2020     | \$40.39   | \$8.10  | \$16.60 | \$0.00                    | \$65.09    |
|  | 12/01/2020     | \$41.37   | \$8.10  | \$16.60 | \$0.00                    | \$66.07    |
|  | 06/01/2021     | \$42.39   | \$8.10  | \$16.60 | \$0.00                    | \$67.09    |
|  | 12/01/2021     | \$43.40   | \$8.10  | \$16.60 | \$0.00                    | \$68.10    |
| For apprentice rates see "Apprentice- LABORER"   |                |           |         |         |                           |            |
| ASPHALT/CONCRETE/CRUSHER PLANT-ON SITE<br><i>OPERATING ENGINEERS LOCAL 4</i>                   | 12/01/2019     | \$48.73   | \$12.50 | \$15.70 | \$0.00                    | \$76.93    |
|  | 06/01/2020     | \$49.83   | \$12.50 | \$15.70 | \$0.00                    | \$78.03    |
|  | 12/01/2020     | \$50.98   | \$12.50 | \$15.70 | \$0.00                    | \$79.18    |
|  | 06/01/2021     | \$52.08   | \$12.50 | \$15.70 | \$0.00                    | \$80.28    |
|  | 12/01/2021     | \$53.23   | \$12.50 | \$15.70 | \$0.00                    | \$81.43    |
| For apprentice rates see "Apprentice- OPERATING ENGINEERS"                                     |                |           |         |         |                           |            |

| Classification   | Effective Date | Base Wage | Health  | Pension | Supplemental Unemployment | Total Rate |
|--|----------------|-----------|---------|---------|---------------------------|------------|
| BACKHOE/FRONT-END LOADER<br><i>OPERATING ENGINEERS LOCAL 4</i> | 12/01/2019     | \$48.73   | \$12.50 | \$15.70 | \$0.00                    | \$76.93    |
|  | 06/01/2020     | \$49.83   | \$12.50 | \$15.70 | \$0.00                    | \$78.03    |
|  | 12/01/2020     | \$50.98   | \$12.50 | \$15.70 | \$0.00                    | \$79.18    |
|  | 06/01/2021     | \$52.08   | \$12.50 | \$15.70 | \$0.00                    | \$80.28    |
|  | 12/01/2021     | \$53.23   | \$12.50 | \$15.70 | \$0.00                    | \$81.43    |
| For apprentice rates see "Apprentice- OPERATING ENGINEERS"     |                |           |         |         |                           |            |
| BARCO-TYPE JUMPING TAMPER<br><i>LABORERS - ZONE 1</i>          | 12/01/2019     | \$39.40   | \$8.10  | \$16.60 | \$0.00                    | \$64.10    |
|  | 06/01/2020     | \$40.39   | \$8.10  | \$16.60 | \$0.00                    | \$65.09    |
|  | 12/01/2020     | \$41.37   | \$8.10  | \$16.60 | \$0.00                    | \$66.07    |
|  | 06/01/2021     | \$42.39   | \$8.10  | \$16.60 | \$0.00                    | \$67.09    |
|  | 12/01/2021     | \$43.40   | \$8.10  | \$16.60 | \$0.00                    | \$68.10    |
| For apprentice rates see "Apprentice- LABORER"                 |                |           |         |         |                           |            |
| BLOCK PAVER, RAMMER / CURB SETTER<br><i>LABORERS - ZONE 1</i>  | 12/01/2019     | \$39.90   | \$8.10  | \$16.60 | \$0.00                    | \$64.60    |
|  | 06/01/2020     | \$40.89   | \$8.10  | \$16.60 | \$0.00                    | \$65.59    |
|  | 12/01/2020     | \$41.87   | \$8.10  | \$16.60 | \$0.00                    | \$66.57    |
|  | 06/01/2021     | \$42.89   | \$8.10  | \$16.60 | \$0.00                    | \$67.59    |
|  | 12/01/2021     | \$43.90   | \$8.10  | \$16.60 | \$0.00                    | \$68.60    |
| For apprentice rates see "Apprentice- LABORER"                 |                |           |         |         |                           |            |
| BOILER MAKER<br><i>BOILERMAKERS LOCAL 29</i>                   | 01/01/2020     | \$46.10   | \$7.07  | \$17.98 | \$0.00                    | \$71.15    |

**Apprentice - BOILERMAKER - Local 29**

**Effective Date - 01/01/2020**

| Step | percent | Apprentice Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|------|---------|----------------------|--------|---------|---------------------------|------------|
| 1    | 65      | \$29.97              | \$7.07 | \$11.69 | \$0.00                    | \$48.73    |
| 2    | 65      | \$29.97              | \$7.07 | \$11.69 | \$0.00                    | \$48.73    |
| 3    | 70      | \$32.27              | \$7.07 | \$12.59 | \$0.00                    | \$51.93    |
| 4    | 75      | \$34.58              | \$7.07 | \$13.49 | \$0.00                    | \$55.14    |
| 5    | 80      | \$36.88              | \$7.07 | \$14.38 | \$0.00                    | \$58.33    |
| 6    | 85      | \$39.19              | \$7.07 | \$15.29 | \$0.00                    | \$61.55    |
| 7    | 90      | \$41.49              | \$7.07 | \$16.18 | \$0.00                    | \$64.74    |
| 8    | 95      | \$43.80              | \$7.07 | \$17.09 | \$0.00                    | \$67.96    |

**Notes:**

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

|   |            |         |         |         |        |         |
|---|------------|---------|---------|---------|--------|---------|
| BRICK/STONE/ARTIFICIAL MASONRY (INCL. MASONRY WATERPROOFING)<br><i>BRICKLAYERS LOCAL 3 (BOSTON)</i> | 02/01/2020 | \$54.40 | \$10.75 | \$21.94 | \$0.00 | \$87.09 |
|   | 08/01/2020 | \$55.75 | \$10.75 | \$22.09 | \$0.00 | \$88.59 |
|   | 02/01/2021 | \$56.39 | \$10.75 | \$22.09 | \$0.00 | \$89.23 |
|   | 08/01/2021 | \$57.79 | \$10.75 | \$22.25 | \$0.00 | \$90.79 |
|   | 02/01/2022 | \$58.38 | \$10.75 | \$22.25 | \$0.00 | \$91.38 |

**Classification**

**Effective Date   Base Wage   Health   Pension   Supplemental Unemployment   Total Rate**

**Apprentice - BRICK/PLASTER/CEMENT MASON - Local 3 Boston**

**Effective Date - 02/01/2020**

| Step | percent | Apprentice Base Wage | Health  | Pension | Supplemental Unemployment | Total Rate |
|------|---------|----------------------|---------|---------|---------------------------|------------|
| 1    | 50      | \$27.20              | \$10.75 | \$21.94 | \$0.00                    | \$59.89    |
| 2    | 60      | \$32.64              | \$10.75 | \$21.94 | \$0.00                    | \$65.33    |
| 3    | 70      | \$38.08              | \$10.75 | \$21.94 | \$0.00                    | \$70.77    |
| 4    | 80      | \$43.52              | \$10.75 | \$21.94 | \$0.00                    | \$76.21    |
| 5    | 90      | \$48.96              | \$10.75 | \$21.94 | \$0.00                    | \$81.65    |

**Effective Date - 08/01/2020**

| Step | percent | Apprentice Base Wage | Health  | Pension | Supplemental Unemployment | Total Rate |
|------|---------|----------------------|---------|---------|---------------------------|------------|
| 1    | 50      | \$27.88              | \$10.75 | \$22.09 | \$0.00                    | \$60.72    |
| 2    | 60      | \$33.45              | \$10.75 | \$22.09 | \$0.00                    | \$66.29    |
| 3    | 70      | \$39.03              | \$10.75 | \$22.09 | \$0.00                    | \$71.87    |
| 4    | 80      | \$44.60              | \$10.75 | \$22.09 | \$0.00                    | \$77.44    |
| 5    | 90      | \$50.18              | \$10.75 | \$22.09 | \$0.00                    | \$83.02    |

**Notes:**

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**Apprentice to Journeyworker Ratio:1:5**

|                                    |            |         |         |         |        |         |
|------------------------------------|------------|---------|---------|---------|--------|---------|
| <b>BULLDOZER/GRADER/SCRAPER</b>    | 12/01/2019 | \$48.23 | \$12.50 | \$15.70 | \$0.00 | \$76.43 |
| <i>OPERATING ENGINEERS LOCAL 4</i> | 06/01/2020 | \$49.31 | \$12.50 | \$15.70 | \$0.00 | \$77.51 |
|                                    | 12/01/2020 | \$50.45 | \$12.50 | \$15.70 | \$0.00 | \$78.65 |
|                                    | 06/01/2021 | \$51.54 | \$12.50 | \$15.70 | \$0.00 | \$79.74 |
|                                    | 12/01/2021 | \$52.68 | \$12.50 | \$15.70 | \$0.00 | \$80.88 |

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

|  |            |         |        |         |        |         |
|--|------------|---------|--------|---------|--------|---------|
| <b>CAISSON &amp; UNDERPINNING BOTTOM MAN</b> | 12/01/2019 | \$40.25 | \$8.10 | \$16.80 | \$0.00 | \$65.15 |
| <i>LABORERS - FOUNDATION AND MARINE</i>      | 06/01/2020 | \$41.24 | \$8.10 | \$16.80 | \$0.00 | \$66.14 |
|  | 12/01/2020 | \$42.22 | \$8.10 | \$16.80 | \$0.00 | \$67.12 |
|  | 06/01/2021 | \$43.24 | \$8.10 | \$16.80 | \$0.00 | \$68.14 |
|  | 12/01/2021 | \$44.25 | \$8.10 | \$16.80 | \$0.00 | \$69.15 |

For apprentice rates see "Apprentice- LABORER"

|   |            |         |        |         |        |         |
|---|------------|---------|--------|---------|--------|---------|
| <b>CAISSON &amp; UNDERPINNING LABORER</b> | 12/01/2019 | \$39.10 | \$8.10 | \$16.80 | \$0.00 | \$64.00 |
| <i>LABORERS - FOUNDATION AND MARINE</i>   | 06/01/2020 | \$40.09 | \$8.10 | \$16.80 | \$0.00 | \$64.99 |
|   | 12/01/2020 | \$41.07 | \$8.10 | \$16.80 | \$0.00 | \$65.97 |
|   | 06/01/2021 | \$42.09 | \$8.10 | \$16.80 | \$0.00 | \$66.99 |
|   | 12/01/2021 | \$43.10 | \$8.10 | \$16.80 | \$0.00 | \$68.00 |

For apprentice rates see "Apprentice- LABORER"

|   |            |         |        |         |        |         |
|---|------------|---------|--------|---------|--------|---------|
| <b>CAISSON &amp; UNDERPINNING TOP MAN</b> | 12/01/2019 | \$39.10 | \$8.10 | \$16.80 | \$0.00 | \$64.00 |
| <i>LABORERS - FOUNDATION AND MARINE</i>   | 06/01/2020 | \$40.09 | \$8.10 | \$16.80 | \$0.00 | \$64.99 |
|   | 12/01/2020 | \$41.07 | \$8.10 | \$16.80 | \$0.00 | \$65.97 |
|   | 06/01/2021 | \$42.09 | \$8.10 | \$16.80 | \$0.00 | \$66.99 |
|   | 12/01/2021 | \$43.10 | \$8.10 | \$16.80 | \$0.00 | \$68.00 |

For apprentice rates see "Apprentice- LABORER"

| Classification  | Effective Date | Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|---|----------------|-----------|--------|---------|---------------------------|------------|
| CARBIDE CORE DRILL OPERATOR<br><i>LABORERS - ZONE 1</i> | 12/01/2019     | \$39.40   | \$8.10 | \$16.60 | \$0.00                    | \$64.10    |
|   | 06/01/2020     | \$40.39   | \$8.10 | \$16.60 | \$0.00                    | \$65.09    |
|   | 12/01/2020     | \$41.37   | \$8.10 | \$16.60 | \$0.00                    | \$66.07    |
|   | 06/01/2021     | \$42.39   | \$8.10 | \$16.60 | \$0.00                    | \$67.09    |
|   | 12/01/2021     | \$43.40   | \$8.10 | \$16.60 | \$0.00                    | \$68.10    |

For apprentice rates see "Apprentice- LABORER"

|  |            |         |        |         |        |         |
|--|------------|---------|--------|---------|--------|---------|
| CARPENTER<br><i>CARPENTERS -ZONE 2 (Eastern Massachusetts)</i> | 03/01/2020 | \$42.50 | \$9.40 | \$18.95 | \$0.00 | \$70.85 |
|  | 09/01/2020 | \$43.15 | \$9.40 | \$18.95 | \$0.00 | \$71.50 |
|  | 03/01/2021 | \$43.75 | \$9.40 | \$18.95 | \$0.00 | \$72.10 |
|  | 09/01/2021 | \$44.40 | \$9.40 | \$18.95 | \$0.00 | \$72.75 |
|  | 03/01/2022 | \$45.00 | \$9.40 | \$18.95 | \$0.00 | \$73.35 |
|  | 09/01/2022 | \$45.65 | \$9.40 | \$18.95 | \$0.00 | \$74.00 |
|  | 03/01/2023 | \$46.25 | \$9.40 | \$18.95 | \$0.00 | \$74.60 |

**Apprentice - CARPENTER - Zone 2 Eastern MA**

**Effective Date - 03/01/2020**

| Step | percent | Apprentice Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|------|---------|----------------------|--------|---------|---------------------------|------------|
| 1    | 50      | \$21.25              | \$9.40 | \$1.73  | \$0.00                    | \$32.38    |
| 2    | 60      | \$25.50              | \$9.40 | \$1.73  | \$0.00                    | \$36.63    |
| 3    | 70      | \$29.75              | \$9.40 | \$13.76 | \$0.00                    | \$52.91    |
| 4    | 75      | \$31.88              | \$9.40 | \$13.76 | \$0.00                    | \$55.04    |
| 5    | 80      | \$34.00              | \$9.40 | \$15.49 | \$0.00                    | \$58.89    |
| 6    | 80      | \$34.00              | \$9.40 | \$15.49 | \$0.00                    | \$58.89    |
| 7    | 90      | \$38.25              | \$9.40 | \$17.22 | \$0.00                    | \$64.87    |
| 8    | 90      | \$38.25              | \$9.40 | \$17.22 | \$0.00                    | \$64.87    |

**Effective Date - 09/01/2020**

| Step | percent | Apprentice Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|------|---------|----------------------|--------|---------|---------------------------|------------|
| 1    | 50      | \$21.58              | \$9.40 | \$1.73  | \$0.00                    | \$32.71    |
| 2    | 60      | \$25.89              | \$9.40 | \$1.73  | \$0.00                    | \$37.02    |
| 3    | 70      | \$30.21              | \$9.40 | \$13.76 | \$0.00                    | \$53.37    |
| 4    | 75      | \$32.36              | \$9.40 | \$13.76 | \$0.00                    | \$55.52    |
| 5    | 80      | \$34.52              | \$9.40 | \$15.49 | \$0.00                    | \$59.41    |
| 6    | 80      | \$34.52              | \$9.40 | \$15.49 | \$0.00                    | \$59.41    |
| 7    | 90      | \$38.84              | \$9.40 | \$17.22 | \$0.00                    | \$65.46    |
| 8    | 90      | \$38.84              | \$9.40 | \$17.22 | \$0.00                    | \$65.46    |

**Notes:**

% Indentured After 10/1/17; 45/45/55/55/70/70/80/80  
Step 1&2 \$30.26/ 3&4 \$36.18/ 5&6 \$54.64/ 7&8 \$60.62

**Apprentice to Journeyworker Ratio:1:5**

|  |            |         |        |        |        |         |
|--|------------|---------|--------|--------|--------|---------|
| CARPENTER WOOD FRAME<br><i>CARPENTERS -ZONE 2 (Wood Frame)</i> | 10/01/2019 | \$27.95 | \$7.07 | \$7.86 | \$0.00 | \$42.88 |
|--|------------|---------|--------|--------|--------|---------|

All Aspects of New Wood Frame Work

**Classification**

**Effective Date    Base Wage    Health    Pension    Supplemental Unemployment    Total Rate**

**Apprentice - CARPENTER (Wood Frame) - Zone 2**

**Effective Date - 10/01/2019**

| Step | percent | Apprentice Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|------|---------|----------------------|--------|---------|---------------------------|------------|
| 1    | 60      | \$16.77              | \$7.07 | \$0.00  | \$0.00                    | \$23.84    |
| 2    | 60      | \$16.77              | \$7.07 | \$0.00  | \$0.00                    | \$23.84    |
| 3    | 65      | \$18.17              | \$7.07 | \$7.86  | \$0.00                    | \$33.10    |
| 4    | 70      | \$19.57              | \$7.07 | \$7.86  | \$0.00                    | \$34.50    |
| 5    | 75      | \$20.96              | \$7.07 | \$7.86  | \$0.00                    | \$35.89    |
| 6    | 80      | \$22.36              | \$7.07 | \$7.86  | \$0.00                    | \$37.29    |
| 7    | 85      | \$23.76              | \$7.07 | \$7.86  | \$0.00                    | \$38.69    |
| 8    | 90      | \$25.16              | \$7.07 | \$7.86  | \$0.00                    | \$40.09    |

**Notes:**  
 % Indentured After 10/1/17; 45/45/55/55/70/70/80/80  
 Step 1&2 \$19.65/ 3&4 \$27.19/ 5&6 \$34.50/ 7&8 \$37.29

**Apprentice to Journeyworker Ratio:1:5**

|   |            |         |         |         |        |         |
|---|------------|---------|---------|---------|--------|---------|
| CEMENT MASONRY/PLASTERING<br>BRICKLAYERS LOCAL 3 (BOSTON) | 01/01/2020 | \$49.07 | \$12.75 | \$22.41 | \$0.62 | \$84.85 |
|---|------------|---------|---------|---------|--------|---------|

**Apprentice - CEMENT MASONRY/PLASTERING - Eastern Mass (Boston)**

**Effective Date - 01/01/2020**

| Step | percent | Apprentice Base Wage | Health  | Pension | Supplemental Unemployment | Total Rate |
|------|---------|----------------------|---------|---------|---------------------------|------------|
| 1    | 50      | \$24.54              | \$12.75 | \$15.41 | \$0.00                    | \$52.70    |
| 2    | 60      | \$29.44              | \$12.75 | \$17.41 | \$0.62                    | \$60.22    |
| 3    | 65      | \$31.90              | \$12.75 | \$18.41 | \$0.62                    | \$63.68    |
| 4    | 70      | \$34.35              | \$12.75 | \$19.41 | \$0.62                    | \$67.13    |
| 5    | 75      | \$36.80              | \$12.75 | \$20.41 | \$0.62                    | \$70.58    |
| 6    | 80      | \$39.26              | \$12.75 | \$21.41 | \$0.62                    | \$74.04    |
| 7    | 90      | \$44.16              | \$12.75 | \$22.41 | \$0.62                    | \$79.94    |

**Notes:**  
 Steps 3,4 are 500 hrs. All other steps are 1,000 hrs.

**Apprentice to Journeyworker Ratio:1:3**

|   |            |         |        |         |        |         |
|---|------------|---------|--------|---------|--------|---------|
| CHAIN SAW OPERATOR<br>LABORERS - ZONE 1 | 12/01/2019 | \$39.40 | \$8.10 | \$16.60 | \$0.00 | \$64.10 |
|   | 06/01/2020 | \$40.39 | \$8.10 | \$16.60 | \$0.00 | \$65.09 |
|   | 12/01/2020 | \$41.37 | \$8.10 | \$16.60 | \$0.00 | \$66.07 |
|   | 06/01/2021 | \$42.39 | \$8.10 | \$16.60 | \$0.00 | \$67.09 |
|   | 12/01/2021 | \$43.40 | \$8.10 | \$16.60 | \$0.00 | \$68.10 |

For apprentice rates see "Apprentice- LABORER"

|  |            |         |         |         |        |         |
|--|------------|---------|---------|---------|--------|---------|
| CLAM SHELLS/SLURRY BUCKETS/HEADING MACHINES<br>OPERATING ENGINEERS LOCAL 4 | 12/01/2019 | \$49.73 | \$12.50 | \$15.70 | \$0.00 | \$77.93 |
|  | 06/01/2020 | \$50.83 | \$12.50 | \$15.70 | \$0.00 | \$79.03 |
|  | 12/01/2020 | \$51.98 | \$12.50 | \$15.70 | \$0.00 | \$80.18 |
|  | 06/01/2021 | \$53.08 | \$12.50 | \$15.70 | \$0.00 | \$81.28 |
|  | 12/01/2021 | \$54.23 | \$12.50 | \$15.70 | \$0.00 | \$82.43 |

| Classification   | Effective Date | Base Wage | Health  | Pension | Supplemental Unemployment | Total Rate |
|--|----------------|-----------|---------|---------|---------------------------|------------|
| For apprentice rates see "Apprentice- OPERATING ENGINEERS" |                |           |         |         |                           |            |
| COMPRESSOR OPERATOR<br><i>OPERATING ENGINEERS LOCAL 4</i>  | 12/01/2019     | \$32.47   | \$12.50 | \$15.70 | \$0.00                    | \$60.67    |
|  | 06/01/2020     | \$33.22   | \$12.50 | \$15.70 | \$0.00                    | \$61.42    |
|  | 12/01/2020     | \$34.00   | \$12.50 | \$15.70 | \$0.00                    | \$62.20    |
|  | 06/01/2021     | \$34.75   | \$12.50 | \$15.70 | \$0.00                    | \$62.95    |
|  | 12/01/2021     | \$35.54   | \$12.50 | \$15.70 | \$0.00                    | \$63.74    |

|  |            |         |        |         |        |         |
|--|------------|---------|--------|---------|--------|---------|
| For apprentice rates see "Apprentice- OPERATING ENGINEERS" |            |         |        |         |        |         |
| DELEADER (BRIDGE)<br><i>PAINTERS LOCAL 35 - ZONE 2</i>     | 01/01/2020 | \$50.96 | \$8.20 | \$22.10 | \$0.00 | \$81.26 |
|  | 07/01/2020 | \$52.06 | \$8.20 | \$22.10 | \$0.00 | \$82.36 |
|  | 01/01/2021 | \$53.16 | \$8.20 | \$22.10 | \$0.00 | \$83.46 |

**Apprentice - PAINTER Local 35 - BRIDGES/TANKS**

**Effective Date - 01/01/2020**

| Step | percent | Apprentice Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|------|---------|----------------------|--------|---------|---------------------------|------------|
| 1    | 50      | \$25.48              | \$8.20 | \$0.00  | \$0.00                    | \$33.68    |
| 2    | 55      | \$28.03              | \$8.20 | \$5.94  | \$0.00                    | \$42.17    |
| 3    | 60      | \$30.58              | \$8.20 | \$6.48  | \$0.00                    | \$45.26    |
| 4    | 65      | \$33.12              | \$8.20 | \$7.02  | \$0.00                    | \$48.34    |
| 5    | 70      | \$35.67              | \$8.20 | \$18.86 | \$0.00                    | \$62.73    |
| 6    | 75      | \$38.22              | \$8.20 | \$19.40 | \$0.00                    | \$65.82    |
| 7    | 80      | \$40.77              | \$8.20 | \$19.94 | \$0.00                    | \$68.91    |
| 8    | 90      | \$45.86              | \$8.20 | \$21.02 | \$0.00                    | \$75.08    |

**Effective Date - 07/01/2020**

| Step | percent | Apprentice Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|------|---------|----------------------|--------|---------|---------------------------|------------|
| 1    | 50      | \$26.03              | \$8.20 | \$0.00  | \$0.00                    | \$34.23    |
| 2    | 55      | \$28.63              | \$8.20 | \$5.94  | \$0.00                    | \$42.77    |
| 3    | 60      | \$31.24              | \$8.20 | \$6.48  | \$0.00                    | \$45.92    |
| 4    | 65      | \$33.84              | \$8.20 | \$7.02  | \$0.00                    | \$49.06    |
| 5    | 70      | \$36.44              | \$8.20 | \$18.86 | \$0.00                    | \$63.50    |
| 6    | 75      | \$39.05              | \$8.20 | \$19.40 | \$0.00                    | \$66.65    |
| 7    | 80      | \$41.65              | \$8.20 | \$19.94 | \$0.00                    | \$69.79    |
| 8    | 90      | \$46.85              | \$8.20 | \$21.02 | \$0.00                    | \$76.07    |

**Notes:**

Steps are 750 hrs.

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

|   |            |         |        |         |        |         |
|---|------------|---------|--------|---------|--------|---------|
| DEMO: ADZEMAN<br><i>LABORERS - ZONE 1</i> | 12/01/2019 | \$39.30 | \$8.10 | \$16.60 | \$0.00 | \$64.00 |
|---|------------|---------|--------|---------|--------|---------|

For apprentice rates see "Apprentice- LABORER"

|  |            |         |        |         |        |         |
|--|------------|---------|--------|---------|--------|---------|
| DEMO: BACKHOE/LOADER/HAMMER OPERATOR<br><i>LABORERS - ZONE 1</i> | 12/01/2019 | \$40.30 | \$8.10 | \$16.60 | \$0.00 | \$65.00 |
|--|------------|---------|--------|---------|--------|---------|

For apprentice rates see "Apprentice- LABORER"

|   |            |         |        |         |        |         |
|---|------------|---------|--------|---------|--------|---------|
| DEMO: BURNERS<br><i>LABORERS - ZONE 1</i> | 12/01/2019 | \$40.05 | \$8.10 | \$16.60 | \$0.00 | \$64.75 |
|---|------------|---------|--------|---------|--------|---------|

For apprentice rates see "Apprentice- LABORER"

| Classification   | Effective Date | Base Wage | Health  | Pension | Supplemental Unemployment | Total Rate |
|--|----------------|-----------|---------|---------|---------------------------|------------|
| DEMO: CONCRETE CUTTER/SAWYER<br><i>LABORERS - ZONE 1</i>                 | 12/01/2019     | \$40.30   | \$8.10  | \$16.60 | \$0.00                    | \$65.00    |
| For apprentice rates see "Apprentice- LABORER"                           |                |           |         |         |                           |            |
| DEMO: JACKHAMMER OPERATOR<br><i>LABORERS - ZONE 1</i>                    | 12/01/2019     | \$40.05   | \$8.10  | \$16.60 | \$0.00                    | \$64.75    |
| For apprentice rates see "Apprentice- LABORER"                           |                |           |         |         |                           |            |
| DEMO: WRECKING LABORER<br><i>LABORERS - ZONE 1</i>                       | 12/01/2019     | \$39.30   | \$8.10  | \$16.60 | \$0.00                    | \$64.00    |
| For apprentice rates see "Apprentice- LABORER"                           |                |           |         |         |                           |            |
| DIRECTIONAL DRILL MACHINE OPERATOR<br><i>OPERATING ENGINEERS LOCAL 4</i> | 12/01/2019     | \$48.23   | \$12.50 | \$15.70 | \$0.00                    | \$76.43    |
|  | 06/01/2020     | \$49.31   | \$12.50 | \$15.70 | \$0.00                    | \$77.51    |
|  | 12/01/2020     | \$50.45   | \$12.50 | \$15.70 | \$0.00                    | \$78.65    |
|  | 06/01/2021     | \$51.54   | \$12.50 | \$15.70 | \$0.00                    | \$79.74    |
|  | 12/01/2021     | \$52.68   | \$12.50 | \$15.70 | \$0.00                    | \$80.88    |
| For apprentice rates see "Apprentice- OPERATING ENGINEERS"               |                |           |         |         |                           |            |
| DIVER<br><i>PILE DRIVER LOCAL 56 (ZONE 1)</i>                            | 08/01/2019     | \$68.52   | \$9.90  | \$21.15 | \$0.00                    | \$99.57    |
| For apprentice rates see "Apprentice- PILE DRIVER"                       |                |           |         |         |                           |            |
| DIVER TENDER<br><i>PILE DRIVER LOCAL 56 (ZONE 1)</i>                     | 08/01/2019     | \$48.94   | \$9.90  | \$21.15 | \$0.00                    | \$79.99    |
| For apprentice rates see "Apprentice- PILE DRIVER"                       |                |           |         |         |                           |            |
| DIVER TENDER (EFFLUENT)<br><i>PILE DRIVER LOCAL 56 (ZONE 1)</i>          | 08/01/2019     | \$73.41   | \$9.90  | \$21.15 | \$0.00                    | \$104.46   |
| For apprentice rates see "Apprentice- PILE DRIVER"                       |                |           |         |         |                           |            |
| DIVER/SLURRY (EFFLUENT)<br><i>PILE DRIVER LOCAL 56 (ZONE 1)</i>          | 08/01/2019     | \$102.78  | \$9.90  | \$21.15 | \$0.00                    | \$133.83   |
| For apprentice rates see "Apprentice- PILE DRIVER"                       |                |           |         |         |                           |            |
| DRAWBRIDGE OPERATOR (Construction)<br><i>ELECTRICIANS LOCAL 103</i>      | 03/01/2020     | \$53.50   | \$13.00 | \$19.20 | \$0.00                    | \$85.70    |
|  | 09/01/2020     | \$54.93   | \$13.00 | \$19.25 | \$0.00                    | \$87.18    |
|  | 03/01/2021     | \$56.13   | \$13.00 | \$19.28 | \$0.00                    | \$88.41    |
|  | 09/01/2021     | \$57.56   | \$13.00 | \$19.33 | \$0.00                    | \$89.89    |
|  | 03/01/2022     | \$58.76   | \$13.00 | \$19.36 | \$0.00                    | \$91.12    |
|  | 09/01/2022     | \$60.19   | \$13.00 | \$19.41 | \$0.00                    | \$92.60    |
|  | 03/01/2023     | \$61.39   | \$13.00 | \$19.44 | \$0.00                    | \$93.83    |
| For apprentice rates see "Apprentice- ELECTRICIAN"                       |                |           |         |         |                           |            |
| ELECTRICIAN<br><i>ELECTRICIANS LOCAL 103</i>                             | 03/01/2020     | \$53.50   | \$13.00 | \$19.20 | \$0.00                    | \$85.70    |
|  | 09/01/2020     | \$54.93   | \$13.00 | \$19.25 | \$0.00                    | \$87.18    |
|  | 03/01/2021     | \$56.13   | \$13.00 | \$19.28 | \$0.00                    | \$88.41    |
|  | 09/01/2021     | \$57.56   | \$13.00 | \$19.33 | \$0.00                    | \$89.89    |
|  | 03/01/2022     | \$58.76   | \$13.00 | \$19.36 | \$0.00                    | \$91.12    |
|  | 09/01/2022     | \$60.19   | \$13.00 | \$19.41 | \$0.00                    | \$92.60    |
|  | 03/01/2023     | \$61.39   | \$13.00 | \$19.44 | \$0.00                    | \$93.83    |

**Classification**

**Effective Date   Base Wage   Health   Pension   Supplemental Unemployment   Total Rate**

**Apprentice - ELECTRICIAN - Local 103**

**Effective Date - 03/01/2020**

| Step | percent | Apprentice Base Wage | Health  | Pension | Supplemental Unemployment | Total Rate |
|------|---------|----------------------|---------|---------|---------------------------|------------|
| 1    | 40      | \$21.40              | \$13.00 | \$0.64  | \$0.00                    | \$35.04    |
| 2    | 40      | \$21.40              | \$13.00 | \$0.64  | \$0.00                    | \$35.04    |
| 3    | 45      | \$24.08              | \$13.00 | \$14.62 | \$0.00                    | \$51.70    |
| 4    | 45      | \$24.08              | \$13.00 | \$14.62 | \$0.00                    | \$51.70    |
| 5    | 50      | \$26.75              | \$13.00 | \$15.04 | \$0.00                    | \$54.79    |
| 6    | 55      | \$29.43              | \$13.00 | \$15.46 | \$0.00                    | \$57.89    |
| 7    | 60      | \$32.10              | \$13.00 | \$15.87 | \$0.00                    | \$60.97    |
| 8    | 65      | \$34.78              | \$13.00 | \$16.29 | \$0.00                    | \$64.07    |
| 9    | 70      | \$37.45              | \$13.00 | \$16.70 | \$0.00                    | \$67.15    |
| 10   | 75      | \$40.13              | \$13.00 | \$17.12 | \$0.00                    | \$70.25    |

**Effective Date - 09/01/2020**

| Step | percent | Apprentice Base Wage | Health  | Pension | Supplemental Unemployment | Total Rate |
|------|---------|----------------------|---------|---------|---------------------------|------------|
| 1    | 40      | \$21.97              | \$13.00 | \$0.66  | \$0.00                    | \$35.63    |
| 2    | 40      | \$21.97              | \$13.00 | \$0.66  | \$0.00                    | \$35.63    |
| 3    | 45      | \$24.72              | \$13.00 | \$14.64 | \$0.00                    | \$52.36    |
| 4    | 45      | \$24.72              | \$13.00 | \$14.64 | \$0.00                    | \$52.36    |
| 5    | 50      | \$27.47              | \$13.00 | \$15.06 | \$0.00                    | \$55.53    |
| 6    | 55      | \$30.21              | \$13.00 | \$15.49 | \$0.00                    | \$58.70    |
| 7    | 60      | \$32.96              | \$13.00 | \$15.90 | \$0.00                    | \$61.86    |
| 8    | 65      | \$35.70              | \$13.00 | \$16.32 | \$0.00                    | \$65.02    |
| 9    | 70      | \$38.45              | \$13.00 | \$16.73 | \$0.00                    | \$68.18    |
| 10   | 75      | \$41.20              | \$13.00 | \$17.16 | \$0.00                    | \$71.36    |

**Notes :**  
 App Prior 1/1/03; 30/35/40/45/50/55/65/70/75/80

**Apprentice to Journeyworker Ratio:2:3\*\*\***

|                               |            |         |         |         |        |          |
|-------------------------------|------------|---------|---------|---------|--------|----------|
| ELEVATOR CONSTRUCTOR          | 01/01/2020 | \$61.42 | \$15.73 | \$18.41 | \$0.00 | \$95.56  |
| ELEVATOR CONSTRUCTORS LOCAL 4 | 01/01/2021 | \$63.47 | \$15.88 | \$19.31 | \$0.00 | \$98.66  |
|                               | 01/01/2022 | \$65.62 | \$16.03 | \$20.21 | \$0.00 | \$101.86 |

**Classification**

**Effective Date    Base Wage    Health    Pension    Supplemental Unemployment    Total Rate**

**Apprentice - ELEVATOR CONSTRUCTOR - Local 4**

**Effective Date - 01/01/2020**

| Step | percent | Apprentice Base Wage | Health  | Pension | Supplemental Unemployment | Total Rate |
|------|---------|----------------------|---------|---------|---------------------------|------------|
| 1    | 50      | \$30.71              | \$15.73 | \$0.00  | \$0.00                    | \$46.44    |
| 2    | 55      | \$33.78              | \$15.73 | \$18.41 | \$0.00                    | \$67.92    |
| 3    | 65      | \$39.92              | \$15.73 | \$18.41 | \$0.00                    | \$74.06    |
| 4    | 70      | \$42.99              | \$15.73 | \$18.41 | \$0.00                    | \$77.13    |
| 5    | 80      | \$49.14              | \$15.73 | \$18.41 | \$0.00                    | \$83.28    |

**Effective Date - 01/01/2021**

| Step | percent | Apprentice Base Wage | Health  | Pension | Supplemental Unemployment | Total Rate |
|------|---------|----------------------|---------|---------|---------------------------|------------|
| 1    | 50      | \$31.74              | \$15.88 | \$0.00  | \$0.00                    | \$47.62    |
| 2    | 55      | \$34.91              | \$15.88 | \$19.31 | \$0.00                    | \$70.10    |
| 3    | 65      | \$41.26              | \$15.88 | \$19.31 | \$0.00                    | \$76.45    |
| 4    | 70      | \$44.43              | \$15.88 | \$19.31 | \$0.00                    | \$79.62    |
| 5    | 80      | \$50.78              | \$15.88 | \$19.31 | \$0.00                    | \$85.97    |

**Notes:**

Steps 1-2 are 6 mos.; Steps 3-5 are 1 year

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

|   |            |         |         |         |        |         |
|---|------------|---------|---------|---------|--------|---------|
| ELEVATOR CONSTRUCTOR HELPER<br><i>ELEVATOR CONSTRUCTORS LOCAL 4</i> | 01/01/2020 | \$42.99 | \$15.73 | \$18.41 | \$0.00 | \$77.13 |
|   | 01/01/2021 | \$44.43 | \$15.88 | \$19.31 | \$0.00 | \$79.62 |
|   | 01/01/2022 | \$45.93 | \$16.03 | \$20.21 | \$0.00 | \$82.17 |

For apprentice rates see "Apprentice - ELEVATOR CONSTRUCTOR"

|  |            |         |        |         |        |         |
|--|------------|---------|--------|---------|--------|---------|
| FENCE & GUARD RAIL ERECTOR<br><i>LABORERS - ZONE 1</i> | 12/01/2019 | \$39.40 | \$8.10 | \$16.60 | \$0.00 | \$64.10 |
|  | 06/01/2020 | \$40.39 | \$8.10 | \$16.60 | \$0.00 | \$65.09 |
|  | 12/01/2020 | \$41.37 | \$8.10 | \$16.60 | \$0.00 | \$66.07 |
|  | 06/01/2021 | \$42.39 | \$8.10 | \$16.60 | \$0.00 | \$67.09 |
|  | 12/01/2021 | \$43.40 | \$8.10 | \$16.60 | \$0.00 | \$68.10 |

For apprentice rates see "Apprentice- LABORER"

|   |            |         |         |         |        |         |
|---|------------|---------|---------|---------|--------|---------|
| FIELD ENG.INST.PERSON-BLDG,SITE,HVY/HWY<br><i>OPERATING ENGINEERS LOCAL 4</i> | 11/01/2019 | \$44.18 | \$12.00 | \$15.60 | \$0.00 | \$71.78 |
|   | 05/01/2020 | \$44.73 | \$12.50 | \$15.70 | \$0.00 | \$72.93 |
|   | 11/01/2020 | \$45.73 | \$12.50 | \$15.70 | \$0.00 | \$73.93 |
|   | 05/01/2021 | \$46.88 | \$12.50 | \$15.70 | \$0.00 | \$75.08 |
|   | 11/01/2021 | \$47.88 | \$12.50 | \$15.70 | \$0.00 | \$76.08 |
|   | 05/01/2022 | \$49.03 | \$12.50 | \$15.70 | \$0.00 | \$77.23 |

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

|   |            |         |         |         |        |         |
|---|------------|---------|---------|---------|--------|---------|
| FIELD ENG.PARTY CHIEF-BLDG,SITE,HVY/HWY<br><i>OPERATING ENGINEERS LOCAL 4</i> | 11/01/2019 | \$45.68 | \$12.00 | \$15.60 | \$0.00 | \$73.28 |
|   | 05/01/2020 | \$46.23 | \$12.50 | \$15.70 | \$0.00 | \$74.43 |
|   | 11/01/2020 | \$47.24 | \$12.50 | \$15.70 | \$0.00 | \$75.44 |
|   | 05/01/2021 | \$48.40 | \$12.50 | \$15.70 | \$0.00 | \$76.60 |
|   | 11/01/2021 | \$49.41 | \$12.50 | \$15.70 | \$0.00 | \$77.61 |
|   | 05/01/2022 | \$50.57 | \$12.50 | \$15.70 | \$0.00 | \$78.77 |

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

| Classification  | Effective Date | Base Wage | Health  | Pension | Supplemental Unemployment | Total Rate |
|---|----------------|-----------|---------|---------|---------------------------|------------|
| FIELD ENG.ROD PERSON-BLDG,SITE,HVY/HWY<br><i>OPERATING ENGINEERS LOCAL 4</i>        | 11/01/2019     | \$22.57   | \$12.00 | \$15.60 | \$0.00                    | \$50.17    |
|   | 05/01/2020     | \$22.64   | \$12.50 | \$15.70 | \$0.00                    | \$50.84    |
|   | 11/01/2020     | \$23.23   | \$12.50 | \$15.70 | \$0.00                    | \$51.43    |
|   | 05/01/2021     | \$23.91   | \$12.50 | \$15.70 | \$0.00                    | \$52.11    |
|   | 11/01/2021     | \$24.51   | \$12.50 | \$15.70 | \$0.00                    | \$52.71    |
|   | 05/01/2022     | \$25.18   | \$12.50 | \$15.70 | \$0.00                    | \$53.38    |
| For apprentice rates see "Apprentice- OPERATING ENGINEERS"                          |                |           |         |         |                           |            |
| FIRE ALARM INSTALLER<br><i>ELECTRICIANS LOCAL 103</i>                               | 03/01/2020     | \$53.50   | \$13.00 | \$19.20 | \$0.00                    | \$85.70    |
|   | 09/01/2020     | \$54.93   | \$13.00 | \$19.25 | \$0.00                    | \$87.18    |
|   | 03/01/2021     | \$56.13   | \$13.00 | \$19.28 | \$0.00                    | \$88.41    |
|   | 09/01/2021     | \$57.56   | \$13.00 | \$19.33 | \$0.00                    | \$89.89    |
|   | 03/01/2022     | \$58.76   | \$13.00 | \$19.36 | \$0.00                    | \$91.12    |
|   | 09/01/2022     | \$60.19   | \$13.00 | \$19.41 | \$0.00                    | \$92.60    |
|   | 03/01/2023     | \$61.39   | \$13.00 | \$19.44 | \$0.00                    | \$93.83    |
| For apprentice rates see "Apprentice- ELECTRICIAN"                                  |                |           |         |         |                           |            |
| FIRE ALARM REPAIR / MAINTENANCE<br>/ COMMISSIONING<br><i>ELECTRICIANS LOCAL 103</i> | 03/01/2020     | \$40.13   | \$13.00 | \$17.12 | \$0.00                    | \$70.25    |
|   | 09/01/2020     | \$41.20   | \$13.00 | \$17.16 | \$0.00                    | \$71.36    |
|   | 03/01/2021     | \$42.66   | \$13.00 | \$17.27 | \$0.00                    | \$72.93    |
|   | 09/01/2021     | \$44.32   | \$13.00 | \$17.38 | \$0.00                    | \$74.70    |
|   | 03/01/2022     | \$45.83   | \$13.00 | \$17.49 | \$0.00                    | \$76.32    |
|   | 09/01/2022     | \$47.55   | \$13.00 | \$17.62 | \$0.00                    | \$78.17    |
|   | 03/01/2023     | \$49.11   | \$13.00 | \$17.73 | \$0.00                    | \$79.84    |
| For apprentice rates see "Apprentice- TELECOMMUNICATIONS TECHNICIAN"                |                |           |         |         |                           |            |
| FIREMAN (ASST. ENGINEER)<br><i>OPERATING ENGINEERS LOCAL 4</i>                      | 12/01/2019     | \$39.89   | \$12.50 | \$15.70 | \$0.00                    | \$68.09    |
|   | 06/01/2020     | \$40.80   | \$12.50 | \$15.70 | \$0.00                    | \$69.00    |
|   | 12/01/2020     | \$41.75   | \$12.50 | \$15.70 | \$0.00                    | \$69.95    |
|   | 06/01/2021     | \$42.66   | \$12.50 | \$15.70 | \$0.00                    | \$70.86    |
|   | 12/01/2021     | \$43.61   | \$12.50 | \$15.70 | \$0.00                    | \$71.81    |
| For apprentice rates see "Apprentice- OPERATING ENGINEERS"                          |                |           |         |         |                           |            |
| FLAGGER & SIGNALER<br><i>LABORERS - ZONE 1</i>                                      | 12/01/2019     | \$23.50   | \$8.10  | \$16.60 | \$0.00                    | \$48.20    |
|   | 06/01/2020     | \$23.50   | \$8.10  | \$16.60 | \$0.00                    | \$48.20    |
|   | 12/01/2020     | \$24.50   | \$8.10  | \$16.60 | \$0.00                    | \$49.20    |
|   | 06/01/2021     | \$24.50   | \$8.10  | \$16.60 | \$0.00                    | \$49.20    |
|   | 12/01/2021     | \$24.50   | \$8.10  | \$16.60 | \$0.00                    | \$49.20    |
| For apprentice rates see "Apprentice- LABORER"                                      |                |           |         |         |                           |            |
| FLOORCOVERER<br><i>FLOORCOVERERS LOCAL 2168 ZONE 1</i>                              | 03/01/2020     | \$47.05   | \$9.40  | \$19.25 | \$0.00                    | \$75.70    |
|   | 09/01/2020     | \$47.85   | \$9.40  | \$19.25 | \$0.00                    | \$76.50    |
|   | 03/01/2021     | \$48.65   | \$9.40  | \$19.25 | \$0.00                    | \$77.30    |
|   | 09/01/2021     | \$49.45   | \$9.40  | \$19.25 | \$0.00                    | \$78.10    |
|   | 03/01/2022     | \$50.25   | \$9.40  | \$19.25 | \$0.00                    | \$78.90    |

**Classification**

**Effective Date   Base Wage   Health   Pension   Supplemental Unemployment   Total Rate**

**Apprentice - FLOORCOVERER - Local 2168 Zone I**

**Effective Date - 03/01/2020**

| Step | percent | Apprentice Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|------|---------|----------------------|--------|---------|---------------------------|------------|
| 1    | 50      | \$23.53              | \$9.40 | \$1.79  | \$0.00                    | \$34.72    |
| 2    | 55      | \$25.88              | \$9.40 | \$1.79  | \$0.00                    | \$37.07    |
| 3    | 60      | \$28.23              | \$9.40 | \$13.88 | \$0.00                    | \$51.51    |
| 4    | 65      | \$30.58              | \$9.40 | \$13.88 | \$0.00                    | \$53.86    |
| 5    | 70      | \$32.94              | \$9.40 | \$15.67 | \$0.00                    | \$58.01    |
| 6    | 75      | \$35.29              | \$9.40 | \$15.67 | \$0.00                    | \$60.36    |
| 7    | 80      | \$37.64              | \$9.40 | \$17.46 | \$0.00                    | \$64.50    |
| 8    | 85      | \$39.99              | \$9.40 | \$17.46 | \$0.00                    | \$66.85    |

**Effective Date - 09/01/2020**

| Step | percent | Apprentice Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|------|---------|----------------------|--------|---------|---------------------------|------------|
| 1    | 50      | \$23.93              | \$9.40 | \$1.79  | \$0.00                    | \$35.12    |
| 2    | 55      | \$26.32              | \$9.40 | \$1.79  | \$0.00                    | \$37.51    |
| 3    | 60      | \$28.71              | \$9.40 | \$13.88 | \$0.00                    | \$51.99    |
| 4    | 65      | \$31.10              | \$9.40 | \$13.88 | \$0.00                    | \$54.38    |
| 5    | 70      | \$33.50              | \$9.40 | \$15.67 | \$0.00                    | \$58.57    |
| 6    | 75      | \$35.89              | \$9.40 | \$15.67 | \$0.00                    | \$60.96    |
| 7    | 80      | \$38.28              | \$9.40 | \$17.46 | \$0.00                    | \$65.14    |
| 8    | 85      | \$40.67              | \$9.40 | \$17.46 | \$0.00                    | \$67.53    |

**Notes:** Steps are 750 hrs.  
 % After 09/1/17; 45/45/55/55/70/70/80/80 (1500hr Steps)  
 Step 1&2 \$32.36/ 3&4 \$38.80/ 5&6 \$58.01/ 7&8 \$64.50

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

|  |            |         |         |         |        |         |
|--|------------|---------|---------|---------|--------|---------|
| <b>FORK LIFT/CHERRY PICKER</b><br><i>OPERATING ENGINEERS LOCAL 4</i>                           | 12/01/2019 | \$48.73 | \$12.50 | \$15.70 | \$0.00 | \$76.93 |
|  | 06/01/2020 | \$49.83 | \$12.50 | \$15.70 | \$0.00 | \$78.03 |
|  | 12/01/2020 | \$50.98 | \$12.50 | \$15.70 | \$0.00 | \$79.18 |
|  | 06/01/2021 | \$52.08 | \$12.50 | \$15.70 | \$0.00 | \$80.28 |
|  | 12/01/2021 | \$53.23 | \$12.50 | \$15.70 | \$0.00 | \$81.43 |
| For apprentice rates see "Apprentice- OPERATING ENGINEERS"                                     |            |         |         |         |        |         |
| <b>GENERATOR/LIGHTING PLANT/HEATERS</b><br><i>OPERATING ENGINEERS LOCAL 4</i>                  | 12/01/2019 | \$32.47 | \$12.50 | \$15.70 | \$0.00 | \$60.67 |
|  | 06/01/2020 | \$33.22 | \$12.50 | \$15.70 | \$0.00 | \$61.42 |
|  | 12/01/2020 | \$34.00 | \$12.50 | \$15.70 | \$0.00 | \$62.20 |
|  | 06/01/2021 | \$34.75 | \$12.50 | \$15.70 | \$0.00 | \$62.95 |
|  | 12/01/2021 | \$35.54 | \$12.50 | \$15.70 | \$0.00 | \$63.74 |
| For apprentice rates see "Apprentice- OPERATING ENGINEERS"                                     |            |         |         |         |        |         |
| <b>GLAZIER (GLASS PLANK/AIR BARRIER/INTERIOR SYSTEMS)</b><br><i>GLAZIERS LOCAL 35 (ZONE 2)</i> | 01/01/2020 | \$40.46 | \$8.20  | \$22.10 | \$0.00 | \$70.76 |
|  | 07/01/2020 | \$41.56 | \$8.20  | \$22.10 | \$0.00 | \$71.86 |
|  | 01/01/2021 | \$42.66 | \$8.20  | \$22.10 | \$0.00 | \$72.96 |

**Classification**

**Effective Date   Base Wage   Health   Pension   Supplemental Unemployment   Total Rate**

**Apprentice - GLAZIER - Local 35 Zone 2**

**Effective Date - 01/01/2020**

| Step | percent | Apprentice Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|------|---------|----------------------|--------|---------|---------------------------|------------|
| 1    | 50      | \$20.23              | \$8.20 | \$0.00  | \$0.00                    | \$28.43    |
| 2    | 55      | \$22.25              | \$8.20 | \$5.94  | \$0.00                    | \$36.39    |
| 3    | 60      | \$24.28              | \$8.20 | \$6.48  | \$0.00                    | \$38.96    |
| 4    | 65      | \$26.30              | \$8.20 | \$7.02  | \$0.00                    | \$41.52    |
| 5    | 70      | \$28.32              | \$8.20 | \$18.86 | \$0.00                    | \$55.38    |
| 6    | 75      | \$30.35              | \$8.20 | \$19.40 | \$0.00                    | \$57.95    |
| 7    | 80      | \$32.37              | \$8.20 | \$19.94 | \$0.00                    | \$60.51    |
| 8    | 90      | \$36.41              | \$8.20 | \$21.02 | \$0.00                    | \$65.63    |

**Effective Date - 07/01/2020**

| Step | percent | Apprentice Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|------|---------|----------------------|--------|---------|---------------------------|------------|
| 1    | 50      | \$20.78              | \$8.20 | \$0.00  | \$0.00                    | \$28.98    |
| 2    | 55      | \$22.86              | \$8.20 | \$5.94  | \$0.00                    | \$37.00    |
| 3    | 60      | \$24.94              | \$8.20 | \$6.48  | \$0.00                    | \$39.62    |
| 4    | 65      | \$27.01              | \$8.20 | \$7.02  | \$0.00                    | \$42.23    |
| 5    | 70      | \$29.09              | \$8.20 | \$18.86 | \$0.00                    | \$56.15    |
| 6    | 75      | \$31.17              | \$8.20 | \$19.40 | \$0.00                    | \$58.77    |
| 7    | 80      | \$33.25              | \$8.20 | \$19.94 | \$0.00                    | \$61.39    |
| 8    | 90      | \$37.40              | \$8.20 | \$21.02 | \$0.00                    | \$66.62    |

**Notes:**  
Steps are 750 hrs.

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

|                                   |            |         |         |         |        |         |
|-----------------------------------|------------|---------|---------|---------|--------|---------|
| HOISTING ENGINEER/CRANES/GRADALLS | 12/01/2019 | \$48.73 | \$12.50 | \$15.70 | \$0.00 | \$76.93 |
| OPERATING ENGINEERS LOCAL 4       | 06/01/2020 | \$49.83 | \$12.50 | \$15.70 | \$0.00 | \$78.03 |
|                                   | 12/01/2020 | \$50.98 | \$12.50 | \$15.70 | \$0.00 | \$79.18 |
|                                   | 06/01/2021 | \$52.08 | \$12.50 | \$15.70 | \$0.00 | \$80.28 |
|                                   | 12/01/2021 | \$53.23 | \$12.50 | \$15.70 | \$0.00 | \$81.43 |

**Classification**

**Effective Date   Base Wage   Health   Pension   Supplemental Unemployment   Total Rate**

**Apprentice - OPERATING ENGINEERS - Local 4**

**Effective Date - 12/01/2019**

| Step | percent | Apprentice Base Wage | Health  | Pension | Supplemental Unemployment | Total Rate |
|------|---------|----------------------|---------|---------|---------------------------|------------|
| 1    | 55      | \$26.80              | \$12.50 | \$0.00  | \$0.00                    | \$39.30    |
| 2    | 60      | \$29.24              | \$12.50 | \$15.70 | \$0.00                    | \$57.44    |
| 3    | 65      | \$31.67              | \$12.50 | \$15.70 | \$0.00                    | \$59.87    |
| 4    | 70      | \$34.11              | \$12.50 | \$15.70 | \$0.00                    | \$62.31    |
| 5    | 75      | \$36.55              | \$12.50 | \$15.70 | \$0.00                    | \$64.75    |
| 6    | 80      | \$38.98              | \$12.50 | \$15.70 | \$0.00                    | \$67.18    |
| 7    | 85      | \$41.42              | \$12.50 | \$15.70 | \$0.00                    | \$69.62    |
| 8    | 90      | \$43.86              | \$12.50 | \$15.70 | \$0.00                    | \$72.06    |

**Effective Date - 06/01/2020**

| Step | percent | Apprentice Base Wage | Health  | Pension | Supplemental Unemployment | Total Rate |
|------|---------|----------------------|---------|---------|---------------------------|------------|
| 1    | 55      | \$27.41              | \$12.50 | \$0.00  | \$0.00                    | \$39.91    |
| 2    | 60      | \$29.90              | \$12.50 | \$15.70 | \$0.00                    | \$58.10    |
| 3    | 65      | \$32.39              | \$12.50 | \$15.70 | \$0.00                    | \$60.59    |
| 4    | 70      | \$34.88              | \$12.50 | \$15.70 | \$0.00                    | \$63.08    |
| 5    | 75      | \$37.37              | \$12.50 | \$15.70 | \$0.00                    | \$65.57    |
| 6    | 80      | \$39.86              | \$12.50 | \$15.70 | \$0.00                    | \$68.06    |
| 7    | 85      | \$42.36              | \$12.50 | \$15.70 | \$0.00                    | \$70.56    |
| 8    | 90      | \$44.85              | \$12.50 | \$15.70 | \$0.00                    | \$73.05    |

**Notes:**

**Apprentice to Journeyworker Ratio:1:6**

|  |            |         |         |         |        |         |
|--|------------|---------|---------|---------|--------|---------|
| HVAC (DUCTWORK)<br>SHEETMETAL WORKERS LOCAL 17 - A | 02/01/2020 | \$49.36 | \$13.35 | \$24.12 | \$2.61 | \$89.44 |
|  | 08/01/2020 | \$50.96 | \$13.35 | \$24.12 | \$2.66 | \$91.09 |
|  | 02/01/2021 | \$52.61 | \$13.35 | \$24.12 | \$2.71 | \$92.79 |
|  | 08/01/2021 | \$54.36 | \$13.35 | \$24.12 | \$2.76 | \$94.59 |
|  | 02/01/2022 | \$56.11 | \$13.35 | \$24.12 | \$2.81 | \$96.39 |

For apprentice rates see "Apprentice- SHEET METAL WORKER"

|  |            |         |         |         |        |         |
|--|------------|---------|---------|---------|--------|---------|
| HVAC (ELECTRICAL CONTROLS)<br>ELECTRICIANS LOCAL 103 | 03/01/2020 | \$53.50 | \$13.00 | \$19.20 | \$0.00 | \$85.70 |
|  | 09/01/2020 | \$54.93 | \$13.00 | \$19.25 | \$0.00 | \$87.18 |
|  | 03/01/2021 | \$56.13 | \$13.00 | \$19.28 | \$0.00 | \$88.41 |
|  | 09/01/2021 | \$57.56 | \$13.00 | \$19.33 | \$0.00 | \$89.89 |
|  | 03/01/2022 | \$58.76 | \$13.00 | \$19.36 | \$0.00 | \$91.12 |
|  | 09/01/2022 | \$60.19 | \$13.00 | \$19.41 | \$0.00 | \$92.60 |
|  | 03/01/2023 | \$61.39 | \$13.00 | \$19.44 | \$0.00 | \$93.83 |

For apprentice rates see "Apprentice- ELECTRICIAN"

| Classification   | Effective Date | Base Wage | Health  | Pension | Supplemental Unemployment | Total Rate |
|--|----------------|-----------|---------|---------|---------------------------|------------|
| HVAC (TESTING AND BALANCING - AIR)<br><i>SHEETMETAL WORKERS LOCAL 17 - A</i>     | 02/01/2020     | \$49.36   | \$13.35 | \$24.12 | \$2.61                    | \$89.44    |
|  | 08/01/2020     | \$50.96   | \$13.35 | \$24.12 | \$2.66                    | \$91.09    |
|  | 02/01/2021     | \$52.61   | \$13.35 | \$24.12 | \$2.71                    | \$92.79    |
|  | 08/01/2021     | \$54.36   | \$13.35 | \$24.12 | \$2.76                    | \$94.59    |
|  | 02/01/2022     | \$56.11   | \$13.35 | \$24.12 | \$2.81                    | \$96.39    |
| For apprentice rates see "Apprentice- SHEET METAL WORKER"                        |                |           |         |         |                           |            |
| HVAC (TESTING AND BALANCING -WATER)<br><i>PIPEFITTERS LOCAL 537</i>              | 03/01/2020     | \$56.19   | \$10.95 | \$19.74 | \$0.00                    | \$86.88    |
|  | 09/01/2020     | \$57.69   | \$10.95 | \$19.74 | \$0.00                    | \$88.38    |
|  | 03/01/2021     | \$59.19   | \$10.95 | \$19.74 | \$0.00                    | \$89.88    |
| For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"        |                |           |         |         |                           |            |
| HVAC MECHANIC<br><i>PIPEFITTERS LOCAL 537</i>                                    | 03/01/2020     | \$56.19   | \$10.95 | \$19.74 | \$0.00                    | \$86.88    |
|  | 09/01/2020     | \$57.69   | \$10.95 | \$19.74 | \$0.00                    | \$88.38    |
|  | 03/01/2021     | \$59.19   | \$10.95 | \$19.74 | \$0.00                    | \$89.88    |
| For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"        |                |           |         |         |                           |            |
| HYDRAULIC DRILLS<br><i>LABORERS - ZONE 1</i>                                     | 12/01/2019     | \$39.90   | \$8.10  | \$16.60 | \$0.00                    | \$64.60    |
|  | 06/01/2020     | \$40.89   | \$8.10  | \$16.60 | \$0.00                    | \$65.59    |
|  | 12/01/2020     | \$41.87   | \$8.10  | \$16.60 | \$0.00                    | \$66.57    |
|  | 06/01/2021     | \$42.89   | \$8.10  | \$16.60 | \$0.00                    | \$67.59    |
|  | 12/01/2021     | \$43.90   | \$8.10  | \$16.60 | \$0.00                    | \$68.60    |
| For apprentice rates see "Apprentice- LABORER"                                   |                |           |         |         |                           |            |
| INSULATOR (PIPES & TANKS)<br><i>HEAT &amp; FROST INSULATORS LOCAL 6 (BOSTON)</i> | 09/01/2019     | \$48.44   | \$12.80 | \$16.40 | \$0.00                    | \$77.64    |

**Apprentice - ASBESTOS INSULATOR (Pipes & Tanks) - Local 6 Boston**

**Effective Date - 09/01/2019**

| Step | percent | Apprentice Base Wage | Health  | Pension | Supplemental Unemployment | Total Rate |
|------|---------|----------------------|---------|---------|---------------------------|------------|
| 1    | 50      | \$24.22              | \$12.80 | \$11.90 | \$0.00                    | \$48.92    |
| 2    | 60      | \$29.06              | \$12.80 | \$12.80 | \$0.00                    | \$54.66    |
| 3    | 70      | \$33.91              | \$12.80 | \$13.70 | \$0.00                    | \$60.41    |
| 4    | 80      | \$38.75              | \$12.80 | \$14.60 | \$0.00                    | \$66.15    |

**Notes:**

Steps are 1 year

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

|   |            |         |        |         |        |         |
|---|------------|---------|--------|---------|--------|---------|
| IRONWORKER/WELDER<br><i>IRONWORKERS LOCAL 7 (BOSTON AREA)</i> | 03/16/2019 | \$46.66 | \$8.00 | \$23.50 | \$0.00 | \$78.16 |
|---|------------|---------|--------|---------|--------|---------|

**Classification**

**Effective Date   Base Wage   Health   Pension   Supplemental Unemployment   Total Rate**

**Apprentice - IRONWORKER - Local 7 Boston**

**Effective Date - 03/16/2019**

| Step | percent | Apprentice Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|------|---------|----------------------|--------|---------|---------------------------|------------|
| 1    | 60      | \$28.00              | \$8.00 | \$23.50 | \$0.00                    | \$59.50    |
| 2    | 70      | \$32.66              | \$8.00 | \$23.50 | \$0.00                    | \$64.16    |
| 3    | 75      | \$35.00              | \$8.00 | \$23.50 | \$0.00                    | \$66.50    |
| 4    | 80      | \$37.33              | \$8.00 | \$23.50 | \$0.00                    | \$68.83    |
| 5    | 85      | \$39.66              | \$8.00 | \$23.50 | \$0.00                    | \$71.16    |
| 6    | 90      | \$41.99              | \$8.00 | \$23.50 | \$0.00                    | \$73.49    |

**Notes:**

\*\* Structural 1:6; Ornamental 1:4

**Apprentice to Journeyworker Ratio:\*\***

|   |            |         |        |         |        |         |
|---|------------|---------|--------|---------|--------|---------|
| JACKHAMMER & PAVING BREAKER OPERATOR<br>LABORERS - ZONE 1 | 12/01/2019 | \$39.40 | \$8.10 | \$16.60 | \$0.00 | \$64.10 |
|   | 06/01/2020 | \$40.39 | \$8.10 | \$16.60 | \$0.00 | \$65.09 |
|   | 12/01/2020 | \$41.37 | \$8.10 | \$16.60 | \$0.00 | \$66.07 |
|   | 06/01/2021 | \$42.39 | \$8.10 | \$16.60 | \$0.00 | \$67.09 |
|   | 12/01/2021 | \$43.40 | \$8.10 | \$16.60 | \$0.00 | \$68.10 |

For apprentice rates see "Apprentice- LABORER"

|                              |            |         |        |         |        |         |
|------------------------------|------------|---------|--------|---------|--------|---------|
| LABORER<br>LABORERS - ZONE 1 | 12/01/2019 | \$39.15 | \$8.10 | \$16.60 | \$0.00 | \$63.85 |
|                              | 06/01/2020 | \$40.14 | \$8.10 | \$16.60 | \$0.00 | \$64.84 |
|                              | 12/01/2020 | \$41.12 | \$8.10 | \$16.60 | \$0.00 | \$65.82 |
|                              | 06/01/2021 | \$42.14 | \$8.10 | \$16.60 | \$0.00 | \$66.84 |
|                              | 12/01/2021 | \$43.15 | \$8.10 | \$16.60 | \$0.00 | \$67.85 |

**Apprentice - LABORER - Zone 1**

**Effective Date - 12/01/2019**

| Step | percent | Apprentice Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|------|---------|----------------------|--------|---------|---------------------------|------------|
| 1    | 60      | \$23.49              | \$8.10 | \$16.60 | \$0.00                    | \$48.19    |
| 2    | 70      | \$27.41              | \$8.10 | \$16.60 | \$0.00                    | \$52.11    |
| 3    | 80      | \$31.32              | \$8.10 | \$16.60 | \$0.00                    | \$56.02    |
| 4    | 90      | \$35.24              | \$8.10 | \$16.60 | \$0.00                    | \$59.94    |

**Effective Date - 06/01/2020**

| Step | percent | Apprentice Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|------|---------|----------------------|--------|---------|---------------------------|------------|
| 1    | 60      | \$24.08              | \$8.10 | \$16.60 | \$0.00                    | \$48.78    |
| 2    | 70      | \$28.10              | \$8.10 | \$16.60 | \$0.00                    | \$52.80    |
| 3    | 80      | \$32.11              | \$8.10 | \$16.60 | \$0.00                    | \$56.81    |
| 4    | 90      | \$36.13              | \$8.10 | \$16.60 | \$0.00                    | \$60.83    |

**Notes:**

**Apprentice to Journeyworker Ratio:1:5**

| Classification   | Effective Date | Base Wage | Health  | Pension | Supplemental Unemployment | Total Rate |
|--|----------------|-----------|---------|---------|---------------------------|------------|
| LABORER: CARPENTER TENDER<br><i>LABORERS - ZONE 1</i>  | 12/01/2019     | \$39.15   | \$8.10  | \$16.60 | \$0.00                    | \$63.85    |
|  | 06/01/2020     | \$40.14   | \$8.10  | \$16.60 | \$0.00                    | \$64.84    |
|  | 12/01/2020     | \$41.12   | \$8.10  | \$16.60 | \$0.00                    | \$65.82    |
|  | 06/01/2021     | \$42.14   | \$8.10  | \$16.60 | \$0.00                    | \$66.84    |
|  | 12/01/2021     | \$43.15   | \$8.10  | \$16.60 | \$0.00                    | \$67.85    |
| For apprentice rates see "Apprentice- LABORER"   |                |           |         |         |                           |            |
| LABORER: CEMENT FINISHER TENDER<br><i>LABORERS - ZONE 1</i>  | 12/01/2019     | \$39.15   | \$8.10  | \$16.60 | \$0.00                    | \$63.85    |
|  | 06/01/2020     | \$40.14   | \$8.10  | \$16.60 | \$0.00                    | \$64.84    |
|  | 12/01/2020     | \$41.12   | \$8.10  | \$16.60 | \$0.00                    | \$65.82    |
|  | 06/01/2021     | \$42.14   | \$8.10  | \$16.60 | \$0.00                    | \$66.84    |
|  | 12/01/2021     | \$43.15   | \$8.10  | \$16.60 | \$0.00                    | \$67.85    |
| For apprentice rates see "Apprentice- LABORER"   |                |           |         |         |                           |            |
| LABORER: HAZARDOUS WASTE/ASBESTOS REMOVER<br><i>LABORERS - ZONE 1</i>  | 12/01/2019     | \$39.30   | \$8.10  | \$16.60 | \$0.00                    | \$64.00    |
| For apprentice rates see "Apprentice- LABORER"   |                |           |         |         |                           |            |
| LABORER: MASON TENDER<br><i>LABORERS - ZONE 1</i>  | 12/01/2019     | \$39.40   | \$8.10  | \$16.60 | \$0.00                    | \$64.10    |
|  | 06/01/2020     | \$40.39   | \$8.10  | \$16.60 | \$0.00                    | \$65.09    |
|  | 12/01/2020     | \$41.37   | \$8.10  | \$16.60 | \$0.00                    | \$66.07    |
|  | 06/01/2021     | \$42.39   | \$8.10  | \$16.60 | \$0.00                    | \$67.09    |
|  | 12/01/2021     | \$43.40   | \$8.10  | \$16.60 | \$0.00                    | \$68.10    |
| For apprentice rates see "Apprentice- LABORER"   |                |           |         |         |                           |            |
| LABORER: MULTI-TRADE TENDER<br><i>LABORERS - ZONE 1</i>  | 12/01/2019     | \$39.15   | \$8.10  | \$16.60 | \$0.00                    | \$63.85    |
|  | 06/01/2020     | \$40.14   | \$8.10  | \$16.60 | \$0.00                    | \$64.84    |
|  | 12/01/2020     | \$41.12   | \$8.10  | \$16.60 | \$0.00                    | \$65.82    |
|  | 06/01/2021     | \$42.14   | \$8.10  | \$16.60 | \$0.00                    | \$66.84    |
|  | 12/01/2021     | \$43.15   | \$8.10  | \$16.60 | \$0.00                    | \$67.85    |
| For apprentice rates see "Apprentice- LABORER"   |                |           |         |         |                           |            |
| LABORER: TREE REMOVER<br><i>LABORERS - ZONE 1</i>  | 12/01/2019     | \$39.15   | \$8.10  | \$16.60 | \$0.00                    | \$63.85    |
|  | 06/01/2020     | \$40.14   | \$8.10  | \$16.60 | \$0.00                    | \$64.84    |
|  | 12/01/2020     | \$41.12   | \$8.10  | \$16.60 | \$0.00                    | \$65.82    |
|  | 06/01/2021     | \$42.14   | \$8.10  | \$16.60 | \$0.00                    | \$66.84    |
|  | 12/01/2021     | \$43.15   | \$8.10  | \$16.60 | \$0.00                    | \$67.85    |
| 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<br><i>LABORERS - ZONE 1</i>  | 12/01/2019     | \$39.40   | \$8.10  | \$16.60 | \$0.00                    | \$64.10    |
|  | 06/01/2020     | \$40.39   | \$8.10  | \$16.60 | \$0.00                    | \$65.09    |
|  | 12/01/2020     | \$41.37   | \$8.10  | \$16.60 | \$0.00                    | \$66.07    |
|  | 06/01/2021     | \$42.39   | \$8.10  | \$16.60 | \$0.00                    | \$67.09    |
|  | 12/01/2021     | \$43.40   | \$8.10  | \$16.60 | \$0.00                    | \$68.10    |
| For apprentice rates see "Apprentice- LABORER"   |                |           |         |         |                           |            |
| MARBLE & TILE FINISHERS<br><i>BRICKLAYERS LOCAL 3 - MARBLE &amp; TILE</i>  | 02/01/2020     | \$41.49   | \$10.75 | \$20.12 | \$0.00                    | \$72.36    |
|  | 08/01/2020     | \$42.57   | \$10.75 | \$20.27 | \$0.00                    | \$73.59    |
|  | 02/01/2021     | \$43.08   | \$10.75 | \$20.27 | \$0.00                    | \$74.10    |
|  | 08/01/2021     | \$44.20   | \$10.75 | \$20.43 | \$0.00                    | \$75.38    |
|  | 02/01/2022     | \$44.67   | \$10.75 | \$20.43 | \$0.00                    | \$75.85    |

**Classification**

**Effective Date   Base Wage   Health   Pension   Supplemental Unemployment   Total Rate**

**Apprentice - MARBLE & TILE FINISHER - Local 3 Marble & Tile**

**Effective Date - 02/01/2020**

| Step | percent | Apprentice Base Wage | Health  | Pension | Supplemental Unemployment | Total Rate |
|------|---------|----------------------|---------|---------|---------------------------|------------|
| 1    | 50      | \$20.75              | \$10.75 | \$20.12 | \$0.00                    | \$51.62    |
| 2    | 60      | \$24.89              | \$10.75 | \$20.12 | \$0.00                    | \$55.76    |
| 3    | 70      | \$29.04              | \$10.75 | \$20.12 | \$0.00                    | \$59.91    |
| 4    | 80      | \$33.19              | \$10.75 | \$20.12 | \$0.00                    | \$64.06    |
| 5    | 90      | \$37.34              | \$10.75 | \$20.12 | \$0.00                    | \$68.21    |

**Effective Date - 08/01/2020**

| Step | percent | Apprentice Base Wage | Health  | Pension | Supplemental Unemployment | Total Rate |
|------|---------|----------------------|---------|---------|---------------------------|------------|
| 1    | 50      | \$21.29              | \$10.75 | \$20.27 | \$0.00                    | \$52.31    |
| 2    | 60      | \$25.54              | \$10.75 | \$20.27 | \$0.00                    | \$56.56    |
| 3    | 70      | \$29.80              | \$10.75 | \$20.27 | \$0.00                    | \$60.82    |
| 4    | 80      | \$34.06              | \$10.75 | \$20.27 | \$0.00                    | \$65.08    |
| 5    | 90      | \$38.31              | \$10.75 | \$20.27 | \$0.00                    | \$69.33    |

**Notes:**

**Apprentice to Journeyworker Ratio:1:3**

|   |            |         |         |         |        |         |
|---|------------|---------|---------|---------|--------|---------|
| MARBLE MASONS, TILELAYERS & TERRAZZO MECH | 02/01/2020 | \$54.42 | \$10.75 | \$21.93 | \$0.00 | \$87.10 |
| BRICKLAYERS LOCAL 3 - MARBLE & TILE       | 08/01/2020 | \$55.77 | \$10.75 | \$22.08 | \$0.00 | \$88.60 |
|   | 02/01/2021 | \$56.41 | \$10.75 | \$22.08 | \$0.00 | \$89.24 |
|   | 08/01/2021 | \$57.81 | \$10.75 | \$22.24 | \$0.00 | \$90.80 |
|   | 02/01/2022 | \$58.38 | \$10.75 | \$22.24 | \$0.00 | \$91.37 |

**Classification**

**Effective Date   Base Wage   Health   Pension   Supplemental Unemployment   Total Rate**

**Apprentice - MARBLE-TILE-TERRAZZO MECHANIC - Local 3 Marble & Tile**

**Effective Date - 02/01/2020**

| Step | percent | Apprentice Base Wage | Health  | Pension | Supplemental Unemployment | Total Rate |
|------|---------|----------------------|---------|---------|---------------------------|------------|
| 1    | 50      | \$27.21              | \$10.75 | \$21.93 | \$0.00                    | \$59.89    |
| 2    | 60      | \$32.65              | \$10.75 | \$21.93 | \$0.00                    | \$65.33    |
| 3    | 70      | \$38.09              | \$10.75 | \$21.93 | \$0.00                    | \$70.77    |
| 4    | 80      | \$43.54              | \$10.75 | \$21.93 | \$0.00                    | \$76.22    |
| 5    | 90      | \$48.98              | \$10.75 | \$21.93 | \$0.00                    | \$81.66    |

**Effective Date - 08/01/2020**

| Step | percent | Apprentice Base Wage | Health  | Pension | Supplemental Unemployment | Total Rate |
|------|---------|----------------------|---------|---------|---------------------------|------------|
| 1    | 50      | \$27.89              | \$10.75 | \$22.08 | \$0.00                    | \$60.72    |
| 2    | 60      | \$33.46              | \$10.75 | \$22.08 | \$0.00                    | \$66.29    |
| 3    | 70      | \$39.04              | \$10.75 | \$22.08 | \$0.00                    | \$71.87    |
| 4    | 80      | \$44.62              | \$10.75 | \$22.08 | \$0.00                    | \$77.45    |
| 5    | 90      | \$50.19              | \$10.75 | \$22.08 | \$0.00                    | \$83.02    |

**Notes:**

**Apprentice to Journeyworker Ratio:1:5**

|  |            |         |         |         |        |         |
|--|------------|---------|---------|---------|--------|---------|
| MECH. SWEEPER OPERATOR (ON CONST. SITES)<br><i>OPERATING ENGINEERS LOCAL 4</i> | 12/01/2019 | \$48.23 | \$12.50 | \$15.70 | \$0.00 | \$76.43 |
|  | 06/01/2020 | \$49.31 | \$12.50 | \$15.70 | \$0.00 | \$77.51 |
|  | 12/01/2020 | \$50.45 | \$12.50 | \$15.70 | \$0.00 | \$78.65 |
|  | 06/01/2021 | \$51.54 | \$12.50 | \$15.70 | \$0.00 | \$79.74 |
|  | 12/01/2021 | \$52.68 | \$12.50 | \$15.70 | \$0.00 | \$80.88 |

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

|   |            |         |         |         |        |         |
|---|------------|---------|---------|---------|--------|---------|
| MECHANICS MAINTENANCE<br><i>OPERATING ENGINEERS LOCAL 4</i> | 12/01/2019 | \$48.23 | \$12.50 | \$15.70 | \$0.00 | \$76.43 |
|   | 06/01/2020 | \$49.31 | \$12.50 | \$15.70 | \$0.00 | \$77.51 |
|   | 12/01/2020 | \$50.45 | \$12.50 | \$15.70 | \$0.00 | \$78.65 |
|   | 06/01/2021 | \$51.54 | \$12.50 | \$15.70 | \$0.00 | \$79.74 |
|   | 12/01/2021 | \$52.68 | \$12.50 | \$15.70 | \$0.00 | \$80.88 |

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

|   |            |         |        |         |        |         |
|---|------------|---------|--------|---------|--------|---------|
| MILLWRIGHT (Zone 1)<br><i>MILLWRIGHTS LOCAL 1121 - Zone 1</i> | 04/01/2019 | \$42.22 | \$9.90 | \$18.50 | \$0.00 | \$70.62 |
|---|------------|---------|--------|---------|--------|---------|

**Apprentice - MILLWRIGHT - Local 1121 Zone 1**

**Effective Date - 04/01/2019**

| Step | percent | Apprentice Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|------|---------|----------------------|--------|---------|---------------------------|------------|
| 1    | 55      | \$23.22              | \$9.90 | \$5.31  | \$0.00                    | \$38.43    |
| 2    | 65      | \$27.44              | \$9.90 | \$15.13 | \$0.00                    | \$52.47    |
| 3    | 75      | \$31.67              | \$9.90 | \$16.10 | \$0.00                    | \$57.67    |
| 4    | 85      | \$35.89              | \$9.90 | \$17.06 | \$0.00                    | \$62.85    |

**Notes:**  
Steps are 2,000 hours  
**Apprentice to Journeyworker Ratio:1:5**

|   |            |         |        |         |        |         |
|---|------------|---------|--------|---------|--------|---------|
| <b>MORTAR MIXER</b><br><i>LABORERS - ZONE 1</i> | 12/01/2019 | \$39.40 | \$8.10 | \$16.60 | \$0.00 | \$64.10 |
|   | 06/01/2020 | \$40.39 | \$8.10 | \$16.60 | \$0.00 | \$65.09 |
|   | 12/01/2020 | \$41.37 | \$8.10 | \$16.60 | \$0.00 | \$66.07 |
|   | 06/01/2021 | \$42.39 | \$8.10 | \$16.60 | \$0.00 | \$67.09 |
|   | 12/01/2021 | \$43.40 | \$8.10 | \$16.60 | \$0.00 | \$68.10 |

For apprentice rates see "Apprentice- LABORER"

|   |            |         |         |         |        |         |
|---|------------|---------|---------|---------|--------|---------|
| <b>OILER (OTHER THAN TRUCK CRANES,GRADALLS)</b><br><i>OPERATING ENGINEERS LOCAL 4</i> | 12/01/2019 | \$23.08 | \$12.50 | \$15.70 | \$0.00 | \$51.28 |
|   | 06/01/2020 | \$23.63 | \$12.50 | \$15.70 | \$0.00 | \$51.83 |
|   | 12/01/2020 | \$24.20 | \$12.50 | \$15.70 | \$0.00 | \$52.40 |
|   | 06/01/2021 | \$24.75 | \$12.50 | \$15.70 | \$0.00 | \$52.95 |
|   | 12/01/2021 | \$25.33 | \$12.50 | \$15.70 | \$0.00 | \$53.53 |

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

|   |            |         |         |         |        |         |
|---|------------|---------|---------|---------|--------|---------|
| <b>OILER (TRUCK CRANES, GRADALLS)</b><br><i>OPERATING ENGINEERS LOCAL 4</i> | 12/01/2019 | \$27.64 | \$12.50 | \$15.70 | \$0.00 | \$55.84 |
|   | 06/01/2020 | \$28.29 | \$12.50 | \$15.70 | \$0.00 | \$56.49 |
|   | 12/01/2020 | \$28.97 | \$12.50 | \$15.70 | \$0.00 | \$57.17 |
|   | 06/01/2021 | \$29.61 | \$12.50 | \$15.70 | \$0.00 | \$57.81 |
|   | 12/01/2021 | \$30.29 | \$12.50 | \$15.70 | \$0.00 | \$58.49 |

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

|  |            |         |         |         |        |         |
|--|------------|---------|---------|---------|--------|---------|
| <b>OTHER POWER DRIVEN EQUIPMENT - CLASS II</b><br><i>OPERATING ENGINEERS LOCAL 4</i> | 12/01/2019 | \$48.23 | \$12.50 | \$15.70 | \$0.00 | \$76.43 |
|  | 06/01/2020 | \$49.31 | \$12.50 | \$15.70 | \$0.00 | \$77.51 |
|  | 12/01/2020 | \$50.45 | \$12.50 | \$15.70 | \$0.00 | \$78.65 |
|  | 06/01/2021 | \$51.54 | \$12.50 | \$15.70 | \$0.00 | \$79.74 |
|  | 12/01/2021 | \$52.68 | \$12.50 | \$15.70 | \$0.00 | \$80.88 |

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

|   |            |         |        |         |        |         |
|---|------------|---------|--------|---------|--------|---------|
| <b>PAINTER (BRIDGES/TANKS)</b><br><i>PAINTERS LOCAL 35 - ZONE 2</i> | 01/01/2020 | \$50.96 | \$8.20 | \$22.10 | \$0.00 | \$81.26 |
|   | 07/01/2020 | \$52.06 | \$8.20 | \$22.10 | \$0.00 | \$82.36 |
|   | 01/01/2021 | \$53.16 | \$8.20 | \$22.10 | \$0.00 | \$83.46 |

**Classification**

**Effective Date    Base Wage    Health    Pension    Supplemental Unemployment    Total Rate**

**Apprentice - PAINTER Local 35 - BRIDGES/TANKS**

**Effective Date - 01/01/2020**

| Step | percent | Apprentice Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|------|---------|----------------------|--------|---------|---------------------------|------------|
| 1    | 50      | \$25.48              | \$8.20 | \$0.00  | \$0.00                    | \$33.68    |
| 2    | 55      | \$28.03              | \$8.20 | \$5.94  | \$0.00                    | \$42.17    |
| 3    | 60      | \$30.58              | \$8.20 | \$6.48  | \$0.00                    | \$45.26    |
| 4    | 65      | \$33.12              | \$8.20 | \$7.02  | \$0.00                    | \$48.34    |
| 5    | 70      | \$35.67              | \$8.20 | \$18.86 | \$0.00                    | \$62.73    |
| 6    | 75      | \$38.22              | \$8.20 | \$19.40 | \$0.00                    | \$65.82    |
| 7    | 80      | \$40.77              | \$8.20 | \$19.94 | \$0.00                    | \$68.91    |
| 8    | 90      | \$45.86              | \$8.20 | \$21.02 | \$0.00                    | \$75.08    |

**Effective Date - 07/01/2020**

| Step | percent | Apprentice Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|------|---------|----------------------|--------|---------|---------------------------|------------|
| 1    | 50      | \$26.03              | \$8.20 | \$0.00  | \$0.00                    | \$34.23    |
| 2    | 55      | \$28.63              | \$8.20 | \$5.94  | \$0.00                    | \$42.77    |
| 3    | 60      | \$31.24              | \$8.20 | \$6.48  | \$0.00                    | \$45.92    |
| 4    | 65      | \$33.84              | \$8.20 | \$7.02  | \$0.00                    | \$49.06    |
| 5    | 70      | \$36.44              | \$8.20 | \$18.86 | \$0.00                    | \$63.50    |
| 6    | 75      | \$39.05              | \$8.20 | \$19.40 | \$0.00                    | \$66.65    |
| 7    | 80      | \$41.65              | \$8.20 | \$19.94 | \$0.00                    | \$69.79    |
| 8    | 90      | \$46.85              | \$8.20 | \$21.02 | \$0.00                    | \$76.07    |

**Notes:**

Steps are 750 hrs.

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

|   |            |         |        |        |        |         |
|---|------------|---------|--------|--------|--------|---------|
| PAINTER (SIGN, PICTORIAL & DISPLAY)<br>PAINTERS LOCAL 35 - ZONE 2 | 06/01/2013 | \$25.81 | \$7.07 | \$7.05 | \$0.00 | \$39.93 |
|---|------------|---------|--------|--------|--------|---------|

**Classification**

**Effective Date   Base Wage   Health   Pension   Supplemental Unemployment   Total Rate**

**Apprentice - PAINTER SIGN - Local 35 Zone 2**

**Effective Date - 06/01/2013**

| Step | percent | Apprentice Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|------|---------|----------------------|--------|---------|---------------------------|------------|
| 1    | 50      | \$12.91              | \$7.07 | \$0.00  | \$0.00                    | \$19.98    |
| 2    | 55      | \$14.20              | \$7.07 | \$2.45  | \$0.00                    | \$23.72    |
| 3    | 60      | \$15.49              | \$7.07 | \$2.45  | \$0.00                    | \$25.01    |
| 4    | 65      | \$16.78              | \$7.07 | \$2.45  | \$0.00                    | \$26.30    |
| 5    | 70      | \$18.07              | \$7.07 | \$7.05  | \$0.00                    | \$32.19    |
| 6    | 75      | \$19.36              | \$7.07 | \$7.05  | \$0.00                    | \$33.48    |
| 7    | 80      | \$20.65              | \$7.07 | \$7.05  | \$0.00                    | \$34.77    |
| 8    | 85      | \$21.94              | \$7.07 | \$7.05  | \$0.00                    | \$36.06    |
| 9    | 90      | \$23.23              | \$7.07 | \$7.05  | \$0.00                    | \$37.35    |

**Notes:**  
Steps are 4 mos.

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

|  |            |         |        |         |        |         |
|--|------------|---------|--------|---------|--------|---------|
| PAINTER (SPRAY OR SANDBLAST, NEW) *  | 01/01/2020 | \$41.86 | \$8.20 | \$22.10 | \$0.00 | \$72.16 |
| * If 30% or more of surfaces to be painted are new construction,<br>NEW paint rate shall be used. PAINTERS LOCAL 35 - ZONE 2 | 07/01/2020 | \$42.96 | \$8.20 | \$22.10 | \$0.00 | \$73.26 |
|  | 01/01/2021 | \$44.06 | \$8.20 | \$22.10 | \$0.00 | \$74.36 |

**Apprentice - PAINTER Local 35 Zone 2 - Spray/Sandblast - New**

**Effective Date - 01/01/2020**

| Step | percent | Apprentice Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|------|---------|----------------------|--------|---------|---------------------------|------------|
| 1    | 50      | \$20.93              | \$8.20 | \$0.00  | \$0.00                    | \$29.13    |
| 2    | 55      | \$23.02              | \$8.20 | \$5.94  | \$0.00                    | \$37.16    |
| 3    | 60      | \$25.12              | \$8.20 | \$6.48  | \$0.00                    | \$39.80    |
| 4    | 65      | \$27.21              | \$8.20 | \$7.02  | \$0.00                    | \$42.43    |
| 5    | 70      | \$29.30              | \$8.20 | \$18.86 | \$0.00                    | \$56.36    |
| 6    | 75      | \$31.40              | \$8.20 | \$19.40 | \$0.00                    | \$59.00    |
| 7    | 80      | \$33.49              | \$8.20 | \$19.94 | \$0.00                    | \$61.63    |
| 8    | 90      | \$37.67              | \$8.20 | \$21.02 | \$0.00                    | \$66.89    |

**Effective Date - 07/01/2020**

| Step | percent | Apprentice Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|------|---------|----------------------|--------|---------|---------------------------|------------|
| 1    | 50      | \$21.48              | \$8.20 | \$0.00  | \$0.00                    | \$29.68    |
| 2    | 55      | \$23.63              | \$8.20 | \$5.94  | \$0.00                    | \$37.77    |
| 3    | 60      | \$25.78              | \$8.20 | \$6.48  | \$0.00                    | \$40.46    |
| 4    | 65      | \$27.92              | \$8.20 | \$7.02  | \$0.00                    | \$43.14    |
| 5    | 70      | \$30.07              | \$8.20 | \$18.86 | \$0.00                    | \$57.13    |
| 6    | 75      | \$32.22              | \$8.20 | \$19.40 | \$0.00                    | \$59.82    |
| 7    | 80      | \$34.37              | \$8.20 | \$19.94 | \$0.00                    | \$62.51    |
| 8    | 90      | \$38.66              | \$8.20 | \$21.02 | \$0.00                    | \$67.88    |

**Notes:**  
Steps are 750 hrs.

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

|                                       |            |         |        |         |        |         |
|---------------------------------------|------------|---------|--------|---------|--------|---------|
| PAINTER (SPRAY OR SANDBLAST, REPAINT) | 01/01/2020 | \$39.92 | \$8.20 | \$22.10 | \$0.00 | \$70.22 |
| PAINTERS LOCAL 35 - ZONE 2            | 07/01/2020 | \$41.02 | \$8.20 | \$22.10 | \$0.00 | \$71.32 |
|                                       | 01/01/2021 | \$42.12 | \$8.20 | \$22.10 | \$0.00 | \$72.42 |

**Classification**

**Effective Date    Base Wage    Health    Pension    Supplemental Unemployment    Total Rate**

**Apprentice - PAINTER Local 35 Zone 2 - Spray/Sandblast - Repaint**

**Effective Date - 01/01/2020**

| Step | percent | Apprentice Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|------|---------|----------------------|--------|---------|---------------------------|------------|
| 1    | 50      | \$19.96              | \$8.20 | \$0.00  | \$0.00                    | \$28.16    |
| 2    | 55      | \$21.96              | \$8.20 | \$5.94  | \$0.00                    | \$36.10    |
| 3    | 60      | \$23.95              | \$8.20 | \$6.48  | \$0.00                    | \$38.63    |
| 4    | 65      | \$25.95              | \$8.20 | \$7.02  | \$0.00                    | \$41.17    |
| 5    | 70      | \$27.94              | \$8.20 | \$18.86 | \$0.00                    | \$55.00    |
| 6    | 75      | \$29.94              | \$8.20 | \$19.40 | \$0.00                    | \$57.54    |
| 7    | 80      | \$31.94              | \$8.20 | \$19.94 | \$0.00                    | \$60.08    |
| 8    | 90      | \$35.93              | \$8.20 | \$21.02 | \$0.00                    | \$65.15    |

**Effective Date - 07/01/2020**

| Step | percent | Apprentice Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|------|---------|----------------------|--------|---------|---------------------------|------------|
| 1    | 50      | \$20.51              | \$8.20 | \$0.00  | \$0.00                    | \$28.71    |
| 2    | 55      | \$22.56              | \$8.20 | \$5.94  | \$0.00                    | \$36.70    |
| 3    | 60      | \$24.61              | \$8.20 | \$6.48  | \$0.00                    | \$39.29    |
| 4    | 65      | \$26.66              | \$8.20 | \$7.02  | \$0.00                    | \$41.88    |
| 5    | 70      | \$28.71              | \$8.20 | \$18.86 | \$0.00                    | \$55.77    |
| 6    | 75      | \$30.77              | \$8.20 | \$19.40 | \$0.00                    | \$58.37    |
| 7    | 80      | \$32.82              | \$8.20 | \$19.94 | \$0.00                    | \$60.96    |
| 8    | 90      | \$36.92              | \$8.20 | \$21.02 | \$0.00                    | \$66.14    |

**Notes:**  
Steps are 750 hrs.

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

|  |            |         |        |         |        |         |
|--|------------|---------|--------|---------|--------|---------|
| PAINTER (TRAFFIC MARKINGS)   | 12/01/2019 | \$39.15 | \$8.10 | \$16.60 | \$0.00 | \$63.85 |
| LABORERS - ZONE 1  | 06/01/2020 | \$40.14 | \$8.10 | \$16.60 | \$0.00 | \$64.84 |
|  | 12/01/2020 | \$41.12 | \$8.10 | \$16.60 | \$0.00 | \$65.82 |
|  | 06/01/2021 | \$42.14 | \$8.10 | \$16.60 | \$0.00 | \$66.84 |
|  | 12/01/2021 | \$43.15 | \$8.10 | \$16.60 | \$0.00 | \$67.85 |
| For Apprentice rates see "Apprentice- LABORER"   |            |         |        |         |        |         |
| PAINTER / TAPER (BRUSH, NEW) *   | 01/01/2020 | \$40.46 | \$8.20 | \$22.10 | \$0.00 | \$70.76 |
| * If 30% or more of surfaces to be painted are new construction,<br>NEW paint rate shall be used. PAINTERS LOCAL 35 - ZONE 2 | 07/01/2020 | \$41.56 | \$8.20 | \$22.10 | \$0.00 | \$71.86 |
|  | 01/01/2021 | \$42.66 | \$8.20 | \$22.10 | \$0.00 | \$72.96 |

**Classification**

**Effective Date    Base Wage    Health    Pension    Supplemental Unemployment    Total Rate**

**Apprentice - PAINTER - Local 35 Zone 2 - BRUSH NEW**

**Effective Date - 01/01/2020**

| Step | percent | Apprentice Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|------|---------|----------------------|--------|---------|---------------------------|------------|
| 1    | 50      | \$20.23              | \$8.20 | \$0.00  | \$0.00                    | \$28.43    |
| 2    | 55      | \$22.25              | \$8.20 | \$5.94  | \$0.00                    | \$36.39    |
| 3    | 60      | \$24.28              | \$8.20 | \$6.48  | \$0.00                    | \$38.96    |
| 4    | 65      | \$26.30              | \$8.20 | \$7.02  | \$0.00                    | \$41.52    |
| 5    | 70      | \$28.32              | \$8.20 | \$18.86 | \$0.00                    | \$55.38    |
| 6    | 75      | \$30.35              | \$8.20 | \$19.40 | \$0.00                    | \$57.95    |
| 7    | 80      | \$32.37              | \$8.20 | \$19.94 | \$0.00                    | \$60.51    |
| 8    | 90      | \$36.41              | \$8.20 | \$21.02 | \$0.00                    | \$65.63    |

**Effective Date - 07/01/2020**

| Step | percent | Apprentice Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|------|---------|----------------------|--------|---------|---------------------------|------------|
| 1    | 50      | \$20.78              | \$8.20 | \$0.00  | \$0.00                    | \$28.98    |
| 2    | 55      | \$22.86              | \$8.20 | \$5.94  | \$0.00                    | \$37.00    |
| 3    | 60      | \$24.94              | \$8.20 | \$6.48  | \$0.00                    | \$39.62    |
| 4    | 65      | \$27.01              | \$8.20 | \$7.02  | \$0.00                    | \$42.23    |
| 5    | 70      | \$29.09              | \$8.20 | \$18.86 | \$0.00                    | \$56.15    |
| 6    | 75      | \$31.17              | \$8.20 | \$19.40 | \$0.00                    | \$58.77    |
| 7    | 80      | \$33.25              | \$8.20 | \$19.94 | \$0.00                    | \$61.39    |
| 8    | 90      | \$37.40              | \$8.20 | \$21.02 | \$0.00                    | \$66.62    |

**Notes:**

Steps are 750 hrs.

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

|                                  |            |         |        |         |        |         |
|----------------------------------|------------|---------|--------|---------|--------|---------|
| PAINTER / TAPER (BRUSH, REPAINT) | 01/01/2020 | \$38.52 | \$8.20 | \$22.10 | \$0.00 | \$68.82 |
| PAINTERS LOCAL 35 - ZONE 2       | 07/01/2020 | \$39.62 | \$8.20 | \$22.10 | \$0.00 | \$69.92 |
|                                  | 01/01/2021 | \$40.72 | \$8.20 | \$22.10 | \$0.00 | \$71.02 |

**Classification**

**Effective Date    Base Wage    Health    Pension    Supplemental Unemployment    Total Rate**

**Apprentice - PAINTER Local 35 Zone 2 - BRUSH REPAINT**

**Effective Date - 01/01/2020**

| Step | percent | Apprentice Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|------|---------|----------------------|--------|---------|---------------------------|------------|
| 1    | 50      | \$19.26              | \$8.20 | \$0.00  | \$0.00                    | \$27.46    |
| 2    | 55      | \$21.19              | \$8.20 | \$5.94  | \$0.00                    | \$35.33    |
| 3    | 60      | \$23.11              | \$8.20 | \$6.48  | \$0.00                    | \$37.79    |
| 4    | 65      | \$25.04              | \$8.20 | \$7.02  | \$0.00                    | \$40.26    |
| 5    | 70      | \$26.96              | \$8.20 | \$18.86 | \$0.00                    | \$54.02    |
| 6    | 75      | \$28.89              | \$8.20 | \$19.40 | \$0.00                    | \$56.49    |
| 7    | 80      | \$30.82              | \$8.20 | \$19.94 | \$0.00                    | \$58.96    |
| 8    | 90      | \$34.67              | \$8.20 | \$21.02 | \$0.00                    | \$63.89    |

**Effective Date - 07/01/2020**

| Step | percent | Apprentice Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|------|---------|----------------------|--------|---------|---------------------------|------------|
| 1    | 50      | \$19.81              | \$8.20 | \$0.00  | \$0.00                    | \$28.01    |
| 2    | 55      | \$21.79              | \$8.20 | \$5.94  | \$0.00                    | \$35.93    |
| 3    | 60      | \$23.77              | \$8.20 | \$6.48  | \$0.00                    | \$38.45    |
| 4    | 65      | \$25.75              | \$8.20 | \$7.02  | \$0.00                    | \$40.97    |
| 5    | 70      | \$27.73              | \$8.20 | \$18.86 | \$0.00                    | \$54.79    |
| 6    | 75      | \$29.72              | \$8.20 | \$19.40 | \$0.00                    | \$57.32    |
| 7    | 80      | \$31.70              | \$8.20 | \$19.94 | \$0.00                    | \$59.84    |
| 8    | 90      | \$35.66              | \$8.20 | \$21.02 | \$0.00                    | \$64.88    |

**Notes:**  
Steps are 750 hrs.

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

|   |            |         |         |         |        |         |
|---|------------|---------|---------|---------|--------|---------|
| PANEL & PICKUP TRUCKS DRIVER<br><i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE A</i>  | 12/01/2019 | \$35.18 | \$12.41 | \$13.72 | \$0.00 | \$61.31 |
|   | 06/01/2020 | \$36.08 | \$12.41 | \$13.72 | \$0.00 | \$62.21 |
|   | 08/01/2020 | \$36.08 | \$12.91 | \$13.72 | \$0.00 | \$62.71 |
|   | 12/01/2020 | \$36.08 | \$12.91 | \$14.82 | \$0.00 | \$63.81 |
|   | 06/01/2021 | \$36.88 | \$12.91 | \$14.82 | \$0.00 | \$64.61 |
|   | 08/01/2021 | \$36.88 | \$13.41 | \$14.82 | \$0.00 | \$65.11 |
|   | 12/01/2021 | \$36.88 | \$13.41 | \$16.01 | \$0.00 | \$66.30 |
| PIER AND DOCK CONSTRUCTOR (UNDERPINNING AND DECK)<br><i>PILE DRIVER LOCAL 56 (ZONE 1)</i><br>For apprentice rates see "Apprentice- PILE DRIVER" | 08/01/2019 | \$48.94 | \$9.90  | \$21.15 | \$0.00 | \$79.99 |
| PILE DRIVER<br><i>PILE DRIVER LOCAL 56 (ZONE 1)</i>   | 08/01/2019 | \$48.94 | \$9.90  | \$21.15 | \$0.00 | \$79.99 |

**Apprentice - PILE DRIVER - Local 56 Zone 1**

**Effective Date - 08/01/2019**

| Step | percent | Apprentice Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|------|---------|----------------------|--------|---------|---------------------------|------------|
| 1    | 50      | \$24.47              | \$9.90 | \$21.15 | \$0.00                    | \$55.52    |
| 2    | 60      | \$29.36              | \$9.90 | \$21.15 | \$0.00                    | \$60.41    |
| 3    | 70      | \$34.26              | \$9.90 | \$21.15 | \$0.00                    | \$65.31    |
| 4    | 75      | \$36.71              | \$9.90 | \$21.15 | \$0.00                    | \$67.76    |
| 5    | 80      | \$39.15              | \$9.90 | \$21.15 | \$0.00                    | \$70.20    |
| 6    | 80      | \$39.15              | \$9.90 | \$21.15 | \$0.00                    | \$70.20    |
| 7    | 90      | \$44.05              | \$9.90 | \$21.15 | \$0.00                    | \$75.10    |
| 8    | 90      | \$44.05              | \$9.90 | \$21.15 | \$0.00                    | \$75.10    |

Notes:

**Apprentice to Journeyworker Ratio:1:5**

|                          |            |         |         |         |        |         |
|--------------------------|------------|---------|---------|---------|--------|---------|
| PIPEFITTER & STEAMFITTER | 03/01/2020 | \$56.19 | \$10.95 | \$19.74 | \$0.00 | \$86.88 |
| PIPEFITTERS LOCAL 537    | 09/01/2020 | \$57.69 | \$10.95 | \$19.74 | \$0.00 | \$88.38 |
|                          | 03/01/2021 | \$59.19 | \$10.95 | \$19.74 | \$0.00 | \$89.88 |

**Apprentice - PIPEFITTER - Local 537**

**Effective Date - 03/01/2020**

| Step | percent | Apprentice Base Wage | Health  | Pension | Supplemental Unemployment | Total Rate |
|------|---------|----------------------|---------|---------|---------------------------|------------|
| 1    | 40      | \$22.48              | \$10.95 | \$8.00  | \$0.00                    | \$41.43    |
| 2    | 45      | \$25.29              | \$10.95 | \$19.74 | \$0.00                    | \$55.98    |
| 3    | 60      | \$33.71              | \$10.95 | \$19.74 | \$0.00                    | \$64.40    |
| 4    | 70      | \$39.33              | \$10.95 | \$19.74 | \$0.00                    | \$70.02    |
| 5    | 80      | \$44.95              | \$10.95 | \$19.74 | \$0.00                    | \$75.64    |

**Effective Date - 09/01/2020**

| Step | percent | Apprentice Base Wage | Health  | Pension | Supplemental Unemployment | Total Rate |
|------|---------|----------------------|---------|---------|---------------------------|------------|
| 1    | 40      | \$23.08              | \$10.95 | \$8.00  | \$0.00                    | \$42.03    |
| 2    | 45      | \$25.96              | \$10.95 | \$19.74 | \$0.00                    | \$56.65    |
| 3    | 60      | \$34.61              | \$10.95 | \$19.74 | \$0.00                    | \$65.30    |
| 4    | 70      | \$40.38              | \$10.95 | \$19.74 | \$0.00                    | \$71.07    |
| 5    | 80      | \$46.15              | \$10.95 | \$19.74 | \$0.00                    | \$76.84    |

Notes:

\*\* 1:3; 3:15; 1:10 thereafter / Steps are 1 yr.  
Refrig/AC Mechanic \*\*1:1;1:2;2:4;3:6;4:8;5:10;6:12;7:14;8:17;9:20;10:23(Max)

**Apprentice to Journeyworker Ratio:\*\***

| Classification                        | Effective Date | Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|---------------------------------------|----------------|-----------|--------|---------|---------------------------|------------|
| PIPELAYER<br><i>LABORERS - ZONE 1</i> | 12/01/2019     | \$39.40   | \$8.10 | \$16.60 | \$0.00                    | \$64.10    |
|                                       | 06/01/2020     | \$40.39   | \$8.10 | \$16.60 | \$0.00                    | \$65.09    |
|                                       | 12/01/2020     | \$41.37   | \$8.10 | \$16.60 | \$0.00                    | \$66.07    |
|                                       | 06/01/2021     | \$42.39   | \$8.10 | \$16.60 | \$0.00                    | \$67.09    |
|                                       | 12/01/2021     | \$43.40   | \$8.10 | \$16.60 | \$0.00                    | \$68.10    |

For apprentice rates see "Apprentice- LABORER"

|  |            |         |         |         |        |         |
|--|------------|---------|---------|---------|--------|---------|
| PLUMBERS & GASFITTERS<br><i>PLUMBERS &amp; GASFITTERS LOCAL 12</i> | 03/01/2020 | \$58.69 | \$12.07 | \$17.26 | \$0.00 | \$88.02 |
|  | 09/01/2020 | \$60.19 | \$12.07 | \$17.26 | \$0.00 | \$89.52 |
|  | 03/01/2021 | \$61.69 | \$12.07 | \$17.26 | \$0.00 | \$91.02 |

**Apprentice - PLUMBER/GASFITTER - Local 12**

**Effective Date - 03/01/2020**

| Step | percent | Apprentice Base Wage | Health  | Pension | Supplemental Unemployment | Total Rate |
|------|---------|----------------------|---------|---------|---------------------------|------------|
| 1    | 35      | \$20.54              | \$12.07 | \$6.24  | \$0.00                    | \$38.85    |
| 2    | 40      | \$23.48              | \$12.07 | \$7.08  | \$0.00                    | \$42.63    |
| 3    | 55      | \$32.28              | \$12.07 | \$9.63  | \$0.00                    | \$53.98    |
| 4    | 65      | \$38.15              | \$12.07 | \$11.33 | \$0.00                    | \$61.55    |
| 5    | 75      | \$44.02              | \$12.07 | \$13.03 | \$0.00                    | \$69.12    |

**Effective Date - 09/01/2020**

| Step | percent | Apprentice Base Wage | Health  | Pension | Supplemental Unemployment | Total Rate |
|------|---------|----------------------|---------|---------|---------------------------|------------|
| 1    | 35      | \$21.07              | \$12.07 | \$6.24  | \$0.00                    | \$39.38    |
| 2    | 40      | \$24.08              | \$12.07 | \$7.08  | \$0.00                    | \$43.23    |
| 3    | 55      | \$33.10              | \$12.07 | \$9.63  | \$0.00                    | \$54.80    |
| 4    | 65      | \$39.12              | \$12.07 | \$11.33 | \$0.00                    | \$62.52    |
| 5    | 75      | \$45.14              | \$12.07 | \$13.03 | \$0.00                    | \$70.24    |

**Notes:**

\*\* 1:2; 2:6; 3:10; 4:14; 5:19/Steps are 1 yr  
Step4 with lic\$65.32, Step5 with lic\$72.89

**Apprentice to Journeyworker Ratio:\*\***

|  |            |         |         |         |        |         |
|--|------------|---------|---------|---------|--------|---------|
| PNEUMATIC CONTROLS (TEMP.)<br><i>PIPEFITTERS LOCAL 537</i> | 03/01/2020 | \$56.19 | \$10.95 | \$19.74 | \$0.00 | \$86.88 |
|  | 09/01/2020 | \$57.69 | \$10.95 | \$19.74 | \$0.00 | \$88.38 |
|  | 03/01/2021 | \$59.17 | \$10.95 | \$19.74 | \$0.00 | \$89.86 |

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

|   |            |         |        |         |        |         |
|---|------------|---------|--------|---------|--------|---------|
| PNEUMATIC DRILL/TOOL OPERATOR<br><i>LABORERS - ZONE 1</i> | 12/01/2019 | \$39.40 | \$8.10 | \$16.60 | \$0.00 | \$64.10 |
|   | 06/01/2020 | \$40.39 | \$8.10 | \$16.60 | \$0.00 | \$65.09 |
|   | 12/01/2020 | \$41.37 | \$8.10 | \$16.60 | \$0.00 | \$66.07 |
|   | 06/01/2021 | \$42.39 | \$8.10 | \$16.60 | \$0.00 | \$67.09 |
|   | 12/01/2021 | \$43.40 | \$8.10 | \$16.60 | \$0.00 | \$68.10 |

For apprentice rates see "Apprentice- LABORER"

|   |            |         |        |         |        |         |
|---|------------|---------|--------|---------|--------|---------|
| POWDERMAN & BLASTER<br><i>LABORERS - ZONE 1</i> | 12/01/2019 | \$40.15 | \$8.10 | \$16.60 | \$0.00 | \$64.85 |
|   | 06/01/2020 | \$41.14 | \$8.10 | \$16.60 | \$0.00 | \$65.84 |
|   | 12/01/2020 | \$42.12 | \$8.10 | \$16.60 | \$0.00 | \$66.82 |
|   | 06/01/2021 | \$43.14 | \$8.10 | \$16.60 | \$0.00 | \$67.84 |
|   | 12/01/2021 | \$44.15 | \$8.10 | \$16.60 | \$0.00 | \$68.85 |

| Classification  | Effective Date | Base Wage | Health  | Pension | Supplemental Unemployment | Total Rate |
|---|----------------|-----------|---------|---------|---------------------------|------------|
| For apprentice rates see "Apprentice- LABORER"  |                |           |         |         |                           |            |
| POWER SHOVEL/DERRICK/TRENCHING MACHINE<br><i>OPERATING ENGINEERS LOCAL 4</i>  | 12/01/2019     | \$48.73   | \$12.50 | \$15.70 | \$0.00                    | \$76.93    |
|   | 06/01/2020     | \$49.83   | \$12.50 | \$15.70 | \$0.00                    | \$78.03    |
|   | 12/01/2020     | \$50.98   | \$12.50 | \$15.70 | \$0.00                    | \$79.18    |
|   | 06/01/2021     | \$52.08   | \$12.50 | \$15.70 | \$0.00                    | \$80.28    |
|   | 12/01/2021     | \$53.23   | \$12.50 | \$15.70 | \$0.00                    | \$81.43    |
| For apprentice rates see "Apprentice- OPERATING ENGINEERS"  |                |           |         |         |                           |            |
| PUMP OPERATOR (CONCRETE)<br><i>OPERATING ENGINEERS LOCAL 4</i>  | 12/01/2019     | \$48.73   | \$12.50 | \$15.70 | \$0.00                    | \$76.93    |
|   | 06/01/2020     | \$49.83   | \$12.50 | \$15.70 | \$0.00                    | \$78.03    |
|   | 12/01/2020     | \$50.98   | \$12.50 | \$15.70 | \$0.00                    | \$79.18    |
|   | 06/01/2021     | \$52.08   | \$12.50 | \$15.70 | \$0.00                    | \$80.28    |
|   | 12/01/2021     | \$53.23   | \$12.50 | \$15.70 | \$0.00                    | \$81.43    |
| For apprentice rates see "Apprentice- OPERATING ENGINEERS"  |                |           |         |         |                           |            |
| PUMP OPERATOR (DEWATERING, OTHER)<br><i>OPERATING ENGINEERS LOCAL 4</i>   | 12/01/2019     | \$32.47   | \$12.50 | \$15.70 | \$0.00                    | \$60.67    |
|   | 06/01/2020     | \$33.22   | \$12.50 | \$15.70 | \$0.00                    | \$61.42    |
|   | 12/01/2020     | \$34.00   | \$12.50 | \$15.70 | \$0.00                    | \$62.20    |
|   | 06/01/2021     | \$34.75   | \$12.50 | \$15.70 | \$0.00                    | \$62.95    |
|   | 12/01/2021     | \$35.54   | \$12.50 | \$15.70 | \$0.00                    | \$63.74    |
| For apprentice rates see "Apprentice- OPERATING ENGINEERS"  |                |           |         |         |                           |            |
| READY MIX CONCRETE DRIVERS after 4/30/12<br>(Drivers Hired After 4/30/2012) <i>TEAMSTERS 25 (Metro) - Aggregate</i> | 08/01/2019     | \$26.65   | \$10.41 | \$13.07 | \$0.00                    | \$50.13    |
|   | 05/01/2020     | \$27.90   | \$10.41 | \$14.12 | \$0.00                    | \$52.43    |
|   | 08/01/2020     | \$27.90   | \$10.91 | \$14.12 | \$0.00                    | \$52.93    |
|   | 05/01/2021     | \$29.15   | \$10.91 | \$15.25 | \$0.00                    | \$55.31    |
|   | 08/01/2021     | \$29.15   | \$11.41 | \$15.25 | \$0.00                    | \$55.81    |
|   | 05/01/2022     | \$30.40   | \$11.41 | \$15.25 | \$0.00                    | \$57.06    |
|   | 08/01/2022     | \$30.40   | \$11.91 | \$15.25 | \$0.00                    | \$57.56    |
| READY-MIX CONCRETE DRIVER<br><i>TEAMSTERS 25 (Metro) - Aggregate</i>  | 08/01/2019     | \$32.16   | \$10.41 | \$13.07 | \$0.00                    | \$55.64    |
|   | 05/01/2020     | \$32.91   | \$10.41 | \$14.12 | \$0.00                    | \$57.44    |
|   | 08/01/2020     | \$32.91   | \$10.91 | \$14.12 | \$0.00                    | \$57.94    |
|   | 05/01/2021     | \$33.66   | \$10.91 | \$15.25 | \$0.00                    | \$59.82    |
|   | 08/01/2021     | \$33.66   | \$11.41 | \$15.25 | \$0.00                    | \$60.32    |
|   | 05/01/2022     | \$34.41   | \$11.41 | \$15.25 | \$0.00                    | \$61.07    |
|   | 08/01/2022     | \$34.41   | \$11.91 | \$15.25 | \$0.00                    | \$61.57    |
| RECLAIMERS<br><i>OPERATING ENGINEERS LOCAL 4</i>  | 12/01/2019     | \$48.23   | \$12.50 | \$15.70 | \$0.00                    | \$76.43    |
|   | 06/01/2020     | \$49.31   | \$12.50 | \$15.70 | \$0.00                    | \$77.51    |
|   | 12/01/2020     | \$50.45   | \$12.50 | \$15.70 | \$0.00                    | \$78.65    |
|   | 06/01/2021     | \$51.54   | \$12.50 | \$15.70 | \$0.00                    | \$79.74    |
|   | 12/01/2021     | \$52.68   | \$12.50 | \$15.70 | \$0.00                    | \$80.88    |
| For apprentice rates see "Apprentice- OPERATING ENGINEERS"  |                |           |         |         |                           |            |
| RIDE-ON MOTORIZED BUGGY OPERATOR<br><i>LABORERS - ZONE 1</i>  | 12/01/2019     | \$39.40   | \$8.10  | \$16.60 | \$0.00                    | \$64.10    |
|   | 06/01/2020     | \$40.39   | \$8.10  | \$16.60 | \$0.00                    | \$65.09    |
|   | 12/01/2020     | \$41.37   | \$8.10  | \$16.60 | \$0.00                    | \$66.07    |
|   | 06/01/2021     | \$42.39   | \$8.10  | \$16.60 | \$0.00                    | \$67.09    |
|   | 12/01/2021     | \$43.40   | \$8.10  | \$16.60 | \$0.00                    | \$68.10    |
| For apprentice rates see "Apprentice- LABORER"  |                |           |         |         |                           |            |

| Classification   | Effective Date | Base Wage | Health  | Pension | Supplemental Unemployment | Total Rate |
|--|----------------|-----------|---------|---------|---------------------------|------------|
| ROLLER/SPREADER/MULCHING MACHINE<br><i>OPERATING ENGINEERS LOCAL 4</i> | 12/01/2019     | \$48.23   | \$12.50 | \$15.70 | \$0.00                    | \$76.43    |
|  | 06/01/2020     | \$49.31   | \$12.50 | \$15.70 | \$0.00                    | \$77.51    |
|  | 12/01/2020     | \$50.45   | \$12.50 | \$15.70 | \$0.00                    | \$78.65    |
|  | 06/01/2021     | \$51.54   | \$12.50 | \$15.70 | \$0.00                    | \$79.74    |
|  | 12/01/2021     | \$52.68   | \$12.50 | \$15.70 | \$0.00                    | \$80.88    |

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

|  |            |         |         |         |        |         |
|--|------------|---------|---------|---------|--------|---------|
| ROOFER (Inc.Roofing Waterproofing &Roofing Damproofg)<br><i>ROOFERS LOCAL 33</i> | 03/01/2020 | \$45.67 | \$11.50 | \$15.90 | \$0.00 | \$73.07 |
|  | 08/01/2020 | \$47.10 | \$11.50 | \$15.90 | \$0.00 | \$74.50 |
|  | 02/01/2021 | \$48.53 | \$11.50 | \$15.90 | \$0.00 | \$75.93 |
|  | 08/01/2021 | \$49.96 | \$11.50 | \$15.90 | \$0.00 | \$77.36 |
|  | 02/01/2022 | \$51.39 | \$11.50 | \$15.90 | \$0.00 | \$78.79 |

**Apprentice - ROOFER - Local 33**

**Effective Date - 03/01/2020**

| Step | percent | Apprentice Base Wage | Health  | Pension | Supplemental Unemployment | Total Rate |
|------|---------|----------------------|---------|---------|---------------------------|------------|
| 1    | 50      | \$22.84              | \$11.50 | \$3.69  | \$0.00                    | \$38.03    |
| 2    | 60      | \$27.40              | \$11.50 | \$15.90 | \$0.00                    | \$54.80    |
| 3    | 65      | \$29.69              | \$11.50 | \$15.90 | \$0.00                    | \$57.09    |
| 4    | 75      | \$34.25              | \$11.50 | \$15.90 | \$0.00                    | \$61.65    |
| 5    | 85      | \$38.82              | \$11.50 | \$15.90 | \$0.00                    | \$66.22    |

**Effective Date - 08/01/2020**

| Step | percent | Apprentice Base Wage | Health  | Pension | Supplemental Unemployment | Total Rate |
|------|---------|----------------------|---------|---------|---------------------------|------------|
| 1    | 50      | \$23.55              | \$11.50 | \$3.69  | \$0.00                    | \$38.74    |
| 2    | 60      | \$28.26              | \$11.50 | \$15.90 | \$0.00                    | \$55.66    |
| 3    | 65      | \$30.62              | \$11.50 | \$15.90 | \$0.00                    | \$58.02    |
| 4    | 75      | \$35.33              | \$11.50 | \$15.90 | \$0.00                    | \$62.73    |
| 5    | 85      | \$40.04              | \$11.50 | \$15.90 | \$0.00                    | \$67.44    |

**Notes:** \*\* 1:5, 2:6-10, the 1:10; Reroofing: 1:4, then 1:1  
 Step 1 is 2000 hrs.; Steps 2-5 are 1000 hrs.  
 (Hot Pitch Mechanics' receive \$1.00 hr. above ROOFER)

**Apprentice to Journeyworker Ratio:\*\***

|   |            |         |         |         |        |         |
|---|------------|---------|---------|---------|--------|---------|
| ROOFER SLATE / TILE / PRECAST CONCRETE<br><i>ROOFERS LOCAL 33</i> | 03/01/2020 | \$45.92 | \$11.50 | \$15.90 | \$0.00 | \$73.32 |
|   | 08/01/2020 | \$47.35 | \$11.50 | \$15.90 | \$0.00 | \$74.75 |
|   | 02/01/2021 | \$48.78 | \$11.50 | \$15.90 | \$0.00 | \$76.18 |
|   | 08/01/2021 | \$50.21 | \$11.50 | \$15.90 | \$0.00 | \$77.61 |
|   | 02/01/2022 | \$51.64 | \$11.50 | \$15.90 | \$0.00 | \$79.04 |

For apprentice rates see "Apprentice- ROOFER"

|   |            |         |         |         |        |         |
|---|------------|---------|---------|---------|--------|---------|
| SHEETMETAL WORKER<br><i>SHEETMETAL WORKERS LOCAL 17 - A</i> | 02/01/2020 | \$49.36 | \$13.35 | \$24.12 | \$2.61 | \$89.44 |
|   | 08/01/2020 | \$50.96 | \$13.35 | \$24.12 | \$2.66 | \$91.09 |
|   | 02/01/2021 | \$52.61 | \$13.35 | \$24.12 | \$2.71 | \$92.79 |
|   | 08/01/2021 | \$54.36 | \$13.35 | \$24.12 | \$2.76 | \$94.59 |
|   | 02/01/2022 | \$56.11 | \$13.35 | \$24.12 | \$2.81 | \$96.39 |

**Apprentice - SHEET METAL WORKER - Local 17-A**

**Effective Date - 02/01/2020**

| Step | percent | Apprentice Base Wage | Health  | Pension | Supplemental Unemployment | Total Rate |
|------|---------|----------------------|---------|---------|---------------------------|------------|
| 1    | 42      | \$20.73              | \$13.35 | \$5.89  | \$0.00                    | \$39.97    |
| 2    | 42      | \$20.73              | \$13.35 | \$5.89  | \$0.00                    | \$39.97    |
| 3    | 47      | \$23.20              | \$13.35 | \$11.13 | \$1.43                    | \$49.11    |
| 4    | 47      | \$23.20              | \$13.35 | \$11.13 | \$1.43                    | \$49.11    |
| 5    | 52      | \$25.67              | \$13.35 | \$12.08 | \$1.53                    | \$52.63    |
| 6    | 52      | \$25.67              | \$13.35 | \$12.33 | \$1.54                    | \$52.89    |
| 7    | 60      | \$29.62              | \$13.35 | \$13.70 | \$1.70                    | \$58.37    |
| 8    | 65      | \$32.08              | \$13.35 | \$15.15 | \$1.80                    | \$62.38    |
| 9    | 75      | \$37.02              | \$13.35 | \$16.56 | \$2.01                    | \$68.94    |
| 10   | 85      | \$41.96              | \$13.35 | \$17.96 | \$2.20                    | \$75.47    |

**Effective Date - 08/01/2020**

| Step | percent | Apprentice Base Wage | Health  | Pension | Supplemental Unemployment | Total Rate |
|------|---------|----------------------|---------|---------|---------------------------|------------|
| 1    | 42      | \$21.40              | \$13.35 | \$5.89  | \$0.00                    | \$40.64    |
| 2    | 42      | \$21.40              | \$13.35 | \$5.89  | \$0.00                    | \$40.64    |
| 3    | 47      | \$23.95              | \$13.35 | \$11.13 | \$1.45                    | \$49.88    |
| 4    | 47      | \$23.95              | \$13.35 | \$11.13 | \$1.45                    | \$49.88    |
| 5    | 52      | \$26.50              | \$13.35 | \$12.08 | \$1.56                    | \$53.49    |
| 6    | 52      | \$26.50              | \$13.35 | \$12.33 | \$1.57                    | \$53.75    |
| 7    | 60      | \$30.58              | \$13.35 | \$13.70 | \$1.73                    | \$59.36    |
| 8    | 65      | \$33.12              | \$13.35 | \$15.15 | \$1.85                    | \$63.47    |
| 9    | 75      | \$38.22              | \$13.35 | \$16.56 | \$2.04                    | \$70.17    |
| 10   | 85      | \$43.32              | \$13.35 | \$17.96 | \$2.24                    | \$76.87    |

**Notes:**  
Steps are 6 mos.

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

|   |            |         |         |         |        |         |
|---|------------|---------|---------|---------|--------|---------|
| SPECIALIZED EARTH MOVING EQUIP < 35 TONS<br>TEAMSTERS JOINT COUNCIL NO. 10 ZONE A | 12/01/2019 | \$35.64 | \$12.41 | \$13.72 | \$0.00 | \$61.77 |
|   | 06/01/2020 | \$36.54 | \$12.41 | \$13.72 | \$0.00 | \$62.67 |
|   | 08/01/2020 | \$36.54 | \$12.91 | \$13.72 | \$0.00 | \$63.17 |
|   | 12/01/2020 | \$36.54 | \$12.91 | \$14.82 | \$0.00 | \$64.27 |
|   | 06/01/2021 | \$37.34 | \$12.91 | \$14.82 | \$0.00 | \$65.07 |
|   | 08/01/2021 | \$37.34 | \$13.41 | \$14.82 | \$0.00 | \$65.57 |
|   | 12/01/2021 | \$37.34 | \$13.41 | \$16.01 | \$0.00 | \$66.76 |

| Classification   | Effective Date | Base Wage | Health  | Pension | Supplemental Unemployment | Total Rate |
|--|----------------|-----------|---------|---------|---------------------------|------------|
| SPECIALIZED EARTH MOVING EQUIP > 35 TONS<br><i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE A</i> | 12/01/2019     | \$35.93   | \$12.41 | \$13.72 | \$0.00                    | \$62.06    |
|  | 06/01/2020     | \$36.83   | \$12.41 | \$13.72 | \$0.00                    | \$62.96    |
|  | 08/01/2020     | \$36.83   | \$12.91 | \$13.72 | \$0.00                    | \$63.46    |
|  | 12/01/2020     | \$36.83   | \$12.91 | \$14.82 | \$0.00                    | \$64.56    |
|  | 06/01/2021     | \$37.63   | \$12.91 | \$14.82 | \$0.00                    | \$65.36    |
|  | 08/01/2021     | \$37.63   | \$13.41 | \$14.82 | \$0.00                    | \$65.86    |
|  | 12/01/2021     | \$37.63   | \$13.41 | \$16.01 | \$0.00                    | \$67.05    |
| SPRINKLER FITTER<br><i>SPRINKLER FITTERS LOCAL 550 - (Section A) Zone 1</i>              | 03/01/2020     | \$60.82   | \$9.68  | \$20.55 | \$0.00                    | \$91.05    |
|  | 10/01/2020     | \$62.32   | \$9.68  | \$20.55 | \$0.00                    | \$92.55    |
|  | 03/01/2021     | \$63.82   | \$9.68  | \$20.55 | \$0.00                    | \$94.05    |

**Apprentice - SPRINKLER FITTER - Local 550 (Section A) Zone 1**

**Effective Date - 03/01/2020**

| Step | percent | Apprentice Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|------|---------|----------------------|--------|---------|---------------------------|------------|
| 1    | 35      | \$21.29              | \$9.68 | \$11.61 | \$0.00                    | \$42.58    |
| 2    | 40      | \$24.33              | \$9.68 | \$12.30 | \$0.00                    | \$46.31    |
| 3    | 45      | \$27.37              | \$9.68 | \$12.99 | \$0.00                    | \$50.04    |
| 4    | 50      | \$30.41              | \$9.68 | \$13.73 | \$0.00                    | \$53.82    |
| 5    | 55      | \$33.45              | \$9.68 | \$14.36 | \$0.00                    | \$57.49    |
| 6    | 60      | \$36.49              | \$9.68 | \$15.05 | \$0.00                    | \$61.22    |
| 7    | 65      | \$39.53              | \$9.68 | \$15.74 | \$0.00                    | \$64.95    |
| 8    | 70      | \$42.57              | \$9.68 | \$16.43 | \$0.00                    | \$68.68    |
| 9    | 75      | \$45.62              | \$9.68 | \$17.11 | \$0.00                    | \$72.41    |
| 10   | 80      | \$48.66              | \$9.68 | \$17.80 | \$0.00                    | \$76.14    |

**Effective Date - 10/01/2020**

| Step | percent | Apprentice Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|------|---------|----------------------|--------|---------|---------------------------|------------|
| 1    | 35      | \$21.81              | \$9.68 | \$11.61 | \$0.00                    | \$43.10    |
| 2    | 40      | \$24.93              | \$9.68 | \$12.30 | \$0.00                    | \$46.91    |
| 3    | 45      | \$28.04              | \$9.68 | \$12.99 | \$0.00                    | \$50.71    |
| 4    | 50      | \$31.16              | \$9.68 | \$13.73 | \$0.00                    | \$54.57    |
| 5    | 55      | \$34.28              | \$9.68 | \$14.36 | \$0.00                    | \$58.32    |
| 6    | 60      | \$37.39              | \$9.68 | \$15.05 | \$0.00                    | \$62.12    |
| 7    | 65      | \$40.51              | \$9.68 | \$15.74 | \$0.00                    | \$65.93    |
| 8    | 70      | \$43.62              | \$9.68 | \$16.43 | \$0.00                    | \$69.73    |
| 9    | 75      | \$46.74              | \$9.68 | \$17.11 | \$0.00                    | \$73.53    |
| 10   | 80      | \$49.86              | \$9.68 | \$17.80 | \$0.00                    | \$77.34    |

Notes: Apprentice entered prior 9/30/10:  
40/45/50/55/60/65/70/75/80/85  
Steps are 850 hours

**Apprentice to Journeyworker Ratio:1:3**

| <b>Classification</b>  | <b>Effective Date</b> | <b>Base Wage</b> | <b>Health</b> | <b>Pension</b> | <b>Supplemental<br/>Unemployment</b> | <b>Total Rate</b> |
|--|-----------------------|------------------|---------------|----------------|--------------------------------------|-------------------|
| STEAM BOILER OPERATOR<br><i>OPERATING ENGINEERS LOCAL 4</i>                    | 12/01/2019            | \$48.23          | \$12.50       | \$15.70        | \$0.00                               | \$76.43           |
|  | 06/01/2020            | \$49.31          | \$12.50       | \$15.70        | \$0.00                               | \$77.51           |
|  | 12/01/2020            | \$50.45          | \$12.50       | \$15.70        | \$0.00                               | \$78.65           |
|  | 06/01/2021            | \$51.54          | \$12.50       | \$15.70        | \$0.00                               | \$79.74           |
|  | 12/01/2021            | \$52.68          | \$12.50       | \$15.70        | \$0.00                               | \$80.88           |
| For apprentice rates see "Apprentice- OPERATING ENGINEERS"                     |                       |                  |               |                |                                      |                   |
| TAMPERS, SELF-PROPELLED OR TRACTOR DRAWN<br><i>OPERATING ENGINEERS LOCAL 4</i> | 12/01/2019            | \$48.23          | \$12.50       | \$15.70        | \$0.00                               | \$76.43           |
|  | 06/01/2020            | \$49.31          | \$12.50       | \$15.70        | \$0.00                               | \$77.51           |
|  | 12/01/2020            | \$50.45          | \$12.50       | \$15.70        | \$0.00                               | \$78.65           |
|  | 06/01/2021            | \$51.54          | \$12.50       | \$15.70        | \$0.00                               | \$79.74           |
|  | 12/01/2021            | \$52.68          | \$12.50       | \$15.70        | \$0.00                               | \$80.88           |
| For apprentice rates see "Apprentice- OPERATING ENGINEERS"                     |                       |                  |               |                |                                      |                   |
| TELECOMMUNICATION TECHNICIAN<br><i>ELECTRICIANS LOCAL 103</i>                  | 03/01/2020            | \$40.13          | \$13.00       | \$17.12        | \$0.00                               | \$70.25           |
|  | 09/01/2020            | \$41.20          | \$13.00       | \$17.16        | \$0.00                               | \$71.36           |
|  | 03/01/2021            | \$42.66          | \$13.00       | \$17.27        | \$0.00                               | \$72.93           |
|  | 09/01/2021            | \$44.32          | \$13.00       | \$17.38        | \$0.00                               | \$74.70           |
|  | 03/01/2022            | \$45.83          | \$13.00       | \$17.49        | \$0.00                               | \$76.32           |
|  | 09/01/2022            | \$47.55          | \$13.00       | \$17.62        | \$0.00                               | \$78.17           |
|  | 03/01/2023            | \$49.11          | \$13.00       | \$17.73        | \$0.00                               | \$79.84           |

**Apprentice - TELECOMMUNICATION TECHNICIAN - Local 103**

**Effective Date - 03/01/2020**

| Step | percent | Apprentice Base Wage | Health  | Pension | Supplemental Unemployment | Total Rate |
|------|---------|----------------------|---------|---------|---------------------------|------------|
| 1    | 45      | \$18.06              | \$13.00 | \$0.54  | \$0.00                    | \$31.60    |
| 2    | 45      | \$18.06              | \$13.00 | \$0.54  | \$0.00                    | \$31.60    |
| 3    | 50      | \$20.07              | \$13.00 | \$14.00 | \$0.00                    | \$47.07    |
| 4    | 50      | \$20.07              | \$13.00 | \$14.00 | \$0.00                    | \$47.07    |
| 5    | 55      | \$22.07              | \$13.00 | \$14.31 | \$0.00                    | \$49.38    |
| 6    | 60      | \$24.08              | \$13.00 | \$14.62 | \$0.00                    | \$51.70    |
| 7    | 65      | \$26.08              | \$13.00 | \$14.94 | \$0.00                    | \$54.02    |
| 8    | 70      | \$28.09              | \$13.00 | \$15.26 | \$0.00                    | \$56.35    |
| 9    | 75      | \$30.10              | \$13.00 | \$15.56 | \$0.00                    | \$58.66    |
| 10   | 80      | \$32.10              | \$13.00 | \$15.87 | \$0.00                    | \$60.97    |

**Effective Date - 09/01/2020**

| Step | percent | Apprentice Base Wage | Health  | Pension | Supplemental Unemployment | Total Rate |
|------|---------|----------------------|---------|---------|---------------------------|------------|
| 1    | 45      | \$18.54              | \$13.00 | \$0.57  | \$0.00                    | \$32.11    |
| 2    | 45      | \$18.54              | \$13.00 | \$0.57  | \$0.00                    | \$32.11    |
| 3    | 50      | \$20.60              | \$13.00 | \$14.02 | \$0.00                    | \$47.62    |
| 4    | 50      | \$20.60              | \$13.00 | \$14.02 | \$0.00                    | \$47.62    |
| 5    | 55      | \$22.66              | \$13.00 | \$14.33 | \$0.00                    | \$49.99    |
| 6    | 60      | \$24.72              | \$13.00 | \$14.64 | \$0.00                    | \$52.36    |
| 7    | 65      | \$26.78              | \$13.00 | \$14.96 | \$0.00                    | \$54.74    |
| 8    | 70      | \$28.84              | \$13.00 | \$15.28 | \$0.00                    | \$57.12    |
| 9    | 75      | \$30.90              | \$13.00 | \$15.59 | \$0.00                    | \$59.49    |
| 10   | 80      | \$32.96              | \$13.00 | \$15.90 | \$0.00                    | \$61.86    |

**Notes:**

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

|                                     |            |         |         |         |        |         |
|-------------------------------------|------------|---------|---------|---------|--------|---------|
| TERRAZZO FINISHERS                  | 02/01/2020 | \$53.34 | \$10.75 | \$21.94 | \$0.00 | \$86.03 |
| BRICKLAYERS LOCAL 3 - MARBLE & TILE | 08/01/2020 | \$54.69 | \$10.75 | \$22.09 | \$0.00 | \$87.53 |
|                                     | 02/01/2021 | \$55.33 | \$10.75 | \$22.09 | \$0.00 | \$88.17 |
|                                     | 08/01/2021 | \$56.73 | \$10.75 | \$22.25 | \$0.00 | \$89.73 |
|                                     | 02/01/2022 | \$57.32 | \$10.75 | \$22.25 | \$0.00 | \$90.32 |

**Classification**

**Effective Date    Base Wage    Health    Pension    Supplemental Unemployment    Total Rate**

**Apprentice - TERRAZZO FINISHER - Local 3 Marble & Tile**

**Effective Date - 02/01/2020**

| Step | percent | Apprentice Base Wage | Health  | Pension | Supplemental Unemployment | Total Rate |
|------|---------|----------------------|---------|---------|---------------------------|------------|
| 1    | 50      | \$26.67              | \$10.75 | \$21.94 | \$0.00                    | \$59.36    |
| 2    | 60      | \$32.00              | \$10.75 | \$21.94 | \$0.00                    | \$64.69    |
| 3    | 70      | \$37.34              | \$10.75 | \$21.94 | \$0.00                    | \$70.03    |
| 4    | 80      | \$42.67              | \$10.75 | \$21.94 | \$0.00                    | \$75.36    |
| 5    | 90      | \$48.01              | \$10.75 | \$21.94 | \$0.00                    | \$80.70    |

**Effective Date - 08/01/2020**

| Step | percent | Apprentice Base Wage | Health  | Pension | Supplemental Unemployment | Total Rate |
|------|---------|----------------------|---------|---------|---------------------------|------------|
| 1    | 50      | \$27.35              | \$10.75 | \$22.09 | \$0.00                    | \$60.19    |
| 2    | 60      | \$32.81              | \$10.75 | \$22.09 | \$0.00                    | \$65.65    |
| 3    | 70      | \$38.28              | \$10.75 | \$22.09 | \$0.00                    | \$71.12    |
| 4    | 80      | \$43.75              | \$10.75 | \$22.09 | \$0.00                    | \$76.59    |
| 5    | 90      | \$49.22              | \$10.75 | \$22.09 | \$0.00                    | \$82.06    |

**Notes:**

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**Apprentice to Journeyworker Ratio:1:3**

|   |            |         |        |         |        |         |
|---|------------|---------|--------|---------|--------|---------|
| <b>TEST BORING DRILLER</b>              | 12/01/2019 | \$40.50 | \$8.10 | \$16.80 | \$0.00 | \$65.40 |
| <i>LABORERS - FOUNDATION AND MARINE</i> | 06/01/2020 | \$41.49 | \$8.10 | \$16.80 | \$0.00 | \$66.39 |
|   | 12/01/2020 | \$42.47 | \$8.10 | \$16.80 | \$0.00 | \$67.37 |
|   | 06/01/2021 | \$43.49 | \$8.10 | \$16.80 | \$0.00 | \$68.39 |
|   | 12/01/2021 | \$44.50 | \$8.10 | \$16.80 | \$0.00 | \$69.40 |

For apprentice rates see "Apprentice- LABORER"

|   |            |         |        |         |        |         |
|---|------------|---------|--------|---------|--------|---------|
| <b>TEST BORING DRILLER HELPER</b>       | 12/01/2019 | \$39.22 | \$8.10 | \$16.80 | \$0.00 | \$64.12 |
| <i>LABORERS - FOUNDATION AND MARINE</i> | 06/01/2020 | \$40.21 | \$8.10 | \$16.80 | \$0.00 | \$65.11 |
|   | 12/01/2020 | \$41.19 | \$8.10 | \$16.80 | \$0.00 | \$66.09 |
|   | 06/01/2021 | \$42.21 | \$8.10 | \$16.80 | \$0.00 | \$67.11 |
|   | 12/01/2021 | \$43.22 | \$8.10 | \$16.80 | \$0.00 | \$68.12 |

For apprentice rates see "Apprentice- LABORER"

|   |            |         |        |         |        |         |
|---|------------|---------|--------|---------|--------|---------|
| <b>TEST BORING LABORER</b>              | 12/01/2019 | \$39.10 | \$8.10 | \$16.80 | \$0.00 | \$64.00 |
| <i>LABORERS - FOUNDATION AND MARINE</i> | 06/01/2020 | \$40.09 | \$8.10 | \$16.80 | \$0.00 | \$64.99 |
|   | 12/01/2020 | \$41.07 | \$8.10 | \$16.80 | \$0.00 | \$65.97 |
|   | 06/01/2021 | \$42.09 | \$8.10 | \$16.80 | \$0.00 | \$66.99 |
|   | 12/01/2021 | \$43.10 | \$8.10 | \$16.80 | \$0.00 | \$68.00 |

For apprentice rates see "Apprentice- LABORER"

|   |            |         |         |         |        |         |
|---|------------|---------|---------|---------|--------|---------|
| <b>TRACTORS/PORTABLE STEAM GENERATORS</b> | 12/01/2019 | \$48.23 | \$12.50 | \$15.70 | \$0.00 | \$76.43 |
| <i>OPERATING ENGINEERS LOCAL 4</i>        | 06/01/2020 | \$49.31 | \$12.50 | \$15.70 | \$0.00 | \$77.51 |
|   | 12/01/2020 | \$50.45 | \$12.50 | \$15.70 | \$0.00 | \$78.65 |
|   | 06/01/2021 | \$51.54 | \$12.50 | \$15.70 | \$0.00 | \$79.74 |
|   | 12/01/2021 | \$52.68 | \$12.50 | \$15.70 | \$0.00 | \$80.88 |

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

| Classification  | Effective Date | Base Wage | Health  | Pension | Supplemental Unemployment | Total Rate |
|---|----------------|-----------|---------|---------|---------------------------|------------|
| TRAILERS FOR EARTH MOVING EQUIPMENT<br><i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE A</i> | 12/01/2019     | \$36.22   | \$12.41 | \$13.72 | \$0.00                    | \$62.35    |
|   | 06/01/2020     | \$37.12   | \$12.41 | \$13.72 | \$0.00                    | \$63.25    |
|   | 08/01/2020     | \$37.12   | \$12.91 | \$13.72 | \$0.00                    | \$63.75    |
|   | 12/01/2020     | \$37.12   | \$12.91 | \$14.82 | \$0.00                    | \$64.85    |
|   | 06/01/2021     | \$37.92   | \$12.91 | \$14.82 | \$0.00                    | \$65.65    |
|   | 08/01/2021     | \$37.92   | \$13.41 | \$14.82 | \$0.00                    | \$66.15    |
|   | 12/01/2021     | \$37.92   | \$13.41 | \$16.01 | \$0.00                    | \$67.34    |
| TUNNEL WORK - COMPRESSED AIR<br><i>LABORERS (COMPRESSED AIR)</i>                    | 12/01/2019     | \$51.38   | \$8.10  | \$17.20 | \$0.00                    | \$76.68    |
|   | 06/01/2020     | \$52.37   | \$8.10  | \$17.20 | \$0.00                    | \$77.67    |
|   | 12/01/2020     | \$53.35   | \$8.10  | \$17.20 | \$0.00                    | \$78.65    |
|   | 06/01/2021     | \$54.37   | \$8.10  | \$17.20 | \$0.00                    | \$79.67    |
|   | 12/01/2021     | \$55.38   | \$8.10  | \$17.20 | \$0.00                    | \$80.68    |
| For apprentice rates see "Apprentice- LABORER"                                      |                |           |         |         |                           |            |
| TUNNEL WORK - COMPRESSED AIR (HAZ. WASTE)<br><i>LABORERS (COMPRESSED AIR)</i>       | 12/01/2019     | \$53.38   | \$8.10  | \$17.20 | \$0.00                    | \$78.68    |
|   | 06/01/2020     | \$54.37   | \$8.10  | \$17.20 | \$0.00                    | \$79.67    |
|   | 12/01/2020     | \$55.35   | \$8.10  | \$17.20 | \$0.00                    | \$80.65    |
|   | 06/01/2021     | \$56.37   | \$8.10  | \$17.20 | \$0.00                    | \$81.67    |
|   | 12/01/2021     | \$57.38   | \$8.10  | \$17.20 | \$0.00                    | \$82.68    |
| For apprentice rates see "Apprentice- LABORER"                                      |                |           |         |         |                           |            |
| TUNNEL WORK - FREE AIR<br><i>LABORERS (FREE AIR TUNNEL)</i>                         | 12/01/2019     | \$43.45   | \$8.10  | \$17.20 | \$0.00                    | \$68.75    |
|   | 06/01/2020     | \$44.44   | \$8.10  | \$17.20 | \$0.00                    | \$69.74    |
|   | 12/01/2020     | \$45.42   | \$8.10  | \$17.20 | \$0.00                    | \$70.72    |
|   | 06/01/2021     | \$46.44   | \$8.10  | \$17.20 | \$0.00                    | \$71.74    |
|   | 12/01/2021     | \$47.45   | \$8.10  | \$17.20 | \$0.00                    | \$72.75    |
| For apprentice rates see "Apprentice- LABORER"                                      |                |           |         |         |                           |            |
| TUNNEL WORK - FREE AIR (HAZ. WASTE)<br><i>LABORERS (FREE AIR TUNNEL)</i>            | 12/01/2019     | \$45.45   | \$8.10  | \$17.20 | \$0.00                    | \$70.75    |
|   | 06/01/2020     | \$46.44   | \$8.10  | \$17.20 | \$0.00                    | \$71.74    |
|   | 12/01/2020     | \$47.42   | \$8.10  | \$17.20 | \$0.00                    | \$72.72    |
|   | 06/01/2021     | \$48.44   | \$8.10  | \$17.20 | \$0.00                    | \$73.74    |
|   | 12/01/2021     | \$49.45   | \$8.10  | \$17.20 | \$0.00                    | \$74.75    |
| For apprentice rates see "Apprentice- LABORER"                                      |                |           |         |         |                           |            |
| VAC-HAUL<br><i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE A</i>                            | 12/01/2019     | \$35.64   | \$12.41 | \$13.72 | \$0.00                    | \$61.77    |
|   | 06/01/2020     | \$36.54   | \$12.41 | \$13.72 | \$0.00                    | \$62.67    |
|   | 08/01/2020     | \$36.54   | \$12.91 | \$13.72 | \$0.00                    | \$63.17    |
|   | 12/01/2020     | \$36.54   | \$12.91 | \$14.82 | \$0.00                    | \$64.27    |
|   | 06/01/2021     | \$37.34   | \$12.91 | \$14.82 | \$0.00                    | \$65.07    |
|   | 08/01/2021     | \$37.34   | \$13.41 | \$14.82 | \$0.00                    | \$65.57    |
|   | 12/01/2021     | \$37.34   | \$13.41 | \$16.01 | \$0.00                    | \$66.76    |
| WAGON DRILL OPERATOR<br><i>LABORERS - ZONE 1</i>                                    | 12/01/2019     | \$39.40   | \$8.10  | \$16.60 | \$0.00                    | \$64.10    |
|   | 06/01/2020     | \$40.39   | \$8.10  | \$16.60 | \$0.00                    | \$65.09    |
|   | 12/01/2020     | \$41.37   | \$8.10  | \$16.60 | \$0.00                    | \$66.07    |
|   | 06/01/2021     | \$42.39   | \$8.10  | \$16.60 | \$0.00                    | \$67.09    |
|   | 12/01/2021     | \$43.40   | \$8.10  | \$16.60 | \$0.00                    | \$68.10    |
| For apprentice rates see "Apprentice- LABORER"                                      |                |           |         |         |                           |            |

| <b>Classification</b>   | <b>Effective Date</b> | <b>Base Wage</b> | <b>Health</b> | <b>Pension</b> | <b>Supplemental Unemployment</b> | <b>Total Rate</b> |
|---|-----------------------|------------------|---------------|----------------|----------------------------------|-------------------|
| WASTE WATER PUMP OPERATOR<br><i>OPERATING ENGINEERS LOCAL 4</i>                                     | 12/01/2019            | \$48.73          | \$12.50       | \$15.70        | \$0.00                           | \$76.93           |
|   | 06/01/2020            | \$49.83          | \$12.50       | \$15.70        | \$0.00                           | \$78.03           |
|   | 12/01/2020            | \$50.98          | \$12.50       | \$15.70        | \$0.00                           | \$79.18           |
|   | 06/01/2021            | \$52.08          | \$12.50       | \$15.70        | \$0.00                           | \$80.28           |
|   | 12/01/2021            | \$53.23          | \$12.50       | \$15.70        | \$0.00                           | \$81.43           |
| For apprentice rates see "Apprentice- OPERATING ENGINEERS"  |                       |                  |               |                |                                  |                   |
| WATER METER INSTALLER<br><i>PLUMBERS &amp; GASFITTERS LOCAL 12</i>                                  | 03/01/2020            | \$58.69          | \$12.07       | \$17.26        | \$0.00                           | \$88.02           |
|   | 09/01/2020            | \$60.19          | \$12.07       | \$17.26        | \$0.00                           | \$89.52           |
|   | 03/01/2021            | \$61.69          | \$12.07       | \$17.26        | \$0.00                           | \$91.02           |
| For apprentice rates see "Apprentice- PLUMBER/PIPEFITTER" or "PLUMBER/GASFITTER"                    |                       |                  |               |                |                                  |                   |
| <b>Outside Electrical - East</b>  |                       |                  |               |                |                                  |                   |
| CABLE TECHNICIAN (Power Zone)<br><i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>                 | 09/01/2019            | \$28.83          | \$8.75        | \$1.86         | \$0.00                           | \$39.44           |
|   | 08/30/2020            | \$29.67          | \$9.25        | \$1.89         | \$0.00                           | \$40.81           |
| For apprentice rates see "Apprentice- LINEMAN"  |                       |                  |               |                |                                  |                   |
| CABLEMAN (Underground Ducts & Cables)<br><i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>         | 09/01/2019            | \$40.84          | \$8.75        | \$10.02        | \$0.00                           | \$59.61           |
|   | 08/30/2020            | \$42.03          | \$9.25        | \$10.27        | \$0.00                           | \$61.55           |
| For apprentice rates see "Apprentice- LINEMAN"  |                       |                  |               |                |                                  |                   |
| DRIVER / GROUNDMAN CDL<br><i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>                        | 09/01/2019            | \$33.64          | \$8.75        | \$9.86         | \$0.00                           | \$52.25           |
|   | 08/30/2020            | \$34.62          | \$9.25        | \$10.07        | \$0.00                           | \$53.94           |
| For apprentice rates see "Apprentice- LINEMAN"  |                       |                  |               |                |                                  |                   |
| DRIVER / GROUNDMAN -Inexperienced (<2000 Hrs)<br><i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i> | 09/01/2019            | \$26.43          | \$8.75        | \$1.79         | \$0.00                           | \$36.97           |
|   | 08/30/2020            | \$27.20          | \$9.25        | \$1.82         | \$0.00                           | \$38.27           |
| For apprentice rates see "Apprentice- LINEMAN"  |                       |                  |               |                |                                  |                   |
| EQUIPMENT OPERATOR (Class A CDL)<br><i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>              | 09/01/2019            | \$40.84          | \$8.75        | \$14.10        | \$0.00                           | \$63.69           |
|   | 08/30/2020            | \$42.03          | \$9.25        | \$14.35        | \$0.00                           | \$65.63           |
| For apprentice rates see "Apprentice- LINEMAN"  |                       |                  |               |                |                                  |                   |
| EQUIPMENT OPERATOR (Class B CDL)<br><i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>              | 09/01/2019            | \$36.04          | \$8.75        | \$10.65        | \$0.00                           | \$55.44           |
|   | 08/30/2020            | \$37.09          | \$9.25        | \$10.87        | \$0.00                           | \$57.21           |
| For apprentice rates see "Apprentice- LINEMAN"  |                       |                  |               |                |                                  |                   |
| GROUNDMAN<br><i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>                                     | 09/01/2019            | \$21.62          | \$8.75        | \$1.65         | \$0.00                           | \$32.02           |
|   | 08/30/2020            | \$22.25          | \$9.25        | \$1.67         | \$0.00                           | \$33.17           |
| For apprentice rates see "Apprentice- LINEMAN"  |                       |                  |               |                |                                  |                   |
| GROUNDMAN -Inexperienced (<2000 Hrs.)<br><i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>         | 09/01/2019            | \$26.43          | \$8.75        | \$1.79         | \$0.00                           | \$36.97           |
|   | 08/30/2020            | \$27.20          | \$9.25        | \$1.82         | \$0.00                           | \$38.27           |
| For apprentice rates see "Apprentice- LINEMAN"  |                       |                  |               |                |                                  |                   |
| JOURNEYMAN LINEMAN<br><i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>                            | 09/01/2019            | \$48.05          | \$8.75        | \$17.19        | \$0.00                           | \$73.99           |
|   | 08/30/2020            | \$49.45          | \$9.25        | \$17.48        | \$0.00                           | \$76.18           |

**Classification**

**Effective Date   Base Wage   Health   Pension   Supplemental Unemployment   Total Rate**

**Apprentice - LINEMAN (Outside Electrical) - East Local 104**

**Effective Date - 09/01/2019**

| Step | percent | Apprentice Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|------|---------|----------------------|--------|---------|---------------------------|------------|
| 1    | 60      | \$28.83              | \$8.75 | \$3.36  | \$0.00                    | \$40.94    |
| 2    | 65      | \$31.23              | \$8.75 | \$3.44  | \$0.00                    | \$43.42    |
| 3    | 70      | \$33.64              | \$8.75 | \$3.51  | \$0.00                    | \$45.90    |
| 4    | 75      | \$36.04              | \$8.75 | \$5.08  | \$0.00                    | \$49.87    |
| 5    | 80      | \$38.44              | \$8.75 | \$5.15  | \$0.00                    | \$52.34    |
| 6    | 85      | \$40.84              | \$8.75 | \$5.23  | \$0.00                    | \$54.82    |
| 7    | 90      | \$43.25              | \$8.75 | \$7.30  | \$0.00                    | \$59.30    |

**Effective Date - 08/30/2020**

| Step | percent | Apprentice Base Wage | Health | Pension | Supplemental Unemployment | Total Rate |
|------|---------|----------------------|--------|---------|---------------------------|------------|
| 1    | 60      | \$29.67              | \$9.25 | \$3.39  | \$0.00                    | \$42.31    |
| 2    | 65      | \$32.14              | \$9.25 | \$3.46  | \$0.00                    | \$44.85    |
| 3    | 70      | \$34.62              | \$9.25 | \$3.54  | \$0.00                    | \$47.41    |
| 4    | 75      | \$37.09              | \$9.25 | \$5.11  | \$0.00                    | \$51.45    |
| 5    | 80      | \$39.56              | \$9.25 | \$5.19  | \$0.00                    | \$54.00    |
| 6    | 85      | \$42.03              | \$9.25 | \$5.26  | \$0.00                    | \$56.54    |
| 7    | 90      | \$44.51              | \$9.25 | \$7.34  | \$0.00                    | \$61.10    |

**Notes:**

**Apprentice to Journeyworker Ratio:1:2**

|   |            |         |        |        |        |         |
|---|------------|---------|--------|--------|--------|---------|
| TELEDATA CABLE SPLICER<br><i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>                | 02/04/2019 | \$30.73 | \$4.70 | \$3.17 | \$0.00 | \$38.60 |
| TELEDATA LINEMAN/EQUIPMENT OPERATOR<br><i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>   | 02/04/2019 | \$28.93 | \$4.70 | \$3.14 | \$0.00 | \$36.77 |
| TELEDATA WIREMAN/INSTALLER/TECHNICIAN<br><i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i> | 02/04/2019 | \$28.93 | \$4.70 | \$3.14 | \$0.00 | \$36.77 |

**Additional Apprentice Information:**

Minimum wage rates for apprentices employed on public works projects are listed above as a percentage of the pre-determined hourly wage rate established by the Commissioner under the provisions of the M.G.L. c. 149, ss. 26-27D. Apprentice ratios are established by the Division of Apprenticeship Training pursuant to M.G.L. c. 23, ss. 11E-11L.

All apprentices must be registered with the Division of Apprenticeship Training in accordance with M.G.L. c. 23, ss. 11E-11L.

All steps are six months (1000 hours.)

Ratios are expressed in allowable number of apprentices to journeymen or fraction thereof, unless otherwise specified.

\*\* Multiple ratios are listed in the comment field.

\*\*\* APP to JM; 1:1, 2:2, 2:3, 3:4, 4:4, 4:5, 4:6, 5:7, 6:7, 6:8, 6:9, 7:10, 8:10, 8:11, 8:12, 9:13, 10:13, 10:14, etc.

\*\*\*\* APP to JM; 1:1, 1:2, 2:3, 2:4, 3:5, 4:6, 4:7, 5:8, 6:9, 6:10, 7:11, 8:12, 8:13, 9:14, 10:15, 10:16, etc.