

COMMONWEALTH OF MASSACHUSETTS



CONTRACT DOCUMENTS AND SPECIAL PROVISIONS

PROPOSAL NO.	609277-135788
P.V. =	\$9,118,000.00
PLANS	YES

FOR

**Federal Aid Project Nos. CRP/STP-0031(023)X
Reconstruction of Ashland Street**

in the City of

NORTH ADAMS

In accordance with the STANDARD SPECIFICATIONS
for HIGHWAYS and BRIDGES dated 2025

This Proposal to be opened and read:

TUESDAY, AUGUST 25, 2026 at 2:00 P.M.

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DOCUMENT 00010

TABLE OF CONTENTS

DOCUMENT 00010	
TABLE OF CONTENTS	00010-1 through 2
DOCUMENT 00104	
NOTICE TO CONTRACTORS.....	00104- 1 through 2
DOCUMENT 00210	
REQUIREMENTS OF MASSACHUSETTS GENERAL LAWS CHAPTER 30 SECTION 39R; CHAPTER 30, SECTION 39O	00210-1 through 4
DOCUMENT 00331	
LOCUS MAP	00331-1 through 2
DOCUMENT 00439	
CONTRACTOR PROJECT EVALUATION FORM	00439-1 through 2
DOCUMENT 00440	
SUBCONTRACTOR PROJECT EVALUATION FORM	00440-1 through 2
DOCUMENT 00710	
GENERAL CONTRACT PROVISIONS.....	00710-1 through 2
DOCUMENT 00715	
SUPPLEMENTAL SPECIFICATIONS	00715-1 through 20
DOCUMENT 00760	
REQUIRED CONTRACT PROVISIONS FOR FEDERAL-AID CONSTRUCTION CONTRACTS.....	00760-1 through 12
DOCUMENT 00811	
MONTHLY PRICE ADJUSTMENT FOR HOT MIX ASPHALT (HMA) MIXTURES.....	00811-1 through 2
DOCUMENT 00812	
MONTHLY PRICE ADJUSTMENT FOR DIESEL FUEL AND GASOLINE	00812-1 through 2
DOCUMENT 00813	
PRICE ADJUSTMENT FOR STRUCTURAL STEEL AND REINFORCING STEEL	00813-1 through 4
DOCUMENT 00814	
PRICE ADJUSTMENT FOR PORTLAND CEMENT CONCRETE MIXES	00814-1 through 2
DOCUMENT 00820	
THE COMMONWEALTH OF MASSACHUSETTS SUPPLEMENTAL EQUAL EMPLOYMENT OPPORTUNITY, NON-DISCRIMINATION AND AFFIRMATIVE ACTION PROGRAM	00820-1 through 6
DOCUMENT 00821	
ELECTRONIC REPORTING REQUIREMENTS CIVIL RIGHTS PROGRAM AND CERTIFIED PAYROLL	00821-1 through 2
DOCUMENT 00859	
CONTRACTOR/SUBCONTRACTOR CERTIFICATION FORM	00859-1 through 2

TABLE OF CONTENTS (Continued)

DOCUMENT 00860	
COMMONWEALTH OF MASSACHUSETTS PUBLIC EMPLOYMENT LAWS	00860-1 through 2
DOCUMENT 00861	
STATE PREVAILING WAGE RATES	00861-1 through 36
DOCUMENT 00870	
STANDARD FEDERAL EQUAL EMPLOYMENT OPPORTUNITY	
CONSTRUCTION CONTRACT SPECIFICATIONS	00870-1 through 8
DOCUMENT 00880	
MINIMUM WAGES FOR FEDERAL AND FEDERALLY	
ASSISTED CONTRACTS.....	00880-1 through 8
DOCUMENT A00801	
SPECIAL PROVISIONS	A00801-1 through 128
DOCUMENT A00802	
DETAIL SHEETS.....	A00802-1 through 10
DOCUMENT A00808	
PROJECT UTILITY COORDINATION FORM.....	A00808-1 through 6
DOCUMENT A00811	
WATERING LOG FOR MASSDOT PLANTINGS.....	A00811-1 through 2
DOCUMENT A00820	
REQUEST FOR RELEASE OF MASSDOT AUTOCAD FILES FORM.....	A00820-1 through 2
DOCUMENT A00869	
UNITED STATES DEPARTMENT OF THE INTERIOR	
FISH AND WILDLIFE SERVICE CONSISTENCY LETTER	A00869-1 through 16
DOCUMENT A00875	
POLICY DIRECTIVE P-22-001 AND POLICY DIRECTIVE P-22-002	A00875-1 through 8
DOCUMENT B00420	
PROPOSAL.....	B00420-1 through 22

*** END OF DOCUMENT ***

DOCUMENT 00104

**NOTICE TO CONTRACTORS**

Electronic proposals for the following project will be received through the internet using www.bidx.com until the date and time stated below and will be posted on www.bidx.com forthwith after the bid submission deadline. No paper copies of bids will be accepted. All Bidders must have a valid vendor code issued by MassDOT in order to bid on projects. Bidders need to apply for a Digital ID at least 14 days prior to a scheduled bid opening date with www.bidx.com.

TUESDAY, AUGUST 25, 2026 at 2:00 P.M.****NORTH ADAMS****Federal Aid Project Nos. CRP/STP-0031(023)X****Reconstruction of Ashland Street******Date Subject to Change**PROJECT VALUE = \$9,118,000.00

Bidders must be pre-qualified by the Department in the HIGHWAY - CONSTRUCTION category to bid on the above project. An award will not be made to a Contractor who is not pre-qualified by the Department prior to the opening of Proposals.

All prospective Bidders who intend to bid on this project must obtain "Request Proposal Form (R109)". The blank "Request Proposal Form (R109)" can be obtained at:
<https://www.mass.gov/prequalification-of-horizontal-construction-firms>.

All prospective Bidders must complete and e-mail an electronic copy of "Request Proposal Form (R109)" to the MassDOT Director of Prequalification for approval:
prequal.r109@dot.state.ma.us.

Proposal documents for official bidders are posted on www.bidx.com. Other interested parties may receive informational Contract Documents containing the Plans and Special Provisions, free of charge.

Bids will be considered, and the contract awarded in accordance with statutes governing such contracts in accordance with Massachusetts General Laws Chapter 30 § 39M.

The Project Bids File Attachments folder for proposals at www.bidx.com shall be used for submitting at the time of bid required information such as the Bid Bond required document, and other documents that may be requested in the proposal.

All parties who wish to have access to information plans and specification must send a "Request for Informational Documents" to MassDOTBidDocuments@dot.state.ma.us.

NOTICE TO CONTRACTORS (Continued)

A Proposal Guaranty in the amount of 5% of the value of the bid is required.

This project is subject to the schedule of prevailing wage rates as determined by the Commissioner of the Massachusetts Department of Labor and Workforce Development, and the Division of Occupational Safety, and the United States Department of Labor.

The Massachusetts Department of Transportation, in accordance with Title VI of the Civil Rights Act of 1964 (78 Stat. 252, 42 U.S.C. §§ 2000d to 2000d-4) and the Regulations, hereby affirmatively ensures that for any contract entered into pursuant to this advertisement, all bidders, including disadvantaged business enterprises, will be afforded full and fair opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, national origin in consideration for an Award.

This Proposal contains the "STANDARD FEDERAL EQUAL EMPLOYMENT OPPORTUNITY CONTRACT SPECIFICATIONS (EXECUTIVE ORDER 11246)". The goals and timetables applicable to this proposal for minority and female participation, expressed in percentage terms for the Contractor's aggregate work force in each trade on all work, are contained in Appendices A and B-80 of the above specifications.

The Contractor (hereinafter includes consultants) will comply with the Acts and Regulations relative to Non-discrimination in Federally-assisted programs of the U.S. Department of Transportation, Federal Highway Administration (FHWA), as they may be amended from time to time, which are herein incorporated by reference and made a part of this Contract as contained in Appendices C and D of the above specifications.

PRICE ADJUSTMENTS

This Contract contains price adjustments for hot mix asphalt and Portland cement mixtures, diesel fuel, and gasoline. For reference the base prices are as follows: liquid asphalt \$712.50 per ton, Portland cement \$452.13 per ton, diesel fuel \$3.911 per gallon, and gasoline \$3.136 per gallon, and Steel Base Price Index 370.1. MassDOT posts the **Price Adjustments** on their Highway Division's website at

<https://www.mass.gov/massdot-contract-price-adjustments>

This Contract contains Price Adjustments for steel. See Document 00813 - PRICE ADJUSTMENT FOR STRUCTURAL STEEL AND REINFORCING STEEL for their application and base prices.

MassDOT projects are subject to the rules and regulations of the Architectural Access Board (521 CMR 1.00 et seq.)

Prospective bidders and interested parties can access this information and more via the internet at WWW.COMMBUYS.COM.

BY: Phillip Eng, Interim MassDOT Secretary
Jonathan L. Gulliver, Undersecretary and Highway Administrator
SATURDAY, JULY 25, 2026

DOCUMENT 00210

REQUIREMENTS OF MASSACHUSETTS GENERAL LAWS
CHAPTER 30, SECTION 39R;
CHAPTER 30, SECTION 39O

July 1, 1981, updated October 2016

M.G.L. c. 30, § 39R. Award of Contracts; Accounting Statements; Annual Financial Statements; Definitions.

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

- (1) "Contractor" means any person, corporation, partnership, joint venture, sole proprietorship, or other entity awarded a contract pursuant to sections thirty-eight A1/2 to thirty-eight O, inclusive, of chapter seven and any contract awarded or executed pursuant to section eleven C of chapter twenty-five A, section thirty-nine M of chapter thirty, or sections forty-four A to forty-four H, inclusive, of chapter one hundred and forty-nine, which is for an amount or estimated amount greater than one hundred thousand dollars.
- (2) "Contract" means any contract awarded or executed pursuant to sections thirty-eight A1/2 to thirty-eight O, inclusive, of chapter seven and any contract awarded or executed pursuant to section eleven C of chapter twenty-five A, section thirty-nine M of chapter thirty, or sections forty-four A through forty-four H, inclusive, of chapter one hundred and forty-nine, which is for amount or estimated amount greater than one hundred thousand dollars.
- (3) "Records" means books of original entry, accounts, checks, bank statements and all other banking documents, correspondence, memoranda, invoices, computer printouts, tapes, discs, papers and other documents or transcribed information of any type, whether expressed in ordinary or machine language.
- (4) "Independent Certified Public Accountant" means a person duly registered in good standing and entitled to practice as a certified public accountant under the laws of the place of his residence or principal office and who is in fact independent. In determining whether an accountant is independent with respect to a particular person, appropriate consideration should be given to all relationships between the accountant and that person or any affiliate thereof. Determination of an accountant's independence shall not be confined to the relationships existing in connection with the filing of reports with the awarding authority.
- (5) "Audit", when used in regard to financial statements, means an examination of records by an independent certified public accountant in accordance with generally accepted accounting principles and auditing standards for the purpose of expressing a certified opinion thereon, or, in the alternative, a qualified opinion or a declination to express an opinion for stated reasons.
- (6) "Accountant's Report", when used in regard to financial statements, means a document in which an independent certified public accountant indicates the scope of the audit which he has made and sets forth his opinion regarding the financial statements taken as a whole with a listing of noted exceptions and qualifications, or an assertion to the effect that an overall opinion cannot be expressed. When an overall opinion cannot be expressed the reason therefor shall be stated. An accountant's report shall include as a part thereof a signed statement by the responsible corporate officer attesting that management has fully disclosed all material facts to the independent certified public accountant, and that the audited financial statement is a true and complete statement of the financial condition of the contractor.
- (7) "Management", when used herein, means the chief executive officers, partners, principals or other person or persons primarily responsible for the financial and operational policies and practices of the contractor.
- (8) Accounting terms, unless otherwise defined herein, shall have a meaning in accordance with generally accepted accounting principles and auditing standards.

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

- (1) The contractor shall make, and keep for at least six years after final payment, books, records, and accounts which in reasonable detail accurately and fairly reflect the transactions and dispositions of the contractor, and
- (2) Until the expiration of six years after final payment, the office of inspector general, and the commissioner of capital asset management and maintenance shall have the right to examine any books, documents, papers or records of the contractor or of his subcontractors that directly pertain to, and involve transactions relating to, the contractor or his subcontractors, and
- (3) If the agreement is a contract as defined herein, the contractor shall describe any change in the method of maintaining records or recording transactions which materially affect any statements filed with the awarding authority, including in his description the date of the change and reasons therefor, and shall accompany said description with a letter from the contractor's independent certified public accountant approving or otherwise commenting on the changes, and
- (4) If the agreement is a contract as defined herein, the contractor has filed a statement of management on internal accounting controls as set forth in paragraph (c) below prior to the execution of the contract, and
- (5) If the agreement is a contract as defined herein, the contractor has filed prior to the execution of the contracts and will continue to file annually, an audited financial statement for the most recent completed fiscal year as set forth in paragraph (d) below.

(c) Every contractor awarded a contract shall file with the awarding authority a statement of management as to whether the system of internal accounting controls of the contractor and its subsidiaries reasonably assures that:

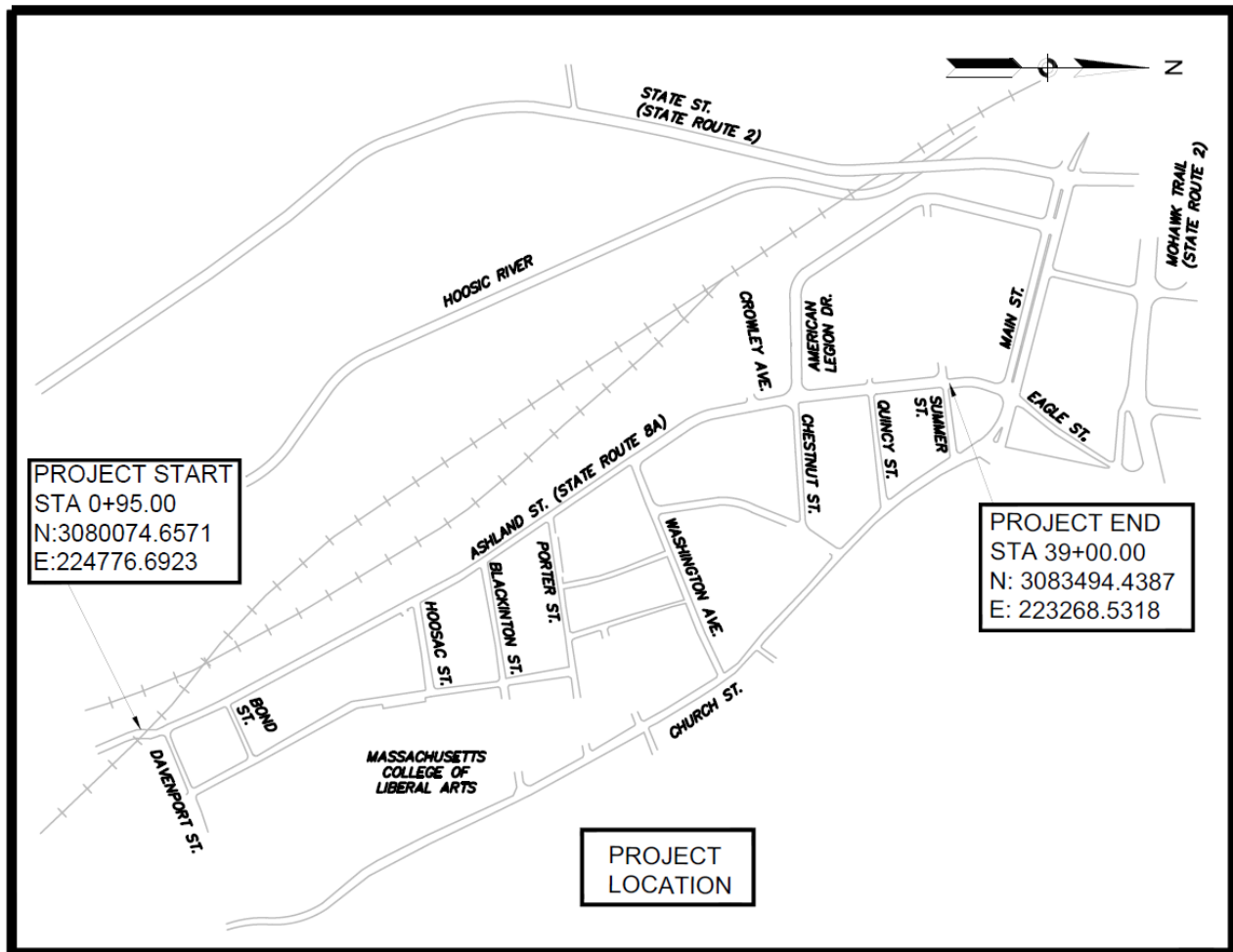
- (1) transactions are executed in accordance with management's general and specific authorization;
- (2) transactions are recorded as necessary
 - i. to permit preparation of financial statements in conformity with generally accepted accounting principles, and
 - ii. to maintain accountability for assets;
- (3) access to assets is permitted only in accordance with management's general or specific authorization; and
- (4) the recorded accountability for assets is compared with the existing assets at reasonable intervals and appropriate action was taken with respect to any difference.

Every contractor awarded a contract shall also file with the awarding authority a statement prepared and signed by an independent certified public accountant, stating that he has examined the statement of management on internal accounting controls, and expressing an opinion as to:

- (1) whether the representations of management in response to this paragraph and paragraph (b) above are consistent with the result of management's evaluation of the system of internal accounting controls; and
- (2) whether such representations of management are, in addition, reasonable with respect to transactions and assets in amounts which would be material when measured in relation to the applicant's financial statements.

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DOCUMENT 00331

LOCUS MAP**NORTH ADAMS****Federal Aid Project Nos. CRP/STP-0031(023)X
Reconstruction of Ashland Street**

NO SCALE

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Final Report ☐Interim Report ☐**CONTRACTOR PROJECT EVALUATION FORM***For instructions on using this form, see Engineering Directive E-10-002, Dated 4/20/2010*

Date: _____

City/Town: _____

Contractor: _____

Project: _____

Address: _____

F.A. No. _____

Contract Number: _____

Bid Price: _____

Notice to Proceed: _____

Funds: State: _____ Fed Aid: _____

Current Contract Completion Date: _____

Date Work Started: _____

Date Work Completed*: _____

Contractor's Superintendent: _____

Division: (indicates class of work) Highway: _____ Bridge: _____ Maintenance: _____

*If work was NOT completed within specified time (including extensions) give reasons on following page.

	Excellent 10	Very Good 9	Average 8	7	Fair 6	5	Poor 4	% Rating
1. Workmanship								x 2=
2. Safety								x 2=
3. Schedule								x 1.5=
4. Home Office Support								x 1=
5. Subcontractors Performance								x 1=
6. Field Supervision/ Superintendent								x 1=
7. Contract Compliance								x 0.5=
8. Equipment								x 0.5=
9. Payment of Accounts								x 0.5=
(use back for additional comments)								
							Overall Rating:	

*(Give explanation of items 1 through 9 on the following page in numerical order if overall rating is below 80%. Use additional sheets if necessary.)*_____
District Construction Engineer's Signature/Date_____
Resident Engineer's Signature/Date_____
Contractor's Signature Acknowledging Report/DateContractor Requests Meeting with the District: No ☐Yes ☐

Date Meeting Held: _____

Contractor's Comments/Meeting Notes (extra sheets may be added to this form and noted here if needed): __________



DOCUMENT 00440

Final Report ☐Interim Report ☐**SUBCONTRACTOR PROJECT EVALUATION FORM***For instructions on using this form, see Engineering Directive E-10-002, Dated 4/20/2010*

Date: _____

City/Town: _____

Subcontractor: _____

Project: _____

Address: _____

F.A. No.: _____

Contract Number: _____

Prime Contractor _____

Current Contract Completion Date: _____

Date Work Started: _____

Date Work Completed*: _____

Subcontractor's Superintendent: _____

Type of Work Performed by Subcontractor: _____

*If work was NOT completed within specified time (including extensions) give reasons on following page.

	Excellent 10	Very Good 9	Average 8	7	Fair 6	5	Poor 4	% Rating
1. Workmanship								x 2=
2. Safety								x 2=
3. Schedule								x 1.5=
4. Home Office Support								x 1.5=
5. Field Supervision/ Superintendent								x 1=
6. Contract Compliance								x 1=
7. Equipment								x 0.5=
8. Payment of Accounts								x 0.5=
(use back for additional comments)							Overall Rating:	

(Give explanation of items 1 through 8 on the following page in numerical order if overall rating is below 80%. Use additional sheets if necessary.)

District Construction Engineer's Signature/Date _____

Resident Engineer's Signature/Date _____

Contractor Signature Acknowledging Report/Date _____

Subcontractor Signature Acknowledging Report/Date _____

Subcontractor Requests Meeting with the District: No ☐ Yes ☐ Date Meeting Held: _____

Subcontractor's Comments / Meeting Notes (extra sheets may be added to this form and noted here if needed): _____

Contractor's Comments: _____

DOCUMENT 00710
GENERAL CONTRACT PROVISIONS
Revised: 03-31-26

NOTICE OF AVAILABILITY

The STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES dated 2026, the SUPPLEMENTAL SPECIFICATIONS, the 1990 STANDARD DRAWINGS FOR SIGNS AND SUPPORTS; the 1968 STANDARD DRAWINGS FOR TRAFFIC SIGNALS AND HIGHWAY LIGHTING and the CONSTRUCTION STANDARD DETAILS are available online at <https://www.mass.gov/massdot-highway-division-manuals-and-publications>

SPECIAL PROVISIONS FOR RIGHT-TO-KNOW ACT REQUIREMENTS

The Contractor's attention is directed to Massachusetts General Laws, Chapter 111F, commonly known as the Right-To-Know Act, and to the regulations promulgated pursuant thereto. Among the provisions of the Right-To-Know Act is a requirement that employers make available to employees Materials Safety Data Sheets (MSDS) for any substance on the Massachusetts Substance List (MSL) to which employees are, have been, or may be exposed.

To ensure prompt compliance with these regulations and legislation, the Contractor shall:

1. Deliver to the Department, prior to the start of any work under this contract, copies of MSDS for all MSL substances to be used, stored, processed or manufactured at the worksite by the Contractor.
2. Train employees of the Department, who may be exposed to MSL substances as a result of the Contractor's work under this contract, with regard to those specific substances in accordance with requirements of the Right-To-Know Act.
3. Observe all safety precautions recommended on the MSDS for any MSL substance to be used, stored, processed, or manufactured at the worksite by the Contractor.
4. Inform the Department in writing regarding specific protective equipment recommended in the MSDS for MSL substances to which employees of the Department may be exposed as a result of the Contractor's work under this contract.

The Department shall not be liable for any delay or suspension of work caused by the refusal of its employees to perform any work due to the Contractor's failure to comply with the Right-To-Know Act. The Contractor agrees to hold the Department or the Commissioner of the Department harmless and fully indemnified for any and all claims, demands, fines, actions, complaints, and causes of action resulting from or arising out of the Contractor's failure to comply with the requirements of the Right-To-Know Act.

ALTERNATIVE DISPUTE RESOLUTION

Forum, Choice of Law and Mediations:

Any actions arising out of a contract shall be governed by the laws of Massachusetts and shall be brought and maintained in a State or federal court in Massachusetts which shall have exclusive jurisdiction thereof. MassDOT and the Contractor may both agree to mediation of any claim and will share the costs of such mediation pro rata based on the number of parties involved.

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DOCUMENT 00715



SUPPLEMENTAL SPECIFICATIONS

JUNE 30, 2026

The 2026 *Standard Specifications for Highways and Bridges* are amended by the following modifications, additions and deletions. These Supplemental Specifications prevail over those published in the Standard Specifications.

The Specifications Committee has issued these Supplemental Specifications for inclusion into each proposal until such time as they are updated or incorporated into the next Standard Specifications.

Contractors are cautioned that these Supplemental Specifications are dated and will change as they are updated.

DIVISION I

GENERAL REQUIREMENTS AND COVENANTS

SECTION 5.00: CONTROL OF WORK

Subsection 5.03: Conformity with Plans and Specifications

Change the MGL reference in the first sentence to Chapter 30, Section 39I (from Section 39L).

DIVISION II

CONSTRUCTION DETAILS

SECTION 200: DRAINAGE

SUBSECTION 227: DRAINAGE SYSTEM SEDIMENT

Subsection 227.30, Method of Measurement

Change the subsection number to 227.80

Subsection 227.31, Basis of Payment

Change the subsection number to 227.81

Subsection 227.31, Payment Items

Change the subsection number to 227.82

SECTION 400: SUB-BASE, BASE COURSE, SHOULDERS, PAVEMENT AND BERMS

SUBSECTION 430: CEMENT CONCRETE BASE COURSE

Subsection 430.40: General

Change Applied Crack Sealer to Hot Applied Crack Sealer.

SUBSECTION 476: CEMENT CONCRETE PAVEMENT

Subsection 476.20: Materials

Delete Preformed Bituminous Joint Filler for Concrete - M3.05.5 and add the following in M number sequence:

Preformed Expansion Joint Filler	M9.14.0
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SUBSECTION 477: MILLED RUMBLE STRIPS

Subsection 477: Milled Rumble Strips

Replace this subsection with the following:

DESCRIPTION

477.20: General

The work consists of constructing rumble strips on roadways by milling grooves into finished surfaces. Milled Rumble Strips are categorized as Type A, Type B, Type C, or Type D. Type A are rectangular milled grooves at regular intervals in the paved surface, Type B rumble strips are rectangular grooves at regular intervals with designed gaps between intervals to accommodate bicyclists, and Type C and Type D rumble strips form continuous grooves in the paved surface in the form of a vertical sinusoidal wave pattern.

CONSTRUCTION METHODS

477.61: Equipment

The equipment shall self-align with the slope of the roadway surface and/or any irregularities in the roadway surface.

The Contractor shall demonstrate to the Engineer the ability to achieve the desired groove without tearing or snagging the roadway surface prior to beginning the work.

477.62: Installation of Rumble Strips

Rumble strips shall be installed in accordance with the locations, dimensions, and Type shown on the plans.

Type A and Type B rumble strips shall be installed after the longitudinal pavement markings they supplement (typically edge lines or channelizing lines) are in place. Installation of any diagonal or chevron pavement markings that cross the Type A or Type B rumble strips shall only occur after the rumble strips are in place.

Type C rumble strips shall be installed after the location of the longitudinal pavement markings they supplement (typically center lines) has been laid out, but before the pavement markings are installed. The pavement markings shall only be installed after the Type C rumble strips are in place.

Type D rumble strips shall be installed after the longitudinal pavement markings they supplement (typically center lines) are in place.

477.63: Control of the Work Area

At the end of each working day, all equipment shall be moved to a location where it does not present a hazard to traffic. The pavement shall be cleaned by sweeping and the work area shall be reopened to traffic.

Pavement millings shall become the property of the Contractor and shall be removed and disposed of off-site.

COMPENSATION

477.80: Method of Measurement

Milled Rumble Strip (Type A), Milled Rumble Strip (Type C), and Milled Rumble Strip (Type D) will be measured by the total length of installed rumble strip. Milled Rumble Strip (Type B) will be measured by the total length of installed rumble strip excluding the designed gaps. Breaks at castings, bridge decks, intersections or other breaks will not be measured for payment for all types.

477.81: Basis of Payment

Payment for Milled Rumble Strip (Type A), Milled Rumble Strip (Type B), Milled Rumble Strip (Type C), and Milled Rumble Strip (Type D) will be made at the contract unit price per foot of rumble strips, complete in place. Such payment will be full compensation for furnishing all equipment and labor for satisfactorily performing the work including cleanup and disposal of excess materials.

477.82: Payment Items

Item number	Description	Unit
477.	Milled Rumble Strip (Type A)	Foot
477.1	Milled Rumble Strip (Type B)	Foot
477.2	Milled Rumble Strip (Type C)	Foot
477.3	Milled Rumble Strip (Type D)	Foot

SUBSECTION 482: SAWCUTTINGSubsection 482.80: Method of Measurement

Replace this subsection with the following:

Sawcutting, when included in the Contract as its own bid item, will be measured for payment by the foot along the cut line, regardless of depth.

SECTION 600: HIGHWAY GUARD, FENCES AND WALLS**SUBSECTION 628: IMPACT ATTENUATORS**Subsection 628.82: Payment Items

Replace this subsection with the following:

Item number	Description	Unit
628.302	Permanent Impact Attenuator, Non-Redirective, TL-2	Each
628.303	Permanent Impact Attenuator, Non-Redirective, TL-3	Each
628.304	Temporary Impact Attenuator, Non-Redirective, TL-2	Each
628.305	Temporary Impact Attenuator, Non-Redirective, TL-3	Each
628.312	Permanent Impact Attenuator, Redirective, TL-2	Each
628.313	Permanent Impact Attenuator, Redirective, TL-3	Each
628.314	Temporary Impact Attenuator, Redirective, TL-2	Each
628.315	Temporary Impact Attenuator, Redirective, TL-3	Each
628.322	Permanent Impact Attenuator, Low-Maintenance, TL-2	Each
628.323	Permanent Impact Attenuator, Low-Maintenance, TL-3	Each

SECTION 800: TRAFFIC CONTROL DEVICES

SUBSECTION 813: WIRING, GROUNDING AND SERVICE CONNECTIONS

Subsection 813.20: General

Replace this subsection with the following:

This work shall consist of furnishing and installing wire and cable of the type and size indicated for traffic signals and other traffic control devices, ITS systems, highway lighting and related electrical systems, equipment grounding systems, new ground electrodes or connections to existing ground electrodes, power pedestals, and all materials and equipment necessary to deliver power to such systems.

Service points shown on the plans are approximate only. The Contractor shall determine exact locations for both overhead and underground service access points. The Contractor shall determine riser elevations or connections/routing to manhole facilities from the serving utility, and arrange to complete the service connections.

All work under this Subsection shall comply with the MEC and the National Electrical Safety Code.

Subsection 813.41: Grounding and Bonding Conductions

Replace this subsection with the following:

Grounding and bonding conductors shall conform to M8.16.10: Type 10 Grounding and Bonding Conductors (Solid or Stranded, Insulated or Bare).

Subsection 813.42: Ground Rods

Replace this subsection with the following:

Ground rods shall consist of driven rod(s) conforming to M8.17.0: Ground Rod or other devices approved for the purpose.

Subsection 813.44: Power Pedestal

Add this subsection in numerical order:

A Power Pedestals shall consist of a side-of-post mounted lockable load center enclosure, a load center with circuit breakers, an exterior-mounted electrical meter, signal post and base, equipment bonding, ground rod(s) conforming to 813.42: Ground Rods, and a cement concrete foundation. The enclosure, lock, circuit breakers, signal post and base, and foundation shall all be included in the Shop Drawing submission.

The enclosure shall be rated to meet or exceed NEMA 3R and be suitable for post-mounting and shall be sized appropriately to house the load center. The enclosure shall be capable of being secured with an integrated locking mechanism or by a Contractor-supplied padlock; regardless of locking mechanism, it shall be operated with a #2 key.

The circuit breakers shall be designed for single-phase, 3-wire, 120/240 VAC. Circuit breakers shall provide a means to manually operate a circuit and/or automatically open a circuit that is in overload or short circuit conditions. All circuit breakers shall be UL listed and have CSA certification.

The enclosure shall be furnished with a meter socket installed. The meter socket shall be approved by the servicing electrical utility.

The signal post and base shall conform to M10.05.1: Signal Posts and Bases and the Plans. The Contractor shall supply a square aluminum base with a natural or anodized finish and a Schedule 80 aluminum post with a brushed or spun finish, unless otherwise indicated in the Plans.

The Contractor shall supply mounting equipment recommended by the enclosure manufacturer to side-mount the cabinet to the post.

Bonding for the Power Pedestal shall utilize a #8 AWG or larger ASTM-B3 wire.

The cement concrete foundation shall conform to the Plans and M4.02.0: Concrete Produced by Stationary and Truck Mixers, M4.03.0: Concrete Produced by Volumetric Mixers, M4.06.1: Conventional Concrete, M4.09.0: Precast, Prestressed, and Prefabricated Concrete Products, M4.11.0: Evaporation Reducing Materials, and M4.12.0: Curing Materials, as applicable.

Subsection 813.64: Power Pedestal

Add this subsection in numerical order:

No work shall commence until Shop Drawings have been approved.

The Power Pedestal Cabinet shall be mounted side-of-post to the Signal Post, per the manufacturer's recommendations. The Power Pedestal Cabinet should be installed directly below the meter socket, per the Plans. If dissimilar metals are present, they shall be electrically insulated to prevent galvanic corrosion.

The Contractor shall supply the appropriate type (single pole or double pole) and number of circuit breakers included within the Power Pedestal Cabinet to provide the recommended AC power to each device receiving power from the Cabinet. The circuit breakers shall be clearly labeled as to which device they are powering (e.g. RRFB-1, RRFB-2, Warning Beacon, Speed Feedback Sign, etc.).

The Power Pedestal shall be grounded and bonded per 813.61: Equipment Grounding and Bonding and 813.62: Grounding Electrodes.

Subsection 813.80.E: Power Pedestal

Add this subsection in numerical order:

Power Pedestals will be measured by the number of Power Pedestals each furnished and installed.

Subsection 813.81.E: Power Pedestal

Add this subsection in numerical order:

Power Pedestals will be paid for at the contract unit price for each installed in place. This includes all labor and materials required for a working system.

All costs associated with grounding and bonding of Power Pedestals shall be considered incidental to the item.

All costs associated with providing service connections to Power Pedestals shall be paid for under their respective pay items.

Subsection 813.82: Payment Items

Change the unit of measure for items 813.80 and 813.81 to Each and add the following pay item:

Subsection 815.82: Payment Items

Delete payment items 818.90 to 818.94, 819.39, 819.832, 819.52, 819.53, 819.60 to 819.64, 819.70, 819.71, 819.72, 819.800, 819.801, 819.802, 819.803, 819.810, 819.811, 819.820, 819.821, 819.850, 819.851, 819.852.

Add the following payment item:

813.90	Power Pedestal	Each
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SUBSECTION 819: TRAFFIC SIGNAL DETECTION

Subsection 819: Traffic Signal Detection

Add this subsection:

DESCRIPTION

819.20: General

Work under this Subsection consists of furnishing and installing detection devices for vehicles, bicycles, pedestrians, and other road users.

MATERIALS

819.40: General

Materials shall meet the requirements specified in the following Subsections of Division III, Materials:

Material	Section
Vehicle Detection Systems	M10.08.0
Passive Stop Line Detectors	M10.08.1
Passive Advanced Detectors	M10.08.2
Pedestrian Detectors	M10.09.0
Pedestrian Pushbutton Assembly	M10.09.1
APS Pushbutton Assembly	M10.09.2

The Contractor shall furnish Vehicle Detection Systems (VDS) and Pedestrian Detectors that are listed on the QTCE.

Any software, firmware, cables, or adapters required to program, adjust, fine-tune, or monitor VDS or Pedestrian Detectors shall be provided by the Contractor. VDS and Pedestrian Detectors shall have the latest versions of software and/or firmware installed prior to inspection. Manufacturer updates to software and/or firmware shall be included at no cost for the life of the products.

819.40.A: Vehicle Detection Systems

A VDS shall consist of one or more Internet Protocol (IP) -based detector/sensor assemblies and a cabinet interface device that is installed in a Traffic Signal Controller Cabinet or similar device.

Stop Line VDS shall be capable of providing motor vehicle and bicycle detection at all locations shown on the Plans. The Contractor may furnish a VDS that utilizes a single detector/sensor or multiple, as long as all stop line motor vehicle and bicycle detection zones are encompassed and the traffic signal or other device utilizing the detection can operate per the Plans. All Passive Stop Line Detectors required to provide stop line detection at an intersection shall be included in the cost of a single Stop Line Vehicle Detection System.

If the Contractor furnishes a Stop Line VDS that does not utilize an integrated video monitoring system, a separate video monitoring system per 819.41: Video Monitoring System shall be furnished and installed at no additional cost.

Advanced VDS shall be capable of providing motor vehicle detection on a single approach, at the location shown on the Plans. The Contractor Shall furnish Passive Advanced Detectors that utilize, and are compatible with, the same interface device installed in the Traffic Signal Controller Cabinet, or similar device, as the Stop Line VDS.

All VDSs shall be furnished with manufacturer-supplied mounting hardware.

If multiple VDSs over multiple locations are supplied under a single contract, all components furnished by the Contractor shall be of the same make and model.

819.40.B: Pedestrian Detectors

Pedestrian Pushbutton Assembly and Accessible Pedestrian Signal (APS) Pushbutton Assembly shall both include a pushbutton, sign, housing, manufacturer-specified mounting hardware, and wiring. The Contractor shall review the Contract Documents to determine if one or more in-cabinet control units are required to meet the pedestrian detector type and operational requirements. In-cabinet control units shall be considered incidental to the cost of the item.

The Contractor shall provide a pushbutton housing that conforms to the shape of the pole it is mounted to or shall furnish and install a manufacturer-supplied saddle to provide a flush, secure fit, at no additional cost.

An APS Pushbutton Assembly shall include a pedestrian pushbutton sign that conforms to the Plans. If the sign is not integral to the housing, separate mounting equipment shall be furnished and installed by the Contractor. All costs associated with the sign and mounting equipment shall be considered incidental to the cost of the item.

819.41: Video Monitoring System

When required by 819.40.A: Vehicle Detection Systems, the Contractor shall furnish and install a Video Monitoring System. The Video Monitoring System shall consist of one or more IP-based 4K, 1080p, H.264 dome-type CCTV cameras; mounting hardware, including but not limited to: brackets, bands, straps, posts, plates, and pole mount adapters; power distribution and conditioning equipment including surge suppression; and all necessary cabling and wiring.

All equipment provided for the Video Monitoring System shall be commercial, off-the-shelf products. Custom equipment designed specifically for the Contract will not be accepted. All cabling and wiring shall be recommended by the manufacturer and rated for outdoor use. Any special wiring or connectors required by the manufacturer shall be identified in the Shop Drawings.

The Video Monitoring System shall conform to National Electrical Manufacturers Association (NEMA) standards, Underwriters' Laboratory (UL), and Military Standards (MIL), as applicable. All components of the Video Monitoring System shall be new and still under production by the manufacturer. Obsolete, no longer produced, and/or no longer supported components will not be accepted.

The Video Monitoring System shall be capable of operating in temperatures ranging from -29°F to +165°F.

The camera shall meet or exceed the requirements found in Table 819.41-1:

Table 819.41-1: Minimum Camera Requirements

Feature	Requirement
Zoom Ratio	The minimum zoom ratio shall be 30x Optical and 12x Digital
Camera Type	The camera shall be an IP-type CCTV camera.
Auto Focus	The camera shall include auto focus with a selection for manual override of auto focus.
Lens Aperture Ratio	Typical: F/1.6 to F/4.7 (wide to telephoto)
On-Screen Direction	The CCTV camera shall display on-screen azimuth indications.
Privacy Zones	The CCTV camera shall be programmable to blank out up to 8, four-sided areas to electronically block portions of the camera's field of view from being

Feature	Requirement
	displayed. These privacy zones shall move and adjust sizing synchronously with camera movements and degree of lens zooming.
On-Screen Labels, Text and Titles	The CCTV camera shall display a minimum of 20 programmable characters for on-screen camera ID, preset position, sector, and alarm titles.
On-Screen Labels, Text and Title Positioning	The position of the on-screen text shall be adjustable to appear at selectable positions on the CCTV camera screen image.
Number of Pixels	The camera shall provide a minimum of 1280H x 720V effective pixels. The camera shall be capable of being configured to operate at all standard lower resolutions down to 320H x 180V effective pixels.
Image Sensor Size	The camera shall include an image sensor of 1/1.8 in., nominal.
Lens Focal Length	The camera shall include a zoom lens of 4.3 mm to 129 mm, minimum focal length.
Color and Black & White Image Selection	The camera shall have Color and Black & White video image display modes incorporating both automatic and manual override image mode selection. The camera shall transition automatically to a Black & White mode (when in automatic mode) when the luminance level reaches a user predefined threshold. At all times the camera shall provide a full motion video output at 30 frames per second.
Image Stabilization	The CCTV camera shall incorporate electronic image stabilization to reduce the effects of vibration and wind gusts on the displayed video image.
Automatic Iris	The camera shall include both automatic iris control and an override for manual iris adjustments.
Wide Dynamic Range	The CCTV camera's wide dynamic range shall be 120 dB.
CCTV Camera Optical Sensitivity	The camera's sensitivity shall be sufficient to provide a clear, usable color video image display with a scene illumination of ≤ 0.1 lux at an aperture of F1.6, nominal.
Power Input	The power input for the CCTV camera and dome shall be PoE+.
Alarms	No alarm contacts shall be wired.

The Contractor shall mount the camera at a location that optimizes line-of-sight for all approaches. The view of each approach shall have a clear line of sight, free from obstructions from trees, overhead wires, buildings, and/or other obstructions. If the Contractor is unable to provide a clear line of sight for all approaches to the satisfaction of the Engineer, a second camera, including mounting hardware, cabling, and wiring, shall be furnished and installed on a different traffic signal structure at no additional cost.

The Contractor shall be responsible for the following items prior to installation:

- Ensure that all components are assembled and factory-tested prior to delivery to the project site.
- Fully configure the camera settings, including but not limited to: camera resolution, camera address, default settings, and pre-set and home positions, per the direction of the Engineer.
- Coordinate with the Engineer to set the camera address number to provide unique identification that is compatible with the CCTV camera addressing schema utilized by the Department.

The Contractor shall deliver the camera(s) fully assembled to the project site.

The Contractor shall provide up to 3 hard copy sets of operating manuals, service manuals, and maintenance instructions for all components of the system. At the request of the Engineer, the number of copies may be reduced if the manuals are provided in .pdf file format.

819.42: Material Warranties

All components of Vehicle Detection Systems, including Video Monitoring Systems, and Pedestrian Detectors shall include a minimum two-year manufacturer's replacement warranty that will commence upon acceptance by the Engineer. The warranty shall cover any manufacturing defects of the products.

Construction Methods

819.60: General

The Contractor shall use discretion in installing the detectors/sensors at locations that optimize the performance of the VDS and to eliminate false calls. The Contractor shall notify the Engineer if the size or location of the detection zones differs from what is shown in the Plans. At the direction of the Engineer, the Contractor will be required to readjust the location of the detection zones and/or modify the detection channels if false calls are observed or the traffic signal system is not operating per the Plans due to the performance of the VDS; this work shall be considered incidental to the cost of the item.

The Contractor shall use manufacturer-specified mounting hardware for all detectors/sensors. If mounted to mast arms or strain poles, any addition weight or wind loading from the detector/sensor shall be accounted for in the structural calculations.

The Contractor shall install the cabinet interface device in the traffic signal controller cabinet. The cabinet interface device shall be connected to the Field Monitoring Unit (FMU) or an ethernet switch in the traffic signal controller cabinet. All communication between devices shall be IP-based. Use of external communications that are not routed through the FMU is prohibited.

The Contractor shall furnish and install low voltage power cabling surge protection equipment required for all data and power lines associated with VDS, Video Monitoring Systems, and/or Pedestrian Detection Systems entering the traffic signal controller cabinet.

The Contractor shall install the manufacturer-specified cable between the detectors/sensors to the cabinet interface device in the traffic signal controller cabinet via traffic signal structures, conduit, and/or pullboxes. This shall include all connectors, sealing tape, and incidental work to complete the connection(s). All equipment installation and wiring shall be installed in a neat and orderly manner and per the manufacturer's specifications.

The VDS shall be powered through one of the power outlets available on the FMU. The VDS shall be capable of being powered down and remotely restarted through remote control of the power outlet on the FMU.

Under the supervision of the Engineer, the Contractor shall install the VDS software that allows visual confirmation of the detection zones on Department computers.

The Contractor shall install Pedestrian Detectors at the location(s) and mounting height shown on the Plans.

The Contractor shall mount and orient the APS Pushbutton Assembly in a manner so that the vibrotactile arrow is aligned parallel to the crosswalk.

Prior to acceptance, the Contractor shall furnish all passwords for Vehicle Detection Systems and Pedestrian Detectors to the Engineer. The use of default passwords is prohibited.

819.61: Programming APS Pushbuttons

Each APS Pushbutton shall have an audible walk indication during the associated walk interval. The duration of the audible walk indication shall match the duration of the walk interval unless the pedestrian signal is programmed to rest in walk. If programmed to rest in walk, the audible walk indication shall be limited to 7 seconds in length but may be recalled by a subsequent button press during the walk interval.

The APS Pushbutton locator tone and audible walk indication shall be programmed to broadcast at volume 5 dBA louder than ambient sound, except when audible beaconing is provided in response to an extended pushbutton press. The broadcast volume shall be programmed to not exceed 100 dBA at 3 ft. from the emitter, regardless of ambient noise conditions.

The locator tone shall have a duration of 0.15 seconds or less and shall repeat at 1-second intervals.

The locator tone shall be active during all signal intervals, except for the following conditions:

- When the audible walk indication is being broadcast.
- If the signal is programmed to rest in walk, the locator tone shall resume 7 seconds after the start of the walk interval.
- The locator tone shall be disabled if the traffic control signal or pedestrian hybrid beacon is operating in an emergency or fault flashing mode.

The locator tone shall be active during the flashing yellow and alternating flashing red intervals of a pedestrian hybrid beacon phasing sequence.

Upon button press, the locator tone at that pushbutton shall be interrupted and a speech message of "Wait" shall be broadcast.

The normal status of the pilot light shall be dark. The pilot light shall illuminate upon button press and stay illuminated until the start of the walk interval, when it shall return to dark. If the associated pedestrian phase is set to pedestrian recall, the pilot light shall stay illuminated for all intervals except for the walk interval.

The audible walk indication shall be an audible tone unless a speech message is called for in the Plans. The audible tone shall repeat at 8 to 10 ticks per second, in multiple frequencies, with the dominant component at 880 Hz.

If a speech message is used, the following shall apply:

- For exclusive pedestrian phases, during the walk interval the speech message shall be: "walk sign is on for all crossings." This message shall be broadcast a single instance.
- *For concurrent pedestrian phases, during the walk interval the speech message shall be: "[STREET NAME]. Walk sign is on for [STREET NAME]." This message shall be broadcast a single instance.
- If the signal is programmed to rest in walk, the concurrent pedestrian speech message shall be repeated upon each subsequent button press.

*Note: See Plans for Street Name information.

The vibrotactile arrow shall vibrate during the walk interval.

The Contractor shall include a fault relay that will default to placing a constant pedestrian call from any pushbutton assembly that fails to communicate back to the in-cabinet control unit.

The Contractor shall connect the in-cabinet control unit to the Field Monitoring Unit (FMU) via an open ethernet port.

819.62: VDS Testing and Evaluation

After the VDS is installed, but prior to acceptance, the Contractor shall conduct an evaluation of the system in the presence of the Engineer. The purpose of the evaluation is to certify the system is operating per the requirements of M10.08.0: Vehicle Detection Systems, M10.08.1: Passive Stop Line Detectors, and M10.08.2: Passive Advanced Detectors, as applicable. The Contractor shall submit their testing and evaluation plan as a part of the Shop Drawing submittal.

The testing and evaluation shall take place for a minimum of 30 minutes under moderate live traffic conditions. Testing shall not be conducted during inclement weather.

If the Engineer determines that the system does not meet the operational requirements, the Contractor will be required to adjust the location, orientation, and/or number of detector/sensors. The Contractor may also adjust the location of the detection zones at this time. Upon completion of this work, the system shall be reevaluated in the presence of the Engineer. This process shall be repeated until the operational requirements are met.

All costs associated with testing and evaluation of the VDS, including the repositioning or addition of new materials, shall be considered incidental to the item.

Compensation**819.80: Method of Measurement**

Stop Line Vehicle Detection Systems will be measured as each system furnished and installed.

Advanced Vehicle Detection Systems will be measured as each system furnished and installed.

Pedestrian Pushbuttons and APS Pushbuttons will be measured as each pushbutton furnished and installed.

819.81: Basis of Payment

Stop Line Vehicle Detection Systems will be paid for each system installed at an intersection. For the purposes of this work, an intersection shall be defined as all roadway, path, and/or trail approaches controlled by a single traffic signal controller. Where a Video Monitoring System is required per 819.40: General, it shall be included in the cost of Item 819.840.

Advanced Vehicle Detection System will be paid for each system installed on an intersection approach.

Pedestrian Pushbutton and APS Pushbutton will be paid for each pushbutton assembly installed. The pedestrian sign mounted directly above the pushbutton shall be considered incidental to the item.

The unit cost of each vehicle detection system or pushbutton item shall include all wiring, cabling, mounting hardware, software, firmware, video monitoring system (if required), testing, calibrating, Department Acceptance, training, and all other labor and materials required for the system(s) to operate per the Plans.

819.82: Payment Items

Item number	Description	Unit
819.840	Stop Line Vehicle Detection System	Each
819.845	Advanced Vehicle Detection System	Each
819.850	Pedestrian Pushbutton	Each
819.855	APS Pushbutton	Each

SUBSECTION 850: TRAFFIC CONTROLS FOR CONSTRUCTION AND MAINTENANCE OPERATIONS

Subsection 850.25: Arrow Board

Subsection 850.45: Arrow Board

Subsection 850.65: Arrow Board

Delete these subsections.

Subsection 850.80: Method of Measurement

Delete the 7th paragraph beginning with "Arrow Board will be measured ..."

Subsection 850.81: Basis of Payment

Delete the 7th paragraph beginning with "Arrow Board will be paid for ..."

Subsection 850.82: Payment Items

Revise description and unit of item 852. to Safety Signing for Traffic Management / Square Foot.

Delete item number 856.

SUBSECTION 856: CONNECTED WORK ZONE NOTIFICATION SYSTEM AND ASSOCIATED DEVICES

Subsection 856: Connected Work Zone Notification System and Associated Devices

Add this new subsection.

DESCRIPTION

856.20: General

The Connected Work Zone Notification System (CWZNS) is a system of field devices that transmit real-time location-based data about work zones. CWZNS field device data is provided in a Work Zone Data Exchange (WZDx) Device Feed in accordance with the United States Department of Transportation (USDOT) WZDx Specification. The Device Feed is consumed by the MassDOT Work Zone Manager (WZM) application.

The Contractor shall be responsible for furnishing, installing, repositioning, operating, maintaining, and removing these CWZNS devices.

MATERIALS

856.40: General

Materials shall meet the requirements specified in the following Subsections of Division III, Materials:

Material	Section
Connected Work Zone Notification System Devices	M10.18.0
Location Marker	M10.18.1
Connected Arrow Board	M10.18.2

End Location Markers shall conform to M10.18.1: Location Marker and include power and communication status lights and an on/off switch.

856.41: Arrow Board

Arrow Boards shall consist of a matrix of yellow elements that may be illuminated in flashing or sequential patterns, on a non-reflective, black background. The light output from the Arrow Board shall meet the minimum legibility distance, per the MUTCD. The elements shall be capable of at least 50% dimming from full brilliance to avoid nighttime glare. Arrow Boards that are continuously operational in both daylight and nighttime conditions shall automatically adjust the light output based upon ambient light conditions.

The mounting height of the Arrow Board, when in operation, shall be per the Plans.

The minimum dimensions and number of elements for Arrow Boards shall be per Table 856.41-1.

Table 856.41-1: Arrow Board Dimensions and Elements

Item Numbers	MUTCD Type	Minimum Dimensions (width by height)	Minimum Number of Elements
856.060, 856.160	B	60 in. by 30 in.	13
856.096, 856.196	C	96 in. by 48 in.	15

Arrow Boards shall be capable of the following operating modes, per the MUTCD:

- Four Corners Flashing Caution
- Alternating Diamond Caution
- Flashing Arrow (left or right)
- Sequential Chevron (left or right)
- Flashing Double Arrow

Arrow Boards that are categorized as “Connected Arrow Boards” (Items 856.160 and 856.196) shall meet the requirements of M10.18.2: Connected Arrow Board in addition to the requirements of an Arrow Board described in this Subsection.

856.42: Shop Drawings

Within 30 days of the Notice to Proceed, the Contractor shall submit to the Engineer for review and approval cut sheets for each model of CWZNS device to be used. The cut sheets shall document device specifications, including details of how the CWZNS device will communicate. Work that requires the use of CWZNS devices shall not commence until the submission has been approved.

CONSTRUCTION METHODS

856.60: General

At least 15 days prior to deploying CWZNS devices, the Contractor shall visit the site to verify cellular coverage. If the devices the Contractor plans to deploy do not have coverage, the Contractor shall swap out the cellular modem, SIM card, or both to a carrier that provides coverage. If no adequate cellular coverage exists from 4G LTE or 5G providers, the Contractor shall immediately notify the Engineer.

The Contractor shall install CWZNS devices at the locations shown on the Plans.

Per the WZDx Specification Device Feed, an End Location Marker shall have a single MarkedLocation with the “type” property as “work-zone-end”.

The Contractor shall install and power on the End Location Marker coinciding with the deployment of the temporary traffic control setup that calls for its use. The Contractor shall power down and remove the Location Marker at the conclusion of the removal of the temporary traffic control setup. If the location of the work moves during a work shift, the Contractor shall power down the Location Marker, relocate it, and then power it back on.

The operating mode for the Arrow Board or Connected Arrow Board shall be per the Plans. When activated, the minimum element on-time shall be 50% for the flashing mode, with equal intervals of 25% for each sequential phase. The flashing rate shall be not less than 25 or more than 40 flashes per minute.

If a Connected Arrow Board is being used to transmit its location without utilizing other arrow board functions, such as operating a Flashing Arrow, the arrow board shall remain dark and removed from the roadway or protected from approaching traffic while the data is being transmitted.

The Contractor shall be responsible for remediating any CWZNS device that is not operating as specified, at no additional cost to the Department.

CWZNS devices that are lost, stolen, vandalized, damaged, destroyed, or deemed unacceptable while their use is required on the project shall be replaced by the Contractor at no additional cost to the Department.

COMPENSATION

856.80: Method of Measurement

Arrow Boards and Connected Arrow Boards will be measured by the Day. Each period of up to 24 hours during which an Arrow Board or Connected Arrow Board is in use will be measured as one day, regardless of the number of times that the unit is positioned, repositioned, removed, or returned to service.

End Location Markers will be measured by the Day. Each period of up to 24 hours during which a End Location Marker is in use will be measured as one day, regardless of the number of times that the unit is positioned, repositioned, removed, or returned to service.

856.81: Basis of Payment

Arrow Boards and Connected Arrow Boards will be paid for at the contract unit price per day which shall include full compensation for labor and materials, positioning, repositioning, and removing or returning to service.

End Location Markers will be paid for at the contract unit price per day which shall include full compensation for labor and materials, positioning, repositioning, and removing or returning to service.

If an End Location Marker is attached to another traffic control device that is not otherwise called for in the Plans or Specifications, that ancillary device shall be considered incidental to the cost of the End Location Marker.

Licenses, fees, communication costs, power costs, and access to real-time and recorded data associated with the Device Feed for CWZNS devices shall be considered incidental to the cost of the item.

The Department will not pay for CWZNS devices that fail to operate as specified.

856.82: Payment Items

Item number	Description	Unit
856.060	Arrow Board (Type B)	Day
856.096	Arrow Board (Type C)	Day
856.160	Connected Arrow Board (Type B)	Day
856.196	Connected Arrow Board (Type C)	Day
856.201	End Location Marker	Day

SECTION 900: STRUCTURES

SUBSECTION 901: CEMENT CONCRETE

Subsection 901.20: Materials

Delete Asphaltic Materials – M3, Preformed Bituminous Fiber Joint Filler – M3.05.3 and add the following in M number sequence:

Preformed Expansion Joint Filler	M9.14.0
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SUBSECTION 983: REVETMENT

Subsection 983.40: General

Delete *Preformed Bituminous Fiber Joint Filler – M3.05.3* and add the following in M number sequence:

Preformed Expansion Joint Filler	M9.14.0
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DIVISION III

MATERIALS SPECIFICATIONS

SECTION M3: ASPHALTIC MATERIALS

Subsection M3.05.5: Preformed Bituminous Joint Filler for Concrete

Delete this subsection.

SECTION M9: MISCELLANEOUS MATERIALS

Subsection M9.14.0: Preformed Expansion Joint Filler

Replace this subsection with the following:

Preformed expansion joint filler for concrete applications and structural construction shall meet the requirements specified herein. The Contractor shall provide certified test data which documents compliance with the required physical properties. The certified test data shall be submitted to the Engineer for approval.

Table M9.14.0-1: Types of Preformed Expansion Joint Filler

Specification	Type and Description
AASHTO M 153	Type I – Sponge Rubber Type II – Cork Type III – Self-Expanding Cork Type IV – Polyurethane-Bonded Recycled Rubber
AASHTO M 213	Type I – Asphalt-Saturated Cellulosic Fiber Type II – Asphalt Binder-Cork with Asphalt-Saturated or Glass Fiber Felt Type III – Polyurethane-Bonded Recycled Rubber
ASTM D1752	Type IV – Recycled PVC
ASTM D7174	Type I – Closed-Cell Polyethylene or Blended Polyethylene Foam
ASTM D8139	Type I – Closed-Cell Polypropylene Foam

Subsection M9.14.2: Closed Cell Foam Joint Filler

Delete this subsection:

M10.03.1: Field Monitoring Unit

All Field Monitoring Units (FMU) shall be compatible with the MassDOT Critical Operations Multi-jurisdictional Modular System (MCOMMS), cloud-based management system.

Subsection M9.14.2: Closed Cell Foam Joint Filler

Delete this subsection:

SECTION M10: TRAFFIC CONTROL DEVICES

Subsection M10.03.1: Field Monitoring Unit

Add these new subsections:

M10.03.1: Field Monitoring Unit

All Field Monitoring Units (FMU) shall be compatible with the MassDOT Critical Operations Multi-jurisdictional Modular System (MCOMMS), cloud-based management system.

FMUs shall be capable of operating independently from the brand of traffic signal controller, vehicle and pedestrian detection systems, battery backup system (BBS), and any other Ethernet-based, web accessible device present in the traffic signal controller cabinet.

M10.03.1.A: Hardware

The FMU shall communicate via an Ethernet port with an RJ45 connector and have an integrated Ethernet switch with a minimum of four ports.

The FMU shall be powered via standard 120 VAC input power. The FMU shall include an integrated battery and battery charging/monitoring circuit that will allow the FMU to fully function even if all other electrical service to the cabinet has been interrupted. The battery shall continue to supply the FMU with power for a minimum of 5 hours on a single charge.

The FMU shall have an integrated GPS that will allow for automated telemetry without additional configuration. The GPS shall be capable of providing a time sync pulse to the internal clock of a connected traffic signal controller. The FMU shall utilize the integrated GPS to geolocate itself on a map via the FMU management software.

M10.03.1.B: Software

The configuration of the FMU shall be accomplished by accessing FMU management software via an internet browser. It shall be possible to configure the FMU without any special software.

The FMU shall operate without requiring a static IP address. The only configuration required at the FMU is to enter the URL to the host of the FMU management software.

The FMU shall utilize HTTPS protocols and XML data structure for communications with the FMU management software. The data shall be scalable for future expansion; proprietary protocols shall not be used.

M10.03.1.C: Wireless Connectivity

The FMU shall be supplied with an internal 4G LTE cellular modem.

The modem shall support future upgrades to 5G service, when available, and shall be compatible with SIM cards from multiple cellular carriers.

M10.03.1.D: Remote Access

Remote access to any traffic signal cabinet component that has a web interface via the FMU shall not require the end user to create a separate Virtual Private Network (VPN) connection.

Subsection M10.08.0: Vehicle Detection Systems

Subsection M10.08.0: Vehicle Detection Systems

Subsection M10.08.0: Vehicle Detection Systems

Add these new subsections:

M10.08.0: Vehicle Detection Systems

Vehicle Detection Systems (VDS) shall be capable of detecting the presence of all motor vehicle types and bicycles in designated areas and sending corresponding detector outputs to a traffic signal controller.

All in-cabinet components of VDS shall be compatible with the following standards:

- ATCC 5301 v02
- ATC 5201 v06
- NEMA TS2 environmental standards

Through an ethernet-based connection to the detection module and/or cabinet interface device in the field or through the internal network of the traffic signal controller cabinet, the VDS shall support remote management of motor vehicle and bicycle detection configurations and access to data including:

- The number, location, and size of detection zones.
- Configuration of the detector channel and assigned phase for each zone.
- Configuration of detection zones for signal performance measurement data collection.
- The ability to add and remove users.
- Signal performance data:
 - o Monitoring and recording the status of the phase and detector channels from the traffic signal controller through the SIU bus at a frequency of no less than 10 times per second.
 - o Estimation of the speed of vehicles at defined, user-configurable points, such as entering or exiting a detection zone.
 - o Retrieval of the signal performance data through an http-based Application Programming Interface (API), or equivalent process, in .xml, .json, or .csv format.
 - o The data shall be available in a per vehicle format, be viewable in real time, and store at least 168 hours of data locally on the device.

VDS shall be capable of supporting user-based restrictions to limit functionality, including:

- The ability to make changes to the VDS settings.
- The ability to view imagery or digital video streams.
- The ability to view and download signal performance data.

VDS shall be capable of automatically determining if the system's ability to accurately detect vehicles and shall default to a constant call state if this system error is detected.

VDS shall be capable of classifying vehicles based upon length and/or number of axles.

VDS shall be capable of performing all detection, classification, and data collection functions in the absence of an internet connection.

VDS shall be capable of providing remote access to the latest images or digital video stream of all IP video units through either an HTTP request or through a Real Time Streaming Protocol compatible with RFC2326 standards. VDS that do not utilize video shall be able to display the current state of the vehicle detection zones and approximate vehicle locations in a digital twin model of the intersection.

M10.08.1: Passive Stop Line Detectors

Passive Stop Line Detectors shall demonstrate a reliability of 99% or greater for vehicle detection functions.

Passive Stop Line Detectors shall be able to track and classify turning movements for all motor vehicle types and bicycles and shall demonstrate an accuracy of 95% or greater for turning movement counts.

M10.08.2: Passive Advanced Detectors

Passive Advanced Detectors shall be capable of detecting all motor vehicle types at a minimum distance of 600 ft upstream of the stop line.

Subsection M10.09.0: Pedestrian Detectors

Subsection M10.09.1: Pedestrian Pushbutton Assembly

Subsection M10.09.2: APS Pushbutton Assembly

Add these new subsections:

M10.09.0: Pedestrian Detectors

Pedestrian Detectors shall be capable of detecting the presence of pedestrians and placing a corresponding call for a phase in a traffic signal controller or similar device.

Pedestrian Detectors may be pushbuttons or passive detection devices.

Components of Pedestrian Detectors shall meet NEMA TS2 compliance for temperature and humidity, mechanical shock and vibration, transient voltage protection, transient suppression, and electrical reliability.

If Pedestrian Detectors include an in-cabinet control unit, it shall meet the following requirements:

- Operate on a cabinet-supplied 120 VAC power source.
- Include labelled LED indicators for each channel operation.
- Include a 10/100BaseT, RJ45 ethernet connector port.
- Capable of communication with the Pedestrian Detectors to allow for remote programming and firmware updates via the ethernet connection.
- Capable of supporting a minimum of 4 pedestrian detectors per NEMA pedestrian phase and up to 16 pushbuttons.
- Will automatically reset upon loss of internal communication.

M10.09.1: Pedestrian Pushbutton Assembly

A Pedestrian Pushbutton Assembly shall consist of a pushbutton, a sign, and a housing to mount those devices to a post.

The pushbutton shall be a minimum of 2 in. in diameter and the force to activate it shall be no greater than 5 lbs. The pushbutton must be weather-tight and tamper-resistant.

The pushbutton shall meet one of the following criteria:

- A normally open, mechanical phenolic enclosed, positive-acting, spring-loaded, audible (i.e., click) snap-action switch with single pole, single throw contacts; or
- A piezo-driven solid state switch rated for a minimum of 50 V, a minimum of 20 million cycles, and capable of providing an audible indication of actuation.

The pushbutton shall have an operating voltage range of 12 to 36 VDC.

The housing shall be yellow.

Housings that include an integral sign mount for the pedestrian pushbutton sign shall be capable of mounting a 9 in. by 12 in. or 9 in. by 15 in. sign (width by height).

M10.09.2: APS Pushbutton Assembly

An APS Pushbutton Assembly shall meet all of the requirements of M10.09.1: Pedestrian Pushbutton Assembly, and the following.

The pushbutton shall have a vibrotactile arrow. The arrow shall have high visual contrast (light on dark or dark on light).

APS Pushbutton Assembly shall be capable of the following:

- Emitting a locator tone.
- Providing two types of audible walk indications: an audible tone in multiple frequencies and a speech message. The type of audible walk indication will be programmed by Contractor per the Plans.
- Emitting sound via one or more speakers that automatically adjust to ambient noise and shall also be capable of being capped at a preprogrammed level.
- Providing three functions as a result of an extended pushbutton press: increased crossing time, audible beaconing, and speech pushbutton information. The function of the extended pushbutton press will be programmed by the Contractor per the Plans.

APS Pushbutton Assembly shall include a latching red LED pilot light.

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CONTRACT PROVISIONS FOR FEDERAL-AID CONSTRUCTION CONTRACTS

- I. General
- II. Nondiscrimination
- III. Davis-Bacon and Related Act Provisions
- IV. Contract Work Hours and Safety Standards Act Provisions
- V. Subletting or Assigning the Contract
- VI. Safety: Accident Prevention
- VII. False Statements Concerning Highway Projects
- VIII. Implementation of Clean Air Act and Federal Water Pollution Control Act
- IX. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion
- X. Certification Regarding Use of Contract Funds for Lobbying
- XI. Use of United States-Flag Vessels

immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract.

3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.

4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. 23 U.S.C. 114(b). The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors. 23 U.S.C. 101(a).

ATTACHMENTS

A. Employment and Materials Preference for Appalachian Development Highway System or Appalachian Local Access Road Contracts (included in Appalachian contracts only).

I. GENERAL

1. Historically, contracting agencies using Federal-aid highway funds were required to ensure Form FHWA-1273 was physically incorporated into all contracts and subcontracts. Effective June 10, 2026, this requirement was eliminated [91 FR 25492]. Future use of Form FHWA-1273 is now optional on the part of the contracting agency using Federal-aid highway funds. FHWA continues to make Form FHWA-1273 available as a convenience to contracting agencies. Contracting agencies must continue to ensure compliance with the provisions cited in Form FHWA-1273 in accordance with the provisions regardless of the use of Form FHWA-1273. Accordingly, the contracting agency retains the authority to determine whether the contractor must use Form FHWA-1273 to physically incorporate required contract provisions in each subcontract and in lower tier contracts. Where permitted by the contracting agency, the contractor may choose other ways to include required contract provisions in each subcontract, besides incorporating Form FHWA-1273. Contract provisions in Form FHWA-1273 are not required to be physically included in subcontracts for design services on Federal-aid design-build contracts, or in purchase orders, rental agreements and other agreements for supplies or services.

The applicable provisions of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor or design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Contracting agencies may reference Form FHWA-1273 in solicitation-for-bids or request-for-proposals documents.

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's

II. NONDISCRIMINATION

The contractor and all subcontractors must comply with the following policies: 29 CFR Parts 1625-1627, 23 U.S.C. 140, Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), and related regulations including 49 CFR Parts 21, 26, and 27, including any amendments thereto.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with 29 CFR Parts 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with 23 U.S.C. 140, Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), and Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), and related regulations including 49 CFR Parts 21, 26, and 27, including any amendments thereto.

The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR Part 35 and 29 CFR Part 1630 are incorporated by reference in this contract.

1. Assurances Required:

a. The requirements of 49 CFR Part 26, including any amendments thereto, and the State DOT's FHWA-approved Disadvantaged Business Enterprise (DBE) program are incorporated by reference.

b. The contractor, subrecipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR part 26, including any amendments thereto, in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate, which may include, but is not limited to:

Proposal No. XXXXXX-CCCCC

- (1) Withholding monthly progress payments;
- (2) Assessing sanctions;
- (3) Liquidated damages; and/or
- (4) Disqualifying the contractor from future bidding as non-responsible.

c. The Title VI and nondiscrimination provisions of U.S. DOT Order 1050.2A at Appendixes A and E, including any amendments thereto, are incorporated by reference. 49 CFR Part 21.

III. DAVIS-BACON AND RELATED ACT PROVISIONS

This section is applicable to all Federal-aid construction projects exceeding \$2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size), in accordance with 29 CFR 5.5. The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. 23 U.S.C. 113. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. 23 U.S.C. 101. Where applicable law requires that projects be treated as a project on a Federal-aid highway, the provisions of this subpart will apply regardless of the location of the project. Examples include: Surface Transportation Block Grant Program projects funded under 23 U.S.C. 133 [excluding recreational trails projects], the Nationally Significant Freight and Highway Projects funded under 23 U.S.C. 117, and National Highway Freight Program projects funded under 23 U.S.C. 167.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 "Contract provisions and related matters" with minor revisions to conform to the FHWA-1273 format and FHWA program requirements.

1. Minimum wages (29 CFR 5.5)

a. *Wage rates and fringe benefits.* All laborers and mechanics employed or working upon the site of the work (or otherwise working in construction or development of the project under a development statute), will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act ([29 CFR part 3](#))), the full amount of basic hourly wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics. As provided in paragraphs (d) and (e) of 29 CFR 5.5, the appropriate wage determinations are effective by operation of law even if they have not been attached to the contract. Contributions made or costs reasonably anticipated for bona fide fringe benefits under the Davis-Bacon Act ([40 U.S.C. 3141\(2\)\(B\)](#)) on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph 1.e. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics must be paid the appropriate wage rate and fringe benefits on the wage determination for the classification(s) of work actually performed, without regard to skill, except as provided in

paragraph 4. of this section. Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: *Provided*, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classifications and wage rates conformed under paragraph 1.c. of this section) and the Davis-Bacon poster (WH-1321) must be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

b. *Frequently recurring classifications.* (1) In addition to wage and fringe benefit rates that have been determined to be prevailing under the procedures set forth in [29 CFR part 1](#), a wage determination may contain, pursuant to § 1.3(f), wage and fringe benefit rates for classifications of laborers and mechanics for which conformance requests are regularly submitted pursuant to paragraph 1.c. of this section, provided that:

(i) The work performed by the classification is not performed by a classification in the wage determination for which a prevailing wage rate has been determined;

(ii) The classification is used in the area by the construction industry; and

(iii) The wage rate for the classification bears a reasonable relationship to the prevailing wage rates contained in the wage determination.

(2) The Administrator will establish wage rates for such classifications in accordance with paragraph 1.c.(1)(iii) of this section. Work performed in such a classification must be paid at no less than the wage and fringe benefit rate listed on the wage determination for such classification.

c. *Conformance.* (1) The contracting officer must require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract be classified in conformance with the wage determination. Conformance of an additional classification and wage rate and fringe benefits is appropriate only when the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(ii) The classification is used in the area by the construction industry; and

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) The conformance process may not be used to split, subdivide, or otherwise avoid application of classifications listed in the wage determination.

(3) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the

Proposal No. XXXXXX-CCCCC

classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken will be sent by the contracting officer by email to DBAconformance@dol.gov. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(4) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer will, by email to DBAconformance@dol.gov, refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(5) The contracting officer must promptly notify the contractor of the action taken by the Wage and Hour Division under paragraphs 1.c.(3) and (4) of this section. The contractor must furnish a written copy of such determination to each affected worker or it must be posted as a part of the wage determination. The wage rate (including fringe benefits where appropriate) determined pursuant to paragraph 1.c.(3) or (4) of this section must be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

d. Fringe benefits not expressed as an hourly rate. Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor may either pay the benefit as stated in the wage determination or may pay another bona fide fringe benefit or an hourly cash equivalent thereof.

e. Unfunded plans. If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, *Provided*, That the Secretary of Labor has found, upon the written request of the contractor, in accordance with the criteria set forth in § 5.28, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

f. Interest. In the event of a failure to pay all or part of the wages required by the contract, the contractor will be required to pay interest on any underpayment of wages.

2. Withholding (29 CFR 5.5)

a. Withholding requirements. The contracting agency may, upon its own action, or must, upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor so much of the accrued payments or advances as may be considered

necessary to satisfy the liabilities of the prime contractor or any subcontractor for the full amount of wages and monetary relief, including interest, required by the clauses set forth in this section for violations of this contract, or to satisfy any such liabilities required by any other Federal contract, or federally assisted contract subject to Davis-Bacon labor standards, that is held by the same prime contractor (as defined in § 5.2). The necessary funds may be withheld from the contractor under this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract that is subject to Davis-Bacon labor standards requirements and is held by the same prime contractor, regardless of whether the other contract was awarded or assisted by the same agency, and such funds may be used to satisfy the contractor liability for which the funds were withheld. In the event of a contractor's failure to pay any laborer or mechanic, including any apprentice or helper working on the site of the work all or part of the wages required by the contract, or upon the contractor's failure to submit the required records as discussed in paragraph 3.d. of this section, the contracting agency may on its own initiative and after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

b. Priority to withheld funds. The Department has priority to funds withheld or to be withheld in accordance with paragraph 2.a. of this section or Section IV, paragraph 3.a., or both, over claims to those funds by:

(1) A contractor's surety(ies), including without limitation performance bond sureties and payment bond sureties;

(2) A contracting agency for its procurement costs;

(3) A trustee(s) (either a court-appointed trustee or a U.S. trustee, or both) in bankruptcy of a contractor, or a contractor's bankruptcy estate;

(4) A contractor's assignee(s);

(5) A contractor's successor(s); or

(6) A claim asserted under the Prompt Payment Act, [31 U.S.C. 3901-3907](#).

3. Records and certified payrolls (29 CFR 5.5)

a. Basic record requirements (1) Length of record retention. All regular payrolls and other basic records must be maintained by the contractor and any subcontractor during the course of the work and preserved for all laborers and mechanics working at the site of the work (or otherwise working in construction or development of the project under a development statute) for a period of at least 3 years after all the work on the prime contract is completed.

(2) *Information required.* Such records must contain the name; Social Security number; last known address, telephone number, and email address of each such worker; each worker's correct classification(s) of work actually performed; hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in [40 U.S.C. 3141\(2\)\(B\)](#) of the Davis-Bacon Act); daily and weekly number

Proposal No. XXXXXX-CCCCC

of hours actually worked in total and on each covered contract; deductions made; and actual wages paid.

(3) *Additional records relating to fringe benefits.* Whenever the Secretary of Labor has found under paragraph 1.e. of this section that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in [40 U.S.C. 3141\(2\)\(B\)](#) of the Davis-Bacon Act, the contractor must maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits.

(4) *Additional records relating to apprenticeship.* Contractors with apprentices working under approved programs must maintain written evidence of the registration of apprenticeship programs, the registration of the apprentices, and the ratios and wage rates prescribed in the applicable programs.

b. *Certified payroll requirements (1) Frequency and method of submission.* The contractor or subcontractor must submit weekly, for each week in which any DBA- or Related Acts-covered work is performed, certified payrolls to the contracting agency. The prime contractor is responsible for the submission of all certified payrolls by all subcontractors. A contracting agency or prime contractor may permit or require contractors to submit certified payrolls through an electronic system, as long as the electronic system requires a legally valid electronic signature; the system allows the contractor, the contracting agency, and the Department of Labor to access the certified payrolls upon request for at least 3 years after the work on the prime contract has been completed; and the contracting agency or prime contractor permits other methods of submission in situations where the contractor is unable or limited in its ability to use or access the electronic system.

(2) *Information required.* The certified payrolls submitted must set out accurately and completely all of the information required to be maintained under paragraph 3.a.(2) of this section, except that full Social Security numbers and last known addresses, telephone numbers, and email addresses must not be included on weekly transmittals. Instead, the certified payrolls need only include an individually identifying number for each worker (e.g., the last four digits of the worker's Social Security number). The required weekly certified payroll information may be submitted using Optional Form WH-347 or in any other format desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division website at <https://www.dol.gov/sites/dolgov/files/WHD/legacy/files/wh347.pdf> or its successor website. It is not a violation of this section for a prime contractor to require a subcontractor to provide full Social Security numbers and last known addresses, telephone numbers, and email addresses to the prime contractor for its own records, without weekly submission by the subcontractor to the contracting agency.

(3) *Statement of Compliance.* Each certified payroll submitted must be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor, or the contractor's or subcontractor's agent who pays or supervises the payment of the persons working on the contract, and must certify the following:

(i) That the certified payroll for the payroll period contains the information required to be provided under paragraph 3.b. of this section, the appropriate information and basic records are being maintained under paragraph 3.a. of this section, and such information and records are correct and complete;

(ii) That each laborer or mechanic (including each helper and apprentice) working on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in [29 CFR part 3](#); and

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification(s) of work actually performed, as specified in the applicable wage determination incorporated into the contract.

(4) *Use of Optional Form WH-347.* The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 will satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(3) of this section.

(5) *Signature.* The signature by the contractor, subcontractor, or the contractor's or subcontractor's agent must be an original handwritten signature or a legally valid electronic signature.

(6) *Falsification.* The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under [18 U.S.C. 1001](#) and [31 U.S.C. 3729](#).

(7) *Length of certified payroll retention.* The contractor or subcontractor must preserve all certified payrolls during the course of the work and for a period of 3 years after all the work on the prime contract is completed.

c. *Contracts, subcontracts, and related documents.* The contractor or subcontractor must maintain this contract or subcontract and related documents including, without limitation, bids, proposals, amendments, modifications, and extensions. The contractor or subcontractor must preserve these contracts, subcontracts, and related documents during the course of the work and for a period of 3 years after all the work on the prime contract is completed.

d. *Required disclosures and access (1) Required record disclosures and access to workers.* The contractor or subcontractor must make the records required under paragraphs 3.a. through 3.c. of this section, and any other documents that the contracting agency, the State DOT, the FHWA, or the Department of Labor deems necessary to determine compliance with the labor standards provisions of any of the applicable statutes referenced by § 5.1, available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and must permit such representatives to interview workers during working hours on the job.

Proposal No. XXXXXX-CCCCC

(2) *Sanctions for non-compliance with records and worker access requirements.* If the contractor or subcontractor fails to submit the required records or to make them available, or refuses to permit worker interviews during working hours on the job, the Federal agency may, after written notice to the contractor, sponsor, applicant, owner, or other entity, as the case may be, that maintains such records or that employs such workers, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available, or to permit worker interviews during working hours on the job, may be grounds for debarment action pursuant to § 5.12. In addition, any contractor or other person that fails to submit the required records or make those records available to WHD within the time WHD requests that the records be produced will be precluded from introducing as evidence in an administrative proceeding under [29 CFR part 6](#) any of the required records that were not provided or made available to WHD. WHD will take into consideration a reasonable request from the contractor or person for an extension of the time for submission of records. WHD will determine the reasonableness of the request and may consider, among other things, the location of the records and the volume of production.

(3) *Required information disclosures.* Contractors and subcontractors must maintain the full Social Security number and last known address, telephone number, and email address of each covered worker, and must provide them upon request to the contracting agency, the State DOT, the FHWA, the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or other compliance action.

4. Apprentices and equal employment opportunity (29 CFR 5.5)

a. *Apprentices (1) Rate of pay.* Apprentices will be permitted to work at less than the predetermined rate for the work they perform when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship (OA), or with a State Apprenticeship Agency recognized by the OA. A person who is not individually registered in the program, but who has been certified by the OA or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice, will be permitted to work at less than the predetermined rate for the work they perform in the first 90 days of probationary employment as an apprentice in such a program. In the event the OA or a State Apprenticeship Agency recognized by the OA withdraws approval of an apprenticeship program, the contractor will no longer be permitted to use apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(2) *Fringe benefits.* Apprentices must be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringe benefits must be paid in accordance with that determination.

(3) *Apprenticeship ratio.* The allowable ratio of apprentices to journeyworkers on the job site in any craft classification must not be greater than the ratio permitted to the contractor as to the entire work force under the registered program or the ratio applicable to the locality of the project pursuant to paragraph 4.a.(4) of this section. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated in paragraph 4.a.(1) of this section, must be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under this section must be paid not less than the applicable wage rate on the wage determination for the work actually performed.

(4) *Reciprocity of ratios and wage rates.* Where a contractor is performing construction on a project in a locality other than the locality in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyworker's hourly rate) applicable within the locality in which the construction is being performed must be observed. If there is no applicable ratio or wage rate for the locality of the project, the ratio and wage rate specified in the contractor's registered program must be observed.

b. *Equal employment opportunity.* The use of apprentices and journeyworkers under this part must be in conformity with [29 CFR part 30](#), including any amendments thereto.

c. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section III. 23 CFR 230.111(e)(2). The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeyworkers shall not be greater than permitted by the terms of the particular program.

5. Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract as provided in 29 CFR 5.5.

6. Subcontracts. The contractor or subcontractor must insert in any subcontracts the clauses set forth in paragraphs (1) through (11) of this section, along with the applicable wage determination(s) and such other clauses or contract modifications as the contracting agency may by appropriate instructions require, and a clause requiring the subcontractors to include these clauses and wage determination(s) in any lower tier subcontracts. The prime contractor is responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in this section. In the event of any violations of these clauses, the prime contractor and any subcontractor(s) responsible will be liable for any unpaid wages and monetary relief, including interest from the date of the underpayment or loss, due to any workers of lower-tier subcontractors, and may be subject to debarment, as appropriate. 29 CFR 5.5.

7. Contract termination: debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the

Proposal No. XXXXXX-CCCCC

contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

8. Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract as provided in 29 CFR 5.5.

9. Disputes concerning labor standards. As provided in 29 CFR 5.5, disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

10. Certification of eligibility. a. By entering into this contract, the contractor certifies that neither it nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of [40 U.S.C. 3144\(b\)](#) or § 5.12(a).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of [40 U.S.C. 3144\(b\)](#) or § 5.12(a).

c. The penalty for making false statements is prescribed in the U.S. Code, Title 18 Crimes and Criminal Procedure, [18 U.S.C. 1001](#).

11. Anti-retaliation. It is unlawful for any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, or to cause any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, any worker or job applicant for:

a. Notifying any contractor of any conduct which the worker reasonably believes constitutes a violation of the DBA, Related Acts, this part, or [29 CFR part 1](#) or [3](#);

b. Filing any complaint, initiating or causing to be initiated any proceeding, or otherwise asserting or seeking to assert on behalf of themselves or others any right or protection under the DBA, Related Acts, this part, or [29 CFR part 1](#) or [3](#);

c. Cooperating in any investigation or other compliance action, or testifying in any proceeding under the DBA, Related Acts, this part, or [29 CFR part 1](#) or [3](#); or

d. Informing any other person about their rights under the DBA, Related Acts, this part, or [29 CFR part 1](#) or [3](#).

IV. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

Pursuant to 29 CFR 5.5(b), the following clauses apply to any Federal-aid construction contract in an amount in excess of \$100,000 and subject to the overtime provisions of the

Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchpersons and guards.

1. Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek. 29 CFR 5.5.

2. Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph 1. of this section the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages and interest from the date of the underpayment. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchpersons and guards, employed in violation of the clause set forth in paragraph 1. of this section, in the sum currently provided in 29 CFR 5.5(b)(2)* for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph 1. of this section.

* \$33 as of January 15, 2025 (See 90 FR 1859) as may be adjusted annually by the Department of Labor, pursuant to the Federal Civil Penalties Inflation Adjustment Act of 1990.

3. Withholding for unpaid wages and liquidated damages

a. *Withholding process.* The FHWA or the contracting agency may, upon its own action, or must, upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor so much of the accrued payments or advances as may be considered necessary to satisfy the liabilities of the prime contractor or any subcontractor for any unpaid wages; monetary relief, including interest; and liquidated damages required by the clauses set forth in this section on this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract subject to the Contract Work Hours and Safety Standards Act that is held by the same prime contractor (as defined in § 5.2). The necessary funds may be withheld from the contractor under this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract that is subject to the Contract Work Hours and Safety Standards Act and is held by the same prime contractor, regardless of whether the other contract was awarded or assisted by the same agency, and such funds may be used to satisfy the contractor liability for which the funds were withheld.

b. *Priority to withheld funds.* The Department has priority to funds withheld or to be withheld in accordance with Section III paragraph 2.a. or paragraph 3.a. of this section, or both, over claims to those funds by:

Proposal No. XXXXXX-CCCCC

(1) A contractor's surety(ies), including without limitation performance bond sureties and payment bond sureties;

(2) A contracting agency for its procurement costs;

(3) A trustee(s) (either a court-appointed trustee or a U.S. trustee, or both) in bankruptcy of a contractor, or a contractor's bankruptcy estate;

(4) A contractor's assignee(s);

(5) A contractor's successor(s); or

(6) A claim asserted under the Prompt Payment Act, [31 U.S.C. 3901](#)–3907.

4. Subcontracts. The contractor or subcontractor must insert in any subcontracts the clauses set forth in paragraphs 1. through 5. of this section and a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor is responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs 1. through 5. In the event of any violations of these clauses, the prime contractor and any subcontractor(s) responsible will be liable for any unpaid wages and monetary relief, including interest from the date of the underpayment or loss, due to any workers of lower-tier subcontractors, and associated liquidated damages and may be subject to debarment, as appropriate.

5. Anti-retaliation. It is unlawful for any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, or to cause any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, any worker or job applicant for:

a. Notifying any contractor of any conduct which the worker reasonably believes constitutes a violation of the Contract Work Hours and Safety Standards Act (CWHSSA) or its implementing regulations in this part;

b. Filing any complaint, initiating or causing to be initiated any proceeding, or otherwise asserting or seeking to assert on behalf of themselves or others any right or protection under CWHSSA or this part;

c. Cooperating in any investigation or other compliance action, or testifying in any proceeding under CWHSSA or this part; or

d. Informing any other person about their rights under CWHSSA or this part.

V. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System pursuant to 23 CFR 635.116.

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of

the total original contract price, excluding any specialty items designated by the contracting agency. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635.116).

a. The term "perform work with its own organization" in paragraph 1. of this section refers to workers employed or leased by the prime contractor, and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions: (based on longstanding interpretation)

(1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;

(2) the prime contractor remains responsible for the quality of the work of the leased employees;

(3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and

(4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the contract as a whole and in general are to be limited to minor components of the overall contract. 23 CFR 635.102.

2. Pursuant to 23 CFR 635.116(a), the contract amount upon which the requirements set forth in paragraph 1. of this section is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. Pursuant to 23 CFR 635.116(c), the contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the contracting agency has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract. (based on longstanding interpretation of 23 CFR 635.116).

5. The 30-percent self-performance requirement of paragraph (1) is not applicable to design-build contracts; however,

Proposal No. XXXXXX-CCCCC

contracting agencies may establish their own self-performance requirements. 23 CFR 635.116(d).

VI. SAFETY: ACCIDENT PREVENTION

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR Part 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract. 23 CFR 635.108.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR Part 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704). 29 CFR 1926.10.

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

VII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, Form FHWA-1022 shall be posted on each Federal-aid highway project (23 CFR Part 635) in one or more places where it is readily available to all persons concerned with the project:

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the

character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 11, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined under this title or imprisoned not more than 5 years or both."

VIII. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT (42 U.S.C. 7606; 2 CFR 200.88; EO 11738)

This provision is applicable to all Federal-aid construction contracts in excess of \$150,000 and to all related subcontracts. 48 CFR 2.101; 2 CFR 200.327.

By submission of this bid/proposal or the execution of this contract or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, subcontractor, supplier, or vendor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401-7671q) and the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251-1387). Violations must be reported to the Federal Highway Administration and the Regional Office of the Environmental Protection Agency. 2 CFR Part 200, Appendix II.

The contractor agrees to include or cause to be included the requirements of this Section in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements. 2 CFR 200.327.

IX. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost \$25,000 or more – as defined in 2 CFR Parts 180 and 1200. 2 CFR 180.220 and 1200.220.

1. Instructions for Certification – First Tier Participants:

a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.

b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this

Proposal No. XXXXXX-CCCCC

covered transaction. The prospective first tier participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective first tier participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction. 2 CFR 180.320.

c. The certification in this clause is a material representation of fact upon which reliance was placed when the contracting agency determined to enter into this transaction. If it is later determined that the prospective participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the contracting agency may terminate this transaction for cause of default. 2 CFR 180.325.

d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances. 2 CFR 180.345 and 180.350.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180, Subpart I, 180.900-180.1020, and 1200. "First Tier Covered Transactions" refers to any covered transaction between a recipient or subrecipient of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a recipient or subrecipient of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

f. The prospective first tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction. 2 CFR 180.330.

g. The prospective first tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold. 2 CFR 180.220 and 180.300.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. 2 CFR 180.300; 180.320, and 180.325. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. 2 CFR 180.335. To verify the eligibility of its principals, as well as the

eligibility of any lower tier prospective participants, each participant may, but is not required to, check the System for Award Management website (<https://www.sam.gov/>). 2 CFR 180.300, 180.320, and 180.325.

i. Nothing contained in the foregoing shall be construed to require the establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of the prospective participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

j. Except for transactions authorized under paragraph (f) of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default. 2 CFR 180.325.

* * * * *

2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – First Tier Participants:

a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:

(1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency, 2 CFR 180.335;

(2) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property, 2 CFR 180.800;

(3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (a)(2) of this certification, 2 CFR 180.700 and 180.800; and

(4) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default. 2 CFR 180.335(d).

(5) Are not a corporation that has been convicted of a felony violation under any Federal law within the two-year period preceding this proposal (USDOT Order 4200.6 implementing appropriations act requirements); and

(6) Are not a corporation with any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability (USDOT Order 4200.6 implementing appropriations act requirements).

Proposal No. XXXXXX-CCCCC

b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant should attach an explanation to this proposal. 2 CFR 180.335 and 180.340.

3. Instructions for Certification - Lower Tier Participants:

(Applicable to all subcontracts, purchase orders, and other lower tier transactions requiring prior FHWA approval or estimated to cost \$25,000 or more - 2 CFR Parts 180 and 1200). 2 CFR 180.220 and 1200.220.

a. By signing and submitting this proposal, the prospective lower tier participant is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances. 2 CFR 180.365.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180, Subpart I, 180.900 – 180.1020, and 1200. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations. "First Tier Covered Transactions" refers to any covered transaction between a recipient or subrecipient of Federal funds and a participant (such as the prime or general contractor). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a recipient or subrecipient of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers to any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated. 2 CFR 1200.220 and 1200.332.

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold. 2 CFR 180.220 and 1200.220.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered

transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the System for Award Management website (<https://www.sam.gov/>), which is compiled by the General Services Administration. 2 CFR 180.300, 180.320, 180.330, and 180.335.

h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment. 2 CFR 180.325.

4. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Participants:

a. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals:

(1) is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency, 2 CFR 180.355;

(2) is a corporation that has been convicted of a felony violation under any Federal law within the two-year period preceding this proposal (USDOT Order 4200.6 implementing appropriations act requirements); and

(3) is a corporation with any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability. (USDOT Order 4200.6 implementing appropriations act requirements)

b. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant should attach an explanation to this proposal.

X. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts which exceed \$100,000. 49 CFR Part 20, App. A.

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

3. The prospective participant also agrees by submitting its bid or proposal that the participant shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such recipients shall certify and disclose accordingly.

XI. USE OF UNITED STATES-FLAG VESSELS:

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, or any other covered transaction. 46 CFR Part 381.

This requirement applies to material or equipment that is acquired for a specific Federal-aid highway project. 46 CFR 381.7. It is not applicable to goods or materials that come into inventories independent of an FHWA funded-contract.

When oceanic shipments (or shipments across the Great Lakes) are necessary for materials or equipment acquired for a specific Federal-aid construction project, the bidder, proposer, contractor, subcontractor, or vendor agrees:

1. To utilize privately owned United States-flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to this contract, to the

extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels. 46 CFR 381.7.

2. To furnish within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, 'on-board' commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (b)(1) of this section to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Office of Cargo and Commercial Sealift (MAR-620), Maritime Administration, Washington, DC 20590. (MARAD requires copies of the ocean carrier's (master) bills of lading, certified onboard, dated, with rates and charges. These bills of lading may contain business sensitive information and therefore may be submitted directly to MARAD by the Ocean Transportation Intermediary on behalf of the contractor). 46 CFR 381.7.

ATTACHMENT A - EMPLOYMENT AND MATERIALS PREFERENCE FOR APPALACHIAN DEVELOPMENT HIGHWAY SYSTEM OR APPALACHIAN LOCAL ACCESS ROAD CONTRACTS (40 U.S.C. sections 14501(d) and 14701 and the Appalachian Regional Commission Code as authorized under 40 U.S.C. section 14302)
This provision is applicable to all Federal-aid projects funded under the Appalachian Regional Development Act of 1965.

6. The contractor shall include the provisions of Sections 1 through 4 of this Attachment A in every subcontract for work which is, or reasonably may be, done as on-site work.

1. During the performance of this contract, the contractor undertaking to do work which is, or reasonably may be, done as on-site work, shall give preference to qualified persons who regularly reside in the labor area as designated by the DOL wherein the contract work is situated, or the subregion, or the Appalachian counties of the State wherein the contract work is situated, except:

a. To the extent that qualified persons regularly residing in the area are not available.

b. For the reasonable needs of the contractor to employ supervisory or specially experienced personnel necessary to assure an efficient execution of the contract work.

c. For the obligation of the contractor to offer employment to present or former employees as the result of a lawful collective bargaining contract, provided that the number of nonresident persons employed under this subparagraph (1c) shall not exceed 20 percent of the total number of employees employed by the contractor on the contract work, except as provided in subparagraph (4) below.

2. The contractor shall place a job order with the State Employment Service indicating (a) the classifications of the laborers, mechanics and other employees required to perform the contract work, (b) the number of employees required in each classification, (c) the date on which the participant estimates such employees will be required, and (d) any other pertinent information required by the State Employment Service to complete the job order form. The job order may be placed with the State Employment Service in writing or by telephone. If during the course of the contract work, the information submitted by the contractor in the original job order is substantially modified, the participant shall promptly notify the State Employment Service.

3. The contractor shall give full consideration to all qualified job applicants referred to him by the State Employment Service. The contractor is not required to grant employment to any job applicants who, in his opinion, are not qualified to perform the classification of work required.

4. If, within one week following the placing of a job order by the contractor with the State Employment Service, the State Employment Service is unable to refer any qualified job applicants to the contractor, or less than the number requested, the State Employment Service will forward a certificate to the contractor indicating the unavailability of applicants. Such certificate shall be made a part of the contractor's permanent project records. Upon receipt of this certificate, the contractor may employ persons who do not normally reside in the labor area to fill positions covered by the certificate, notwithstanding the provisions of subparagraph (1c) above.

5. The provisions of 40 U.S.C. 14501 allow the contracting agency to provide a contractual preference for the use of mineral resource materials native to the Appalachian region.

DOCUMENT 00811

SPECIAL PROVISIONS
MONTHLY PRICE ADJUSTMENT FOR HOT MIX ASPHALT (HMA) MIXTURES
Revised: 02/03/2023

This provision applies to all projects using greater than 100 tons of hot mix asphalt (HMA) mixtures containing liquid asphalt cement as stipulated in the Notice to Contractors section of the bid documents.

Price Adjustments will be based on the variance in price, for the liquid asphalt component only, between the Base Price and the Period Price. They shall not include transportation or other charges. Price Adjustments will occur on a monthly basis.

Base Price

The Base Price of liquid asphalt on a project as listed in the Notice to Contractors section of the bid documents is a fixed price determined by the Department at the time of the bid using the same method as the determination of the Period Price detailed below. The Base Price shall be used in all bids.

Period Price

The Period Price is the price of liquid asphalt for each monthly period as determined by the Department using the average selling price per standard ton of PG64-28 paving grade (primary binder classification) asphalt, FOB manufacturer's terminal, as listed under the "East Coast Market - New England, Boston, Massachusetts area" section of the Poten & Partners, Inc. "Asphalt Weekly Monitor". This average selling price is listed in the issue having a publication date of the second Friday of the month and will be posted as the Period Price for that month. The Department will post this Period Price on its website at <https://www.mass.gov/service-details/massdot-current-contract-price-adjustments> following its receipt of the relevant issue of the "Asphalt Weekly Monitor". Poten and Partners has granted the Department the right to publish this specific asphalt price information sourced from the Asphalt Weekly Monitor.

Price Adjustment Determination, Calculation and Payment

The Contract Price of the HMA mixture will be paid under the respective item in the Contract. Price Adjustments, as herein provided, either upwards or downwards, will be made after the work has been performed using the monthly period price for the month during which the work was performed.

Price Adjustments will be paid only if the variance from the Base Price is 5% or more for a monthly period. The complete adjustment will be paid in all cases with no deduction of the 5% from either upward or downward adjustments.

The Price Adjustment applies only to the actual virgin liquid asphalt content in the mixture placed on the job in accordance with the approved Job Mix Formula.

Price Adjustments will be separate payment items. The pay item numbers are 999.401 for a positive price adjustment (a payment) and 999.402 for a negative price adjustment (a deduction). Price Adjustments will be calculated using the following equation:

Price Adjustment = Tons of HMA Placed X Liquid Asphalt Content % X RAP Factor X (Period Price - Base Price)

No Price Adjustment will be allowed beyond the Completion Date of this Contract, unless there is a Department-approved extension of time.

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DOCUMENT 00812

SPECIAL PROVISIONS
MONTHLY PRICE ADJUSTMENT FOR DIESEL FUEL AND GASOLINE –
ENGLISH UNITS
Revised: 02/01/2021

This monthly fuel price adjustment is inserted in this contract because the national and worldwide energy situation has made the future cost of fuel unpredictable. This adjustment will provide for either additional compensation to the Contractor or repayment to the Commonwealth, depending on an increase or decrease in the average price of diesel fuel or gasoline.

This adjustment will be based on fuel usage factors for various items of work developed by the Highway Research Board in Circular 158, dated July 1974. These factors will be multiplied by the quantities of work done in each item during each monthly period and further multiplied by the variance in price from the Base Price to the Period Price.

The Base Price of Diesel Fuel and Gasoline will be the price as indicated in the Department's web site <https://www.mass.gov/service-details/massdot-current-contract-price-adjustments> for the month in which the contract was bid, which includes State Tax.

The Period Price will be the average of prices charged to the State, including State Tax for the bulk purchases made during each month.

This adjustment will be effected only if the variance from the Base Price is 5% or more for a monthly period. The complete adjustment will be paid in all cases with no deduction of the 5% from either upward or downward adjustments.

No adjustment will be paid for work done beyond the extended completion date of any contract.

Any adjustment (increase or decrease) to estimated quantities made to each item at the time of final payment will have the fuel price adjustment figured at the average period price for the entire term of the project for the difference of quantity.

The fuel price adjustment will apply only to the following items of work at the fuel factors shown:

ITEMS COVERED	FUEL FACTORS	
	Diesel	Gasoline
Excavation: and Borrow Work: Items 120, 120.1, 121, 123, 124, 125, 127, 129.3, 140, 140.1, 141, 142, 143, 144, 150, 150.1, 151 and 151.1 (Both Factors used)	0.29 Gallons / CY.	0.15 Gallons / CY
Surfacing Work: All Items containing Hot Mix Asphalt	2.90 Gallons / Ton	Does Not Apply

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DOCUMENT 00813

SPECIAL PROVISIONS

PRICE ADJUSTMENTS FOR STRUCTURAL STEEL AND REINFORCING STEEL

July 15, 2026

This special provision applies to all projects containing the use of structural steel and/or reinforcing steel as specified elsewhere in the Contract work. It applies to all structural steel and all reinforcing steel, as defined below, on the project. Compliance with this provision is mandatory, i.e., there are no “opt-in” or “opt-out” clauses. Price adjustments will be handled as described below and shall only apply to unfabricated reinforcing steel bars and unfabricated structural steel material, consisting of rolled shapes, plate steel, sheet piling, pipe piles, steel castings and steel forgings.

Price adjustments will be variances between Base Prices and Period Prices. Base Prices and Period Prices are defined below.

Price adjustments will only be made if the variances between Base Prices and Period Prices are 5% or more. A variance can result in the Period Price being either higher or lower than the Base Price. Once the 5% threshold has been achieved, the adjustment will apply to the full variance between the Base Price and the Period Price.

Price adjustments will be calculated by multiplying the number of pounds of unfabricated structural steel material or unfabricated reinforcing steel bars on a project by the index factor calculated as shown below under Example of a Period Price Calculation.

Price adjustments will not include guardrail panels or the costs of shop drawing preparation, handling, fabrication, coatings, transportation, storage, installation, profit, overhead, fuel costs, fuel surcharges, or other such charges not related to the cost of the unfabricated structural steel and unfabricated reinforcing steel.

The weight of steel subject to a price adjustment shall not exceed the final shipping weight of the fabricated part by more than 10%.

Base Prices and Period Prices are defined as follows:

Base Prices of unfabricated structural steel and unfabricated reinforcing steel on a project are fixed prices determined by the Department and found in the table below. While it is the intention of the Department to make this table comprehensive, some of a project’s unfabricated structural steel and/or unfabricated reinforcing steel may be inadvertently omitted. Should this occur, the Contractor shall bring the omission to the Department’s attention so that a contract alteration may be processed that adds the missing steel to the table and its price adjustments to the Contract.

The Base Price Date is the month and year of the most recent finalized period price index at the time that MassDOT opened bids for the project. The Base Price Index for this contract is the Steel PPI listed in the Notice to Contractors.

Period Prices of unfabricated structural steel and unfabricated reinforcing steel on a project are variable prices that have been calculated using the Period Price Date and an index of steel prices to adjust the Base Price.

The Period Price Date is the date the steel was delivered to the fabricator as evidenced by an official bill of lading submitted to the Department containing a description of the shipped materials, weights of the shipped materials and the date of shipment. This date is used to select the Period Price Index.

The index used for the calculation of Period Prices is the U.S. Department of Labor Bureau of Labor Statistics Producer Price Index (PPI) Series ID WPU101702 (Not Seasonally Adjusted, Group: Metals and Metal Products, Item: Semi-finished Steel Mill Products.) As this index is subject to revision for a period of up to four (4) months after its original publication, no price adjustments will be made until the index for the period is finalized, i.e., the index is no longer suffixed with a “(P)”.

Period Prices are determined as follows:

Period Price = Base Price X Index Factor

Index Factor = Period Price Index / Base Price Index

Example of a Period Price Calculation:

Calculate the Period Price for December 2009 using a Base Price from March 2009 of \$0.82/Pound for 1,000 Pounds of ASTM A709 (AASHTO M270) Grade A36 Structural Steel Plate.

The Period Price Date is December 2009. From the PPI website*, the Period Price Index = 218.0.

The Base Price Date is March 2009. From the PPI website*, the Base Price Index = 229.4.

Index Factor = Period Price Index / Base Price Index = $218.0 / 229.4 = 0.950$

Period Price = Base Price X Index Factor = $\$0.82/\text{Pound} \times 0.950 = \$0.78/\text{Pound}$

Since $\$0.82 - \$0.78 = \$0.04$ is less than 5% of \$0.82, no price adjustment is required.

If the \$0.04 difference shown above was greater than 5% of the Base Price, then the price adjustment would be 1,000 Pounds X \$0.04/Pound = \$40.00. Since the Period Price of \$0.78/Pound is less than the Base Price of \$0.82/Pound, indicating a drop in the price of steel between the bid and the delivery of material, a credit of \$40.00 would be owed to MassDOT. When the Period Price is higher than the Base Price, the price adjustment is owed to the Contractor.

* To access the PPI website and obtain a Base Price Index or a Period Price Index, go to <http://data.bls.gov/cgi-bin/srgate>

End of example.

The Contractor will be paid for unfabricated structural steel and unfabricated reinforcing steel under the respective contract pay items for all components constructed of either structural steel or reinforced Portland cement concrete under their respective Contract Pay Items.

Price adjustments, as herein provided for, will be paid separately as follows:

Structural Steel

Pay Item Number 999.449 for positive (+) pay adjustments (payments to the Contractor)

Pay Item Number 999.457 for negative (-) pay adjustments (credits to MassDOT Highway Division)

Reinforcing Steel

Pay Item Number 999.466 for positive (+) pay adjustments (payments to the Contractor)

Pay Item Number 999.467 for negative (-) pay adjustments (credits to MassDOT Highway Division)

No price adjustment will be made for price changes after the Contract Completion Date, unless the MassDOT Highway Division has approved an extension of Contract Time for the Contract.

TABLE

Steel Type		Price per Pound
1	ASTM A615/A615M Grade 60 (AASHTO M31 Grade 60 or 420) Reinforcing Steel	\$0.57
2	ASTM A27 (AASHTO M103) Steel Castings, H-Pile Points & Pipe Pile Shoes (See Note below.)	\$0.80
3	ASTM A668 / A668M (AASHTO M102) Steel Forgings	\$0.80
4	ASTM A108 (AASHTO M169) Steel Forgings for Shear Studs	\$0.82
5	ASTM A709/A709M Grade 36 / AASHTO M270M/M270 Grade 36 or 250 Structural Steel Plate	\$0.86
6	ASTM A709/A709M Grade 36 / AASHTO M270M/M270 Grade 36 or 250 Structural Steel Shapes	\$0.81
7	ASTM A709/A709M Grade 50 / AASHTO M270M/M270 Grade 50 or 345 Structural Steel Plate	\$0.86
8	ASTM A709/A709M Grade 50 / AASHTO M270M/M270 Grade 50 or 345 Structural Steel Shapes	\$0.81
9	ASTM A709/A709M Grade 50WT / AASHTO M270M/M270 Grade 50WT or 345WT Structural Steel Plate	\$0.89
10	ASTM A709/A709M Grade 50WT / AASHTO M270M/M270 Grade 50WT or 345WT Structural Steel Shapes	\$0.82
11	ASTM A709/A709M Grade 50W / AASHTO M270M/M270 Grade 50W 345W Structural Steel Plate	\$0.89
12	ASTM A709/A709M Grade 50W / AASHTO M270M/M270 Grade 50W or 345W Structural Steel Shapes	\$0.82
13	ASTM A709/A709M Grade HPS 50W / AASHTO M270M/M270 Grade HPS 50W or 345W Structural Steel Plate	\$0.93
14	ASTM A709/A709M Grade HPS 70W / AASHTO M270M/M270 Grade HPS 70W or 485W Structural Steel Plate	\$1.00
15	ASTM A514/A514M-05 Grade HPS 100W / AASHTO M270M/M270 Grade HPS 100W or 690W Structural Steel Plate	\$1.53
16	ASTM A992/A992M Grade 50S / AASHTO M270M/M270 Grade 50S or 345S Structural Steel Plate	\$0.89
17	ASTM A992/A992M Grade 50S / AASHTO M270M/M270 Grade 50S or 345S Structural Steel Shapes	\$0.82
18	ASTM A276 Type 316 Stainless Steel	\$4.61
19	ASTM A240 Type 316 Stainless Steel	\$4.61
20	ASTM A148 Grade 80/50 Steel Castings (See Note below.)	\$1.58
21	ASTM A53 Grade B Structural Steel Pipe	\$1.00
22	ASTM A500 Grades A, B, 36 & 50 Structural Steel Pipe	\$1.00
23	ASTM A252, Grades 240 (36 KSI) & 414 (60 KSI) Pipe Pile	\$0.80
24	ASTM 252, Grade 2 Permanent Steel Casing	\$0.80
25	ASTM A36 (AASHTO M183) for H-piles, steel supports and sign supports	\$0.84
26	ASTM A328 / A328M, Grade 50 (AASHTO M202) Steel Sheetpiling	\$1.51
27	ASTM A572 / A572M, Grade 50 Sheetpiling	\$1.51
28	ASTM A36/36M, Grade 50	\$0.86
29	ASTM A570, Grade 50	\$0.84
30	ASTM A572 (AASHTO M223), Grade 50 H-Piles	\$0.86
31	ASTM A1085 Grade A (50 KSI) Steel Hollow Structural Sections (HSS), heat-treated per ASTM A1085 Supplement S1	\$1.00
32	AREA 140 LB Rail and Track Accessories	\$0.52

NOTE: Steel Castings are generally used only on moveable bridges. Cast iron frames, grates and pipe are not "steel" castings and will not be considered for price adjustments.

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DOCUMENT 00814

SPECIAL PROVISIONS
PRICE ADJUSTMENT FOR PORTLAND CEMENT CONCRETE MIXES

January 12, 2009

This provision applies to all projects using greater than 100 Cubic Yards (76 Cubic Meters) of Portland cement concrete containing Portland cement as stipulated in the Notice to Contractors section of the Bid Documents. This Price Adjustment will occur on a monthly basis.

The Price Adjustment will be based on the variance in price for the Portland cement component only from the Base Price to the Period Price. It shall not include transportation or other charges.

The Base Price of Portland cement on a project is a fixed price determined at the time of bid by the Department by using the same method as for the determination of the Period Price (see below) and found in the Notice to Contractors.

The Period Price of Portland cement will be determined by using the latest published price, in dollars per ton (U.S.), for Portland cement (Type I) quoted for Boston, U.S.A. in the **Construction Economics** section of *ENR Engineering News-Record* magazine or at the ENR website <http://www.enr.com> under **Construction Economics**. The Period Price will be posted on the MassDOT website the Wednesday immediately following the publishing of the monthly price in ENR, which is normally the first week of the month.

The Contract Price of the Portland cement concrete mix will be paid under the respective item in the Contract. The price adjustment, as herein provided, upwards or downwards, will be made after the work has been performed, using the monthly period price for the month during which the work was performed.

The price adjustment applies only to the actual Portland cement content in the mix placed on the job in accordance with the Standard Specifications for Highways and Bridges, Division III, Section M4.02.01. No adjustments will be made for any cement replacement materials such as fly ash or ground granulated blast furnace slag.

The Price Adjustment will be a separate payment item. It will be determined by multiplying the number of cubic yards of Portland cement concrete placed during each monthly period times the Portland cement content percentage times the variance in price between the Base Price and Period Price of Portland cement.

This Price Adjustment will be paid only if the variance from the Base Price is 5% or more for a monthly period. The complete adjustment will be paid in all cases with no deduction of the 5% from either upward or downward adjustments.

No Price Adjustment will be allowed beyond the Completion Date of this Contract, unless there is a Department-approved extension of time.

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DOCUMENT 00820

**THE COMMONWEALTH OF MASSACHUSETTS
SUPPLEMENTAL EQUAL EMPLOYMENT OPPORTUNITY,
NON-DISCRIMINATION AND AFFIRMATIVE ACTION PROGRAM**

I. Definitions

For purposes of this contract,

"Minority" means a person who meets one or more of the following definitions:

- (a) American Indian or Native American means: all persons having origins in any of the original peoples of North America and who are recognized as an Indian by a tribe or tribal organization.
- (b) Asian means: All persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian sub-continent, or the Pacific Islands, including, but Not limited to China, Japan, Korea, Samoa, India, and the Philippine Islands.
- (c) Black means: All persons having origins in any of the Black racial groups of Africa, including, but not limited to, African-Americans, and all persons having origins in any of the original peoples of the Cape Verdean Islands.
- (d) Eskimo or Aleut means: All persons having origins in any of the peoples of Northern Canada, Greenland, Alaska, and Eastern Siberia.
- (e) Hispanic means: All persons having their origins in any of the Spanish-speaking peoples of Mexico, Puerto Rico, Cuba, Central or South America, or the Caribbean Islands.

"State construction contract" means a contract for the construction, reconstruction, installation, demolition, maintenance or repair of a building or capital facility, or a contract for the construction, reconstruction, alteration, remodeling or repair of a public work undertaken by a department, agency, board, or commission of the commonwealth.

"State assisted construction contract" means a contract for the construction, reconstruction, installation, demolition, maintenance or repair of a building or capital facility undertaken by a political subdivision of the commonwealth, or two or more political subdivisions thereof, an authority, or other instrumentality and whose costs of the contract are paid for, reimbursed, grant funded, or otherwise supported, in whole or in part, by the commonwealth.

II. Equal Opportunity, Non-Discrimination and Affirmative Action

During the performance of this Contract, the Contractor and all subcontractors (hereinafter collectively referred to as "the Contractor") for a state construction contract or a state assisted construction contract, for him/herself, his/her assignees and successors in interest, agree to comply with all applicable equal employment opportunity, non-discrimination and affirmative action requirements, including but not limited to the following:

In connection with the performance of work under this contract, the Contractor shall not discriminate against any employee or applicant for employment because of race, color, religious creed, national origin, sex, sexual orientation, genetic information, military service, age, ancestry or disability, shall not discriminate in the selection or retention of subcontractors, and shall not discriminate in the procurement of materials and rentals of equipment.

The aforesaid provision shall include, but not be limited to, the following: employment upgrading, demotion, or transfer; recruitment advertising, layoff or termination; rates of pay or other forms of compensation; conditions or privileges of employment; and selection for apprenticeship or on-the-job training opportunity. The Contractor shall comply with the provisions of chapter 151B of the Massachusetts General Laws, as amended, and all other applicable anti-discrimination and equal opportunity laws, all of which are herein incorporated by reference and made a part of this Contract.

The Contractor shall post hereafter in conspicuous places, available for employees and applicants for employment, notices to be provided by the Massachusetts Commission Against Discrimination setting forth the provisions of the Fair Employment Practices Law of the Commonwealth (Massachusetts General Laws Chapter 151 B).

In connection with the performance of work under this contract, the Contractor shall undertake, in good faith, affirmative action measures to eliminate any discriminatory barriers in the terms and conditions of employment on the grounds of race, color, religious creed, national origin, sex, sexual orientation, genetic information, military service, age, ancestry or disability. Such affirmative action measures shall entail positive and aggressive measures to ensure nondiscrimination and to promote equal opportunity in the areas of hiring, upgrading, demotion or transfer, recruitment, layoff or termination, rate of compensation, apprenticeship and on-the-job training programs. A list of positive and aggressive measures shall include, but not be limited to, advertising employment opportunities in minority and other community news media; notifying minority, women and other community-based organizations of employment opportunities; validating all job specifications, selection requirements, and tests; maintaining a file of names and addresses of each worker referred to the Contractor and what action was taken concerning such worker; and notifying the administering agency in writing when a union with whom the Contractor has a collective bargaining agreement has failed to refer a minority or woman worker. These and other affirmative action measures shall include all actions required to guarantee equal employment opportunity for all persons, regardless of race, color, religious creed, national origin, sex, sexual orientation, genetic information, military service, age, ancestry or disability. One purpose of this provision is to ensure to the fullest extent possible an adequate supply of skilled tradesmen for this and future Commonwealth public construction projects.

III. Minority and Women Workforce Participation

Pursuant to his/her obligations under the preceding section, the Contractor shall strive to achieve on this project the labor participation goals contained herein. Said participation goals shall apply in each job category on this project including but not limited to bricklayers, carpenters, cement masons, electricians, ironworkers, operating engineers and those classes of work enumerated in Section 44F of Chapter 149 of the Massachusetts General Laws. The participation goals for this project shall be 15.3% for minorities and 6.9% for women. The participation goals, as set forth herein, shall not be construed as quotas or set-asides; rather, such participation goals will be used to measure the progress of the Commonwealth's equal opportunity, non-discrimination and affirmative action program. Additionally, the participation goals contained herein should not be seen or treated as a floor or as a ceiling for the employment of particular individuals or group of individuals.

IV. Liaison Committee

At the discretion of the agency that administers the contract for the construction project there may be established for the life of the contract a body to be known as the Liaison Committee. The Liaison Committee shall be composed of one representative each from the agency or agencies administering the contract for the construction project, hereinafter called the administering agency, a representative from the Office of Affirmative action, and such other representatives as may be designated by the administering agency. The Contractor (or his/her agent, if any, designated by him/her as the on-site equal employment opportunity officer) shall recognize the Liaison Committee as an affirmative action body, and shall establish a continuing working relationship with the Liaison Committee, consulting with the Liaison Committee on all matters related to minority recruitment, referral, employment and training.

V. Reports and Records

The Contractor shall prepare projected workforce tables on a quarterly basis when required by the administering agency. These shall be broken down into projections, by week, of workers required in each trade. Copies shall be furnished one week in advance of the commencement of the period covered, and also, when updated, to the administering agency and the Liaison Committee when required.

The Contractor shall prepare weekly reports in a form approved by the administering agency, unless information required is required to be reported electronically by the administering agency, the number of hours worked in each trade by each employee, identified as woman, minority, or non-minority. Copies of these shall be provided at the end of each such week to the administering agency and the Liaison Committee.

Records of employment referral orders, prepared by the Contractor, shall be made available to the administering agency on request.

The Contractor will provide all information and reports required by the administering agency on instructions issued by the administering agency and will permit access to its facilities and any books, records, accounts and other sources of information which may be determined by the administering agency to effect the employment of personnel. This provision shall apply only to information pertinent to the Commonwealth's supplementary non-discrimination, equal opportunity and access and opportunity contract requirements. Where information required is in the exclusive possession of another who fails or refuses to furnish this information, the Contractor shall so certify to the administering agency and shall set forth what efforts he has made to obtain the information.

VI. Access to Work Site

A designee of the administering agency and a designee of the Liaison Committee shall each have a right to access the work site.

VII. Solicitations for Subcontracts, and for the Procurement of Materials and Equipment

In all solicitations either by competitive bidding or negotiation made by the Contractor either for work to be performed under a subcontract or for the procurement of materials or equipment, each potential subcontractor or supplier shall be notified in writing by the Contractor of the Contractor's obligations under this contract relative to non-discrimination and equal opportunity.

VIII. Sanctions

Whenever the administering agency believes the General or Prime Contractor or any subcontractor may not be operating in compliance with the provisions of the Fair Employment Practices Law of the Commonwealth (Massachusetts General Laws Chapter 151B), the administering agency may refer the matter to the Massachusetts Commission Against Discrimination ("Commission") for investigation.

Following the referral of a matter by the administering agency to the Massachusetts Commission Against Discrimination, and while the matter is pending before the MCAD, the administering agency may withhold payments from contractors and subcontractors when it has documentation that the contractor or subcontractor has violated the Fair Employment Practices Law with respect to its activities on the Project, or if the administering agency determines that the contractor has materially failed to comply with its obligations and the requirements of this Section. The amount withheld shall not exceed a withhold of payment to the General or Prime Contractor of 1/100 or 1% of the contract award price or \$5,000, whichever sum is greater, or, if a subcontractor is in non-compliance, a withhold by the administering agency from the General Contractor, to be assessed by the General Contractor as a charge against the subcontractor, of 1/100 or 1% of the subcontractor price, or \$1,000 whichever sum is greater, for each violation of the applicable law or contract requirements. The total withheld from anyone General or Prime Contractor or subcontractor on a Project shall not exceed \$20,000 overall. No withhold of payments or investigation by the Commission or its agent shall be initiated without the administering agency providing prior notice to the Contractor.

If, after investigation, the Massachusetts Commission Against Discrimination finds that a General or Prime Contractor or subcontractor, in commission of a state construction contract or state-assisted construction contract, violated the provisions of the Fair Employment Practices Law, the administering agency may convert the amount withheld as set forth above into a permanent sanction, as a permanent deduct from payments to the General or Prime Contractor or subcontractor, which sanction will be in addition to any such sanctions, fines or penalties imposed by the Massachusetts Commission Against Discrimination.

No sanction enumerated under this Section shall be imposed by the administering agency except after notice to the General or Prime Contractor or subcontractor and an adjudicatory proceeding, as that term is used, under Massachusetts General Laws Chapter 30A, has been conducted.

IX. Severability

The provisions of this section are severable, and if any of these provisions shall be held unconstitutional by any court of competent jurisdiction, the decision of such court shall not affect or impair any of the remaining provisions.

X. Contractor's Certification

After award and prior to the execution of any contract for a state construction contract or a state assisted construction contract, the Prime or General Contractor shall certify that it will comply with all provisions of this Document 00820 Supplemental Equal Employment Opportunity, Non-Discrimination and Affirmative Action Program, by executing Document 00859 Contractor/Subcontractor Certification Form.

XI. Subcontractor Requirements

Prior to the award of any subcontract for a state construction contract or a state assisted construction contract, the Prime or General Contractor shall provide all prospective subcontractors with a complete copy of this Document 00820 entitled "Supplemental Equal Employment Opportunity, Non-Discrimination and Affirmative Action Program" and will incorporate the provisions of this Document 00820 into any and all contracts or work orders for all subcontractors providing work on the Project. In order to ensure that the said subcontractor's certification becomes a part of all subcontracts under the prime contract, the Prime or General Contractor shall certify in writing to the administering agency that it has complied with the requirements as set forth in the preceeding paragraph by executing Document 00859 Contractor/Subcontractor Certification Form.

Rev'd 03/07/14

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DOCUMENT 00821

**ELECTRONIC REPORTING REQUIREMENTS
CIVIL RIGHTS PROGRAMS AND CERTIFIED PAYROLL**

Implemented on March 2, 2009

Revised June 04, 2019

The Massachusetts Department Of Transportation (MassDOT) has replaced the CHAMP reporting system with Equitable Business Opportunity Solution (EBO), a new web-based civil rights reporting software system. This system is capable of handling both civil rights reporting requirements and certified payrolls. The program's functions include the administration of Equal Employment Opportunity (EEO) requirements, On-The-Job Training requirements (OJT), Disadvantage Business Enterprise (DBE) and/or Minority / Women's Business Enterprise (M/WBE) subcontracting requirements, and the electronic collection of certified payrolls associated with MassDOT projects. In addition, this system is used to generate various data required as part of the American Recovery and Reinvestment Act (ARRA). Contractors are responsible for all coordination with all sub-contractors to ensure timely and accurate electronic submission of all required data.

Contractor and Sub-Contractor EBO User Certification

All contractors and sub-contractors must use the EBO software system. The software vendor, Internet Government Solutions (IGS), has developed an online EBO Training Module that is available to contractors and sub-contractors. This module is a self-tutorial which allows all users in the company to access the training, complete the tutorial, and become certified as EBO users for a one time fee of \$75.00. This is the only cost to contractors and sub-contractors associated with the EBO software system. The online EBO Training Module can be accessed at www.ebotraining.com. Click the "Register My Company" button on the login page to begin your training registration. Questions regarding EBO online training should be directed to Gerry Anguilano, IGS at (440) 238-1684.

MassDOT will track contractors and sub-contractors who have successfully completed the on-line training module. All persons performing civil rights program and/or certified payroll functions should be EBO certified.

Vetting of Firms and Designated Firm Individuals

Contractors must authorize a Primary Log-In ID Holder who has completed EBO on-line training to have access to the EBO system by completing and submitting the "Request For EBO System Log-In/Password Form" located on the MassDOT website at: <https://www.mass.gov/how-to/how-to-get-an-ebo-login>. Contractors must also agree to comply with the EBO system user agreement located on the MassDOT website.

All subcontracts entered into on a project must include language that identifies the submission and training requirements that the sub-contractor must perform. Sub-contractors will be approved by the respective District Office of MassDOT through the existing approval process. When new sub-contractors, who have not previously worked for MassDOT, are initially selected by a general contractor, the new sub-contractor must be approved by the District before taking the EBO on-line training module.

Interim Reporting Requirements

Until MassDOT is satisfied that the EBO system is fully operational and functioning as designed, contractors and sub-contractors will be required to submit certified payrolls manually. There will be a transition period where dual reporting, through manual and electronic submission, will be required. MassDOT, however, will notify contractors and sub-contractors when they may cease manual submission of certified payrolls.

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DOCUMENT 00859

CONTRACTOR/SUBCONTRACTOR CERTIFICATION FORM ‡*The contractor shall submit this completed document 00859 to MassDOT for each subcontract.*_____
(Contractor) Date: __________
(Subcontractor) ☐ District Approved
SubcontractorContract No: 135788 Project No. 609277 Federal Aid No.: CRP/STP-0031(023)XLocation: NORTH ADAMSProject Description: Reconstruction of Ashland Street

PART 1 CONTRACTOR CERTIFICATION: I hereby certify, as an authorized official of this company, that to the best of my knowledge, information and belief, the company is in compliance with all applicable federal and state laws, rules, and regulations governing fair labor and employment practices, that the company will not discriminate in their employment practices, that the company will make good faith efforts to comply with the minority employee and women employee workforce participation ratio goals and specific affirmative action steps contained in Contract Document 00820 The Commonwealth of Massachusetts Supplemental Equal Employment Opportunity, Non-Discrimination and Affirmative Action Program, and that the company will comply with the special provisions and documentation indicated below (as checked).

I further hereby certify, as an authorized official of this company, that the special provisions and documentation indicated below (as checked) have been or are included in, and made part of, the Subcontractor Agreement entered into with the firm named above.

☐ **This is not a Federally-aided construction project****Document #**

- ☐ 00718 –Participation By Minority Or Women's Business Enterprises and SDVOBE†
- ☐ 00761 –Certification Regarding Debarment, Suspension, Ineligibility, and Voluntary Exclusion
- ☐ 00820 – MA Supplemental Equal Employment Opportunity, Non-Discrimination, and Affirmative Action Program
- ☐ 00821 – Electronic Reporting Requirements, Civil Rights Programs, and Certified Payroll
- ☐ 00859 – Contractor/Subcontractor Certification Form (this document)
- ☐ 00860 – MA Employment Laws
- ☐ 00861 – Applicable State Wage Rates in the Contract Proposal**
- ☐ B00842 – MA Schedule of Participation By Minority or Women Business Enterprises (M/WBEs)†
- ☐ B00843 – MA Letter of Intent – M/WBEs†
 - ** Does not apply to Material Suppliers, unless performing work on-site
 - † Applies only if Subcontractor is a M/WBE; only include these forms for the particular M/WBE Entity
- ☐ B00844 - Schedule of Participation By SDVOBE
- ☐ B00845 - Letter of Intent – SDVOBE
- ☐ B00846 – M/WBE or SDVOBE Joint Check Arrangement Approval Form
- ☐ B00847 – Joint Venture Affidavit

☐ **This is a Federally-aided construction project (Federal Aid Number is present)****Document #**

- ☐ 00719 – Special Provisions for Participation by Disadvantaged Business Enterprises†
- ☐ 00760 - Form FHWA 1273 - Required Contract Provisions for Federal-Aid Construction Contracts
- ☐ 00820 – MA Supplemental Equal Employment Opportunity, Non-Discrimination and Affirmative Action Program
- ☐ 00821 – Electronic Reporting Requirements, Civil Rights Programs and Certified Payroll
- ☐ 00859 – Contractor/Subcontractor Certification Form (this document)
- ☐ 00860 – MA Employment Laws
- ☐ 00870 – Standard Federal Equal Employment Opportunity Construction Contract Specifications Executive Order 11246, (41 CFR Parts 60-4.2 and 60-4.3 (Solicitations and Equal Opportunity Clauses)*
- ☐ 00875 – Federal Trainee Special Provisions

- ☐ B00853 – Schedule of Participation by Disadvantaged Business Enterprise†
☐ B00854 – Letter of Intent – DBEs†
☐ B00855 – DBE Joint Check Arrangement Approval Form
☐ B00856 – Joint Venture Affidavit
☐ 00861/00880 - Applicable state and federal wage rates from Contract Proposal**

*Applicable only to Contracts or Subcontracts in excess of \$10,000

**Does not apply to Material Suppliers, unless performing work on-site

† Applies only if Subcontractor is a DBE; only include these forms for the particular DBE Entity

Signed this _____ Day of _____, 20____ Under The Pains And Penalties Of Perjury.

 (Print Name and Title)

 (Authorized Signature)

PART 2

PART 2. SUBCONTRACTOR CERTIFICATION: I hereby certify, as an authorized official of this company, that the required documents in Part 1 above were physically incorporated in our Agreement/Subcontract with the Contractor and give assurance that this company will fully comply or make every good faith effort to comply with the same. I further certify that:

1. This company recognizes that if this is a Federal-Aid Project, then this Contract is covered by the equal employment opportunity laws administered and enforced by the United States Department of Labor ("USDOL"), Office of Federal Contract Compliance Programs ("OFCCP"). By signing below, we acknowledge that this company has certain reporting obligations to the OFCCP, as specified by 41 CFR Part 60-4.2.
2. This company further acknowledges that any contractor with fifty (50) or more employees on a Federal-aid Contract with a value of fifty-thousand (\$50,000) dollars or more must annually file an EEO-1 Report (SF 100) to the EEOC, Joint Reporting Committee, on or before September 30th, each year, as specified by 41 CFR Part 60-1.7a.
3. For more information regarding the federal reporting requirements, please contact the USDOL, OFCCP Regional Office, at 1-646-264-3170 or EEO-1, Joint Reporting Committee at 1-866-286-6440. You may also find guidance at: <http://www.dol.gov/ofccp/TAguides/consttag.pdf> or <http://www.wdol.gov/dba.aspx#0>.
4. This company ☐ has, ☐ has not, participated in a previous contract or subcontract subject to the Equal Opportunity clauses set forth in 41 CFR Part 60-4 and Executive Order 11246, and where required, has filed with the Joint Reporting Committee, the Director of the Office of Federal Contract Compliance Programs or the EEO Commission all reports due under the applicable filing requirements.
5. This company is in full compliance with applicable Federal and Commonwealth of Massachusetts laws, rules, and regulations and is not currently debarred or disqualified from bidding on or participating in construction contracts in any jurisdiction of the United States. See : <https://www.mass.gov/service-details/contractors-and-vendors-suspended-or-debarred-by-massdot>
6. This company is properly registered and in good standing with the Office of the Secretary of the Commonwealth.

Signed this _____ Day of _____, 20____, Under The Pains And Penalties Of Perjury.

Firm: _____

Address: _____

 (Print Name and Title)

Telephone Number: _____

Federal I.D. Number: _____

Estimated Start Date: _____

Estimated Completion Date: _____

Estimated Dollar Amount: _____

 (Authorized Signature)

 (Date)

DOCUMENT 00860

COMMONWEALTH OF MASSACHUSETTS PUBLIC EMPLOYMENT LAWS

Revised February 20, 2019

The Contractor's attention is directed to Massachusetts General Laws, Chapter 149, Sections 26 through 27H, and 150A. This contract is considered to fall within the ambit of that law, which provides that in general, the Prevailing Rate or Total Rate must be paid to employees working on projects funded by the Commonwealth of Massachusetts or any political subdivision including Massachusetts Department of Transportation (MassDOT).

A Federal Aid project is also subject to the Federal Minimum Wage Rate law for construction. When comparing a state minimum wage rate, monitored by the Massachusetts Attorney General, versus federal minimum wage rate, monitored by the U.S. Department of Labor Wage and Hour Division, for a particular job classification the higher wage is at all times to be paid to the affected employee.

Every contractor or subcontractor engaged in this contract to which sections twenty-seven and twenty-seven A apply will keep a true and accurate record of all mechanics and apprentices, teamsters, chauffeurs and laborers employed thereon, showing the name, address and occupational classification of each such employee on this contract, and the hours worked by, and the wages paid to, each such employee, and shall furnish to the MassDOT's Resident Engineer, on a weekly basis, a copy of said record, in a form approved by MassDOT and in accordance with M.G.L. c. 149, § 27B, signed by the employer or his/her authorized agent under the penalties of perjury.

Each such contractor or subcontractor shall preserve its payroll records for a period of three years from the date of completion of the contract.

The Prevailing Wage Rate generally includes the following:

Minimum Hourly Wage + Employer Contributions to Benefit Plans = Prevailing Wage Rate or Total Rate

Any employer who does not make contributions to Benefit Plans must pay the total Prevailing Wage Rate directly to the employee.

Any deduction from the Prevailing Wage Rate or Total Rate for contributions to benefit plans can only be for a Health & Welfare, Pension, or Supplementary Unemployment plan meeting the requirements of the Employee Retirement Income Security Act (ERISA) of 1974. The maximum allowable deduction for these benefits from the prevailing wage rate cannot be greater than the amount allowed by Executive Office of Labor (EOL) for the specified benefits. Any additional expense of providing benefits to the employees is to be borne by the employer and cannot be deducted from the Minimum Hourly Wage. If the employer's benefit expense is less than that so provided by EOL the difference will be paid directly to the employee. The rate established must be paid to all employees who perform work on the project.

When an employer makes deductions from the Minimum Hourly Wage for an employee's contribution to social security, state taxes, federal taxes, and/or other contribution programs, allowed by law, the employer shall furnish each employee a suitable pay slip, check stub or envelope notifying the employee of the amount of the deductions.

No contractor or subcontractor contracting for any part of the contract week shall require or permit any laborer or mechanic to be employed on such work in excess of forty hours in any workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times his basic rate of pay for all hours worked in excess of forty hours in such workweek, whichever is the greater number of overtime hours.

Apprentice Rates are permitted only when there is an Apprentice Agreement registered with the Massachusetts Division of Apprentice Training in accordance with M.G.L. c. 23, § 11E-11L.

The Prevailing Wage Rates issued for each project shall be the rates paid for the entire project. The Prevailing Wage Rates must be posted on the job site at all times and be visible from a public way.

In addition, each such contractor and subcontractor shall furnish to the MassDOT's Resident Engineer, within fifteen days after completion of its portion of the work, a statement, executed by the contractor or subcontractor or by any authorized officer or employee of the contractor or subcontractor who supervises the payment of wages, in the following form:

STATEMENT OF COMPLIANCE

Date: _____

I, _____ do hereby state:
(Name of signatory party) (Title)

That I pay or supervise the payment of the persons employed by:

(Contractor or Subcontractor)

on the _____
(MassDOT Project Location and Contract Number)

and that all mechanics and apprentices, teamsters, chauffeurs and laborers employed on said project have been paid in accordance with wages determined under the provisions of sections twenty-six and twenty-seven of chapter one hundred and forty-nine of the General Laws.

Signature _____

Title _____

The above-mentioned copies of payroll records and statements of compliance shall be available for inspection by any interested party filing a written request to the MassDOT's Resident Engineer for such inspection and copying.

Massachusetts General Laws c. 149, §27, requires annual updates to prevailing wage schedules for all public construction contracts lasting longer than one year. MassDOT will request the required updates and furnish them to the Contractor. The Contractor is required to pay no less than the wage rates indicated on the annual updated wage schedules.

MassDOT will request the updates no later than two week before the anniversary of the Notice to Proceed date of the contract to allow for adequate processing by the Department of Labor Standards (DLS). The effective date for the new rates will be the anniversary date of the contract (i.e. the notice to proceed date), regardless of the date of issuance on the schedule from DLS.

All bidders are cautioned that the aforementioned laws require that employers pay to covered employees no less than the applicable minimum wages. In addition, the same laws require that the applicable prevailing wages become incorporated as part of this contract. The prevailing minimum wage law establishes serious civil and criminal penalties for violations, including imprisonment and exclusion from future public contracts. Bidders are cautioned to carefully read the relevant sections of the Massachusetts General Laws.

*** END OF DOCUMENT ***

DOCUMENT 00861

STATE PREVAILING WAGE RATES

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**THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT
DEPARTMENT OF LABOR STANDARDS
Prevailing Wage Rates**

MAURA HEALEY
Governor

KIM DRISCOLL
Lt. Governor

As determined by the Director under the provisions of the
Massachusetts General Laws, Chapter 149, Sections 26 to 27H

LAUREN JONES
Secretary
MICHAEL FLANAGAN
Director

Awarding Authority:	Massachusetts Highway	City/Town:	NORTH ADAMS
Contract Number:	135788		
Description of Work:	NORTH ADAMS- FAP No. CRP/STP-0031(023)X Reconstruction of Ashland Street		
Job Location:	Ashland Street		

Information about Prevailing Wage Schedules for Awarding Authorities and Contractors

- The wage rates will remain in effect for the duration of the project, except in the case of multi-year public construction projects. For construction projects lasting longer than one year, awarding authorities must request an updated wage schedule no later than two weeks before the anniversary of the date the contract was executed by the awarding authority and the general contractor. For multi-year CM AT RISK projects, the awarding authority must request an annual update no later than two weeks before the anniversary date, determined as the earlier of: (a) the execution date of the GMP Amendment, or (b) the execution date of the first amendment to permit procurement of construction services. The updated wage schedule must be provided to all contractors, including general and sub-contractors, working on the construction project.
- This annual update requirement is generally not applicable to 27F "rental of equipment" contracts. For such contracts, the prevailing wage rates issued by DLS shall remain in effect for the duration of the contract term. However, if the prevailing wage rate sheet issued does not contain wage rates for each year covered by the contract term, the Awarding Authority must request updated rate sheets from DLS and provide them to the contractor to ensure the correct rates are being paid throughout the duration of the contract. Additionally, if an Awarding Authority exercises an option to renew or extend the contract term, they must request updated rate sheets from DLS and provide them to the contractor.
- This wage schedule applies only to the specific project referenced at the top of this page and uniquely identified by the "Wage Request Number" on all pages of this schedule.
- An Awarding Authority must request an updated wage schedule if it has not opened bids or selected a contractor within 90 days of the date of issuance of the wage schedule. For CM AT RISK projects (bid pursuant to G.L. c.149A), the earlier of: (a) the execution date of the GMP Amendment, or (b) the bid for the first construction scope of work must be within 90-days of the wage schedule issuance date.
- The wage schedule shall be incorporated in any advertisement or call for bids for the project as required by M.G.L. c. 149, § 27. The wage schedule shall be made a part of the contract awarded for the project. The wage schedule must be posted in a conspicuous place at the work site for the life of the project in accordance with M.G.L. c. 149 § 27. The wages listed on the wage schedule must be paid to employees performing construction work on the project whether they are employed by the prime contractor, a filed sub-bidder, or a sub-contractor.
- Apprentices working on the project are required to be registered with the Massachusetts Division of Apprentice Standards (DAS). Apprentices must keep their apprentice identification card on their persons during all work hours on the project. An apprentice registered with DAS may be paid the lower apprentice wage rate at the applicable step as provided on the prevailing wage schedule. **Any apprentice not registered with DAS regardless of whether they are registered with another federal, state, local, or private agency must be paid the journeyworker's rate.**
- Every contractor or subcontractor working on the construction project must submit weekly payroll reports and a Statement of Compliance directly to the awarding authority by mail or email and keep them on file for three years. Each weekly payroll report must contain: the employee's name, address, occupational classification, hours worked, and wages paid. Do not submit weekly payroll reports to DLS. For a sample payroll reporting form go to <http://www.mass.gov/dols/pw>.
- Contractors with questions about the wage rates or classifications included on the wage schedule have an affirmative obligation to inquire with DLS at (617) 626-6953.
- Contractors must obtain the wage schedules from awarding authorities. Failure of a contractor or subcontractor to pay the prevailing wage rates listed on the wage schedule to all employees who perform construction work on the project is a violation of the law and subjects the contractor or subcontractor to civil and criminal penalties.
- Employees not receiving the prevailing wage rate set forth on the wage schedule may file a complaint with the Fair Labor Division of the office of the Attorney General at (617) 727-3465.

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
(2 AXLE) DRIVER - EQUIPMENT	6/1/2026	\$41.95	\$16.17	\$21.78	\$0.00	\$0.00	\$79.90
TEAMSTERS JOINT COUNCIL NO. 10	12/1/2026	\$41.95	\$16.17	\$23.52	\$0.00	\$0.00	\$81.64
TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	1/1/2027	\$41.95	\$16.77	\$23.52	\$0.00	\$0.00	\$82.24
(3 AXLE) DRIVER - EQUIPMENT	6/1/2026	\$42.02	\$16.17	\$21.78	\$0.00	\$0.00	\$79.97
TEAMSTERS JOINT COUNCIL NO. 10	12/1/2026	\$42.02	\$16.17	\$23.52	\$0.00	\$0.00	\$81.71
TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	1/1/2027	\$42.02	\$16.77	\$23.52	\$0.00	\$0.00	\$82.31
(4 & 5 AXLE) DRIVER - EQUIPMENT	6/1/2026	\$42.14	\$16.17	\$21.78	\$0.00	\$0.00	\$80.09
TEAMSTERS JOINT COUNCIL NO. 10	12/1/2026	\$42.14	\$16.17	\$23.52	\$0.00	\$0.00	\$81.83
TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	1/1/2027	\$42.14	\$16.77	\$23.52	\$0.00	\$0.00	\$82.43
ADS/SUBMERSIBLE PILOT	8/1/2024	\$117.16	\$10.08	\$11.62	\$12.67	\$0.00	\$151.53
PILE DRIVER LOCAL 56							
PILE DRIVER LOCAL 56 (ZONE 3)							
For apprentice rates see "Apprentice- PILE DRIVER"							
AIR TRACK OPERATOR	6/1/2026	\$36.97	\$10.90	\$9.75	\$6.60	\$0.00	\$64.22
LABORERS	12/1/2026	\$39.39	\$10.90	\$9.75	\$6.60	\$0.00	\$66.64
LABORERS - ZONE 4 (BUILDING & SITE)	6/1/2027	\$40.79	\$10.90	\$9.75	\$6.60	\$0.00	\$68.04
	12/1/2027	\$42.19	\$10.90	\$9.75	\$6.60	\$0.00	\$69.44
	6/1/2028	\$43.69	\$10.90	\$9.75	\$6.60	\$0.00	\$70.94
	12/1/2028	\$45.19	\$10.90	\$9.75	\$6.60	\$0.00	\$72.44
For apprentice rates see "Apprentice- LABORER"							
AIR TRACK OPERATOR (HEAVY & HIGHWAY)	6/1/2026	\$37.75	\$10.90	\$9.75	\$6.60	\$0.00	\$65.00
LABORERS	12/1/2026	\$39.04	\$10.90	\$9.75	\$6.60	\$0.00	\$66.29
LABORERS - ZONE 4 (HEAVY & HIGHWAY)							
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"							
ASBESTOS WORKER (PIPES & TANKS)	12/1/2025	\$40.32	\$14.50	\$4.30	\$6.25	\$0.00	\$65.37
HEAT & FROST INSULATORS LOCAL 6							
HEAT & FROST INSULATORS LOCAL 6 (SPRINGFIELD)							
ASPHALT RAKER	6/1/2026	\$36.47	\$10.90	\$9.75	\$6.60	\$0.00	\$63.72
LABORERS	12/1/2026	\$38.89	\$10.90	\$9.75	\$6.60	\$0.00	\$66.14
LABORERS - ZONE 4 (BUILDING & SITE)	6/1/2027	\$40.29	\$10.90	\$9.75	\$6.60	\$0.00	\$67.54
	12/1/2027	\$41.69	\$10.90	\$9.75	\$6.60	\$0.00	\$68.94
	6/1/2028	\$43.19	\$10.90	\$9.75	\$6.60	\$0.00	\$70.44
	12/1/2028	\$47.26	\$9.90	\$9.25	\$5.53	\$0.00	\$71.94
	6/1/2205	\$34.29	\$9.90	\$0.00	\$0.00	\$0.00	\$44.19
	12/1/2205	\$36.79	\$9.90	\$9.25	\$5.53	\$0.00	\$61.47
	6/1/2206	\$39.29	\$9.90	\$9.25	\$5.53	\$0.00	\$63.97
	12/1/2206	\$41.46	\$9.90	\$9.25	\$5.53	\$0.00	\$66.14
	6/1/2207	\$43.11	\$9.90	\$9.25	\$5.53	\$0.00	\$67.79
	12/1/2207	\$44.51	\$9.90	\$9.25	\$5.53	\$0.00	\$69.19
	6/1/2208	\$46.01	\$9.90	\$9.25	\$5.53	\$0.00	\$70.69
	12/1/2208	\$44.94	\$10.90	\$9.75	\$6.60	\$0.00	\$72.19
For apprentice rates see "Apprentice- LABORER"							
ASPHALT RAKER (HEAVY & HIGHWAY)	6/1/2026	\$37.25	\$10.90	\$9.75	\$6.60	\$0.00	\$64.50

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
LABORERS	12/1/2026	\$38.54	\$10.90	\$9.75	\$6.60	\$0.00	\$65.79
LABORERS - ZONE 4 (HEAVY & HIGHWAY)							
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)							
AUTOMATIC GRADER-EXCAVATOR (RECLAIMER)	12/1/2023	\$39.56	\$13.78	\$12.15	\$3.00	\$0.00	\$68.49
OPERATING ENGINEERS LOCAL 98							
OPERATING ENGINEERS LOCAL 98							
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
BACKHOE/FRONT-END LOADER OPERATOR	12/1/2023	\$39.56	\$13.78	\$12.15	\$3.00	\$0.00	\$68.49
OPERATING ENGINEERS LOCAL 98							
OPERATING ENGINEERS LOCAL 98							
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
BARCO-TYPE JUMPING TAMPER	6/1/2026	\$36.47	\$10.90	\$9.75	\$6.60	\$0.00	\$63.72
LABORERS	12/1/2026	\$38.89	\$10.90	\$9.75	\$6.60	\$0.00	\$66.14
LABORERS - ZONE 4 (BUILDING & SITE)							
	6/1/2027	\$40.29	\$10.90	\$9.75	\$6.60	\$0.00	\$67.54
	12/1/2027	\$41.69	\$10.90	\$9.75	\$6.60	\$0.00	\$68.94
	6/1/2028	\$43.19	\$10.90	\$9.75	\$6.60	\$0.00	\$70.44
	12/1/2028	\$47.26	\$9.90	\$9.25	\$5.53	\$0.00	\$71.94
	6/1/2205	\$34.29	\$9.90	\$0.00	\$0.00	\$0.00	\$44.19
	12/1/2205	\$36.79	\$9.90	\$9.25	\$5.53	\$0.00	\$61.47
	6/1/2206	\$39.29	\$9.90	\$9.25	\$5.53	\$0.00	\$63.97
	12/1/2206	\$41.46	\$9.90	\$9.25	\$5.53	\$0.00	\$66.14
	6/1/2207	\$43.11	\$9.90	\$9.25	\$5.53	\$0.00	\$67.79
	12/1/2207	\$44.51	\$9.90	\$9.25	\$5.53	\$0.00	\$69.19
	6/1/2208	\$46.01	\$9.90	\$9.25	\$5.53	\$0.00	\$70.69
	12/1/2208	\$44.94	\$10.90	\$9.75	\$6.60	\$0.00	\$72.19
For apprentice rates see "Apprentice- LABORER"							
BATCH/CEMENT PLANT - ON SITE	12/1/2023	\$39.03	\$13.78	\$12.15	\$3.00	\$0.00	\$67.96
OPERATING ENGINEERS LOCAL 98							
OPERATING ENGINEERS LOCAL 98							
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
BLOCK PAVER, RAMMER / CURB SETTER	6/1/2026	\$36.97	\$10.90	\$9.75	\$6.60	\$0.00	\$64.22
LABORERS	12/1/2026	\$39.39	\$10.90	\$9.75	\$6.60	\$0.00	\$66.64
LABORERS - ZONE 4 (BUILDING & SITE)							
	6/1/2027	\$40.79	\$10.90	\$9.75	\$6.60	\$0.00	\$68.04
	12/1/2027	\$42.19	\$10.90	\$9.75	\$6.60	\$0.00	\$69.44
	6/1/2028	\$43.69	\$10.90	\$9.75	\$6.60	\$0.00	\$70.94
	12/1/2028	\$45.19	\$10.90	\$9.75	\$6.60	\$0.00	\$72.44
For apprentice rates see "Apprentice- LABORER"							
BLOCK PAVER, RAMMER / CURB SETTER (HEAVY & HIGHWAY)	6/1/2026	\$37.75	\$10.90	\$9.75	\$6.60	\$0.00	\$65.00
LABORERS	12/1/2026	\$39.04	\$10.90	\$9.75	\$6.60	\$0.00	\$66.29
LABORERS - ZONE 4 (HEAVY & HIGHWAY)							
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)							
BOILER MAKER	1/1/2024	\$48.12	\$7.07	\$14.60	\$6.00	\$0.00	\$75.79
BOILERMAKERS LOCAL 29							
BOILERMAKERS LOCAL 29							

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
Apprentice: BOILER MAKER							
Effective Date: 1/1/2024							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	65.00	\$31.28	\$7.07	\$9.32	\$3.90	\$0.00	\$51.57
2	65.00	\$31.28	\$7.07	\$9.32	\$3.90	\$0.00	\$51.57
3	70.00	\$33.68	\$7.07	\$10.03	\$4.20	\$0.00	\$54.98
4	75.00	\$36.09	\$7.07	\$10.74	\$4.50	\$0.00	\$58.40
5	80.00	\$38.50	\$7.07	\$11.45	\$4.80	\$0.00	\$61.82
6	85.00	\$40.90	\$7.07	\$12.18	\$5.10	\$0.00	\$65.25
7	90.00	\$43.31	\$7.07	\$12.88	\$5.40	\$0.00	\$68.66
8	95.00	\$45.71	\$7.07	\$13.62	\$5.70	\$0.00	\$72.10

Apprentice to Journeyworker Ratio: 1:4

BRICK/STONE/ARTIFICIAL MASONRY (INCL. MASONRY WATERPROOFING)	2/1/2026	\$56.36	\$12.84	\$15.57	\$5.89	\$0.00	\$90.66
BRICKLAYERS LOCAL 3	8/1/2026	\$58.56	\$12.84	\$15.57	\$5.89	\$0.00	\$92.86
BRICKLAYERS LOCAL 3 (SPRINGFIELD/PITTSFIELD)	2/1/2027	\$59.96	\$12.84	\$15.57	\$5.89	\$0.00	\$94.26

Apprentice: BRICK/STONE/ARTIFICIAL MASONRY (INCL. MASONRY WATERPROOFING)							
Effective Date: 2/1/2026							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$28.18	\$12.84	\$15.57	\$5.89	\$0.00	\$62.48
2	60.00	\$33.82	\$12.84	\$15.57	\$5.89	\$0.00	\$68.12
3	70.00	\$39.45	\$12.84	\$15.57	\$5.89	\$0.00	\$73.75
4	80.00	\$45.09	\$12.84	\$15.57	\$5.89	\$0.00	\$79.39
5	90.00	\$50.72	\$12.84	\$15.57	\$5.89	\$0.00	\$85.02

Apprentice: BRICK/STONE/ARTIFICIAL MASONRY (INCL. MASONRY WATERPROOFING)							
Effective Date: 8/1/2026							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$29.28	\$12.84	\$15.57	\$5.89	\$0.00	\$63.58
2	60.00	\$35.14	\$12.84	\$15.57	\$5.89	\$0.00	\$69.44
3	70.00	\$40.99	\$12.84	\$15.57	\$5.89	\$0.00	\$75.29
4	80.00	\$46.85	\$12.84	\$15.57	\$5.89	\$0.00	\$81.15
5	90.00	\$52.70	\$12.84	\$15.57	\$5.89	\$0.00	\$87.00

Apprentice to Journeyworker Ratio: 1:5

BULLDOZER/POWER SHOVEL/TREE SHREDDER /CLAM SHELL	12/1/2023	\$39.56	\$13.78	\$12.15	\$3.00	\$0.00	\$68.49
OPERATING ENGINEERS LOCAL 98							
OPERATING ENGINEERS LOCAL 98							
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
CAISSON & UNDERPINNING BOTTOM MAN	6/1/2026	\$50.40	\$10.90	\$9.75	\$9.80	\$0.00	\$80.85
LABORERS	12/1/2026	\$51.90	\$10.90	\$9.75	\$9.80	\$0.00	\$82.35
LABORERS - FOUNDATION AND MARINE							
For apprentice rates see "Apprentice- LABORER"							
CAISSON & UNDERPINNING LABORER	6/1/2026	\$49.25	\$10.90	\$9.75	\$9.80	\$0.00	\$79.70
LABORERS	12/1/2026	\$50.75	\$10.90	\$9.75	\$9.80	\$0.00	\$81.20
LABORERS - FOUNDATION AND MARINE							
For apprentice rates see "Apprentice- LABORER"							
CAISSON & UNDERPINNING TOP MAN	6/1/2026	\$49.58	\$10.90	\$9.75	\$9.80	\$0.00	\$80.03
LABORERS	12/1/2026	\$51.08	\$10.90	\$9.75	\$9.80	\$0.00	\$81.53
LABORERS - FOUNDATION AND MARINE							
For apprentice rates see "Apprentice- LABORER"							
CARBIDE CORE DRILL OPERATOR	6/1/2026	\$36.47	\$10.90	\$9.75	\$6.60	\$0.00	\$63.72
LABORERS	12/1/2026	\$38.89	\$10.90	\$9.75	\$6.60	\$0.00	\$66.14
LABORERS - ZONE 4 (BUILDING & SITE)	6/1/2027	\$40.29	\$10.90	\$9.75	\$6.60	\$0.00	\$67.54
	12/1/2027	\$41.69	\$10.90	\$9.75	\$6.60	\$0.00	\$68.94
	6/1/2028	\$43.19	\$10.90	\$9.75	\$6.60	\$0.00	\$70.44
	12/1/2028	\$47.26	\$9.90	\$9.25	\$5.53	\$0.00	\$71.94
	6/1/2205	\$34.29	\$9.90	\$0.00	\$0.00	\$0.00	\$44.19
	12/1/2205	\$36.79	\$9.90	\$9.25	\$5.53	\$0.00	\$61.47
	6/1/2206	\$39.29	\$9.90	\$9.25	\$5.53	\$0.00	\$63.97
	12/1/2206	\$41.46	\$9.90	\$9.25	\$5.53	\$0.00	\$66.14
	6/1/2207	\$43.11	\$9.90	\$9.25	\$5.53	\$0.00	\$67.79
	12/1/2207	\$44.51	\$9.90	\$9.25	\$5.53	\$0.00	\$69.19
	6/1/2208	\$46.01	\$9.90	\$9.25	\$5.53	\$0.00	\$70.69
	12/1/2208	\$44.94	\$10.90	\$9.75	\$6.60	\$0.00	\$72.19
For apprentice rates see "Apprentice- LABORER"							
CARPENTER	3/1/2026	\$43.81	\$9.19	\$11.25	\$6.90	\$0.00	\$71.15
CARPENTERS	9/1/2026	\$44.76	\$9.19	\$11.25	\$6.90	\$0.00	\$72.10
CARPENTERS LOCAL 336 - BERKSHIRE COUNTY	3/1/2027	\$45.66	\$9.19	\$11.25	\$6.90	\$0.00	\$73.00

Apprentice: CARPENTER

Effective Date: 3/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	45.00	\$19.71	\$9.19	\$0.00	\$1.38	\$0.00	\$30.28
2	45.00	\$19.71	\$9.19	\$0.00	\$1.38	\$0.00	\$30.28
3	55.00	\$24.10	\$9.19	\$0.00	\$2.76	\$0.00	\$36.05
4	55.00	\$24.10	\$9.19	\$0.00	\$2.76	\$0.00	\$36.05
5	70.00	\$30.67	\$9.19	\$11.25	\$4.14	\$0.00	\$55.25
6	70.00	\$30.67	\$9.19	\$11.25	\$4.14	\$0.00	\$55.25
7	80.00	\$35.05	\$9.19	\$11.25	\$5.52	\$0.00	\$61.01
8	80.00	\$35.05	\$9.19	\$11.25	\$5.52	\$0.00	\$61.01

Construction

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

Apprentice to Journeyworker Ratio: 1:5

CARPENTER WOOD FRAME	10/1/2025	\$27.37	\$7.38	\$4.47	\$1.00	\$0.00	\$40.22
CARPENTERS	10/1/2026	\$28.47	\$7.38	\$4.47	\$1.00	\$0.00	\$41.32
CARPENTERS-ZONE 3 (Wood Frame)							
All Aspects of New Wood Frame Work							

Apprentice: CARPENTER WOOD FRAME							
Effective Date: 10/1/2025							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	60.00	\$16.42	\$7.38	\$0.00	\$0.00	\$0.00	\$23.80
2	60.00	\$16.42	\$7.38	\$0.00	\$0.00	\$0.00	\$23.80
3	65.00	\$17.79	\$7.38	\$0.00	\$1.00	\$0.00	\$26.17
4	70.00	\$19.16	\$7.38	\$0.00	\$1.00	\$0.00	\$27.54
5	75.00	\$20.53	\$7.38	\$3.80	\$1.00	\$0.00	\$32.71
6	80.00	\$21.90	\$7.38	\$3.80	\$1.00	\$0.00	\$34.08
7	85.00	\$23.26	\$7.38	\$3.80	\$1.00	\$0.00	\$35.44
8	90.00	\$24.63	\$7.38	\$3.80	\$1.00	\$0.00	\$36.81

Apprentice: CARPENTER WOOD FRAME							
Effective Date: 10/1/2026							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	60.00	\$17.08	\$7.38	\$0.00	\$0.00	\$0.00	\$24.46
2	60.00	\$17.08	\$7.38	\$0.00	\$0.00	\$0.00	\$24.46
3	65.00	\$18.51	\$7.38	\$0.00	\$1.00	\$0.00	\$26.89
4	70.00	\$19.93	\$7.38	\$0.00	\$1.00	\$0.00	\$28.31
5	75.00	\$21.35	\$7.38	\$3.80	\$1.00	\$0.00	\$33.53
6	80.00	\$22.78	\$7.38	\$3.80	\$1.00	\$0.00	\$34.96
7	85.00	\$24.20	\$7.38	\$3.80	\$1.00	\$0.00	\$36.38
8	90.00	\$25.62	\$7.38	\$3.80	\$1.00	\$0.00	\$37.80

Apprentice to Journeyworker Ratio: 1:5

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
CEMENT MASONRY/PLASTERING	7/1/2026	\$49.32	\$13.20	\$16.30	\$2.93	\$1.69	\$83.44
PLASTERERS AND CEMENT MASONS LOCAL 534	1/1/2027	\$50.51	\$13.20	\$16.30	\$2.93	\$1.69	\$84.63
Plasterers and Cement Masons - Zone 2	7/1/2027	\$51.70	\$13.20	\$16.30	\$2.93	\$1.69	\$85.82
	1/1/2028	\$52.89	\$13.20	\$16.30	\$2.93	\$1.69	\$87.01

Apprentice: CEMENT MASONRY/PLASTERING

Effective Date: 7/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$24.66	\$13.20	\$16.30	\$0.00	\$0.00	\$54.16
2	60.00	\$29.59	\$13.20	\$16.30	\$2.93	\$1.69	\$63.71
3	65.00	\$32.06	\$13.20	\$16.30	\$2.93	\$1.69	\$66.18
4	70.00	\$34.52	\$13.20	\$16.30	\$2.93	\$1.69	\$68.64
5	75.00	\$36.99	\$13.20	\$16.30	\$2.93	\$1.69	\$71.11
6	80.00	\$39.46	\$13.20	\$16.30	\$2.93	\$1.69	\$73.58
7	90.00	\$44.39	\$13.20	\$16.30	\$2.93	\$0.00	\$76.82

Apprentice: CEMENT MASONRY/PLASTERING

Effective Date: 1/1/2027

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$25.26	\$16.30	\$16.30	\$0.00	\$0.00	\$57.86
2	60.00	\$30.31	\$16.30	\$16.30	\$2.93	\$1.69	\$67.53
3	65.00	\$32.83	\$16.30	\$16.30	\$2.93	\$1.69	\$70.05
4	70.00	\$35.36	\$16.30	\$16.30	\$2.93	\$1.69	\$72.58
5	75.00	\$37.88	\$16.30	\$16.30	\$2.93	\$1.69	\$75.10
6	80.00	\$40.41	\$16.30	\$16.30	\$2.93	\$1.69	\$77.63
7	90.00	\$45.46	\$16.30	\$16.30	\$2.93	\$0.00	\$80.99

Apprentice to Journeyworker Ratio: 1:5

CHAIN SAW OPERATOR	6/1/2026	\$36.47	\$10.90	\$9.75	\$6.60	\$0.00	\$63.72
LABORERS	12/1/2026	\$38.89	\$10.90	\$9.75	\$6.60	\$0.00	\$66.14
LABORERS - ZONE 4 (BUILDING & SITE)	6/1/2027	\$40.29	\$10.90	\$9.75	\$6.60	\$0.00	\$67.54
	12/1/2027	\$41.69	\$10.90	\$9.75	\$6.60	\$0.00	\$68.94
	6/1/2028	\$43.19	\$10.90	\$9.75	\$6.60	\$0.00	\$70.44
	12/1/2028	\$47.26	\$9.90	\$9.25	\$5.53	\$0.00	\$71.94
	6/1/2205	\$34.29	\$9.90	\$0.00	\$0.00	\$0.00	\$44.19
	12/1/2205	\$36.79	\$9.90	\$9.25	\$5.53	\$0.00	\$61.47
	6/1/2206	\$39.29	\$9.90	\$9.25	\$5.53	\$0.00	\$63.97
	12/1/2206	\$41.46	\$9.90	\$9.25	\$5.53	\$0.00	\$66.14
	6/1/2207	\$43.11	\$9.90	\$9.25	\$5.53	\$0.00	\$67.79
	12/1/2207	\$44.51	\$9.90	\$9.25	\$5.53	\$0.00	\$69.19
	6/1/2208	\$46.01	\$9.90	\$9.25	\$5.53	\$0.00	\$70.69
	12/1/2208	\$44.94	\$10.90	\$9.75	\$6.60	\$0.00	\$72.19

For apprentice rates see "Apprentice- LABORER"

COMPRESSOR OPERATOR	12/1/2023	\$39.03	\$13.78	\$12.15	\$3.00	\$0.00	\$67.96
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Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
OPERATING ENGINEERS LOCAL 98							
OPERATING ENGINEERS LOCAL 98							
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
CRANE OPERATOR	12/1/2023	\$43.06	\$13.78	\$12.15	\$3.00	\$0.00	\$71.99
OPERATING ENGINEERS LOCAL 98							
OPERATING ENGINEERS LOCAL 98							
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
DELEADER (BRIDGE)	1/1/2026	\$59.56	\$10.35	\$12.00	\$12.60	\$0.00	\$94.51
PAINTERS LOCAL 35							
PAINTERS LOCAL 35 - ZONE 3							

Apprentice: DELEADER (BRIDGE)							
Effective Date: 1/1/2026							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$29.78	\$10.35	\$0.00	\$0.00	\$0.00	\$40.13
2	55.00	\$32.76	\$10.35	\$0.00	\$6.93	\$0.00	\$50.04
3	60.00	\$35.74	\$10.35	\$0.00	\$7.56	\$0.00	\$53.65
4	65.00	\$38.71	\$10.35	\$0.00	\$8.19	\$0.00	\$57.25
5	70.00	\$41.69	\$10.35	\$12.00	\$8.82	\$0.00	\$72.86
6	75.00	\$44.67	\$10.35	\$12.00	\$9.45	\$0.00	\$76.47
7	80.00	\$47.65	\$10.35	\$12.00	\$10.08	\$0.00	\$80.08
8	90.00	\$53.60	\$10.35	\$12.00	\$11.34	\$0.00	\$87.29

Apprentice to Journeyworker Ratio: 1:1

DEMO: ADZEMAN	6/1/2026	\$49.30	\$10.90	\$9.75	\$9.65	\$0.00	\$79.60
LABORERS	12/7/2026	\$50.80	\$10.90	\$9.75	\$9.65	\$0.00	\$81.10
LABORERS - ZONE 4 (BUILDING & SITE)	6/7/2027	\$52.40	\$10.90	\$9.75	\$9.65	\$0.00	\$82.70
	12/6/2027	\$54.00	\$10.90	\$9.75	\$9.65	\$0.00	\$84.30
	6/5/2028	\$55.68	\$10.90	\$9.75	\$9.65	\$0.00	\$85.98
	12/4/2028	\$57.35	\$10.90	\$9.75	\$9.65	\$0.00	\$87.65
For apprentice rates see "Apprentice- LABORER"							
DEMO: BACKHOE/LOADER/HAMMER OPERATOR	6/1/2026	\$50.30	\$10.90	\$9.75	\$9.65	\$0.00	\$80.60
LABORERS	12/7/2026	\$51.80	\$10.90	\$9.75	\$9.65	\$0.00	\$82.10
LABORERS - ZONE 4 (BUILDING & SITE)	6/7/2027	\$53.40	\$10.90	\$9.75	\$9.65	\$0.00	\$83.70
	12/6/2027	\$55.00	\$10.90	\$9.75	\$9.65	\$0.00	\$85.30
	6/5/2028	\$56.68	\$10.90	\$9.75	\$9.65	\$0.00	\$86.98
	12/4/2028	\$58.35	\$10.90	\$9.75	\$9.65	\$0.00	\$88.65
For apprentice rates see "Apprentice- LABORER"							
DEMO: BURNERS	6/1/2026	\$50.05	\$10.90	\$9.75	\$9.65	\$0.00	\$80.35
LABORERS	12/7/2026	\$51.55	\$10.90	\$9.75	\$9.65	\$0.00	\$81.85
LABORERS - ZONE 4 (BUILDING & SITE)	6/7/2027	\$53.15	\$10.90	\$9.75	\$9.65	\$0.00	\$83.45
	12/6/2027	\$54.75	\$10.90	\$9.75	\$9.65	\$0.00	\$85.05
	6/5/2028	\$56.43	\$10.90	\$9.75	\$9.65	\$0.00	\$86.73
	12/4/2028	\$58.10	\$10.90	\$9.75	\$9.65	\$0.00	\$88.40

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
For apprentice rates see "Apprentice- LABORER"							
DEMO: CONCRETE CUTTER/SAWYER	6/1/2026	\$50.30	\$10.90	\$9.75	\$9.65	\$0.00	\$80.60
LABORERS	12/7/2026	\$51.80	\$10.90	\$9.75	\$9.65	\$0.00	\$82.10
LABORERS - ZONE 4 (BUILDING & SITE)	6/7/2027	\$53.40	\$10.90	\$9.75	\$9.65	\$0.00	\$83.70
	12/6/2027	\$55.00	\$10.90	\$9.75	\$9.65	\$0.00	\$85.30
	6/5/2028	\$56.68	\$10.90	\$9.75	\$9.65	\$0.00	\$86.98
	12/4/2028	\$58.35	\$10.90	\$9.75	\$9.65	\$0.00	\$88.65
For apprentice rates see "Apprentice- LABORER"							
DEMO: JACKHAMMER OPERATOR	6/1/2026	\$50.05	\$10.90	\$9.75	\$9.65	\$0.00	\$80.35
LABORERS	12/7/2026	\$51.55	\$10.90	\$9.75	\$9.65	\$0.00	\$81.85
LABORERS - ZONE 4 (BUILDING & SITE)	6/7/2027	\$53.15	\$10.90	\$9.75	\$9.65	\$0.00	\$83.45
	12/6/2027	\$54.75	\$10.90	\$9.75	\$9.65	\$0.00	\$85.05
	6/5/2028	\$56.43	\$10.90	\$9.75	\$9.65	\$0.00	\$86.73
	12/4/2028	\$58.10	\$10.90	\$9.75	\$9.65	\$0.00	\$88.40
For apprentice rates see "Apprentice- LABORER"							
DEMO: WRECKING LABORER	6/1/2026	\$49.30	\$10.90	\$9.75	\$9.65	\$0.00	\$79.60
LABORERS	12/7/2026	\$50.80	\$10.90	\$9.75	\$9.65	\$0.00	\$81.10
LABORERS - ZONE 4 (BUILDING & SITE)	6/7/2027	\$52.40	\$10.90	\$9.75	\$9.65	\$0.00	\$82.70
	12/6/2027	\$54.00	\$10.90	\$9.75	\$9.65	\$0.00	\$84.30
	6/5/2028	\$55.68	\$10.90	\$9.75	\$9.65	\$0.00	\$85.98
	12/4/2028	\$57.35	\$10.90	\$9.75	\$9.65	\$0.00	\$87.65
For apprentice rates see "Apprentice- LABORER"							
DIVER	8/1/2024	\$78.11	\$10.08	\$11.62	\$12.67	\$0.00	\$112.48
PILE DRIVER LOCAL 56							
PILE DRIVER LOCAL 56 (ZONE 3)							
as of 8-1-24, Apprentices with diving licenses begin at second year. % of Diver wage 70/80/90 2A \$69.83, 3A \$91.79,4A \$102.14 Total Rate							
DIVER TENDER	8/1/2024	\$49.19	\$10.08	\$11.62	\$12.67	\$0.00	\$83.56
PILE DRIVER LOCAL 56							
PILE DRIVER LOCAL 56 (ZONE 3)							
as of 8-1-24, Apprentices with diving licenses begin at second year. % of Piledriver wage 70/80/90 2A \$54.20, 3A \$73.93,4A \$82.05 Total Rate							
DIVER TENDER (EFFLUENT)	8/1/2024	\$83.69	\$10.08	\$11.62	\$12.67	\$0.00	\$118.06
PILE DRIVER LOCAL 56							
PILE DRIVER LOCAL 56 (ZONE 3)							
For apprentice rates see "Apprentice- PILE DRIVER"							
DIVER/SLURRY (EFFLUENT)	8/1/2024	\$117.16	\$10.08	\$11.62	\$12.67	\$0.00	\$151.53
PILE DRIVER LOCAL 56							
PILE DRIVER LOCAL 56 (ZONE 3)							
For apprentice rates see "Apprentice- PILE DRIVER"							
DRAWBRIDGE OPERATOR (Construction)	7/1/2020	\$26.77	\$6.67	\$3.93	\$0.00	\$0.16	\$37.53
DRAWBRIDGE - SEIU LOCAL 888							
DRAWBRIDGE - SEIU LOCAL 888							
ELECTRICIAN (Including Core Drilling)	6/28/2026	\$54.41	\$14.00	\$8.43	\$7.03	\$0.00	\$83.87
ELECTRICIANS LOCAL 7	1/3/2027	\$55.56	\$14.25	\$8.47	\$7.09	\$0.00	\$85.37
ELECTRICIANS LOCAL 7							

Construction

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

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

Apprentice to Journeyworker Ratio: 2:3

ELEVATOR CONSTRUCTOR	1/1/2026	\$69.23	\$16.38	\$11.06	\$10.70	\$0.00	\$107.37
ELEVATOR CONSTRUCTORS LOCAL 41	1/1/2027	\$72.23	\$16.48	\$11.16	\$11.00	\$0.00	\$110.87
ELEVATOR CONSTRUCTORS LOCAL 41							

Apprentice: ELEVATOR CONSTRUCTOR							
Effective Date: 1/1/2026							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$34.62	\$16.38	\$0.00	\$0.00	\$0.00	\$51.00
2	55.00	\$38.08	\$16.38	\$11.06	\$10.70	\$0.00	\$76.22
3	65.00	\$45.00	\$16.38	\$11.06	\$10.70	\$0.00	\$83.14
4	70.00	\$48.46	\$16.38	\$11.06	\$10.70	\$0.00	\$86.60
5	80.00	\$55.38	\$16.38	\$11.06	\$10.70	\$0.00	\$93.52

Apprentice: ELEVATOR CONSTRUCTOR							
Effective Date: 1/1/2027							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$36.12	\$16.48	\$0.00	\$0.00	\$0.00	\$52.60
2	55.00	\$39.73	\$16.48	\$11.16	\$11.00	\$0.00	\$78.37
3	65.00	\$46.95	\$16.48	\$11.16	\$11.00	\$0.00	\$85.59

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
Apprentice: ELEVATOR CONSTRUCTOR Effective Date: 1/1/2027							
		Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
4 70.00		\$50.56	\$16.48	\$11.16	\$11.00	\$0.00	\$89.20
5 80.00		\$57.78	\$16.48	\$11.16	\$11.00	\$0.00	\$96.42
Apprentice to Journeyworker Ratio: 1:1							
ELEVATOR CONSTRUCTOR HELPER	1/1/2026	\$48.46	\$16.38	\$11.06	\$10.70	\$0.00	\$86.60
ELEVATOR CONSTRUCTORS LOCAL 41	1/1/2027	\$50.56	\$16.48	\$11.16	\$11.00	\$0.00	\$89.20
ELEVATOR CONSTRUCTORS LOCAL 41							
For apprentice rates see "Apprentice - ELEVATOR CONSTRUCTOR"							
FENCE & BEAM RAIL ERECTOR	6/1/2026	\$36.47	\$10.90	\$9.75	\$6.60	\$0.00	\$63.72
LABORERS	12/1/2026	\$38.64	\$10.90	\$9.75	\$6.60	\$0.00	\$65.89
LABORERS - ZONE 4 (BUILDING & SITE)	6/1/2027	\$40.29	\$10.90	\$9.75	\$6.60	\$0.00	\$67.54
	12/1/2027	\$41.69	\$10.90	\$9.75	\$6.60	\$0.00	\$68.94
	6/1/2028	\$43.19	\$10.90	\$9.75	\$6.60	\$0.00	\$70.44
	12/1/2028	\$44.69	\$10.90	\$9.75	\$6.60	\$0.00	\$71.94
For apprentice rates see "Apprentice- LABORER"							
FENCE & GUARD RAIL ERECTOR (HEAVY & HIGHWAY)	6/1/2026	\$37.25	\$10.90	\$9.75	\$6.60	\$0.00	\$64.50
LABORERS	12/1/2026	\$38.54	\$10.90	\$9.75	\$6.60	\$0.00	\$65.79
LABORERS - ZONE 4 (HEAVY & HIGHWAY)							
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"							
FIELD ENG.INST/ROD-BLDG,SITE,HVY/HWY	6/1/1999	\$18.84	\$4.80	\$4.10	\$0.00	\$0.00	\$27.74
OPERATING ENGINEERS LOCAL 98							
OPERATING ENGINEERS LOCAL 98							
FIELD ENG.PARTY CHIEF:BLDG,SITE,HVY/HWY	6/1/1999	\$21.33	\$4.80	\$4.10	\$0.00	\$0.00	\$30.23
OPERATING ENGINEERS LOCAL 98							
OPERATING ENGINEERS LOCAL 98							
FIELD ENG.SURVEY CHIEF-BLDG,SITE,HVY/HWY	6/1/1999	\$22.33	\$4.80	\$4.10	\$0.00	\$0.00	\$31.23
OPERATING ENGINEERS LOCAL 98							
OPERATING ENGINEERS LOCAL 98							
FIRE ALARM INSTALLER	6/28/2026	\$54.41	\$14.00	\$8.43	\$7.03	\$0.00	\$83.87
ELECTRICIANS LOCAL 7	1/3/2027	\$55.56	\$14.25	\$8.47	\$7.09	\$0.00	\$85.37
ELECTRICIANS LOCAL 7							
For apprentice rates see "Apprentice- ELECTRICIAN"							
FIRE ALARM REPAIR / MAINTENANCE	6/28/2026	\$54.41	\$14.00	\$8.43	\$7.03	\$0.00	\$83.87
/ COMMISSIONING	1/3/2027	\$55.56	\$14.25	\$8.47	\$7.09	\$0.00	\$85.37
ELECTRICIANS LOCAL 7							
ELECTRICIANS LOCAL 7							
For apprentice rates see "Apprentice- TELECOMMUNICATIONS TECHNICIAN"							
FIREMAN	12/1/2023	\$39.03	\$13.78	\$12.15	\$3.00	\$0.00	\$67.96
OPERATING ENGINEERS LOCAL 98							
OPERATING ENGINEERS LOCAL 98							

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
Apprentice: FIREMAN							
Effective Date: 12/1/2023							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	60.00	\$23.42	\$13.78	\$12.15	\$3.00	\$0.00	\$52.35
2	70.00	\$27.32	\$13.78	\$12.15	\$3.00	\$0.00	\$56.25
3	80.00	\$31.22	\$13.78	\$12.15	\$3.00	\$0.00	\$60.15
4	90.00	\$35.13	\$13.78	\$12.15	\$3.00	\$0.00	\$64.06

Apprentice to Journeyworker Ratio: 1:6

FLAGGER & SIGNALER (HEAVY & HIGHWAY)	6/1/2026	\$29.21	\$10.90	\$9.75	\$6.60	\$0.00	\$56.46
LABORERS	12/1/2026	\$29.21	\$10.90	\$9.75	\$6.60	\$0.00	\$56.46
LABORERS - ZONE 4 (HEAVY & HIGHWAY)							

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

FLOORCOVERER	3/1/2026	\$44.34	\$8.56	\$11.25	\$6.90	\$0.00	\$71.05
FLOORCOVERERS LOCAL 2168	9/1/2026	\$45.29	\$8.56	\$11.25	\$6.90	\$0.00	\$72.00
FLOORCOVERERS LOCAL 2168 ZONE III	3/1/2027	\$46.19	\$8.56	\$11.25	\$6.90	\$0.00	\$72.90

Apprentice: FLOORCOVERER							
Effective Date: 3/1/2026							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	45.00	\$19.95	\$8.56	\$0.00	\$1.38	\$0.00	\$29.89
2	45.00	\$19.95	\$8.56	\$0.00	\$1.38	\$0.00	\$29.89
3	55.00	\$24.39	\$8.56	\$0.00	\$2.76	\$0.00	\$35.71
4	55.00	\$24.39	\$8.56	\$0.00	\$2.76	\$0.00	\$35.71
5	70.00	\$31.04	\$8.56	\$11.25	\$4.14	\$0.00	\$54.99
6	70.00	\$31.04	\$8.56	\$11.25	\$4.14	\$0.00	\$54.99
7	80.00	\$35.47	\$8.56	\$11.25	\$5.52	\$0.00	\$60.80
8	80.00	\$35.47	\$8.56	\$11.25	\$5.52	\$0.00	\$60.80

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

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate																																																																								
Apprentice Notes Steps are 750 hrs.																																																																															
Apprentice to Journeyworker Ratio: 1:1																																																																															
FORK LIFT	12/1/2023	\$39.25	\$13.78	\$12.15	\$3.00	\$0.00	\$68.18																																																																								
OPERATING ENGINEERS LOCAL 98																																																																															
OPERATING ENGINEERS LOCAL 98																																																																															
For apprentice rates see "Apprentice- OPERATING ENGINEERS"																																																																															
GENERATORS/LIGHTING PLANTS	12/1/2023	\$35.80	\$13.78	\$12.15	\$3.00	\$0.00	\$64.73																																																																								
OPERATING ENGINEERS LOCAL 98																																																																															
OPERATING ENGINEERS LOCAL 98																																																																															
For apprentice rates see "Apprentice- OPERATING ENGINEERS"																																																																															
GLAZIER (GLASS PLANK/AIR BARRIER/INTERIOR SYSTEMS)	6/1/2026	\$44.73	\$11.20	\$8.40	\$6.05	\$0.00	\$70.38																																																																								
GLAZIERS LOCAL 1333	6/1/2027	\$46.73	\$11.60	\$8.55	\$6.60	\$0.00	\$73.48																																																																								
GLAZIERS LOCAL 1333	6/1/2028	\$48.73	\$12.00	\$8.70	\$7.20	\$0.00	\$76.63																																																																								
Apprentice: GLAZIER (GLASS PLANK/AIR BARRIER/INTERIOR SYSTEMS) Effective Date: 6/1/2026 <table> <tr> <th>Step</th><th>Percent</th><th>Apprentice Base Wage</th><th>Health</th><th>Pension</th><th>Annuity</th><th>Supplemental Unemployment</th><th>Total Rate</th></tr> <tr><td>1</td><td>50.00</td><td>\$22.37</td><td>\$11.20</td><td>\$8.40</td><td>\$6.05</td><td>\$0.00</td><td>\$48.02</td></tr> <tr><td>2</td><td>56.25</td><td>\$25.16</td><td>\$11.20</td><td>\$8.40</td><td>\$6.05</td><td>\$0.00</td><td>\$50.81</td></tr> <tr><td>3</td><td>62.50</td><td>\$27.96</td><td>\$11.20</td><td>\$8.40</td><td>\$6.05</td><td>\$0.00</td><td>\$53.61</td></tr> <tr><td>4</td><td>68.75</td><td>\$30.75</td><td>\$11.20</td><td>\$8.40</td><td>\$6.05</td><td>\$0.00</td><td>\$56.40</td></tr> <tr><td>5</td><td>75.00</td><td>\$33.55</td><td>\$11.20</td><td>\$8.40</td><td>\$6.05</td><td>\$0.00</td><td>\$59.20</td></tr> <tr><td>6</td><td>81.25</td><td>\$36.34</td><td>\$11.20</td><td>\$8.40</td><td>\$6.05</td><td>\$0.00</td><td>\$61.99</td></tr> <tr><td>7</td><td>87.50</td><td>\$39.14</td><td>\$11.20</td><td>\$8.40</td><td>\$6.05</td><td>\$0.00</td><td>\$64.79</td></tr> <tr><td>8</td><td>93.75</td><td>\$41.93</td><td>\$11.20</td><td>\$8.40</td><td>\$6.05</td><td>\$0.00</td><td>\$67.58</td></tr> </table>								Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate	1	50.00	\$22.37	\$11.20	\$8.40	\$6.05	\$0.00	\$48.02	2	56.25	\$25.16	\$11.20	\$8.40	\$6.05	\$0.00	\$50.81	3	62.50	\$27.96	\$11.20	\$8.40	\$6.05	\$0.00	\$53.61	4	68.75	\$30.75	\$11.20	\$8.40	\$6.05	\$0.00	\$56.40	5	75.00	\$33.55	\$11.20	\$8.40	\$6.05	\$0.00	\$59.20	6	81.25	\$36.34	\$11.20	\$8.40	\$6.05	\$0.00	\$61.99	7	87.50	\$39.14	\$11.20	\$8.40	\$6.05	\$0.00	\$64.79	8	93.75	\$41.93	\$11.20	\$8.40	\$6.05	\$0.00	\$67.58
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate																																																																								
1	50.00	\$22.37	\$11.20	\$8.40	\$6.05	\$0.00	\$48.02																																																																								
2	56.25	\$25.16	\$11.20	\$8.40	\$6.05	\$0.00	\$50.81																																																																								
3	62.50	\$27.96	\$11.20	\$8.40	\$6.05	\$0.00	\$53.61																																																																								
4	68.75	\$30.75	\$11.20	\$8.40	\$6.05	\$0.00	\$56.40																																																																								
5	75.00	\$33.55	\$11.20	\$8.40	\$6.05	\$0.00	\$59.20																																																																								
6	81.25	\$36.34	\$11.20	\$8.40	\$6.05	\$0.00	\$61.99																																																																								
7	87.50	\$39.14	\$11.20	\$8.40	\$6.05	\$0.00	\$64.79																																																																								
8	93.75	\$41.93	\$11.20	\$8.40	\$6.05	\$0.00	\$67.58																																																																								
Apprentice: GLAZIER (GLASS PLANK/AIR BARRIER/INTERIOR SYSTEMS) Effective Date: 6/1/2027 <table> <tr> <th>Step</th><th>Percent</th><th>Apprentice Base Wage</th><th>Health</th><th>Pension</th><th>Annuity</th><th>Supplemental Unemployment</th><th>Total Rate</th></tr> <tr><td>1</td><td>50.00</td><td>\$23.37</td><td>\$11.60</td><td>\$8.55</td><td>\$6.60</td><td>\$0.00</td><td>\$50.12</td></tr> <tr><td>2</td><td>56.25</td><td>\$26.29</td><td>\$11.60</td><td>\$8.55</td><td>\$6.60</td><td>\$0.00</td><td>\$53.04</td></tr> <tr><td>3</td><td>62.50</td><td>\$29.21</td><td>\$11.60</td><td>\$8.55</td><td>\$6.60</td><td>\$0.00</td><td>\$55.96</td></tr> <tr><td>4</td><td>68.75</td><td>\$32.13</td><td>\$11.60</td><td>\$8.55</td><td>\$6.60</td><td>\$0.00</td><td>\$58.88</td></tr> <tr><td>5</td><td>75.00</td><td>\$35.05</td><td>\$11.60</td><td>\$8.55</td><td>\$6.60</td><td>\$0.00</td><td>\$61.80</td></tr> <tr><td>6</td><td>81.25</td><td>\$37.97</td><td>\$11.60</td><td>\$8.55</td><td>\$6.60</td><td>\$0.00</td><td>\$64.72</td></tr> <tr><td>7</td><td>87.50</td><td>\$40.89</td><td>\$11.60</td><td>\$8.55</td><td>\$6.60</td><td>\$0.00</td><td>\$67.64</td></tr> <tr><td>8</td><td>93.75</td><td>\$43.81</td><td>\$11.60</td><td>\$8.55</td><td>\$6.60</td><td>\$0.00</td><td>\$70.56</td></tr> </table>								Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate	1	50.00	\$23.37	\$11.60	\$8.55	\$6.60	\$0.00	\$50.12	2	56.25	\$26.29	\$11.60	\$8.55	\$6.60	\$0.00	\$53.04	3	62.50	\$29.21	\$11.60	\$8.55	\$6.60	\$0.00	\$55.96	4	68.75	\$32.13	\$11.60	\$8.55	\$6.60	\$0.00	\$58.88	5	75.00	\$35.05	\$11.60	\$8.55	\$6.60	\$0.00	\$61.80	6	81.25	\$37.97	\$11.60	\$8.55	\$6.60	\$0.00	\$64.72	7	87.50	\$40.89	\$11.60	\$8.55	\$6.60	\$0.00	\$67.64	8	93.75	\$43.81	\$11.60	\$8.55	\$6.60	\$0.00	\$70.56
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate																																																																								
1	50.00	\$23.37	\$11.60	\$8.55	\$6.60	\$0.00	\$50.12																																																																								
2	56.25	\$26.29	\$11.60	\$8.55	\$6.60	\$0.00	\$53.04																																																																								
3	62.50	\$29.21	\$11.60	\$8.55	\$6.60	\$0.00	\$55.96																																																																								
4	68.75	\$32.13	\$11.60	\$8.55	\$6.60	\$0.00	\$58.88																																																																								
5	75.00	\$35.05	\$11.60	\$8.55	\$6.60	\$0.00	\$61.80																																																																								
6	81.25	\$37.97	\$11.60	\$8.55	\$6.60	\$0.00	\$64.72																																																																								
7	87.50	\$40.89	\$11.60	\$8.55	\$6.60	\$0.00	\$67.64																																																																								
8	93.75	\$43.81	\$11.60	\$8.55	\$6.60	\$0.00	\$70.56																																																																								
Apprentice to Journeyworker Ratio: 3:1																																																																															
GRADER/TRENCHING MACHINE/DERRICK	12/1/2023	\$39.56	\$13.78	\$12.15	\$3.00	\$0.00	\$68.49																																																																								

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
OPERATING ENGINEERS LOCAL 98							
OPERATING ENGINEERS LOCAL 98							
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
HVAC (DUCTWORK)	7/1/2026	\$43.48	\$13.24	\$11.01	\$9.92	\$2.13	\$79.78
SHEETMETAL WORKERS LOCAL 63	1/1/2027	\$43.48	\$13.54	\$11.01	\$11.12	\$2.13	\$81.28
SHEETMETAL WORKERS LOCAL 63	7/1/2027	\$44.98	\$13.54	\$11.01	\$11.12	\$2.13	\$82.78
	1/1/2028	\$46.48	\$13.54	\$11.01	\$11.12	\$2.13	\$84.28
For apprentice rates see "Apprentice- SHEET METAL WORKER"							
HVAC (ELECTRICAL CONTROLS)	6/28/2026	\$54.41	\$14.00	\$8.43	\$7.03	\$0.00	\$83.87
ELECTRICIANS LOCAL 7	1/3/2027	\$55.56	\$14.25	\$8.47	\$7.09	\$0.00	\$85.37
ELECTRICIANS LOCAL 7							
For apprentice rates see "Apprentice- ELECTRICIAN"							
HVAC (TESTING AND BALANCING - AIR)	7/1/2026	\$43.48	\$13.24	\$11.01	\$9.92	\$2.13	\$79.78
SHEETMETAL WORKERS LOCAL 63	1/1/2027	\$43.48	\$13.54	\$11.01	\$11.12	\$2.13	\$81.28
SHEETMETAL WORKERS LOCAL 63	7/1/2027	\$44.98	\$13.54	\$11.01	\$11.12	\$2.13	\$82.78
	1/1/2028	\$46.48	\$13.54	\$11.01	\$11.12	\$2.13	\$84.28
For apprentice rates see "Apprentice- SHEET METAL WORKER"							
HVAC (TESTING AND BALANCING -WATER)	3/17/2026	\$52.76	\$13.50	\$10.85	\$7.10	\$0.00	\$84.21
PLUMBERS & PIPEFITTERS LOCAL 104	9/17/2026	\$54.76	\$13.50	\$10.85	\$7.10	\$0.00	\$86.21
PLUMBERS & PIPEFITTERS LOCAL 104	3/17/2027	\$58.26	\$12.00	\$10.85	\$7.10	\$0.00	\$88.21
	9/17/2027	\$60.26	\$12.00	\$10.85	\$7.10	\$0.00	\$90.21
	3/17/2028	\$62.26	\$12.00	\$10.85	\$7.10	\$0.00	\$92.21
	9/17/2028	\$64.26	\$12.00	\$10.85	\$7.10	\$0.00	\$94.21
	3/17/2029	\$66.26	\$12.00	\$10.85	\$7.10	\$0.00	\$96.21
For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"							
HVAC MECHANIC	3/17/2026	\$52.76	\$13.50	\$10.85	\$7.10	\$0.00	\$84.21
PLUMBERS & PIPEFITTERS LOCAL 104	9/17/2026	\$54.76	\$13.50	\$10.85	\$7.10	\$0.00	\$86.21
PLUMBERS & PIPEFITTERS LOCAL 104	3/17/2027	\$58.26	\$12.00	\$10.85	\$7.10	\$0.00	\$88.21
	9/17/2027	\$60.26	\$12.00	\$10.85	\$7.10	\$0.00	\$90.21
	3/17/2028	\$62.26	\$12.00	\$10.85	\$7.10	\$0.00	\$92.21
	9/17/2028	\$64.26	\$12.00	\$10.85	\$7.10	\$0.00	\$94.21
	3/17/2029	\$66.26	\$12.00	\$10.85	\$7.10	\$0.00	\$96.21
For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"							
HYDRAULIC DRILLS (HEAVY & HIGHWAY)	6/1/2026	\$37.75	\$10.90	\$9.75	\$6.60	\$0.00	\$65.00
LABORERS	12/1/2026	\$39.04	\$10.90	\$9.75	\$6.60	\$0.00	\$66.29
LABORERS - ZONE 4 (HEAVY & HIGHWAY)							
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"							
INSULATOR (PIPES & TANKS)	9/1/2025	\$48.27	\$14.75	\$9.52	\$10.09	\$0.00	\$82.63
HEAT & FROST INSULATORS LOCAL 6	9/1/2026	\$51.01	\$14.75	\$9.52	\$10.09	\$0.00	\$85.37
HEAT & FROST INSULATORS LOCAL 6 (SPRINGFIELD)							

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
Apprentice: INSULATOR (PIPES & TANKS) Effective Date: 9/1/2025							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$24.14	\$14.75	\$9.27	\$5.05	\$0.00	\$53.21
2	60.00	\$28.96	\$14.75	\$9.32	\$6.05	\$0.00	\$59.08
3	70.00	\$33.79	\$14.75	\$9.37	\$7.06	\$0.00	\$64.97
4	80.00	\$38.62	\$14.75	\$9.42	\$8.07	\$0.00	\$70.86
Apprentice: INSULATOR (PIPES & TANKS) Effective Date: 9/1/2026							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$25.51	\$14.75	\$9.27	\$5.05	\$0.00	\$54.58
2	60.00	\$30.61	\$14.75	\$9.32	\$6.05	\$0.00	\$60.73
3	70.00	\$35.71	\$14.75	\$9.37	\$7.06	\$0.00	\$66.89
4	80.00	\$40.81	\$14.75	\$9.42	\$8.07	\$0.00	\$73.05
Apprentice to Journeyworker Ratio: 1:4							
IRONWORKER/WELDER	1/1/2025	\$39.50	\$5.50	\$14.28	\$4.55	\$0.00	\$63.83
IRONWORKERS LOCAL 12							
IRONWORKERS LOCAL 12							
Apprentice: IRONWORKER/WELDER Effective Date: 1/1/2025							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	0.00	\$23.50	\$5.75	\$0.00	\$3.75	\$0.00	\$33.00
2	0.00	\$25.50	\$5.75	\$10.00	\$3.75	\$0.00	\$45.00
3	0.00	\$27.50	\$5.75	\$11.42	\$3.75	\$0.00	\$48.42
4	0.00	\$29.50	\$5.75	\$12.85	\$3.75	\$0.00	\$51.85
Apprentice to Journeyworker Ratio: 1:4							
JACKHAMMER & PAVING BREAKER OPERATOR	6/1/2026	\$36.47	\$10.90	\$9.75	\$6.60	\$0.00	\$63.72
LABORERS	12/1/2026	\$38.89	\$10.90	\$9.75	\$6.60	\$0.00	\$66.14
LABORERS - ZONE 4 (BUILDING & SITE)	6/1/2027	\$40.29	\$10.90	\$9.75	\$6.60	\$0.00	\$67.54
	12/1/2027	\$41.69	\$10.90	\$9.75	\$6.60	\$0.00	\$68.94
	6/1/2028	\$43.19	\$10.90	\$9.75	\$6.60	\$0.00	\$70.44
	12/1/2028	\$47.26	\$9.90	\$9.25	\$5.53	\$0.00	\$71.94
	6/1/2205	\$34.29	\$9.90	\$0.00	\$0.00	\$0.00	\$44.19
	12/1/2205	\$36.79	\$9.90	\$9.25	\$5.53	\$0.00	\$61.47
	6/1/2206	\$39.29	\$9.90	\$9.25	\$5.53	\$0.00	\$63.97
	12/1/2206	\$41.46	\$9.90	\$9.25	\$5.53	\$0.00	\$66.14
	6/1/2207	\$43.11	\$9.90	\$9.25	\$5.53	\$0.00	\$67.79
	12/1/2207	\$44.51	\$9.90	\$9.25	\$5.53	\$0.00	\$69.19

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
	6/1/2208	\$46.01	\$9.90	\$9.25	\$5.53	\$0.00	\$70.69
	12/1/2208	\$44.94	\$10.90	\$9.75	\$6.60	\$0.00	\$72.19

For apprentice rates see "Apprentice- LABORER"

LABORER	6/1/2026	\$36.22	\$10.90	\$9.75	\$6.60	\$0.00	\$63.47
LABORERS	12/1/2026	\$38.64	\$10.90	\$9.75	\$6.60	\$0.00	\$65.89
LABORERS - ZONE 4 (BUILDING & SITE)	6/1/2027	\$40.04	\$10.90	\$9.75	\$6.60	\$0.00	\$67.29
	12/1/2027	\$41.44	\$10.90	\$9.75	\$6.60	\$0.00	\$68.69
	6/1/2028	\$42.94	\$10.90	\$9.75	\$6.60	\$0.00	\$70.19
	12/1/2028	\$44.44	\$10.90	\$9.75	\$6.60	\$0.00	\$71.69

Apprentice: LABORER

Effective Date: 6/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	60.00	\$21.73	\$10.90	\$9.75	\$6.60	\$0.00	\$48.98
2	70.00	\$25.35	\$10.90	\$9.75	\$6.60	\$0.00	\$52.60
3	80.00	\$28.98	\$10.90	\$9.75	\$6.60	\$0.00	\$56.23
4	90.00	\$32.60	\$10.90	\$9.75	\$6.60	\$0.00	\$59.85

Apprentice: LABORER

Effective Date: 12/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	60.00	\$23.18	\$10.90	\$9.75	\$6.60	\$0.00	\$50.43
2	70.00	\$27.05	\$10.90	\$9.75	\$6.60	\$0.00	\$54.30
3	80.00	\$30.91	\$10.90	\$9.75	\$6.60	\$0.00	\$58.16
4	90.00	\$34.78	\$10.90	\$9.75	\$6.60	\$0.00	\$62.03

Apprentice to Journeyworker Ratio: 1:5

LABORER (HEAVY & HIGHWAY)	6/1/2026	\$37.00	\$10.90	\$9.75	\$6.60	\$0.00	\$64.25
LABORERS	12/1/2026	\$38.29	\$10.90	\$9.75	\$6.60	\$0.00	\$65.54
LABORERS - ZONE 4 (HEAVY & HIGHWAY)							

Apprentice: LABORER (HEAVY & HIGHWAY)

Effective Date: 6/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	60.00	\$22.20	\$10.90	\$9.75	\$6.60	\$0.00	\$49.45
2	70.00	\$25.90	\$10.90	\$9.75	\$6.60	\$0.00	\$53.15
3	80.00	\$29.60	\$10.90	\$9.75	\$6.60	\$0.00	\$56.85
4	90.00	\$33.30	\$10.90	\$9.75	\$6.60	\$0.00	\$60.55

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate																																								
Apprentice: LABORER (HEAVY & HIGHWAY) Effective Date: 12/1/2026 <table><thead><tr><th>Step</th><th>Percent</th><th>Apprentice Base Wage</th><th>Health</th><th>Pension</th><th>Annuity</th><th>Supplemental Unemployment</th><th>Total Rate</th></tr></thead><tbody><tr><td>1</td><td>60.00</td><td>\$22.97</td><td>\$10.90</td><td>\$9.75</td><td>\$6.60</td><td>\$0.00</td><td>\$50.22</td></tr><tr><td>2</td><td>70.00</td><td>\$26.80</td><td>\$10.90</td><td>\$9.75</td><td>\$6.60</td><td>\$0.00</td><td>\$54.05</td></tr><tr><td>3</td><td>80.00</td><td>\$30.63</td><td>\$10.90</td><td>\$9.75</td><td>\$6.60</td><td>\$0.00</td><td>\$57.88</td></tr><tr><td>4</td><td>90.00</td><td>\$34.46</td><td>\$10.90</td><td>\$9.75</td><td>\$6.60</td><td>\$0.00</td><td>\$61.71</td></tr></tbody></table>								Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate	1	60.00	\$22.97	\$10.90	\$9.75	\$6.60	\$0.00	\$50.22	2	70.00	\$26.80	\$10.90	\$9.75	\$6.60	\$0.00	\$54.05	3	80.00	\$30.63	\$10.90	\$9.75	\$6.60	\$0.00	\$57.88	4	90.00	\$34.46	\$10.90	\$9.75	\$6.60	\$0.00	\$61.71
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate																																								
1	60.00	\$22.97	\$10.90	\$9.75	\$6.60	\$0.00	\$50.22																																								
2	70.00	\$26.80	\$10.90	\$9.75	\$6.60	\$0.00	\$54.05																																								
3	80.00	\$30.63	\$10.90	\$9.75	\$6.60	\$0.00	\$57.88																																								
4	90.00	\$34.46	\$10.90	\$9.75	\$6.60	\$0.00	\$61.71																																								
Apprentice to Journeyworker Ratio: 1:5																																															
LABORER: CARPENTER TENDER	6/1/2026	\$36.22	\$10.90	\$9.75	\$6.60	\$0.00	\$63.47																																								
LABORERS	12/1/2026	\$38.64	\$10.90	\$9.75	\$6.60	\$0.00	\$65.89																																								
LABORERS - ZONE 4 (BUILDING & SITE)	6/1/2027	\$40.04	\$10.90	\$9.75	\$6.60	\$0.00	\$67.29																																								
	12/1/2027	\$41.44	\$10.90	\$9.75	\$6.60	\$0.00	\$68.69																																								
	6/1/2028	\$42.94	\$10.90	\$9.75	\$6.60	\$0.00	\$70.19																																								
	12/1/2028	\$44.44	\$10.90	\$9.75	\$6.60	\$0.00	\$71.69																																								
For apprentice rates see "Apprentice- LABORER"																																															
LABORER: CEMENT FINISHER TENDER	6/1/2026	\$36.22	\$10.90	\$9.75	\$6.60	\$0.00	\$63.47																																								
LABORERS	12/1/2026	\$38.64	\$10.90	\$9.75	\$6.60	\$0.00	\$65.89																																								
LABORERS - ZONE 4 (BUILDING & SITE)	6/1/2027	\$40.04	\$10.90	\$9.75	\$6.60	\$0.00	\$67.29																																								
	12/1/2027	\$41.44	\$10.90	\$9.75	\$6.60	\$0.00	\$68.69																																								
	6/1/2028	\$42.94	\$10.90	\$9.75	\$6.60	\$0.00	\$70.19																																								
	12/1/2028	\$44.44	\$10.90	\$9.75	\$6.60	\$0.00	\$71.69																																								
For apprentice rates see "Apprentice- LABORER"																																															
LABORER: HAZARDOUS WASTE/ASBESTOS REMOVER	6/1/2026	\$35.67	\$10.90	\$9.75	\$5.41	\$0.00	\$61.73																																								
LABORERS	12/1/2026	\$36.96	\$10.90	\$9.75	\$5.41	\$0.00	\$63.02																																								
LABORERS - ZONE 4 (BUILDING & SITE)	6/1/2027	\$38.26	\$10.90	\$9.75	\$5.41	\$0.00	\$64.32																																								
	12/1/2027	\$39.56	\$10.90	\$9.75	\$5.41	\$0.00	\$65.62																																								
	6/5/2028	\$40.91	\$10.90	\$9.75	\$5.41	\$0.00	\$66.97																																								
	12/4/2028	\$42.26	\$10.90	\$9.75	\$5.41	\$0.00	\$68.32																																								
For apprentice rates see "Apprentice- LABORER"																																															
LABORER: MASON TENDER	6/1/2026	\$38.22	\$10.90	\$9.75	\$6.60	\$0.00	\$65.47																																								
LABORERS	12/1/2026	\$40.64	\$10.90	\$9.75	\$6.60	\$0.00	\$67.89																																								
LABORERS - ZONE 4 (BUILDING & SITE)	6/1/2027	\$42.04	\$10.90	\$9.75	\$6.60	\$0.00	\$69.29																																								
	12/1/2027	\$43.44	\$10.90	\$9.75	\$6.60	\$0.00	\$70.69																																								
	6/1/2028	\$44.94	\$10.90	\$9.75	\$6.60	\$0.00	\$72.19																																								
	12/1/2028	\$46.44	\$10.90	\$9.75	\$6.60	\$0.00	\$73.69																																								
For apprentice rates see "Apprentice- LABORER"																																															
LABORER: MASON TENDER (HEAVY & HIGHWAY)	6/1/2026	\$37.25	\$10.90	\$9.75	\$6.60	\$0.00	\$64.50																																								
LABORERS	12/1/2026	\$38.54	\$10.90	\$9.75	\$6.60	\$0.00	\$65.79																																								
LABORERS - ZONE 4 (HEAVY & HIGHWAY)																																															
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"																																															
LABORER: MULTI-TRADE TENDER	6/1/2026	\$36.22	\$10.90	\$9.75	\$6.60	\$0.00	\$63.47																																								

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
LABORERS	12/1/2026	\$38.64	\$10.90	\$9.75	\$6.60	\$0.00	\$65.89
LABORERS - ZONE 4 (BUILDING & SITE)	6/1/2027	\$40.04	\$10.90	\$9.75	\$6.60	\$0.00	\$67.29
	12/1/2027	\$41.44	\$10.90	\$9.75	\$6.60	\$0.00	\$68.69
	6/1/2028	\$42.94	\$10.90	\$9.75	\$6.60	\$0.00	\$70.19
	12/1/2028	\$44.44	\$10.90	\$9.75	\$6.60	\$0.00	\$71.69

For apprentice rates see "Apprentice- LABORER"

LABORER: TREE REMOVER	6/1/2026	\$36.22	\$10.90	\$9.75	\$6.60	\$0.00	\$63.47
LABORERS	12/1/2026	\$38.64	\$10.90	\$9.75	\$6.60	\$0.00	\$65.89
LABORERS - ZONE 4 (BUILDING & SITE)	6/1/2027	\$40.04	\$10.90	\$9.75	\$6.60	\$0.00	\$67.29
	12/1/2027	\$41.44	\$10.90	\$9.75	\$6.60	\$0.00	\$68.69
	6/1/2028	\$42.94	\$10.90	\$9.75	\$6.60	\$0.00	\$70.19
	12/1/2028	\$44.44	\$10.90	\$9.75	\$6.60	\$0.00	\$71.69

This classification applies to the removal of standing trees, and the trimming and removal of branches and limbs when related to public works construction or site clearance incidental to construction . For apprentice rates see "Apprentice- LABORER"

LASER BEAM OPERATOR	6/1/2026	\$36.47	\$10.90	\$9.75	\$6.60	\$0.00	\$63.72
LABORERS	12/1/2026	\$38.89	\$10.90	\$9.75	\$6.60	\$0.00	\$66.14
LABORERS - ZONE 4 (BUILDING & SITE)	6/1/2027	\$40.29	\$10.90	\$9.75	\$6.60	\$0.00	\$67.54
	12/1/2027	\$41.69	\$10.90	\$9.75	\$6.60	\$0.00	\$68.94
	6/1/2028	\$43.19	\$10.90	\$9.75	\$6.60	\$0.00	\$70.44
	12/1/2028	\$47.26	\$9.90	\$9.25	\$5.53	\$0.00	\$71.94
	6/1/2205	\$34.29	\$9.90	\$0.00	\$0.00	\$0.00	\$44.19
	12/1/2205	\$36.79	\$9.90	\$9.25	\$5.53	\$0.00	\$61.47
	6/1/2206	\$39.29	\$9.90	\$9.25	\$5.53	\$0.00	\$63.97
	12/1/2206	\$41.46	\$9.90	\$9.25	\$5.53	\$0.00	\$66.14
	6/1/2207	\$43.11	\$9.90	\$9.25	\$5.53	\$0.00	\$67.79
	12/1/2207	\$44.51	\$9.90	\$9.25	\$5.53	\$0.00	\$69.19
	6/1/2208	\$46.01	\$9.90	\$9.25	\$5.53	\$0.00	\$70.69
	12/1/2208	\$44.94	\$10.90	\$9.75	\$6.60	\$0.00	\$72.19

For apprentice rates see "Apprentice- LABORER"

LASER BEAM OPERATOR (HEAVY & HIGHWAY)	6/1/2026	\$37.25	\$10.90	\$9.75	\$6.60	\$0.00	\$64.50
LABORERS	12/1/2026	\$38.54	\$10.90	\$9.75	\$6.60	\$0.00	\$65.79
LABORERS - ZONE 4 (HEAVY & HIGHWAY)							

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

MARBLE & TILE FINISHERS	2/1/2026	\$45.56	\$12.84	\$15.10	\$5.41	\$0.00	\$78.91
BRICKLAYERS LOCAL 3	8/1/2026	\$47.32	\$12.84	\$15.10	\$5.41	\$0.00	\$80.67
BRICKLAYERS LOCAL 3 (SPR/PITT) - MARBLE & TILE	2/1/2027	\$48.44	\$12.84	\$15.10	\$5.41	\$0.00	\$81.79

Apprentice: MARBLE & TILE FINISHERS

Effective Date: 2/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$22.78	\$12.84	\$15.10	\$5.41	\$0.00	\$56.13
2	60.00	\$27.34	\$12.84	\$15.10	\$5.41	\$0.00	\$60.69
3	70.00	\$31.89	\$12.84	\$15.10	\$5.41	\$0.00	\$65.24
4	80.00	\$36.45	\$12.84	\$15.10	\$5.41	\$0.00	\$69.80
5	90.00	\$41.00	\$12.84	\$15.10	\$5.41	\$0.00	\$74.35

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
Apprentice: MARBLE & TILE FINISHERS							
Effective Date: 8/1/2026							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$23.66	\$12.84	\$15.10	\$5.41	\$0.00	\$57.01
2	60.00	\$28.39	\$12.84	\$15.10	\$5.41	\$0.00	\$61.74
3	70.00	\$33.12	\$12.84	\$15.10	\$5.41	\$0.00	\$66.47
4	80.00	\$37.86	\$12.84	\$15.10	\$5.41	\$0.00	\$71.21
5	90.00	\$42.59	\$12.84	\$15.10	\$5.41	\$0.00	\$75.94
Apprentice to Journeyworker Ratio: 1:5							
MECH. SWEEPER OPERATOR (ON CONST. SITES)	12/1/2023	\$39.56	\$13.78	\$12.15	\$3.00	\$0.00	\$68.49
OPERATING ENGINEERS LOCAL 98							
OPERATING ENGINEERS LOCAL 98							
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
MECHANIC/WELDER/BOOM TRUCK	12/1/2023	\$39.03	\$13.78	\$12.15	\$3.00	\$0.00	\$67.96
OPERATING ENGINEERS LOCAL 98							
OPERATING ENGINEERS LOCAL 98							
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
MILLWRIGHT (Zone 3)	1/5/2026	\$45.20	\$10.58	\$11.47	\$9.75	\$0.00	\$77.00
MILLWRIGHTS LOCAL 1121							
MILLWRIGHTS LOCAL 1121 - Zone 3							
Apprentice: MILLWRIGHT (Zone 3)							
Effective Date: 1/5/2026							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	55.00	\$24.86	\$10.58	\$0.00	\$5.36	\$0.00	\$40.80
2	65.00	\$29.38	\$10.58	\$0.00	\$6.34	\$0.00	\$46.30
3	75.00	\$33.90	\$10.58	\$11.47	\$7.31	\$0.00	\$63.26
4	85.00	\$38.42	\$10.58	\$11.47	\$8.29	\$0.00	\$68.76
Apprentice Notes							
Step 1&2 Appr. indentured after 1/6/2020 receive no pension,							
Apprentice to Journeyworker Ratio: 1:4							
MORTAR MIXER	6/1/2026	\$36.47	\$10.90	\$9.75	\$6.60	\$0.00	\$63.72
LABORERS	12/1/2026	\$38.89	\$10.90	\$9.75	\$6.60	\$0.00	\$66.14
LABORERS - ZONE 4 (BUILDING & SITE)	6/1/2027	\$40.29	\$10.90	\$9.75	\$6.60	\$0.00	\$67.54
	12/1/2027	\$41.69	\$10.90	\$9.75	\$6.60	\$0.00	\$68.94
	6/1/2028	\$43.19	\$10.90	\$9.75	\$6.60	\$0.00	\$70.44
	12/1/2028	\$47.26	\$9.90	\$9.25	\$5.53	\$0.00	\$71.94
	6/1/2205	\$34.29	\$9.90	\$0.00	\$0.00	\$0.00	\$44.19
	12/1/2205	\$36.79	\$9.90	\$9.25	\$5.53	\$0.00	\$61.47

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
	6/1/2206	\$39.29	\$9.90	\$9.25	\$5.53	\$0.00	\$63.97
	12/1/2206	\$41.46	\$9.90	\$9.25	\$5.53	\$0.00	\$66.14
	6/1/2207	\$43.11	\$9.90	\$9.25	\$5.53	\$0.00	\$67.79
	12/1/2207	\$44.51	\$9.90	\$9.25	\$5.53	\$0.00	\$69.19
	6/1/2208	\$46.01	\$9.90	\$9.25	\$5.53	\$0.00	\$70.69
	12/1/2208	\$44.94	\$10.90	\$9.75	\$6.60	\$0.00	\$72.19

For apprentice rates see "Apprentice- LABORER"

OILER	12/1/2023	\$35.02	\$13.78	\$12.15	\$3.00	\$0.00	\$63.95
OPERATING ENGINEERS LOCAL 98							
OPERATING ENGINEERS LOCAL 98							

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

OTHER POWER DRIVEN EQUIPMENT - CLASS VI	12/1/2023	\$32.74	\$13.78	\$12.15	\$3.00	\$0.00	\$61.67
OPERATING ENGINEERS LOCAL 98							
OPERATING ENGINEERS LOCAL 98							

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

PAINTER (BRIDGES/TANKS)	1/1/2026	\$59.56	\$10.35	\$12.00	\$12.60	\$0.00	\$94.51
PAINTERS LOCAL 35							
PAINTERS LOCAL 35 - ZONE 3							

Apprentice: PAINTER (BRIDGES/TANKS)**Effective Date: 1/1/2026**

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$29.78	\$10.35	\$0.00	\$0.00	\$0.00	\$40.13
2	55.00	\$32.76	\$10.35	\$0.00	\$6.93	\$0.00	\$50.04
3	60.00	\$35.74	\$10.35	\$0.00	\$7.56	\$0.00	\$53.65
4	65.00	\$38.71	\$10.35	\$0.00	\$8.19	\$0.00	\$57.25
5	70.00	\$41.69	\$10.35	\$12.00	\$8.82	\$0.00	\$72.86
6	75.00	\$44.67	\$10.35	\$12.00	\$9.45	\$0.00	\$76.47
7	80.00	\$47.65	\$10.35	\$12.00	\$10.08	\$0.00	\$80.08
8	90.00	\$53.60	\$10.35	\$12.00	\$11.34	\$0.00	\$87.29

Apprentice to Journeyworker Ratio: 1:1

PAINTER (SPRAY OR SANDBLAST, NEW) *	1/1/2026	\$42.03	\$10.35	\$12.00	\$8.35	\$0.00	\$72.73
* If 30% or more of surfaces to be painted are new construction, NEW paint rate shall be used.							
PAINTERS LOCAL 35							
PAINTERS LOCAL 35 - ZONE 3							

Apprentice: PAINTER (SPRAY OR SANDBLAST, NEW) ***Effective Date: 1/1/2026**

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$21.02	\$10.35	\$0.00	\$0.00	\$0.00	\$31.37
2	55.00	\$23.12	\$10.35	\$0.00	\$4.59	\$0.00	\$38.06
3	60.00	\$25.22	\$10.35	\$0.00	\$5.01	\$0.00	\$40.58

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
Apprentice: PAINTER (SPRAY OR SANDBLAST, NEW) * Effective Date: 1/1/2026							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
4	65.00	\$27.32	\$10.35	\$0.00	\$5.43	\$0.00	\$43.10
5	70.00	\$29.42	\$10.35	\$12.00	\$5.85	\$0.00	\$57.62
6	75.00	\$31.52	\$10.35	\$12.00	\$6.26	\$0.00	\$60.13
7	80.00	\$33.62	\$10.35	\$12.00	\$6.68	\$0.00	\$62.65
8	90.00	\$37.83	\$10.35	\$12.00	\$7.52	\$0.00	\$67.70
Apprentice to Journeyworker Ratio: 1:1							
PAINTER (SPRAY OR SANDBLAST, REPAINT)	1/1/2026	\$39.35	\$10.35	\$12.00	\$8.35	\$0.00	\$70.05
PAINTERS LOCAL 35							
PAINTERS LOCAL 35 - ZONE 3							

Apprentice: PAINTER (SPRAY OR SANDBLAST, REPAINT) Effective Date: 1/1/2026							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$19.68	\$10.35	\$0.00	\$0.00	\$0.00	\$30.03
2	55.00	\$21.64	\$10.35	\$0.00	\$4.59	\$0.00	\$36.58
3	60.00	\$23.61	\$10.35	\$0.00	\$5.01	\$0.00	\$38.97
4	65.00	\$25.58	\$10.35	\$0.00	\$5.43	\$0.00	\$41.36
5	70.00	\$27.55	\$10.35	\$12.00	\$5.85	\$0.00	\$55.75
6	75.00	\$29.51	\$10.35	\$12.00	\$6.26	\$0.00	\$58.12
7	80.00	\$31.48	\$10.35	\$12.00	\$6.68	\$0.00	\$60.51
8	90.00	\$35.42	\$10.35	\$12.00	\$7.52	\$0.00	\$65.29
Apprentice to Journeyworker Ratio: 1:1							

PAINTER / TAPER (BRUSH, NEW) *	1/1/2026	\$40.63	\$10.35	\$12.00	\$8.35	\$0.00	\$71.33
* If 30% or more of surfaces to be painted are new construction, NEW paint rate shall be used.							
PAINTERS LOCAL 35							
PAINTERS LOCAL 35 - ZONE 3							

Apprentice: PAINTER / TAPER (BRUSH, NEW) * Effective Date: 1/1/2026							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$20.32	\$10.35	\$0.00	\$0.00	\$0.00	\$30.67
2	55.00	\$22.35	\$10.35	\$0.00	\$4.59	\$0.00	\$37.29
3	60.00	\$24.38	\$10.35	\$0.00	\$5.01	\$0.00	\$39.74
4	65.00	\$26.41	\$10.35	\$0.00	\$5.43	\$0.00	\$42.19
5	70.00	\$28.44	\$10.35	\$12.00	\$5.85	\$0.00	\$56.64
6	75.00	\$30.47	\$10.35	\$12.00	\$6.26	\$0.00	\$59.08
7	80.00	\$32.50	\$10.35	\$12.00	\$6.68	\$0.00	\$61.53

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
Apprentice: PAINTER / TAPER (BRUSH, NEW) * Effective Date: 1/1/2026							
		Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
Step 8	90.00	\$36.57	\$10.35	\$12.00	\$7.52	\$0.00	\$66.44
Apprentice to Journeyworker Ratio: 1:1							
PAINTER / TAPER (BRUSH, REPAINT)	1/1/2026	\$37.95	\$10.35	\$12.00	\$8.35	\$0.00	\$68.65
PAINTERS LOCAL 35							
PAINTERS LOCAL 35 - ZONE 3							
Apprentice: PAINTER / TAPER (BRUSH, REPAINT) Effective Date: 1/1/2026							
		Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$18.98	\$10.35	\$0.00	\$0.00	\$0.00	\$29.33
2	55.00	\$20.87	\$10.35	\$0.00	\$4.59	\$0.00	\$35.81
3	60.00	\$22.77	\$10.35	\$0.00	\$5.01	\$0.00	\$38.13
4	65.00	\$24.67	\$10.35	\$0.00	\$5.43	\$0.00	\$40.45
5	70.00	\$26.57	\$10.35	\$12.00	\$5.85	\$0.00	\$54.77
6	75.00	\$28.46	\$10.35	\$12.00	\$6.26	\$0.00	\$57.07
7	80.00	\$30.36	\$10.35	\$12.00	\$6.68	\$0.00	\$59.39
8	90.00	\$34.16	\$10.35	\$12.00	\$7.52	\$0.00	\$64.03
Apprentice to Journeyworker Ratio: 1:1							
PAINTER TRAFFIC MARKINGS (HEAVY/HIGHWAY)	6/1/2026	\$37.00	\$10.90	\$9.75	\$6.60	\$0.00	\$64.25
LABORERS	12/1/2026	\$38.29	\$10.90	\$9.75	\$6.60	\$0.00	\$65.54
LABORERS - ZONE 4 (HEAVY & HIGHWAY)							
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)							
PANEL & PICKUP TRUCKS DRIVER	6/1/2026	\$41.78	\$16.17	\$21.78	\$0.00	\$0.00	\$79.73
TEAMSTERS JOINT COUNCIL NO. 10	12/1/2026	\$41.78	\$16.17	\$23.52	\$0.00	\$0.00	\$81.47
TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	1/1/2027	\$41.78	\$16.77	\$23.52	\$0.00	\$0.00	\$82.07
PIER AND DOCK CONSTRUCTOR (UNDERPINNING AND DECK)	8/1/2024	\$49.19	\$10.08	\$11.62	\$12.67	\$0.00	\$83.56
PILE DRIVER LOCAL 56							
PILE DRIVER LOCAL 56 (ZONE 3)							
For apprentice rates see "Apprentice- PILE DRIVER"							
PILE DRIVER	8/1/2024	\$49.19	\$10.08	\$11.62	\$12.67	\$0.00	\$83.56
PILE DRIVER LOCAL 56							
PILE DRIVER LOCAL 56 (ZONE 3)							

Apprentice: PILE DRIVER							
Effective Date: 8/1/2024							
		Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
Step	Percent						

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
Apprentice: PILE DRIVER Effective Date: 8/1/2024							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	45.00	\$22.14	\$10.08	\$0.00	\$2.53	\$0.00	\$34.75
2	55.00	\$27.05	\$10.08	\$0.00	\$5.07	\$0.00	\$42.20
3	70.00	\$34.43	\$10.08	\$11.62	\$7.60	\$0.00	\$63.73
4	80.00	\$39.35	\$10.08	\$11.62	\$10.14	\$0.00	\$71.19
Apprentice to Journeyworker Ratio: 1:5							
PIPELAYER	6/1/2026	\$36.47	\$10.90	\$9.75	\$6.60	\$0.00	\$63.72
LABORERS	12/1/2026	\$38.89	\$10.90	\$9.75	\$6.60	\$0.00	\$66.14
LABORERS - ZONE 4 (BUILDING & SITE)	6/1/2027	\$40.29	\$10.90	\$9.75	\$6.60	\$0.00	\$67.54
	12/1/2027	\$41.69	\$10.90	\$9.75	\$6.60	\$0.00	\$68.94
	6/1/2028	\$43.19	\$10.90	\$9.75	\$6.60	\$0.00	\$70.44
	12/1/2028	\$47.26	\$9.90	\$9.25	\$5.53	\$0.00	\$71.94
	6/1/2205	\$34.29	\$9.90	\$0.00	\$0.00	\$0.00	\$44.19
	12/1/2205	\$36.79	\$9.90	\$9.25	\$5.53	\$0.00	\$61.47
	6/1/2206	\$39.29	\$9.90	\$9.25	\$5.53	\$0.00	\$63.97
	12/1/2206	\$41.46	\$9.90	\$9.25	\$5.53	\$0.00	\$66.14
	6/1/2207	\$43.11	\$9.90	\$9.25	\$5.53	\$0.00	\$67.79
	12/1/2207	\$44.51	\$9.90	\$9.25	\$5.53	\$0.00	\$69.19
	6/1/2208	\$46.01	\$9.90	\$9.25	\$5.53	\$0.00	\$70.69
	12/1/2208	\$44.94	\$10.90	\$9.75	\$6.60	\$0.00	\$72.19
For apprentice rates see "Apprentice- LABORER"							
PIPELAYER (HEAVY & HIGHWAY)	6/1/2026	\$37.25	\$10.90	\$9.75	\$6.60	\$0.00	\$64.50
LABORERS	12/1/2026	\$38.54	\$10.90	\$9.75	\$6.60	\$0.00	\$65.79
LABORERS - ZONE 4 (HEAVY & HIGHWAY)							
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"							
PLUMBER & PIPEFITTER	3/17/2026	\$52.76	\$13.50	\$10.85	\$7.10	\$0.00	\$84.21
PLUMBERS & PIPEFITTERS LOCAL 104	9/17/2026	\$54.76	\$13.50	\$10.85	\$7.10	\$0.00	\$86.21
PLUMBERS & PIPEFITTERS LOCAL 104	3/17/2027	\$58.26	\$12.00	\$10.85	\$7.10	\$0.00	\$88.21
	9/17/2027	\$60.26	\$12.00	\$10.85	\$7.10	\$0.00	\$90.21
	3/17/2028	\$62.26	\$12.00	\$10.85	\$7.10	\$0.00	\$92.21
	9/17/2028	\$64.26	\$12.00	\$10.85	\$7.10	\$0.00	\$94.21
	3/17/2029	\$66.26	\$12.00	\$10.85	\$7.10	\$0.00	\$96.21
Apprentice: PLUMBER & PIPEFITTER Effective Date: 3/17/2026							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	45.00	\$23.74	\$13.50	\$10.85	\$0.00	\$0.00	\$48.09
2	50.00	\$26.38	\$13.50	\$10.85	\$0.00	\$0.00	\$50.73
3	55.00	\$29.02	\$13.50	\$10.85	\$0.00	\$0.00	\$53.37
4	60.00	\$31.66	\$13.50	\$10.85	\$0.00	\$0.00	\$56.01

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
Apprentice: PLUMBER & PIPEFITTER							
Effective Date: 3/17/2026							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
5	65.00	\$34.29	\$13.50	\$10.85	\$0.00	\$0.00	\$58.64
6	70.00	\$36.93	\$13.50	\$10.85	\$0.00	\$0.00	\$61.28
7	75.00	\$39.57	\$13.50	\$10.85	\$0.00	\$0.00	\$63.92
8	80.00	\$42.21	\$13.50	\$10.85	\$0.00	\$0.00	\$66.56
9	85.00	\$44.85	\$13.50	\$10.85	\$7.10	\$0.00	\$76.30
10	85.00	\$44.85	\$13.50	\$10.85	\$7.10	\$0.00	\$76.30

Apprentice: PLUMBER & PIPEFITTER							
Effective Date: 9/17/2026							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	45.00	\$24.64	\$13.50	\$0.00	\$0.00	\$0.00	\$38.14
2	50.00	\$27.38	\$13.50	\$0.00	\$0.00	\$0.00	\$40.88
3	55.00	\$30.12	\$13.50	\$0.00	\$0.00	\$0.00	\$43.62
4	60.00	\$32.86	\$13.50	\$0.00	\$0.00	\$0.00	\$46.36
5	65.00	\$35.59	\$13.50	\$0.00	\$0.00	\$0.00	\$49.09
6	70.00	\$38.33	\$13.50	\$0.00	\$0.00	\$0.00	\$51.83
7	75.00	\$41.07	\$13.50	\$0.00	\$0.00	\$0.00	\$54.57
8	80.00	\$43.81	\$13.50	\$0.00	\$0.00	\$0.00	\$57.31
9	85.00	\$46.55	\$13.50	\$0.00	\$7.10	\$0.00	\$67.15
10	85.00	\$46.55	\$13.50	\$0.00	\$7.10	\$0.00	\$67.15

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

Apprentice to Journeyworker Ratio: 1:1

PNEUMATIC CONTROLS (TEMP.)	3/17/2026	\$52.76	\$13.50	\$10.85	\$7.10	\$0.00	\$84.21
PLUMBERS & PIPEFITTERS LOCAL 104	9/17/2026	\$54.76	\$13.50	\$10.85	\$7.10	\$0.00	\$86.21
PLUMBERS & PIPEFITTERS LOCAL 104	3/17/2027	\$58.26	\$12.00	\$10.85	\$7.10	\$0.00	\$88.21
	9/17/2027	\$60.26	\$12.00	\$10.85	\$7.10	\$0.00	\$90.21
	3/17/2028	\$62.26	\$12.00	\$10.85	\$7.10	\$0.00	\$92.21
	9/17/2028	\$64.26	\$12.00	\$10.85	\$7.10	\$0.00	\$94.21
	3/17/2029	\$66.26	\$12.00	\$10.85	\$7.10	\$0.00	\$96.21

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

PNEUMATIC DRILL/TOOL OPERATOR (HEAVY & HIGHWAY)	6/1/2026	\$37.25	\$10.90	\$9.75	\$6.60	\$0.00	\$64.50
LABORERS	12/1/2026	\$38.54	\$10.90	\$9.75	\$6.60	\$0.00	\$65.79
LABORERS - ZONE 4 (HEAVY & HIGHWAY)							

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

POWDERMAN & BLASTER	6/1/2026	\$37.22	\$10.90	\$9.75	\$6.60	\$0.00	\$64.47
LABORERS	12/1/2026	\$39.64	\$10.90	\$9.75	\$6.60	\$0.00	\$66.89
LABORERS - ZONE 4 (BUILDING & SITE)	6/1/2027	\$41.04	\$10.90	\$9.75	\$6.60	\$0.00	\$68.29

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
	12/1/2027	\$42.44	\$10.90	\$9.75	\$6.60	\$0.00	\$69.69
	6/1/2028	\$43.94	\$10.90	\$9.75	\$6.60	\$0.00	\$71.19
	12/1/2028	\$45.44	\$10.90	\$9.75	\$6.60	\$0.00	\$72.69
For apprentice rates see "Apprentice- LABORER"							
POWDERMAN & BLASTER (HEAVY & HIGHWAY) LABORERS	6/1/2026	\$38.00	\$10.90	\$9.75	\$6.60	\$0.00	\$65.25
LABORERS - ZONE 4 (HEAVY & HIGHWAY)	12/1/2026	\$39.29	\$10.90	\$9.75	\$6.60	\$0.00	\$66.54
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"							
PUMP OPERATOR (CONCRETE) OPERATING ENGINEERS LOCAL 98 OPERATING ENGINEERS LOCAL 98	12/1/2023	\$39.56	\$13.78	\$12.15	\$3.00	\$0.00	\$68.49
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
PUMP OPERATOR (DEWATERING, OTHER) OPERATING ENGINEERS LOCAL 98 OPERATING ENGINEERS LOCAL 98	12/1/2023	\$39.03	\$13.78	\$12.15	\$3.00	\$0.00	\$67.96
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
READY-MIX CONCRETE DRIVER TEAMSTERS 404 - Construction Service (Northampton) TEAMSTERS 404 - Construction Service (Northampton)	5/1/2024	\$26.14	\$11.82	\$7.25	\$0.00	\$0.00	\$45.21
RIDE-ON MOTORIZED BUGGY OPERATOR LABORERS	6/1/2026	\$36.47	\$10.90	\$9.75	\$6.60	\$0.00	\$63.72
LABORERS - ZONE 4 (BUILDING & SITE)	12/1/2026	\$38.89	\$10.90	\$9.75	\$6.60	\$0.00	\$66.14
	6/1/2027	\$40.29	\$10.90	\$9.75	\$6.60	\$0.00	\$67.54
	12/1/2027	\$41.69	\$10.90	\$9.75	\$6.60	\$0.00	\$68.94
	6/1/2028	\$43.19	\$10.90	\$9.75	\$6.60	\$0.00	\$70.44
	12/1/2028	\$47.26	\$9.90	\$9.25	\$5.53	\$0.00	\$71.94
	6/1/2205	\$34.29	\$9.90	\$0.00	\$0.00	\$0.00	\$44.19
	12/1/2205	\$36.79	\$9.90	\$9.25	\$5.53	\$0.00	\$61.47
	6/1/2206	\$39.29	\$9.90	\$9.25	\$5.53	\$0.00	\$63.97
	12/1/2206	\$41.46	\$9.90	\$9.25	\$5.53	\$0.00	\$66.14
	6/1/2207	\$43.11	\$9.90	\$9.25	\$5.53	\$0.00	\$67.79
	12/1/2207	\$44.51	\$9.90	\$9.25	\$5.53	\$0.00	\$69.19
	6/1/2208	\$46.01	\$9.90	\$9.25	\$5.53	\$0.00	\$70.69
	12/1/2208	\$44.94	\$10.90	\$9.75	\$6.60	\$0.00	\$72.19
For apprentice rates see "Apprentice- LABORER"							
ROLLER OPERATOR OPERATING ENGINEERS LOCAL 98 OPERATING ENGINEERS LOCAL 98	12/1/2023	\$38.42	\$13.78	\$12.15	\$3.00	\$0.00	\$67.35
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
ROOFER (Coal tar pitch) ROOFERS LOCAL 248 ROOFERS LOCAL 248	7/16/2026	\$46.73	\$10.60	\$8.70	\$10.00	\$0.00	\$76.03
For apprentice rates see "Apprentice- ROOFER"							
ROOFER (Inc.Roofers Waterproofing &Roofers Damproofg) ROOFERS LOCAL 248 ROOFERS LOCAL 248	7/16/2026	\$46.23	\$10.60	\$8.70	\$10.00	\$0.00	\$75.53

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
ROOFER SLATE / TILE / PRECAST CONCRETE ROOFERS LOCAL 248 ROOFERS LOCAL 248	7/16/2026	\$46.73	\$10.60	\$8.70	\$10.00	\$0.00	\$76.03
For apprentice rates see "Apprentice- ROOFER"							
SCRAPER OPERATING ENGINEERS LOCAL 98 OPERATING ENGINEERS LOCAL 98	12/1/2023	\$39.03	\$13.78	\$12.15	\$3.00	\$0.00	\$67.96
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
SELF-POWERED ROLLERS AND COMPACTORS (TAMPERS) OPERATING ENGINEERS LOCAL 98 OPERATING ENGINEERS LOCAL 98	12/1/2023	\$38.42	\$13.78	\$12.15	\$3.00	\$0.00	\$67.35
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
SELF-PROPELLED POWER BROOM OPERATING ENGINEERS LOCAL 98 OPERATING ENGINEERS LOCAL 98	12/1/2023	\$35.80	\$13.78	\$12.15	\$3.00	\$0.00	\$64.73
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
SHEETMETAL WORKER SHEETMETAL WORKERS LOCAL 63 SHEETMETAL WORKERS LOCAL 63	7/1/2026	\$43.48	\$13.24	\$11.01	\$9.92	\$2.13	\$79.78
	1/1/2027	\$43.48	\$13.54	\$11.01	\$11.12	\$2.13	\$81.28
	7/1/2027	\$44.98	\$13.54	\$11.01	\$11.12	\$2.13	\$82.78
	1/1/2028	\$46.48	\$13.54	\$11.01	\$11.12	\$2.13	\$84.28

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

Apprentice: SHEETMETAL WORKER							
Effective Date: 1/1/2027							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	45.00	\$19.57	\$6.09	\$4.95	\$0.00	\$0.85	\$31.46
2	50.00	\$21.74	\$6.77	\$5.51	\$0.00	\$0.94	\$34.96
3	55.00	\$23.91	\$7.45	\$9.91	\$0.00	\$1.15	\$42.42
4	60.00	\$26.09	\$8.36	\$9.91	\$0.00	\$1.23	\$45.59
5	65.00	\$28.26	\$8.86	\$9.91	\$0.00	\$1.31	\$48.34

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
Apprentice: SHEETMETAL WORKER Effective Date: 1/1/2027							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
6	70.00	\$30.44	\$9.48	\$9.91	\$0.00	\$1.39	\$51.22
7	75.00	\$32.61	\$10.15	\$9.91	\$0.00	\$1.47	\$54.14
8	80.00	\$34.78	\$10.83	\$9.91	\$11.12	\$1.78	\$68.42
9	85.00	\$36.96	\$11.51	\$9.91	\$11.12	\$1.86	\$71.36
10	90.00	\$39.13	\$12.18	\$9.91	\$11.12	\$1.94	\$74.28
Apprentice to Journeyworker Ratio: 1:3							
SPECIALIZED EARTH MOVING EQUIP < 35 TONS	6/1/2026	\$42.24	\$16.17	\$21.78	\$0.00	\$0.00	\$80.19
TEAMSTERS JOINT COUNCIL NO. 10	12/1/2026	\$42.24	\$16.17	\$23.52	\$0.00	\$0.00	\$81.93
TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	1/1/2027	\$42.24	\$16.77	\$23.52	\$0.00	\$0.00	\$82.53
SPECIALIZED EARTH MOVING EQUIP > 35 TONS	6/1/2026	\$42.53	\$16.17	\$21.78	\$0.00	\$0.00	\$80.48
TEAMSTERS JOINT COUNCIL NO. 10	12/1/2026	\$42.53	\$16.17	\$23.52	\$0.00	\$0.00	\$82.22
TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	1/1/2027	\$42.53	\$16.77	\$23.52	\$0.00	\$0.00	\$82.82
SPRINKLER FITTER	7/1/2026	\$56.54	\$13.60	\$7.45	\$9.41	\$0.00	\$87.00
SPRINKLER FITTERS LOCAL 669	10/1/2026	\$56.54	\$13.60	\$7.45	\$9.41	\$0.00	\$87.00
SPRINKLER FITTERS LOCAL 669	1/1/2027	\$56.54	\$14.55	\$7.50	\$9.41	\$0.00	\$88.00
	4/1/2027	\$59.83	\$14.55	\$7.50	\$9.41	\$0.00	\$91.29
	7/1/2027	\$59.83	\$14.55	\$7.50	\$9.41	\$0.00	\$91.29
	10/1/2027	\$59.83	\$14.55	\$7.50	\$9.41	\$0.00	\$91.29
	1/1/2028	\$59.83	\$15.50	\$7.55	\$9.41	\$0.00	\$92.29
Apprentice: SPRINKLER FITTER Effective Date: 7/1/2026							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	43.00	\$28.36	\$9.64	\$0.00	\$0.00	\$0.00	\$38.00
2	48.00	\$31.66	\$9.64	\$0.00	\$0.00	\$0.00	\$41.30
3	52.00	\$34.29	\$13.60	\$7.45	\$1.15	\$0.00	\$56.49
4	56.00	\$36.93	\$13.60	\$7.45	\$1.15	\$0.00	\$59.13
5	59.00	\$38.91	\$13.60	\$7.45	\$1.40	\$0.00	\$61.36
6	64.00	\$42.21	\$13.60	\$7.45	\$1.40	\$0.00	\$64.66
7	68.00	\$44.85	\$13.60	\$7.45	\$1.40	\$0.00	\$67.30
8	72.00	\$47.48	\$13.60	\$7.45	\$1.40	\$0.00	\$69.93
9	76.00	\$50.12	\$13.60	\$7.45	\$1.40	\$0.00	\$72.57
10	80.00	\$52.76	\$13.60	\$7.45	\$1.40	\$0.00	\$75.21
Apprentice: SPRINKLER FITTER Effective Date: 10/1/2026							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate

Construction

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

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

For apprentice rates and ratios see "Apprentice- ELECTRICIAN"

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

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

Apprentice to Journeyworker Ratio: 1:1

TERRAZZO FINISHERS	2/10/2026	\$66.89	\$12.84	\$15.57	\$8.02	\$0.00	\$103.32
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Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
BRICKLAYERS LOCAL 3	8/1/2026	\$69.09	\$12.84	\$15.57	\$8.02	\$0.00	\$105.52
BRICKLAYERS LOCAL 3 (SPR/PITT) - MARBLE & TILE	2/1/2027	\$70.49	\$12.84	\$15.57	\$8.02	\$0.00	\$106.92

Apprentice: TERRAZZO FINISHERS							
Effective Date: 2/10/2026							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$33.45	\$12.84	\$15.57	\$8.02	\$0.00	\$69.88
2	60.00	\$40.13	\$12.84	\$15.57	\$8.02	\$0.00	\$76.56
3	70.00	\$46.82	\$12.84	\$15.57	\$8.02	\$0.00	\$83.25
4	80.00	\$53.51	\$12.84	\$15.57	\$8.02	\$0.00	\$89.94
5	90.00	\$60.20	\$12.84	\$15.57	\$8.02	\$0.00	\$96.63

Apprentice: TERRAZZO FINISHERS							
Effective Date: 8/1/2026							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$34.55	\$12.84	\$15.57	\$8.02	\$0.00	\$70.98
2	60.00	\$41.45	\$12.84	\$15.57	\$8.02	\$0.00	\$77.88
3	70.00	\$48.36	\$12.84	\$15.57	\$8.02	\$0.00	\$84.79
4	80.00	\$55.27	\$12.84	\$15.57	\$8.02	\$0.00	\$91.70
5	90.00	\$62.18	\$12.84	\$15.57	\$8.02	\$0.00	\$98.61

Apprentice to Journeyworker Ratio: 1:5

TERRAZZO MECHANIC	2/1/2026	\$67.97	\$12.84	\$15.57	\$7.99	\$0.00	\$104.37
BRICKLAYERS LOCAL 3	8/1/2026	\$70.17	\$12.84	\$15.57	\$7.99	\$0.00	\$106.57
BRICKLAYERS LOCAL 3 (SPR/PITT) - MARBLE & TILE	2/1/2027	\$71.57	\$12.84	\$15.57	\$7.99	\$0.00	\$107.97

Apprentice: TERRAZZO MECHANIC							
Effective Date: 2/1/2026							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$33.99	\$12.84	\$15.57	\$7.99	\$0.00	\$70.39
2	60.00	\$40.78	\$12.84	\$15.57	\$7.99	\$0.00	\$77.18
3	70.00	\$47.58	\$12.84	\$15.57	\$7.99	\$0.00	\$83.98
4	80.00	\$54.38	\$12.84	\$15.57	\$7.99	\$0.00	\$90.78
5	90.00	\$61.17	\$12.84	\$15.57	\$7.99	\$0.00	\$97.57

Apprentice: TERRAZZO MECHANIC							
Effective Date: 8/1/2026							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$35.09	\$12.84	\$15.57	\$7.99	\$0.00	\$71.49
2	60.00	\$42.10	\$12.84	\$15.57	\$7.99	\$0.00	\$78.50

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
Apprentice: TERRAZZO MECHANIC Effective Date: 8/1/2026							
		Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
3	70.00	\$49.12	\$12.84	\$15.57	\$7.99	\$0.00	\$85.52
4	80.00	\$56.14	\$12.84	\$15.57	\$7.99	\$0.00	\$92.54
5	90.00	\$63.15	\$12.84	\$15.57	\$7.99	\$0.00	\$99.55
Apprentice to Journeyworker Ratio: 1:5							
TEST BORING DRILLER LABORERS	6/1/2026	\$53.25	\$10.90	\$9.75	\$9.80	\$0.00	\$83.70
LABORERS - FOUNDATION AND MARINE	12/1/2026	\$54.75	\$10.90	\$9.75	\$9.80	\$0.00	\$85.20
For apprentice rates see "Apprentice- LABORER"							
TEST BORING DRILLER HELPER LABORERS	6/1/2026	\$49.37	\$10.90	\$9.75	\$9.80	\$0.00	\$79.82
LABORERS - FOUNDATION AND MARINE	12/1/2026	\$50.87	\$10.90	\$9.75	\$9.80	\$0.00	\$81.32
For apprentice rates see "Apprentice- LABORER"							
TEST BORING LABORER LABORERS	6/1/2026	\$49.25	\$10.90	\$9.75	\$9.80	\$0.00	\$79.70
LABORERS - FOUNDATION AND MARINE	12/1/2026	\$50.75	\$10.90	\$9.75	\$9.80	\$0.00	\$81.20
For apprentice rates see "Apprentice- LABORER"							
TRACTORS OPERATING ENGINEERS LOCAL 98 OPERATING ENGINEERS LOCAL 98	12/1/2023	\$38.42	\$13.78	\$12.15	\$3.00	\$0.00	\$67.35
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
TRAILERS FOR EARTH MOVING EQUIPMENT TEAMSTERS JOINT COUNCIL NO. 10	6/1/2026	\$42.82	\$16.17	\$21.78	\$0.00	\$0.00	\$80.77
TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	12/1/2026	\$42.82	\$16.17	\$23.52	\$0.00	\$0.00	\$82.51
	1/1/2027	\$42.82	\$16.77	\$23.52	\$0.00	\$0.00	\$83.11
TUNNEL WORK - COMPRESSED AIR LABORERS	6/1/2026	\$61.48	\$10.90	\$9.75	\$10.25	\$0.00	\$92.38
LABORERS (COMPRESSED AIR)	12/1/2026	\$62.98	\$10.90	\$9.75	\$10.25	\$0.00	\$93.88
For apprentice rates see "Apprentice- LABORER"							
TUNNEL WORK - COMPRESSED AIR (HAZ. WASTE) LABORERS	6/1/2026	\$63.48	\$10.90	\$9.75	\$10.25	\$0.00	\$94.38
LABORERS (COMPRESSED AIR)	12/1/2026	\$64.98	\$10.90	\$9.75	\$10.25	\$0.00	\$95.88
For apprentice rates see "Apprentice- LABORER"							
TUNNEL WORK - FREE AIR LABORERS	6/1/2026	\$53.55	\$10.90	\$9.75	\$10.25	\$0.00	\$84.45
LABORERS (FREE AIR TUNNEL)	12/1/2026	\$55.05	\$10.90	\$9.75	\$10.25	\$0.00	\$85.95
For apprentice rates see "Apprentice- LABORER"							
TUNNEL WORK - FREE AIR (HAZ. WASTE) LABORERS	6/1/2026	\$55.55	\$10.90	\$9.75	\$10.25	\$0.00	\$86.45
LABORERS (FREE AIR TUNNEL)	12/1/2026	\$57.05	\$10.90	\$9.75	\$10.25	\$0.00	\$87.95
For apprentice rates see "Apprentice- LABORER"							

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
VAC-HAUL	6/1/2026	\$42.24	\$16.17	\$21.78	\$0.00	\$0.00	\$80.19
TEAMSTERS JOINT COUNCIL NO. 10	12/1/2026	\$42.24	\$16.17	\$23.52	\$0.00	\$0.00	\$81.93
TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	1/1/2027	\$42.24	\$16.77	\$23.52	\$0.00	\$0.00	\$82.53
WAGON DRILL OPERATOR (HEAVY & HIGHWAY)	6/1/2026	\$37.25	\$10.90	\$9.75	\$6.60	\$0.00	\$64.50
LABORERS	12/1/2026	\$38.54	\$10.90	\$9.75	\$6.60	\$0.00	\$65.79
LABORERS - ZONE 4 (HEAVY & HIGHWAY)							
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)							
WATER METER INSTALLER	3/17/2026	\$52.76	\$13.50	\$10.85	\$7.10	\$0.00	\$84.21
PLUMBERS & PIPEFITTERS LOCAL 104	9/17/2026	\$56.26	\$12.00	\$10.85	\$7.10	\$0.00	\$86.21
PLUMBERS & PIPEFITTERS LOCAL 104	3/17/2027	\$58.26	\$12.00	\$10.85	\$7.10	\$0.00	\$88.21
	9/17/2027	\$60.26	\$12.00	\$10.85	\$7.10	\$0.00	\$90.21
	3/17/2028	\$62.26	\$12.00	\$10.85	\$7.10	\$0.00	\$92.21
	9/17/2028	\$64.26	\$12.00	\$10.85	\$7.10	\$0.00	\$94.21
	3/17/2029	\$66.26	\$12.00	\$10.85	\$7.10	\$0.00	\$96.21
For apprentice rates see "Apprentice- PLUMBER/PIPEFITTER" or "PLUMBER/GASFITTER"							

Outside Electrical

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
EQUIPMENT OPERATOR OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42 OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42 For apprentice rates see "Apprentice- LINEMAN"	9/1/2019	\$44.67	\$8.00	\$12.55	\$0.00	\$0.00	\$65.22
GROUNDMAN OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42 OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42 For apprentice rates see "Apprentice- LINEMAN"	9/1/2019	\$30.58	\$8.00	\$5.48	\$0.00	\$0.00	\$44.06
GROUNDMAN / TRUCK DRIVER OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42 OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42 For apprentice rates see "Apprentice- LINEMAN"	9/1/2019	\$39.97	\$8.00	\$10.96	\$0.00	\$0.00	\$58.93
HEAVY EQUIPMENT OPERATOR OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42 OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42 For apprentice rates see "Apprentice- LINEMAN"	9/1/2019	\$47.01	\$8.00	\$13.22	\$0.00	\$0.00	\$68.23
JOURNEYMAN LINEMAN OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42 OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42	9/1/2019	\$51.71	\$8.00	\$15.55	\$0.00	\$0.00	\$75.26

Apprentice: JOURNEYMAN LINEMAN

Effective Date: 9/1/2019

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	60.00	\$31.03	\$8.00	\$3.43	\$0.00	\$0.00	\$42.46
2	65.00	\$33.61	\$8.00	\$3.51	\$0.00	\$0.00	\$45.12
3	70.00	\$36.20	\$8.00	\$3.59	\$0.00	\$0.00	\$47.79
4	75.00	\$38.78	\$8.00	\$5.16	\$0.00	\$0.00	\$51.94
5	80.00	\$41.37	\$8.00	\$5.24	\$0.00	\$0.00	\$54.61
6	85.00	\$43.95	\$8.00	\$5.32	\$0.00	\$0.00	\$57.27
7	90.00	\$46.54	\$8.00	\$7.40	\$0.00	\$0.00	\$61.94

Apprentice to Journeyworker Ratio: 1:2

TELEDATA CABLE SPLICER OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42 OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42	2/4/2019	\$30.73	\$4.70	\$0.92	\$2.25	\$0.00	\$38.60
TELEDATA LINEMAN/EQUIPMENT OPERATOR OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42 OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42	2/4/2019	\$28.93	\$4.70	\$0.89	\$2.25	\$0.00	\$36.77
TELEDATA WIREMAN/INSTALLER/TECHNICIAN OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42 OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42	2/4/2019	\$28.93	\$4.70	\$0.89	\$2.25	\$0.00	\$36.77
TRACTOR-TRAILER DRIVER OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42	9/1/2019	\$44.67	\$8.00	\$12.55	\$0.00	\$0.00	\$65.22

Outside Electrical

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
OUTSIDE ELECTRICAL WORKERS - WEST LOCAL 42							

Additional Apprentice Information

All apprentices must be registered with the Division of Apprenticeship Training(DAS) in accordance with M.G.L.c. 23, §§ 11E-11L. Minimum wage rates for apprentices employed on public works projects are listed above as a percentage of the hourly prevailing wage rate established by the Commissioner under the provisions of M.G.L.c. 149, §§ 26-27D.

Apprentice ratios are established by DAS pursuant to M.G.L.c. 23, §§ 11E-11L. Ratios are expressed as the allowable number of apprentices to journeymen or fraction thereof, unless otherwise specified. The ratios listed herein have been taken from relevant private collective bargaining agreements(CBAs) and are provided for illustrative purposes only. They have not been independently verified as being accurate or continuing to be accurate.

Parties having questions regarding what ratio to use should contact DAS.

DOCUMENT 00870

STANDARD FEDERAL EQUAL EMPLOYMENT OPPORTUNITY CONSTRUCTION CONTRACT
SPECIFICATIONS
(EXECUTIVE ORDER 11246)
Revised April 9, 2019

1. As used in these specifications:
 - a. "Covered area" means the geographical area described in the solicitation from which this contract resulted:
 - b. "Director" means Director, Office of Federal Contract Compliance Programs, United States Department of Labor, or any person to whom the Director delegates authority.
 - c. "Employer identification number" means the Federal Social Security number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941.
 - d. "Minority" includes:
 - (i) Black (all persons having origins in any of the black African racial groups not of Hispanic origin);
 - (ii) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish Culture or origin, regardless of race);
 - (iii) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and
 - (iv) American Indian or Alaskan Native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).
2. Whenever the Contractor, or any Subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of \$ 10,000 the provisions of the specifications and the Notice which contains the applicable goals for minority and female participation and which is set forth in the solicitations from which this contract resulted.
3. If the Contractor is participating (pursuant to 41 CFR 60-4.5) in a Hometown Plan approved by the U.S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Contractors must be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each Contractor or Subcontractor participating in an approved Plan is individually required to comply with its obligations under the EEO clause, and to make a good faith effort to achieve each goal under the plan in each trade in which it has employees. The overall good faith performance by other Contractors or Subcontractors toward a goal in an approved Plan does not excuse any covered Contractor's or Subcontractor's failure to take good faith efforts to achieve the Plan goals and timetables.
4. The Contractor shall implement the specific affirmative action standards provided in Paragraphs 7a through p of these specifications. The goals set forth in the solicitation from which this contract resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the Contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. The Contractor is expected to make substantially uniform progress toward its goals in each craft during the period specified.
5. Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the Contractor has a collective bargaining agreement, to refer either minorities or women shall excuse the Contractor's obligations under these specifications, Executive Order 11246, or the regulations promulgated pursuant thereto.

6. In order for the nonworking training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees must be employed by the Contractor during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor.
7. The Contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. The Contractor shall document these efforts fully, and shall implement affirmative action steps at least as extensive as the following:
 - a. Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and all facilities at which the Contractor's employees are assigned to work. The Contractor, where possible, will assign two or more women to each construction project. The Contractor shall specifically ensure that all foremen, superintendents, and other on-site supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.
 - b. Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the Contractor or its unions have employment opportunities available, and maintain a record of the organizations' responses.
 - c. Maintain a current file of the names, addresses and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the union or, if referred, not employed by the Contractor, this shall be documented in the file with the reason therefor, along with whatever additional actions the Contractor may have taken.
 - d. Provide immediate written notification to the Director when the union or unions with which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or woman sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.
 - e. Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the Department of Labor. The Contractor shall provide notice of these programs to the sources compiled under 7b above.
 - f. Disseminate the Contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EEO obligations; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.
 - g. Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination or other employment decisions including specific review of these items with on-site supervisory personnel such as Superintendents, General Foremen, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.
 - h. Disseminate the Contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the Contractor's EEO policy with other Contractors and Subcontractors with whom the Contractor does or anticipates doing business.

- i. Direct its recruitment efforts both oral and written, to minority, female and community organizations, to schools with minority and female students and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the Contractor shall send written notification to organizations such as the above, describing the openings, screening procedures, and tests to be used in the selection process.
 - j. Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer and vacation employment to minority and female youth both on the site and in other areas of a Contractor's work force.
 - k. Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR Part 60-3.
 - l. Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.
 - m. Ensure that seniority practices, job classifications, work assignments and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the Contractor's obligations under these specifications are being carried out.
 - n. Ensure that all facilities and company activities are nonsegregated except that separate or single-user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.
 - o. Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.
 - p. Conduct a review, at least annually, of all supervisor's adherence to and performance under the Contractor's EEO policies and affirmative action obligations.
8. Contractors are encouraged to participate in voluntary associations which assist in fulfilling one or more of their affirmative action obligations (7a through p). The efforts of a contractor association, joint contractor-union, contractor-community, or other similar group of which the contractor is a member and participant, may be asserted as fulfilling any one or more of its obligations under 7a through p of these Specifications provided that the Contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the Contractor's minority and female work force participation, makes a good faith effort to meet its individual goals and timetables, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the Contractor. The obligation to comply, however, is the Contractor's and failure of such a group to fulfill an obligation shall not be a defense for the Contractor's noncompliance.
 9. A single goal for minorities and a separate single goal for women have been established. The Contractor, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, the Contractor may be in violation of the Executive Order if a particular group is employed in a substantially disparate manner (for example, even though the Contractor has achieved its goals for women generally, the Contractor may be in violation of the Executive Order if a specific minority group of women is underutilized).
 10. The Contractor shall not use the goals and timetables of affirmative action standards to discriminate against any person because of race, color, religion, sex, or national origin.
 11. The Contractor shall not enter into any Subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246.

12. The Contractor shall carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspension, termination and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations, by the Office of Federal Contract Compliance programs. Any Contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246, as amended.
13. The Contractor, in fulfilling its obligations under these specifications, shall implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph 7 of these specifications so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Contractor fails to comply with the requirements of the Executive Order, the implementing regulations, or these specifications, the Director shall proceed in accordance with 41 CFR 60-4.8.
14. The Contractor shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as many be required by the Government and keep records. Records shall at least include for each employee the name, address, telephone numbers, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (e.g., mechanic, apprentice, trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, contractors shall not be required to maintain separate records.
15. Nothing herein provided shall be construed as a limitation upon the application of other laws which establish different standards of compliance or upon the application of requirements for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

APPENDIX A

The following goals and timetables for female utilization shall be included in all Federal and federally assisted construction contracts and subcontracts in excess of \$ 10,000. The goals are applicable to the Contractor's aggregate on-site construction workforce whether or not part of that workforce is performing work on a Federal or federally-assisted construction contract or subcontract.

Area covered: Goal for Women apply nationwide

Goals and TimetablesTimetableGoals (percent)

From Apr. 1, 1980 until further notice

6.9

APPENDIX B-80

Until further notice, the following goals for minority utilization in each construction craft and trade shall included in all Federal or federally assisted construction contracts and subcontracts in excess of \$ 10,000 to be performed in the respective geographical areas. The goals are applicable to each nonexempt contractor's total on- site construction workforce, regardless of whether or not part of that workforce is performing work on a Federal, federally assisted or nonfederally related project, contract or subcontract.

Construction contractors participating in an approved Hometown Plan (see 41 CFR 6-4.5) are required to comply with the goals of the Hometown Plan with regard to construction work they perform in the area covered by the Hometown Plan. With regard to all their other covered construction work, such contractors are required to comply with the applicable SMSA or EA goal contained in this Appendix B-80.

Economic Areas

<u>STATE:</u>	<u>Goals (percent)</u>
MASSACHUSETTS	
004 Boston MA:	
SMSA Counties:	
1123 Boston-Lowell-Brockton-Lawrence-Haverhill, MA-NH	4.0
MA Essex, MA Middlesex, MA Norfolk, MA Plymouth, MA Suffolk, NH Rockingham.	
5403 Fall River- New Bedford MA, Bristol	1.6
9243 Worcester-Fitchburg-Leominster, MA	1.6
6323 Springfield-Chicopee-Holyoke MA-CT MA Hampden, MA Hampshire	4.8
Non-SMSA Counties: MA Barnstable, MA Dukes, MA Nantucket	3.6
Non-SMSA Counties: MA Franklin	5.9

APPENDIX C

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the “contractor”) agrees as follows:

1. **Compliance with Regulations:** The contractor (hereinafter includes consultants) will comply with the Acts and Regulations relative to Non-discrimination in Federally-assisted programs of the U.S. Department of Transportation, Federal Highway Administration (FHWA), as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.
2. **Non-discrimination:** The contractor, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, national origin (including limited English proficiency), age, sex, disability, or low-income status in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor will not participate directly or indirectly in the discrimination prohibited by the Acts and the Regulations, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 CFR Part 21.
3. **Solicitations for Subcontractors, including Procurements of Materials and Equipment:** In all solicitations, either by competitive bidding, or negotiation made by the contractor for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subcontractor or supplier will be notified by the contractor of the contractor’s obligations under this contract and the Acts and the Regulations relative to nondiscrimination on the grounds of race, color, national origin (including limited English proficiency), age, sex, disability, or low-income status.
4. **Information and Reports:** The contractor will provide all information and reports required by the Acts, the Regulations, and directives issued pursuant thereto, and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Massachusetts Department of Transportation (MassDOT) or FHWA to be pertinent to ascertain compliance with such Acts, Regulations, and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish this information, the contractor will so certify to MassDOT or FHWA, as appropriate, and will set forth what efforts it has made to obtain the information.
5. **Sanctions for Noncompliance:** In the event of a contractor’s noncompliance with the Nondiscrimination provisions of this contract, MassDOT will impose such contract sanctions as it or FHWA may determine to be appropriate, including, but not limited to:
 - a. withholding payments to the contractor under the contract until the contractor complies; and/or
 - b. cancelling, terminating, or suspending a contract, in whole or in part.
6. **Incorporation of Provisions:** The contractor will include the provisions of paragraphs one through six in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations, and directives issued pursuant thereto. The contractor will take action with respect to any subcontract or procurement as MassDOT or FHWA may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the contractor becomes involved in, or is threatened with litigation by a subcontractor, or supplier because of such direction, the contractor may request MassDOT to enter into any litigation to protect the interests of MassDOT. In addition, the contractor may request the United States to enter into the litigation to protect the interests of the United States.

APPENDIX D

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the “contractor,” which includes consultants) agrees to comply with the following non-discrimination statutes and authorities; including but not limited to:

PERTINENT NON-DISCRIMINATION AUTHORITIES:

- Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d *et seq.*, 78 stat. 252) (prohibits discrimination on the basis of race, color, national origin); and 49 CFR Part 21
- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (42 U.S.C. § 4601) (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-Aid programs and projects)
- Federal-Aid Highway Act of 1973 (23 U.S.C. § 324 *et seq.*) (prohibits discrimination on the basis of sex)
- Section 504 of the Rehabilitation Act of 1973 (29 U.S.C. § 794 *et seq.*), as amended (prohibits discrimination on the basis of disability) and 49 CFR Part 27
- The Age Discrimination Act of 1975, as amended (42 U.S.C. § 6101 *et seq.*) (prohibits discrimination on the basis of age)
- Airport and Airway Improvement Act of 1982 (49 U.S.C. § 471, Section 47123), as amended (prohibits discrimination based on race, creed, color, national origin, or sex)
- The Civil Rights Restoration Act of 1987 (PL 100-209) (broadened the scope, coverage, and applicability of Title VI of the Civil Rights Act of 1964, the Age Discrimination Act of 1975, and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms “programs or activities” to include all of the programs or activities of Federal-Aid recipients, sub-recipients, and contractors, whether such programs or activities are Federally funded or not)
- Titles II and III of the Americans with Disabilities Act (42 U.S.C. §§ 12131-12189), as implemented by Department of Transportation regulations at 49 CFR parts 37 and 38 (prohibits discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities)
- The Federal Aviation Administration’s Non-Discrimination Statute (49 U.S.C. § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex)
- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (ensures discrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations)
- Executive Order 13166, Improving Access to Services for People with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of limited English proficiency (LEP). To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs (70 Fed. Reg. at 74087 to 74100)
- Title IX of the Education Amendments Act of 1972, as amended (20 U.S.C. 1681 *et seq.*) (prohibits discrimination on the basis of sex in education programs or activities)

*** END OF DOCUMENT ***

DOCUMENT 00880

Revised January 12, 2022



DEPARTMENT OF LABOR

Employment Standards Administration

MINIMUM WAGES FOR FEDERAL AND FEDERALLY ASSISTED CONTRACTS

"General Decision Number: MA20260016 05/18/2026

State: Massachusetts

Construction Types: Highway

Counties: Massachusetts Counties of
Berkshire

Modification Number	Publication Date
0	01/02/2026
1	05/18/2026

ENGI0004-019 06/01/2025

Rates

Fringes

POWER EQUIPMENT OPERATOR GROUP 2 MILLING MACHINE;
PAVER (ASPHALT, AGGREGATE, AND CONCRETE) FOOTNOTE
FOR POWER EQUIPMENT OPERATORS: A. PAID HOLIDAYS:
NEW YEAR'S DAY, WASHINGTON'S BIRTHDAY, LABOR DAY,
MEMORIAL DAY, INDEPENDENCE DAY, PATRIOT'S DAY,
COLUMBUS DAY, VETERAN'S DAY, THANKSGIVING DAY,
CHRISTMAS DAY.....\$ 57.83
33.70

POWER EQUIPMENT OPERATOR GROUP 2 BULLDOZER;
GRADER/BLADE FOOTNOTE FOR POWER EQUIPMENT
OPERATORS: A. PAID HOLIDAYS: NEW YEAR'S DAY,
WASHINGTON'S BIRTHDAY, LABOR DAY, MEMORIAL DAY,
INDEPENDENCE DAY, PATRIOT'S DAY, COLUMBUS DAY,
VETERAN'S DAY, THANKSGIVING DAY, CHRISTMAS DAY.....\$ 57.83
33.70

POWER EQUIPMENT OPERATOR GROUP 1 BROOM/SWEEPER;
CRANE; GRADALL; POST DRIVER (GUARDRAIL/FENCES)
FOOTNOTE FOR POWER EQUIPMENT OPERATORS: A. PAID
HOLIDAYS: NEW YEAR'S DAY, WASHINGTON'S BIRTHDAY,
LABOR DAY, MEMORIAL DAY, INDEPENDENCE DAY,
PATRIOT'S DAY, COLUMBUS DAY, VETERAN'S DAY,
THANKSGIVING DAY, CHRISTMAS DAY.....\$ 57.18
33.70

POWER EQUIPMENT OPERATOR GROUP 1
BACKHOE/EXCAVATOR/TRACKHOE; BOBCAT/SKID STEER/SKID
LOADER; LOADER FOOTNOTE FOR POWER EQUIPMENT
OPERATORS: A. PAID HOLIDAYS: NEW YEAR'S DAY,
WASHINGTON'S BIRTHDAY, LABOR DAY, MEMORIAL DAY,
INDEPENDENCE DAY, PATRIOT'S DAY, COLUMBUS DAY,
VETERAN'S DAY, THANKSGIVING DAY, CHRISTMAS DAY.....\$ 57.18
33.70

ENGI0098-010 12/01/2024

Rates

Fringes

POWER EQUIPMENT OPERATOR GROUP 4 ROLLER FOOTNOTE
FOR POWER EQUIPMENT OPERATORS: A. PAID HOLIDAYS:
NEW YEAR'S DAY, WASHINGTON'S BIRTHDAY, LABOR DAY,
MEMORIAL DAY, INDEPENDENCE DAY, PATRIOT'S DAY,
COLUMBUS DAY, VETERAN'S DAY, THANKSGIVING DAY,
CHRISTMAS DAY.....\$ 39.12
31.04

IRON0007-027 09/16/2025

Rates

Fringes

IRONWORKER: ORNAMENTAL AND STRUCTURAL.....\$ 41.89
33.90

LABO0473-007 12/01/2024

Rates

Fringes

TRAFFIC CONTROL (FLAGGER).....\$ 27.01
26.65
LABORER (COMMON OR GENERAL).....\$ 31.54
26.65

LABO0596-005 06/01/2025

Rates

Fringes

LABORER (FORM WORK ONLY).....\$ 35.00
26.91

PAIN0035-023 07/01/2024

Rates

Fringes

PAINTER: STEEL.....\$ 56.76
36.00

SUMA2014-006 01/11/2017

Rates

Fringes

TRUCK DRIVER: FLATBED TRUCK.....\$ 48.53
0.00
TRUCK DRIVER: DUMP TRUCK.....\$ 38.94
12.00
TRUCK DRIVER: CONCRETE TRUCK.....\$ 33.69
15.79
TRAFFIC CONTROL: LABORER-CONES/
BARRICADES/BARRELS - SETTER/MOVER/SWEEPER.....\$ 43.73
15.06
PAINTER: SPRAY (LINESTRIPING).....\$ 38.30
17.43
OPERATOR: PILEDRIVER.....\$ 43.87
18.04
OPERATOR: MECHANIC.....\$ 48.14
17.02

OPERATOR: FORKLIFT.....\$ 51.63
0.00
LABORER: LANDSCAPE.....\$ 36.62
16.00
LABORER: CONCRETE SAW (HAND HELD/WALK BEHIND).....\$ 44.43
14.18
LABORER: ASPHALT, INCLUDES RAKER, SHOVELER,
SPREADER AND DISTRIBUTOR.....\$ 33.10
18.09
IRONWORKER, REINFORCING.....\$ 46.21
21.27
ELECTRICIAN.....\$ 47.13
13.41
CEMENT MASON/CONCRETE FINISHER.....\$ 52.13
20.89
CARPENTER.....\$ 44.11
21.41

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

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at <https://www.dol.gov/agencies/whd/government-contracts>.

Note: Executive Order 13658 generally applies to contracts subject to the Davis-Bacon Act that were awarded on or between January 1, 2015 and January 29, 2022, and that have not been renewed or extended on or after January 30, 2022. Executive Order 13658 does not apply to contracts subject only to the Davis-Bacon Related Acts regardless of when they were awarded. If a contract is subject to Executive Order 13658, the contractor must pay all covered workers at least \$13.65 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract from May 11, 2026, through December 31, 2026. The applicable Executive Order minimum wage rate will be adjusted annually. Additional information on contractor requirements and worker protections under Executive Order 13658 is available at www.dol.gov/whd/govcontracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after

award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (iii)).

The body of each wage determination lists the classifications and wage rates that have been found to be prevailing for the type(s) of construction and geographic area covered by the wage determination. The classifications are listed in alphabetical order under rate identifiers indicating whether the particular rate is a union rate (current union negotiated rate), a survey rate, a weighted union average rate, a state adopted rate, or a supplemental classification rate.

Union Rate Identifiers

A four-letter identifier beginning with characters other than **SU**, **UAVG**, **SA**, or **SC** denotes that a union rate was prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2024. PLUM is an identifier of the union whose collectively bargained rate prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. The date, 07/01/2024 in the example, is the effective date of the most current negotiated rate.

Union prevailing wage rates are updated to reflect all changes over time that are reported to WHD in the rates in the collective bargaining agreement (CBA) governing the classification.

Union Average Rate Identifiers

The UAVG identifier indicates that no single rate prevailed for those classifications, but that 100% of the data reported for the classifications reflected union rates. EXAMPLE: UAVG-OH-0010 01/01/2024. UAVG indicates that the rate is a weighted union average rate. OH indicates the State of Ohio. The next number, 0010 in the example, is an internal number used in producing the wage determination. The date, 01/01/2024 in the example, indicates the date the wage determination was updated to reflect the most current union average rate.

A UAVG rate will be updated once a year, usually in January, to reflect a weighted average of the current rates in the collective bargaining agreements on which the rate is based.

Survey Rate Identifiers

The **SU** identifier indicates that either a single non-union rate prevailed (as defined in 29 CFR 1.2) for this classification in the survey or that the rate was derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As a weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SUFL2022-007 6/27/2024. SU indicates the rate is a single non-union prevailing rate or a weighted average of survey data for that

classification. FL indicates the State of Florida. 2022 is the year of the survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 6/27/2024 in the example, indicates the survey completion date for the classifications and rates under that identifier.

◆SU◆ wage rates typically remain in effect until a new survey is conducted. However, the Wage and Hour Division (WHD) has the discretion to update such rates under 29 CFR 1.6(c) (1).

State Adopted Rate Identifiers

The ◆SA◆ identifier indicates that the classifications and prevailing wage rates set by a state (or local) government were adopted under 29 C.F.R 1.3(g)-(h). Example: SAME2023-007 01/03/2024. SA reflects that the rates are state adopted. ME refers to the State of Maine. 2023 is the year during which the state completed the survey on which the listed classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 01/03/2024 in the example, reflects the date on which the classifications and rates under the ◆SA◆ identifier took effect under state law in the state from which the rates were adopted.

WAGE DETERMINATION APPEALS PROCESS

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

- a) a survey underlying a wage determination
- b) an existing published wage determination
- c) an initial WHD letter setting forth a position on a wage determination matter
- d) an initial conformance (additional classification and rate) determination

On survey related matters, initial contact, including requests for summaries of surveys, should be directed to the WHD Branch of Wage Surveys. Requests can be submitted via email to davisbaconinfo@dol.gov or by mail to:

Branch of Wage Surveys
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

Regarding any other wage determination matter such as conformance decisions, requests for initial decisions should be directed to the WHD Branch of Construction Wage Determinations. Requests can be submitted via email to BCWD-Office@dol.gov or by mail to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2) If an initial decision has been issued, then any interested party (those affected by the action) that disagrees with the decision can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7).

Requests for review and reconsideration can be submitted via email to dba.reconsideration@dol.gov or by mail to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210.

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END OF GENERAL DECISION

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DOCUMENT A00801

SPECIAL PROVISIONS**NORTH ADAMS****Federal Aid Project Nos. CRP/STP-0031(023)X
Reconstruction of Ashland Street**

Labor participation goals for this Project shall be 15.3% for minorities and 6.9% for women for each job category. The goals are applicable to both Contractor's and Subcontractor's on-site construction workforce. Refer to Document 00820 for details.

SCOPE OF WORK

All work under this Contract shall be done in conformance with the *2026 Standard Specifications for Highways and Bridges*, the *Supplemental Specifications* contained in this book, the *Construction Standard Details* in effect as of May 2026, the *1990 Standard Drawings for Signs and Supports*, the *2015 Overhead Signal Structure and Foundation Standard Drawings*, the *11th Edition of the Manual on Uniform Traffic Control Devices (MUTCD)* and the *January 2026 Massachusetts Amendments to the MUTCD*, the *1968 Standard Drawings for Traffic Signals and Highway Lighting*, the latest edition of *The American Standard for Nursery Stock*, the Plans and these Special Provisions.

The work under this Contract consists of approximately 0.72 miles of roadway improvements on Ashland Street in North Adams from Davenport Street to Summer Street. The project expands on the City of North Adams's pedestrian and bicycle network by providing accessible pedestrian ways and bike accommodations along Ashland Street. Bus shelter improvements, benches, and trash receptacles will also be incorporated in areas of higher pedestrian traffic. Additional improvements include storm drain and minor water system updates along the corridor.

SUBSECTION 7.05 INSURANCE REQUIREMENTS**7.05.B: Public Liability Insurance 4.**

Asbestos Liability Insurance shall be obtained for this project.

CONTRACTOR QUESTIONS AND ADDENDUM ACKNOWLEDGEMENTS

Prospective bidders are required to submit all questions to the Construction Contracts Engineer by 3:00 P.M. on the Tuesday of the previous week before the scheduled bid opening date. Any questions received after this time will not be considered for review by the Department.

Contractors should email questions and addendum acknowledgements to the following email address massdot specifications@dot.state.ma.us The MassDOT proposal number and municipality is to be placed in the subject line.

WORK SCHEDULE

Work on this project is restricted to a normal 8-hour day, 5-day week, with the Prime Contractor and all Subcontractors working on the same shift.

Work that requires the closure of a travel lane shall not be performed between the hours of 4:00 PM and 6:00 PM. Set-up and removal of all equipment and materials for construction and/or traffic maintenance shall be done during the prescribed work hours. The roadway shall be free of the Contractor's personnel and operations during the restricted hours.

HOLIDAY WORK RESTRICTIONS

(Supplementing Subsection 7.09)

The District Highway Director (DHD) may authorize work to continue during these specified time periods if it is determined by the District that the work will not negatively impact the traveling public. DHD may allow work in those areas on a case by case basis and where work is behind barrier and will not impact traffic

Below are the holiday work restrictions:

New Years Day (Federal Holiday)

No work on major arterial roadways from 5:00 AM on the day before until the normal start of business on the next subsequent business day. No work on local roadways on the holiday without permission by the DHD and the local police chief.

Martin Luther King's Birthday (Federal Holiday)

No work restrictions due to traffic concerns, however work on local roadways requires permission by the DHD and local police chief.

President's Day (Federal Holiday)

No work restrictions due to traffic concerns, however work on local roadways requires permission by the DHD and local police chief.

Evacuation Day (Suffolk County State Holiday)

No work restrictions due to traffic concerns.

Patriot's Day (State Holiday)

Work restrictions will be in place for Districts 3 and 6 along the entire Boston Marathon route and any other locations that the DHD in those districts determine are warranted so as to not to impact the marathon. All other districts work restrictions will be as per DHD.

Mother's Day

No work on Western Turnpike and Metropolitan Highway System from 5:00 AM on the Friday before, until the normal start of business on the following day.

Memorial Day (Federal Holiday)

No work on major arterial roadways from 5:00 AM on the Friday before, until the normal start of business on the following day.

HOLIDAY WORK RESTRICTIONS (Continued)**Bunker Hill Day (Suffolk County State Holiday)**

No work restrictions due to traffic concerns.

Juneteenth

No work restrictions due to traffic concerns, however work on local roadways requires permission by the DHD and local police chief.

Independence Day (Federal Holiday)

No work on major arterial roadways from 5:00 AM on the day before until the normal start of business on the next subsequent business day. No work on local roadways on the holiday without permission by the DHD and the local police chief.

Labor Day (Federal Holiday)

No work on major arterial roadways from 5:00 AM on the Friday before, until the normal start of business on the following day.

Columbus Day (Federal Holiday)

No work on major arterials from 5:00 AM on the Friday before, until the normal start of business on the following day

Veterans' Day (Federal Holiday)

No work restrictions due to traffic concerns.

Thanksgiving Day (Federal Holiday)

No work on major arterials from 5:00 AM two days before until the normal start of business on the following Monday.

Christmas Day (Federal Holiday)

No work on major arterial roadways from 5:00 AM on the day before until the normal start of business on the next subsequent business day.

EMERALD ASH BORER ADVISORY

To the extent possible, all trees and brush shall be disposed on site, typically chipped and spread in place. When trees or brush must be removed, such as in urban, or otherwise populated areas, Contractor shall identify proposed location for disposal, and provide written notification to the Engineer for approval. Disposal shall be in city or town of project, or at minimum, within county, of construction operations.

TREE REMOVAL RESTRICTIONS

Tree cutting operations shall be performed outside the dates of November 1 through April 14 to avoid impacts during typical bat hibernation (inactive) periods. No tree clearing or cutting activities shall occur between November 1 and April 14 unless otherwise authorized by the applicable regulatory agency.

SOIL STOCKPILING DIRECTIVE P-22-001

Any stockpiling of soil must be performed in compliance with Policy Directive P-22-001, Off-Site Stockpiling of Soil from MassDOT Construction Projects. This directive limits the allowable locations for off-site stockpiling of soil generated during MassDOT projects and includes various requirements that must be satisfied by the contractor prior to off-site stockpiling. The Contractor is responsible for identifying a suitable stockpile location.

SUBSECTION 8.02 SCHEDULE OF OPERATIONS

Replace this subsection with the following:

An integrated cost and schedule controls program shall be implemented by the Contractor to track and document the progress of the Work from Notice to Proceed (NTP) through the Contractor Field Completion (CFC) Milestone. The Contractor's schedules will be used by the Engineer to monitor project progress, plan the level-of-effort required by the Department's work force and consultants and as a critical decision-making tool. Accordingly, the Contractor shall ensure that it complies fully with the requirements specified herein and that its schedules are both accurate and updated as required by the specification throughout the life of the project. Detailed requirements are provided in Division II, Section 722 Construction Scheduling.

TRUCK SAFETY DEVICES

(Supplementing Subsection 7.04: Motor Vehicles)

All motor vehicles subject to Section 7 of Chapter 90 to be operated under this Contract shall be equipped with safety devices as provided therein and in 540 CMR 4.00.

The Contractor shall certify to the Registry of Motor Vehicles, in a manner prescribed by the Registrar, that all applicable vehicles are equipped with Lateral Protective Devices, Convex Mirrors, Cross Over Mirror(s) and Back Up Cameras in accordance with the requirements of 540 CMR 4.00.

The Contractor shall provide evidence satisfactory to the Department to demonstrate compliance with the above certification requirement for all applicable vehicles operated under this Contract by the Contractor and its subcontractors and vendors in a manner set forth by the Department. Thereafter, the Contractor shall have an affirmative obligation to continue to provide such evidence of compliance on an ongoing basis and no later than 7 days after certification with the Registry of Motor Vehicles of any additional vehicles operated under this Contract by the Contractor and its subcontractors and vendors.

Non-compliance with respect to a vehicle that is subject to 540 CMR 4.00 may subject the Contractor to statutory fines as established in M.G.L. c. 90, § 7 and/or contractual remedies up to and including termination of the Contract.

SUBSECTION 8.14 UTILITY COORDINATION, DOCUMENTATION, AND MONITORING RESPONSIBILITIES

A. GENERAL

In accordance with the provisions of Section 8.00 Prosecution and Progress, utility coordination is a critical aspect to this Contract. This section defines the responsibility of the Contractor and MassDOT, with regard to the initial utility relocation plan and changes that occur as the prosecution of the Work progresses. The Engineer, with assistance from the Contractor shall coordinate with Utility companies that are impacted by the Contractor's operations. To support this effort, the Contractor shall provide routine and accurate schedule updates, provide notification of delays, and provide documentation of the steps taken to resolve any conflicts for the temporary and/or permanent relocations of the impacted utilities. The Contractor shall provide copies to the Engineer of the Contractor communication with the Utility companies, including but not limited to:

- Providing advanced notice, for all utility-related meetings initiated by the Contractor.
- Providing meeting minutes for all utility-related meetings that the Contractor attends.
- Providing all test pit records.
- Request for Early Utility work requirements of this section (see below).
- Notification letters for any proposed changes to Utility start dates and/or sequencing.
- Written notification to the Engineer of all apparent utility delays within seven (7) Calendar Days after a recognized delay to actual work in the field – either caused by a Utility or the Contractor.
- Any communication, initiated by the Contractor, associated with additional Right-of-Way needs in support of utility work.
- Submission of completed Utility Completion Forms.

B. PROJECT UTILITY COORDINATION (PUC) FORM

The utility schedule and sequence information provided in the Project Utility Coordination Form (if applicable) is the best available information at the time of the bid and has been considered in setting the contract duration. The Contractor shall use all of this information in developing the bid price and the Baseline Schedule Submission, inclusive of the individual utility durations sequencing requirements, and any work that has been noted as potentially concurrent utility installations.

C. INITIATION OF UTILITY WORK

The Engineer will issue all initial notice-to-proceed dates to each Utility company based on either the:

- 1) Contractor's accepted Baseline Schedule
- 2) An approved Early Utility Request in the form of an Early Utility sub-net schedule (in accordance with the requirements of this Subsection)
- 3) An approved Proposal Schedule

C.1 - BASELINE SCHEDULE – UTILITY BASIS

The Contractor shall provide a Baseline Schedule submission in accordance with the requirements of Subsection 8.02 and inclusive of all of the information provided in the PUC Form that has been issued in the Contract documents. This is to include the utility durations, sequencing of work, allowable concurrent work, and all applicable considerations that have been depicted on the PUC Form.

SUBSECTION 8.14 (Continued)**C.2 – EARLY UTILITY REQUEST – (aka SUBNET SCHEDULE) PRIOR TO THE BASELINE**

All early utility work is defined as any anticipated/required utility relocations that need to occur prior to the Baseline Schedule acceptance. In all cases of proposed early utility relocation, the Contractor shall present all known information at the pre-construction conference in the form of a ‘sub-net’ schedule showing when each early utility activity needs to be issued a notice-to-proceed. The Contractor shall provide advance notification of this intent to request early utility work in writing at or prior to the Pre-Construction meeting. Prior to officially requesting approval for early utility work, the Contractor shall also coordinate with MassDOT and all utility companies (private, state or municipal) which may be impacted by the Contract. If this request is acceptable to the Utilities and to MassDOT, the Engineer will issue a notice-to-proceed to the affected Utilities, based on these accepted dates.

C.3 – PROPOSAL SCHEDULE - CHANGES TO THE PUC FORM

If the Contractor intends to submit a schedule (in accordance with MassDOT Standard Specifications, Division I, Subsection 8.02) that contains durations or sequencing that vary from those provided in the Project Utility Coordination (PUC) Form, the Contractor must submit this as an intended change, in the form of a Proposal Schedule and in accordance with MassDOT Standard Specifications, Division I, Subsection 8.02. These proposed changes are subject to the approval of the Engineer and the impacted utilities, in the form of this Proposal Schedule and a proposed revision to the PUC form. The Contractor shall not proceed with any changes of this type without written authorization from the Engineer, that references the approved Proposal Schedule and PUC form changes. The submission of the Baseline Schedule should not include any of these types of proposed utility changes and should not delay the submission of the Baseline Schedule. As a prerequisite to the Proposal Schedule submission, and in advance of the utility notification(s) period, the Contractor shall coordinate the proposed utility changes with the Engineer and the utility companies, to develop a mutually agreed upon schedule, prior to the start of construction.

D. UTILITY DELAYS

The Contractor shall notify the Engineer upon becoming aware that a Utility owner is not advancing the work in accordance with the approved utility schedule. Such notice shall be provided to the Engineer no later than seven (7) calendar days after the occurrence of the event that the Contractor believes to be a utility delay. After such notice, the Engineer and the Contractor shall continue to diligently seek the Utility Owner’s cooperation in performing their scope of Work.

In order to demonstrate that a critical path delay has been caused by a third-party Utility, the Contractor must demonstrate, through the requirements of the monthly Progress Schedule submissions and the supporting contract records associated with Subsection 8.02, 8.10 and 8.14, that the delays were beyond the control of the Contractor.

SUBSECTION 8.14 (Continued)

All documentation provided in this section is subject to the review and verification of the Engineer and, if required, the Utility Owner. In accordance with MassDOT Specifications, Division I, Subsection 8.10, a Time Extension will be granted for a delay caused by a Utility, only if the actual duration of the utility work is in excess of that shown on the Project Utility Coordination Form, and only if;

- 1) proper Notification of Delay was provided to MassDOT in accordance with the time requirements that are specified in this Section
- 2) the utility delay is a critical path impact to the Baseline Schedule (or most recently approved Progress Schedule)

E. LOCATION OF UTILITIES

The locations of existing utilities are shown on the Contract drawings as an approximation only. The Contractor shall perform a pre-construction utility survey, including any required test pits, to determine the location of all known utilities no later than thirty (30) calendar days before commencing physical site work in the affected area.

F. POST UTILITY SURVEY – NOTIFICATION

Following completion of a utility survey of existing locations, the Contractor will be responsible to notify the Engineer of any known conflicts associated with the actual location of utilities prior to the start of the work. The Engineer and the Contractor will coordinate with any utility whose assets are to be affected by the Work of this Contract. A partial list of utility contact information is provided in the Project Utility Coordination Form.

G. MEETINGS AND COOPERATION WITH UTILITY OWNERS

The Contractor shall notify the Engineer in advance of any meeting they initiate with a Utility Owner's representative to allow MassDOT to participate in the meeting if needed.

Prior to the Pre-Construction Meeting, the Contractor should meet with all Utility Owners who will be required to perform utility relocations within the first 6 months of the project, to update the affected utilities of the Project Utility Coordination Form and all other applicable Contract requirements that impact the Utilities. The Contractor shall copy the Engineer on any correspondence between the Utility Owner and the Contractor.

H. FORCE ACCOUNT / UTILITY MONITORING REQUIREMENTS

The Engineer will be responsible for recording daily Utility work force reports. The start, suspension, re-start, and completion dates of each of the Utilities, within each phase of the utility relocation work, will be monitored and agreed to by the Engineer and the Contractor as the work progresses.

I. ACCESS AND INSPECTION

The Contractor shall be responsible for allowing Utility owners access to their own utilities to perform the relocations and/or inspections. The Contractor shall schedule their work accordingly so as not to delay or prevent each utility from maintaining their relocation schedule.

COMPLIANCE WITH THE NATIONAL DEFENSE AUTHORIZATION ACT
(Supplementing Subsection 7.01)

On all projects, the “Prohibition on Certain Telecommunications and Video Surveillance Services or Equipment” Regulation (2 CFR 200.216) prohibits the Contractor from using or furnishing the following telecommunications equipment or services:

- Telecommunications equipment produced by Huawei Technologies Company or ZTE Corporation (or any subsidiary or affiliate of such entities).
- For the purpose of public safety, security of government facilities, physical security surveillance of critical infrastructure, and other national security purposes, video surveillance and telecommunications equipment produced by Hytera Communications Corporation, Hangzhou Hikvision Digital Technology Company, or Dahua Technology Company (or any subsidiary or affiliate of such entities).
- Telecommunications or video surveillance services provided by such entities or using such equipment.
- Telecommunications or video surveillance equipment or services produced or provided by an entity that the Secretary of Defense, in consultation with the Director of the National Intelligence or the Director of the Federal Bureau of Investigation, reasonably believes to be an entity owned or controlled by, or otherwise connected to, the government of a covered foreign country.

This prohibition applies to all products manufactured by the aforementioned companies, including any individual components or parts.

By submitting a bid on a project, the Contractor certifies that all work will be in compliance with the terms of 2 CFR 200.216. The Contractor shall submit a COC indicating compliance with the above provisions for all telecommunications equipment or services included in the Contract.

Payment for the item in which the materials are incorporated may be withheld until these COCs are received. Any cost involved in furnishing the certificate(s) shall be borne by the Contractor.

MATERIALS REMOVED AND STACKED

Materials directed to be removed and stacked shall be neatly removed and relocated to the City of North Adams DPW Garage at 50 Hodges Cross Road or other location as directed by the Engineer. If the City decides it does not want an item, then that item shall become the property of the Contractor and disposed of at no additional cost.

If it is determined that any part of the stacked materials is unsuitable for reuse by the City or the, or if the owner decides to abandon part or all of their materials, such materials shall become the property of the Contractor and the unsuitable materials shall be removed from the project area in conformity with all local, state, and federal rules and regulations.

All costs in connection therewith shall be included in the Contract.

VALUE ENGINEERING CHANGE PROPOSAL

This Subsection defines the conditions and requirements which apply to Value Engineering Change Proposals (“VECPs”). The purpose of this provision is to encourage the Contractor to propose changes in certain project requirements that will maintain the project’s functional requirements at a savings in contract time, contract price, or both. The net savings obtained by using a VECP that meets the conditions and requirements set forth here will be shared by the Contractor and MassDOT.

VECP’s under this provision are to be initiated, developed and submitted to MassDOT by the Contractor. The VECP must show the contemplated changes to the Drawings, Specifications and other requirements in the Contract. When a VECP submitted pursuant to this section is fully accepted by MassDOT, the VECP will be implemented by the Contractor and paid using the current cost and resource loaded schedule. Contractor shall demonstrate that the VECP is equal to, or better than, the original design or material; that there is an interest in public safety within the VECP; that there is a life-cycle cost benefit; and/or that end users will benefit from the shortened schedule. VECPs shall be consistent with the MassHighway/MassDOT Standard Specifications for Highways and Bridges and other applicable reference documents and directives. Any proposed deviation from these documents will need to be clearly identified in the VECP Proposal Documents, and must be approved by MassDOT’s Chief Engineer before accepting this VECP.

- A. In order to be considered for MassDOT review each VECP shall:
1. Be clearly labeled pursuant to this Subsection;
 2. Yield a net savings at least two hundred and fifty thousand (250,000.00) Dollars and/or a net saving of contract completion duration of at least three (3) months;
 3. The proposed changes to contract items must:
 - a. maintain the specified items’ required functions (service life, reliability);
 - b. meet applicable safety regulations and codes;
 - c. material substitutions must be in accordance with DOT prequalified/preapproved products and must be tested in accordance with standard material specs/testing methods (and considering all relevant environmental, load, and other relevant factors);
 - d. show economy of operation, ease of maintenance, ease of construction, and necessary standardized features and appearance; and
 4. Shall not require an extension of Contract Time or Contract Milestones, with the exception of cases when there are anticipated significant cost saving.

VALUE ENGINEERING CHANGE PROPOSAL (Continued)

The thresholds above are considered to be a general guideline. MassDOT will consider VECPs outside of these thresholds if a significant benefit is demonstrated. Additionally, notwithstanding this VECP process, MassDOT will consider minor revisions in the form of a Contract Modification.

Further, any VECP submitted shall be in sufficient detail to clearly define the proposed change. The Contractor's failure to provide information of the type, detail and in a format to facilitate the MassDOT's review, may be grounds for rejection of the VECP. Additionally, the Contractor will not be entitled to any equitable adjustment or increased Time, due to any aspect of any of the proposed VECP including permitting, right of way, utility coordination or delayed responses by MassDOT. If, after the progression of the work associated with the executed Contract Modification for the VECP, any additional costs are realized by the Contractor or any of the sub-consultants, sub-contractors, or suppliers, the Contractor shall be obligated to pay for any and all costs.

B. The following initial items shall be provided by the Contractor for MassDOT's review. *Items 1-6 need to be submitted prior to the start of MassDOT's review of the VECP and item 7 is an important consideration for the pricing of the VECP and the timeline of the proposed VECP schedule.*

1. **VECP Description:** A description of the difference between the existing and the proposed Contract requirements, and the comparative advantages and disadvantages of each;
2. **VECP Change Listing:** A listing of the Contract requirements that will need to be changed, modified, or reviewed as well as the proposed Contract document changes in the Instructions to Bidders, Contract, Standard Specifications, General Requirements and Special Provisions required by the VECP.
3. **Construction Schedule Update:** Any changes in the Contract Time(s) or Contract Milestone(s), that will result from acceptance of the VECP, shall be accompanied by a contemporaneous schedule analysis (*i.e., the Contractor's baseline schedule submission, all past/required monthly schedule updates, a detailed assessment of all past delays, and a resource loaded Critical Path Method schedule as specified in Section 8.0 / Subsection 8.02 of this Contract*) of the projected Work that remains including the proposed VECP related schedule changes (*inclusive of the timeline to review accept the VECP and the timeline for implementing the design changes*) in the remaining work. This shall be submitted in the form of a Proposal Schedule until the VECP has been formally accepted. Note: All of this information is to be updated, recertified, and formally accepted by MassDOT before final acceptance of this this VECP is issued.

VALUE ENGINEERING CHANGE PROPOSAL (Continued)

4. ***Date for MassDOT's Acceptance:*** A statement that clearly justifies the date by which the VECP must be accepted to obtain the maximum price reduction, noting any effect upon the Contract Time(s) and/or Contract Milestone(s). This statement must include a narrative that demonstrates the most recent construction schedule has been utilized to justify that proposed acceptance date (*e.g. "in order to start to fabricate critical materials, authorization must be provided to work on the shop drawings by no later than [date]"*). The Contractor should allow for at least sixty (60) to ninety (90) days for acceptance by MassDOT once all of the VECP documentation has been provided. Acceptance shall mean that MassDOT has received a finalized and executed contract modification. However, this is a proposed Contract change.

The Contractor is fully obligated to progress the Work of the original Contract and MassDOT is not liable for any delays or costs that may occur in the review phase of any VECP proposal.

5. ***Cost and Savings Estimates:*** A detailed estimate of the anticipated net savings, calculated as follows:
- a. ***Original Scope:*** Isolate the cost of performing the original contract construction activities, in accordance with the original Contract Documents, as originally bid by the Contractor, that are anticipated to be superseded by the VECP. *This cost is to include any original contract scope that is anticipated to be altered or eliminated by the VECP such as, shop drawing preparation, inspection work, testing, maintenance of traffic, or any other original contract costs, that have yet to have been performed at the time of this VECP submission.*
 - b. ***New VECP Scope:*** Calculate the cost of performing the comparable construction activities associated with the VECP.
 - c. ***Contractor's Engineer & Inspection:*** Calculate the cost of engineering, inspection, and design work by the Contractor's Engineer/Designer. This should be a realistic estimate of the costs of any required engineering, design and review work by the Contractor's Engineer.
 - d. ***MassDOT's Costs:*** MassDOT's estimate of costs to perform engineering/design reviews, cost estimate reviews, schedule reviews, and any other administrative costs to review and recommend implementation of the proposed VECP. (*including all anticipated increased costs to MassDOT on other Contracts and all anticipated follow-on increased costs to MassDOT, if any*) as provided by MassDOT. MassDOT's estimated costs must be included the VECP calculation and will be provided by MassDOT in support of the VECP evaluation process.
 - e. ***Other Costs:*** Estimated costs associated with any revisions to other project related costs, such as Environmental Permits or Right of Way acquisitions, including other agency or municipality costs, as provided by MassDOT.

VALUE ENGINEERING CHANGE PROPOSAL (Continued)Net Savings:

The net savings to be split between MassDOT and the Contractor shall be calculated using the items above as follows: $a - (b+c+d+e) = \text{net savings}$

6. The Contractor shall also provide:

- a. A proposed Change Order, which explains and justifies any required Equitable Adjustment in the Contract Price.
- b. The Contractor's actual costs expended for developing the VECP as of the date of the VECP submission;

7. Design Changes and Drawings: The costs that are outlined above should be inclusive of the following design and engineering responsibilities.

- a. Design changes shall be prepared and stamped by the Contractor's professional designer and/or engineer. In addition, in the development of the VECP; the Contractor is responsible for anticipating and managing all aspects associated with any VECP design work that must be performed by a licensed Engineer.
- b. The Contractor's engineer must analyze and stamp all components of any aspect of the project that has been redesigned, changed, or altered as a result of this VECP.
- c. The Contractor's engineer shall provide all calculations and supporting design/engineering documentation that was utilized to develop the changes and stamped drawings. These will be used by MassDOT's Designer-of-Record to review the VECP changes. The Contractor is limited to selecting only those engineer's that have been pre-qualified by MassDOT's A&E Board.
- d. MassDOT's Designer-of-Record will review and respond to all completed design submissions related to this VECP within thirty (30) calendar days, unless determined to be a non-critical path item.
- e. MassDOT will be responsible for estimating and managing MassDOT's Designer-of-Record during the VECP review and implementation. Should any significant conflicts arise, between the Contractor's Engineer and MassDOT's Designer-of-Record, the DOT and the Contractor will work expeditiously to resolve the conflict. Should this type of conflict continue for greater than five (5) days, the Contractor is to bear all financial and time related impacts of such delay and must seek to resolve the design conflict, in an acceptable manner to MassDOT. The resolution of this conflict will be funded at the Contractor's expense – exclusive of the net saving that was agreed to at the execution of the contract modification for this VECP.
- f. The Contractor's Engineer may also be required to inspect the construction work. The Contractor is to include such anticipated inspection costs in the initial VECP.

VALUE ENGINEERING CHANGE PROPOSAL (Continued)

- g. MassDOT's Designer of Record will remain the Designer-of-Record for the entire Project. Any costs incurred in the use of MassDOT's Designer-of-Record by MassDOT or Contractor associated with the review of a VECP are to be included in the calculated net savings.
- C. Approval of the VECP shall not occur until a Contract Modification, incorporating the VECP, is issued by MassDOT and properly executed by the Contractor. MassDOT may accept or reject part or all of any VECP at any time prior to an executed Contract Modification for the applicable VECP. The decision of MassDOT, concerning acceptance or rejection of any VECP, shall be final and shall not be subject to dispute resolution.

It is expected that several weeks may go by before the final VECP documentation has been executed with a Contract Modification. Therefore, MassDOT intends to make certain that the initial cost estimate information has not changed before entering into a Contract Modification. As the VECP evaluation process is finalized, and prior to the signed Contract Modification for the VECP, the Contractor and MassDOT must re-certify the current status of the originally proposed cost and/or schedule savings.

Until a contract modification is issued and schedule and cost/savings re-certification is complete and accepted by MassDOT, the Contractor shall remain obligated to perform the Work in accordance with the terms and conditions of the original Contract Documents.

Upon completion of the work associated with the VECP, MassDOT may require verification that the VECP savings has been achieved.

- D. VECPs will be processed (distributed, reviewed, commented upon, accepted or rejected) expeditiously (pursuant to M.G.L. c. 30, § 39R); however, as this is an elective modification to the contract, MassDOT shall not be liable for any delay or cost in the review and acceptance of the VECP. During the review of the VECP, the Contractor remains obligated to progress the original Contract scope, and schedule, as planned; until a Contract Modification, accepting the Contractor re-certified VECP, has been executed by MassDOT.

The Contractor has the right to withdraw part, or all of any VECP, prior to acceptance by MassDOT. Such withdrawal shall be made in writing to the Engineer. The Contractor shall state the period of time, from the date of the initial VECP submittal, that the VECP shall remain valid and feasible. Revision of this validity and feasibility period shall be allowed only by mutual agreement of the Contractor and the Engineer in writing.

If the Contractor desires to withdraw the proposal prior to the expiration of this period for non-technical reason, MassDOT reserves the right to recover all actual costs that have been incurred to MassDOT.

VALUE ENGINEERING CHANGE PROPOSAL (Continued)

If the Contractor withdraws the VEC Proposal, MassDOT reserves the right to proceed with the VECP or any portion of the VECP as a normal change and the Contractor waives any right it may have had to share in net savings thereunder.

For purposes of this provision, expiration of the time established by the Contractor for approval shall be considered as withdrawal by the Contractor if MassDOT requests an extension of that time and the Contractor does not provide a written extension.

- E. With regard to unknown conditions or sub-surface work, in general, the expectation is that the Contractor and MassDOT will strive to gain enough knowledge about the risks in order to provide a forward-priced Change Proposal. Therefore, any costs to fully evaluate the proposal, such as additional borings and/or test pits, must be considered in the cost evaluation of whether the VECP is worth pursuing. However, if it is impractical to gather conclusive exploratory information, before the VECP is executed, MassDOT may consider provisions in the VECP that clearly identifies the risk sharing (cost and time) related specifically to the unknown/sub-surface conditions. If these VECP provisions are acceptable to MassDOT they are to include supplemental language to provide a determination of the final savings/cost, and time impacts, no later than 45 days after the sub-surface work is completed. All other aspects of the VECP, unrelated to these Provisions, will be binding upon execution of the VECP.

PROPRIETARY PRODUCTS

A letter discussing Sentry Lighting poles (Type A: SAL-B-4B-10'-GFI-IN USE-BK and Type B: SCS-BC-20'LC-SINGLE-B) and Sentry Lighting luminaires (Type A: SMAL-(2)LEDV18C-0.53A-840-KHJ3-F-BPC-240V-BK, Type A-HSS: SMAL-(2)LEDV18C-0.53A-840-KHJ3-F-BPC-HSS-240V-BK, Type B: SBC4-LEDV29B-1.75A-840-KHT4P3-BK, and Type B-HSS: SBC4-LEDV29B-1.75A-840-KHT4P3-HSS-BK) as a proprietary specification pursuant to M.G.L. c. 30, sec. 39M(b) has been placed in the Project file. The Sentry Lighting poles and Sentry Lighting luminaires shall be manufactured by Sentry Lighting or approved equal.

BIDDERS LIST

Pursuant to the provisions of 49 CFR Part 26.11 all official bidders will be required to report the names, addresses and telephone numbers of all firms that submitted bids or quotes in connection with this project. Failure to comply with a written request for this information within 15 business days may result in a recommendation to the Prequalification Committee that prequalification status be suspended until the information is received.

The Department will survey all firms that have submitted bids or quotes during the previous year prior to setting the annual goal and shall request that each firm report its age and gross receipts for the year.

BUILD AMERICA BUY AMERICA PREFERENCE

On Federally-aid projects the Buy America (23.CFR § 635.410) and Build America, Buy America Act. requires the following,

- (1) all iron and steel used in the project are produced in the United States--this means all manufacturing processes, from the initial melting stage through the application of coatings, must occur in the United States. Foreign steel and iron can be used if the cost of the materials does not exceed 0.1% of the total Contract cost or \$2,500, whichever is greater. The action of applying a coating to a covered material (i.e., steel and iron) is deemed a manufacturing process subject to Buy America. Coating includes epoxy coating, galvanizing, painting and any other coating that protects or enhances the value of a material subject to requirements of Build America, Buy America. Steel used for temporary support of excavation, including H piles, soldier piles, and sheeting when the steel is required to be left in place is subject to requirements of Build America, Buy America. Temporary steel, shall remain in place when it falls within the influence zone of the soil supporting any structure or railroad tracks.
- (2) all manufactured products used in the project are produced in the United States—this means the manufactured product was manufactured in the United States and
- (3) all construction materials are manufactured in the United States—this means that all manufacturing processes for the construction material occurred in the United States. “Construction materials” includes an article, material, or supply—other than an item of primarily iron or steel; a manufactured product; cement and cementitious materials; aggregates such as stone, sand, or gravel; or aggregate binding agents or additives—that is or consists primarily of:
 - non-ferrous metals,
 - plastic and polymer-based products (including polyvinylchloride, composite building materials, and polymers used in fiber optic cables),
 - glass (including optic glass),
 - lumber; or
 - drywall.

The Buy America preference only applies to articles, materials, and supplies that are consumed in, incorporated into, or affixed to an infrastructure project. As such, it does not apply to tools, equipment, and supplies, such as temporary scaffolding, brought to the construction site and removed at or before the completion of the infrastructure project. Nor does a Buy America preference apply to equipment and furnishings, such as movable chairs, desks, and portable computer equipment, that are used at or within the finished infrastructure project but are not an integral part of the structure or permanently affixed to the infrastructure project.

All articles, materials, and supplies should be classified as an iron or steel product, a manufactured product, or another product as specified by law or in 2 CFR part 184 (such other products specified by law or in 2 CFR part 184 include “excluded materials” and “construction materials”); an article, material, or supply must not be considered to fall into multiple categories.

NOTICE TO OWNERS OF UTILITIES

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.

Company**Contact**

City of North Adams
Department of Public Services
(inc. Water & Sewer)
59 Hodges Cross Road
North Adams, MA 01247

Timothy Lescarbeau, Commissioner
Ph. (413)-662-3000 x3047
tllescarbeau@northadams-ma.gov

Berkshire Gas
115 Cheshire Road
Pittsfield, MA 01201

Wesley Scalise
Ph. (413)-445-0398
wscalise@berkshiregas.com

National Grid Electric
55 Bearfoot Road
Northborough, MA 01532

Casey Silva
Ph. (617)-429-7818
Casey.Silva@nationalgrid.com

Verizon
385 Myles Standish Boulevard
Taunton, MA 02780

Karen Mealey
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karen.m.mealey@verizon.com

Charter Communications
1021 High Bridge Road
Rotterdam, NY 12303

John Leone
Ph. (518)-640-8864
John.Leone@Charter.com

Local Linx
30 Elmview Circle
Dover, NH 03820

Jason Wing
Ph. (403)-538-4545
jason.wing@locallinx.com

MCLA Fiber
340 McKinstry Avenue
Chicopee, MA 01013

Doug Norton
Ph. (978)-732-7112
Doug.norton@getaccessplus.com

Other Affected Parties

Berkshire Regional Transit Authority
1 Columbus Ave, Suite 201
Pittsfield, MA 01201

BRTA Info
(800)-499-2782
info@berkshirerta.com

NOTICE TO OWNERS OF UTILITIES (Continued)

The following website lists the names and addresses of the utilities may be affected, but the completeness of the list is not guaranteed:

<https://www.mass.gov/info-details/utility-contacts-by-district-and-municipality>

Select District 1
Select the Town and then locate the utilities

Town officials are shown at the Town's website: <http://www.mass.gov/portal/government/local/> from "Cities and Towns" select City/Town link.

Open official Town's home page and locate Town officials.

DISTRICT UTILITY/CONSTRUCTABILITY ENGINEER

MassDOT Highway, District I
270 Main Street
Lenox, MA 01240

Mark Page, District Utility Engineer
(857)-368-1033 (Office)
mark.page@state.ma.us

NATIONAL GRID EMERGENCY TELEPHONE NUMBERS**ELECTRIC:**

Outage/ Emergency: 1-800-465-1212

New Service: 1-800-375-7405

Customer Support: 1-800-322-3223

BERKSHIRE GAS EMERGENCY TELEPHONE NUMBERS**GAS:**

Outage/Emergency: 1-800-292-5012 or 413-499-1680

New Service: 1- 800-297-7144

Customer Support: 1-800-292-5012

CONTAMINATED SOIL

Soil to be removed from the project area shall not be assumed to be uncontaminated and must be evaluated prior to off-site management for potential contamination with hazardous materials. No soil may be disposed of off-site without proper assessment by the contractor and approval from the Resident Engineer (RE), District Environmental Engineer (DEE), or the project designee.

EQUIVALENT SINGLE AXLE LOADS (ESALS)

The estimated traffic level to be used for SUPERPAVE HMA mixture designs for this contract, expressed in Equivalent Single Axle Loads (ESALs) for the design travel lane over a 20-year period, is 1.1 Million 18-kip (80-kn) ESALs.

ENVIRONMENTAL PERMITTING

Environmental permits have not been obtained, as no work (either temporary or permanent) is proposed to occur in water or wetland resource areas. If Contractor erection, demolition, storage, or other procedures require work to occur in or otherwise impact water, wetland resource areas, buffer zones, etc., the Contractor is advised that no associated work can occur until all required environmental permits have been obtained. The Contractor must notify the District 1 Highway Director and Engineer in writing at least 60 days prior to desired commencement of the proposed activity. All environmental submittals, including any contact with Local, State, or Federal environmental agencies, must be coordinated through the District 1 Environmental Engineer. The Contractor is expected to fully cooperate with requests for information and provide same in a timely manner. The Contractor is further advised that the Department will not entertain a delay claim due to the time required to obtain the environmental permits. As a supplement to Section 7.00 of the Standard Specifications, the Contractor is reminded that no debris of any type shall be allowed to enter water or wetland resource areas, either temporarily or permanently.

USE OF GROUNDS AND STREET OCCUPANCY

Any area outside the limits of City or State Highway layout or temporary or permanent easements which the Contractor may require for storage of equipment and materials, or for other purposes necessary in the performance of the work, shall be secured by the Contractor at his own expense. Materials, including excavation intended for backfill, shall not be stored or stacked on roadway surfaces unless specifically permitted by the Department.

NONCONFORMING COMPRESSIVE STRENGTH OF CEMENT CONCRETE

Concrete with compressive strength test results failing to attain the limits specified in Table 901.64-3 of 901.64.B: Acceptance Testing shall be evaluated for structural adequacy and serviceability at the Contractors' expense. The Department will review all production records, the concrete test records, petrographic analysis report, field notes, and the placement records for the concrete in question. If the Engineer determines the material is found to be adequate to remain in place, payment shall be adjusted in accordance with the following formula:

$$P = \frac{2(fc - f'c)(UP)(Q)}{f'c}$$

Where:

P = pay adjustment for substandard concrete

f'c = specified minimum compressive strength at 28 days

fc = substandard concrete cylinder compressive strength at 56 days

Q = quantity of concrete represented by the acceptance cylinders tested

UP = unit contract price or the lump sum breakdown price per cubic yard
for the class of concrete involved complete in place

NORTHERN LONG-EARED BAT AND TRICOLORED BAT PROTECTION

The northern long-eared bat (*Myotis septentrionalis*; NLEB) and tricolored bat (*Perimyotis subflavus*; TCB) are listed as federally endangered or proposed endangered, respectfully, under the Endangered Species Act (ESA). The U.S. Fish and Wildlife Service (USFWS) developed this guidance to address ESA compliance and promote conservation of NLEB and TCB. MassDOT, on behalf of FHWA, submitted a Northern Long-eared Bat and Tricolored Bat Range-wide Determination Key Consultation through Information for Planning and Consultation (IPaC) and generated a May Affect, Not Likely to Adversely Affect (NLAA) determination (see **Document A00869**). Subsequently, the project has completed Section 7 consultation under the ESA.

In advance of the uplisting of the TCB to endangered under the ESA, the following Avoidance and Minimization Measures (AMMs) must be strictly adhered to in order to protect NLEB and TCB and to be in compliance with the ESA. Contact MassDOT Environmental Services - Wildlife Unit Supervisor for questions about project limits, restrictions, or conservation measures.

General AMMs

- The Contractor shall ensure all personnel working in on the project site are aware of all environmental commitments related to NLEB and TCB, including all applicable AMMs. NLEB and TCB information (<https://www.fws.gov/midwest/endangered/mammals/nleb/> and <https://www.fws.gov/species/tricolored-bat-perimyotis-subflavus>) shall be made available to all personnel.

Lighting AMMs

- Direct temporary lighting away from suitable habitat during the active season: **April 15 to October 31**
- When installing new or replacing existing permanent lights, use downward-facing, full cut-off lens lights (with same intensity or less for replacement lighting); or for those transportation agencies using the BUG system developed by the Illuminating Engineering Society, be as close to 0 for all three ratings with a priority of “uplight” of 0 and “backlight” as low as practicable.

Tree Removal AMMs

- *If additional cutting is proposed by the Contractor that is outside the scope of this contract, additional review is required by the MassDOT Highway Division’s Environmental Services Section, and additional review and restrictions may be required by the USFWS.*
- Ensure tree removal is limited to that specified in project plans and ensure that contractors understand clearing limits and how they are marked in the field (e.g., install bright colored flagging/fencing prior to any tree clearing to ensure contractors stay within clearing limits).
- No tree cutting, trimming, or removal of trees and/or woody vegetation >3-inch in diameter shall be conducted between **April 15 to October 31**
- The Contractor shall ensure all personnel working in on the project site are aware of all environmental commitments related to NLEB and/or TCB, including the **TOY** restriction. If this restriction needs to be waived at any location(s) the Resident Engineer shall send a locus map of the proposed work to MassDOT Highway Division’s Environmental Services Section for review and a determination if the restriction can be waived.

NOTIFICATION OF FUNDING SOURCES FOR WORK TO BE PAID BY OTHERS

This contract has an agreement with the *City and/ or Town of North Adams*; whereas when the construction costs for the contract scope exceed the total participating contract bid price by more than ten percent (10%), the *City/Town* shall be responsible for the amount over 110% of the total participating contract bid price.

ITEM 102.1**TREE TRIMMING****FOOT**

The work under this Item shall conform to the relevant provisions of Subsection 101 of the Standard Specifications and the following:

Tree trimming shall also include cutting of shrubs, bushes, and other woody growth protruding into the public right of way and identified on the drawings for trimming.

METHOD OF MEASUREMENT AND BASIS OF PAYMENT

Item 102.1 will be measured and paid per Subsections 101.80 and 101.81, respectively.

ITEM 102.511 **TREE PROTECTION – ARMORING AND PRUNING** **EACH**

The work under this item shall conform to the relevant provisions of Sections 771 of the Standard Specifications and the following:

Tree protection – armoring and pruning shall be used for instances where construction activity (the use of heavy equipment), comes within proximity to potentially damage tree trunk(s) or limbs.

The work shall include the furnishing and installing of temporary tree trunk protection, minor limb pruning, or removal of lower tree limbs to prevent injury to the tree from construction equipment and activities; as shown on the Drawings; and/or as required by the Engineer.

REFERENCES

If requested, the Contractor shall provide to the Engineer one copy of the latest edition of the American National Standards Institute (ANSI) A300 Standard Practices for Tree, Shrub, and Other Woody Plant Maintenance: Part 1-Pruning and Part 5-Construction Management Standard. Provision of reference shall be incidental to this item.

MATERIALS

Trunk armoring shall be such that it prevents damage to the trunk from construction equipment. Material used for trunk armoring or mounting shall be such that installation and removal shall not damage the trunk.

Acceptable trunk armoring materials shall include two by four (2x4) wood cladding, mounted with wire or metal strapping, or when duration of construction activities is less than three months, slotted corrugated plastic pipe, mounted with duct tape. Eight (8) once untreated burlap shall be used to wrap the tree trunk prior to installation of cladding.

Alternative armoring methods or materials may be acceptable if approved by the Engineer.

The height of tree trunk cladding shall be measured from the base of the tree (including root flare) to the bottom of the first branch, or to a height of eight (8) feet, or as may be required by the Engineer.

METHODS OF WORK

Prior to construction activities, the Engineer, Contractor, and the Arborist (if item is included in the contract), shall review trees noted on the Drawings to be protected. Final decision and selection of trees to be armored and/or pruned shall be per the Engineer.

Care shall be taken to avoid damage to the bark during installation and removal of armoring. Trunk armoring shall be maintained such that it is effective for as long as required or replaced when materials are found to be damaged or ineffective, as determined by the Engineer. Replacement, if required, shall be incidental to the work. Armoring shall be removed immediately upon completion of work activities adjacent to the protected tree(s).

ITEM 102.511 (Continued)

Pruning of limbs shall conform to the techniques and standards of the most recent ANSI A300 standards.

DAMAGES OR LOSS

If trees designated for protection under this item are damaged, including root damage from unapproved trespassing onto the root zone, the Contractor shall, at his own expense, secure the services of an Arborist, described in Item 102.55. The Arborist shall be approved by MassDOT.

If, based on the recommendation of the Arborist, the Engineer determines that damages can be remedied by corrective measures, such as repairing trunk or limb injury; soil compaction remediation; pruning; soil injection fertilization; and/or watering; the damage shall be repaired as soon as possible, within the appropriate season for such work and according to industry standards.

If, based on the recommendation of the Arborist, the Engineer determines that damages are irreparable, or that the damages are such that the tree is sufficiently compromised to pose a future safety hazard, the tree shall be removed. Tree removal shall include cleanup of all wood, grinding of the stump to a depth sufficient to plant a replacement tree or plant, removal of all chips from the stump site, and filling the resulting hole with topsoil. Such tree removal(s), grinding, debris removal, and topsoil filling, shall be at the Contractor's expense.

Tree removal from improper or inadequate tree protection shall result in the Engineer assessing the Contractor monetary damages consistent with industry standards for assessed value and/or replacement.

METHOD OF MEASUREMENT AND BASIS OF PAYMENT

Item 102.511 will be measured and paid at the contract unit price per EACH tree to be armored and pruned. This will include full compensation for all labor, equipment, materials, and incidentals for the satisfactory completion of the work and the subsequent removal and satisfactory disposal of the protective materials upon completion of the contract or as required by the Engineer.

Payment for work under this item will be scheduled as follows:

- 40% of the value shall be paid upon installation of trunk armoring and completion of pruning work, if required.
- 60% of the value shall be paid at the end of construction operations that would potentially damage the tree and after protection materials have been removed and properly disposed of by the Contractor. In the event of repairable damages, payment shall be made after the completion of remediation measures.

No separate payment will be made for costs of remedial actions, including Arborist services, tree removal, but all costs in connection therewith shall be included in the Contract unit price bid.

Tree damages assessed, due to lack of or improper tree and plant protective measures being taken, shall be deducted from the contract price of the work.

ITEM 102.513**AIR EXCAVATION AND ROOT PRUNING****FOOT**

Item 102.513 Air Excavation and Root Pruning is for the services of excavating soil with an air pressure tool in order to expose tree roots, and for associated services and materials necessary to complete the work of pruning, backfilling with existing soil, watering, mulching, and fertilizing. This item shall include the furnishing and operating the air excavating tool.

Associated Item: All references to Arborist herein shall refer to the Arborist under Item 102.55 Arborist. Arborist shall meet the requirements as specified under that Item and shall be compensated under that Item.

Trees to be air spaded shall be those shown on the plans and/or as determined necessary by the Engineer per the recommendations of the Arborist.

REFERENCES

The standards from American National Standards Institute (ANSI): A300 (Part 8)-2013 Root Management with special attention to Section 84 shall apply to this work. If requested, the Contractor shall provide to the Engineer one copy of this reference. Provision of reference shall be incidental to this item.

METHODS

Air excavation and pruning work shall be performed by or overseen by the Arborist.

Air excavation of soil and root pruning shall occur any time prior to equipment work within the root zone of marked trees.

Air excavation shall be done along the limit of proposed excavation. Trench shall be of sufficient width to observe and cut roots and shall be to the depth of proposed excavation. Immediately following air excavation, roots shall be pruned.

Following pruning, roots shall immediately be fully covered with backfill and immediately watered. Roots shall continue to be watered and fertilized as directed by the Arborist.

METHOD OF MEASUREMENT AND BASIS OF PAYMENT

Item 102.513 will be measured and paid per foot where air spading, pruning, watering, and fertilizing are performed. This item will include full compensation for all labor, equipment, materials, and incidentals required for the satisfactory completion of the work.

Arborist services shall be per Item 102.55 Arborist and compensated under that Item.

ITEM 102.521**TREE AND PLANT PROTECTION FENCE****FOOT**

The work under this Item shall conform to the relevant provisions of Sections 644 and 771 of the Standard Specifications and the following:

Work under this item shall consist of furnishing, installing, and maintaining tree and plant protection fence(s) in a vertical and taut position; removing and resetting fencing as may be required; and final removal of protection fence(s) at the completion of construction activities, or as otherwise required by the Engineer.

The purpose of the fencing is to signify a construction work-free zone and physical barrier, thereby preventing damage to tree roots, tree trunks, soil, and all other vegetation within this delineated Tree and Plant Protection Zone (TPPZ), as shown on the Drawings, as required by the Engineer, and as described herein.

Protection shall be for the duration of the construction activities unless otherwise required by the Engineer.

MATERIALS

Tree and plant protection fence(s) shall provide a minimum forty-eight (48) inch tall barrier, that remains vertical and taut. The Fence shall be orange plastic safety fence (recommended where high visibility is necessary), or wooden snow fencing, or other approved material. Posts and anchoring materials shall be incidental to the work.

Per requirements of the Engineer, additional posts, deeper post depths, and/or additional attachments shall be used if the fabric or fence sags, leans or otherwise is not providing visible or physical protection to the TPPZ.

REFERENCES

If requested, the Contractor shall provide to the Engineer one copy of the American National Standards Institute (ANSI) A300 Standard Practices for Tree, Shrub, and Other Woody Plant Maintenance Part 1, Pruning and Part 5, Construction Management Standard. Provision of reference shall be incidental to this item.

ESTABLISHMENT OF THE TPPZ

Fencing shall be used to delineate and establish the TPPZ, adjacent to construction areas, staging areas, stockpile areas, as shown on the Drawings, and/or as required by the Engineer.

Fencing shall be located as close to the work zone limit and as far from tree trunk(s) and plants as possible to maximize the area to be protected. Fence shall run parallel and adjacent to construction activity to create a barrier between the work zone and the root zone or designated limit of plants and soils to be protected.

ITEM 102.521 (Continued)

When construction activities surround (or have the potential to surround) trees or plants to be protected, a circular enclosure shall be used. In these instances, the TPPZ limit shall be the drip line of each tree or as close as possible to the drip line, and/or as shown on the Drawings. The drip line is defined as the outermost limit of tree canopy.

The Contractor shall not engage in any construction activity within the TPPZ without the approval of the Engineer. Activities may include operating, moving, or storing equipment, supplies, or materials; and locating temporary facilities, including trailers or portable toilets. Accessing or traversing the TPPZ shall not be permitted.

METHOD OF WORK

TPPZ fencing shall be installed prior to any construction work or staging activities. Fence(s) shall be repositioned where and as necessary for optimum tree and plant protection. Repositioning shall be incidental to this item. TPPZ fencing shall not be moved without prior approval by the Engineer.

The TPPZ shall be protected at all times from compaction of the soil; damage of any kind to trunks, bark, branches, leaves, and roots of all plants; and contamination of the soil with construction materials, debris, silt, fuels, oils, and any chemicals substance.

After construction activities are completed, or when required by the Engineer, fencing, stakes, and other anchoring materials, if any, shall be removed and disposed off-site by the Contractor.

REQUIRED WORK WITHIN THE TPPZ

In the event that grading, trenching, utility work, or storage is unavoidable within the TPPZ, the Engineer shall be notified. Measures may be required for tree protection and preservation, including air spading; the use of six (6) inch depth of wood chips or approved matting for root protection; pruning of branches; and/or trunk protection. These protection measures shall be paid under applicable contract items.

Landscaping work specified within the TPPZ shall be accomplished by hand tools. Where handwork is not feasible, with permission of the Engineer, work shall be conducted with the smallest mechanized equipment necessary.

TREE AND PLANT INJURY OR LOSS

If the TPPZ is encroached by construction activity without approval, at the discretion of the Engineer, the Contractor may be required to provide a more durable barrier (e.g., Jersey Barriers, chain link fence (if not already in use) to secure the area. Costs of furnishing and installing additional or more durable barrier(s) shall be borne by the Contractor.

ITEM 102.521 (Continued)

In such cases of encroachment, soils shall be considered compacted and tree root injury will be assumed. Action shall be taken as specified below.

In the event that trees designated for protection under this item are injured, including root injury from unapproved trespassing onto the root zone, the Contractor shall, at his own expense, secure the services of an Arborist, described under Item 102.55. The Arborist shall be approved by MassDOT.

In the event of spills, compaction or injury, the Contractor shall take corrective action immediately using methods approved by the Engineer, in coordination with the Arborist.

If, based on the recommendations of the Arborist, the Engineer determines that injuries can be remedied by corrective measures, such as repairing trunk or limb injury, soil compaction remediation, pruning, and/or watering; the injury shall be repaired as soon as possible, within the appropriate season for such work, and according to industry standards.

If, based on the recommendations of the Arborist, the Engineer determines that injuries are irreparable, or that the injuries are such that the tree is sufficiently compromised to pose a future safety hazard, the tree shall be removed. Tree removal shall include cleanup of all wood, grinding of the stump to a depth sufficient to plant a replacement tree or plant, removal of all chips from the stump site, and filling the resulting hole with topsoil. Such tree removal(s), grinding, debris removal, and filling, shall be at the Contractor's expense.

Tree removal from improper or inadequate protection of the TPPZ shall result in the Engineer assessing the Contractor monetary damages consistent with industry standards for assessed value and/or replacement.

Shrubs removals from improper or inadequate protection of the TPPZ shall be replaced with plants of similar species and equal size or the largest size plants reasonably available. The Engineer shall approve the size, quality, and quantity of the replacement plant(s). Each replacement shall include a minimum of one year of watering and establishment care, specified under Section 771.

METHOD OF MEASUREMENT AND BASIS OF PAYMENT

Tree and Plant Protection Fence will be measured by the FOOT, complete in place, by the length along the top of the fence.

Tree and plant protection fence will be paid for under the contract unit price per FOOT, complete in place and shall include all materials, labor, and equipment required to furnish, install, anchor, maintain, and remove the fence upon completion, as described herein. Posts, temporary footings, anchoring and removal upon completion, shall be incidental to this item.

No separate payment will be made for costs of remedial actions, including addition of more durable barriers, Arborist services, tree or plant removal, shrub replacement and establishment, but all costs in connection therewith shall be included in the Contract unit price bid.

ITEM 102.521 (Continued)

Tree damages assessed, due to lack of or improper tree and plant protective measures being taken, shall be deducted from the contract price of the work.

Payment for work under this item will be scheduled as follows:

- Forty (40) percent of the value payment will be made upon installation of fencing.
- Sixty (60) percent of the value payment will be made when fencing materials have been maintained to function as specified, for the intended duration, and removed and disposed off-site at the completion of protection measure requirement.

ITEM 102.531**TREE CARE - PRUNING****EACH**

The work under this item shall conform to the relevant provisions of Sections 771 and shall be for when specialized or significant limb pruning is required. Pruning shall be to prevent injury to the tree from construction equipment and activities, pruning of dead limbs, and/or pruning for health and balance of the tree to mitigate impacts of construction activities on the root zone.

Trees to be pruned shall be those listed below.

Station 16+60 LT

Station 300+75 RT

QUALIFICATIONS

Individuals performing the work must have, at a minimum, an ISA Certified Tree Worker or demonstrate equivalent training and experience. Certification shall be submitted to the Engineer for approval prior to work.

REFERENCES

If requested, the Contractor shall provide to the Engineer one copy of the latest edition of the American National Standards Institute (ANSI) A300 Standard Practices for Tree, Shrub, and Other Woody Plant Maintenance: Part 1-Pruning and Part 5-Construction Management Standard. Provision of reference shall be incidental to this item.

METHODS OF WORK

Prior to construction activities, the Engineer, the Contractor, and the Arborist shall review trees noted on the plans and listed herein to be pruned. Final decision as to trees pruned shall be per the Engineer.

Pruning of limbs shall conform to the techniques and standards of the most recent ANSI A300 standards.

METHOD OF MEASUREMENT AND BASIS OF PAYMENT

Item 102.531 will be measured and paid at the contract unit price per Each. This will include full compensation for all labor, equipment, tools, materials, and incidentals for the satisfactory completion of the work.

ITEM 102.533**TREE CARE - WATER****GALLON**

The work under this item shall conform to the relevant provisions of Section 440 and 771 of the Standard Specifications and the following:

The purpose of this item is to provide watering for tree care during and after root pruning as directed by the Arborist. Watering shall occur during daytime hours only.

MATERIAL

Water shall be water from an approved source.

SUBMITTALS

Schedule for watering shall be determined in consultation with the arborist. Expected schedule shall be submitted to the Engineer. Source of the water shall be approved by the Engineer and included in the submittal.

Contractor shall submit metered record of water used or other measure approved by the Engineer. Record must show date of watering and quantity used.

METHODS

At least one day prior to watering on site, the contractor shall notify the Engineer.

Watering equipment shall be approved by the Engineer prior to watering under this item. Equipment shall be such that there is no water leaking from the tank, hoses, or any other parts. Water shall be pumped and have a minimum flow of 95 PSI. Gravity fed watering shall not be accepted under this item.

If water runs off root zone area due to slope, too high a flow rate, slow infiltration, or any other reason, water will not be approved for payment.

Watering method shall not damage plants or seeded areas or cause erosion. All damages shall be repair at the Contractor's expense.

METHOD OF MEASUREMENT

Item 102.533 shall be measured by the Gallon and shall be based on the submittals described herein. Payment shall be for all labor, equipment, and materials to complete the work specified.

BASIS OF PAYMENT

Item 102.533 will be paid for at the Contract unit price per Gallon which price shall include all labor equipment, materials and incidental costs required to complete the work.

ITEM 102.55**ARBORIST****HOUR**

The work under this Item is for the services of a Certified Arborist. Arborist shall be an International Society of Arboriculture (ISA) Certified Arborist or a Massachusetts Certified Arborist. The Arborist shall have at least 10 years of experience in tree care, including tree protection during construction, and shall demonstrate a familiarity with the American National Standards Institute (ANSI) A300 Standard Practices for Tree, Shrub, and Other Woody Plant Maintenance Part 1 Pruning, Part 5 Construction Management Standards, and Part 9 Tree Risk Assessment.

The Arborist's general responsibilities include protecting high priority trees within and adjacent to the project limits, stating areas, and access routes; recommending removal of diseased, damaged or otherwise unhealthy trees that pose a potential safety hazard; evaluating effects of construction on future health of trees close to proposed work; and recommending and/or overseeing tree work and care.

The Arborist for this item shall not be from the same company as the company responsible for selective clearing or tree removal work.

For projects with multiple phases, projects where construction activities (work or stockpiling) shifts, or when otherwise directed by the Engineer, the Arborist shall re-evaluate conditions and provide follow-up recommendations.

SUBMITTALS

- B Contractor shall submit to the Engineer for approval by MassDOT Landscape Design the qualifications and experience of the Arborist. Submittal shall include copy of current certification and a resume summarizing specific construction experience (including relevant MassDOT projects) for a minimum of five projects.
- B Arborist's Report documenting recommendations shall be submitted to the Engineer and an electronic copy forwarded to MassDOT Landscape Design Section. Report shall include the following:

SCOPE OF WORK

The Arborist shall be responsible for the following tasks:

- Initial Evaluation and Report
 - recommend and prioritize trees that require removal as appropriate to contract scope, project limits, and project intent;
 - review and modify, if necessary, tree protection measures shown on the drawings
 - review and mark limits of protective fencing for trees and groups of trees to be retained;
 - review and recommend protection measures for high priority trees;
 - submit a marked-up Construction Plan that briefly notes recommendations and decisions made in the field;
 - submit a corresponding report including photo documentation;

ITEM 102.55 (Continued)

- Oversight
 - direct or execute pruning of branches and/or roots, air spading, and/or other tree care operations
- Monitoring and Inspections
 - periodically inspect fencing and ensure root zones are properly protected and clear of equipment and materials as required by the Engineer
 - reevaluate tree protection measures for various phases of a project
 - submit inspection notes with relevant and dated photos to the Engineer.
- Special Care
 - oversee tree pruning for health and aesthetics
 - recommend fertilization and amendments
 - recommend and oversee pest control

METHODS

Prior to any work, the Arborist shall walk the site with the Contractor, the Engineer, the City Tree Warden, and, if specified, the MassDOT Landscape Architect, to review trees, limits of construction activities, and other concerns. Where required for proper assessment of tree impacts, limits of work shall be staked or otherwise marked in the field prior to the site walk.

Trees to be removed shall be painted or otherwise marked.

Trees to be retained shall be marked such that it does not mar or damage the tree and such that marker is not easily removed. As applicable to the work and scope of the project, trees designated for removal or to be retained shall be noted on the plan and/or in the arborist's report and photographed.

Trees designated to remain that are damaged or removed by construction activities shall be noted and photographed for inclusion in inspection reports submitted to the Engineer.

METHOD OF MEASUREMENT

Item 102.55 will be measured for payment by the Hour of time spent onsite.

BASIS OF PAYMENT

Item 102.55 will be paid at the contract unit price per hour upon submittal and acceptance of Reports described above.

ITEM 127.1**REINFORCED CONCRETE EXCAVATION****CUBIC YARD**

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

Reinforced concrete excavation shall include the removal and disposal reinforced concrete road base and removal of existing concrete stairs.

All other concrete removal including cement concrete sidewalks and driveways shall be considered earth excavation.

METHOD OF MEASUREMENT

Item 127.1 will be measured for payment by the Cubic Yard of reinforced concrete excavated.

BASIS OF PAYMENT

Item 127.1 will be paid for at the contract unit price per Cubic Yard, which price shall include all labor, materials, equipment, and incidental costs required to complete the work.

ITEM 180.01 ENVIRONMENTAL HEALTH AND SAFETY PROGRAM LUMP SUM

The work shall consist of ensuring the health and safety of the Contractor's employees and subcontracting personnel, the Engineer, their representatives, the environment, and public welfare from any on-site chemical contamination present in air, soil, water and sediment.

The Contractor shall prepare and implement a site-specific Environmental Health and Safety Plan (EHASP) which has been approved and stamped by a Certified Industrial Hygienist (CIH) and includes the preparer's name and work experience. The EHASP shall include appropriate components required by OSHA Standard 29 CFR 1910.120(b) and the Massachusetts Contingency plan (MCP) 310 CMR 40.0018 and must comply with all applicable state and federal laws, regulations, standards and guidelines, and provide a degree of protection and training appropriate for implementation on the project. The EHASP shall be a dynamic document with provision for change to reflect new information, new practices or procedures, changing site environmental conditions or other situations which may affect site workers and the public. The EHASP shall be developed and implemented independently from the standard construction HASP required to work on all MassDOT construction projects.

Health and safety procedures provided by the Contractor shall comply with all the appropriate regulations that address employee working conditions, including but not limited to standards established by OSHA and National Institute for Occupational Safety and Health (NIOSH). Equipment used for the purpose of health and safety shall be approved by and meet pertinent standards and specifications of the appropriate regulatory agencies.

A copy of the most up-to-date version of the EHASP shall be maintained on-site at all times by the Contractor. The on-site copy shall contain the signature of the Engineer and each on-site employee of the MassDOT, Contractor, and Subcontractors involved with on-site activities. The employee's signature on the EHASP shall be deemed prima facie evidence that the employee has read and understands the plan. Updated copies of signature sheets shall be submitted to the Engineer.

The EHASP shall specify a Contractor Site Safety and Health Officer responsible for implementation of the EHASP and to oversee all construction activities, including handling, storage, sampling and transport, which require contact with or exposure to potentially hazardous materials.

The level of protection, required to ensure the health and safety of on-site personnel will be stipulated in the EHASP. The Site Safety and Health Officer shall implement the EHASP based on changing site and weather conditions, type of operation or activity, chemical compounds identified on-site, concentration of the chemicals, air monitoring data, physical state of the hazardous materials, potential duration of exposure to hazardous materials, dexterity required to perform work, decontamination procedures, necessary personnel and type of equipment to be utilized.

ITEM 180.01 (Continued)

During implementation of the EHASP, a daily log shall be kept by the Site Safety and Health Officer and a copy shall be provided weekly to the Engineer. This log shall be used to record a description of the weather conditions, levels of personal protection being employed, screening data and any other information relevant to on-site environmental safety conditions. The Site Safety and Health Officer shall sign and date the daily log.

METHOD OF MEASUREMENT AND BASIS OF PAYMENT

Preparation and implementation of the Environmental Health and Safety Program, including the monitoring, protection and storage of all contaminated materials, as well as subsequent modifications to the EHASP, will be measured and paid for at the Lump Sum Bid Price.

Payment of 50% of the Environmental Health and Safety Program contract price will be made upon the initial acceptance of the EHASP by the Engineer. Payment of the remaining 50% of the Environmental Health and Safety Program contract price will be made upon completion of the work. The bid price shall include preparation and implementation of the EHASP as well as the cost for its enforcement by the Site Safety and Health Officer along with any necessary revisions and updates. The work of implementing the Environmental Health and Safety Program includes work involving, but not limited to, the monitoring, protection, and storage of all contaminated materials.

ITEM 180.02**PERSONAL PROTECTION LEVEL C UPGRADE** **HOUR**

The work shall consist of providing appropriate personal protective equipment (PPE) for all personnel in an area either containing or suspected of containing a hazardous environment.

Contingencies for upgrading the level of protection for on-site workers will be identified in the EHASP and the Contractor shall have the capability to implement the personal protection upgrade in a timely manner. The protective equipment and its use shall be in compliance with the EHASP and all appropriate regulations and/or standards for employee working conditions.

Personal Protection Level C Upgrade will be measured and paid only upon upgrade to Level C and will be at the contract unit price, per hour, per worker, required in Level C personal protection. No payment will be made to the Contractor to provide Level D PPE.

ITEM 180.03**LICENSED SITE PROFESSIONAL SERVICES****HOUR**

Within limited areas of the project site, media (i.e. soils, sediments, surface water and/or groundwater) requiring evaluation and/or management under the Massachusetts Contingency Plan (MCP) may be encountered. A Licensed Site Professional (LSP) shall be required to provide the services necessary to comply with the requirements of the MCP. These services may include a site walk, field screening, sampling, analysis and characterization of potentially contaminated media, preparation and implementation of Immediate Response Action (IRA) Plans, Utility-Related Abatement Measure (URAM) and Release Abatement Measure (RAM) Plans, Imminent Hazard Evaluations, status reports, transmittal forms, release notification forms, risk assessments, completion statements, and related documents required pursuant to the MCP. LSP services shall also be necessary to temporarily move material generated on the project to an off-site storage location.

The name and qualifications of the LSP and all environmental technicians to be assigned to the project shall be submitted to the Engineer for approval at least four weeks prior to initial site activities. The LSP shall have a current, valid license issued by the Massachusetts Board of Registration of Hazardous Waste Site Cleanup Professionals. The LSP shall have significant experience in the oversight of MCP activities at active construction sites. Qualification packages for the LSP and each technician shall include a resume, all recent work assignments with responsibilities identified (previous 5 years), and applicable training and certifications. A list of all Notices of Noncompliance, Notice of Audit Findings and Enforcement Orders issued by the Massachusetts Department of Environmental Protection (DEP) shall be submitted for all work assignments listed for the LSP and environmental technicians. Upon approval of the LSP Qualifications, the LSP will be designated as the LSP of Record unless MassDOT designates in writing otherwise. The LSP of Record will serve as the primary point of contact for all hazardous material matters on the project.

The LSP shall evaluate soil and/or sediment with discoloration, odor, elevated field screening results, presence of petroleum liquid or sheen on the groundwater surface, or any abnormal gas or materials in the ground which are known or suspected to be oil or hazardous materials. Excavated soil and sediment which is suspected of petroleum contamination shall be field screened using the jar headspace procedures according to established DEP Guidance. All field screening equipment must be pre-approved by the Engineer. The LSP shall ensure proper on-site calibration of all field screening instrumentation.

The Engineer shall be contacted immediately when observations or any field screening results verify contamination requiring further analysis, and/or enhanced management of suspect media. Any enhanced management of contaminated soil to ensure proper stockpiling and storage is incidental to the LSP Services item. The LSP shall evaluate the need for confirmatory sampling prior to backfill in areas where contaminated material has been excavated and disposed off-site for compliance with applicable regulatory requirements. The Engineer shall approve the locations of the testing sites prior to the sampling.

ITEM 180.03 (Continued)

Contaminated media shall be handled in accordance with all applicable state and federal statutes, regulations, and policies. The LSP shall adequately evaluate contaminated media for compliance with the requirements of the MCP and Department Policies.

The Contractor and the LSP shall be aware of the reporting requirements for releases of oil and/or other hazardous material (OHM) as set forth in federal and state laws and regulations and both shall be held responsible for performing the work in accordance with all applicable Federal and State laws and regulations. The LSP shall maintain written records in a clear and concise tabular format which tracks the excavation, stockpiling, analysis and reuse/disposal of all known/suspect contaminated media. These records shall be up-to-date and submitted to the Engineer on a bi-weekly basis. The LSP shall review and summarize the laboratory data from any analyses performed on contaminated media in a tabular format and compare the results to applicable reporting thresholds. A report shall be delivered to the Engineer outlining the material sampling methods, laboratory analysis results, evaluation of applicable regulatory exemptions, reporting obligations, and proposed course of action. The laboratory report together with Chain of Custody forms for all analytical results shall be submitted to the Engineer within 14 days after completion of such analyses.

The LSP and Contractor shall be held responsible for the submission of all MCP-related documents to the Engineer at least 14 days in advance of any timeframe specified in the MCP and for the timely submission of data and tracking information as noted within this Item. All documents prepared under this Item must be reviewed and signed by the approved LSP. The Contractor and LSP shall be responsible for all fines, damages, and enforcement requirements imposed by applicable regulatory agencies for failure to meet regulatory and contract timeframes. No compensation will be provided for such fines, damages, and enforcement actions.

The Contractor and the LSP shall be aware of the reporting requirements for releases of oil and/or other hazardous material (OHM) as set forth in federal and state laws and regulations and shall both be held responsible for performing the work in accordance with all applicable Federal and State laws and regulations.

If the Contractor causes a release of OHM, the Contractor shall be responsible for assessing and remediating the release in accordance with all pertinent State and Federal regulations, including securing the services of a LSP, at his own expense.

The LSP shall coordinate all activities involving both MassDOT and the DEP through the Engineer. Any notification of release shall be approved by the Engineer before submittal to the DEP, except if an imminent hazard condition exists as defined in 309 CMR 4.03(4)(b).

ITEM 180.03 (Continued)**LABORATORY TESTING IN SUPPORT OF LSP SERVICES**

Laboratory testing provides for analytical testing in support of LSP services related to maintaining MCP compliance, such as delineating the extent and type of contamination present. Sampling and testing for disposal purposes are not included and are incidental to Items 181.11-181.14.

In order to maintain compliance with the MCP and Department Policies or other regulatory requirements, the LSP shall request approval from the Engineer to obtain samples from various locations and depths within the project area and to perform laboratory analyses on those samples. No sampling shall be conducted without prior approval from the Engineer. The samples shall be delivered to a DEP-certified laboratory using proper chain-of-custody documentation for analyses which, depending upon site conditions and suspected and/or identified contaminants of concern, may include, but are not limited to, metals, polychlorinated biphenyls (PCBs), volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), pesticides, polycyclic aromatic hydrocarbons (PAHs), extractable petroleum hydrocarbons (EPHs) and volatile petroleum hydrocarbons (VPHs). Subsequent testing, depending upon initial results, may be required for Toxicity Characteristic Leaching Procedure (TCLP) analyses (EPA Method 1311) for metals.

METHOD OF MEASUREMENT AND BASIS OF PAYMENT

LSP Services for work under this item will be measured per person, per hour of service provided by LSP, Environmental Technicians and other approved personnel. Travel time shall not be included in the billable hours.

The quantity and type of laboratory tests must be approved by the Engineer beforehand. The Contractor will be reimbursed upon satisfactory written evidence of payment. The Contractor may be required to obtain cost estimates from three DEP certified laboratories for the Engineer to choose the service provider.

LSP Services will be paid at the Contractor bid price for each hour, or fraction thereof, spent to perform the work as described above. The bid price shall be a blended rate that includes the cost of the LSP, environmental technicians and other personnel, the performance of all work tasks and field screening, including required equipment, materials and instrumentation, and production of all documentation described above. All requests for payment must be accompanied by the following information: the names of the personnel associated with the work charged under LSP Services, dates and hours worked, work conducted, including, where appropriate, locations as identified on the construction plans, and a copy of the field diary for the dates submitted.

Laboratory testing will be reimbursed upon receipt of paid invoices for testing approved by the Engineer.

This item is for LSP work for compliance with the MCP and Department Policies. LSP hours and any laboratory testing related to off-site disposal of excess soil and sediment is incidental to Items 181.11-181.14 (including, but not limited to, disposal characterization, disposal package preparation, landfill acceptance, shipment paperwork preparation, field screening, and tracking).

<u>ITEM 181.11</u>	<u>DISPOSAL OF UNREGULATED SOIL</u>	<u>TON</u>
<u>ITEM 181.12</u>	<u>DISPOSAL OF REGULATED SOIL - IN-STATE FACILITY</u>	<u>TON</u>
<u>ITEM 181.13</u>	<u>DISPOSAL OF REGULATED SOIL - OUT-OF-STATE FACILITY</u>	<u>TON</u>
<u>ITEM 181.14</u>	<u>DISPOSAL OF HAZARDOUS WASTE</u>	<u>TON</u>

The work under these Items shall include the transportation and disposal of contaminated material excavated, or excavated and stockpiled. It shall also include the cost of any additional laboratory analyses required by a particular disposal facility beyond the standard disposal test set.

Excavation of existing subsurface materials may include the excavation of contaminated soils. The Contractor shall be responsible for the proper coordination of characterization, transport and disposal, recycling or reuse of contaminated soils. Disposal, recycling or reuse will be referred to as “disposal” for the purposes of this specification. However, regardless of the use of the term herein, there will be no compensation under these items for reuse within the project limits. The Contractor will be responsible for coordinating the activities necessary for characterization, transport and disposal of contaminated soils. Such coordination will include the Engineer and his/her designee overseeing management of contaminated materials. Contaminated soils must be disposed of in a manner appropriate for the soil classification as described below and in accordance with the applicable laws of local, state and federal authorities. The Contractor shall be responsible for identifying disposal facility (ies) licensed to accept the class of contaminated soils to be managed and assure that the facility can accept the anticipated volume of soil contemplated by the project. The Contractor shall be responsible for hiring a Licensed Site Professional (LSP) and all ancillary professional services including laboratories as needed for this work. The Contractor will be responsible for obtaining all permits, approvals, manifests, waste profiles, Bills of Lading, etc. subject to the approval of the Engineer prior to the removal of the contaminated soil from the site. The Contractor and LSP shall prepare and submit to the Engineer for approval all documents required under the Massachusetts Contingency Plan (MCP) and related laws and environmental regulations to conduct characterization, transport, and disposal of contaminated materials.

CLASSES OF CONTAMINATED SOILS

The Contractor and its LSP shall determine if soil excavated or soil to be excavated is unregulated soil or contaminated soil as defined in this section. Such materials shall be given a designation for purposes of reuse or disposal based on the criteria of the MCP. Soils and sediments which are not suitable for reuse will be given a designation for purposes of off-site disposal based on the characterization data and disposal facility license requirements. The Classes of Contaminated Soils are defined as follows:

ITEMS 181.11 through 181.14 (Continued)

UNREGULATED SOIL consists of soil, fill and dredged material with measured levels of oil and hazardous material (OHM) contamination at concentrations below the applicable Reportable Concentrations (RCs) presented in the MCP. Unregulated soil consists of material which may be reused (or otherwise disposed) as fill within the Commonwealth of Massachusetts subject to the non-degradation criteria of the MCP (310 CMR 40.0032(3), in a restricted manner, such that they are sent to a location with equal or higher concentrations of similar contaminants. Disposal areas include licensed disposal facilities, approved industrial settings in areas which will be capped or covered with pavement or loamed and seeded, and for purposes of this project should be reused as fill within the project site construction corridor whenever possible. The material cannot be placed in residential and/or environmentally sensitive (e.g. wetlands) areas. Under no circumstances shall contaminated soils be placed in an uncontaminated or less contaminated area (including the area above the groundwater table if this area shows no sign of contamination).

The Contractor shall submit to MassDOT the proposed disposal location for unregulated soils for approval. If such a disposal location is not a licensed disposal facility, the Contractor shall submit to the Engineer analytical data to characterize the disposal area sufficiently to verify that the unregulated material generated within the MassDOT construction project limits is equal to or less than the contaminant levels at the disposal site and meets the non-degradation requirements of the MCP. In addition, the Contractor shall provide written confirmation from the owner of the proposed disposal location that they have been provided with the analytical data for both the materials to be disposed as well as the disposal site characterization and that s/he agrees to accept this material. A Material Shipping Record or Bill of Lading, as appropriate, shall be used to track the off-site disposal of unregulated soil and a copy, signed by the disposal facility or property owner, shall be provided to the Engineer in order to document legal disposal of the unregulated material.

The cost of on-site disposal of unregulated soil within the project area will be considered incidental to the item of work to which it pertains.

ITEMS 181.11 through 181.14 (Continued)

REGULATED SOIL consists of materials containing measurable levels of OHM that are equal to or exceed the applicable Reportable Concentrations for the site as defined by the MCP, 310 CMR 40.0000. Regulated soil which meets the MCP reuse criteria of the applicable soil/groundwater category for this project area may be reused on site provided that it meets the appropriate geotechnical criteria established by the Engineer. Regulated Soil may be reused (as daily or intermediate cover or pre-cap contouring material) or disposed (as buried waste) at lined landfills within the Commonwealth of Massachusetts or at an unlined landfill that is approved by the Massachusetts Department of Environmental Protection (DEP) for accepting such material, in accordance with DEP Policy #COMM-97-001, or at a similar out-of-state facility. It should be noted that soils which exceed the levels and criteria for disposal at in-state landfills, as outlined in COMM-97-001, may be shipped to an in-state landfill, but require approval from the DEP Division of Solid Waste Management and receiving facility. An additional management alternative for this material is recycling into asphalt. Regulated Soils may also be recycled at a DEP approved recycling facility possessing a Class A recycling permit subject to acceptance by the facility and compliance with DEP Policy #BWSC-94-400. Regulated Soil removed from the site for disposal or treatment must be removed via an LSP approved Bill of Lading, Manifest or applicable material tracking form. This type of facility shall be approved/permitted by the State in which it operates to accept the class of contaminated soil in accordance with all applicable local, state and federal regulations.

HAZARDOUS WASTE consists of materials which must be disposed of at a facility permitted and operated in full compliance with Federal Regulation 40 CFR 260-265, Massachusetts Regulation 310 CMR 30.000, Toxic Substances Control Act (TSCA) regulations, or the equivalent regulations of other states, and all other applicable local, state, and federal regulations. All excavated materials classified as hazardous waste shall be disposed of at an out-of-state permitted facility. This facility shall be a RCRA hazardous waste or TSCA facility, or RCRA hazardous waste incinerator. This type of facility shall be approved/permitted by the State in which it operates to accept hazardous waste in accordance with all applicable local, state and federal regulations and shall be permitted to accept all contamination which may be present in the soil excavate. The Contractor shall ensure that, when needed, the facility can accept TSCA waste materials i.e. polychlorinated biphenyls (PCBs). Hazardous waste must be removed from the site for disposal or treatment via an LSP approved Manifest.

MONITORING/SAMPLING/TESTING REQUIREMENTS

The Contractor shall be responsible for monitoring, sampling and testing during and following excavation of contaminated soils to determine the specific class of contaminated material. Monitoring, sampling and testing frequency and techniques should be performed in accordance with Item 180.03 – LSP Services. Additional sampling and analysis may be necessary to meet the requirements of the disposal facility license. The cost of such additional sampling and analysis shall be included in the bid cost for the applicable disposal items. The Contractor shall obtain sufficient information to demonstrate that the contaminated soil meets the disposal criteria set by the receiving facility that will accept the material.

ITEMS 181.11 through 181.14 (Continued)

No excavated material will be permanently placed on-site or removed for off-site disposal until the results of chemical analyses have been received and the materials have been properly classified. The Contractor shall submit to the Engineer results of field and laboratory chemical analyses tests within seven days after their completion, accompanied by the classification of the material determined by the Contractor, and the intended disposition of the material. The Contractor shall submit to the Engineer for review all plans and documents relevant to LSP services, including but not limited to, all documents that must be submitted to the DEP.

WASTE TRACKING

Copies of the fully executed Weight Slips/Bills of Lading/ Manifests/Material Shipping Records or other material tracking form received by the Contractor from each disposal facility and for each load disposed of at that facility, shall be submitted to Engineer and the Contractor's LSP within three days of receipt by the Contractor. The Contractor is responsible for preparing and submitting such documents for review and signature by the LSP or other appropriate person with signatory authority, three days in advance of transporting soil off-site. The Contractor shall furnish a form attached to each manifest or other material tracking form for all material removed off-site, certifying that the material was delivered to the site approved for the class of material. If the proposed disposition of the material is for reuse within the project construction corridor, the Contractor shall cooperate with MassDOT to obtain a suitable representative sample(s) of the material to establish its structural characteristics in order to meet the applicable structural requirements as fill for the project.

All material transported off-site shall be loaded by the Contractor into properly licensed and permitted vehicles and transported directly to the selected disposal or recycling facility and be accompanied by the applicable shipping paper. At a minimum, truck bodies must be structurally sound with sealed tail gates, and trucks shall be lined and loads covered with a liner, which shall be placed to form a continuous waterproof tarpaulin to protect the load from wind and rain.

DECONTAMINATION OF EQUIPMENT

Tools and equipment which are to be taken from and reused off site shall be decontaminated in accordance with applicable local, state and federal regulations. This requirement shall include, but not be limited to, all tools, heavy machinery and excavating and hauling equipment used during excavation, stockpiling and handling of contaminated material. Decontamination of equipment is considered incidental to the applicable excavation item.

ITEMS 181.11 through 181.14 (Continued)**REGULATORY REQUIREMENTS**

The Contractor shall be responsible for adhering to regulations, specifications and recognized standard practices related to contaminated material handling during excavation and disposal activities. MassDOT shall not be responsible at any time for the Contractor's violation of pertinent State or Federal regulations or endangerment of laborers and others. The Contractor shall comply with all rules, regulations, laws, permits and ordinances of all authorities having jurisdiction including, but not limited to, Massachusetts DEP, the U.S. Environmental Protection Agency (EPA), Federal Department of Transportation (DOT), Massachusetts Water Resources Authority (MWRA), the Commonwealth of Massachusetts and other applicable local, state and federal agencies governing the disposal of contaminated soils.

All labor, materials, equipment and services necessary to make the work comply with such regulations shall be provided by the Contractor without additional cost to MassDOT. Whenever there is a conflict or overlap within the regulations, the most stringent provisions shall apply. The Contractor shall reimburse MassDOT for all costs it incurs, including damages and/or fines, as a result of the Contractor's failure to adhere to the regulations, specifications, recognized standard practices, etc., that relate to contaminated material handling, transportation and disposal.

SUBMITTALS**I. Summary of Sampling Results, Classification of Material and Proposed Disposal Option.**

The following information, presented in tabular format, must be submitted to the Engineer for review and approval prior to any reuse on-site or disposal off-site. This requirement is on-going throughout the project duration. At least two weeks prior to the start of any excavation activity, the Contractor shall submit a tracking template to be used to present the information as stipulated below. Excavation will not begin until the format is acceptable to MassDOT.

Characterization Reports will be submitted for all soil, sediment, debris and groundwater characterized through the sampling and analysis program. Each report will include a site plan which identifies the sampling locations represented in the Report. The Construction Plan sheets may be used as a baseplan to record this information.

The Sampling Results will be presented in tabular format. Each sample will be identified by appropriate identification matching the sample identification shown on the Chain of Custody Record. The sample must also be identified by location (e.g. grid number or stockpile number). For each sample, the following information must be listed: the classification (unregulated, regulated, etc.), proposed disposal option for the stockpile or unit of material represented, and, all analytical results.

Each Characterization Report will include the laboratory analytical report and Chain of Custody Record for the samples included in the Report.

ITEMS 181.11 through 181.14 (Continued)**II. Stockpiling, Transport, and Disposal.**

At least two weeks prior to the start of any excavation activity, the Contractor shall submit, in writing, the following for review and shall not begin excavation activity until the entire submittal is acceptable to MassDOT.

Excavation and Stockpiling Protocol:

Provide a written description of the management protocols for performing excavation and stockpiling and/or direct loading for transport, referencing the locations and methods of excavating and stockpiling excavated material.

Disposal and Recycling Facilities:

1. Provide the name, address, applicable licenses and approved waste profile for disposal and/or recycling location(s) where contaminated soil will be disposed. Present information substantiating the suitability of proposed sites to receive classifications of materials intended to be disposed there, including the ability of the facility to accept anticipated volumes of material.
2. Provide a summary of the history of compliance actions for each disposal/recycling facility proposed to be used by the Contractor. The compliance history shall include a comprehensive list of any state or federal citations, notices of non-compliance, consent decrees or violations relative to the management of waste (including remediation waste) at the facility. Material should not be sent to facilities which are actively considered by the DEP, USEPA or other responsible agency to be in violation of federal, state or local hazardous waste or hazardous material regulations. MassDOT reserves the right to reject any facility on the basis of poor compliance history.

Transportation:

The name, address, applicable license and insurance certificates of the licensed hauler(s) and equipment and handling methods to be used in excavation, segregation, transport, disposal or recycling.

III. Material Tracking and Analytical Documentation for Reuse/Disposal.

The following documents are required for all excavation, reuse and disposal operations and shall be in the format described. At least two weeks prior to the start of any excavation or demolition activity, the Contractor shall submit the tracking templates required to present the information as stipulated below. Excavation or demolition will not begin until the format is acceptable to MassDOT.

All soils, sediments and demolition debris must be tracked from the point of excavation to stockpiling to onsite treatment/processing operations to off-site disposal or onsite reuse as applicable.

ITEMS 181.11 through 181.14 (Continued)**Demolition Debris:**

Demolition debris must be tracked if the debris is stockpiled at a location other than the point of origin or if treatment or material processing is conducted. Identification of locations will be based on the station-offset of the location. The tracking table will identify date and point of generation, any field screening such as PID or dust monitoring, visual observations/comments, quantity, and stockpile ID/processing operation location. For each unit of material tracked, the table will also track reuse of the material on-site, providing reuse date, location of reuse as defined by start and end station, width of reuse location by offset, the fill elevation range, quantity, and finish grade for said location. For demolition debris which is not reused on site, the table will also track disposal of the material as defined by disposal date, quantity and disposal facility. The table must provide a reference to any analytical data generated for the material.

Soil/Sediment:

Soil excavation will be identified based on the station-offset of the excavation location limits. The tracking table will identify date and point of generation, any field screening such as PID or dust monitoring, visual observations, quantity, and stockpile number/location. For each unit of material tracked, the table will also track reuse of the material on-site and disposal of the material off-site using the same categories identified for demolition debris above.

METHOD OF MEASUREMENT AND BASIS OF PAYMENT

Disposal of contaminated soil shall be measured for payment by the Ton of actual and verified weight of contaminated materials removed and disposed of. The quantities will be determined only by weight slips issued by and signed by the disposal facility. The most cost-effective, legal disposal method shall be used. The work of the LSP for disposal under all of these items shall be incidental to the work with no additional compensation.

ITEM 181.11 Measurement for Disposal of Unregulated Soil shall be under the Contract Unit Price by the weight, in tons, of contaminated materials removed from the site and transported to and disposed of at an approved location or licensed facility, and includes any and all costs for approvals, permits, fees and taxes, additional testing/characterization required by the facility beyond the standard disposal test set, decontamination procedures, transportation and disposal.

ITEM 181.12 Measurement for Disposal of Regulated Soil – In-State Facility shall be under the Contract Unit Price by the weight in tons of contaminated materials removed from the site and transported to and disposed of at an approved in-state facility, and includes any and all costs for approvals, permits, fees and taxes, testing/characterization required by the facility beyond the standard disposal test set, decontamination procedures, transportation and disposal.

ITEMS 181.11 through 181.14 (Continued)

ITEM 181.13 Measurement for Disposal of Regulated Soil - Out-of-State Facility shall be under the Contract Unit Price by the weight in tons of contaminated materials removed from the site and transported to and disposed of at an approved out-of-state facility, and includes any and all costs for approvals, permits, fees and taxes, testing/characterization required by the facility beyond the standard disposal test set, decontamination procedures, transportation and disposal.

ITEM 181.14 Measurement for Disposal of Hazardous Waste shall be under the Contract Unit Price by the weight in tons of hazardous waste removed from the site and transported to and disposed of at the licensed hazardous waste facility, and includes any and all costs for approvals, permits, fees and taxes, testing/characterization required by the facility beyond the standard disposal test set, decontamination procedures, transportation and disposal.

ITEM 182.1**INSPECTION AND TESTING FOR ASBESTOS****LUMP SUM**

The work shall include inspecting and testing of all materials suspected of containing asbestos. When any demolition is required to enable the inspection and testing of the suspected material it will be considered incidental to this Item and the Contractor must perform all asbestos handling and testing in accordance with the regulations stated below.

Dust suppression in the form of light water sprays, foams, dust suppressants and calcium chloride will be implemented as required to control dusting during any disturbance of asbestos suspected material. Alternatively, intrusive activities may be reduced or curtailed under high wind or heavy rain conditions, which in the opinion of the Health and Safety Plan (HASP) may pose a safety hazard to the workers.

The Contractor shall employ the services of a Massachusetts licensed "Asbestos Inspector" to inspect the material to determine whether or not "ITEM 182.2 REMOVAL OF ASBESTOS" is required. Should the asbestos inspector determine laboratory testing is required, a state certified laboratory shall be used to perform all necessary tests.

REGULATIONS

U.S. Department of Labor, Occupational Safety and Health Administration, (OSHA) including but not limited to:

- 29 CFR 1910 Section 1001 and 29 CFR 1926 Section 58 Occupational exposure to Asbestos, Tremolite, Anthophyllite and Actinolite, Final Rule
- 29 CFR 1910 Section 134 Respiration Protection
- 29 CFR 1926 Construction Industry
- 29 CFR 1910 Section 2 Access to Employee Exposure and Medical Records
- 29 CFR 1910 Section 1200 Hazard Communication
- 29 CFR 1910 Section 145 Specifications for Accident Prevention Signs and Tags

U.S. Environmental Protection Agency, (EPA) including but not limited to:

- 40 CFR 762, CPTS 62044, FRL 2843-9, Federal Register Vol. 50 no.134, July 12, 1985 p.28530 - 28540 Asbestos Abatement Projects Rule
- 40 CFR 61 Subpart A Regulation for Asbestos
- 40 CFR 61 Subpart M (Revised Subpart B) National Emission Standard for Asbestos

U.S. Department of Transportation 49 CFR 172 and 173

Massachusetts Department of Labor Standards Regulations, (DLS) including but not limited to:

- 454 CMR 28.00 Removal, Containment and Encapsulation of Asbestos

ITEM 182.1 (Continued)

Massachusetts Department of Environmental Protection (DEP) including but not limited to (supplementing subsection 7.01):

310 CMR 7.00, Section 7.09 Odor and Dust, Section 7.10 Noise, Section 7.15 Air Pollution Control Regulations
310 CMR 18.00 and 19.00 Solid Waste Regulations

Massachusetts Division of Industrial Safety 45 CMR 10.00

Local Requirements including but not limited to those of Health Departments, Fire Departments and Inspection Services Departments

Wherever there is a conflict or overlap of the above references, the most stringent provision shall apply.

BASIS OF PAYMENT

Item 182.1 will be paid for at the Contract unit price per Lump Sum, which price shall include all labor, materials, tools, equipment, and all incidental costs required to complete the work as described and as required by the Engineer.

No separate payment will be made for the protection of general public, private property, the proper inspecting and testing of the material, but all costs in connection therewith shall be included in the Contract unit price bid.

ITEM 182.2**REMOVAL OF ASBESTOS****FOOT**

The work shall include the removal and satisfactory disposal of existing asbestos. The Contractor's attention is directed to the fact that existing asbestos shall be inspected and tested prior to removal, to determine if special removal and disposal is required. The Contractor shall follow all the rules and regulations stated in "ITEM 182.1 INSPECTION AND TESTING FOR ASBESTOS". If asbestos is present, the Contractor shall follow all the rules and regulations stated in the section "REMOVAL AND DISPOSAL OF ASBESTOS CONTAINING MATERIALS", under this item. The Contractor should notify and coordinate his/her efforts with the proper utility accordingly.

REMOVAL AND DISPOSAL OF ASBESTOS CONTAINING MATERIALS

This section specifies the requirements for the handling and removal of asbestos containing material. The Contractor must perform all asbestos handling and removal work in accordance with these specifications and the following additional requirements.

U.S. Department of Labor, Occupational Safety and Health Administration, (OSHA) including but not limited to:

- 29 CFR 1910 Section 1001 and 29 CFR 1926 Section 58 Occupational exposure to Asbestos, Tremolite, Anthophyllite and Actinolite, Final Rule
- 29 CFR 1910 Section 134 Respiration Protection
- 29 CFR 1926 Construction Industry
- 29 CFR 1910 Section 2 Access to Employee Exposure and Medical Records
- 29 CFR 1910 Section 1200 Hazard Communication
- 29 CFR 1910 Section 145 Specifications for Accident Prevention Signs and Tags

U.S. Environmental Protection Agency, (EPA) including but not limited to:

- 40 CFR 762, CPTS 62044, FRL 2843-9, Federal Register Vol. 50 no.134, July 12, 1985 p.28530 - 28540 Asbestos Abatement Projects Rule
- 40 CFR 61 Subpart A Regulation for Asbestos
- 40 CFR 61 Subpart M (Revised Subpart B) National Emission Standard for Asbestos

U.S. Department of Transportation 49 CFR 172 and 173

Massachusetts Department of Labor Standards, (DLS) including but not limited to:

- 454 CMR 28.00 Removal, Containment and Encapsulation of Asbestos

Massachusetts Department of Environmental Protection (DEP) including but not limited to (supplementing subsection 7.01):

- 310 CMR 7.00, Section 7.09 Odor and Dust, Section 7.10 Noise, Section 7.15 Air Pollution Control Regulations
- 310 CMR 18.00 and 19.00 Solid Waste Regulations

Massachusetts Division of Industrial Safety 45 CMR 10.00

ITEM 182.2 (Continued)

Local Requirements including but not limited to those of Health Departments, Fire Departments and Inspection Services Departments

Wherever there is a conflict or overlap of the above references, the most stringent provision shall apply.

All asbestos material shall be removed and properly disposed of by a contractor or subcontractor with a current Massachusetts Abatement Contractors License issued by the Department of Labor Standards. Work shall be supervised by a competent person as required by OSHA in 29 CFR 1926 to ensure regulatory compliance. This person must have completed a course at an EPA Training Center or equivalent course in asbestos abatement procedures, have had a minimum of four years on-the-job training and meet any additional requirements set forth in 29 CFR 1926 for a Competent Person. This person must also be certified by the Commonwealth as an Asbestos Supervisor and Asbestos Project Designer as required by 454 CMR 28.00.

Asbestos removal work shall be coordinated with all other work under the contract and shall be completed prior to performing any activities which could disturb the asbestos material or produce airborne asbestos fibers.

Dust suppression in the form of light water sprays, foams, dust suppressants and calcium chloride will be implemented as required to control dusting during trenching and excavation. Alternatively, intrusive activities may be reduced or curtailed under high wind or heavy rain conditions, which in the opinion of the Health and Safety Plan (HASP) may pose a safety hazard to the workers.

NOTIFICATION AND PERMITS

The Contractor shall prepare a formal pre-notification form at least ten (10) days prior to the start of asbestos removal work. This form must be submitted to the appropriate Regional Office of the Massachusetts Department of Environmental Protection and to the U.S. Environmental Protection Agency Region I Air and Hazardous Material Division. A copy of the submitted forms must be provided to the Engineer and kept at the work site.

Prior to starting any work, the Contractor shall also obtain any required asbestos removal permit(s) from the city/town. A copy of the permit(s) must be provided to the Engineer and posted at the work site.

The Contractor shall also obtain and pay all other applicable asbestos waste transportation and disposal permits, licenses and fees.

ITEM 182.2 (Continued)**STANDARD OPERATING PROCEDURES**

The standard operating procedure shall ensure the following:

1. Proper site security including posting of warning signs and restricting access to prevent unauthorized entry into the work spaces.
2. Proper protective clothing and respiratory protection prior to entering the work spaces.
3. Safe work practices including provisions for communications; exclusion of eating, drinking, smoking, or use of procedures or equipment that would in any way reduce the effectiveness of respiratory protection or other engineering controls.
4. Proper exit practices from the work space though the showering and decontamination facilities.
5. Removing asbestos containing material in ways that minimize release of fibers.
6. Packing, labeling, loading, transporting and disposing of contaminated material in a way that minimizes or prevents exposure and contamination.
7. Emergency evacuation of personnel, for medical or safety (fire and smoke) so that exposure will be minimized.
8. Safety from accidents in the work space, especially from electrical shocks, slippery surfaces and entanglements in loose hoses and equipment.
9. Provisions for effective supervision and OSHA - specified personnel air monitoring for exposure during work.

REQUIRED SUBMITTALS

The Contractor shall submit to the Engineer the following listed items at least ten (10) calendar days prior to the start of asbestos work. No asbestos removal work activities shall commence until these items are reviewed by the Engineer, unless otherwise waived. Submittals shall be clearly labeled and in sufficient detail to enable the Engineer to form an opinion as to its conformity to the specifications.

1. Name, experience and DLS certification of proposed Supervisors and Foreman responsible for asbestos work.
2. Summary of workforce by disciplines and a notarized statement documenting that all proposed workers, by name, have received all required medical exams and have been properly trained and certified for asbestos removal work, respirator use and appropriate Massachusetts DLS, EPA and OSHA standards.
3. Notarized statement that workers are physically fit and able to wear and use the type of respiratory protection proposed for the project. Notarized certification signed by an officer of the abatement contracting firm that exposure measurements, medical surveillance and worker training records are being kept in conformance with 29 CFR 1926.
4. Written plan of action and standard operating procedures (HASP) to include: location and layout of decontamination areas; sequencing of asbestos work; detailed schedule of work activities by date and interface with other project activities which affect work performance; methods used to assure safety and security; worker protection and exposure monitoring; contingency and emergency evacuation procedures; detailed description of methods to be employed to control pollution; waste handling procedures.

ITEM 182.2 (Continued)

5. Written respiratory protection program specifying level of protection intended for each operation required by the project and details of daily inspection and maintenance elements.
6. Copies of the U.S. EPA, State and local asbestos removal pre-notification forms. If applicable, lists and copies of all permits, licenses, or manifests which will be applied for and used.
7. Name, location and applicable approval certificates for primary and secondary landfill for disposal of asbestos-containing or asbestos contaminated waste. Name, address and licenses number(s) of hauler permitted to transport waste. (Submit copies of completed manifests upon disposal).

The Contractor must provide copies of daily inspection and record logs upon request of the Engineer, at any time during project. This information will include but is not limited to work area entry data, respirator inspections and maintenance, HEPA-exhaust inspections and maintenance and other work applicable activities or reports of accidents or unusual events.

METHOD OF MEASUREMENT

ITEM 182.2 will be measured for payment by the FOOT for the complete removal and disposal of the asbestos containing material.

BASIS OF PAYMENT

Item 182.2 will be paid for at the Contract unit price per FOOT, which price shall include all labor, materials, tools, equipment, and all incidental costs required to complete the work specified above and as required by the Engineer.

No separate payment will be made for the protection of general public, private property, the proper inspecting and testing of the material, but all costs in connection therewith shall be included in the Contract unit price bid.

ITEM 184.1**DISPOSAL OF TREATED WOOD PRODUCTS****TON**

The work under this item shall include the transportation and disposal of all treated existing wood product as directed by the Engineer.

The timber components of the existing structure are suspected to be treated with creosote, pentachlorophenol and/or CCA. This item shall include all costs for sampling, laboratory testing, loading, transportation and disposal of the treated wood. The Contractor is required to submit disposal manifests to the Engineer prior to the completion of the project. All aspects of this Item are to be completed in accordance with state and federal regulations.

COMPENSATION

Measurement and payment will be by the weight, in tons, of treated timber transported and accepted at a licensed facility. The work shall be considered full compensation for all labor, tools, equipment, materials, testing, loading, transportation, approvals, and permits necessary for the completion of the work.

ITEM 201.
ITEM 201.1**CATCH BASIN**
SPECIAL CATCH BASIN**EACH**
EACH

The work under these Items shall conform to the relevant provisions of Subsection 201 of the Standard Specifications and the following:

The work shall consist of constructing deep sump catch basins where shown on the plans or where required by the Engineer. The deep sump catch basin shall be as shown in standard drawing E201.0.1 or E201.0.2 except that the sump shall be a minimum four (4) feet deep.

All catch basins shall be placed on a bedding of crushed stone if necessary to stabilize foundations in accordance with Subsection 150.68.

Special catch basin inner diameter shall be 5'.

Hoods shall be installed on all catch basin structures with 12-inch inverts or as required by the Engineer.

METHOD OF MEASUREMENT AND BASIS OF PAYMENT

Item 201. and Item 201.1 will be measured and paid per Subsections 201.80 and 201.81, respectively.

Eccentric and flat top catch basins will be paid for under item 201.

No separate payment will be made for excavation (excluding rock), dewatering, stone bedding, or masonry plugs associated with the structures, but all costs in connection therewith shall be included in the Contract unit price bid.

Rock excavation will be paid for separately under Class B Rock Excavation, Item 144.

Catch basin hoods will be paid for separately under Item 224.12.

ITEM 203.1
ITEM 203.2**SPECIAL MANHOLE – TYPE A**
SPECIAL MANHOLE – TYPE B**EACH**
EACH

The work under these Items shall conform to the relevant provisions of Subsection 201 of the Standard Specifications and the following:

The work shall consist of construction special manhole Type A and special manhole Type B as shown on the plans or as required by the Engineer.

Special Manhole Type A inner diameter shall be 5'.

Special Manhole Type B inner diameter shall be 6'.

CONSTRUCTION METHODS

The contractor shall install the structures as shown in the Drawings. Drainage piping shall be extended from the proposed structure as shown on plans. Pipe invert elevations shall be built for the drainage systems to operate with gravity flow. The work shall include all necessary cutting and removal of drainage structures and piping. Piping shall be cut to provide a smooth uniform face flush with the inside wall surface.

METHOD OF MEASUREMENT

Item 203.1 and Item 203.2 will be measured for payment by the Each respective special manhole constructed, regardless of depth, complete in place.

BASIS OF PAYMENT

Item 203.1 and Item 203.2 will be paid for at the respective Contract unit prices per Each, which price shall include all labor, materials, equipment and incidental costs required to complete the work.

No separate payment will be made for excavation (excluding rock), dewatering, stone bedding, or masonry plugs associated with the structures, but all costs in connection therewith shall be included in the Contract unit price bid.

Rock excavation will be paid for separately under Class B Rock Excavation, Item 144.

ITEM 220.6
ITEM 220.7
ITEM 220.8

SANITARY STRUCTURE REBUILT
SANITARY STRUCTURE ADJUSTED
SANITARY STRUCTURE REMODELED

FOOT
EACH
EACH

The work under these Items shall conform to the relevant provisions of Subsection 220 of the Standard Specifications and the following:

The work under these Items shall include the adjusting, remodeling, and rebuilding of existing masonry and castings of sanitary structures as shown on the plans to meet the proposed intermediate and top course grades. The concrete collar shall be brought up only to a level that will allow the full depth of pavement top course to be placed, as shown on Construction Standards drawing 223.0.1.

When the line or grade or both the line and grade of the structure changes by 6 inches or less, the structure shall be adjusted.

For remodeling or rebuilding of sanitary structures, the precast cone sections and frames shall be removed until a clean, sound base is obtained. Additional precast concrete barrel sections shall be added as needed to increase or decrease the manhole height and the existing cone sections and frames shall be reset. Backfill around the structures shall consist of suitable material, thoroughly compacted with mechanical devices.

New watertight plastic seals shall be placed between precast sections prior to installation.

If frame and cover locations require horizontal adjustment, new or additional access steps shall be added as required to maintain safe access into the structure.

Steps shall be steel reinforced polypropylene plastic conforming to ASTM C478 and spaced at 12-inch intervals when possible.

Debris, excess mortar or other material resulting from the work shall be removed from the manhole.

All sanitary sewer structures to be remodeled or rebuilt shall be pressure tested to ensure a watertight seal has been constructed. The pressure testing shall be completed by an outside testing firm.

In the event where a sanitary structure is tested and found to be inadequately sealed, the contractor shall make the necessary modifications to ensure a watertight seal. This shall be repeated if necessary until the structure passes testing. No additional payment will be made for each additional modification and test.

Adjusting, remodeling and rebuilding sanitary structures shall include the installation of a watertight insert from the frame to the bottom of the structure chimney. The insert shall be Parson Environmental FlexRib Seal, Protective Liner Systems PerpectuSeal, Cretex Classic Internal Chimney Seal, A-Lok Water-Lok Expandable Grade Ring Liner or approved equivalent. The insert shall be installed per manufacturer's specifications.

ITEMS 220.6 through 220.8 (Continued)**METHOD OF MEASUREMENT**

Item 220.6 will be measured for payment by the Foot of a sanitary structure rebuilt and will be measured by the average height in feet, vertically to the nearest 1/10 of a foot, from the bottom of rebuilt masonry to the bottom of the casting.

Item 220.7 and Item 220.8 will be measured for payment by the Each structure adjusted/remodeled, complete in place.

BASIS OF PAYMENT

Item 220.6 will be paid for at the Contract unit price per Foot, which price shall include all labor, materials, equipment, plates, new masonry construction, backfilling, high early strength concrete collars, and re-excavation of the gravel, removal and resetting of the casting, and all incidental costs required to complete the work.

Item 220.7 and Item 220.8 will be paid for at the respective Contract unit price per Each, which price shall include all labor, materials, equipment, plates, new masonry construction, backfilling, high early strength concrete collars, and re-excavation of the gravel, removal and resetting of the casting, and all incidental costs required to complete the work.

ITEM 222.3 FRAME AND GRATE (OR COVER) MUNICIPAL STANDARD EACH

The work under this item shall conform to the relevant provisions of Subsections 201 and 220 of the Standard Specifications and the following:

Catch basin grates shall have square openings conforming to the detail shown on the Drawings.

METHOD OF MEASUREMENT

Item 222.3 will be measured for payment by the Each frame and grate (or cover) municipal standard delivered to the site. Frame and Grate or Frame and Cover shall be considered as a one unit.

BASIS OF PAYMENT

Item 222.3 will be paid for at the Contract unit price per Each, which price shall include all labor, materials, equipment, loading, unloading, storage, transportation, and all incidental costs required to complete the work.

ITEM 223.1 FRAME AND GRATE (OR COVER) REMOVED AND STACKED EACH

The work under this item shall conform to the relevant provisions of Subsection 220 of the Standard Specifications and the following:

The work shall include removal, transporting, and stacking of frames and grates (or covers).

If the existing frames and/or grates are damaged by the Contractor during the removal and stacking process, a new frame and grate of the same size and material shall be provided to the City at the Contractor's expense.

METHOD OF MEASUREMENT

Item 223.1 will be measured for payment by the Each frame and grate (or cover) actually removed and stacked. Frame and Grate or Frame and Cover shall be considered as a one unit.

BASIS OF PAYMENT

Item 223.1 will be paid for at the Contract unit price per Each, which price shall include all labor, materials, equipment, loading, unloading, transportation, stacking, and all incidental costs required to complete the work.

<u>ITEM 272.0</u>	<u>IRRIGATION REPAIRS – CUMBERLAND FARMS</u>	<u>LUMP SUM</u>
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The work shall include all repairs to existing irrigation systems.

The irrigation system damaged by the Contractor's operations shall be repaired at the expense of the Contractor.

Coordinate with Cumberland Farms prior to working on the property to flag all sprinkler heads within the limits of work.

The materials used to repair the irrigation system shall match the existing materials. The work shall be completed by a subcontractor who specializes in irrigation system installation and repair.

BASIS OF PAYMENT

Item 272.0 will be paid for at the Contract unit price Lump Sum, which price shall include all labor, materials, equipment, and all incidental costs required to complete the work.

<u>ITEM 302.06</u>	<u>6 INCH DUCTILE IRON WATER PIPE (RUBBER GASKET)</u>	<u>FOOT</u>
<u>ITEM 302.12</u>	<u>12 INCH DUCTILE IRON WATER PIPE (RUBBER GASKET)</u>	<u>FOOT</u>
<u>ITEM 309.</u>	<u>DUCTILE IRON FITTINGS FOR WATER PIPE</u>	<u>POUND</u>
<u>ITEM 347.1</u>	<u>1 INCH COPPER TUBING TYPE K</u>	<u>FOOT</u>
<u>ITEM 363.1</u>	<u>1 INCH CORPORATION COCK</u>	<u>EACH</u>
<u>ITEM 376.1</u>	<u>HYDRANT - EXCLUDING COST OF HYDRANT</u>	<u>EACH</u>
<u>ITEM 376.2</u>	<u>HYDRANT - REMOVED AND RESET</u>	<u>EACH</u>
<u>ITEM 376.3</u>	<u>HYDRANT - REMOVED AND STACKED</u>	<u>EACH</u>
<u>ITEM 381.</u>	<u>SERVICE BOX</u>	<u>EACH</u>
<u>ITEM 381.3</u>	<u>SERVICE BOX ADJUSTED</u>	<u>EACH</u>
<u>ITEM 384.</u>	<u>CURB STOP</u>	<u>EACH</u>

The work under these Items shall conform to the relevant provisions of Subsection 301 of the Standard Specifications and the following:

MATERIALS

All corporations and fittings shall be as manufactured by the Red Hed Mfg Co, Mueller, Ford, Cambridge Brass, McDonald Mfg. Co. or approved equal.

Brass goods shall meet AWWA C800 including lead content (maximum 0.25% lead by weight). All brass goods shall be American made.

Ductile Iron Pipe

All ductile iron pipe shall be Class 52 for diameters equal to or less than 16-inches, and Class 350 ductile iron pipe for diameters greater than 16-inches. The ductile iron pipe shall be in accordance with AWWA C150 and C151 and shall have push-on joints, furnished in accordance with AWWA C111 unless otherwise specified or shown on the drawings. Two (2) bronze wedges of approved design and composition shall be provided for each push-on joint. Ductile iron pipe shall be American made.

Pipe and fittings shall be cement mortar lined and seal coated on the interior in accordance with AWWA C104. Cement mortar lining shall be twice the standard thickness; tolerance shall be minus 0 inches, plus 1/8 inch. Inside seal-coat shall be such as not to impart taste or odor to the water contained therein. Outside of pipe shall be bituminous coated in accordance with AWWA C151.

Each pipe shall have cast on it or stamped on it by means of a hand die stamp, the maker's name or mark, and the year in which the pipe was cast. Also, the weight, thickness class and sampling period shall be painted on each pipe.

Ductile Iron Fittings

All fittings shall conform to ANSI/AWWA C110/A21.10 or ANSI/AWWA C153/A21.53 and shall have a 350-psi pressure rating, unless otherwise specified or modified herein. Ductile iron fittings shall be American made.

ITEMS 302.06 through 347.1, Item 363.1 through 384. (Continued)

All fittings except sleeves, caps, and plugs shall be cement-lined, tar-coated and sealed as specified under paragraph 1 above.

All fittings shall have mechanical joints in accordance with ANSI/AWWA C111/A21.11, or AWWA C153.

The branch of tees for hydrants or stubs shall be mechanical joint anchoring tees.

Sleeve-Type Couplings/Compression Couplings

Sleeve-type couplings shall be ductile iron solid sleeve type with mechanical joint ends or restrained joint ends, as applicable, and shall be pressure rated as specified under ductile iron fittings. Sleeve-type couplings shall be American made.

To ensure correct fitting of pipe and couplings, all sleeve-type couplings and accessories shall be furnished by the supplier of the pipe. Sleeve-type couplings shall be used where couplings are required, unless otherwise approved by the Owner.

When connecting to existing pipe and the outside pipe diameters are out of range for solid sleeves, transition compression couplings shall be used. Compression couplings shall be Smith-Blair model 441, Romac model 501, Power Seal model 3501 or approved equal.

Gaskets, Glands, Nuts, And Bolts

Gaskets, glands, nuts, bolts and accessories shall conform to ANSI/AWWA C111/A21.11 or C153/A21.53, as appropriate.

Gaskets shall be of plain tipped rubber, suitable for exposure to the liquid within the pipe. Lubricants must be suitable for the type of fluid to be carried by the pipeline. Glands shall be ductile or cast iron. Bolts shall be high strength, low alloy.

Gaskets for flanged joints shall be full faced red rubber, 1/8 inches thick. Gaskets shall conform to the dimensions of Table A.1 of ANSI/AWWA C115/A21.15. Ring gaskets shall be utilized for joints 14 inches in diameter and larger.

Assemble flanged joints with bolts and nuts, bolt studs with nut on each end, or studs with nuts in tapped flanges. Bolts and nuts shall be of low carbon steel conforming to the chemical and mechanical requirements of ASTM A307, 60,000 psi tensile strength, Grade B. Bolts, nuts and studs shall be cadmium plated.

ITEMS 302.06 through 347.1, Item 363.1 through 384. (Continued)**Thrust Blocks/Anchor Blocks/Joint Restraints**

Joint restraints shall be used at all bends, fittings, hydrants, valves and piping as specified in the paragraphs mentioned below and in accordance with restraint as indicated on the Drawings. Where indicated on the Drawings, provide restrained joints suitable for a 200-psi working pressure. Gaskets shall meet the material requirements of ANSI/AWWA A21.11/C111 for mechanical joint gaskets

Restrained joints for rubber-type push-on joint pipe shall be Lok-Ring® Joint by American Cast Iron Pipe Company, TR FLEX® by US Pipe and Foundry Co., Snap-Lok® by Griffin Pipe Products Co., or equal.

Mechanical joint retainer glands shall be installed on all mechanical joints, except where rodding is used. Retainer glands shall be specifically designed to fit standard mechanical joint bells with corrosion resistant, high strength, low-alloy T-head bolts conforming to ANSI/AWWA A21.11/C-111 and ANSI/AWWA A21.53/C-153. Retainer glands shall be manufactured of ductile iron conforming to ASTM A536-80 grade 60-42-10. Wedges shall be of hardened ductile iron and require the same torque in all sizes. These devices shall have a minimum 250 psi pressure rating with a minimum safety factor of 2:1 and shall be EBAA IRON, Inc., series 1100, Romac Roma Grip, Tyler Union TUF Grip, or approved equal. Glands shall be listed with Underwriters Laboratories and/or approved by Factory Mutual.

Evidence of joint restraint materials shall be the manufacturer's certification or certified test results indicating conformance with the requirements of these Specifications.

Rods, clamps with washers, straps and other harnessing hardware shall be stainless steel type 304 or 316 and installed in accordance with the manufacturer's recommended installation procedures, as approved.

After each "locking" joint is assembled, the pipe shall be extended until the locking system "bottoms out" in order to avoid accumulated joint movement when the system is pressurized.

Retainer glands, such as EBAA Iron Megalug, Inc. Series 1100, Romac RomaGrip, Stargrip Series 3000 Sigma One-Lok, or equal, shall be installed in accordance with the manufacturers' written instructions.

Thrust blocks and anchor blocks, shall be installed in addition to the above-mentioned joint restraints and shall be used at all hydrants. Minimum bearing area of thrust blocks shall be as indicated on the drawings. Anchor block sizes shall be as shown on the Drawings. Felt roofing paper shall be placed to protect pipe joints. Concrete shall not be placed over bolts, nuts or to prevent the removal of joints.

Concrete for thrust blocks and anchor blocks shall have a minimum strength of 3,000 psi. All cement concrete must be from an approved ready-mix producer listed on the QCML. Transit mix concrete may be used subject to approval. Straps and anchors shall be cold-rolled steel, painted with bitumastic.

ITEMS 302.06 through 347.1, Item 363.1 through 384. (Continued)**Copper Tubing**

Copper tubing shall be seamless, soft annealed, Type K meeting the requirements and specifications of ASTM B57, B68, and B88 as they apply to Type K copper tubing. All copper tubing shall be American made.

Gate Valves

Gate valves shall be resilient seat type suitable for underground service complying with the requirements of AWWA C509.

Gate valves shall be designed to be bubble tight for 250 psig water working pressure with no leakage past the seat from either side of the disc and shall be hydrostatically tested to 500 psig. Gate valves shall be American made.

Gate valves shall be of the non-rising stem (N.R.S.) design and shall be set vertically (spur gearing). Gate valves shall open right (clockwise). Buried gate valves shall be furnished with 2-inch square operating nuts.

Gate valves shall be ductile iron. Cast iron shall meet the specifications of ASTM A126, Class B. Castings shall be clean and sound without defects that will impair their service. No plugging or welding of such defects will be allowed. Ductile iron shall meet the standards of ASTM A536.

The resilient-seated disc wedge shall be of the resilient wedge fully supported type, either cast iron or ductile iron. Solid guide lugs shall travel within channels in the body of the valve. The disc and guide lugs shall be fully encapsulated in SBR (styrene butadiene rubber) or EPDM rubber. Disc wedges that are not 100% fully encapsulated shall not be acceptable. Provide guide caps of an acetal copolymer bearing material to protect the rubber-encapsulated solid guide lugs from abrasion for long life and ease of operation.

The seat shall be SBR or EPDM rubber, matching the disc encasement. The seating surface (rubber) shall be specially designed so as to provide a smooth waterway, without depressions or cavities, which might trap debris and interfere with tight closures.

The body, bonnet, and gate shall be cast/ductile iron, constructed in accordance with AWWA C-509. The bonnet to body seal shall incorporate a flat neoprene gasket. Bonnet and body flanges shall be fully machined to assure proper sealing of the gasket.

Gate valve stems shall be of bronze rolled bar stock in accordance with ASTM B584, and shall have a forged thrust collar. The thrust collar shall be factory lubricated, and the thrust collar and its lubrication shall be isolated by the O-Rings from the water way and from outside contamination, providing permanent lubrication for long term ease of operation. An anti-friction thrust washer shall be provided both above and below the thrust collar for ease of operation.

ITEMS 302.06 through 347.1, Item 363.1 through 384. (Continued)

Gate valves shall have O-Ring sealed stems with one O-Ring located below the thrust collar and two O-Rings located above the thrust collar. The two O-Rings located above the thrust collar shall be replaceable with the valve still in service in the fully open position.

Coat internal and external exposed ferrous surfaces of the valve with a fusion-bonded, thermosetting powder epoxy coating suitable for potable water service conforming to AWWA C550. Coating shall be non-toxic and shall impart no taste to water. Coating thickness shall be nominal 5/10 mils. Gate valves for water distribution systems shall be certified to NSF 61.

Gate valves shall be as manufactured by Clow, Mueller, Kennedy, American-Darling, or approved equal.

Valve Boxes

Unless otherwise specified or required, each buried valve shall be provided with a valve box. Valve boxes shall be of tough, even-grain cast iron and of the adjustable, slip, heavy-pattern type with bell-cast bottoms. They shall be so designed and constructed as to prevent the direct transmission of traffic loads to the pipe or valve. An example of the minimum required weight of a complete heavy-pattern box is 85 LBS for a 3.5-foot unit.

The upper section of the box shall have a nominal inside diameter of 5 inches and the lengths shall be as necessary for the depth of the valves with which the boxes are to be used. The lower section of the box shall be designed to enclose the operating nut and stuffing box of the valve and shall have a minimum 8-inch inside diameter and maximum 9-inch diameter.

Covers shall be close fitting and substantially soil-tight. The top of the cover shall be flush with the top of the box rim. The word "water" shall be cast in the top cover. Valve boxes shall be North American made.

Corporations

Corporations shall have ball type valve. Inlet connection is to have AWWA (reinforced CC, CS, Mueller) thread. Outlet connection shall be compression end fittings. Compression fittings shall be properly sized for pipes to be joined.

Corporations will be rated for a minimum 200 psi working pressure.

Saddles

Saddles shall be used for all water services larger than 1-1/2". Saddle specifications are:

- Body: Ductile Iron meeting ASTM A-536-80, Grade 65-45-12.
- Thread: AWWA (reinforced CC, CS, Mueller).
- Finish: Epoxy coated or 10 mil of fusion applied nylon.
- Bolts/Nuts/Washers: Type 304 (18-8) stainless steel.
- Gaskets: Heavy duty compounded for water.
- Straps: Type 304 (18-8) stainless steel with Teflon coated threads.
- Welds: Passivated for resistance to corrosion.

ITEMS 302.06 through 347.1, Item 363.1 through 384. (Continued)**Service Box**

Service boxes shall be Buffalo Style 95E, non-screw type, tar coated, cast iron, sliding type arch pattern base with inlaid covers. Covers shall be held in place with bronze bolts and the word "Water" shall be cast into the cover. Service boxes shaft shall have a minimum inside diameter of 2-1/4 inches. The minimum weight of a complete service box shall be 40 lbs. Curb boxes shall be American made.

Test Connections

Install air release, test connections, and blow offs in the piping for pressure testing and disinfection at locations to be determined by the Contractor and approved by the Engineer.

Corporation cocks shall be in accordance with ANSI/AWWA C800 and shall be 3/4 inch diameter with CC thread on inlet by iron pipe thread flare on outlet as manufactured by Mueller, Ford, McDonald or equal.

Copper tubing shall be annealed Type K soft tubing and shall conform to the requirements of ASTM B88.

Upon completion of testing and disinfection, remove the corporation cock and replace with a brass plug and the copper tubing removed. Field swab the brass plug for disinfection in accordance with AWWA C651.

Hydrants – Excluding Cost Of Hydrant

Hydrants will be provided by the City of North Adams for installation by the Contractor.

The Contractor shall coordinate with the City of North Adams Water Department to identify a place and time where the hydrants can be picked up.

SUBMITTALS

The Contractor shall submit to the Engineer for approval, a "Certificate of Compliance" for every component of the water system to be used in the project, showing that the manufacturers meet the above-mentioned requirements. Water system components shall not be delivered to the project site unless the Contractor has an approved "Certificate of Compliance" by the Engineer.

INSTALLATION

Thrust blocks and restraining joint assemblies shall be installed in conformance with Drawings and/or the manufacturer's specifications and Section 301.60 I of the Standard Specifications.

Minimum depth of cover over the top of the water pipe shall be five (5) feet unless otherwise directed by the Engineer. Maximum depth of cover to the top of the water pipe shall be six (6) feet unless otherwise directed by the engineer or as indicated on the Drawings.

ITEMS 302.06 through 347.1, Item 363.1 through 384. (Continued)

Prevent foreign material from entering the pipe while it is being placed in the line. During laying operations, no debris, tools, clothing or other materials shall be placed in the pipe.

When laying pipe, the spigot end shall be centered in the bell, the pipe forced home and the joint completely assembled. The pipe shall be adjusted to correct line and grade and secured in place with approved backfill material, properly tamped under and around the pipeline.

When laying the pipe, remove and replace fittings that do not allow a sufficient and uniform space for joints at no additional cost to the Owner.

Furnish pipe in full lengths. Cut ductile iron pipe without damage to the pipe or cement lining. The cutting shall be done to leave a smooth end at right angles to the axis of the pipe.

Cut ductile iron pipe either by the use of compression-type chain cutters which exert an even continuous force on the wall of the pipe or by power driven abrasive wheels.

On ductile iron pipe using rubber joints, the outside edge of the cut end must be tapered back approximately $\frac{1}{4}$ inch at an angle of about 30 degrees so as to provide for the proper assembly of this joint.

Wherever it is necessary to deflect pipe from a straight line, either in the vertical or horizontal plane, to avoid obstructions or where long-radius curves are permitted, the maximum amount of deflection allowed shall not exceed that of what is included in AWWA C600 and shall be approved by the Engineer.

Radius curves indicated on the Drawings or approved during Shop Drawing review shall be made using full lengths of pipe. The use of short lengths of pipe and extra joint in order to make a smaller radius turn will not be allowed without the written approval of the Engineer.

Push-on joints shall be made in accordance with the manufacturer's instructions. Install gaskets in the pipe bell after lowering the pipe into the trench for installation. Thoroughly clean the bell and spigot of dirt and tar blisters in the trench utilizing a wire brush or bristle brush. Insert rubber gasket in the groove of the bell end of the pipe beginning at the bottom of the bell and working to the top of the bell. Apply lubricant per the manufacturer's recommendations utilizing a paint brush to the pipe gasket and the pipe spigot to be joined. Place a clean rag under the joint to protect the joint from dirt caused by unintentional grounding of the pipe during jointing. Upon completion, remove the rags. Align the plain end of the pipe to be laid and insert in the bell of the pipe to which it is to be joined and push home with a jack or by other means. After joining the pipe use a metal feeler to make certain that the rubber gasket is correctly located.

All excavation regardless of depth, except for Class B Rock, necessary for the installation of water system shall be included in the unit price of the items mentioned above.

ITEMS 302.06 through 347.1, Item 363.1 through 384. (Continued)

Install polyethylene encasement in accordance with AWWA C105. Allow a minimum of 1 foot of overlap at each joint and secure to pipe with compatible polyethylene adhesive tape at several locations along the barrel of the pipe. At each pipe connection, overlap the wrap and secure with a non-corrosive strap behind the pipe bell, and overlap with the new section of wrap and secure in place with a strap on the spigot end. Install wrap in accordance with Method "A" or "C" of AWWA C105 and encase all pipe, fittings, valves, and all other appurtenances.

Water services shall have a minimum of five (5) feet of cover and a maximum of six (6) feet of cover. All excavation regardless of depth, except for Class B Rock, necessary for the installation of the water services shall be included in the unit prices of the items mentioned above.

The new service pipe shall not have joints or connections other than needed at the corporation and the service box. Contractor must provide 100-foot coils for services less than 100 feet from the water main. Fittings or unions are not allowed on services less than 100 feet in length.

The copper tubing shall be connected directly to the existing service pipe just past the new curb stop near the property line with appropriate adapters and compression couplings as necessary.

Curb stop and service box shall be installed approximately at the property or street line in front of the property to be serviced.

Any existing services to be abandoned shall be crimped and the existing curb box removed.

The transfer of existing services to the new main shall not be completed until the new main has been tested, disinfected and approved by the Engineer.

All newly installed service connections shall be subject to line pressure in an open trench to determine tightness of joints before backfilling.

Plan the replacement work so that each service can be transferred, one at a time, keeping loss of water service to a minimum.

Complete service reconnection work for each house on the same day it is started.

No service trench shall be backfilled before a Water Department representative and the Engineer have observed and approved the work.

In removing the hydrant, the hydrant branch shall be cut as specified hereinbefore. The Contractor shall properly brace and support the exposed pipe and branch valve while excavating the new trench. In resetting the hydrants, new ductile iron pipe shall be connected to the existing branch using couplings of the type specified hereinbefore. If the existing branch and valve are mechanical joint construction the Contractor may, with the approval of the Engineer, install one continuous section of new ductile iron pipe, which shall be connected to the existing branch using couplings of the type specified hereinbefore. If the existing branch and valve are mechanical joint construction the Contractor may, with the approval of the Engineer, install one continuous section of new ductile iron pipe at no additional charge.

ITEMS 302.06 through 347.1, Item 363.1 through 384. (Continued)

The Contractor shall coordinate the work with the City. The Contractor shall give at least 48 hours written notice to the Fire Department and the Department of Public Works prior to installing any hydrant.

Hydrants shall be set at the locations shown on the drawings or as required by the Engineer.

Each hydrant shall be set in true vertical alignment and properly braced. A concrete thrust block shall be placed between the back of the hydrant inlet and undisturbed soil at the end of the trench. Felt roofing paper shall be placed around hydrant elbow before placing concrete. Care shall be taken to ensure that concrete does not plug the drain ports. Hydrant paint shall be touched up as required after installation.

Disinfection and Testing

The water system shall be tested and chlorinated in conformance with Sections 301.60 J and K of the Standard Specifications, and the following. Where conflict arises, the Special Provisions shall take precedence:

Disinfection

Before being placed into service, all new water pipelines shall be chlorinated using the Continuous Feed Method specified in AWWA C651 – Section 4.4.3. The Engineer shall approve the procedure in advance.

The Contractor will determine the location of the chlorination and sampling points in the field. The Contractor shall install taps for chlorinating, sampling and expulsion of air and shall uncover, backfill and plug the taps as required.

Prior to disinfecting the water main, the main shall be completely filled to remove all air pockets and then flushed to remove particulate. The flushing velocity in the main shall not be less than 2.5 ft/s unless the Engineer and/or Owner determine that the conditions do not permit the required flow to be discharged to waste.

TABLE 1

Required Flow to Flush Pipelines (40 psi residual pressure in water main)*

Pipe Diameter (in)	Flow Required to Produce	
	2.5 ft/s (Approximate) Velocity in Main	Number of 2 ½ inch Hydrant Outlets
4	100 gpm	1
6	200 gpm	1
8	400 gpm	1
10	600 gpm	1
12	900 gpm	2
16	1600 gpm	2

*AWWA C651, AWWA Standard for Disinfecting Water Mains

ITEMS 302.06 through 347.1, Item 363.1 through 384. (Continued)

At a point not more than 10 feet downstream from the beginning of the new main, water entering the new main shall receive a dose of chlorine fed at a constant rate such that the water will not have less than 25 mg/L (PPM) free chlorine throughout the entire section of pipe to be chlorinated.

TABLE 2

Chlorine Required to Produce 25-mg/L Concentration in 100 Feet of Pipe – By Diameter*

Pipe Diameter (in)	100 % Chlorine (Pounds)	1% Chlorine Solution (Gals.)
4	0.013	0.16
6	0.030	0.36
8	0.054	0.65
10	0.085	1.02
12	0.120	1.44
16	0.217	2.60

*AWWA C651, AWWA Standard for Disinfecting Water Mains

The chlorinated water is to remain in the new pipeline for at least 24-hours. After a contact time of 24-hours there should be a free chlorine concentration of not less than 10 mg/L (PPM). During this period, proper precautions are to be taken to prevent this chlorinated water from flowing back into the existing system.

All valves and hydrants within the treated section shall be operated to ensure disinfection of the appurtenances.

The Tablet Method consisting of placing calcium hypochlorite granules or tablets in the water main as it is being installed and then filling the main with potable water and allowing it to set for a contact period is not acceptable.

The interior of all pipe, fittings and valves used in making a repair or tie-in shall be swabbed or sprayed with a one percent (1%) hypochlorite solution before they are installed.

Final Flushing

Following the chlorination period, all treated water shall be flushed from the lines at their extremities and replaced with water from the distribution system.

Flushing the main is to be accomplished at as high a velocity as possible consistent with the ability of the Contractor to collect the discharge water for proper disposal.

All treated water flushed from the lines shall be disposed of by discharging to the nearest sanitary sewer or by other approved means provided in AWWA C651 and acceptable to the City.

Flushing shall be done in strict conformance with all applicable local, state and federal regulations. No discharge of chlorinated water to any storm sewer or natural watercourse will be allowed.

ITEMS 302.06 through 347.1, Item 363.1 through 384. (Continued)**Bacteriological Analyses**

After the 24-hour disinfection period and all chlorine solution has been thoroughly flushed, the bacteriological sampling and analysis of the replacement water may then be performed.

Bacteriological sampling shall be made by the Contractor's competent person(s) in full accordance with AWWA C651- Section 5, Bacteriological Tests and under the supervision of the Engineer.

Analysis shall be performed by an independent commercial laboratory certified by the State Department of Environmental Protection and U.S. Environmental Protection Agency for analyzing public drinking water supplies. All results shall be provided to the Engineer for review.

Two consecutive sets of acceptable samples, taken at least 24-Hours apart, are required prior to placing the main into service. Failure of any one of the bacteriological test samples shall require re-chlorination and retesting by the Contractor.

The line shall not be placed in service until the bacteriological requirements of AWWA C651 are met.

Hydrostatic Testing

For water mains, the pressure test shall not be conducted until the new main has been flushed clean, disinfected in accordance with paragraph 12 and the chlorinated water properly disposed of. After acceptable completion of the water system disinfection, the Contractor may commence pressure testing of the new water main.

Run pressure test and leakage test simultaneously in accordance with ANSI/AWWA C600.

Test pressure shall not be less than 200 PSI. Test pressure shall not exceed pipe or thrust-restraint design pressures.

The hydrostatic test shall be of at least 2-hour duration or until such time as the Engineer indicates acceptance of the pipeline.

Test pressure shall not vary by more than ± 5 psi (35 MPa or 0.35 bar) for the duration of the test.

On pipelines where the elevation along the route of construction varies substantially, the Engineer reserves the right to valve off and test portions of the line. On extensive construction jobs, the Engineer reserves the right to require the testing of individual portions of the line as construction proceeds rather than await completion of the entire project in order to undertake a pressure or leakage test.

ITEMS 302.06 through 347.1, Item 363.1 through 384. (Continued)

Do not operate valves in either direction at differential pressure exceeding the rated valve working pressure. Use of a test pressure greater than the rated valve pressure can result in trapped test pressure between the gates of a double-disc gate valve. For tests at these pressures, the test setup should include a provision, independent of the valve, to reduce the line pressure to the rated valve pressure on completion of the test. The valve can then be opened enough to equalize the trapped pressure with the line pressure, or fully opened if desired.

Test pressure shall not exceed the rated pressure of the valves when the pressure boundary of the test section includes closed, resilient-seated gate valves or butterfly valves.

No pipeline is to be placed under pressure or subjected to hydrostatic pressure until at least 5 days have elapsed after the concrete thrust blocks have been installed. If high early strength concrete is used in the concrete thrust blocks, the hydrostatic pressure can be applied to the main after 2 days have elapsed from time of construction of the thrust blocks.

The Contractor will be allowed to complete backfilling as hereinbefore specified, prior to undertaking the leakage and pressure tests. Backfilling prior to conducting tests will be at the option of the Contractor with the exception of intersections, driveways, crosswalks and other such locations where holding open the trench may adversely affect the public.

Pipelines may be subjected to hydrostatic pressure and inspected for leakage at any convenient time after the trench has been partially backfilled. Partial backfilling shall consist of filling along the center of the pipe length and leaving the joint open for inspection.

Operation Of Existing Water System

Do not operate any valve or other control device on the existing water system for any purpose. Do not make any tap or cut-ins to the existing water system without the approval of the Engineer and unless an authorized representative of the Owner is present.

When the Contractor's operations require the adjustment of any hydrant, valves, or other control device on the existing system, the Owner will provide authorized personnel for the purpose of supervising the operation of these control devices. Provide the personnel for the operation of these devices.

Preparation

Conduct connections to the existing system under the Engineer's direction.

Foreign materials left in pipelines during installation often results in valve or hydrant seat leakage during pressure tests. Thorough flushing is recommended prior to a pressure test by partially opening and closing valves and hydrants several times under expected line pressure, with flow velocities adequate to flush foreign material out of the main, valves and hydrants.

ITEMS 302.06 through 347.1, Item 363.1 through 384. (Continued)**Procedure**

On completion of the pipeline or any valved section thereof, fill pipeline with water and test. Draw water from the existing water system under the direction of the Engineer and the Water Department.

Before applying the specified test pressure, expel air completely from the pipe, valves, and hydrants. If permanent air vents are not located at all high points, install corporation cocks at such points so that the air can be expelled as the line is filled with water. After all the air has been expelled, close the corporation cocks and apply the test pressure. At the conclusion of the pressure test, either remove and plug or leave in place the corporation cocks at the discretion of the Owner.

Slowly fill each valved section of pipe with water and apply the specified test pressure by means of a pump connected to the pipe in a manner satisfactory to the Engineer. Valves shall not be operated in either the opening or closing direction at differential pressures above the rated pressure. The system shall be stabilized at the test pressure before conducting the leakage test.

Examination Under Pressure

Examine exposed pipes, fittings, valves, hydrants, and joints carefully during the test.

Repair or replace any cracked or defective pipe, fittings, valves, hydrants, or joints that are discovered following the pressure tests with sound material and repeat the test until it is satisfactory to the Engineer.

Leakage Test

Leakage is defined as the quantity of water that must be supplied into the newly laid pipe, or any valved section thereof to maintain pressure after the pipe has been filled with water and the air has been expelled. Testing shall include all hydrants and hydrant branches. Leakage shall not be measured by a drop in pressure in a test section over a period of time.

No pipe installation will be accepted if the leakage is greater than that determined by the following formula:

$$L = \frac{SD\sqrt{P}}{148,000}$$

L = allowable leakage, in gallons per hour

S = length of pipe tested, in feet

D = nominal diameter of the pipe, in inches

P = average test pressure during the leakage test, in pounds per square inch (gauge)

This formula is based on an allowable leakage of 10.5 gpd/mi/in of nominal diameter at a pressure of 150 psi.

ITEMS 302.06 through 347.1, Item 363.1 through 384. (Continued)

When testing against closed metal-seated valves, an additional leakage per closed valve of 0.0078 gph/in. of nominal valve size will be allowed.

When hydrants are in the test section, the test shall be made against the closed main valve in the hydrant.

Acceptance of Installation - acceptance will be determined on the basis of allowable leakage. If any test of laid pipe discloses leakage greater than that specified in this section, locate and make approved repairs as necessary until the leakage is within the specified allowance at no additional cost to the Owner.

Visible leaks are to be repaired, regardless of the amount of leakage.

METHOD OF MEASUREMENT

Item 302.06, Item 302.12, and Item 347.1 will be measured for payment by the Foot. Measurements will be per subsection 301.80.

Item 363.1, Item 376.1, Item 376.2, Item 376.3, Item 381., Item 381.3, and Item 384. will be measured for payment by the Each.

BASIS OF PAYMENT

Item 302.06, Item 302.12, and Item 347.1 will be paid for at the respective Contract unit prices per Foot, which price shall include all labor, materials, equipment, and all incidental costs required to complete the work.

Item 363.1, Item 376., Item 376.1, Item 376.2, Item 376.3, Item 381., Item 381.3, and Item 384. will be paid for at the respective Contract unit prices per Each, which price shall include all labor, materials, equipment, and all incidental costs required to complete the work.

No separate payment will be made for sawcutting, excavation regardless of depth (excluding rock), dewatering, connection to existing systems, pipe bedding, testing, submittals, replacing existing pipe damaged during construction, removal and disposal of existing pipe, or plugging abandoned pipe ends, thrust blocks, but all costs in connection therewith shall be included in the respective Contract unit price bid Item.

Hydrant - excluding the cost of hydrant shall be payment for all work associated with installation of the hydrant excluding the hydrant furnished by the City of North Adams. Hydrant components or paint that are damaged by the Contractor shall be repaired by the Contractor at no additional cost to the City.

Rock excavation shall be measured and paid for under Item 144. – Class B Rock Excavation.

ITEM 485.01 REBUILD GRANITE BLOCKS AND CONCRETE STEPS LUMP SUM
(ARMORY BUILDING)

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

Granite blocks and concrete steps shall conform to the detail shown on the drawings.

A location will be provided at the City of North Adams DPW yard for stacking granite walls.

SUBMITTALS

Shop Drawings: Complete plans and elevations for cut granite showing dimensions, joints, and quantity schedules. Obtain Engineer, District, and Cultural Resource Unit approval prior to fabrication.

Samples: Provide sample of granite and compare to existing granite on site with the Engineer, and Cultural Resource Unit present prior to fabrication.

DELIVERY, STORAGE, AND HANDLING

Deliver packaged materials in manufacturer's original unopened and undamaged containers with labels legible and intact. Store materials off ground in dry condition and protect from weather damage and deterioration.

Protect stone unit materials from damage, breaking, chipping, and soiling during delivery and storage. Store off ground on pallets or wood platforms. Do not dump or drop stone unit materials.

MATERIALS

Expansion Joint Filler: ASTM D 1751, 1/2" thick, pre-molded, non-extruded, asphalt-impregnated fiberboard.

Base material: Gravel Borrow, Type b M1.03.0

Cement Concrete: In accordance with section M4.06.7 Exterior Slab Concrete

Granite Materials: To match color, texture, and veining of the granite stones at the existing grade stair and walkway.

CONSTRUCTION

Use staking, string lines and batter boards for setting up and maintain through whole installation.

Have string lines, levels, batter boards and straight edges at job during installation.

Install stones in location indicated on drawings.

ITEM 485.01 (Continued)

Seat bottom course of stone firmly in aggregate base.

Install 1/2" wide joint fillers, full depth and height and seal with caulking.

CLEANING AND PROTECTION

Clean adjacent granite stones with stiff brush and water, removing dirt, dust and other residues prior to laying.

Clean finished stone wall by bucket and brush method using commercial cleaning agents, according to manufacturer's instructions.

Remove excess materials and debris and dispose of legally off site.

BASIS OF PAYMENT

Item 485.01 will be paid for at the Contract unit price Lump Sum, which price shall include all labor, materials, equipment, Demolishing, rebuilding the existing stairs and granite blocks, sawcutting concrete, excavation, backfill, sawcutting, removing and resetting granite blocks, gravel borrow, grading, compacting, forms, reinforcing steel, cement concrete, and all incidental costs required to complete the work.

ITEM 508.**GRANITE SLAB STEP****FOOT**

The work under this Item shall conform to the relevant provisions of Subsection 501 of the Standard Specifications and the following:

The work under this Item shall include furnishing and installing a granite slab step as shown on the drawings.

METHOD OF MEASUREMENT

Item 508. will be measured for payment by the Foot of granite slab step installed, complete in place.

BASIS OF PAYMENT

Item 508. will be paid for at the Contract unit price per Foot, which price shall include all labor, materials, equipment, and all incidental costs required to complete the work.

ITEM 590.
ITEM 591.**CURB REMOVED AND STACKED**
CURB INLET REMOVED AND STACKED**FOOT**
EACH

The work under these Items shall conform to the relevant provisions of Subsection 580 of the Standard Specifications and the following:

The work shall consist of removing and stacking granite curb or curb corners, granite curb inlets at the City of North Adams Department of Public Works yard.

METHOD OF MEASUREMENT

Item 590. will be measured for payment by the Foot of curb removed and stacked.

Item 591. will be measured for payment by the Each of curb inlet removed and stacked.

BASIS OF PAYMENT

Item 590. will be paid for at the Contract unit price per Foot, which price shall include all labor, materials, equipment, and all incidental costs required to complete the work.

Item 591. will be paid for at the Contract unit price per Each, which price shall include all labor, materials, equipment, and all incidental costs required to complete the work.

ITEM 669.**FENCE REMOVED AND STACKED****FOOT**

The work under this Item shall conform to the relevant provisions of Subsection 665 of the Standard Specifications and the following:

The work shall consist of removing and stacking fence on the property owner's where the fence was located. The contractor shall remove and dispose the fence when the property owner does not want to retain it.

METHOD OF MEASUREMENT

Item 669. will be measured for payment by the Foot of fence removed and stacked.

BASIS OF PAYMENT

Item 669. will be paid for at the Contract unit price per Foot, which price shall include all labor, materials, equipment, and all incidental costs required to complete the work.

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

Work under this item shall conform to the relevant provisions of Subsections 227 and 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 and proposed catch basins and drop inlets within the project limits and as required by the Resident Engineer.

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

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

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

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

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

All debris accumulated in silt sacks shall be handled and disposed of as specified in Section 227 of the Standard Specifications

COMPENSATION

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 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 701.01 COLORED AND TEXTURED CEMENT CONCRETE SQUARE YARD

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

The work under this item shall consist of colored, stamped and textured concrete surfaces constructed as shown on the drawings or as required by the Engineer.

SUBMITTALS

Color samples and Stamp patterns shall be submitted for approval by the Engineer and the City of North Adams prior to use.

MATERIALS

All color hardeners, release agents, curing compound, surface penetrating sealers, and joint sealant materials shall be from a single source manufacturer and shall be tinted red. The Stamped Patterns shall be as shown on the plans or required by the Engineer.

Color for stamped and colored concrete shall be “Quarry Red” Pantone 4715C, pending City and Engineer approval. Color agent, hardener, and release agent shall meet ASTM C 979 for color stability.

Coloring Agent

Coloring agent for integrally colored concrete shall be approved by the Engineer, and it shall be used in accordance with manufacturer's recommendations. It shall not contain calcium chloride.

Amount of coloring agent to be used in the concrete mix shall be in accordance with the manufacturer's recommendation to attain a final hydrated concrete color that matches.

Color Hardener

Shall be ready-to-use, dry-shake type color hardener and shall be streak-free of pigments, surface conditioning and dispersing agents, and Portland cement, blended with an approved graded aggregate as specified by the manufacturer. It shall not contain calcium chloride.

Application rate shall be a minimum of 64 lbs. per 105 square feet or in accordance with manufacturer guidelines.

Release Agent

Shall be a powdered, colored, bond-breaker formulated to break the bond between mat-type concrete texturing tools and the surface of the color-hardened concrete while imprinting variegated or mottled appearance.

ITEM 701.01 (Continued)

Application rate shall be 4 lbs. per 105 square feet or in accordance with the manufacturers guidelines.

Shall be applied in accordance with the manufacturer's recommendations and be compatible with the pigments used.

Surface Penetrating Sealer

Shall be specifically required by the color hardener manufacturer.

All materials are subject to the approval of the Engineer. The surface penetrating sealant shall meet the following performance criteria, based on application of the solution in accordance with the manufacturer's recommended procedures and rates:

- A water miscible, penetrating salt and liquid water-repellent treatment that will provide internal steel corrosion protection as follows:
- Treatment shall not affect skid resistance or surface texture.
- Treated concrete surfaces submitted to an ASTM C-642 moisture absorption test or two percent (2%) in fifty (50) days shall not absorb more than one percent (1%) moisture in forty-eight (48) hours.
- Treated concrete surfaces subjected to a ninety (90) day chloride ion penetration test (AASHTO T-259, T-260) shall not permit the penetration of more than 3lbs of chlorides per cubic yard of concrete at the ½ inch to 6 inches depth and no more than 1 lbs. of chloride per cubic yard at 1-inch depth.
- Surface preparation shall be in accordance with manufacturer's recommendations.
- Treatment shall not affect the normal vapor permeability of the substrate.

Curing Compound

Shall be as recommended by the color manufacturer. It shall not affect the skid resistance of the surface.

Combined curing compound and sealer systems are available from concrete color manufacturers. Usage shall be approved by the Engineer in accordance with manufacturer's recommendations.

Expansion Joint

Preformed joint filler shall conform to the Standard Specifications, Section M9.14.0. An Expansion Joint will be located per the manufacturer's recommendations.

Joint Sealant

Shall be high quality polyurethane based, having a 97 percent nonvolatile content and a combined weight of 3 lbs. per gallon.

ITEM 701.01 (Continued)

Backer Rod: An open-cell type rod with an impervious skin that will not outgas when ruptured. Use the backer rod together with the joint sealant. The backer rod shall be compatible with the sealant.

Imprinting Texturing Tools

Shall be mat-type imprinting tool and to provide patterns as shown on the detail. The manufacturer of such tools shall have provided adequate training to the Contractor. The Contractor shall submit documentation that he has been trained by the tool manufacturer.

Portland Cement Concrete

Proportioning of ingredients for the integrally colored and stamped concrete shall be as specified in the Color Modified Concrete Mix Design and Approval Process described herein. All admixtures and coloring agents must be compatible in their use.

Fiber Reinforcement

Shall be 1/2" or 3/4" polypropylene fibers, maximum 3 denier, complying with ASTM C 1116, Type III, Par. 4.1.3 and applicable building code requirements. Not less than 50 million individual fibers per pound.

Fibers shall be supplied in cellulose Concrete Ready Bags which disperse during mixing. Application rate shall be 1 pound per cubic yard of concrete unless recommended otherwise by the manufacturer. For uniform distribution, mix in truck for a minimum of 20 minutes after fiber addition. Add fibers at the batch plant to ensure proper mixing.

Design

Color Modified Concrete Mix Design and Approval Process: Proportioning and testing of the concrete components and mixture shall be accomplished by using the methods outlined in Subsection 901.

The Contractor shall proportion the concrete mix including the coloring additives and finishing methods to obtain the desired color, texture, aggregate exposure, and meet the appropriate mixture classification requirements of Section.

The following information shall be added in addition to the requirements listed in Subsection 901 to be included in the laboratory test data report:

Coloring agent, Color hardener, Release Agent, Curing Compound, Surface penetrating Sealer, Fiber reinforcement

ITEM 701.01 (Continued)

Prior to performing the concrete field trial runs the Contractor shall submit to the Engineer the proposed mix design(s) and one concrete prototype for each concrete classification, color and texture, and aggregate exposure as specified in the project plans. The prototype shall be submitted to the Engineer sufficiently in advance to allow for review and approval of color, texture, and aggregate exposure of the concrete.

Trial Run

The Contractor shall conduct a trial run in accordance with the requirements listed in Section 901, prior to production. The objective of the trial run is to produce a field sample for approval. The trial run shall use the submitted mix design's component materials in the submitted proportions including all admixtures and color additives. The Contractor shall employ all finishing and curing techniques during the trial that will be necessary to produce concrete of the specified plasticity, workability, air content, compressive strength, color, texture, surface pattern and any other specified concrete property.

Field Sample

During the trial run the Contractor shall make a field sample, no less than 1 square yards in size, using the submitted mix. This sample shall not be part of the permanent concrete apron area. The field sample shall include 90 percent patterned area, as specified on the plans, impressed from full patterns and 10 percent patterned area using hand tools to match the full formed area.

The sample shall be approved by the Engineer after consultation with the City for color, texture, and pattern. Additional samples shall be required in the event that the first or subsequent samples are rejected.

When specified concrete parameters have been attained, including color and texture, the Engineer, in consultation with the City shall approve the proposed mix design, color, texture, and aggregate exposure for production.

Qualifications

The contractor shall have at least 5 years of experience performing the installation of patterned and colored concrete on various state and/or municipal contracts. The prime Contractor submits a minimum of 5 references proving the satisfactory completion of such work performed by the concrete contractor within 7 calendar days of the award of the contract for Engineer approval.

The submittal shall include the names, addresses, and phone numbers of the personnel responsible for the administrating the contracts, and the location of the prior work along with representative photographs of the completed work. If the Engineer determines that the contractor proposed has insufficient experience, or has performed unsatisfactory work on other contracts, the prime Contractor will be required to resubmit documentation for an alternate contractor for the approval of the Engineer.

ITEM 701.01 (Continued)**Coordination Meeting**

A Pre-Placement meeting shall be held one week prior to concrete placement to discuss the project and application methods.

CONSTRUCTION METHODS

The installation, coloring, finishing, patterning, and related activities are operations requiring a thorough knowledge of the properties of concrete, the characteristics of the coloring and patterning process, and experience with these methods and only skilled and experienced artisans shall be employed in this work item.

The installer shall provide conclusive proof that he is qualified to, and has previously produced such textured paving as specified and can comply with the provisions specified herein and shown on the plans. Proof shall consist of at least three high quality installations similar to that specified herein. Evidence that the installer is qualified shall be submitted within thirty (30) days after the Notice to Proceed is received, and it shall be the responsibility of the Contractor to ensure that the installer he intends to use for this work be pre-qualified in accordance with this paragraph.

Concrete Placement

Finish grade of the Stamped and Colored Concrete shall match the adjacent road in both profile and cross section.

No concrete under this Item shall be placed when weather conditions indicate precipitation can occur before completed surface patterning can be fully projected. The Contractor shall only place that amount of concrete, which can be completely finished and patterned in accordance with these specifications. Concrete, which becomes too stiff for the proposed patterning, shall be removed and disposed of by the Contractor and replaced in accordance with the plans, these specifications and/or as required by the Engineer.

Concrete removed, disposed of and replaced shall be at the Contractor's expense. Concrete shall not be placed until sub-base and forms have been checked for line and grade.

The subbase shall be moistened to provide uniform dampened condition at time concrete is placed. Concrete around manholes or other structures shall not be placed until they are at required finish elevation and alignment.

Place and spread concrete in continuous operation between transverse joints, as far as possible. If interrupted for more than 1 hour, place a construction joint.

ITEM 701.01 (Continued)**Expansion Joints**

Expansion joints shall be placed per locations indicated in the plans. If locations are not provided provide expansion joints at a distance no greater than 12' O.C. each way. The Contractor shall provide pre-molded joint filler for expansion joints abutting concrete curbs, catch basins, manholes, inlets, structures, walks, and other fixed objects, unless otherwise indicated. The joint filler shall be extended the full-width and depth of joint and not less than ¼ inch or more than ½ inch below finished surface. Place top of joint filler flush with finished concrete surface. Joint fillers shall be in one-piece lengths for full width being placed, wherever possible. Where more than one length is required, lace or clip filler sections together.

The Contractor shall protect top edge of joint filler during concrete placement with a metal cap or other temporary material. This protection shall be removed after concrete has been placed on both sides of the joint.

Filler and Sealants are to be installed in accordance with manufacturer's recommendation.

Primary Concrete Finishing

After strike-off and consolidating concrete, smooth surface by screeding and floating. The use of hand methods shall not be allowed unless mechanical floating is not possible. Adjust floating to compact surface and produce uniform texture.

After floating test surface for trueness with a 10 feet straightedge, distribute concrete as required to remove surface irregularities, and refloat repaired areas to provide a continuous smooth finish.

Special Concrete Finishing

After completion of the primary floating, the finish the entire surface as follows:

- Color Hardener shall be applied evenly to the plastic surface by the dry-shake method using a minimum of 64 lbs and a maximum of 75 lbs per 12 square yard. It shall be applied in two or more shakes, floated after each and troweled only after the final floating.
- Fresh concrete shall be carefully and continuously monitored and tested during partial setting up so that proper consistency for patterning is achieved. Air temperature, humidity, wind conditions, and other factors affecting setting rate shall be considered in determining the start of patterning operations.
- Release agent shall be applied evenly to surface.
- While the concrete is still in the plastic stage of set, the imprinting tools shall be applied to create the surface pattern. The long axis of the running bond pattern shall be perpendicular to the adjacent travel lanes.
- Full patterns shall be used to the maximum extent possible. Care shall be taken to ensure continuity of the pattern and to maintain proper relationships to direction of travel, edges, cut route, curbs, and other opportunities.

ITEM 701.01 (Continued)

- Where full patterns cannot be used, such as at corners, narrow areas, angles, ramps, or obstructions, hand detailing tools and methods shall be used to continue the intended pattern to the limit of the area. The Filler tools or hand methods shall match as closely as possible the pattern, color, and texture of the full pattern area.
- Carefully lift and remove the polyethylene sheet.
- At all edges of globes, hooks of curbing, and principal obstructions, smooth and finish the patterned art concrete with a metal edging tool, having a 3-inch plate width and a ½ inch radius. A principal obstruction shall be, for example, a light or signal standard, catch basin, manhole, or planting area, but shall not be a water gate, fire hydrant, parking meter, signpost, or similar incidental opportunity.
- Once the concrete has attained a compressive strength of 3,000 psi (and cured for a minimum of twenty-four (24) hours), the surface of the concrete shall be carefully power washed to remove any debris without removing the release agent and thereafter sealed.

Repairs And Protection

Protect concrete from damage until acceptance of work and exclude traffic from pavement until the concrete has attained a compressive strength of 3,000 psi and at least 1 day of curing time. The pavement shall be kept free of stain and other damage. Pavement shall be swept and washed free of stains, discolorations, dirt, and other foreign material just prior to final inspection. The Engineer shall determine when the concrete shall be opened to traffic.

METHOD OF MEASUREMENT

Item 701.01 will be measured for payment by the Square Yard.

BASIS OF PAYMENT

Item 701.01 will be paid for at the Contract unit price per Square Yard, which price shall include all labor, materials, equipment, submittals, samples, and all incidental costs required to complete the work.

<u>ITEM 707.1</u>	<u>PARK BENCH</u>	<u>EACH</u>
<u>ITEM 707.15</u>	<u>PARK BENCH REMOVED AND RESET</u>	<u>EACH</u>
<u>ITEM 707.2</u>	<u>TRASH RECEPTACLE</u>	<u>EACH</u>
<u>ITEM 707.9</u>	<u>BICYCLE RACK</u>	<u>EACH</u>
<u>ITEM 707.95</u>	<u>BICYCLE RACK REMOVED AND RESET</u>	<u>EACH</u>

The work under these Item shall conform to the relevant provisions of Section 700 and Subsection 901 of the Standard Specifications and the following:

The work shall consist of furnishing and installing street furniture and constructing concrete pads suitable to mount site amenities.

SUBMITTALS

The contractor shall submit all shop drawings, manufacturers' product data, and samples. The Contractor shall verify all dimensions in the field before shop drawings are submitted.

The shop drawings shall include plans, sections and details as required to show all materials and reinforcing, layout, dimensions, jointing, method of connection and assembly, fabrication and tolerances for types of materials, types and details of connections and openings, cuts, holes, bolts, plates, concrete footings, reinforcing and finishing, anchors and fasteners, attachment details, and painting and finishing for all items required. Coordinate trades as required.

Certificate of Compliance:

Submit manufacturer's certification that each piece of Site Furniture has been constructed to conform to design, materials, and construction equivalent to requirements for labeled construction.

Manufacturer's Literature:

Submit product data including details of construction, materials, dimensions, analysis, hardware preparation, potting soil, color charts and specific finishes, and label compliance.

Submit manufacturer's products and material descriptions and/or installation instructions for the following items: Benches, Trash Receptacles, and Bike Racks.

DELIVERY AND STORAGE

Deliver Site Furniture in packaging that provides protection during transit and storage. Provide additional protection to prevent damage to the finish of the Site Furniture.

Upon delivery, inspect Site Furniture for damage. Minor damage may be repaired provided that refinished items are equal in all respects to new and acceptable to the Engineer; otherwise, remove and replace damaged items.

ITEMS 707.1 through 707.95 (Continued)

Store Site Furniture on site under cover. Place units on minimum 4-inch wood blocking. Avoid use of protective materials that trap heat and moisture. If protective covering on any Site Furniture becomes loose or wet, remove immediately, dry, replace, and re-secure cover until installation. Secure all items from damage for any reason, including vandalism, and theft.

WARRANTIES, GUARANTEES, AND REPLACEMENT

The Contractors shall provide materials from the same manufacturer for site items consistent throughout the project and shall install according to manufacturer's instructions for the specific condition as shown in the Drawings.

The Contractor shall provide to the City the written maintenance and operational instructions, all warranties, and guarantees provided by the Manufacturers, for a minimum of one year after Final Acceptance. If Manufacturer does not provide warrantee for materials installed, Contractor shall assume all cost for replacement of specified material, if product fails during warrantee period.

The Contractor shall provide a guarantee of minimum of one year after acceptance of Workmanship and against defect as determined by the Engineer and shall completely replace or repair site improvements at their own expense within two months after item is identified in the field.

BENCHES

Benches shall be manufactured of solid steel plate support or cast-iron end frames and horizontal strap steel welded to end frames with two arms and one divider, powder coat finish with a standard black color, and surface mountable to a 6-inch-thick concrete pad with anchoring recommended by the manufacturer. The benches shall be approximately 8 feet long, 2 feet deep, and 3 feet high (dimensional tolerance of 4-6 inches allowed based on manufacturer). Final selections shall be approved by the Engineer and the City. All benches shall be of identical model.

Benches shall generally meet the visual illustrations shown on the drawings, and be manufactured by:

- Victor Stanley (CR-196)
- DuMor, Inc. (Bench 493)
- LandscapeForms (Scarborough)
- Or approved equal

TRASH RECEPTACLES

Trash Receptacles shall be manufactured from solid bar recycled steel and have a recessed bottom, formed lids, high-density plastic liner, and rubber tipped leveling feet on the base. All metal components shall be powder coated, and finish color shall be black. Receptacles shall be anchored to a concrete pad following manufacturer recommendations. Final selections shall be approved by the Engineer and the City. All benches shall be of identical model.

ITEMS 707.1 through 707.95 (Continued)

Trash Receptacles shall meet the visual illustrations shown on the drawings, and be manufactured by:

- Victor Stanley (RS-12)
- DuMor, Inc. (Receptacle 148)
- Maglin Site Furniture (MLWR200-32)
- Or approved equal

BICYCLE RACKS

Bicycle Racks shall be loop style with each loop having two-bike capacity. They shall be manufactured of powder coated two-inch nominal outer diameter schedule 40 steel pipe with a black finish. Bicycle racks shall be anchored to a concrete pad following manufacturer recommendations. Bolts shall not be removable by hand after installation to prevent theft of bicycles or be installed with subsurface anchors. Final selections shall be approved by the Engineer and the City. All benches shall be of identical model.

Bicycle Racks shall meet the visual illustrations shown on the drawings, and be manufactured by:

- Victor Stanley (BRWS-161)
- DuMor, Inc. (Loop Bike Rack 83 Series)
- Maglin Site Furniture (MBR500-S Series)
- Or approved equal

CONCRETE PADS

The pads shall be 6-inch thick 4,000 psi, 3/4 inch, 610 cement concrete with 5-to-8% air content. Concrete pad shall include 6x6 welded wire fabric conforming to ASTM A185. Concrete shall have an 8-inch-thick base of M1.03.0 type C gravel.

The surface shall have a light broom finish. The pad shall extend a minimum of 1-foot beyond the amenity on each side.

METHOD OF MEASUREMENT

Item 707.1, Item 707.15, Item 707.2, Item 707.9, Item 707.95 will be measured for payment by the Each installed, complete in place.

BASIS OF PAYMENT

Item 707.1, Item 707.15, Item 707.2, Item 707.9, Item 707.95 will be paid for at the respective Contract unit prices per Each, which price shall include all labor, materials, equipment, submittals, excavation, gravel, concrete pads, mounting hardware, and all incidental costs required to complete the work.

ITEM 734.**SIGN REMOVED AND RESET****EACH**

The work under this item shall conform to the relevant provisions of Subsections 828 and 840 of the Standard Specifications and the following:

The work shall include the removal and resetting of signs, attached hardware and supports from locations shown on the plans and as directed by the Department.

The Contractor shall coordinate the removal of signs with the Engineer. Existing signs shall remain in place until removal is approved by the Engineer. Any sign damaged or lost either directly or indirectly as a result of the Contractor's operations shall be replaced by the Contractor at his own expense.

New attachment hardware shall be furnished and installed as necessary to replace any missing or unusable existing hardware.

The Contractor shall backfill with compacted gravel all holes resulting from the removal of the existing signs and their foundations and restore the area to match existing conditions of adjacent areas.

Signs removed shall be reset at specified locations on the plans and as required by the Engineer.

METHOD OF MEASUREMENT

Item 734. will be measured for payment by the Each sign that is removed and reset.

BASIS OF PAYMENT

Item 734. will be paid for at the Contract unit price per Each, which price shall include all labor, materials, equipment, excavation, foundation removal and disposal, backfill and area restoration, dismantling, loading, transporting, storing, and all incidental costs required to complete the work.

ITEM 740. ENGINEER'S FIELD OFFICE AND EQUIPMENT (TYPE A) MONTH

The work under this Item shall conform to the relevant provisions of Subsection 740 of the Standard Specifications and the following:

Two computer system and printer system meeting minimum requirements set forth below including installation, maintenance, power, paper, disks, and other supplies shall be provided at the Resident Engineer's Office:

All equipment shall be UL approved and Energy Star compliant.

The Computer System shall meet the following minimum criteria or better:

Processor:	Intel, 3.5 GHz
System Memory (RAM):	12 GB
Hard Drive:	500 GB
Optical Drive:	DVD-RW/DVD+RW/CD-RW/CD+RW
Graphics Card:	8 GB
Network Adapter:	10/100 Mbit/s
USB Ports:	6 USB 3.0 ports
Keyboard:	Generic
Mouse:	Optical mouse with scroll, MS-Mouse compliant

Video/Audio the computer system shall be capable of allow video calling and recording:

Video camera shall be High Definition 1080p widescreen capable video calling and recording with built in microphone. The microphone system shall capture natural audio while filtering out background noise.

Audio shall be stereo multimedia speaker system delivering premium sound.

OS: Latest Windows Professional with all security updates
Web Browser: Latest Internet Explorer with all security updates
Applications: Latest MS Office Professional with all security updates
Latest Adobe Acrobat Professional with all security updates
Latest Autodesk AutoCAD LT
Antivirus software with all current security updates maintained through the life of the contract.

Monitors: Two 27" LED with Full HD resolution.
Max. resolution 1920 x 1080

Flash drives: 2 (two) - 128GB USB 3.0
Internet access: High Speed (min. 24 mbps) internet access with wireless router.

ITEM 740. (Continued)

The Multifunction Printer System shall meet the following minimum criteria or better:

Color laser printer, fax, scanner, email and copier all in one with the following minimum capabilities:

- Estimated volume 8,000 pages per month
- LCD touch panel display
- 50 page reversing automatic document feeder
- Reduction/enlargement capability
- Ability to copy and print 11" x 17" paper size
- email and network pc connectivity
- Microsoft and Apple compatibility
- ability to overwrite latent images on hard drive
- 600 x 600 dpi capability
- 30 pages per minute print speed (color),
- 4 Paper Trays Standard (RADF) (not including the bypass tray)
- Automatic duplexing
- Finisher with staple functions
- Standard Ethernet. Print Controller
- Scan documents to PDF, PC and USB
- ability to print with authenticated access protection

The Contractor shall supply a maintenance contract for next day service, and all supplies (toner, staples, paper) necessary to meet estimated monthly usage.

The Engineer's Field Office and the equipment included herein including the computer system, and printer shall remain the property of the Contractor at the completion of the project. Disks, flash drives, and card readers with cards shall become the property of the Department.

METHOD OF MEASUREMENT

Item 740. will be measured for payment by the Each month.

BASIS OF PAYMENT

Item 740. will be paid for at the Contract unit price per Each, which price shall include all labor, materials, equipment, all services, maintenance, insurance, and all incidental costs required to complete the work.

ITEM 745.**PEDESTRIAN BUS SHELTER****EACH**

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

The work shall consist of the design, fabrication, and delivery of Pedestrian Bus Shelters (Passenger Waiting Shelters) to include structural aluminum frames with glazed rear, and side walls, roof assemblies, and all required hardware for installation. Shelters shall be computer designed and structurally engineered. The shelter frame shall be designed to be stable with or without wall and roof glazing. All connections and glazing containment shall be tamper-proof, integral, and/or concealed. Each shelter shall be manufactured in prefabricated components and complete roofs, ready for field erection. Work shall also consist of a concrete pad suitable to mount the shelter structure.

QUALITY ASSURANCE

Manufacturer shall have a minimum of 5 years' experience in the design and manufacture of Aluminum Passenger Waiting Shelters.

Requests for approved equals shall be supported by complete technical documentation which; shall include descriptive literature, assembly instructions, and detail drawings which clearly show dimensions, joining details, alloy, temper, finish, and thickness of all members. Detailed specifications shall also accompany such request.

Manufacturer warrants that shelter shall be free from defect in parts and manufacture for a period of one year. Manufacturer shall maintain inventory of replacement parts for ten years after delivery of shelter.

PERFORMANCE

Shelter shall be designed to withstand minimum vertical and horizontal wind load of 90 mph. Roof shall be designed to withstand minimum dead load of 25 PSF.

MATERIALS

All structural framing members shall be 1 (one) piece seamless extruded aluminum tubes of 6063-T5 alloy. All roof aluminum sections shall be 6063-T5 alloy. All structural connector channels and base anchor boots shall be extruded aluminum sections of 6061-T5 alloy.

All glazing shall conform to the American National Standards Institute (ANSI) Safety Standard for Architectural Glazing Materials Z97.1- 1975.

All fasteners shall be aluminum or stainless steel or a combination thereof and shall be tamper proof. Zinc, carbon steel, plated, or any other "non-corrosive" fasteners will not be acceptable. Self-tapping or self-drilling fasteners are not acceptable.

ITEM 745. (Continued)

Shelter pad shall be 6-inch thick 4,000 psi concrete with 5-to-8% air content. Concrete pad shall include 6x6 welded wire fabric. Concrete shall have an 8-inch thick base of M1.03.0 type C gravel with 6" by 6" wire mesh ASTM A185. There shall be a vapor barrier underneath the concrete. There shall be a minimum of two (2) control joints.

Size:

- Length: 8 ft to 8.5 ft
- Width (OD): 4 ft to 5 ft
- Total width of side panels: 4 ¾ ft to 5 ¾ ft
- Height (ground to ceiling): 7 ft to 8 ft
- Bottom of Shelter to Ground Clearance: 6" to 8"

Detail:

- Base: 4" external adjustable base flanges with exposed bolts.
- Glazing: Clear Tempered Safety Glass Panel: 3/8"
- Roof Assembly: Hipped roof with aluminum "ribs"
- Finishes: Dark Bronze Anodized Aluminum Structure (Quaker Bronze or similar)
- Opening: Double
- Bench: ADA bench for selected shelter including anti-vagrant Armrests
- Map Holder: 18-inch x 24-inch matching structure finish
- Lighting: Solar Lighting Package (50 watt minimum)

Manufacturer:

Belson Outdoors ALS68AOH, Brasco International Slimline Hip, Handi-Hut 4 Series Model 4-2, or approved equal.

CONSTRUCTION

Shelter shall be constructed of modular interchangeable components delivered to the site from the manufacturer's facility. The manufacturer shall provide all fasteners and accessory components and detailed instructions for field erection of the structure.

The concrete surface pad shall have a light broom finish. The pad shall extend a minimum of 1-foot beyond the transit shelter on each side. Grade shall be set to prevent flooding on the interior of the shelter, including ancillary grading and repair adjacent to the structure as necessary.

METHOD OF MEASUREMENT

Item 745. will be measured for payment by the Each pedestrian bus shelter installed, complete in place.

BASIS OF PAYMENT

Item 745. will be paid for at the Contract unit price per Each, which price shall include all labor, materials, equipment, submittals, excavation, gravel, concrete pad, mounting hardware, accessory components, and all incidental costs required to complete the work.

ITEM 756. NPDES STORM WATER POLLUTION PREVENTION PLAN LUMP SUM

This Item addresses the preparation and implementation of a Storm Water Pollution Prevention Plan required by the National Pollutant Discharge Elimination System (NPDES) and applicable Construction General Permit (CGP) issued by the U.S. Environmental Protection Agency (EPA).

Pursuant to the Federal Clean Water Act, construction activities which disturb one acre or more are required to apply to the EPA for coverage under the NPDES General Permit for Storm Water Discharges from Construction Activities. The Contractor shall be fully responsible for compliance with the most recently issued CGP and any subsequent revisions. Should a fine or damages be assessed against it, or MassDOT, as a result of a local, state, or federal enforcement action due to non-compliance with the CGP, the Contractor shall take full responsibility.

The NPDES CGP requires the submission of a Notice of Intent (NOI) to the EPA prior to the start of construction (defined as any activity which disturbs land, including clearing and grubbing). There is a fourteen (14) day review period commencing from the date on which EPA enters the Notice into their database. Based on the review of the NOI, EPA may require additional information, including but not limited to, the submission of the Storm Water Pollution Prevention Plan (SWPPP) for review. Work may not commence on the project until final authorization has been granted by EPA. Any additional time required by EPA for review of submittals will not constitute a basis for claim of delay.

In addition, if the project discharges to an Outstanding Resource Water, vernal pool, or is within a coastal ACEC as identified by the Massachusetts Department of Environmental Protection (DEP), a separate notification to DEP is required. DEP may also require submission of the Storm Water Pollution Prevention Plan for review and approval. Filing fees associated with the notification to DEP and, if required, the SWPPP filing to DEP shall be paid by the Contractor.

The CGP also requires the preparation and implementation of a SWPPP in accordance with the afore-mentioned statutes and regulations. The Plan will include the CGP conditions and detailed descriptions of controls of erosion and sedimentation to be implemented during construction. The contractor shall prepare the SWPPP and update it as necessary. The Contractor shall submit the Plan to the Engineer for approval at least four (4) weeks prior to any site activities. It is the responsibility of the Contractor to comply with the CGP conditions and the conditions of any state Wetlands Protection Act Order, Water Quality Certification, Corps of Engineers Section 404 Permit and other environmental permits applicable to the project and to include in the SWPPP the methods and means necessary to comply with applicable conditions of said permits.

It is the responsibility of the Contractor to complete the SWPPP in accordance with the EPA CGP, provide all information required, and obtain any and all certifications as required by the CGP. Any amendments to the SWPPP required by site conditions, schedule changes, revised work, regulations, construction methodologies, and the like are the responsibility of the Contractor. Amendments will require the approval of the Engineer prior to implementation.

ITEM 756. (Continued)

In addition to the CGP requirements for inspections, MassDOT requires inspection of all erosion controls and site conditions on a weekly basis. Inspections are also required at portions of sites that discharge to sediment or nutrient impaired or high quality waters per the CGP when each incidence of rainfall exceeding 0.25 inches in twenty-four hours or after snowmelt discharge from a storm event that produces 3.25 inches or more of snow within twenty-four hours occurs. The CGP requires that inspections be performed by a qualified individual as outlined in the CGP. MassDOT requires proof of completion of a 4 hour minimum sedimentation and erosion control training class current to the latest CGP. This individual can be, but not limited to, someone that is either a certified inspector, certified professional, or certified storm water inspector. The documentation shall be included as an appendix in the SWPPP. The inspector's qualifications shall be submitted to the Engineer for approval prior to beginning any work. This individual shall be on-site during construction to perform these inspections. In addition, if the Engineer determines at any time that the inspector's performance is inadequate, the Contractor shall provide an alternate inspector. Written weekly inspection forms, storm event inspection forms, and Monthly Summary Reports must be completed and provided to the Engineer. Monthly Summary Reports must include a summary of construction activities undertaken during the reporting period, general site conditions, erosion control maintenance and corrective actions taken, the anticipated schedule of construction activities for the next reporting period, any SWPPP amendments, and representative photographs.

The Contractor is responsible for preparation of the Plan, all SWPPP certifications, inspections, reports and any and all corrective actions necessary to comply with the provisions of the CGP. The Standard Specifications require adequate erosion control for the duration of the Contract. All control measures must be properly selected, installed, and maintained in accordance with manufacturer specifications and good engineering practices. If periodic inspections or other information indicates a control has been used inappropriately or is no longer adequate, it is the responsibility of the Contractor to replace or modify the control for site conditions at no additional cost to the Department. Contractor must maintain all control measures and other protective measures in effective operating conditions and shall consider replacement of erosion controls for each construction season.

The work under this item shall also include the preparation, submission and implementation of a Flood Contingency Plan. The plan shall address the potential need for the temporary relocation of construction and auxiliary equipment situated within the 1% annual chance of flooding zone to designated upland locations above the Base Flood Elevation during flood events. The Flood Contingency Plan shall address any additional MassDEP-required information requirements, as applicable. The Flood Contingency Plan shall be submitted to the Engineer for review and approval at the same time as the SWPPP.

This Item addresses acceptable completion of the SWPPP, any revisions/amendments required during construction, preparation of monthly reports and Flood Contingency Plan. In addition, any erosion controls beyond those specified in bid items which are selected by the

ITEM 756. (Continued)

Contractor to facilitate and/or address the Contractor's schedule, methods and prosecution of the work shall be considered incidental to this item.

The CGP provides specific requirements for temporary and final stabilization. This shall be incorporated into the project schedule. The permit defines specific deadline requirements for Initial Stabilization ("immediately", i.e., no later than the end of the next work day following the day when earth-disturbing activities have temporarily or permanently ceased) and for Complete Stabilization Activities (no later than 14 calendar days after the initiation of stabilization). Stabilization criteria for vegetative and non-vegetative measures are provided in the CGP.

The CGP requires the submission of a Notice of Termination (NOT) from all operators when final stabilization has been achieved, as well as removal and proper disposal of all construction materials, waste and waste handling devices, removal of all equipment and construction vehicles, removal of all temporary stormwater controls, etc. Approval of final stabilization by the Engineer and confirmation of submission of the NOT will be required prior to submission of the Resident Engineer's Final Estimate. The permittee shall use EPA's website to prepare and submit the NOT.

BASIS OF PAYMENT

Item 756 will be paid for at the Contract unit price Lump Sum, which price shall include all labor, materials, equipment, SWPPP & Flood Contingency Plan preparation, revisions/addenda during construction, monthly reports, filing fees, and all incidental costs required to complete the work.

Payment of 50% of the Lump Sum price of this item will be made upon acceptance of the NPDES Stormwater Pollution Prevention Plan & Flood Contingency Plan.

Payment of 40% of the Lump Sum price of this item will be will be paid in equal monthly installments distributed across the time remaining in the accepted baseline schedule until substantial completion.

The remaining 10% of the Lump Sum price of this Item will be paid following accepted submission of a Notice of Termination (NOT) when final stabilization has been achieved.

ITEM 767.121**SEDIMENT CONTROL BARRIER****FOOT**

The work under this item shall conform to the relevant provisions of Subsections 670, 751 and 767 of the Standard Specifications and shall include the furnishing and placement of a sediment control barrier. Sediment control barrier shall be installed prior to disturbing upslope soil.

The purpose of the sediment control barrier is to slow runoff velocity and filter suspended sediments from storm water flow. Sediment barrier may be used to contain stockpile sediments, to break slope length, and to slow or prevent upgradient water or water off road surfaces from flowing into a work zone. Contractor shall be responsible for ensuring that barriers fulfill the intent of adequately controlling siltation and runoff.

Twelve-inch diameter (after installation) compost filter tubes with biodegradable natural fabric (i.e., cotton, jute, burlap) are intended to be the primary sedimentation control barrier. Photo-biodegradable fabric shall not be used.

For small areas of disturbance with minimal slope and slope length, the Engineer may approve the following sediment control methods:

- 9-inch compost filter tubes
- Straw bales which shall be trenched

No straw wattles may be used. Additional compost filter tubes (adding depth or height) shall be used at specific locations of concentrated flow such as at gully points, steep slopes, or identified failure points in the sediment capture line.

When required by permits, additional sediment barrier shall be stored on-site for emergency use and replacement for the duration of the contract.

Where shown on the plans or when required by permits, sedimentation fence shall be used in addition to compost filter tubes and straw bales and shall be compensated under that item.

Sediment control barriers shall be installed in the approximate location as shown on the plans and as required so that no excavated or disturbed soil can enter mitigation areas or adjacent wetlands or waterways. If necessary to accommodate field conditions and to maximize effectiveness, barrier locations may be shifted with approval from the Engineer. Barriers shall be in place prior to excavation work. No work shall take place outside the barriers.

MATERIALS AND CONSTRUCTION

Prior to initial placement of barriers, the Contractor and the Engineer shall review locations specified on the plans and adjust placement to ensure that the placement will provide maximum effectiveness.

Barriers shall be staked, trenched, and/or wedged as specified herein and according to the Manufacturer's instructions. Barriers shall be securely in contact with existing soil such that there is no flow beneath the barrier.

ITEM 767.121 (Continued)**Compost Filter Tube**

Compost material inside the filter tube shall meet M1.06.0, except for the following: no peat, manure or bio-solids shall be used; no kiln-dried wood or construction debris shall be allowed; material shall pass through a 2-inch sieve; and the C:N ratio shall be disregarded.

Outer tube fabric shall be made of 100% biodegradable materials (i.e., cotton, hemp or jute) and shall have a knitted mesh with openings that allow for sufficient water flow and effective sediment capture.

Tubes shall be tamped, but not trenched, to ensure good contact with soil. When reinforcement is necessary, tubes shall be stacked as shown on the detail plans.

Straw Bales

Straw bales shall be used if shown on the plans or when specified by Orders of Condition or other permit requirements.

Bales should be placed in a single row, lengthwise on the contour, with ends of adjacent bales tightly abutting one another. All bales should be either wire-bound or string-tied. Straw bales should be installed so that bindings are oriented around the sides (rather than along the tops and bottoms) of the bales in order to prevent deterioration of the bindings.

The barrier should be entrenched and backfilled. A trench should be excavated the width of a bale and the length of the proposed barrier to a minimum depth of 4 inches. The trench must be deep enough to remove all grass and other material which might allow underflow. After the bales are staked and chinked (filled by wedging), the excavated soil should be backfilled against the barrier. Backfill soil should conform to the ground level on the downhill side and should be built up to 4 inches against the uphill side of the barrier.

Each bale should be securely anchored by at least 2 stakes or re-bars driven through the bale. The first stake in each bale should be driven toward the previously laid bale to force the bales together. Stakes or re-bars should be driven deep enough into the ground to securely anchor the bales. For safety reasons, stakes should not extend above the bales but should be driven in flush with the top of the bale.

The gaps between the bales should be chinked (filled by wedging) with straw to prevent water from escaping between the bales. Loose straw scattered over the area immediately uphill from a straw bale barrier tends to increase barrier efficiency. Wedging must be done carefully in order not to separate the bales.

When used in a swale, the barrier should be extended to such a length that the bottoms of the end bales are higher in elevation than the top of the lowest middle bale to assure that sediment-laden runoff will flow either through or over the barrier but not around it.

ITEM 767.121 (Continued)**Sedimentation Fence**

Materials and Installation shall be per Section 670.40 and 670.60 of the Standard Specifications and the following:

Sedimentation fence shall only be used if shown on the plans or when specified by Orders of Condition or other permit requirements.

When used with compost filter tubes, the tube shall be placed on a minimum of 8 inches of folded fabric on the upslope side of the fence. Fabric does not need to be trenched.

When used with straw bales, an 8-inch deep and 4-inch wide trench or V-trench shall be dug on the upslope side of the fence line. One foot of fabric shall be placed in the bottom of the trench followed by backfilling with compacted earth or gravel. Stakes shall be on the down slope side of the trench and shall be spaced such that the fence remains vertical and effective.

Width of fabric shall be sufficient to provide a 36-inch high barrier after fabric is folded or trenched. Sagging fabric will require additional staking or other anchoring.

MAINTENANCE

Maintenance of the sediment control barrier shall be per Section 670.60 of the Standard Specifications or per the Stormwater Pollution Prevention Plan (SWPPP), whichever is more restrictive.

The contractor shall inspect the sediment barrier in accordance with relevant permits. At a minimum, barriers shall be inspected at least once every 7 calendar days and after a rain event resulting in 0.25 inches or more of rainfall. Contractor shall be responsible for ensuring that an effective barrier is in place and working effectively for all phases of the Contract.

Barriers that decompose such that they no longer provide the function required shall be repaired or replaced as directed. If the resulting berm of compost within the fabric tube is sufficiently intact (despite fabric decay) and continues to provide effective water and sediment control, barrier does not necessarily require replacement.

DISMANTLING & REMOVING

Barriers shall be dismantled and/or removed, as required, when construction work is complete and upslope areas have been permanently stabilized and after receiving permission to do so from the Engineer.

Regardless of site context, nonbiodegradable material and components of the sediment barriers, including photo-biodegradable fabric, plastic netting, nylon twine, and sedimentation fence, shall be removed and disposed off-site by the Contractor.

ITEM 767.121 (Continued)

For naturalized areas, biodegradable, natural fabric and material may be left in place to decompose on-site. In urban, residential, or other locations where aesthetics is a concern, the following shall apply:

- Compost filter tube fabric shall be cut and removed, and compost shall be raked to blend evenly (as would be done with a soil amendment or mulch). No more than a 2-inch depth shall be left on soil substrate.
- Straw bales shall be removed and disposed off-site by the Contractor. Areas of trenching shall be raked smooth and disturbed soils stabilized with a seed mix matching adjacent seeding or existing grasses (i.e., lawn or native grass mix).
- Sedimentation fence, stakes, and other debris shall be removed and disposed off-site. Site shall be restored to a neat and clean condition.

METHOD OF MEASUREMENT AND BASIS OF PAYMENT

Item 767.121 will be measured and paid for at the contract unit price per foot of sediment control barrier which price shall include all labor, equipment, materials, maintenance, dismantling, removal, restoration of soil, and all incidental costs required to complete the work.

Additional barrier, such as double or triple stacking of compost filter tubes, will be paid for per foot of tube installed.

Barriers that have been driven over or otherwise damaged by construction activities shall be repaired or replaced as directed by the Engineer at the Contractor's expense.

<u>ITEM 775.432</u>	<u>LOCUST - HONEY - SHADEMASTER 1.5-2 INCH CAL.</u>	<u>EACH</u>
<u>ITEM 776.525</u>	<u>AUTUMN BLAZE FREEMAN MAPLE 1.5-2 INCH CAL.</u>	<u>EACH</u>
<u>ITEM 776.526</u>	<u>RED SENTINEL MAPLE 1.5-2 INCH CAL.</u>	<u>EACH</u>
<u>ITEM 777.017</u>	<u>URBAN PINNACLE BUR OAK 1.5-2 INCH CAL.</u>	<u>EACH</u>
<u>ITEM 779.000</u>	<u>VALLEY FORGE AMERICAN ELM 1.5-2 INCH CAL.</u>	<u>EACH</u>
<u>ITEM 783.048</u>	<u>SNOWCLOUD SERVICEBERRY 1-1.5 INCH CAL.</u>	<u>EACH</u>
<u>ITEM 785.631</u>	<u>INKBERRY 18-24 INCH / #1</u>	<u>EACH</u>
<u>ITEM 794.252</u>	<u>SWITCHGRASS - CAPE BREEZE / #1</u>	<u>EACH</u>
<u>ITEM 794.330</u>	<u>SUMAC SHRUB - FRAGRANT-GRO-LOW 2-3 FEET / #1</u>	<u>EACH</u>
<u>ITEM 796.001</u>	<u>LOW SCAPE MOUND BLACK CHOKEBERRY / #1</u>	<u>EACH</u>
<u>ITEM 796.002</u>	<u>CRINKLED HAIR GRASS / #1</u>	<u>EACH</u>

The work under these items shall conform to the relevant provisions of Subsection 771, Planting Trees, Shrubs and Groundcover, of the Standard Specifications, as shown on the drawings, and as required by the Engineer.

<u>ITEM 804.2</u>	<u>2 INCH ELECTRICAL CONDUIT TYPE NM – PLASTIC (UL)</u>	<u>FOOT</u>
<u>ITEM 804.3</u>	<u>3 INCH ELECTRICAL CONDUIT TYPE NM – PLASTIC - (UL)</u>	<u>FOOT</u>

The work under these Items shall conform to the relevant provisions of Subsection 801 of the Standard Specifications and the following:

The work shall include the furnishing and installation of 2 inch and 3 inch non-metallic conduit for traffic signal and lighting systems in accordance with the Plans and as directed by the Engineer. The conduit material shall be Schedule 80 polyvinyl chloride (PVC) plastic conduit. The conduit quantity may be increased or decreased by the Engineer depending upon actual conditions encountered as provided for in Section 4.06 of the Standard Specifications.

Conduit In Grass Or In Planted Areas

Where new conduits are installed in grass and planted areas, no separate payment shall be made for the excavation, sand bedding, gravel backfill, including necessary compaction, or incidental materials, but all costs in connection therewith shall be included in the contract unit price for Items 804.2 and 804.3.

Conduit Under Sidewalk, Median Or Driveways

Where conduit is installed in a sidewalk, paved median or asphalt driveway areas, no separate payment shall be made for the saw-cutting, excavation, and sand bedding, gravel backfill, including necessary compaction, or incidental materials, but all costs in connection therewith shall be included in the contract unit price for Items 804.2 and 804.3. Payment for cement concrete or asphalt pavement shall be paid under the respective item.

METHOD OF MEASUREMENT AND BASIS OF PAYMENT

Item 804.2 and Item 804.3 will be measured and paid per Subsections 801.80 and 801.81, respectively.

No separate payment will be made for sawcutting and sand backfill, but all costs in connection therewith shall be included in the respective Contract unit price bid.

Concrete encasement when required will be measured and paid for under Item 810. – Conduit Encased in Concrete.

ITEM 812.09**LIGHT STANDARD FOUNDATION PRECAST****EACH**

The work under this Item shall conform to the relevant provisions of Subsection 801 of the Standard Specifications and the following:

The work shall include the furnishing and installation of Light Standard Foundations for the lighting system in accordance with the plans and as required by the Engineer.

- Foundations shall be pre-cast concrete, having 4,000 psi minimum 28-day compressive strength and be cast at a MassDOT approved pre-casting facility.
- Foundations shall support the effective projected area of the specified pole, arm(s), luminaire(s), and accessories, such as shields, banner arms, and banners, under wind conditions.
- Anchor bolts shall be set in a welded cage or properly positioned by the tie wire to stirrups.
- The anchor bolt locations and projection shall be compatible with the required bolting pattern for the highway lighting pole.
- Materials and equipment shall be in accordance with NEC, UL, ANSI, and as shown on the drawings and specified.

METHOD OF MEASUREMENT

Item 812.09 will be measured for payment by each, precast light standard foundation, complete in place.

BASIS OF PAYMENT

Item 812.09 will be paid for at the Contract unit price per each, which price shall include all labor, materials, equipment, grounding of the foundations, and incidental costs required to complete the work.

<u>ITEM 813.811</u>	<u>SERVICE CONNECTION</u> <u>(UNDERGROUND) WITH RISER – UP 40</u>	<u>LUMP SUM</u>
<u>ITEM 813.812</u>	<u>SERVICE CONNECTION</u> <u>(UNDERGROUND) WITH RISER – UP 120B</u>	<u>LUMP SUM</u>
<u>ITEM 813.813</u>	<u>SERVICE CONNECTION</u> <u>(UNDERGROUND) WITH RISER- UP 120A</u>	<u>LUMP SUM</u>
<u>ITEM 813.814</u>	<u>SERVICE CONNECTION</u> <u>(UNDERGROUND) – 159 ASHLAND STREET</u>	<u>LUMP SUM</u>
<u>ITEM 813.815</u>	<u>SERVICE CONNECTION</u> <u>(UNDERGROUND) WITH RISER - UP 39</u>	<u>LUMP SUM</u>

The work under this Item shall conform to the relevant provisions of Subsection 813 of the Standard Specifications and the following:

The work under item 813.811 shall consist of installing underground utility service connections from the relocated utility pole ULT40 and removal of the existing underground conduits and risers from the existing utility pole services.

The work under item 813.812 shall consist of installing underground utility service connections from the relocated utility pole ULT120 and removal of the existing underground conduits and risers from the existing utility pole services.

The work under item 813.813 shall consist of installing new underground utility service connections to proposed pole UP 120A and removal of the existing underground conduits and risers from the existing utility pole services.

The work under item 813.814 shall consist of installing underground utility service connection to the transformer on the 159 Ashland Street property.

The work under item 813.815 shall consist of installing underground utility service connections from the relocated utility pole UP 39 and removal of the existing underground conduits and risers from the existing utility pole services.

The proposed utility poles will be installed as shown on the Contract Drawings. The contractor shall locate the existing underground services and add fittings to re-direct all conduit lines to the location where the new utility pole is installed. New conduit risers and necessary wiring shall be installed and connected to the newly relocated utility poles and power lines. The conduit risers shall meet National Grid Standards.

The conduit material shall be Schedule 80 polyvinyl chloride (PVC) plastic conduit.

The work shall include all excavation and backfill, compaction, conduit, fittings, concrete encasement and materials or any other requirements set by the respective utility company, local codes and guidelines.

ITEMS 813 and 813.815 (Continued)

The work associated with disconnecting power and reconnecting power services to the building should be performed at a time convenient to the property owner, preferred to be during normal working hours at a time agreed upon with the property owner. No additional compensation will be made for work done beyond normal work hours. The actual time of day or evening for the disconnecting and reconnecting will be agreed upon between MassDOT, National Grid and the property owner during construction. Electric service to the building must be maintained at all other times during construction.

A licensed electrician is required to make the service connection at the building. The Contractor is responsible for coordination with National Grid and property owner. The property owners contact information will be provided to the Contractor after the bid is awarded.

Service connections shown on the plans are approximate only. The Contractor shall determine exact locations from the servicing utility, arrange to complete the service connections, and be responsible for all charges incidental thereto. All service connections within the National Grid franchise must be installed in accordance with National Grid Specifications for Electrical Installations, to be found at the following link:

https://www.nationalgridus.com/media/pronet/constr_esb750.pdf

BASIS OF PAYMENT

Item 813.811, Item 813.812, Item 813.813, Item 813.814, and Item 813.815 will be paid for at the respective Contract unit prices Lump Sum, which price shall include all labor, materials, equipment, and all incidental costs required to complete the work.

The work associated with the removal of the utility pole, transferring wiring to the new utility pole and supplying and installing the new utility pole shall be the responsibility of the respective utility companies and shall not be paid for under this item.

ITEM 816.01**TRAFFIC SIGNAL RECONSTRUCTION**
LOCATION NO. 1**LUMP SUM**

The work under this Item shall conform to the relevant provisions of Subsection 815 of the Standard Specifications and the following:

The work consists of furnishing and installing traffic control signal equipment complete and ready for operation, as shown on the plans, at the intersection of Ashland Street at American Legion Drive.

Included in the work is the modifying, furnishing, and installing of traffic control signal equipment, including removing and resetting posts and bases, foundations, saw cuts, wire and cables, pull boxes, removing and stacking existing signal equipment, and providing all incidental materials necessary for operating and controlling the traffic control signals, as shown on the plans and specified.

Existing service connections will be maintained at both locations during construction. No work shall be done in manholes or on power poles without a representative of National Grid. The Contractor will be responsible for coordinating the National Grid work.

It shall also be the Contractor's responsibility to pay all charges to National Grid for performing this work. No direct reimbursement will be made under this payment to the Contractor for payments made to National Grid, it being understood that full compensation for any payment made by the Contractor to the utility company will be included in the contract unit prices bid.

A list of required major traffic signal system items is included on the plans. All equipment installed shall be listed on MassDOT's "Qualified Traffic Control Equipment List".

The Contractor shall deliver to the Owner a certificate of compliance with the manufacturer for all materials purchased from the manufacturer.

The Contractor shall request written approval from the Owner or its Designated Agent before the placement of any concrete for foundations of mast arms, signal posts and cabinets.

Local Traffic Signal Controllers And Cabinets

The traffic signal controller and control cabinet shall be retained.

The controllers, malfunction management units, video detection units, bus interface units, and all other ancillary traffic signal control components included in the traffic control cabinet shall comply with the National Electrical Manufacturers Association (NEMA) Standard No. TS 2.

Video Detection System

The existing video detection system shall be retained, including existing cameras mounted on strain poles and video processing equipment included in the traffic signal control cabinet. Video detection zones and phase assignments shall be adjusted as necessary according to the Plans.

ITEM 816.01 (Continued)**Posts And Bases**

Posts and bases shall be retained or removed and reset as noted on the plans. Posts and bases to be removed and reset shall be placed on new foundations meeting MassDOT standards.

The Contractor shall note the existing condition of equipment to be removed and reset. Equipment damaged due to Contractor operations shall be replaced in kind, with no separate payment therefor.

Wiring And Service Connections

Traffic signal cable shall be of Type 2, #14 AWG stranded, 10-conductor minimum meeting the requirements of IMSA Specification 20-1, except for mast arm and /or span wire traffic signal cable, which shall be Type 2, #14 AWG stranded, 5-conductor minimum meeting the requirements of IMSA Specification 19-1. All systems shall have a minimum of one (1) 10-conductor cable for each vehicle phase, overlap phase, and pedestrian phase for controller outputs to field wiring required by the timing and sequence plan. A minimum of a five (5) spare conductors shall be provided in the base of each signal post and mast arm. Openings, where cables enter the base of a cabinet, shall be sealed with an approved elastic sealing compound. The open ends of conduits entering or leaving mast arms, posts, and pull boxes shall also be sealed with the approved elastic sealing compound.

The work for service connections shall consist of furnishing and installing all materials and equipment to deliver power to the traffic signals and related electrical systems.

Fine Tuning, Testing And Adjustment Period

After the Contractor has finished installing the controller and all other associated signal equipment to operate as specified in the contract documents, the fine tuning, adjusting and testing period shall begin. During this period, the Contractor, under the direction of the Engineer, will make necessary adjustments and tests to insure safe and efficient operation of the equipment. This completion date has taken this testing period into consideration. No request for final acceptance will be considered until successful completion of the testing period.

Guarantee After Final Acceptance

The Contractor shall diagnose (trouble-shoot) the system and, at his own expenses replace any part of the traffic signal control equipment found to be defective in workmanship, material or manner of functioning within six months from date of final acceptance of all the installations under this Contract. This requirement does not affect the one-year warranty period on equipment specified in Subsection 815.20 of the Standard Specifications.

Upon the date of acceptance of the project by MassDOT, the Contractor shall turn over all guarantees and warranties to MassDOT, where applicable.

ITEM 816.01 (Continued)**Existing Traffic Signal Equipment Removed And Stacked**

Existing traffic signal equipment as noted shall be removed and stacked.

Existing traffic signal equipment to be removed and stacked shall include but not limited to: posts and bases, any and all hangers or brackets, and any other materials as determined by the Engineer.

All Traffic Signal Equipment shall be removed and stacked by the contractor and transported by the Contractor to a location designated by the City of North Adams.

Miscellaneous Requirement

The actuated controller shall have capability to preempt to a preselected phase by external command. Because this is often overlooked, the Contractor's attention is drawn to the requirements of Section 813.60C, Splicing, relative to four optional methods of splicing in signal bases, Section 813.40C, Ground Electrodes, relative to Requirement 1 - Connection to a Water Piping System, and Section 813.61, Equipment Grounding.

All anchor bolts and bolts for holding hand hole and access covers shall be greased at the time of installation.

All proposed conduit shall be 2 inch Type NM, plastic conduit unless otherwise specified. 2 inch conduit shall be paid for under Item 804.2 and shall not be included in the lump sum bid price for Item 816.01.

The Contractor shall make all necessary arrangements with the electric company for the service connections or for any main power cut off when necessary, and bear all charges incurred thereby.

BASIS OF PAYMENT

Item 816.01 will be paid for at the Contract unit price Lump Sum, which price shall include all labor, materials, equipment, Excavation, backfill, foundation, adjustment of existing traffic signals during construction, removal and stacking of existing equipment, service connections, and all incidental costs required to complete the work.

The 2 inch electrical conduit, Type NM Plastic (UL), will be paid for under Item 804.2.
Pull boxes will be paid for under Item 811.31.

ITEM 821.121**ORNAMENTAL LIGHT POLE & FIXTURE****EACH**

The work under this item shall conform to the relevant provisions of Subsection 820 of the Standard Specifications and the following:

The work under this Item shall include the furnishing and installation of Ornamental Street Light Poles and Luminares for the lighting system in accordance with the plans and as required by the Engineer.

Materials and equipment shall be in accordance with NEC, UL, ANSI, and as shown on the drawings and specified. All work shall comply with the relevant portions of the Massachusetts State Electrical Code.

MATERIALS**A. Light Pole:**

- a. Light Poles shall be provided and installed as shown on the drawings, and as specified.
- b. The light pole shall be manufactured by Sentry Lighting.
- c. The poles shall be the following catalog numbers:
 - i. Type A: SAL-B-4B-10'-GFI-IN USE-BK
 - ii. Type B: SCS-BC-20'LC-SINGLE-BK
- d. The pole shall be free of protuberances, dents, cracks, discolorations and other imperfections marring the appearance. For shipping purposes, the shaft shall be protected to preserve the finish.

B. Luminaire

- a. The light luminaire shall be manufactured by Sentry Lighting.
- b. The luminaire shall be the following catalog numbers:
 - i. Type A: SMAL-(2)LEDV18C-0.53A-840-KHJ3-F-BPC-240V-BK
 - ii. Type A-HSS: SMAL-(2)LEDV18C-0.53A-840-KHJ3-F-BPC-HSS-240V-BK
 - iii. Type B: SBC4-LEDV29B-1.75A-840-KHT4P3-BK
 - iv. Type B-HSS: SBC4-LEDV29B-1.75A-840-KHT4P3-HSS-BK
 - v. Or approved equal
- c. Luminaires shall carry factory labels, showing complete, specific lamp and ballast information.
- d. Minimum five (5) year non-prorated warranty period.

C. Receptacles

- a. GFCI Receptacle - 20 A, 120 V duplex
 - i. Specification grade, nylon, brown, straight blade, black
 1. Hubbell - Model GFR5362
 2. Equal by Pass & Seymour
 3. Equal by Bryant
 4. or equal
- b. Weatherproof Lockable Cover – Weatherproof while in use type for outdoor, wet and damp locations.

ITEM 821.121 (Continued)

- i. Sealing gasket and stainless steel mounting screws, for duplex GFCI receptacle, vertical orientation
- ii. Cast metal base and lockable cast aluminum cover
 1. ABB Red Dot Installation Products
 2. Equal by Hubbell, Inc.
 3. Equal by Pass & Seymour
 4. Equal by Bryant

SUBMITTALS

Shop Drawings demonstrating compliance with the contract requirements.

Two weeks prior to final inspection, submit four copies of operating and maintenance manuals for review and approval. Include technical data sheets, wiring and connection diagrams, warranty information, and principle vendor information including directions for ordering replacement lamps, ballasts, and parts.

CONSTRUCTION METHODS

The Contractor is responsible for obtaining all necessary electrical permits and licenses for this work.

All electric work shall be performed by a duly Licensed Electrician and be inspected by the City's Wiring Inspector.

All electric work shall be tested in presence of Engineer. Lights shall be tested in the dark, and any necessary adjustments in the orientation of the luminaires shall be made to provide the required lighting levels.

METHOD OF MEASUREMENT

Item 821.121 will be measured for payment by the Each ornamental light pole & fixture installed, complete in place.

BASIS OF PAYMENT

Item 821.121 will be paid for at the Contract unit price per Each, which price shall include all labor, materials, equipment, submittals, GFCI receptacles, reconnection of wiring at light replacement locations, wiring from within the pole foundation to fixture, and all incidental costs required to complete the work.

ITEM 823.60**HIGHWAY LIGHTING LOAD CENTER****LUMP SUM**

The work under this Item shall conform to the relevant provisions of Subsection 820 of the Standard Specifications and the following:

The work shall include the furnishing and installation of a Highway Lighting Load Center and its foundation for the lighting system in accordance with the plans and as required by the Engineer.

1. New foundation slab shall be installed per cabinet manufacturer requirements.
2. Cabinet construction shall comply with the requirements of a NEMA 3R Aluminum, Stainless Steel enclosure with a flush 42" wide door.
3. NEMA Type 3R enclosure, having solid neoprene gasket, welded seams, continuous hinge with stainless steel pin, and stainless-steel external hardware. Enclosure must have a backboard for mounting apparatus; two weep holes in the bottom. And must be equipped for padlocking.
4. Provide acceptable outdoor, tumbler-type padlocks, keyed as required by the Engineer.
5. Furnish two keys with each lock.
6. Enclosure must have manufacturer's nameplate.

ELECTRICAL REQUIREMENTS

1. Main service disconnect shall be a two-pole 14,000 A.I.C., molded-case circuit breaker, with lugs and capacity to accommodate the specified conductors and current meeting Federal Specification W-C-375b.
2. Circuit breaker panels shall be an enclosure mounted panel with solid neutral; and with bus bars and solderless lugs of large enough rating and size to accommodate required voltage, current and conductors.
 - a. The Load Center shall be a 120/240V, 1 phase, 3 wire, 12 pole panel board consisting of 8 circuit breakers as shown on drawings. The Load Center should have a minimum rating of 22,000 A.I.C. It shall be a no fuse, quick-make, quick-break type; having tumbler mechanism, full contact, and positive pressure until opening, whether operated automatically or manually. Stationary contacts as an integral breaker part and non-welding contacts when operating. Trip free from handle so the contacts cannot be held closed against short circuit or abnormal overload. Mounted individually or on panel. Handle position, indicating the breaker contact position. Size and capacity, as indicated. The Load Center's purpose is to operate each of the lighting circuits, Lighting Contactor, Time Clock, and Receptacle.
 - i. The Lighting Contactor shall be a NEMA Type 1 enclosure (2) 8-Pole, 20A, 240V, 1 phase, mechanically held with two wire control relay and three position selector switch.
 - ii. Time clock shall be a 20A astronomical time switch, 120V, SPST.
 - iii. Duplex convenience receptacle shall be a 125V, 20A GFCI (NEMA 5-20R) in handy box with cover.
 - iv. SPST toggle switch and light socket mounted inside the enclosure shall consist of a 10W LED lamp.
 - v. Twist-Lock Photocell unit shall be installed on top of the LLC located to avoid light from traffic headlights.
3. Ground Rods shall be comprised of copper-clad steel, 3/4", 10' long.

ITEM 823.60 (Continued)

Materials and equipment shall be in accordance with NEC, UL, ANSI, and as shown on the drawings and specified.

Two weeks prior to final inspection, submit four copies of operating and maintenance manuals for review and approval. Include technical data sheets, wiring and connection diagrams, and information for ordering replacement parts.

BASIS OF PAYMENT

Item 823.60 will be paid for at the Contract unit price Lump Sum, which price shall include all labor, materials, equipment, foundation, service connection, time clock, photocell, and all incidental costs required to complete the work.

Payment of 75% of the Lump Sum price of this item will be made upon complete installation. The remaining 25% of the Lump Sum price of this Item will be paid following testing and acceptance.

<u>ITEM 823.71</u>	<u>HIGHWAY LIGHTING POLE AND LUMINAIRE REMOVED AND STACKED</u>	<u>EACH</u>
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The work under this Item shall conform to the relevant provisions of Subsections 801 and 820 of the Standard Specifications and the following:

The work under this item consists of removal and stacking highway lighting poles and luminaries as shown on the plans or as required by the Engineer.

Contractor shall hire a licensed electrician to disconnect the existing light poles. Electrical work to conform with NEC and utility company codes and regulations.

A location will be provided at the City of North Adams DPW yard for stacking highway lighting poles.

METHOD OF MEASUREMENT

Item 823.71 will be measured for payment by the Each highway lighting pole and luminarie removed and stacked.

BASIS OF PAYMENT

Item 823.71 will be paid for at the Contract unit price per Each, which price shall include all labor, materials, equipment, and all incidental costs required to complete the work.

ITEM 864.2 HIGH FRICTION SURFACE TREATMENT - GREEN SQUARE FOOT
(BIKE LANE CROSSING)

The work shall consist of furnishing and placing a green-colored High Friction Surface Treatment (HFST) on asphalt or concrete pavement.

The HFST shall be comprised of surface preparation and a minimum of a single layer using a Binder Resin System which holds a surface applied aggregate firmly in place. The Binder Resin System shall include Polymeric or Methyl Methacrylate (MMA) Resins.

Qualification Of Installer**A. General**

The installer shall submit a minimum of three projects with the owner's contact information on which a cumulative minimum of 5,000 square yards of HFST has been placed within the past three years. An installer who does not meet this minimum shall be allowed if they are certified by the manufacturer to install and a manufacturer's representative is onsite during installations.

B. Quality Control (QC) Plan

The QC plan shall be project specific detailing installer's key personnel, equipment, materials, proposed methods of installation, materials blending procedures, monitoring of ambient temperature, proposed methods of curing and corrective action plan. The QC plan shall also specify that either mark-up panels with approved colors and/or shop drawings showing the same shall be submitted to the Engineer for approval prior to installation of the HFST. The Contractor shall submit a QC plan to the Engineer for approval at least 30 days prior to placement. Any deviation from the approved QC plan shall be cause for immediate suspension of operations.

Material Requirements**A. General**

Resin Binder Systems shall be recommended by the manufacturer as suitable for use on the intended pavement surface and for the potential range of atmospheric exposure.

The contractor shall furnish and install a Resin Binder System that meets the criteria in Table 1:

ITEM 864.2 (Continued)

Table 1- Resin Binder System			
		Requirements	
Property	Test Method	Polymeric Resin	MMA
Ultimate Tensile Strength	AASHTO M-235	2000-5000 psi	1500-5000 psi
Elongation at break point	AASHTO M-235	30-70%	30-70%
Compressive Strength	ASTM C-579	1600 psi min.	1600 psi min.
Compressive Strength	AASHTO M-235	1000 psi min. at 3 hours	1000 psi min. at 3 hours
		5000 psi min. at 7 days	2000 psi min. at 7 days
Water Absorption	AASHTO M-235	1% max.	1% max.
Durometer Hardness (Shore D)	ASTM D-2240	60-80	40-75
Viscosity	ASTM D-2556	Class C: 7-30 poises	Class C: 12-20 poises
Gel Time	AASHTO M-235	Class C: 10 minutes min.	Class C: 10 minutes, min.
Cure Rate (Dry through time)	ASTM D-1640	3 hrs. max.	3 hrs. max.
Adhesive Strength at 24 hours	ASTM D-4541	250 psi min. or 100% substrate failure	250 psi min. or 100% substrate failure

Independent laboratory reports per formulation shall be provided, documenting that the resin binder meets the requirements of this specification. A sample of the resin binder or components lot/batch shall be provided a minimum of 14 days prior to the commencement of work.

At the request of the engineer, the manufacturer of the Resin Binder System shall certify that the Resin Binder System meets the requirements of this specification. Such certification shall consist of either a copy of the manufacturer's test report or a statement by the manufacturer, accompanied by a copy of the current test results, that the Resin Binder System has been sampled and tested. Such certification shall indicate the date of testing and shall be signed by the manufacturer.

B. Aggregate

The contractor shall furnish and install a high friction aggregate that is clean, dry and free from deleterious material. The high friction aggregate shall be Calcined Bauxite.

The calcined bauxite aggregate shall meet the properties shown in Table 2:

ITEM 864.2 (Continued)

Table 2- Calcined Bauxite Aggregate		
Property	Test Method	Requirement
Polish Stone Value	AASHTO T-279	65 min.
Resistance to Degradation	AASHTO T-96	20% max.
Aggregate Grading	AASHTO T-27	No. 4 Percent Passing 100% min. No. 6 Percent Passing 95% min. No. 16 Percent Passing 5% max.
Moisture Content	AASHTO T-255	0.2% max.
Aluminum Oxide	ASTM C-25	87% min.

All aggregates shall be furnished in appropriate packaging that is clearly labeled and protects the aggregate from any contaminants on the jobsite and from exposure to rain or other moisture.

Unless the HFST is on the MassDOT Qualified Products List, the manufacturer shall provide a 50 lb bag of aggregate accompanied to the DOT for approval a minimum of 14 days prior to the commencement of work. On all projects and regardless of the HFST status on the MassDOT Qualified Products List, the manufacturer of the aggregate shall certify that the aggregate meets the requirements of this specification. Such certification shall consist of either a copy of the manufacturer's report or a statement by the manufacturer, accompanied by a copy of the current test results, that the aggregate has been sampled and tested. Such certification shall indicate the date of testing and shall be signed by the manufacturer.

C. Color

The color of the HFST material shall be green, as specified in the Federal Highway Administration (FHWA) Interim Approval for Optional Use of Green Colored Pavement for Bike Lanes (IA-14), dated April 15, 2011. Green pigment used for this purpose shall be applied to the Resin Binder System and the aggregate. The Contractor shall certify that any Resin Binder System and/or aggregate treated with green pigment shall conform to the above material requirements of this specification.

Equipment and Application Requirements

A. Construction Requirements

A manufacturer's representative of the Resin Binder System shall be present at the jobsite during all construction operations relating to the preparation and placement of the HFST. All construction operations relating to the HFST shall meet the recommendations of the manufacturer's representative. Final approval of all HFST placement operations will be given by the engineer.

B. Weather Limitations

Resin Binder system shall not be placed on any wet surface or when the ambient temperature or the temperature of the pavement is below the manufacturer's recommendations or when the anticipated weather conditions would prevent the proper application of the surface treatment as directed by the manufacturer's representative.

ITEM 864.2 (Continued)**C. Surface Preparations**

The surface shall be thoroughly cleaned immediately prior to installation of the HFST. The surface shall be clean, dry and free of all dust, oil, debris and any other material that might interfere with the bond between the resin binder material and the existing surface as recommended by the manufacturer's representative. HFST may not be placed on any new HMA pavement that has been placed in the previous 30 days with motor vehicle traffic or 60 days without motor vehicle traffic.

The contractor shall pre-treat joints and crack greater than ¼ inch in width and depth with the mixed Resin Binder System. Once the resin binder in the pre-treated areas has gelled, the installation of the HFST may proceed.

Surface preparation work, surface temperature and placement of the HFST shall be in conformance with the binder supplier's specifications and as approved by the manufacturer's representative.

All existing edge line pavement markings that are adjacent to the HFST location shall be covered and protected as approved by the engineer prior to performing surface preparation. HFST shall not be placed over existing pavement markings or rumble strips. Lane line pavement markings that conflict with the HFST installation shall be removed by methods approved by the manufacturer's representative. Any existing edge line pavement markings that are damaged during the HFST application process shall be replaced at the contractor's expense per direction of the Engineer.

HFST shall be allowed to cure for the minimum duration as recommended by the binder component supplier's specifications and during that time the application area shall be closed to all vehicles and contractor's equipment traffic. After placement and cure of the HFST, the contractor shall test the finished surface in accordance with ASTM D7234 to detect unbonded areas.

Excess and loose aggregate shall be removed from the traveled way and shoulders in such a way that the HFST is not damaged or disturbed. Excess aggregate that can be reused shall be reclaimed by a Vacuum sweeper. The recovered aggregate shall be clean, uncontaminated and dry, if it is to be re-used in the HFST application.

Utilities, drainage structures, curbs and any other structures within or adjacent to the treatment location shall be protected against the application of the HFST materials.

HFST shall not be applied to newly placed asphalt pavement surfaces that are less than 30 days old, unless the surface is sandblasted as approved by the manufacturer's representative, prior to application.

ITEM 864.2 (Continued)**D. Surface Friction Test**

The surface friction of the completed HFST shall meet a minimum requirement of 65 FN40R from the ASTM E274 test. MassDOT-Highway Division will perform this test within 7 calendar days after completion of the HFST.

Any surface that fails to conform to the above friction requirement must be removed and replaced at the contractor's expense within 24 hours after being notified by the engineer.

E. Application Methods

HFST shall be applied in accordance with the manufacturer's recommendations. The HFST can be applied by either mechanical or manual techniques as follows: mechanical application shall be required for all travel lanes and shoulders, mechanical or manual application is required for smaller surface areas requiring hand work such as small areas of HFST application, crosswalks, narrow median or smaller areas of special delineation and as approved by the Engineer.

The Resin Binder System shall be blended and mixed in the ratio per the manufacturer's specification (+/- 2% by volume) and shall be continuously applied once blended. The Resin Binder System shall be applied at a uniform thickness of 50-65 mils (25-32 square feet per gallon). Coverage rate is based upon expected variances in the surface profile of the pavement.

The operation shall proceed in such a manner that will not allow the mixed material to separate, cure, dry, be exposed or otherwise harden in such a way as to impair retention and bonding of the high friction aggregate.

The high friction aggregate shall be immediately applied at a rate of 12-15 pounds per square yard (achieving saturation) in such a manner that there is no disruption to the leveled binder. It is the responsibility of the contractor to ensure full embedment of the high friction aggregate. Wet spots shall be covered with the high friction aggregate prior to the gelling of the Resin Binder System.

Walking, standing on, or any form of contact or contamination with the wet uncured Resin Binder System, prior to application of the aggregate, will result in that section of Resin Binder System being removed and replaced at the contractor's expense.

METHOD OF MEASUREMENT

Item 864.2 will be measured for payment by the square Foot of high friction treatment – green (bike lane crossing), complete in place.

BASIS OF PAYMENT

Work under Item 864.2 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 874.4**TRAFFIC SIGN REMOVED AND STACKED****EACH**

The work under this item shall conform to the relevant provisions of Subsections 828 and 840 of the Standard Specifications and the following:

The work shall include removal and stacking signs and posts as shown on the drawings and as required by the Engineer.

The Contractor shall exercise particular care in the dismantling, removal, transporting, and stacking of the existing signs. Any sign panel damaged during construction operations, shall be replaced immediately at the Contractor's expense.

The Contractor shall backfill with compacted gravel all holes resulting from the removal of the existing signs and their foundations and restore the area to match existing conditions of adjacent areas.

A location will be provided at the City of North Adams DPW yard for stacking the signs and posts.

The work also includes removing and stacking P-5 mounted RRFBS located adjacent to the MCLA campus.

METHOD OF MEASUREMENT

Item 874.4 will be measured for payment by the Each traffic sign that is removed and stacked.

BASIS OF PAYMENT

Item 874.4 will be paid for at the Contract unit price per Each, which price shall include all labor, materials, equipment, excavation, foundation removal and disposal, backfill and area restoration, dismantling, loading, transporting, stacking, and all incidental costs required to complete the work.

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

The work shall include removal, transporting, storing, and resetting parking meters, attached hardware and supports from locations shown on the plans and as required by the Engineer.

The Contractor shall coordinate the removal and resetting of parking meters with the City's Traffic and Parking Department. Existing parking meters shall remain in place until the removal is approved by the City. Any parking meter damaged or lost either directly or indirectly as a result of the Contractor's operations shall be replaced by the Contractor at his own expense.

Parking meters removed shall be reset at specified locations on the plans and as directed by the City.

The Contractor shall backfill with compacted gravel all holes resulting from the removal of the existing parking meters and their foundations and restore the area to match existing conditions of adjacent areas.

METHOD OF MEASUREMENT

Item 875.1 will be measured for payment by the Each parking meter removed and reset.

BASIS OF PAYMENT

Item 875.1 will be paid for at the Contract unit price per Each, which price shall include all labor, materials, equipment, excavation, foundation removal and disposal, backfill and area restoration, dismantling, loading, transporting, storing, and all incidental costs required to complete the work.

ITEM 996.33**LANDSAPE BLOCKS****SQUARE FOOT**

The work under this item shall conform to the relevant provisions of Subsection 685 of the Standard Specifications and the following:

The work shall consist of construction of segmental block landscape walls/curbs adjacent to proposed sidewalks and/or as required by the Engineer.

SUBMITTALS

Submit a list of at least five successful projects of similar or greater size and complexity installed in the last five years by the Contractor using the same block system proposed for this project.

All details, dimensions, quantities and cross sections necessary to construct the landscape block systems. The details to be submitted shall include, but not be limited to, the following items:

- Any general notes required for construction of the system.
- All details for leveling pads
- Backfill gradation, placement, and compaction requirements.

MATERIALS

All backfill material used in construction shall be as specified by the manufacturer. Backfill material requirements shown on the Drawings indicate the maximum particle size and maximum percentage of fines acceptable for use in the block design.

Landscape block systems to be used on this Project shall be the product of one of these manufacturers.

1. Unilock
2. Versa-Lok
3. Redi-Rock
4. Or approved equal

The block color should generally match adjacent existing blocks. The final color and texture shall be selected by the Engineer. Systems require a cap from the same manufacturer of the blocks.

Upon delivery, the Contractor shall check to ensure that the blocks are consistent and not damaged. The Contractor shall prevent excessive mud, groundwater, and cement like materials from coming in contact with the blocks while stocked on site. The Engineer will reject any damaged material upon visual inspection of cracking and chipping.

Block Units:

1. Block units shall be machine-formed, portland cement concrete blocks specifically designed for retaining wall applications.
2. Finish of block units shall be split-face.
3. Block units shall meet the following minimum dimensions:

ITEM 996.33 (Continued)

- a. Height = 8 inches
 - b. Width = 18 inches
 - c. Depth = 12 inches
4. Block units shall be sound and free of cracks or other defects that would interfere with the proper placing of the unit or significantly impair the strength or permanence of the structure. Any cracks or chips observed during the construction shall fall within the guidelines outlined in ASTM C 1372.
5. Block units shall be capable of providing overlap of units on each successive course so the blocks meeting at corners are interlocked and continuous. Block units that require corners to be mitered shall not be allowed.
6. The exposed face of all block units shall have a split-face texture including exposed sides and backs of units.
7. Concrete block units shall conform to the requirements of ASTM C 1372 except the minimum net average 28 day compressive strength shall be 4500 psi and absorption shall not exceed 6%. Compressive strength test specimens shall conform to the saw-cut coupon provisions of ASTM C 140.

Drainage Pipe:

1. The drainage collection pipe shall be perforated or slotted PVC, or corrugated HDPE pipe. The drainage pipe shall be wrapped with a geotextile to function as a filter.
2. Drainage pipe shall meet the requirements of ASTM F405 or ASTM F758

Sealants:

All blocks shall be sealed in accordance with manufacturer's recommendations. The sealant shall be one of the following:

1. BASF Building Systems – Hydrozo Enviroseal 40
2. Degussa Corporation – Chem-Trete BSM 40 VOC
3. Prosoco – Sure Klean Weather Seal SL40
4. TK Products – TK-590-40
5. Vexcon Chemicals – PennSeal 244
6. Or Approved Equal

INSTALLATION**Foundation Preparation:**

The foundation for the structure shall be graded level for a width as shown on the submitted details. Prior to block installation, the foundation, if not on sound, intact, bedrock, shall be compacted as per the requirements of the block manufacturer. Any foundation soils found to be unsuitable shall be removed and replaced as directed by the Engineer.

ITEM 996.33 (Continued)**Block Installation:**

The block system, including but not limited to, blocks, reinforcement, and backfill materials, shall be constructed in accordance with the manufacturer's recommendations.

Backfill placement shall closely follow erection of each course of block units. Backfill shall be placed in such a manner as to avoid any damage to the block materials or misalignment of the units. Any block components, which become damaged or disturbed during backfill placement, shall be either removed and replaced or corrected at the Contractor's expense, as directed by the Engineer. All backfill material shall meet the requirements of the block manufacturer.

METHOD OF MEASUREMENT

Item 996.33 will be measured for payment by the Square Foot of landscape blocks installed, complete in place.

Landscape blocks will be measured by the square foot of exposed face. Depth of blocks buried per the manufacturer recommendations will not be measured for payment.

BASIS OF PAYMENT

Item 996.33 will be paid for at the Contract unit price per Square Foot, which price shall include all labor, materials, equipment, submittals, excavation (except rock), backfill, leveling pad, removal and disposal of the existing blocks, drainage pipe, geotextile fabric, geosynthetic reinforcement, block sealant, and all incidental costs required to complete the work.

ITEM 998.1**RELOCATION OF LANDSCAPE BOULDER****EACH**

The work shall include relocating existing landscape boulders as shown on the Drawings due to grading impacts. Care should be taken to minimize property impacts when removing and resetting the boulders. The work shall also include excavation required to unearth the boulder and to prepare the new boulder location.

The Contractor shall backfill and restore the area to match existing conditions of around both locations. Boulder shall be left in a stable condition, unable to roll or be easily dislodged.

METHOD OF MEASUREMENT

Item 998.1 will be measured for payment by the each landscape boulder relocated, complete in place.

BASIS OF PAYMENT

Item 998.1 will be paid for at the Contract unit price per Each, which price shall include all labor, materials, equipment, excavation, backfill, area restoration, and all incidental costs required to complete the work.

<u>ITEM 998.2</u>	<u>REMOVE AND STACK LANDSCAPE TIMBER</u>	<u>FOOT</u>
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The work shall include removing and stacking existing landscape timbers as shown on the Drawings due to grading impacts. Care should be taken to minimize property impacts when removing and stacking landscape timbers. The work shall also include excavation and backfill with suitable material necessary to remove and regrade the area. The landscape timbers shall be stacked on the property from which they were removed.

METHOD OF MEASUREMENT

Item 998.2 will be measured for payment by the Foot of landscape timber removed and stacked.

The measurement will be taken along of the edge of the landscape timber.

BASIS OF PAYMENT

Item 998.2 will be paid for at the Contract unit price per Foot, which price shall include all labor, materials, equipment, excavation, backfill, area restoration, and all incidental costs required to complete the work.

*** END OF DOCUMENT ***

DOCUMENT A00802

DETAIL SHEETS

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THE COMMONWEALTH OF MASSACHUSETTS
MassDOT - HIGHWAY DIVISION
TEN PARK PLAZA, BOSTON, MA

PRELIMINARY ESTIMATE OF QUANTITIES - DETAIL SHEETS

TOWN/CITY: North Adams
STA.: 0+95 TO 39+00

YEAR: 2026
ROAD: Ashland Street

Earth Excavation	9,500	CY	Special Borrow	100	CY
Class "A" Rock Excavation	250	CY	Gravel Borrow	8,200	CY
Class "B" Rock Excavation	100	CY	Loam	1,000	CY
Class "B" Trench Excavation	130	CY	Dense Graded Crushed Stone	2,100	CY

PROPOSED FULL DEPTH RECONSTRUCTION

TOTAL AREA = 16,100 SY

STA 1+65 to STA 38+60

SURFACE: 1.75 INCHES SUPERPAVE SURFACE COURSE – 9.5 (SSC-9.5)
1.75 INCHES SUPERPAVE INTERMEDIATE COURSE – 12.5 (SIC- 12.5)

BASE: 4 INCHES SUPERPAVE BASE COURSE – 37.5 (SBC-37.5) MATERIAL
PLACED IN ONE LIFT

SUBBASE: 4 INCHES DENSE GRADED CRUSHED STONE
8 INCHES GRAVEL BORROW, TYPE B

PROPOSED FINE MILLING AND OVERLAY

TOTAL AREA = 1,200 SY

FINE MILL 1.75 INCHES OF PAVEMENT AND THEN RESURFACE THE ROAD WITH:

SURFACE: 1.75 INCHES SUPERPAVE SURFACE COURSE – 9.5 (SSC-9.5)
BASE: EXISTING FINE MILLED SURFACE

PROPOSED CEMENT CONCRETE WALK

TOTAL AREA = 3,900 SY

SURFACE: 4 INCHES CEMENT CONCRETE (6" AT DRIVEWAYS)
4,000 PSI, 3/4", 610

BASE: 8 INCHES GRAVEL BORROW, TYPE B

PROPOSED HMA SHARED-USE PATH**TOTAL AREA = 2,500 SY**

STA 7+00 to STA 21+75; STA 24+25 to STA 31+75 RT

SURFACE: 1.5 INCHES SUPERPAVE SURFACE COURSE – 9.5 (SSC-9.5) OVER
2.5 INCHES SUPERPAVE INTERMEDIATE COURSE – 12.5 (SIC-12.5)
OVER

BASE: 8 INCHES GRAVEL BORROW, TYPE B

PROPOSED HMA SHARED-USE PATH FOR UTILITY ACCESS**TOTAL AREA = 300 SY**

STA 21+75 to STA 24+25 RT

SURFACE: 1.5 INCHES SUPERPAVE SURFACE COURSE – 9.5 (SSC-9.5) OVER
2.5 INCHES SUPERPAVE INTERMEDIATE COURSE – 12.5 (SIC-12.5)
OVER

BASE: 4 INCHES DENSE GRADED CRUSHED STONE
8 INCHES GRAVEL BORROW, TYPE B

PROPOSED HMA DRIVEWAY APRON**TOTAL AREA = 1,500 SY**

SURFACE: 1.5 INCHES SURFACE COURSE
2.5 INTERMEDIATE COURSE

BASE: 8 INCHES GRAVEL BORROW, TYPE B

PROPOSED TEMPORARY HMA TRENCH PATCH**TOTAL AREA = 2,700 SY**

SURFACE: 2.5 INCHES TEMPORARY ASPHALT PATCHING

BASE: 8 INCHES GRAVEL BORROW, TYPE B

ITEM 102.1 **TREE TRIMMING**

As shown on the Drawings and for use trimming shrubs, bushes, and woody plants extending into the public right-of-way.

ITEM 102.511 **TREE PROTECTION – ARMORING AND PRUNING**

As required by the Engineer and at the following locations:

Station	Offset	Station	Offset
4+60'	LT	16+60'	LT
4+85'	LT	24+25'	LT
5+05'	LT	24+60'	LT
5+25'	LT	25+00'	LT
5+70'	LT	25+25'	LT
9+05'	LT	31+65'	LT
9+60'	LT	34+50'	LT
6+90"	RT		

ITEM 102.513 **AIR EXCAVATION AND ROOT PRUNING**

As required by the Engineer and at the following locations:

Station	Offset	Station	Offset
4+35'	RT	9+60'	LT
4+80'	RT	11+65'	RT
5+12'	RT	12+25'	RT
5+55'	RT	20+95'	RT
6+00'	RT	31+65'	LT
6+90'	RT	34+50'	LT
9+05'	LT		

ITEM 102.531 **TREE CARE - PRUNING**

As required by the Engineer and at the following locations:

Station	Offset	Station	Offset
16+60'	LT	300+75'	RT

ITEM 103. **TREE REMOVED – DIAMETER UNDER 24 INCHES**

Station	Offset	Count
3+75'	RT	1
23+00'	RT	2
23+50	RT	2
29+15'	LT	1
32+80'	RT	1
33+05'	RT	1
915+70'	RT	1

And as required by the Engineer.

ITEM 105. **STUMP REMOVED**

As required by the Engineer and at the following locations:

Station	Offset	Station	Offset
3+25'	RT	27+40'	LT
4+55'	RT	27+80'	LT
5+05'	RT	29+25'	RT
5+30'	RT	31+15'	RT
5+80'	RT	31+20'	LT
6+10'	RT	35+90'	LT
7+55'	RT	36+10'	RT
7+95'	RT	36+70'	RT
9+45'	RT	37+40'	RT
10+35'	RT	37+45'	LT
26+80'	RT	38+10'	RT
28+00'	RT	38+10'	LT

ITEM 120. **EARTH EXCAVATION**

For the stripping of topsoil, removal of earth, removal of old pavement and base material, and removal and disposal of miscellaneous features obstructing execution of the work.

ITEM 121 **CLASS A ROCK EXCAVATION**

For removal of ledge and/or boulders during the formation of the roadway subgrade.

ITEM 127.1 **REINFORCED CONCRETE EXCAVATION**

For the disposal of existing concrete road base.

ITEM 146. DRAINAGE STRUCTURE REMOVED

For the removal of existing drainage structures as directed at the following locations:

Station	Offset	Type	Station	Offset	Type
8+15'	12'	LT CB	26+05'	8'	LT CB
8+35'	20'	RT CB	26+05'	40'	RT CB
13+25'	35'	RT CB	29+05'	18'	LT CB
13+30'	13'	LT CB	30+60'	25'	LT CB
16+60'	35'	RT CB	32+40'	25'	RT CB
16+85'	40'	RT CB	33+00'	23'	LT CB
19+95'	15'	RT CB	35+65'	36'	RT CB
20+05'	35'	RT CB	35+95'	2'	RT DMH
24+75'	42'	RT CB	36+70'	0'	DMH

ITEM 220. DRAINAGE STRUCTURE ADJUSTED

Station	Type	Number	Station	Type	Number
1+15'	CB	CB 128	24+85'	CB	CB 75
1+20'	DMH	DMH 130	26+45'	DMH	DMH 66
1+40'	CB		28+95'	DMH	DMH 58
8+35'	DMH	DMH 118	32+10'	DMH	DMH 44
11+60'	DMH	SMH 106	32+40'	DMH	DMH 47
12+60'	CB	CB 110	32+40'	DMH	DMH 46
12+75'	DMH	DMH 111	32+95'	DMH	DMH 36
13+40'	DMH	DMH 93	35+10'	DMH	DMH 37
13+50'	DMH	DMH 92	35+30'	CB	CB 41
13+60'	CB	CB 90	35+50'	DMH	DMH 38
16+25'	DMH	DMH 97	35+50'	DMH	DMH 40
20+45'	DMH	DMH 80	38+70'	CB	CB 26
21+95'	DMH	DMH 87A			

ITEM 220.3 DRAINAGE STRUCTURE CHANGE IN TYPE

Station	Offset	Type
8+17'	12'	LT
11+16'	20'	RT
12+73'	20'	RT
20+34'	9'	RT
24+28'	16'	LT
24+46'	22'	RT
36+71'	28'	RT

ITEM 220.5 DRAINAGE STRUCTURE REMODELED

Station	Type	Number
11+50'	DMH	DMH 107
11+16'	DMH	DMH 84
12+73'	DMH	DMH 84
20+34'	DMH	DMH 54
24+28'	DMH	DMH 55
24+46'	DMH	DMH 63
32+15'	DMH	DMH 49

ITEM 220.7 SANITARY STRUCTURE ADJUSTED

Station	Name	Station	Name
1+50'	SMH 131	24+50'	SMH 72
2+15'	SMH 126	28+10'	SMH 57
5+00'	SMH 125	29+00'	SMH 60
8+60'	SMH 117	31+25'	SMH 43
10+40'	SMH 101	32+25'	SMH 48
11+60'	SMH 108	35+50'	SMH 39
13+55'	SMH 95	37+75'	SMH 28
15+50'	SMH 96	Davenport	SMH 127
22+25'	SMH 85		

ITEM 220.8 SANITARY STRUCTURE REMODELED

Station	Type	Number
4+15'	SMH	SMH 123
11+16'	SMH	SMH 124
12+73'	SMH	SMH 89
20+34'	SMH	SMH 88
24+28'	SMH	SMH 79
24+46'	SMH	SMH 74
24+50'	SMH	SMH 72

ITEM 221. FRAME AND COVER

To be used with Item 202.

ITEM 222.1 FRAME AND GRATE – MASSDOT CASCADE TYPE

Station	Number
1+15	CB 128
100+35	CB

ITEM 222.3 **FRAME AND GRATE (OR COVER) – MUNICIPAL STANDARD**

To be used with Items 201. and 204.

ITEM 223.1 **FRAME AND GRATE (OR COVER) REMOVED AND STACKED**

To be used with Items 146. and 220.3.

ITEM 224.12 **12 INCH HOOD**

To be used with Item 201. where the diameter of the outlet is 12 inches, and as directed.

ITEM 376. **HYDRANT**

As directed at the following locations:

Street	Location
Ashland St.	22+45
Ashland St.	27+25

ITEM 472. **TEMPORARY ASPHALT PAVEMENT**

For use after installation of subsurface utilities.

ITEM 669. **FENCE REMOVED AND STACKED**

STA 1+60 to STA 2+30
STA 2+00 to 2+05
STA 17+00 to STA 17+75
STA 22+75 to STA 23+25
STA 22+75 Corner
STA 25+40 to STA 25+50

ITEM 975.5 **ALUMINUM HANDRAIL**

Start Station	End Station	Offset
600+30'	600+40'	RT

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PROJECT UTILITY COORDINATION FORM

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Project Utilities Coordination (PUC) Form

CONTACTS AND GENERAL UTILITY INFORMATION

Printed:
6/5/2024

City/Town: North Adams	Project File #: 609277	PUC Completed by: Justin Daigle, EIT	Utility Pole Set: National Grid
Route/Street: Ashland Street (Route 8A)	Resident Engineer: TBD	Mass DOT PM: Herrio Lamothe	Scheduled Ad Date: 3/1/2025
			Total Poles Relocated: 20

Consultant:		Contact:		Cell #	Office #	Email									
Tighe & Bond		Alex Bouthilllette		(401) 996-3505	(413) 572-3229	AGBouthilllette@tigheBond.com									
Utility Company	Contact	Office #	Cell #	Email	Scope, Budget, Duration Submitted		Reimbursement		Notes	Potential for District Initiated Early Relocation *		Utilities On Bridge/Structure		Utilities Underground (UG) /Aerial (OH)	
					Yes	No	Agreement	Non-Reimb'l'e		YES	NO	YES	NO	UG	OH
National Grid	Adam Dion			(774) 643-1826	adam.dion@powereng.com	X		X	X	Ngrid is upgrading their underground system separate from contract work.	X			X	X
Local Linx	Jason Wing			(603) 812-1090	jason.wing@locallinx.com	X		X				X		X	X
MCLA Fiber	Robert Fortini	(413)-662-5025			r.forthin@mcla.edu	X		X				X		X	X
Charter Communication	John Leone	(518) 640-8864	(518) 469-3549	john.leone@charter.com		X		X				X		X	X
Access Plus	Doug Norton	(978) 732-7112	(978) 852-5992	doug.norton@getaccessplus.com			X		X	Agreed to do relocation on poles 32 - 29 with no reimbursement.		X		X	X
Verizon	Steve Klaubert	(508) 337-7779	(413) 246-9792	sklaubert@pike.com		X		X				X		X	X
Berkshire Gas Co.	Christopher Bidly	(413) 445-0233		christopher.bidy@berkshirgas.com		X		X	X	Berkshire Gas is adding non-reimbursable main to Davenport St.		X		X	
North Adams Fire Alarm	Mitchell Meranti	(413) 662-3155		mmeranti@northadams-ma.gov			X								
National Grid	Sandra Annis	(413) 531-8982		sandra.annis@nationalgrid.com											
Verizon	Paul Styspeck	(413) 787-1845	(413) 575-7058	paul.m.styspeck@verizon.com											
Berkshire Gas Co.	Wesley Scalise	(413) 445-0383		wscalise@berkshirgas.com											

Utility Relocation Notes for MassDOT Contractor

Unless otherwise noted by Contract, the MassDOT Contractor is to provide the District Construction Office with 7 Calendar Days advance notification in order to validate the current progress and provide the required 30 Days advance notice-to-proceed for the first Utility - and each subsequent Utility. These advance notifications are to be identified in the Contractor's Schedules (Pre-Con preparation, Baseline, Subnets, and Updated/Monthly Schedules) as specified in Subsection 8.02 (for DBB Contracts) and/or Section 9 (of DB Contracts). Note: The durations included below do not include these lead-times. See Additional 'Important Basis notes for Contractor' - on last PUC Form page.

Additional notes:

Suggested Sequence of Relocation (Based on Consultant proposed construction staging)

The sequence as detailed on the following pages is based on the consultants proposed staging plan. This information was compiled through meetings that included all of the utilities listed below along with the designer and the City of North Adams. The information provided is the best available information prior to project advertisement.

PUC FORM - CONTINUED

Is 'enabling' (prep) work, by the Contractor, necessary prior to the start of the first series of utility relocations:	Yes	No
	X	
Has any of the Utility work been identified to work concurrently	Yes	No
	X	



6/5/2024
PRINTED

RESPONSIBLE PARTY		DESCRIPTION - Utility Relocation Phases, Tasks and Activities	Estimated Duration (Work Days) by Utilities (Lead time not included)	Concurrent / Exclusive Utility Work				Access Restraint & Limitations of Operations Notes	
C = Contractor	U = Utility Co.			Exclusive Utility on site	Concurrent Utilities	Contractor Off-Site	Contractor Concurrent	Potential Access Restraint (Yes/No)	Reason/Note (optional)
Phase 1	C	Enabling work by the Contractor includes: * 30-day initial lead time required prior to start of Berkshire Gas work. * DOT will stake/spray locations of Gas/Drainage conflicts on site within 10 workdays of being notified the contractor has given Berkshire Gas their NTP. * Berkshire Gas requires 5 workdays after the staking of conflicts to clear their DIGSAFE.							
		UTILITY OPERATIONS - Underground Relocation Utility Co. - Berkshire Gas							
Task: 1		u NON PARTICIPATING WORK - Gas Main installation connecting Davenport to Ashland Street @ STATION 1+50	3	X			X	Yes	
		u PARTICIPATING WORK - Gas Main relocation - 3.125' of 4" IP HD Plastic Main from STATION 1+50 to STATION 32+00	15	X			X	Yes	
		u PARTICIPATING WORK - Gas Main installation connecting side streets to Ashland Street	18	X			X	Yes	
		u PARTICIPATING WORK - Replace gas services on Ashland Street - Connect to new Main from STATION 2+50 to STATION 29+50	30	X			X	Yes	
		u PARTICIPATING WORK - Abandon existing Gas Main in place on Ashland Street from STATION 2+50 to STATION 31+00	3	X			X	Yes	
		u PARTICIPATING WORK - Contingency	6	X			X	Yes	
		Sub-Total	75						
Phase 2	C	Enabling work by the Contractor includes: * 30-day initial lead time required prior to Verizon beginning their test pits for subsurface utility exploration. DOT will located conflict locations and mark out test pit locations for Verizon within 5 working days of notification from the contractor that the site is ready for them.							
		UTILITY OPERATIONS - Underground Relocation Utility Co. - Verizon							
Task: 1		u Verizon contractor to perform test pits at 8 locations marked by MassDOT for pole and drainage system duct bank interference.	5	X			X	Yes	This work can be done at the same time as NGrid underground upgrade
		u Verizon contractor to relocate 8 duct banks to allow setting of poles and drainage system as required (worst case)	30	X			X	Yes	
		Sub-Total	35						
Phase 3	C	Enabling work by the Contractor includes: * 90-day initial lead time required prior to first pole set / scheduled move due to supply shortages. * Site clearing must be completed prior to DOT staking pole locations. * DOT will stake pole locations within 5 workdays of being notified clearing has been completed. * N. Grid requires 5 workdays after the staking for the poles to clear their DIGSAFE. * Contractor to schedule a utility meeting to confirm all poles are staked correctly at least 30 days prior to first pole set / scheduled move. * The contractor is responsible for ensuring that the following work is complete prior to the beginning of Utility Work; * Test pits must be finished at all locations deemed necessary for utility relocation purposes. (Includes test pits for drainage locations.) * Ground must be cut to subgrade between stations 22+70 RT and 24+40 RT where poles and conduits are proposed. * Installation of Drainage structures: 4 (Station 8+18 LT) , 21 (Station 14+80 LT), 33 (Station 22+15 LT) * R&D of Drainage Structures: CB 94 (Station 13+30 LT) and CB 82 (Station 20+10 RT)							
		UTILITY OPERATIONS - Pole Set / Overhead Relocation Utility Co. - National Grid							
Task: 1		u Civil: 752' conduit, 2 risers, 1 padmount transformer foundation, 1 handhole, 1 pullbox, 1-2way manhole installed by National Grid	18	X			X	Yes	During NGrid underground work and overhead tie in, Verizon can do test pits and conduit relocations
		u Civil: 2,441' conduit, 3-way manholes, 2-4way manholes, 1-2way manhole installed by National Grid (NON-REIMBURSABLE)	50	X			X	Yes	
		u Civil: Secondary risers/primary risers and termination to poles/rod and rope done by National Grid	5	X			X	Yes	
		u Poles/Anchors: Install riser pole P20 and P21	2	X			X	Yes	
		u Install pole P20-05 and anchor (temp for National Grid but permanent for Spectrum riser)	1	X			X	Yes	
		u Primary/Secondary Conductor: Installation of overhead cable approximately 165' 1-1/0 B OW Primary & 1/0 Neutral (temporary)	4	X			X	Yes	
		u Poles/Anchors: Install 24 poles, 1 pushbrace, 11 anchors to be set by National Grid	40	X			X	Yes	
		u Primary/Secondary Conductor: Installation of overhead cable approximately 8,380' 477 B OW 3ph Primary & 4,456' 1/0 Tri-Plex Sec.	30	X			X	Yes	
		u 20 services & feeder outages	25	X			X	Yes	
		u Equipment: 1 Three phase disconnect, 1 padmount transformer, 13 OH Transformers	20	X			X	Yes	
		u Cable pulling: Installation of underground cable approximately 415' 1-1/2" #2 CU and 965' 3-1/2" #2 CU primary & 10' Secondary	25	X			X	Yes	
		u Splicing/Services: Primary splices in Manholes	3	X			X	Yes	
		u Splicing/Services: Secondary splices in handholes	3	X			X	Yes	
		Sub-Total	248						

RESPONSIBLE PARTY		DESCRIPTION - Utility Relocation Phases, Tasks and Activities	Estimated Duration (Work Days) by Utilities (Lead time not included)	Concurrent / Exclusive Utility Work				Access Restraint & Limitations of Operations Notes	
				Exclusive Utility on site	Concurrent Utilities	Contractor Off-Site	Contractor Concurrent	Potential Access Restraint	Reason/Note (optional)
Phase 4	C = Contractor	U = Utility Co.	Enabling work by the Contractor includes: Contractor to install service risers and complete National Grid Work Request process for relocation of underground services at the following locations. * Pole 40 - Station 5+55 LT. * Underground Service to 159 Ashland Street - Station 25+50 LT.	Utilities in vicinity with no other utility working	Utilities working with other utilities on site	No Contractor physical construction operations on-site (while Utility are Contractor and Utility are working on-site - but NOT in the same vicinity)			
Task: 1			UTILITY OPERATIONS - Pole set/ Overhead Relocation Utility Co. - National Grid Removal of Temp Pri/Sec that was installed temporarily on P20-05 to feed existing OH transformer that has been replaced with padmount transformer	2	X		X	Yes	
Task: 2			Utility Co. - Local Linx About 2,400 ft of total work, 1,550 ft is Aerial to UG at Washington St.	2					
Task: 3			Utility Co. - Access Plus Install new strand and perform pole transfers (NON-REIMBURSABLE) (duration agreed upon in email dated 4/1/2024)	6	X		X	Yes	
Task: 4			Utility Co. - MCLA Fiber MCLA to provide brief road closure with Public Safety Dept. Collins Electric will cut line ends and remove from the street.	3	X		X	Yes	
Task: 5			Utility Co. - Charter Communication Pole Transfers Transfer Drops Build new strand and coax Underground work cutting road - from Vault to PED and PED to PED Pull feeder in conduit Splice Coax Pull fiber in new conduits, splice fibers and de / re lash fibers where needed - wreckout old plant Relocate the feeder in the apt. building	1	X		X	Yes	
Task: 6			Utility Co. - Verizon Verizon contractor to place new riser conduits from manholes to new pole locations Verizon to place pole guys where necessary Verizon to place new str and where necessary Verizon to place slack cables / place new cables & terminals, new drops Verizon to trim out old & splice in new cables Verizon to transfer cables & equipment to new poles Verizon to remove old terminals, cables & drops Verizon to remove old pole guy's & anchors Verizon to remove old poles	45					
				5	X		X	Yes	
				2	X		X	Yes	
				14	X		X	Yes	
				33	X		X	Yes	
				15	X		X	Yes	
				7	X		X	Yes	
				2	X		X	Yes	
				8	X		X	Yes	
				88					

IMPORTANT BASIS NOTES - FOR CONTRACTOR

- Unless otherwise specified in the MassDOT Construction Contract, or unless specifically noted within this PUC Form, these durations (herein) are based upon the Contractor providing *unimpeded access* to the Utility company to perform Utility relocations (see Note 5 - Access).
- "Concurrent Utilities" operations noted herein, are to signify those Utility Company operations that can be worked concurrently (e.g. Utility A and Utility B work on-site together) - MassDOT and the Contractor are to prepare NTPs to Utilities accordingly.
- "Potential Access Restraints" noted within this PUC Form are for planning purposes. See MassDOT Contract for Contractual Access Restraints (refer to Subsections 8.02, 8.03, and/or 8.06 for Design Bid Build Contracts and Volume II Section 9 for Design Build Contracts).
- Utility non-work periods - For planning purposes, the durations above contain some non work days (contingency) for New England conditions (precipitation, high temperatures, low temperatures, snow, ice). Gas line work and underground conduit installations however, typically have a seasonal restriction and can NOT be installed from 15-November to 15-March. Municipally Owned Electric and Gas Utilities are also restricted from proceeding from 15-November to 15-March. The Contractor shall (and the CTD plan) reflect this calendar restriction within the schedule (unless otherwise note).
- Access - Unless otherwise noted in the Contract, and in addition to the 'enabling' notes above, the Contractor must provide safe and unimpeded access (for trucks, lifts, cranes, etc.) to the Utilities, to allow for the proposed relocation(s) - including but not limited to snow removal, clearing and grubbing, guard rail removal, barrier removal, tree removal, and grading. Any costs associated with these tasks are deemed to be incidental to the project.
- For all MassDOT construction contracts issued after January 2014, the new Utility Coordination/documentation specification is required. This is Section 8.14 in Design-Bid-Build Contracts (see Design-Build index reference for applicable section #).
- Prior to starting any and all enabling work for Utilities, the Contractor is to plan in advance with submittals and approved durations.
- * Potential District Initiated Early Utility Relocation - if noted herein, the District reserves the right to initiate early utility relocation in advance of the Contract NTP. In submitting a bid price and in the development/basis of the Baseline Schedule, the Contractor shall not plan the Work with the potential benefit of any form of 'early utility relocation.' As a requirement of the Baseline submission, unless otherwise noted in this Specification, the earliest that the first Utility company is to receive the 30 days advance notification to mobilize to the site, will be 7 calendar days after the pre-construction meeting and never sooner than 7 days after the Contract NTP.

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DOCUMENT A00811

WATERING LOG for MassDOT Plantings

Watering Log for MassDOT Plantings

Project Description:

Contract No:

Project No:

Notes:

Plant Locations/s:
(Attach planting
plan/s as
necessary)

	Separate logs shall be kept to track areas or plants with different watering schedules. Trees shall receive a minimum of 10 gallons with each watering and shrubs a minimum of 5 gallons. Provide note that if watering is not performed as scheduled due to rain. Record date of rainfall and amount.											
Date Watered												
Landscape Contractor Initial												
Prime Contractor Initial												
Date Watered												
Landscape Contractor Initial												
Prime Contractor Initial												

Each week, following watering, Log shall be submitted to the MassDOT Engineer.
6/15/2018

DOCUMENT A00820

**Massachusetts Department of Transportation
Conditions of Custody****REQUEST FOR RELEASE OF MASSDOT AUTOCAD FILES FORM**

(Only to be used following award of contract)

City/Town: NORTH ADAMSProject File Number: 609277Contract Number: 135788Project Description: Reconstruction of Ashland Street

All AutoCAD files are provided solely as a courtesy to facilitate public access to information. MassDOT attempts to provide current and accurate information but cannot guarantee so. MassDOT provides such documents, files or other data "as is" without any warranty of any kind, either expressed or implied, including but not limited to, accuracy, reliability, omissions, completeness and currentness. The Commonwealth of Massachusetts and its Consultants shall not be liable for any claim for damages, including lost profits or other consequential, exemplary, incidental, indirect or special damages, relating in any way to the documents, files or other data accessible from this file, including, but not limited to, claims arising out of or related to electronic access or transmission of data or viruses. Because data stored on electronic media can deteriorate undetected or be modified without our knowledge, MassDOT cannot be held liable for its completeness or correctness. MassDOT makes no representation as to the compatibility of these files beyond the version of the stated CAD software.

By signing this form, I agree that it shall be my responsibility to reconcile this electronic data with the conformed contract documents, and that only the conformed contract documents shall be regarded as legal documents for this Project. I understand that this authorization does not give me the right to distribute the files. I agree to the terms above and wish to receive the AutoCAD files.

This signed form shall be emailed to the Highway Design Engineer at the MassDOT -Highway Division at the following email address:

DOTHighwayDesign@dot.state.ma.us

Attn: AutoCAD Files

Name of person requesting AutoCAD files: _____

Affiliation/Company: _____

Address: _____

Telephone number: _____

Email address: _____

Signature/Date: _____

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DOCUMENT A00869

UNITED STATES DEPARTMENT OF THE INTERIOR

FISH AND WILDLIFE SERVICE

CONSISTENCY LETTER

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United States Department of the Interior

FISH AND WILDLIFE SERVICE
New England Ecological Services Field Office
70 Commercial Street, Suite 300
Concord, NH 03301-5094
Phone: (603) 223-2541 Fax: (603) 223-0104



In Reply Refer To:

04/02/2025 15:18:36 UTC

Project code: 2023-0054472

Project Name: 609277 NORTH ADAMS- RECONSTRUCTION OF ASHLAND STREET

Federal Nexus: yes

Federal Action Agency (if applicable): Federal Highway Administration

Subject: Federal agency coordination under the Endangered Species Act, Section 7 for
'609277 NORTH ADAMS- RECONSTRUCTION OF ASHLAND STREET'

Dear Hana Isihara:

This letter records your determination using the Information for Planning and Consultation (IPaC) system provided to the U.S. Fish and Wildlife Service (Service) on April 02, 2025, for '609277 NORTH ADAMS- RECONSTRUCTION OF ASHLAND STREET' (here forward, Project). This project has been assigned Project Code 2023-0054472 and all future correspondence should clearly reference this number. **Please carefully review this letter. Your Endangered Species Act (Act) requirements may not be complete.**

Ensuring Accurate Determinations When Using IPaC

The Service developed the IPaC system and associated species' determination keys in accordance with the Endangered Species Act of 1973 (ESA; 87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and based on a standing analysis. All information submitted by the Project proponent into IPaC must accurately represent the full scope and details of the Project.

Failure to accurately represent or implement the Project as detailed in IPaC or the Northern Long-eared Bat and Tricolored Bat Range-wide Determination Key (DKey), invalidates this letter. ***Answers to certain questions in the DKey commit the project proponent to implementation of conservation measures that must be followed for the ESA determination to remain valid. Note that conservation measures for northern long-eared bat and tricolored bat may differ. If both bat species are present in the action area and the key suggests more conservative measures for one of the species for your Project, the Project may need to apply the most conservative measures in order to avoid adverse effects. If unsure which conservation measures should be applied, please contact the appropriate Ecological Services Field Office.***

Determination for the Northern Long-Eared Bat and Tricolored Bat

Based on your IPaC submission and a standing analysis completed by the Service, you determined the proposed Project will have the following effect determinations:

Species	Listing Status	Determination
Northern Long-eared Bat (<i>Myotis septentrionalis</i>)	Endangered	NLAA
Tricolored Bat (<i>Perimyotis subflavus</i>)	Proposed	NLAA
	Endangered	

Federal agencies must consult with U.S. Fish and Wildlife Service under section 7(a)(2) of the Endangered Species Act (ESA) when an action *may affect* a listed species. Tricolored bat is proposed for listing as endangered under the ESA, but not yet listed. For actions that may affect a proposed species, agencies cannot consult, but they can *confer* under the authority of section 7(a)(4) of the ESA. Such conferences can follow the procedures for a consultation and be adopted as such if and when the proposed species is listed. Should the tricolored bat be listed, agencies must review projects that are not yet complete, or projects with ongoing effects within the tricolored bat range that previously received a NE or NLAA determination from the key to confirm that the determination is still accurate.

Unless the Service advises you within 15 days of the date of this letter that your IPaC-assisted determination was incorrect, this letter verifies that consultation on the Action is complete for northern long-eared bat and/or tricolored bat and no further action is necessary unless either of the following occurs:

- new information reveals effects of the action that may affect the northern long-eared bat or tricolored bat in a manner or to an extent not previously considered; or,
- the identified action is subsequently modified in a manner that causes an effect to the northern long-eared bat or tricolored bat that was not considered when completing the determination key.

15-Day Review Period

As indicated above, the Service will notify you within 15 calendar days if we determine that this proposed Action does not meet the criteria for a “may affect, not likely to adversely affect” (NLAA) determination for the northern long-eared bat and/or tricolored bat. If we do not notify you within that timeframe, you may proceed with the Action under the terms of the NLAA concurrence provided here. This verification period allows the identified Ecological Services Field Office to apply local knowledge to evaluation of the Action, as we may identify a small subset of actions having impacts that we did not anticipate when developing the key. In such cases, the identified Ecological Services Field Office may request additional information to verify the effects determination reached through the Northern Long-eared Bat and Tricolored Bat DKey.

Other Species and Critical Habitat that May be Present in the Action Area

The IPaC-assisted determination key for the northern long-eared bat and tricolored bat does not apply to the following ESA-protected species and/or critical habitat that also may occur in your Action area:

- Monarch Butterfly *Danaus plexippus* Proposed Threatened

You may coordinate with our Office to determine whether the Action may affect the species and/or critical habitat listed above. Note that reinitiation of consultation would be necessary if a new species is listed or critical habitat designated that may be affected by the identified action before it is complete.

If you have any questions regarding this letter or need further assistance, please contact the New England Ecological Services Field Office and reference Project Code 2023-0054472 associated with this Project.

Action Description

You provided to IPaC the following name and description for the subject Action.

1. Name

609277 NORTH ADAMS- RECONSTRUCTION OF ASHLAND STREET

2. Description

The following description was provided for the project '609277 NORTH ADAMS- RECONSTRUCTION OF ASHLAND STREET':

609277 NORTH ADAMS- RECONSTRUCTION OF ASHLAND STREET

This project is a Complete Streets project on a 0.75 mile stretch of Ashland Street from Main Street to Davenport Street. The major improvements of this roadway project are centered around the "Complete Streets Initiative for Ashland Street" final report that was completed in 2015 through the Department of Housing and Community Development's (DHCD) Massachusetts Downtown Initiative (MDI) grant.

Monarch Butterfly: Proposed Threatened Species only. The project action will not jeopardize the continued existence of the proposed species.

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@42.6933644,-73.10818220267072,14z>



DETERMINATION KEY RESULT

Based on the answers provided, the proposed Action is consistent with a determination of “may affect, but not likely to adversely affect” for a least one species covered by this determination key.

QUALIFICATION INTERVIEW

1. Does the proposed project include, or is it reasonably certain to cause, intentional take of listed bats or any other listed species?

Note: Intentional take is defined as take that is the intended result of a project. Intentional take could refer to research, direct species management, surveys, and/or studies that include intentional handling/encountering, harassment, collection, or capturing of any individual of a federally listed threatened, endangered or proposed species?

No

2. Is the action area wholly within Zone 2 of the year-round active area for northern long-eared bat and/or tricolored bat?

Automatically answered

No

3. Does the action area intersect Zone 1 of the year-round active area for northern long-eared bat and/or tricolored bat?

Automatically answered

No

4. Does any component of the action involve leasing, construction or operation of wind turbines? Answer 'yes' if the activities considered are conducted with the intention of gathering survey information to inform the leasing, construction, or operation of wind turbines.

Note: For federal actions, answer ‘yes’ if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

No

5. Is the proposed action authorized, permitted, licensed, funded, or being carried out by a Federal agency in whole or in part?

Yes

6. Is the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), or Federal Transit Administration (FTA) funding or authorizing the proposed action, in whole or in part?

Yes

7. FHWA, FRA, and FTA have completed a range-wide programmatic consultation for transportation- related actions within the range of the Indiana bat, northern long-eared bat and tricolored bat.

Does your proposed action fall within the scope of this programmatic consultation?

Note: If you are unsure, but your action is transportation related, please select "Yes" and use the FHWA, FRA, FTA Assisted Determination Key (FHWA DKey) in IPaC to determine if the programmatic consultation is applicable to your action. Return to this key and answer 'no' to this question if it is not.

No

8. Are you an employee of the federal action agency or have you been officially designated in writing by the agency as its designated non-federal representative for the purposes of Endangered Species Act Section 7 informal consultation per 50 CFR § 402.08?

Note: This key may be used for federal actions and for non-federal actions to facilitate section 7 consultation and to help determine whether an incidental take permit may be needed, respectively. This question is for information purposes only.

Yes

9. Is the lead federal action agency the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC)? Is the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC) funding or authorizing the proposed action, in whole or in part?

No

10. Is the lead federal action agency the Federal Energy Regulatory Commission (FERC)?

No

11. [Semantic] Is the action area located within 0.5 miles of a known bat hibernaculum?

Note: The map queried for this question contains proprietary information and cannot be displayed. If you need additional information, please contact your State wildlife agency.

Automatically answered

No

12. Does the action area contain any winter roosts or caves (or associated sinkholes, fissures, or other karst features), mines, rocky outcroppings, or tunnels that could provide habitat for hibernating bats?

No

13. Does the action area contain (1) talus or (2) anthropogenic or naturally formed rock shelters or crevices in rocky outcrops, rock faces or cliffs?

No

14. Will the action cause effects to a bridge?

Note: Covered bridges should be considered as bridges in this question.

No

15. Will the action result in effects to a culvert or tunnel at any time of year?

No

16. Are trees present within 1000 feet of the action area?

Note: If there are trees within the action area that are of a sufficient size to be potential roosts for bats answer "Yes". If unsure, additional information defining suitable summer habitat for the northern long-eared bat and tricolored bat can be found in Appendix A of the USFWS' Range-wide Indiana Bat and Northern long-eared bat Survey Guidelines at: <https://www.fws.gov/media/range-wide-indiana-bat-and-northern-long-eared-bat-survey-guidelines>.

Yes

17. Does the action include the intentional exclusion of bats from a building or structure?

Note: Exclusion is conducted to deny bats' entry or reentry into a building. To be effective and to avoid harming bats, it should be done according to established standards. If your action includes bat exclusion and you are unsure whether northern long-eared bats or tricolored bats are present, answer "Yes." Answer "No" if there are no signs of bat use in the building/structure. If unsure, contact your local Ecological Services Field Office to help assess whether northern long-eared bats or tricolored bats may be present. Contact a Nuisance Wildlife Control Operator (NWCO) for help in how to exclude bats from a structure safely without causing harm to the bats (to find a NWCO certified in bat standards, search the Internet using the search term "National Wildlife Control Operators Association bats"). Also see the White-Nose Syndrome Response Team's guide for bat control in structures.

No

18. Does the action involve removal, modification, or maintenance of a human-made structure (barn, house, or other building) **known or suspected to contain roosting bats**?

No

19. Will the action cause construction of one or more new roads open to the public?

For federal actions, answer 'yes' when the construction or operation of these facilities is either (1) part of the federal action or (2) would not occur but for an action taken by a federal agency (federal permit, funding, etc.).

No

20. Will the action include or cause any construction or other activity that is reasonably certain to increase average daily traffic permanently or temporarily on one or more existing roads?

Note: For federal actions, answer 'yes' when the construction or operation of these facilities is either (1) part of the federal action or (2) would not occur but for an action taken by a federal agency (federal permit, funding, etc.).

No

21. Will the action include or cause any construction or other activity that is reasonably certain to increase the number of travel lanes on an existing thoroughfare?

For federal actions, answer 'yes' when the construction or operation of these facilities is either (1) part of the federal action or (2) would not occur but for an action taken by a federal agency (federal permit, funding, etc.).

No

22. Will the proposed Action involve the creation of a new water-borne contaminant source (e.g., leachate pond, pits containing chemicals that are not NSF/ANSI 60 compliant)?

Note: For information regarding NSF/ANSI 60 please visit <https://www.nsf.org/knowledge-library/nsf-ansi-standard-60-drinking-water-treatment-chemicals-health-effects>

No

23. Will the proposed action involve the creation of a new point source discharge from a facility other than a water treatment plant or storm water system?

No

24. Will the action include drilling or blasting?

No

25. Will the action involve military training (e.g., smoke operations, obscurant operations, exploding munitions, artillery fire, range use, helicopter or fixed wing aircraft use)?

No

26. Will the proposed action involve the use of herbicides or other pesticides other than herbicides (e.g., fungicides, insecticides, or rodenticides)?

No

27. Will the action include or cause activities that are reasonably certain to cause chronic or intense nighttime noise (above current levels of ambient noise in the area) in suitable summer habitat for the northern long-eared bat or tricolored bat during the active season?

Chronic noise is noise that is continuous or occurs repeatedly again and again for a long time. Sources of chronic or intense noise that could cause adverse effects to bats may include, but are not limited to: road traffic; trains; aircraft; industrial activities; gas compressor stations; loud music; crowds; oil and gas extraction; construction; and mining.

Note: Additional information defining suitable summer habitat for the northern long-eared bat and tricolored bat can be found in Appendix A of the USFWS' Range-wide Indiana Bat and Northern long-eared bat Survey Guidelines at: <https://www.fws.gov/media/range-wide-indiana-bat-and-northern-long-eared-bat-survey-guidelines>.

No

28. Does the action include, or is it reasonably certain to cause, the use of permanent or temporary artificial lighting within 1000 feet of suitable northern long-eared bat or tricolored bat roosting habitat?

Note: Additional information defining suitable summer habitat for the northern long-eared bat and tricolored bat can be found in Appendix A of the USFWS' Range-wide Indiana Bat and Northern long-eared bat Survey Guidelines at: <https://www.fws.gov/media/range-wide-indiana-bat-and-northern-long-eared-bat-survey-guidelines>.

Yes

29. Will the action cause an increase in the extent of suitable forested habitat exposed to artificial lighting?

No

30. Will the action include tree cutting or other means of knocking down or bringing down trees, tree topping, or tree trimming?

Yes

31. Will the proposed action occur exclusively in an already established and currently maintained utility right-of-way?

No

32. Does the action include emergency cutting or trimming of hazard trees in order to remove an imminent threat to human safety or property? See hazard tree note at the bottom of the key for text that will be added to response letters

Note: A "hazard tree" is a tree that is an immediate threat to lives, public health and safety, or improved property.

No

33. Does the project intersect with the 0- 9.9% forest density category?

Automatically answered

No

34. Does the project intersect with the 10.0- 19.9% forest density category map?

Automatically answered

No

35. Does the project intersect with the 20.0- 29.9% forest density category map?

Automatically answered

No

36. Does the project intersect with the 30.0- 100% forest density category map?

Automatically answered

Yes

37. Will the action cause trees to be cut, knocked down, or otherwise brought down across an area greater than 100 acres in total extent?

No

38. Will the proposed action result in the use of prescribed fire?

Note: If the prescribed fire action includes other activities than application of fire (e.g., tree cutting, fire line preparation) please consider impacts from those activities within the previous representative questions in the key. This set of questions only considers impacts from flame and smoke.

No

39. Does the action area intersect the northern long-eared bat species list area?

Automatically answered

Yes

40. [Semantic] Is the action area located within 0.25 miles of a culvert that is known to be occupied by northern long-eared or tricolored bats?

Automatically answered

No

41. [Semantic] Is the action area located within 150 feet of a documented northern long-eared bat roost site?

Note: The map queried for this question contains proprietary information and cannot be displayed. If you need additional information, please contact your State wildlife agency.

Automatically answered

No

42. Is suitable summer habitat for the northern long-eared bat present within 1000 feet of project activities?

If unsure, answer "Yes."

Note: Additional information defining suitable summer habitat for the northern long-eared bat and tricolored bat can be found in Appendix A of the USFWS' Range-wide Indiana Bat and Northern long-eared bat Survey Guidelines at: <https://www.fws.gov/media/range-wide-indiana-bat-and-northern-long-eared-bat-survey-guidelines>.

Yes

43. Are any of the trees proposed for cutting or other means of knocking down, bringing down, topping, or trimming suitable for northern long-eared bat roosting (i.e., live trees and/or snags ≥ 3 inches dbh that have exfoliating bark, cracks, crevices, and/or cavities)?

Note: Additional information defining suitable summer habitat for the northern long-eared bat and tricolored bat can be found in Appendix A of the USFWS' Range-wide Indiana Bat and Northern long-eared bat Survey Guidelines at: <https://www.fws.gov/media/range-wide-indiana-bat-and-northern-long-eared-bat-survey-guidelines>.

Yes

44. Will any tree cutting/trimming or other knocking or bringing down of trees occur during the **Fall Swarming season** for northern long-eared bats in the action area?

Note: Bat activity periods for your state can be found in Appendix L of the Service's Range-wide Indiana Bat and Northern long-eared Bat Survey Guidelines at: <https://www.fws.gov/media/range-wide-indiana-bat-and-northern-long-eared-bat-survey-guidelines>

No

45. Will any tree cutting/trimming or other knocking or bringing down of trees occur during the **Spring Staging** season for northern long-eared bats in the action area?

Note: Bat activity periods for your state can be found in Appendix L of the Service's Range-wide Indiana Bat and Northern long-eared Bat Survey [Guidelines](#).

No

46. Will any tree cutting/trimming or other knocking or bringing down of trees occur during the **Summer Occupancy season** for northern long-eared bats in the action area?

Note: Bat activity periods for your state can be found in Appendix L of the Service's Range-wide Indiana Bat and Northern long-eared Bat Survey [Guidelines](#).

No

47. Does the action area intersect the tricolored bat species list area?

Automatically answered

Yes

48. [Semantic] Is the action area located within 0.25 miles of a culvert that is known to be occupied by northern long-eared or tricolored bats?

Note: The map queried for this question contains proprietary information and cannot be displayed. If you need additional information, please contact your State wildlife agency.

Automatically answered

No

49. Is suitable summer habitat for the tricolored bat present within 1000 feet of project activities?

(If unsure, answer ""Yes."")

Note: If there are trees within the action area that may provide potential roosts for tricolored bats (e.g., clusters of leaves in live and dead deciduous trees, Spanish moss (*Tillandsia usneoides*), clusters of dead pine needles of large live pines) answer ""Yes."" For a complete definition of suitable summer habitat for the tricolored bat, please see Appendix A in the [Service's Range-wide Indiana Bat and Northern long-eared Bat Survey Guidelines](#).

Yes

50. Do any of the trees proposed for cutting or other means of knocking down, bringing down, topping, or trimming provide potential roosts for tricolored bats (e.g., clusters of leaves in live and dead deciduous trees, Spanish moss (*Tillandsia usneoides*), clusters of dead pine needles of large live pine trees)?

Note: Additional information defining suitable summer habitat for the northern long-eared bat and tricolored bat can be found in Appendix A of the USFWS' Range-wide Indiana Bat and Northern long-eared bat Survey Guidelines at: <https://www.fws.gov/media/range-wide-indiana-bat-and-northern-long-eared-bat-survey-guidelines>.

Yes

51. Will any tree cutting/trimming or other knocking or bringing down of trees be conducted during the Pup Season for tricolored bat?

Note: Bat activity periods for your state can be found in Appendix L of the [Service's Range-wide Indiana Bat and Northern long-eared Bat Survey Guidelines](#).

No

52. Do you have any documents that you want to include with this submission?

No

PROJECT QUESTIONNAIRE

Enter the extent of the action area (in acres) from which trees will be removed - round up to the nearest tenth of an acre. For this question, include the entire area where tree removal will take place, even if some live or dead trees will be left standing.

.5

IPAC USER CONTACT INFORMATION

Agency: Massachusetts Department of Transportation

Name: Hana Isihara

Address: 10 Park Plaza

City: Boston

State: MA

Zip: 02116

Email hana.l.isihara@dot.state.ma.us

Phone: 6178964454

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Federal Highway Administration

DOCUMENT A00875

**POLICY DIRECTIVE P-22-001
AND
POLICY DIRECTIVE P-22-002**

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Number: P-22-001Date: 9/23/22

POLICY DIRECTIVE

Jonathan Gulliver (signature on original)

HIGHWAY ADMINISTRATOR

Off-Site Stockpiling of Soil from MassDOT Construction Projects

Purpose

The purpose of this Policy Directive is to formally establish a policy and procedures for managing and stockpiling soil generated and transported from MassDOT construction projects. This Policy Directive does not supersede any Federal, State, or Local regulations.

Date of Effect

This Policy Directive is effective immediately for all projects, including active construction projects.

For active construction projects and for other projects advertised prior to October 15, 2022, changes to the contract documents needed to implement the requirements of this Policy Directive will be considered on a case-by-case basis and shall be approved by the District Highway Director, as necessary.

For projects advertised on or after October 15, 2022, MassDOT will include the requirements and implementation procedures of this Policy Directive in the construction contract documents.

Policy Requirements

This policy is intended to prevent the off-site relocation of excavated soil generated from MassDOT projects to areas near residential receptors and to control potential fugitive dusts and/or contaminants. To that end, excavated soil may not be moved from the project site without knowledge of the content of the material. Knowledge may include visual field observations for presence of staining, odor, and/or debris, screening with a photoionization detector (PID), laboratory analysis, and/or site history. Pavement millings and other non-soil materials are not subject to the requirements of this Policy Directive.

Moving soil from a MassDOT project site to a temporary off-site storage location must be approved in writing by the District Highway Director.

The Contractor must select a storage location that is at least 500 feet away from residential receptors, as defined herein to include, but not be limited to, residential dwellings, residentially

zoned property, schools, daycare facilities, playgrounds, parks, recreational areas, hospitals, elderly housing and convalescent facilities.

Temporary off-site storage of excavated soil from a MassDOT project is only permissible at a location approved and permitted by MassDOT. The temporary storage location should be located within the same municipality where the soil was excavated, where possible. Stockpiled soil must be securely covered, and appropriate measures must be taken to minimize fugitive dust and erosion.

Signs indicating the source of the soil, the date the soil was generated, and contact information must be erected and maintained until the stockpiled soils are transported to a disposal facility or reused on the project site.

Implementation Procedures

To ensure that off-site storage of excavated soils is managed properly on MassDOT projects, this policy requires the following:

1. Off-Site Stockpile Storage Locations

- a. The Contractor shall provide proposed off-site storage locations to the Engineer for approval at least 30 days prior to transporting soil off site. Off-site storage locations should be in the same municipality as the work site.
- b. The Contractor shall keep excavated soil on site until adequately characterized to the satisfaction of the Engineer.
- c. The Contractor shall provide notification of the approved off-site storage location to the local Board of Health and the Town Manager's/Mayor's Office at least 7-days prior to transporting soil off site.
- d. The Contractor shall provide the Engineer with at least 3-days' notice prior to transporting soil off site.
- e. For off-site storage locations on MassDOT property, the Contractor is required to obtain an Access Permit through the District Permits Office prior to storage of soil or other materials. MassDOT will issue these permits at no cost to the Contractor. Information to be submitted by the Contractor as part of the permit application shall include:
 - i. A description of material to be stored off-site, including available analytical data;
 - ii. A figure of the location with distances to residences and residential receptors; and
 - iii. Anticipated duration of temporary storage.
- f. Stockpile locations should not be within 500 feet of residential receptors (e.g., residential dwellings, residentially zoned property, schools, daycare facilities, playgrounds, parks, recreational areas, hospitals, elderly housing and convalescent facilities).
 - i. If the stockpile location must be within 500 feet of residential receptors, then soil must be less than RCS-1 (per 310 CMR 40.1600) and free of potentially hazardous or regulated items.

- g. For off-site storage locations on non-MassDOT property, the Contractor must notify the property owner(s) at least 7 days prior to transporting material.
- h. Exceptions to these rules will be reviewed by MassDOT and may be approved by the District Highway Director on a case-by-case basis.

2. Off-Site Stockpile Management

- a. The Contractor shall keep soil stockpiles on impermeable surfaces (e.g., asphalt or concrete) or on 10-mil polyethylene sheeting.
- b. The Contractor shall cover soil stockpiles with 10-mil polyethylene sheeting and surround with a berm made of hay bales, straw wattles, or similar.
 - i. Piles that are actively being worked on must be covered and re-secured at the end of the work shift.
- c. The Contractor shall label stockpiles with signs, including:
 - i. Location of origin (including any Release Tracking Numbers)
 - ii. Stockpile ID number (including MassDOT District office-assigned tracking ID, if different)
 - iii. Date of initial accumulation
 - iv. Applicable telephone numbers for the Contractor and MassDOT.
- d. The Contractor shall mitigate fugitive dust at storage locations under the direction of an appropriately trained/certified environmental professional.
- e. The Contractor shall remedy noncompliance with this policy within 48 hours.
- f. The Contractor shall remedy noncompliance with this policy on the SAME DAY for potentially hazardous material, as determined by the Engineer.
- g. The Contractor shall handle excavated soil according to federal, state, and local regulations.
- h. The Contractor shall use appropriate shipping documents for all movements of excavated soil on public roadways (e.g., Bill of Lading, Material Shipping Record, Manifest, Asbestos Waste Shipment Record, etc.).

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POLICY DIRECTIVE

Jonathan Gulliver (signature on original)

HIGHWAY ADMINISTRATOR

Use of MassDOT Property for Staging and other Construction-Related Operations

Purpose

This Policy Directive is intended to address the use of MassDOT property by MassDOT Contractors for construction staging and other construction-related operations that are not specifically defined in the construction contract. Such use of MassDOT property will only be allowed if permitted by the District Office in accordance with 700 CMR 13.00, Approval of Access to MassDOT Highways and Other Property. This includes the use of MassDOT property for staging, laydown, and storage of equipment and materials, including soil excavated from a project site.

This Policy Directive requires the Contractor/applicant to obtain a Non-Vehicular Access Permit from MassDOT to use MassDOT property for these purposes.

This Policy Directive is effective immediately and applies to all MassDOT construction projects.

General Permit Considerations and Conditions

In addition to other normal MassDOT Access Permit procedures, MassDOT shall consider the following during the application, review, implementation and monitoring processes of Access Permits required by this Policy Directive:

- Storage and placement of the Contractor's equipment and materials should not be allowed within the clear zone of the roadway.
- Stockpiled soils should not be located within 500 feet of residential receptors, as defined herein to include, but not be limited to, residential dwellings, residentially zoned property, schools, daycare facilities, playgrounds, parks, recreational areas, hospitals, elderly housing and convalescent facilities.
- The Contractor/applicant shall identify the access/egress locations of the proposed storage areas. MassDOT will only approve locations determined to be safe for roadway users, construction workers and the general public.
- The Contractor may be required to submit a Traffic Management Plan and/or Lighting Plan for MassDOT review and approval as part of the permit application, depending on the proposed use of the area.

- The Contractor shall submit the permit application through MassDOT's online State Highway Access Permit System (SHAPS).
- MassDOT will waive the permit application fee for any application received from a MassDOT Contractor for any permit required by this Policy Directive and will waive any subsequent amendment and extension fees that may otherwise be required.
- MassDOT will review the permit application in accordance with applicable standard procedures and will apply standard permit terms and conditions, as necessary.
- The Resident Engineer will verify that the permit is approved before allowing the Contractor to use the affected area for the requested purpose.
- Areas permitted are for use by the approved applicant only and are not to be shared with or used by other vendors. Subcontractors specifically engaged with the applicant working on the specific MassDOT project will be allowed to use the area in accordance with the terms of the permit.
- Permits are issued on an annual basis and will require the Contractor to file for an extension each year to continue use.

Exemptions from Permit Requirements

Equipment and materials being used for active construction operations and located within the work zone of the construction contract are exempt from this permit requirement, provided they do not interfere with the safety or operation of the roadway or the work zone. Examples of these types of exempt uses are:

- Equipment and materials parked or stored within a protected (barriered) work zone.
- Materials placed in the work zone prior to same-day installation or use.
- Soils excavated temporarily and scheduled to be replaced, such as for trenching operations or for installation of drainage structures.

DOCUMENT B00420

PROPOSAL

NORTH ADAMS

For: **Reconstruction of Ashland Street**

COMMONWEALTH OF MASSACHUSETTS

LOCATION

The work referred to herein is in the City of NORTH ADAMS in Berkshire County, in the Commonwealth of Massachusetts, and is shown by the locus map (Document 00331) in the Proposal Pamphlet, the work locations extend as follows:

Ashland Street

Beginning – Station 0+95.00 +/-

Ending –Station 39+00.00 +/-

The contract prices shall include the furnishing of all materials (except as otherwise herein specified), the performing of all the labor requisite or proper, the providing of all necessary machinery, tools, apparatus and other means of construction, the doing of all the abovementioned work in the manner set forth, described and shown in the specifications and on the drawings for the work, and in the form of contract, and the completion thereof within **1344 CALENDAR DAYS** upon receipt of a Notice to Proceed, except that if the completion date falls between December 1 and March 15 then the same number of days beyond December 1st will be extended after March 15th.

The Work of this project is described by the following Items and quantities.

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Project # 609277		Contract # 135788		
Location : NORTH ADAMS				
Description : Reconstruction of Ashland Street				
ITEM #	QUANTITY	ITEM WITH UNIT BID PRICE WRITTEN IN WORDS	UNIT PRICE	AMOUNT
102.1	100	TREE TRIMMING AT _____ PER FOOT		
102.511	17	TREE PROTECTION - ARMORING AND PRUNING AT _____ EACH		
102.513	130	AIR EXCAVATION AND ROOT PRUNING AT _____ PER FOOT		
102.521	255	TREE AND PLANT PROTECTION FENCE AT _____ PER FOOT		
102.531	2	TREE CARE - PRUNING AT _____ EACH		
102.533	1,300	TREE CARE - WATER AT _____ PER GALLON		
102.55	50	ARBORIST AT _____ PER HOUR		
103.	10	TREE REMOVED - DIAMETER UNDER 24 INCHES AT _____ EACH		
105.	24	STUMP REMOVED AT _____ EACH		

Project # 609277		Contract # 135788		
Location : NORTH ADAMS				
Description : Reconstruction of Ashland Street				
ITEM #	QUANTITY	ITEM WITH UNIT BID PRICE WRITTEN IN WORDS	UNIT PRICE	AMOUNT
120.	9,500	EARTH EXCAVATION AT _____ PER CUBIC YARD		
121.	250	CLASS A ROCK EXCAVATION AT _____ PER CUBIC YARD		
127.1	2,300	REINFORCED CONCRETE EXCAVATION AT _____ PER CUBIC YARD		
141.1	600	TEST PIT FOR EXPLORATION AT _____ PER CUBIC YARD		
142.	130	CLASS B TRENCH EXCAVATION AT _____ PER CUBIC YARD		
144.	100	CLASS B ROCK EXCAVATION AT _____ PER CUBIC YARD		
146.	18	DRAINAGE STRUCTURE REMOVED AT _____ EACH		
150.1	100	SPECIAL BORROW AT _____ PER CUBIC YARD		
151.	8,200	GRAVEL BORROW AT _____ PER CUBIC YARD		

Project # 609277		Contract # 135788		
Location : NORTH ADAMS				
Description : Reconstruction of Ashland Street				
ITEM #	QUANTITY	ITEM WITH UNIT BID PRICE WRITTEN IN WORDS	UNIT PRICE	AMOUNT
156.	250	CRUSHED STONE AT _____ PER TON		
170.	28,300	FINE GRADING AND COMPACTING - SUBGRADE AREA AT _____ PER SQUARE YARD		
180.01	1	ENVIRONMENTAL HEALTH AND SAFETY PROGRAM AT _____ LUMP SUM		
180.02	40	PERSONAL PROTECTION LEVEL C UPGRADE AT _____ PER HOUR		
180.03	40	LICENSED SITE PROFESSIONAL SERVICES AT _____ PER HOUR		
181.11	3,000	DISPOSAL OF UNREGULATED SOIL AT _____ PER TON		
181.12	100	DISPOSAL OF REGULATED SOIL - IN-STATE FACILITY AT _____ PER TON		
181.13	100	DISPOSAL OF REGULATED SOIL - OUT-OF-STATE FACILITY AT _____ PER TON		
181.14	100	DISPOSAL OF HAZARDOUS WASTE AT _____ PER TON		

Project # 609277		Contract # 135788		
Location : NORTH ADAMS				
Description : Reconstruction of Ashland Street				
ITEM #	QUANTITY	ITEM WITH UNIT BID PRICE WRITTEN IN WORDS	UNIT PRICE	AMOUNT
182.1	1	INSPECTION AND TESTING FOR ASBESTOS AT _____ LUMP SUM		
182.2	200	REMOVAL OF ASBESTOS AT _____ PER FOOT		
184.1	1	DISPOSAL OF TREATED WOOD PRODUCTS AT _____ PER TON		
201.	39	CATCH BASIN AT _____ EACH		
201.1	1	SPECIAL CATCH BASIN AT _____ EACH		
202.	10	MANHOLE AT _____ EACH		
203.1	5	SPECIAL MANHOLE - TYPE A AT _____ EACH		
203.2	1	SPECIAL MANHOLE - TYPE B AT _____ EACH		
204.	2	GUTTER INLET AT _____ EACH		

Project # 609277		Contract # 135788		
Location : NORTH ADAMS				
Description : Reconstruction of Ashland Street				
ITEM #	QUANTITY	ITEM WITH UNIT BID PRICE WRITTEN IN WORDS	UNIT PRICE	AMOUNT
220.	25	DRAINAGE STRUCTURE ADJUSTED AT _____ EACH		
220.2	30	DRAINAGE STRUCTURE REBUILT AT _____ PER FOOT		
220.3	7	DRAINAGE STRUCTURE CHANGE IN TYPE AT _____ EACH		
220.5	7	DRAINAGE STRUCTURE REMODELED AT _____ EACH		
220.6	30	SANITARY STRUCTURE REBUILT AT _____ PER FOOT		
220.7	17	SANITARY STRUCTURE ADJUSTED AT _____ EACH		
220.8	7	SANITARY STRUCTURE REMODELED AT _____ EACH		
221.	16	FRAME AND COVER AT _____ EACH		
222.1	2	FRAME AND GRATE - MASSDOT CASCADE TYPE AT _____ EACH		

Project # 609277		Contract # 135788		
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ITEM #	QUANTITY	ITEM WITH UNIT BID PRICE WRITTEN IN WORDS	UNIT PRICE	AMOUNT
222.3	37	FRAME AND GRATE (OR COVER) MUNICIPAL STANDARD AT _____ EACH		
223.1	23	FRAME AND GRATE (OR COVER) REMOVED AND STACKED AT _____ EACH		
224.12	32	12 INCH HOOD AT _____ EACH		
227.3	20	REMOVAL OF DRAINAGE STRUCTURE SEDIMENT AT _____ PER CUBIC YARD		
227.31	300	REMOVAL OF DRAINAGE PIPE SEDIMENT AT _____ PER FOOT		
227.4	10	MASONRY PLUG AT _____ PER SQUARE FOOT		
238.12	100	12 INCH DUCTILE IRON PIPE AT _____ PER FOOT		
243.12	1,200	12 INCH REINFORCED CONCRETE PIPE CLASS IV AT _____ PER FOOT		
243.15	80	15 INCH REINFORCED CONCRETE PIPE CLASS IV AT _____ PER FOOT		

Project # 609277		Contract # 135788		
Location : NORTH ADAMS				
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ITEM #	QUANTITY	ITEM WITH UNIT BID PRICE WRITTEN IN WORDS	UNIT PRICE	AMOUNT
243.36	30	36 INCH REINFORCED CONCRETE PIPE CLASS IV AT _____ PER FOOT		
244.12	140	12 INCH REINFORCED CONCRETE PIPE CLASS V AT _____ PER FOOT		
244.24	20	24 INCH REINFORCED CONCRETE PIPE CLASS V AT _____ PER FOOT		
244.30	20	30 INCH REINFORCED CONCRETE PIPE CLASS V AT _____ PER FOOT		
272.0	1	IRRIGATION REPAIRS - CUMBERLAND FARMS AT _____ LUMP SUM		
302.06	100	6 INCH DUCTILE IRON WATER PIPE (RUBBER GASKET) AT _____ PER FOOT		
302.12	200	12 INCH DUCTILE IRON WATER PIPE (RUBBER GASKET) AT _____ PER FOOT		
309.	500	DUCTILE IRON FITTINGS FOR WATER PIPE AT _____ PER POUND		
347.1	200	1 INCH COPPER TUBING TYPE K AT _____ PER FOOT		

Project # 609277		Contract # 135788		
Location : NORTH ADAMS				
Description : Reconstruction of Ashland Street				
ITEM #	QUANTITY	ITEM WITH UNIT BID PRICE WRITTEN IN WORDS	UNIT PRICE	AMOUNT
358.	51	GATE BOX ADJUSTED AT _____ EACH		
363.1	5	1 INCH CORPORATION COCK AT _____ EACH		
376.1	2	HYDRANT - EXCLUDING COST OF HYDRANT AT _____ EACH		
376.2	4	HYDRANT - REMOVED AND RESET AT _____ EACH		
376.3	2	HYDRANT - REMOVED AND STACKED AT _____ EACH		
381.	10	SERVICE BOX AT _____ EACH		
381.3	40	SERVICE BOX ADJUSTED AT _____ EACH		
384.	5	CURB STOP AT _____ EACH		
402.	2,100	DENSE GRADED CRUSHED STONE FOR SUB-BASE AT _____ PER CUBIC YARD		

Project # 609277		Contract # 135788		
Location : NORTH ADAMS				
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ITEM #	QUANTITY	ITEM WITH UNIT BID PRICE WRITTEN IN WORDS	UNIT PRICE	AMOUNT
415.2	1,200	PAVEMENT FINE MILLING AT _____ PER SQUARE YARD		
443.	43	WATER FOR ROADWAY DUST CONTROL AT _____ PER 1000 GALLONS		
450.22	2,200	SUPERPAVE SURFACE COURSE – 9.5 (SSC – 9.5) AT _____ PER TON		
450.31	2,300	SUPERPAVE INTERMEDIATE COURSE - 12.5 (SIC -12.5) AT _____ PER TON		
450.42	4,100	SUPERPAVE BASE COURSE - 37.5 (SBC - 37.5) AT _____ PER TON		
451.	100	HMA FOR PATCHING AT _____ PER TON		
452.	3,000	ASPHALT EMULSION FOR TACK COAT AT _____ PER GALLON		
453.	11,500	HMA JOINT ADHESIVE AT _____ PER FOOT		
472.	450	TEMPORARY ASPHALT PATCHING AT _____ PER TON		

Project # 609277		Contract # 135788		
Location : NORTH ADAMS				
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ITEM #	QUANTITY	ITEM WITH UNIT BID PRICE WRITTEN IN WORDS	UNIT PRICE	AMOUNT
485.01	1	REBUILD GRANITE BLOCKS AND CONCRETE STEPS (ARMORY BUILDING) AT _____ LUMP SUM		
504.	4,600	GRANITE CURB TYPE VA4 - STRAIGHT AT _____ PER FOOT		
504.1	300	GRANITE CURB TYPE VA4 - CURVED AT _____ PER FOOT		
508.	10	GRANITE SLAB STEP AT _____ PER FOOT		
509.	500	GRANITE TRANSITION CURB FOR PEDESTRIAN CURB RAMPS - STRAIGHT AT _____ PER FOOT		
509.1	520	GRANITE TRANSITION CURB FOR PEDESTRIAN CURB RAMPS - CURVED AT _____ PER FOOT		
514.	14	GRANITE CURB INLET - STRAIGHT AT _____ EACH		
516.	73	GRANITE CURB CORNER TYPE A AT _____ EACH		
570.2	140	HOT MIX ASPHALT CURB TYPE 2 AT _____ PER FOOT		

Project # 609277		Contract # 135788		
Location : NORTH ADAMS				
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ITEM #	QUANTITY	ITEM WITH UNIT BID PRICE WRITTEN IN WORDS	UNIT PRICE	AMOUNT
580.	2,700	CURB REMOVED AND RESET AT _____ PER FOOT		
582.	12	CURB CORNER REMOVED AND RESET AT _____ EACH		
590.	4,000	CURB REMOVED AND STACKED AT _____ PER FOOT		
591.	8	CURB INLET REMOVED AND STACKED AT _____ EACH		
669.	240	FENCE REMOVED AND STACKED AT _____ PER FOOT		
697.1	60	SILT SACK AT _____ EACH		
701.	2,200	CEMENT CONCRETE SIDEWALK AT _____ PER SQUARE YARD		
701.01	340	COLORED AND TEXTURED CEMENT CONCRETE AT _____ PER SQUARE YARD		
701.1	500	CEMENT CONCRETE SIDEWALK AT DRIVEWAYS AT _____ PER SQUARE YARD		

Project # 609277		Contract # 135788		
Location : NORTH ADAMS				
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ITEM #	QUANTITY	ITEM WITH UNIT BID PRICE WRITTEN IN WORDS	UNIT PRICE	AMOUNT
701.2	850	CEMENT CONCRETE PEDESTRIAN CURB RAMP AT _____ PER SQUARE YARD		
702.	400	HOT MIX ASPHALT SIDEWALK OR DRIVEWAY AT _____ PER TON		
707.1	4	PARK BENCH AT _____ EACH		
707.15	2	PARK BENCH REMOVED AND RESET AT _____ EACH		
707.2	2	TRASH RECEPTACLE AT _____ EACH		
707.9	2	BICYCLE RACK AT _____ EACH		
707.95	1	BICYCLE RACK REMOVED AND RESET AT _____ EACH		
711.	12	BOUND REMOVED AND RESET AT _____ EACH		
722.2	1	SCHEDULE OF OPERATIONS (TYPE B) - FIXED PRICE \$69,000 AT Sixty Nine Thousand Dollars LUMP SUM	\$69,000.00	\$69,000.00

Project # 609277		Contract # 135788		
Location : NORTH ADAMS				
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ITEM #	QUANTITY	ITEM WITH UNIT BID PRICE WRITTEN IN WORDS	UNIT PRICE	AMOUNT
734.	10	SIGN REMOVED AND RESET AT _____ EACH		
740.	44	ENGINEER'S FIELD OFFICE AND EQUIPMENT (TYPE A) AT _____ PER MONTH		
745.	1	PEDESTRIAN BUS SHELTER AT _____ EACH		
748.	1	MOBILIZATION AT _____ LUMP SUM		
751.	400	LOAM BORROW AT _____ PER CUBIC YARD		
751.1	600	LOAM FOR LAWNS AT _____ PER CUBIC YARD		
756.	1	NPDES STORMWATER POLLUTION PREVENTION PLAN AT _____ LUMP SUM		
765.	7,000	SEEDING AT _____ PER SQUARE YARD		
767.121	100	SEDIMENT CONTROL BARRIER AT _____ PER FOOT		

Project # 609277		Contract # 135788		
Location : NORTH ADAMS				
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ITEM #	QUANTITY	ITEM WITH UNIT BID PRICE WRITTEN IN WORDS	UNIT PRICE	AMOUNT
767.6	30	AGED PINE BARK MULCH AT _____ PER CUBIC YARD		
775.432	4	LOCUST - HONEY - SHADEMASTER 1.5-2 INCH CALIPER AT _____ EACH		
776.525	3	AUTUMN BLAZE FREEMAN MAPLE 1.5-2 INCH CALIPER AT _____ EACH		
776.526	3	RED SENTINEL MAPLE 1.5-2 INCH CALIPER AT _____ EACH		
777.017	3	URBAN PINNACLE BUR OAK 1.5-2 INCH CALIPER AT _____ EACH		
779.000	3	VALLEY FORGE AMERICAN ELM 1.5-2 INCH CALIPER AT _____ EACH		
783.048	4	SNOWCLOUD SERVICEBERRY 1-1.5 INCH CALIPER AT _____ EACH		
785.631	6	INKBERRY 18-24 INCH / #1 AT _____ EACH		
794.252	54	SWITCHGRASS - CAPE BREEZE / #1 AT _____ EACH		

Project # 609277		Contract # 135788		
Location : NORTH ADAMS				
Description : Reconstruction of Ashland Street				
ITEM #	QUANTITY	ITEM WITH UNIT BID PRICE WRITTEN IN WORDS	UNIT PRICE	AMOUNT
794.330	59	SUMAC SHRUB - FRAGRANT-GRO-LOW 2-3 FEET / #1 AT _____ EACH		
796.001	18	LOW SCAPE MOUND BLACK CHOKEBERRY / #1 AT _____ EACH		
796.002	32	CRINKLED HAIR GRASS / #1 AT _____ EACH		
804.2	2,400	2 INCH ELECTRICAL CONDUIT TYPE NM - PLASTIC (UL) AT _____ PER FOOT		
804.3	100	3 INCH ELECTRICAL CONDUIT TYPE NM - PLASTIC -(UL) AT _____ PER FOOT		
810.	300	CONDUIT ENCASED IN CONCRETE - SD 4.041 AT _____ PER FOOT		
811.22	9	ELECTRIC HANDHOLE - SD2.022 AT _____ EACH		
811.31	2	PULL BOX 12 X 12 INCHES - SD2.031 AT _____ EACH		
811.37	4	ELECTRIC HANDHOLE ADJUSTED AT _____ EACH		

Project # 609277		Contract # 135788		
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ITEM #	QUANTITY	ITEM WITH UNIT BID PRICE WRITTEN IN WORDS	UNIT PRICE	AMOUNT
812.09	26	LIGHT STANDARD FOUNDATION PRECAST AT _____ EACH		
813.31	12,000	WIRE TYPE 7 NO. 8 GENERAL PURPOSE AT _____ PER FOOT		
813.811	1	SERVICE CONNECTION (UNDERGROUND) WITH RISER - UP 40 AT _____ LUMP SUM		
813.812	1	SERVICE CONNECTION (UNDERGROUND) WITH RISER - UP 120B AT _____ LUMP SUM		
813.813	1	SERVICE CONNECTION (UNDERGROUND) WITH RISER - UP 120A AT _____ LUMP SUM		
813.814	1	SERVICE CONNECTION (UNDERGROUND) – 159 ASHLAND STREET AT _____ LUMP SUM		
813.815	1	SERVICE CONNECTION (UNDERGROUND) WITH RISER - UP 39 AT _____ LUMP SUM		
816.01	1	TRAFFIC SIGNAL RECONSTRUCTION LOCATION NO. 1 AT _____ LUMP SUM		
821.121	34	ORNAMENTAL LIGHT POLE & FIXTURE AT _____ EACH		

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ITEM #	QUANTITY	ITEM WITH UNIT BID PRICE WRITTEN IN WORDS	UNIT PRICE	AMOUNT
823.60	1	HIGHWAY LIGHTING LOAD CENTER AT _____ LUMP SUM		
823.70	1	HIGHWAY LIGHTING POLE AND LUMINAIRE REMOVED AND RESET AT _____ EACH		
823.71	18	HIGHWAY LIGHTING POLE AND LUMINAIRE REMOVED AND STACKED AT _____ EACH		
825.2	2	RRFB (2-POST ASSEMBLY SYSTEM) AT _____ EACH		
832.	500	WARNING-REGULATORY AND ROUTE MARKER - ALUMINUM PANEL (TYPE A) AT _____ PER SQUARE FOOT		
847.1	85	SIGN SUP (N/GUIDE)+RTE MKR W/1 BRKWAY POST ASSEMBLY - STEEL AT _____ EACH		
850.41	9,700	ROADWAY FLAGGER AT _____ PER HOUR		
851.1	450	TRAFFIC CONES FOR TRAFFIC MANAGEMENT AT _____ PER DAY		
852.	500	SAFETY SIGNING FOR TRAFFIC MANAGEMENT AT _____ PER SQUARE FOOT		

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ITEM #	QUANTITY	ITEM WITH UNIT BID PRICE WRITTEN IN WORDS	UNIT PRICE	AMOUNT
853.1	5	PORTABLE BREAKAWAY BARRICADE TYPE III AT _____ EACH		
854.016	24,400	TEMPORARY PAVING MARKINGS - 6 INCH (PAINTED) AT _____ PER FOOT		
856.060	810	ARROW BOARD (TYPE B) AT _____ PER DAY		
856.12	1,080	PORTABLE CHANGEABLE MESSAGE SIGN AT _____ PER DAY		
859.	13,500	REFLECTORIZED DRUM AT _____ PER DAY		
864.04	200	PAVEMENT ARROWS AND LEGENDS REFLECTORIZED WHITE (THERMOPLASTIC) AT _____ PER SQUARE FOOT		
864.2	700	HIGH FRICTION SURFACE TREATMENT - GREEN (BIKE LANE CROSSING) AT _____ PER SQUARE FOOT		
866.106	10,000	6 INCH REFLECTORIZED WHITE LINE (THERMOPLASTIC) AT _____ PER FOOT		
866.112	3,200	12 INCH REFLECTORIZED WHITE LINE (THERMOPLASTIC) AT _____ PER FOOT		

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ITEM #	QUANTITY	ITEM WITH UNIT BID PRICE WRITTEN IN WORDS	UNIT PRICE	AMOUNT
867.106	11,500	6 INCH REFLECTORIZED YELLOW LINE (THERMOPLASTIC) AT _____ PER FOOT		
874.	20	STREET NAME SIGN AT _____ EACH		
874.4	26	TRAFFIC SIGN REMOVED AND STACKED AT _____ EACH		
875.1	4	PARKING METER REMOVED AND RESET AT _____ EACH		
904.	6	4000 PSI, 3/4 INCH, 610 CEMENT CONCRETE AT _____ PER CUBIC YARD		
910.1	180	STEEL REINFORCEMENT FOR STRUCTURES - EPOXY COATED AT _____ PER POUND		
975.5	10	ALUMINUM HANDRAIL AT _____ PER FOOT		
996.33	200	LANDSCAPE BLOCKS AT _____ PER SQUARE FOOT		
998.1	1	RELOCATION OF LANDSCAPE BOULDER AT _____ EACH		

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ITEM #	QUANTITY	ITEM WITH UNIT BID PRICE WRITTEN IN WORDS	UNIT PRICE	AMOUNT
998.2	10	REMOVE AND STACK LANDSCAPE TIMBER AT _____ PER FOOT		
Total Qty: 203,401				