

COMMONWEALTH OF MASSACHUSETTS



CONTRACT DOCUMENTS AND SPECIAL PROVISIONS

PROPOSAL NO.	608778- 130744
P.V. =	\$7,791,000.00
PLANS	YES

FOR

**Federal Aid Project No. STP/CMQ/HSI-0033(042)X
Intersection Improvements at Central Street, Foster Street, Hook Street
and Hamilton Street**

in the Town of**SOUTHBRIDGE**

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

This Proposal to be opened and read:

TUESDAY, JULY 22, 2025 at 2:00 P.M.

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**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, JULY 22, 2025 at 2:00 P.M. ****SOUTHBRIDGE****Federal Aid Project No. STP/CMQ/HSI-0033(042)X****Intersection Improvements at Central Street, Foster Street, Hook Street
and Hamilton Street******Date Subject to Change****PROJECT VALUE = \$7,791,000.00**

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.

NOTICE TO CONTRACTORS (Continued)

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.

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.

NOTICE TO CONTRACTORS (Continued)**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 \$635.00 per ton, Portland cement \$425.53 per ton, diesel fuel \$2.569 per gallon, and gasoline \$2.450 per gallon, and Steel Base Price Index 340.6. 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: Monica G. Tibbits-Nutt, Secretary and CEO, MassDOT
Jonathan L. Gulliver, Administrator, MassDOT Highway Division
SATURDAY, JUNE 21, 2025

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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.

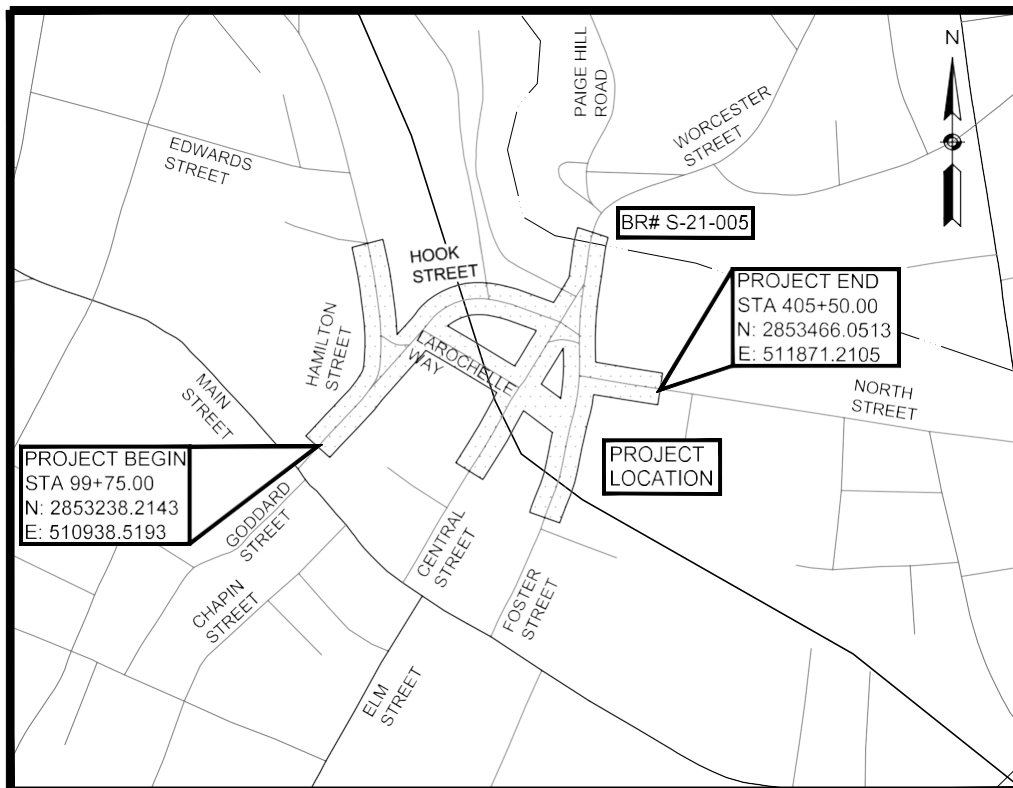
- (b) Subsection (a)(2) hereof notwithstanding, every agreement or contract awarded or executed pursuant to sections thirty-eight A 1/2 to thirty-eight O, inclusive, of chapter seven, or eleven C of chapter twenty-five A, and pursuant to section thirty-nine M of chapter thirty or to section forty-four 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**SOUTHBRIDGE****Federal Aid Project No. STP/CMQ/HSI-0033(042)X
Intersection Improvements at Central Street, Foster Street, Hook Street
and Hamilton Street**

NOT TO 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): __________

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: 04-16-25

NOTICE OF AVAILABILITY

The STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES dated 2025, 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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SUPPLEMENTAL SPECIFICATIONS

MARCH 31, 2025

The 2025 *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 2.00: PROPOSAL REQUIREMENTS AND CONDITIONS

Subsection 2.09: Rejection of Proposals

Replace bullet (i) in the third paragraph with the following:

- (i.) award of the contract would result in the Bidder exceeding the Aggregate Bonding Capacity or the Single Bonding Capacity established by its Surety Company, or the Bidder's Proposal exceeds its Single Contract Limit, or the Bidder was not prequalified in the specified class of work on or before the time of bid opening; or

SECTION 7.00: LEGAL RELATIONS AND RESPONSIBILITY TO PPUBLIC

Subsection 7.05: Insurance Requirements

Change the title of paragraph A to Workers' Compensation Insurance

Subsection 7.22: Labor, Lodging, Board, Maximum Hours of Employment, Weekly Payment, Keeping of Payroll Records.

In the second paragraph replace the word "workman" to "worker" and the word "workmen" to "workers".

Replace the third paragraph with the following:

Attention of Bidders is called to MGL Chapter 149, Section 148 requiring the weekly payment of employee wages.

SECTION 9.00: MEASUREMENT AND PAYMENT

Subsection 9.03: Payment for Extra Work

Replace paragraph B, first paragraph, numbers (2) and (3) with the following.

- (2) Plus 13 percent of direct labor, for the estimated costs of Federal Insurance Contribution Act (FICA) including Medicare; Federal Unemployment Tax Act (FUTA); State Unemployment Tax Act (SUTA), which includes Unemployment Insurance, the Workforce Training Fund Program, Employer Medical Assistance Contribution, and COVID-19 Recovery Assessment; Earned Sick Time (EST) Law (940 CMR 33.00); and Paid Family and Medical Leave (PFML) Act (458 CMR 2.00);

or, as an alternative to the above 13 percent, the Contractor may elect to use actual rates for FICA, FUTA, SUTA, EST and PFML provided the actual rates are supported with verifiable documentation and shall be subject to review by MassDOT Audit Operations.

- (3) Plus the estimated cost of Workers' Compensation and Liability Insurance, Health, Welfare and Pension benefits, and such additional fringe benefits which the Contractor is required to pay as a result of Union Labor Agreements and/or is required by authorized governmental agencies;

In paragraph B., second paragraph, number (3), replace the word "Workmen's" with "Workers".

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REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS

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

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. Form FHWA-1273 must be physically incorporated in each construction contract funded under title 23, United States Code, as required in 23 CFR 633.102(b) (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services). 23 CFR 633.102(e).

The applicable requirements 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 shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider. 23 CFR 633.102(e).

Form FHWA-1273 must be included in all Federal-aid design-build contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services) in accordance with 23 CFR 633.102. The 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, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract). 23 CFR 633.102(b).

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 immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract. 23 CFR 633.102(d).

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).

II. NONDISCRIMINATION (23 CFR 230.107(a); 23 CFR Part 230, Subpart A, Appendix A; EO 11246)

The provisions of this section related to 23 CFR Part 230, Subpart A, Appendix A are applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR Part 60, 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; and 23 CFR Parts 200, 230, and 633.

The contractor and all subcontractors must comply with: the requirements of the Equal Opportunity Clause in 41 CFR 60-1.4(b) and, for all construction contracts exceeding \$10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR Part 60, and 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; and 23 CFR Parts 200, 230, and 633.

The following provision is adopted from 23 CFR Part 230, Subpart A, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements.

1. Equal Employment Opportunity: Equal Employment Opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (see 28 CFR Part 35, 29 CFR Part 1630, 29 CFR Parts 1625-1627, 41 CFR Part 60 and 49 CFR Part 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140, shall constitute the EEO and specific affirmative action standards for the contractor's project activities under this contract. 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. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the contract. 23 CFR 230.409 (g)(4) & (5).

b. The contractor will accept as its operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, sexual orientation, gender identity, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and/or on-the-job training."

2. EEO Officer: The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program and who must be assigned adequate authority and responsibility to do so.

3. Dissemination of Policy: All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action or are substantially involved in such action, will be made fully cognizant of and will implement the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer or other knowledgeable company official.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minorities and women.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

4. Recruitment: When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minorities and women in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minorities and women. To meet this requirement, the contractor will identify sources of potential minority group employees and establish with such identified sources procedures whereby minority and women applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, the contractor is expected to observe the provisions of that agreement to the extent that the system meets the contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal nondiscrimination provisions.

c. The contractor will encourage its present employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such applicants will be discussed with employees.

5. Personnel Actions: Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to ensure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action

within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

6. Training and Promotion:

a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs (i.e., apprenticeship and on-the-job training programs for the geographical area of contract performance). In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of employees who are minorities and women and will encourage eligible employees to apply for such training and promotion.

7. Unions: If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. 23 CFR 230.409. Actions by the contractor, either directly or through a contractor's association acting as agent, will include the procedures set forth below:

a. The contractor will use good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.

b. The contractor will use good faith efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the contracting agency and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide

sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

8. Reasonable Accommodation for Applicants / Employees with Disabilities: The contractor must be familiar with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established thereunder. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.

9. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment: The contractor shall not discriminate on the grounds of race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.

a. The contractor shall notify all potential subcontractors, suppliers, and lessors of their EEO obligations under this contract.

b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.

10. Assurances Required:

a. The requirements of 49 CFR Part 26 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 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:

- (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 are incorporated by reference. 49 CFR Part 21.

11. Records and Reports: The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number and work hours of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women.

b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information will be reported on [Form FHWA-1391](#). The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

III. NONSEGREGATED FACILITIES

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of more than \$10,000. 41 CFR 60-1.5.

As prescribed by 41 CFR 60-1.8, the contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, sexual orientation, gender identity, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location under the contractor's control where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

IV. 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 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 V, 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 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/WHDL/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.

(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

the equal employment opportunity requirements of Executive Order 11246, as amended, and [29 CFR part 30](#).

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 IV. 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 FHWA-1273 in any subcontracts, 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 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](#).

V. 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.

* \$31 as of January 15, 2023 (See 88 FR 88 FR 2210) 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 IV paragraph 2.a. or paragraph 3.a. of this section, 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.

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.

VI. 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 Section VI 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 Section VI 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 long-standing interpretation of 23 CFR 635.116).

5. The 30-percent self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements. 23 CFR 635.116(d).

VII. 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).

VIII. 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."

IX. 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.

X. 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 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).

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 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).

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.

XI. 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.

XII. 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 (23 CFR 633, Subpart B, Appendix B)**

This provision is applicable to all Federal-aid projects funded under the Appalachian Regional Development Act of 1965.

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 23 CFR 633.207(e) allow the contracting agency to provide a contractual preference for the use of mineral resource materials native to the Appalachian region.

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.

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

June 18, 2025

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	\$0.52
2	ASTM A27 (AASHTO M103) Steel Castings, H-Pile Points & Pipe Pile Shoes (See Note below.)	\$0.73
3	ASTM A668 / A668M (AASHTO M102) Steel Forgings	\$0.73
4	ASTM A108 (AASHTO M169) Steel Forgings for Shear Studs	\$0.75
5	ASTM A709/A709M Grade 36 / AASHTO M270M/M270 Grade 36 or 250 Structural Steel Plate	\$0.79
6	ASTM A709/A709M Grade 36 / AASHTO M270M/M270 Grade 36 or 250 Structural Steel Shapes	\$0.74
7	ASTM A709/A709M Grade 50 / AASHTO M270M/M270 Grade 50 or 345 Structural Steel Plate	\$0.79
8	ASTM A709/A709M Grade 50 / AASHTO M270M/M270 Grade 50 or 345 Structural Steel Shapes	\$0.74
9	ASTM A709/A709M Grade 50WT / AASHTO M270M/M270 Grade 50WT or 345WT Structural Steel Plate	\$0.82
10	ASTM A709/A709M Grade 50WT / AASHTO M270M/M270 Grade 50WT or 345WT Structural Steel Shapes	\$0.75
11	ASTM A709/A709M Grade 50W / AASHTO M270M/M270 Grade 50W 345W Structural Steel Plate	\$0.82
12	ASTM A709/A709M Grade 50W / AASHTO M270M/M270 Grade 50W or 345W Structural Steel Shapes	\$0.75
13	ASTM A709/A709M Grade HPS 50W / AASHTO M270M/M270 Grade HPS 50W or 345W Structural Steel Plate	\$0.86
14	ASTM A709/A709M Grade HPS 70W / AASHTO M270M/M270 Grade HPS 70W or 485W Structural Steel Plate	\$0.92
15	ASTM A514/A514M-05 Grade HPS 100W / AASHTO M270M/M270 Grade HPS 100W or 690W Structural Steel Plate	\$1.41
16	ASTM A992/A992M Grade 50S / AASHTO M270M/M270 Grade 50S or 345S Structural Steel Plate	\$0.82
17	ASTM A992/A992M Grade 50S / AASHTO M270M/M270 Grade 50S or 345S Structural Steel Shapes	\$0.75
18	ASTM A276 Type 316 Stainless Steel	\$4.24
19	ASTM A240 Type 316 Stainless Steel	\$4.24
20	ASTM A148 Grade 80/50 Steel Castings (See Note below.)	\$1.46
21	ASTM A53 Grade B Structural Steel Pipe	\$0.92
22	ASTM A500 Grades A, B, 36 & 50 Structural Steel Pipe	\$0.92
23	ASTM A252, Grades 240 (36 KSI) & 414 (60 KSI) Pipe Pile	\$0.73
24	ASTM 252, Grade 2 Permanent Steel Casing	\$0.73
25	ASTM A36 (AASHTO M183) for H-piles, steel supports and sign supports	\$0.77
26	ASTM A328 / A328M, Grade 50 (AASHTO M202) Steel Sheetpiling	\$1.39
27	ASTM A572 / A572M, Grade 50 Sheetpiling	\$1.39
28	ASTM A36/36M, Grade 50	\$0.79
29	ASTM A570, Grade 50	\$0.77
30	ASTM A572 (AASHTO M223), Grade 50 H-Piles	\$0.79
31	ASTM A1085 Grade A (50 KSI) Steel Hollow Structural Sections (HSS), heat-treated per ASTM A1085 Supplement S1	\$0.92
32	AREA 140 LB Rail and Track Accessories	\$0.48

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: 130744 Project No. 608778 Federal Aid No.: STP/CMQ/HSI-0033(042)XLocation: SOUTHBRIDGEProject Description: Intersection Improvements at Central Street, Foster Street, Hook Street and Hamilton 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 HEALY
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:	MassDOT Highway	City/Town:	SOUTHBRIDGE
Contract Number:	130744		
Description of Work:	SOUTHBRIDGE - Federal Aid Project No. STP/CMQ/HSI-0033(042)X Intersection Improvements at Central Street, Foster Street, Hook Street and Hamilton Street		
Job Location:	at Central Street, Foster Street, Hook Street and Hamilton 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	6/1/2025	\$40.95	\$15.57	\$20.17	\$0.00	\$0.00	\$76.69
TEAMSTERS JOINT COUNCIL NO. 10	12/1/2025	\$40.95	\$15.57	\$21.78	\$0.00	\$0.00	\$78.30
TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	1/1/2026	\$40.95	\$16.17	\$21.78	\$0.00	\$0.00	\$78.90
	6/1/2026	\$41.95	\$16.17	\$21.78	\$0.00	\$0.00	\$79.90
	12/1/2026	\$41.95	\$16.17	\$23.52	\$0.00	\$0.00	\$81.64
	1/1/2027	\$41.95	\$16.77	\$23.52	\$0.00	\$0.00	\$82.24
(3 AXLE) DRIVER - EQUIPMENT	6/1/2025	\$41.02	\$15.57	\$20.17	\$0.00	\$0.00	\$76.76
TEAMSTERS JOINT COUNCIL NO. 10	12/1/2025	\$41.02	\$15.57	\$21.78	\$0.00	\$0.00	\$78.37
TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	1/1/2026	\$41.02	\$16.17	\$21.78	\$0.00	\$0.00	\$78.97
	6/1/2026	\$42.02	\$16.17	\$21.78	\$0.00	\$0.00	\$79.97
	12/1/2026	\$42.02	\$16.17	\$23.52	\$0.00	\$0.00	\$81.71
	1/1/2027	\$42.02	\$16.77	\$23.52	\$0.00	\$0.00	\$82.31
(4 & 5 AXLE) DRIVER - EQUIPMENT	6/1/2025	\$41.14	\$15.57	\$20.17	\$0.00	\$0.00	\$76.88
TEAMSTERS JOINT COUNCIL NO. 10	12/1/2025	\$41.14	\$15.57	\$21.78	\$0.00	\$0.00	\$78.49
TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	1/1/2026	\$41.14	\$16.17	\$21.78	\$0.00	\$0.00	\$79.09
	6/1/2026	\$42.14	\$16.17	\$21.78	\$0.00	\$0.00	\$80.09
	12/1/2026	\$42.14	\$16.17	\$23.52	\$0.00	\$0.00	\$81.83
	1/1/2027	\$42.14	\$16.77	\$23.52	\$0.00	\$0.00	\$82.43
ADS/SUBMERSIBLE PILOT	8/1/2024	\$117.16	\$10.08	\$11.62	\$12.67	\$0.00	\$151.53
PILE DRIVER LOCAL 56							
PILE DRIVER LOCAL 56 (ZONE 2)							
For apprentice rates see "Apprentice- PILE DRIVER"							
AIR TRACK OPERATOR	6/1/2025	\$41.09	\$9.90	\$9.25	\$9.11	\$0.00	\$69.35
LABORERS	12/1/2025	\$42.47	\$9.90	\$9.25	\$9.11	\$0.00	\$70.73
LABORERS - ZONE 2	6/1/2026	\$43.91	\$9.90	\$9.25	\$9.11	\$0.00	\$72.17
	12/1/2026	\$45.35	\$9.90	\$9.25	\$9.11	\$0.00	\$73.61
	6/1/2027	\$46.80	\$9.90	\$9.25	\$9.11	\$0.00	\$75.06
	12/1/2027	\$48.25	\$9.90	\$9.25	\$9.11	\$0.00	\$76.51
	6/1/2028	\$49.75	\$9.90	\$9.25	\$9.11	\$0.00	\$78.01
	12/1/2028	\$51.25	\$9.90	\$9.25	\$9.11	\$0.00	\$79.51
For apprentice rates see "Apprentice- LABORER"							
AIR TRACK OPERATOR (HEAVY & HIGHWAY)	6/1/2025	\$41.09	\$9.90	\$9.25	\$9.21	\$0.00	\$69.45
LABORERS	12/1/2025	\$42.47	\$9.90	\$9.25	\$9.21	\$0.00	\$70.83
LABORERS - ZONE 2 (HEAVY & HIGHWAY)	6/1/2026	\$43.91	\$9.90	\$9.25	\$9.21	\$0.00	\$72.27
	12/1/2026	\$45.35	\$9.90	\$9.25	\$9.21	\$0.00	\$73.71
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"							
ASBESTOS WORKER (PIPES & TANKS)	6/1/2025	\$43.80	\$14.50	\$4.30	\$6.75	\$0.00	\$69.35
HEAT & FROST INSULATORS LOCAL 6	12/1/2025	\$44.80	\$14.50	\$4.30	\$6.75	\$0.00	\$70.35
HEAT & FROST INSULATORS LOCAL 6 (WORCESTER)							
ASPHALT RAKER	6/1/2025	\$40.59	\$9.90	\$9.25	\$9.11	\$0.00	\$68.85
LABORERS	12/1/2025	\$41.97	\$9.90	\$9.25	\$9.11	\$0.00	\$70.23
LABORERS - ZONE 2	6/1/2026	\$43.41	\$9.90	\$9.25	\$9.11	\$0.00	\$71.67
	12/1/2026	\$44.85	\$9.90	\$9.25	\$9.11	\$0.00	\$73.11

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
	6/1/2027	\$46.30	\$9.90	\$9.25	\$9.11	\$0.00	\$74.56
	12/1/2027	\$47.75	\$9.90	\$9.25	\$9.11	\$0.00	\$76.01
	6/1/2028	\$49.25	\$9.90	\$9.25	\$9.11	\$0.00	\$77.51
	12/1/2028	\$50.75	\$9.90	\$9.25	\$9.11	\$0.00	\$79.01
For apprentice rates see "Apprentice- LABORER"							
ASPHALT RAKER (HEAVY & HIGHWAY)	6/1/2025	\$40.59	\$9.90	\$9.25	\$9.21	\$0.00	\$68.95
LABORERS	12/1/2025	\$41.97	\$9.90	\$9.25	\$9.21	\$0.00	\$70.33
LABORERS - ZONE 2 (HEAVY & HIGHWAY)	6/1/2026	\$43.41	\$9.90	\$9.25	\$9.21	\$0.00	\$71.77
	12/1/2026	\$44.85	\$9.90	\$9.25	\$9.21	\$0.00	\$73.21
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"							
ASPHALT/CONCRETE/CRUSHER PLANT-ON SITE	6/1/2025	\$58.33	\$15.55	\$13.25	\$3.25	\$0.00	\$90.38
OPERATING ENGINEERS LOCAL 4	12/1/2025	\$59.78	\$15.55	\$13.25	\$3.25	\$0.00	\$91.83
OPERATING ENGINEERS LOCAL 4	6/1/2026	\$61.08	\$15.55	\$13.25	\$3.25	\$0.00	\$93.13
	12/1/2026	\$62.53	\$15.55	\$13.25	\$3.25	\$0.00	\$94.58
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
BACKHOE/FRONT-END LOADER	6/1/2025	\$58.33	\$15.55	\$13.25	\$3.25	\$0.00	\$90.38
OPERATING ENGINEERS LOCAL 4	12/1/2025	\$59.78	\$15.55	\$13.25	\$3.25	\$0.00	\$91.83
OPERATING ENGINEERS LOCAL 4	6/1/2026	\$61.08	\$15.55	\$13.25	\$3.25	\$0.00	\$93.13
	12/1/2026	\$62.53	\$15.55	\$13.25	\$3.25	\$0.00	\$94.58
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
BARCO-TYPE JUMPING TAMPER	6/1/2025	\$40.59	\$9.90	\$9.25	\$9.11	\$0.00	\$68.85
LABORERS	12/1/2025	\$41.97	\$9.90	\$9.25	\$9.11	\$0.00	\$70.23
LABORERS - ZONE 2	6/1/2026	\$43.41	\$9.90	\$9.25	\$9.11	\$0.00	\$71.67
	12/1/2026	\$44.85	\$9.90	\$9.25	\$9.11	\$0.00	\$73.11
	6/1/2027	\$46.30	\$9.90	\$9.25	\$9.11	\$0.00	\$74.56
	12/1/2027	\$47.75	\$9.90	\$9.25	\$9.11	\$0.00	\$76.01
	6/1/2028	\$49.25	\$9.90	\$9.25	\$9.11	\$0.00	\$77.51
	12/1/2028	\$50.75	\$9.90	\$9.25	\$9.11	\$0.00	\$79.01
For apprentice rates see "Apprentice- LABORER"							
BLOCK PAVER, RAMMER / CURB SETTER	6/1/2025	\$41.09	\$9.90	\$9.25	\$9.11	\$0.00	\$69.35
LABORERS	12/1/2025	\$42.47	\$9.90	\$9.25	\$9.11	\$0.00	\$70.73
LABORERS - ZONE 2	6/1/2026	\$43.91	\$9.90	\$9.25	\$9.11	\$0.00	\$72.17
	12/1/2026	\$45.35	\$9.90	\$9.25	\$9.11	\$0.00	\$73.61
	6/1/2027	\$46.80	\$9.90	\$9.25	\$9.11	\$0.00	\$75.06
	12/1/2027	\$48.25	\$9.90	\$9.25	\$9.11	\$0.00	\$76.51
	6/1/2028	\$49.75	\$9.90	\$9.25	\$9.11	\$0.00	\$78.01
	12/1/2028	\$51.25	\$9.90	\$9.25	\$9.11	\$0.00	\$79.51
For apprentice rates see "Apprentice- LABORER"							
BLOCK PAVER, RAMMER / CURB SETTER (HEAVY & HIGHWAY)	6/1/2025	\$41.09	\$9.90	\$9.25	\$9.21	\$0.00	\$69.45
LABORERS	12/1/2025	\$42.47	\$9.90	\$9.25	\$9.21	\$0.00	\$70.83
LABORERS - ZONE 2 (HEAVY & HIGHWAY)	6/1/2026	\$43.91	\$9.90	\$9.25	\$9.21	\$0.00	\$72.27
	12/1/2026	\$45.35	\$9.90	\$9.25	\$9.21	\$0.00	\$73.71
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"							

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
BOILER MAKER	1/1/2024	\$48.12	\$7.07	\$14.60	\$6.00	\$0.00	\$75.79
BOILERMAKERS LOCAL 29							
BOILERMAKERS LOCAL 29							

Apprentice: BOILER MAKER**Effective Date: 1/1/2024**

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

BRICK/STONE/ARTIFICIAL MASONRY (INCL. MASONRY WATERPROOFING)	2/1/2025	\$63.66	\$11.49	\$15.57	\$7.33	\$0.00	\$98.05
BRICKLAYERS LOCAL 3	8/1/2025	\$65.81	\$11.49	\$15.57	\$7.33	\$0.00	\$100.20
BRICKLAYERS LOCAL 3 (WORCESTER)	2/1/2026	\$67.16	\$11.49	\$15.57	\$7.33	\$0.00	\$101.55
	8/1/2026	\$69.36	\$11.49	\$15.57	\$7.33	\$0.00	\$103.75
	2/1/2027	\$70.76	\$11.49	\$15.57	\$7.33	\$0.00	\$105.15

Apprentice: BRICK/STONE/ARTIFICIAL MASONRY (INCL. MASONRY WATERPROOFING)**Effective Date: 2/1/2025**

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$31.83	\$11.49	\$15.57	\$7.33	\$0.00	\$66.22
2	60.00	\$38.20	\$11.49	\$15.57	\$7.33	\$0.00	\$72.59
3	70.00	\$44.56	\$11.49	\$15.57	\$7.33	\$0.00	\$78.95
4	80.00	\$50.93	\$11.49	\$15.57	\$7.33	\$0.00	\$85.32
5	90.00	\$57.29	\$11.49	\$15.57	\$7.33	\$0.00	\$91.68

Apprentice: BRICK/STONE/ARTIFICIAL MASONRY (INCL. MASONRY WATERPROOFING)**Effective Date: 8/1/2025**

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$32.91	\$11.49	\$15.57	\$7.33	\$0.00	\$67.30
2	60.00	\$39.49	\$11.49	\$15.57	\$7.33	\$0.00	\$73.88
3	70.00	\$46.07	\$11.49	\$15.57	\$7.33	\$0.00	\$80.46
4	80.00	\$52.65	\$11.49	\$15.57	\$7.33	\$0.00	\$87.04
5	90.00	\$59.23	\$11.49	\$15.57	\$7.33	\$0.00	\$93.62

BULLDOZER/GRADER/SCRAPER	6/1/2025	\$57.68	\$15.55	\$13.25	\$3.25	\$0.00	\$89.73
OPERATING ENGINEERS LOCAL 4	12/1/2025	\$59.12	\$15.55	\$13.25	\$3.25	\$0.00	\$91.17
OPERATING ENGINEERS LOCAL 4	6/1/2026	\$60.40	\$15.55	\$13.25	\$3.25	\$0.00	\$92.45

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
	12/1/2026	\$61.84	\$15.55	\$13.25	\$3.25	\$0.00	\$93.89
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
CAISSON & UNDERPINNING BOTTOM MAN	6/1/2025	\$48.85	\$9.90	\$9.25	\$9.80	\$0.00	\$77.80
LABORERS	12/1/2025	\$50.35	\$9.90	\$9.25	\$9.80	\$0.00	\$79.30
LABORERS - FOUNDATION AND MARINE	6/1/2026	\$51.90	\$9.90	\$9.25	\$9.80	\$0.00	\$80.85
	12/1/2026	\$53.40	\$9.90	\$9.25	\$9.80	\$0.00	\$82.35
For apprentice rates see "Apprentice- LABORER"							
CAISSON & UNDERPINNING LABORER	6/1/2025	\$47.70	\$9.90	\$9.25	\$9.80	\$0.00	\$76.65
LABORERS	12/1/2025	\$49.20	\$9.90	\$9.25	\$9.80	\$0.00	\$78.15
LABORERS - FOUNDATION AND MARINE	6/1/2026	\$50.75	\$9.90	\$9.25	\$9.80	\$0.00	\$79.70
	12/1/2026	\$52.25	\$9.90	\$9.25	\$9.80	\$0.00	\$81.20
For apprentice rates see "Apprentice- LABORER"							
CAISSON & UNDERPINNING TOP MAN	6/1/2025	\$48.03	\$9.90	\$9.25	\$9.80	\$0.00	\$76.98
LABORERS	12/1/2025	\$49.53	\$9.90	\$9.25	\$9.80	\$0.00	\$78.48
LABORERS - FOUNDATION AND MARINE	6/1/2026	\$51.08	\$9.90	\$9.25	\$9.80	\$0.00	\$80.03
	12/1/2026	\$52.58	\$9.90	\$9.25	\$9.80	\$0.00	\$81.53
For apprentice rates see "Apprentice- LABORER"							
CARBIDE CORE DRILL OPERATOR	6/1/2025	\$40.59	\$9.90	\$9.25	\$9.11	\$0.00	\$68.85
LABORERS	12/1/2025	\$41.97	\$9.90	\$9.25	\$9.11	\$0.00	\$70.23
LABORERS - ZONE 2	6/1/2026	\$43.41	\$9.90	\$9.25	\$9.11	\$0.00	\$71.67
	12/1/2026	\$44.85	\$9.90	\$9.25	\$9.11	\$0.00	\$73.11
	6/1/2027	\$46.30	\$9.90	\$9.25	\$9.11	\$0.00	\$74.56
	12/1/2027	\$47.75	\$9.90	\$9.25	\$9.11	\$0.00	\$76.01
	6/1/2028	\$49.25	\$9.90	\$9.25	\$9.11	\$0.00	\$77.51
	12/1/2028	\$50.75	\$9.90	\$9.25	\$9.11	\$0.00	\$79.01
For apprentice rates see "Apprentice- LABORER"							
CARPENTER	3/1/2025	\$49.62	\$9.83	\$11.47	\$8.50	\$0.00	\$79.42
CARPENTERS	9/1/2025	\$50.87	\$9.83	\$11.47	\$8.50	\$0.00	\$80.67
CARPENTERS -ZONE 2 (Eastern Massachusetts)	3/1/2026	\$52.12	\$9.83	\$11.47	\$8.50	\$0.00	\$81.92
	9/1/2026	\$53.37	\$9.83	\$11.47	\$8.50	\$0.00	\$83.17
	3/1/2027	\$54.62	\$9.83	\$11.47	\$8.50	\$0.00	\$84.42

Apprentice: CARPENTER							
Effective Date: 3/1/2025							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	45.00	\$22.33	\$9.83	\$0.00	\$1.73	\$0.00	\$33.89
2	45.00	\$22.33	\$9.83	\$0.00	\$1.73	\$0.00	\$33.89
3	55.00	\$27.29	\$9.83	\$0.00	\$3.40	\$0.00	\$40.52
4	55.00	\$27.29	\$9.83	\$0.00	\$3.40	\$0.00	\$40.52
5	70.00	\$34.73	\$9.83	\$11.41	\$5.10	\$0.00	\$61.07
6	70.00	\$34.73	\$9.83	\$11.41	\$5.10	\$0.00	\$61.07
7	80.00	\$39.70	\$9.83	\$11.44	\$6.80	\$0.00	\$67.77
8	80.00	\$39.70	\$9.83	\$11.44	\$6.80	\$0.00	\$67.77

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
Apprentice: CARPENTER Effective Date: 9/1/2025							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	45.00	\$22.89	\$9.83	\$0.00	\$1.73	\$0.00	\$34.45
2	45.00	\$22.89	\$9.83	\$0.00	\$1.73	\$0.00	\$34.45
3	55.00	\$27.98	\$9.83	\$0.00	\$3.40	\$0.00	\$41.21
4	55.00	\$27.98	\$9.83	\$0.00	\$3.40	\$0.00	\$41.21
5	70.00	\$35.61	\$9.83	\$11.41	\$5.10	\$0.00	\$61.95
6	70.00	\$35.61	\$9.83	\$11.41	\$5.10	\$0.00	\$61.95
7	80.00	\$40.70	\$9.83	\$11.44	\$6.80	\$0.00	\$68.77
8	80.00	\$40.70	\$9.83	\$11.44	\$6.80	\$0.00	\$68.77
<hr/>							
CARPENTER WOOD FRAME	10/1/2024	\$26.65	\$7.02	\$3.80	\$1.00	\$0.00	\$38.47
CARPENTERS	10/1/2025	\$27.75	\$7.02	\$3.80	\$1.00	\$0.00	\$39.57
CARPENTERS-ZONE 3 (Wood Frame)	10/1/2026	\$28.85	\$7.02	\$3.80	\$1.00	\$0.00	\$40.67
All Aspects of New Wood Frame Work							

Apprentice: CARPENTER WOOD FRAME Effective Date: 10/1/2024							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	60.00	\$15.99	\$7.02	\$0.00	\$0.00	\$0.00	\$23.01
2	60.00	\$15.99	\$7.02	\$0.00	\$0.00	\$0.00	\$23.01
3	65.00	\$17.32	\$7.02	\$0.00	\$1.00	\$0.00	\$25.34
4	70.00	\$18.66	\$7.02	\$0.00	\$1.00	\$0.00	\$26.68
5	75.00	\$19.99	\$7.02	\$3.80	\$1.00	\$0.00	\$31.81
6	80.00	\$21.32	\$7.02	\$3.80	\$1.00	\$0.00	\$33.14
7	85.00	\$22.65	\$7.02	\$3.80	\$1.00	\$0.00	\$34.47
8	90.00	\$23.99	\$7.02	\$3.80	\$1.00	\$0.00	\$35.81

Apprentice: CARPENTER WOOD FRAME Effective Date: 10/1/2025							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	60.00	\$16.65	\$7.02	\$0.00	\$0.00	\$0.00	\$23.67
2	60.00	\$16.65	\$7.02	\$0.00	\$0.00	\$0.00	\$23.67
3	65.00	\$18.04	\$7.02	\$0.00	\$1.00	\$0.00	\$26.06
4	70.00	\$19.43	\$7.02	\$0.00	\$1.00	\$0.00	\$27.45
5	75.00	\$20.81	\$7.02	\$3.80	\$1.00	\$0.00	\$32.63
6	80.00	\$22.20	\$7.02	\$3.80	\$1.00	\$0.00	\$34.02
7	85.00	\$23.59	\$7.02	\$3.80	\$1.00	\$0.00	\$35.41
8	90.00	\$24.98	\$7.02	\$3.80	\$1.00	\$0.00	\$36.80

CEMENT MASONRY/PLASTERING	7/1/2024	\$49.19	\$13.35	\$16.43	\$7.78	\$1.80	\$88.55
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Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
BRICKLAYERS LOCAL 3							
BRICKLAYERS LOCAL 3 (WORCESTER)							

Apprentice: CEMENT MASONRY/PLASTERING**Effective Date: 7/1/2024**

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$24.60	\$13.35	\$16.43	\$0.00	\$0.00	\$54.38
2	60.00	\$29.51	\$13.35	\$16.43	\$2.78	\$1.80	\$63.87
3	65.00	\$31.97	\$13.35	\$16.43	\$3.78	\$1.80	\$67.33
4	70.00	\$34.43	\$13.35	\$16.43	\$4.78	\$1.80	\$70.79
5	75.00	\$36.89	\$13.35	\$16.43	\$5.78	\$1.80	\$74.25
6	80.00	\$39.35	\$13.35	\$16.43	\$6.78	\$1.80	\$77.71
7	90.00	\$44.27	\$13.35	\$16.43	\$7.78	\$1.80	\$83.63

CHAIN SAW OPERATOR	6/1/2025	\$40.59	\$9.90	\$9.25	\$9.11	\$0.00	\$68.85
LABORERS	12/1/2025	\$41.97	\$9.90	\$9.25	\$9.11	\$0.00	\$70.23
LABORERS - ZONE 2	6/1/2026	\$43.41	\$9.90	\$9.25	\$9.11	\$0.00	\$71.67
	12/1/2026	\$44.85	\$9.90	\$9.25	\$9.11	\$0.00	\$73.11
	6/1/2027	\$46.30	\$9.90	\$9.25	\$9.11	\$0.00	\$74.56
	12/1/2027	\$47.75	\$9.90	\$9.25	\$9.11	\$0.00	\$76.01
	6/1/2028	\$49.25	\$9.90	\$9.25	\$9.11	\$0.00	\$77.51
	12/1/2028	\$50.75	\$9.90	\$9.25	\$9.11	\$0.00	\$79.01

For apprentice rates see "Apprentice- LABORER"

CLAM SHELLS/SLURRY BUCKETS/HEADING MACHINES	6/1/2025	\$59.51	\$15.55	\$13.25	\$3.25	\$0.00	\$91.56
OPERATING ENGINEERS LOCAL 4	12/1/2025	\$60.98	\$15.55	\$13.25	\$3.25	\$0.00	\$93.03
OPERATING ENGINEERS LOCAL 4	6/1/2026	\$62.31	\$15.55	\$13.25	\$3.25	\$0.00	\$94.36
	12/1/2026	\$63.79	\$15.55	\$13.25	\$3.25	\$0.00	\$95.84

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

COMPRESSOR OPERATOR	6/1/2025	\$37.52	\$15.55	\$13.25	\$3.25	\$0.00	\$69.57
OPERATING ENGINEERS LOCAL 4	12/1/2025	\$38.47	\$15.55	\$13.25	\$3.25	\$0.00	\$70.52
OPERATING ENGINEERS LOCAL 4	6/1/2026	\$39.33	\$15.55	\$13.25	\$3.25	\$0.00	\$71.38
	12/1/2026	\$40.28	\$15.55	\$13.25	\$3.25	\$0.00	\$72.33

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

DELEADER (BRIDGE)	1/1/2025	\$58.46	\$9.95	\$11.85	\$12.10	\$0.00	\$92.36
PAINTERS LOCAL 35							
PAINTERS LOCAL 35 - ZONE 2							

Apprentice: DELEADER (BRIDGE)**Effective Date: 1/1/2025**

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$29.23	\$9.95	\$0.00	\$0.00	\$0.00	\$39.18
2	55.00	\$32.15	\$9.95	\$0.00	\$6.66	\$0.00	\$48.76
3	60.00	\$35.08	\$9.95	\$0.00	\$7.26	\$0.00	\$52.29

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate																																																
<div>Apprentice: DELEADER (BRIDGE)</div> <div>Effective Date: 1/1/2025</div> <table><thead><tr><th>Step</th><th>Percent</th><th>Apprentice Base Wage</th><th>Health</th><th>Pension</th><th>Annuity</th><th>Supplemental Unemployment</th><th>Total Rate</th></tr></thead><tbody><tr><td>4</td><td>65.00</td><td>\$38.00</td><td>\$9.95</td><td>\$0.00</td><td>\$7.87</td><td>\$0.00</td><td>\$55.82</td></tr><tr><td>5</td><td>70.00</td><td>\$40.92</td><td>\$9.95</td><td>\$11.85</td><td>\$8.47</td><td>\$0.00</td><td>\$71.19</td></tr><tr><td>6</td><td>75.00</td><td>\$43.85</td><td>\$9.95</td><td>\$11.85</td><td>\$9.08</td><td>\$0.00</td><td>\$74.73</td></tr><tr><td>7</td><td>80.00</td><td>\$46.77</td><td>\$9.95</td><td>\$11.85</td><td>\$9.68</td><td>\$0.00</td><td>\$78.25</td></tr><tr><td>8</td><td>90.00</td><td>\$52.61</td><td>\$9.95</td><td>\$11.85</td><td>\$10.89</td><td>\$0.00</td><td>\$85.30</td></tr></tbody></table>								Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate	4	65.00	\$38.00	\$9.95	\$0.00	\$7.87	\$0.00	\$55.82	5	70.00	\$40.92	\$9.95	\$11.85	\$8.47	\$0.00	\$71.19	6	75.00	\$43.85	\$9.95	\$11.85	\$9.08	\$0.00	\$74.73	7	80.00	\$46.77	\$9.95	\$11.85	\$9.68	\$0.00	\$78.25	8	90.00	\$52.61	\$9.95	\$11.85	\$10.89	\$0.00	\$85.30
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate																																																
4	65.00	\$38.00	\$9.95	\$0.00	\$7.87	\$0.00	\$55.82																																																
5	70.00	\$40.92	\$9.95	\$11.85	\$8.47	\$0.00	\$71.19																																																
6	75.00	\$43.85	\$9.95	\$11.85	\$9.08	\$0.00	\$74.73																																																
7	80.00	\$46.77	\$9.95	\$11.85	\$9.68	\$0.00	\$78.25																																																
8	90.00	\$52.61	\$9.95	\$11.85	\$10.89	\$0.00	\$85.30																																																
DEMO: ADZEMAN	6/2/2025	\$47.75	\$9.90	\$9.25	\$9.65	\$0.00	\$76.55																																																
LABORERS	12/1/2025	\$49.25	\$9.90	\$9.25	\$9.65	\$0.00	\$78.05																																																
LABORERS - ZONE 2	6/1/2026	\$50.80	\$9.90	\$9.25	\$9.65	\$0.00	\$79.60																																																
	12/7/2026	\$52.30	\$9.90	\$9.25	\$9.65	\$0.00	\$81.10																																																
	6/7/2027	\$53.90	\$9.90	\$9.25	\$9.65	\$0.00	\$82.70																																																
	12/6/2027	\$55.50	\$9.90	\$9.25	\$9.65	\$0.00	\$84.30																																																
	6/5/2028	\$57.18	\$9.90	\$9.25	\$9.65	\$0.00	\$85.98																																																
	12/4/2028	\$58.85	\$9.90	\$9.25	\$9.65	\$0.00	\$87.65																																																
For apprentice rates see "Apprentice- LABORER"																																																							
DEMO: BACKHOE/LOADER/HAMMER OPERATOR	6/2/2025	\$48.75	\$9.90	\$9.25	\$9.65	\$0.00	\$77.55																																																
LABORERS	12/1/2025	\$50.25	\$9.90	\$9.25	\$9.65	\$0.00	\$79.05																																																
LABORERS - ZONE 2	6/1/2026	\$51.80	\$9.90	\$9.25	\$9.65	\$0.00	\$80.60																																																
	12/7/2026	\$53.30	\$9.90	\$9.25	\$9.65	\$0.00	\$82.10																																																
	6/7/2027	\$54.90	\$9.90	\$9.25	\$9.65	\$0.00	\$83.70																																																
	12/6/2027	\$56.50	\$9.90	\$9.25	\$9.65	\$0.00	\$85.30																																																
	6/5/2028	\$58.18	\$9.90	\$9.25	\$9.65	\$0.00	\$86.98																																																
	12/4/2028	\$59.85	\$9.90	\$9.25	\$9.65	\$0.00	\$88.65																																																
For apprentice rates see "Apprentice- LABORER"																																																							
DEMO: BURNERS	6/2/2025	\$48.50	\$9.90	\$9.25	\$9.65	\$0.00	\$77.30																																																
LABORERS	12/1/2025	\$50.00	\$9.90	\$9.25	\$9.65	\$0.00	\$78.80																																																
LABORERS - ZONE 2	6/1/2026	\$51.55	\$9.90	\$9.25	\$9.65	\$0.00	\$80.35																																																
	12/7/2026	\$53.05	\$9.90	\$9.25	\$9.65	\$0.00	\$81.85																																																
	6/7/2027	\$54.65	\$9.90	\$9.25	\$9.65	\$0.00	\$83.45																																																
	12/6/2027	\$56.25	\$9.90	\$9.25	\$9.65	\$0.00	\$85.05																																																
	6/5/2028	\$57.93	\$9.90	\$9.25	\$9.65	\$0.00	\$86.73																																																
	12/4/2028	\$59.60	\$9.90	\$9.25	\$9.65	\$0.00	\$88.40																																																
For apprentice rates see "Apprentice- LABORER"																																																							
DEMO: CONCRETE CUTTER/SAWYER	6/2/2025	\$48.75	\$9.90	\$9.25	\$9.65	\$0.00	\$77.55																																																
LABORERS	12/1/2025	\$50.25	\$9.90	\$9.25	\$9.65	\$0.00	\$79.05																																																
LABORERS - ZONE 2	6/1/2026	\$51.80	\$9.90	\$9.25	\$9.65	\$0.00	\$80.60																																																
	12/7/2026	\$53.30	\$9.90	\$9.25	\$9.65	\$0.00	\$82.10																																																
	6/7/2027	\$54.90	\$9.90	\$9.25	\$9.65	\$0.00	\$83.70																																																
	12/6/2027	\$56.50	\$9.90	\$9.25	\$9.65	\$0.00	\$85.30																																																
	6/5/2028	\$58.18	\$9.90	\$9.25	\$9.65	\$0.00	\$86.98																																																
	12/4/2028	\$59.85	\$9.90	\$9.25	\$9.65	\$0.00	\$88.65																																																
For apprentice rates see "Apprentice- LABORER"																																																							

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
DEMO: JACKHAMMER OPERATOR LABORERS	6/2/2025	\$48.50	\$9.90	\$9.25	\$9.65	\$0.00	\$77.30
LABORERS - ZONE 2	12/1/2025	\$50.00	\$9.90	\$9.25	\$9.65	\$0.00	\$78.80
	6/1/2026	\$51.55	\$9.90	\$9.25	\$9.65	\$0.00	\$80.35
	12/7/2026	\$53.05	\$9.90	\$9.25	\$9.65	\$0.00	\$81.85
	6/7/2027	\$54.65	\$9.90	\$9.25	\$9.65	\$0.00	\$83.45
	12/6/2027	\$56.25	\$9.90	\$9.25	\$9.65	\$0.00	\$85.05
	6/5/2028	\$57.93	\$9.90	\$9.25	\$9.65	\$0.00	\$86.73
	12/4/2028	\$59.60	\$9.90	\$9.25	\$9.65	\$0.00	\$88.40
For apprentice rates see "Apprentice- LABORER"							
DEMO: WRECKING LABORER LABORERS	6/2/2025	\$47.75	\$9.90	\$9.25	\$9.65	\$0.00	\$76.55
LABORERS - ZONE 2	12/1/2025	\$49.25	\$9.90	\$9.25	\$9.65	\$0.00	\$78.05
	6/1/2026	\$50.80	\$9.90	\$9.25	\$9.65	\$0.00	\$79.60
	12/7/2026	\$52.30	\$9.90	\$9.25	\$9.65	\$0.00	\$81.10
	6/7/2027	\$53.90	\$9.90	\$9.25	\$9.65	\$0.00	\$82.70
	12/6/2027	\$55.50	\$9.90	\$9.25	\$9.65	\$0.00	\$84.30
	6/5/2028	\$57.18	\$9.90	\$9.25	\$9.65	\$0.00	\$85.98
	12/4/2028	\$58.85	\$9.90	\$9.25	\$9.65	\$0.00	\$87.65
For apprentice rates see "Apprentice- LABORER"							
DIRECTIONAL DRILL MACHINE OPERATOR OPERATING ENGINEERS LOCAL 4	6/1/2025	\$57.68	\$15.55	\$13.25	\$3.25	\$0.00	\$89.73
OPERATING ENGINEERS LOCAL 4	12/1/2025	\$59.12	\$15.55	\$13.25	\$3.25	\$0.00	\$91.17
	6/1/2026	\$60.40	\$15.55	\$13.25	\$3.25	\$0.00	\$92.45
	12/1/2026	\$61.84	\$15.55	\$13.25	\$3.25	\$0.00	\$93.89
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
DIVER PILE DRIVER LOCAL 56 PILE DRIVER LOCAL 56 (ZONE 2)	8/1/2024	\$78.11	\$10.08	\$11.62	\$12.67	\$0.00	\$112.48
as of 8-1-24, Apprentices with diving licenses begin at second year. % of Diver wage 70/80/90 2A \$69.83, 3A \$91.79,4A \$102.14 Total Rate							
DIVER TENDER PILE DRIVER LOCAL 56 PILE DRIVER LOCAL 56 (ZONE 2)	8/1/2024	\$51.97	\$10.08	\$11.62	\$12.67	\$0.00	\$86.34
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) PILE DRIVER LOCAL 56 PILE DRIVER LOCAL 56 (ZONE 2)	8/1/2024	\$83.69	\$10.08	\$11.62	\$12.67	\$0.00	\$118.06
For apprentice rates see "Apprentice- PILE DRIVER"							
DIVER/SLURRY (EFFLUENT) PILE DRIVER LOCAL 56 PILE DRIVER LOCAL 56 (ZONE 2)	8/1/2024	\$117.16	\$10.08	\$11.62	\$12.67	\$0.00	\$151.53
For apprentice rates see "Apprentice- PILE DRIVER"							
DRAWBRIDGE OPERATOR (Construction) DRAWBRIDGE - SEIU LOCAL 888 DRAWBRIDGE - SEIU LOCAL 888	7/1/2020	\$26.77	\$6.67	\$3.93	\$0.00	\$0.16	\$37.53
ELECTRICIAN ELECTRICIANS LOCAL 96 ELECTRICIANS LOCAL 96	9/1/2024	\$47.05	\$13.99	\$14.04	\$5.18	\$0.00	\$80.26
	9/7/2025	\$48.16	\$14.98	\$14.30	\$5.30	\$0.00	\$82.74

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
	9/6/2026	\$49.38	\$15.96	\$14.57	\$5.43	\$0.00	\$85.34

Apprentice: ELECTRICIAN**Effective Date: 9/1/2024**

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	40.00	\$18.82	\$13.99	\$0.56	\$0.00	\$0.00	\$33.37
2	45.00	\$21.17	\$13.99	\$0.64	\$0.00	\$0.00	\$35.80
3	48.00	\$22.58	\$13.99	\$13.31	\$2.48	\$0.00	\$52.36
4	55.00	\$25.88	\$13.99	\$13.41	\$2.85	\$0.00	\$56.13
5	65.00	\$30.58	\$13.99	\$13.55	\$3.36	\$0.00	\$61.48
6	80.00	\$37.64	\$13.99	\$13.76	\$4.14	\$0.00	\$69.53

Apprentice: ELECTRICIAN**Effective Date: 9/7/2025**

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	40.00	\$19.26	\$14.98	\$0.58	\$0.00	\$0.00	\$34.82
2	45.00	\$21.67	\$14.98	\$0.65	\$0.00	\$0.00	\$37.30
3	48.00	\$23.12	\$14.98	\$13.55	\$2.54	\$0.00	\$54.19
4	55.00	\$26.49	\$14.98	\$13.65	\$2.92	\$0.00	\$58.04
5	65.00	\$31.30	\$14.98	\$13.80	\$3.45	\$0.00	\$63.53
6	80.00	\$38.53	\$14.98	\$14.02	\$4.24	\$0.00	\$71.77

ELEVATOR CONSTRUCTOR	1/1/2025	\$62.83	\$16.28	\$10.96	\$10.40	\$0.00	\$100.47
ELEVATOR CONSTRUCTORS LOCAL 41	1/1/2026	\$63.68	\$16.38	\$11.06	\$10.70	\$0.00	\$101.82
ELEVATOR CONSTRUCTORS LOCAL 41	1/1/2027	\$64.53	\$16.48	\$11.16	\$11.00	\$0.00	\$103.17

Apprentice: ELEVATOR CONSTRUCTOR**Effective Date: 1/1/2025**

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$31.42	\$16.28	\$0.00	\$0.00	\$0.00	\$47.70
2	55.00	\$34.56	\$16.28	\$10.96	\$10.40	\$0.00	\$72.20
3	65.00	\$40.84	\$16.28	\$10.96	\$10.40	\$0.00	\$78.48
4	70.00	\$43.98	\$16.28	\$10.96	\$10.40	\$0.00	\$81.62
5	80.00	\$50.26	\$16.28	\$10.96	\$10.40	\$0.00	\$87.90

Apprentice: ELEVATOR CONSTRUCTOR**Effective Date: 1/1/2026**

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$31.84	\$16.38	\$0.00	\$0.00	\$0.00	\$48.22
2	55.00	\$35.02	\$16.38	\$11.06	\$10.70	\$0.00	\$73.16

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate																																
<div>Apprentice: ELEVATOR CONSTRUCTOR</div> <div>Effective Date: 1/1/2026</div> <table><thead><tr><th>Step</th><th>Percent</th><th>Apprentice Base Wage</th><th>Health</th><th>Pension</th><th>Annuity</th><th>Supplemental Unemployment</th><th>Total Rate</th></tr></thead><tbody><tr><td>3</td><td>65.00</td><td>\$41.39</td><td>\$16.38</td><td>\$11.06</td><td>\$10.70</td><td>\$0.00</td><td>\$79.53</td></tr><tr><td>4</td><td>70.00</td><td>\$44.58</td><td>\$16.38</td><td>\$11.06</td><td>\$10.70</td><td>\$0.00</td><td>\$82.72</td></tr><tr><td>5</td><td>80.00</td><td>\$50.94</td><td>\$16.38</td><td>\$11.06</td><td>\$10.70</td><td>\$0.00</td><td>\$89.08</td></tr></tbody></table>								Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate	3	65.00	\$41.39	\$16.38	\$11.06	\$10.70	\$0.00	\$79.53	4	70.00	\$44.58	\$16.38	\$11.06	\$10.70	\$0.00	\$82.72	5	80.00	\$50.94	\$16.38	\$11.06	\$10.70	\$0.00	\$89.08
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate																																
3	65.00	\$41.39	\$16.38	\$11.06	\$10.70	\$0.00	\$79.53																																
4	70.00	\$44.58	\$16.38	\$11.06	\$10.70	\$0.00	\$82.72																																
5	80.00	\$50.94	\$16.38	\$11.06	\$10.70	\$0.00	\$89.08																																
ELEVATOR CONSTRUCTOR HELPER	1/1/2025	\$43.98	\$16.28	\$10.96	\$10.40	\$0.00	\$81.62																																
ELEVATOR CONSTRUCTORS LOCAL 41	1/1/2026	\$44.58	\$16.38	\$11.06	\$10.70	\$0.00	\$82.72																																
ELEVATOR CONSTRUCTORS LOCAL 41	1/1/2027	\$45.17	\$16.48	\$11.16	\$11.00	\$0.00	\$83.81																																
For apprentice rates see "Apprentice - ELEVATOR CONSTRUCTOR"																																							
FENCE & GUARD RAIL ERECTOR (HEAVY & HIGHWAY)	6/1/2025	\$40.59	\$9.90	\$9.25	\$9.21	\$0.00	\$68.95																																
LABORERS	12/1/2025	\$41.97	\$9.90	\$9.25	\$9.21	\$0.00	\$70.33																																
LABORERS - ZONE 2 (HEAVY & HIGHWAY)	6/1/2026	\$43.41	\$9.90	\$9.25	\$9.21	\$0.00	\$71.77																																
	12/1/2026	\$44.85	\$9.90	\$9.25	\$9.21	\$0.00	\$73.21																																
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"																																							
FIELD ENG.INST.PERSON-BLDG,SITE,HVY/HWY	5/1/2025	\$53.22	\$15.30	\$13.15	\$3.25	\$0.00	\$84.92																																
OPERATING ENGINEERS LOCAL 4	11/1/2025	\$54.51	\$15.30	\$13.15	\$3.25	\$0.00	\$86.21																																
OPERATING ENGINEERS LOCAL 4	5/1/2026	\$55.95	\$15.30	\$13.15	\$3.25	\$0.00	\$87.65																																
	11/1/2026	\$57.24	\$15.30	\$13.15	\$3.25	\$0.00	\$88.94																																
	5/1/2027	\$58.67	\$15.30	\$13.15	\$3.25	\$0.00	\$90.37																																
For apprentice rates see "Apprentice- OPERATING ENGINEERS"																																							
FIELD ENG.PARTY CHIEF-BLDG,SITE,HVY/HWY	5/1/2025	\$54.82	\$15.30	\$13.15	\$3.25	\$0.00	\$86.52																																
OPERATING ENGINEERS LOCAL 4	11/1/2025	\$56.12	\$15.30	\$13.15	\$3.25	\$0.00	\$87.82																																
OPERATING ENGINEERS LOCAL 4	5/1/2026	\$57.57	\$15.30	\$13.15	\$3.25	\$0.00	\$89.27																																
	11/1/2026	\$58.87	\$15.30	\$13.15	\$3.25	\$0.00	\$90.57																																
	5/1/2027	\$60.32	\$15.30	\$13.15	\$3.25	\$0.00	\$92.02																																
For apprentice rates see "Apprentice- OPERATING ENGINEERS"																																							
FIELD ENG.ROD PERSON-BLDG,SITE,HVY/HWY	5/1/2025	\$26.22	\$15.30	\$13.15	\$3.25	\$0.00	\$57.92																																
OPERATING ENGINEERS LOCAL 4	11/1/2025	\$26.98	\$15.30	\$13.15	\$3.25	\$0.00	\$58.68																																
OPERATING ENGINEERS LOCAL 4	5/1/2026	\$27.83	\$15.30	\$13.15	\$3.25	\$0.00	\$59.53																																
	11/1/2026	\$28.59	\$15.30	\$13.15	\$3.25	\$0.00	\$60.29																																
	5/1/2027	\$29.44	\$15.30	\$13.15	\$3.25	\$0.00	\$61.14																																
For apprentice rates see "Apprentice- OPERATING ENGINEERS"																																							
FIRE ALARM INSTALLER	9/1/2024	\$47.05	\$13.99	\$14.04	\$5.18	\$0.00	\$80.26																																
ELECTRICIANS LOCAL 96	9/7/2025	\$48.16	\$14.98	\$14.30	\$5.30	\$0.00	\$82.74																																
ELECTRICIANS LOCAL 96	9/6/2026	\$49.38	\$15.96	\$14.57	\$5.43	\$0.00	\$85.34																																
For apprentice rates see "Apprentice- ELECTRICIAN"																																							
FIRE ALARM REPAIR / MAINT/COMMISSIONING	9/1/2024	\$47.05	\$13.99	\$14.04	\$5.18	\$0.00	\$80.26																																
ELECTRICIANS LOCAL 96	9/7/2025	\$48.16	\$14.98	\$14.30	\$5.30	\$0.00	\$82.74																																
ELECTRICIANS LOCAL 96	9/6/2026	\$49.38	\$15.96	\$14.57	\$5.43	\$0.00	\$85.34																																

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
FIREMAN (ASST. ENGINEER)	6/1/2025	\$47.02	\$15.55	\$13.25	\$3.25	\$0.00	\$79.07
OPERATING ENGINEERS LOCAL 4	12/1/2025	\$48.19	\$15.55	\$13.25	\$3.25	\$0.00	\$80.24
OPERATING ENGINEERS LOCAL 4	6/1/2026	\$49.25	\$15.55	\$13.25	\$3.25	\$0.00	\$81.30
	12/1/2026	\$50.43	\$15.55	\$13.25	\$3.25	\$0.00	\$82.48

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

FLAGGER & SIGNALER (HEAVY & HIGHWAY)	6/1/2025	\$28.09	\$9.90	\$9.25	\$9.21	\$0.00	\$56.45
LABORERS	12/1/2025	\$28.09	\$9.90	\$9.25	\$9.21	\$0.00	\$56.45
LABORERS - ZONE 2 (HEAVY & HIGHWAY)	6/1/2026	\$29.21	\$9.90	\$9.25	\$9.21	\$0.00	\$57.57
	12/1/2026	\$29.21	\$9.90	\$9.25	\$9.21	\$0.00	\$57.57

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

FLOORCOVERER	3/1/2024	\$49.47	\$8.83	\$11.47	\$8.80	\$0.00	\$78.57
FLOORCOVERERS LOCAL 2168							
FLOORCOVERERS LOCAL 2168 ZONE II							

Apprentice: FLOORCOVERER**Effective Date: 3/1/2024**

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$24.74	\$8.83	\$0.00	\$1.76	\$0.00	\$35.33
2	55.00	\$27.21	\$8.83	\$0.00	\$1.76	\$0.00	\$37.80
3	60.00	\$29.68	\$8.83	\$0.00	\$3.52	\$0.00	\$42.03
4	65.00	\$32.16	\$8.83	\$0.00	\$3.52	\$0.00	\$44.51
5	70.00	\$34.63	\$8.83	\$11.47	\$5.28	\$0.00	\$60.21
6	75.00	\$37.10	\$8.83	\$11.47	\$5.28	\$0.00	\$62.68
7	80.00	\$39.58	\$8.83	\$11.47	\$7.04	\$0.00	\$66.92
8	85.00	\$42.05	\$8.83	\$11.47	\$7.04	\$0.00	\$69.39

FORK LIFT/CHERRY PICKER	6/1/2025	\$58.33	\$15.55	\$13.25	\$3.25	\$0.00	\$90.38
OPERATING ENGINEERS LOCAL 4	12/1/2025	\$59.78	\$15.55	\$13.25	\$3.25	\$0.00	\$91.83
OPERATING ENGINEERS LOCAL 4	6/1/2026	\$61.08	\$15.55	\$13.25	\$3.25	\$0.00	\$93.13
	12/1/2026	\$62.53	\$15.55	\$13.25	\$3.25	\$0.00	\$94.58

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

GENERATOR/LIGHTING PLANT/HEATERS	6/1/2025	\$37.52	\$15.55	\$13.25	\$3.25	\$0.00	\$69.57
OPERATING ENGINEERS LOCAL 4	12/1/2025	\$38.47	\$15.55	\$13.25	\$3.25	\$0.00	\$70.52
OPERATING ENGINEERS LOCAL 4	6/1/2026	\$39.33	\$15.55	\$13.25	\$3.25	\$0.00	\$71.38
	12/1/2026	\$40.28	\$15.55	\$13.25	\$3.25	\$0.00	\$72.33

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

GLAZIER (GLASS PLANK/AIR BARRIER/INTERIOR SYSTEMS)	1/1/2025	\$47.96	\$9.95	\$11.85	\$12.10	\$0.00	\$81.86
GLAZIERS LOCAL 35							
GLAZIERS LOCAL 35 (ZONE 2)							

Apprentice: GLAZIER (GLASS PLANK/AIR BARRIER/INTERIOR SYSTEMS)**Effective Date: 1/1/2025**

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

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
Apprentice: GLAZIER (GLASS PLANK/AIR BARRIER/INTERIOR SYSTEMS)							
Effective Date: 1/1/2025							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$23.98	\$9.95	\$0.00	\$0.00	\$0.00	\$33.93
2	55.00	\$26.38	\$9.95	\$0.00	\$6.66	\$0.00	\$42.99
3	60.00	\$28.78	\$9.95	\$0.00	\$7.26	\$0.00	\$45.99
4	65.00	\$31.17	\$9.95	\$0.00	\$7.87	\$0.00	\$48.99
5	70.00	\$33.57	\$9.95	\$11.85	\$8.47	\$0.00	\$63.84
6	75.00	\$35.97	\$9.95	\$11.85	\$9.08	\$0.00	\$66.85
7	80.00	\$38.37	\$9.95	\$11.85	\$9.68	\$0.00	\$69.85
8	90.00	\$43.16	\$9.95	\$11.85	\$10.89	\$0.00	\$75.85
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HOISTING ENGINEER/CRANES/GRADALLS	6/1/2025	\$58.33	\$15.55	\$13.25	\$3.25	\$0.00	\$90.38
OPERATING ENGINEERS LOCAL 4	12/1/2025	\$59.78	\$15.55	\$13.25	\$3.25	\$0.00	\$91.83
OPERATING ENGINEERS LOCAL 4	6/1/2026	\$61.08	\$15.55	\$13.25	\$3.25	\$0.00	\$93.13
	12/1/2026	\$62.53	\$15.55	\$13.25	\$3.25	\$0.00	\$94.58

Apprentice: HOISTING ENGINEER/CRANES/GRADALLS							
Effective Date: 6/1/2025							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	55.00	\$32.08	\$0.00	\$0.00	\$0.00	\$0.00	\$32.08
2	60.00	\$35.00	\$15.55	\$13.25	\$3.25	\$0.00	\$67.05
3	65.00	\$37.91	\$15.55	\$13.25	\$3.25	\$0.00	\$69.96
4	70.00	\$40.83	\$15.55	\$13.25	\$3.25	\$0.00	\$72.88
5	75.00	\$43.75	\$15.55	\$13.25	\$3.25	\$0.00	\$75.80
6	80.00	\$46.66	\$15.55	\$13.25	\$3.25	\$0.00	\$78.71
7	85.00	\$49.58	\$15.55	\$13.25	\$3.25	\$0.00	\$81.63
8	90.00	\$52.50	\$15.55	\$13.25	\$3.25	\$0.00	\$84.55

Apprentice: HOISTING ENGINEER/CRANES/GRADALLS							
Effective Date: 12/1/2025							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	55.00	\$32.88	\$0.00	\$0.00	\$0.00	\$0.00	\$32.88
2	60.00	\$35.87	\$15.55	\$13.25	\$3.25	\$0.00	\$67.92
3	65.00	\$38.86	\$15.55	\$13.25	\$3.25	\$0.00	\$70.91
4	70.00	\$41.85	\$15.55	\$13.25	\$3.25	\$0.00	\$73.90
5	75.00	\$44.84	\$15.55	\$13.25	\$3.25	\$0.00	\$76.89
6	80.00	\$47.82	\$15.55	\$13.25	\$3.25	\$0.00	\$79.87
7	85.00	\$50.81	\$15.55	\$13.25	\$3.25	\$0.00	\$82.86
8	90.00	\$53.80	\$15.55	\$13.25	\$3.25	\$0.00	\$85.85

HVAC (DUCTWORK)	1/1/2025	\$42.23	\$12.20	\$10.79	\$7.95	\$2.13	\$75.30
SHEETMETAL WORKERS LOCAL 63							

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
SHEETMETAL WORKERS LOCAL 63							
For apprentice rates see "Apprentice- SHEET METAL WORKER"							
HVAC (ELECTRICAL CONTROLS)	9/1/2024	\$47.05	\$13.99	\$14.04	\$5.18	\$0.00	\$80.26
ELECTRICIANS LOCAL 96	9/7/2025	\$48.16	\$14.98	\$14.30	\$5.30	\$0.00	\$82.74
ELECTRICIANS LOCAL 96	9/6/2026	\$49.38	\$15.96	\$14.57	\$5.43	\$0.00	\$85.34
For apprentice rates see "Apprentice- ELECTRICIAN"							
HVAC (TESTING AND BALANCING - AIR)	1/1/2025	\$42.23	\$12.20	\$10.79	\$7.95	\$2.13	\$75.30
SHEETMETAL WORKERS LOCAL 63							
SHEETMETAL WORKERS LOCAL 63							
For apprentice rates see "Apprentice- SHEET METAL WORKER"							
HVAC (TESTING AND BALANCING -WATER)	3/1/2025	\$55.00	\$11.30	\$9.71	\$8.06	\$0.00	\$84.07
PLUMBERS LOCAL 4	9/1/2025	\$56.40	\$11.30	\$9.71	\$8.06	\$0.00	\$85.47
PLUMBERS LOCAL 4	3/1/2026	\$57.80	\$11.30	\$9.71	\$8.06	\$0.00	\$86.87
For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"							
HVAC MECHANIC	3/1/2025	\$55.00	\$11.30	\$9.71	\$8.06	\$0.00	\$84.07
PLUMBERS LOCAL 4	9/1/2025	\$56.40	\$11.30	\$9.71	\$8.06	\$0.00	\$85.47
PLUMBERS LOCAL 4	3/1/2026	\$57.80	\$11.30	\$9.71	\$8.06	\$0.00	\$86.87
For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"							
HYDRAULIC DRILLS	6/1/2025	\$41.09	\$9.90	\$9.25	\$9.11	\$0.00	\$69.35
LABORERS	12/1/2025	\$42.47	\$9.90	\$9.25	\$9.11	\$0.00	\$70.73
LABORERS - ZONE 2	6/1/2026	\$43.91	\$9.90	\$9.25	\$9.11	\$0.00	\$72.17
	12/1/2026	\$45.35	\$9.90	\$9.25	\$9.11	\$0.00	\$73.61
	6/1/2027	\$46.80	\$9.90	\$9.25	\$9.11	\$0.00	\$75.06
	12/1/2027	\$48.25	\$9.90	\$9.25	\$9.11	\$0.00	\$76.51
	6/1/2028	\$49.75	\$9.90	\$9.25	\$9.11	\$0.00	\$78.01
	12/1/2028	\$51.25	\$9.90	\$9.25	\$9.11	\$0.00	\$79.51
For apprentice rates see "Apprentice- LABORER"							
HYDRAULIC DRILLS (HEAVY & HIGHWAY)	6/1/2025	\$41.09	\$9.90	\$9.25	\$9.21	\$0.00	\$69.45
LABORERS	12/1/2025	\$42.47	\$9.90	\$9.25	\$9.21	\$0.00	\$70.83
LABORERS - ZONE 2 (HEAVY & HIGHWAY)	6/1/2026	\$43.91	\$9.90	\$9.25	\$9.21	\$0.00	\$72.27
	12/1/2026	\$45.35	\$9.90	\$9.25	\$9.21	\$0.00	\$73.71
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"							
INSULATOR (PIPES & TANKS)	9/1/2024	\$51.23	\$14.75	\$9.52	\$10.09	\$0.00	\$85.59
HEAT & FROST INSULATORS LOCAL 6	9/1/2025	\$54.31	\$14.75	\$9.52	\$10.09	\$0.00	\$88.67
HEAT & FROST INSULATORS LOCAL 6 (WORCESTER)	9/1/2026	\$57.38	\$14.75	\$9.52	\$10.09	\$0.00	\$91.74

Apprentice: INSULATOR (PIPES & TANKS)

Effective Date: 9/1/2024

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$25.62	\$14.75	\$9.27	\$5.05	\$0.00	\$54.69
2	60.00	\$30.74	\$14.75	\$9.32	\$6.05	\$0.00	\$60.86

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
Apprentice: INSULATOR (PIPES & TANKS) Effective Date: 9/1/2024							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
3	70.00	\$35.86	\$14.75	\$9.37	\$7.06	\$0.00	\$67.04
4	80.00	\$40.98	\$14.75	\$9.42	\$8.07	\$0.00	\$73.22
Apprentice: INSULATOR (PIPES & TANKS) Effective Date: 9/1/2025							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$27.16	\$14.75	\$9.27	\$5.05	\$0.00	\$56.23
2	60.00	\$32.59	\$14.75	\$9.32	\$6.05	\$0.00	\$62.71
3	70.00	\$38.02	\$14.75	\$9.37	\$7.06	\$0.00	\$69.20
4	80.00	\$43.45	\$14.75	\$9.42	\$8.07	\$0.00	\$75.69
IRONWORKER/WELDER	3/16/2024	\$53.67	\$8.35	\$12.70	\$14.00	\$0.00	\$88.72
IRONWORKERS LOCAL 7							
IRONWORKERS LOCAL 7 (WORCESTER AREA)							
Apprentice: IRONWORKER/WELDER Effective Date: 3/16/2024							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	60.00	\$32.20	\$8.35	\$12.70	\$14.00	\$0.00	\$67.25
2	70.00	\$37.57	\$8.35	\$12.70	\$14.00	\$0.00	\$72.62
3	75.00	\$40.25	\$8.35	\$12.70	\$14.00	\$0.00	\$75.30
4	80.00	\$42.94	\$8.35	\$12.70	\$14.00	\$0.00	\$77.99
5	85.00	\$45.62	\$8.35	\$12.70	\$14.00	\$0.00	\$80.67
6	90.00	\$48.30	\$8.35	\$12.70	\$14.00	\$0.00	\$83.35
JACKHAMMER & PAVING BREAKER OPERATOR	6/1/2025	\$40.59	\$9.90	\$9.25	\$9.11	\$0.00	\$68.85
LABORERS	12/1/2025	\$41.97	\$9.90	\$9.25	\$9.11	\$0.00	\$70.23
LABORERS - ZONE 2	6/1/2026	\$43.41	\$9.90	\$9.25	\$9.11	\$0.00	\$71.67
	12/1/2026	\$44.85	\$9.90	\$9.25	\$9.11	\$0.00	\$73.11
	6/1/2027	\$46.30	\$9.90	\$9.25	\$9.11	\$0.00	\$74.56
	12/1/2027	\$47.75	\$9.90	\$9.25	\$9.11	\$0.00	\$76.01
	6/1/2028	\$49.25	\$9.90	\$9.25	\$9.11	\$0.00	\$77.51
	12/1/2028	\$50.75	\$9.90	\$9.25	\$9.11	\$0.00	\$79.01
For apprentice rates see "Apprentice- LABORER"							
LABORER	6/1/2025	\$40.34	\$9.90	\$9.25	\$9.11	\$0.00	\$68.60
LABORERS	12/1/2025	\$41.72	\$9.90	\$9.25	\$9.11	\$0.00	\$69.98
LABORERS - ZONE 2	6/1/2026	\$43.16	\$9.90	\$9.25	\$9.11	\$0.00	\$71.42
	12/1/2026	\$44.60	\$9.90	\$9.25	\$9.11	\$0.00	\$72.86
	6/1/2027	\$46.05	\$9.90	\$9.25	\$9.11	\$0.00	\$74.31

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
	12/1/2027	\$47.50	\$9.90	\$9.25	\$9.11	\$0.00	\$75.76
	6/1/2028	\$49.00	\$9.90	\$9.25	\$9.11	\$0.00	\$77.26
	12/1/2028	\$50.50	\$9.90	\$9.25	\$9.11	\$0.00	\$78.76

Apprentice: LABORER							
Effective Date: 6/1/2025							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	60.00	\$24.20	\$9.90	\$9.25	\$9.11	\$0.00	\$52.46
2	70.00	\$28.24	\$9.90	\$9.25	\$9.11	\$0.00	\$56.50
3	80.00	\$32.27	\$9.90	\$9.25	\$9.11	\$0.00	\$60.53
4	90.00	\$36.31	\$9.90	\$9.25	\$9.11	\$0.00	\$64.57

Apprentice: LABORER							
Effective Date: 12/1/2025							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	60.00	\$25.03	\$9.90	\$9.25	\$9.11	\$0.00	\$53.29
2	70.00	\$29.20	\$9.90	\$9.25	\$9.11	\$0.00	\$57.46
3	80.00	\$33.38	\$9.90	\$9.25	\$9.11	\$0.00	\$61.64
4	90.00	\$37.55	\$9.90	\$9.25	\$9.11	\$0.00	\$65.81

LABORER (HEAVY & HIGHWAY)	6/1/2025	\$40.34	\$9.90	\$9.25	\$9.21	\$0.00	\$68.70
LABORERS	12/1/2025	\$41.72	\$9.90	\$9.25	\$9.21	\$0.00	\$70.08
LABORERS - ZONE 2 (HEAVY & HIGHWAY)	6/1/2026	\$43.16	\$9.90	\$9.25	\$9.21	\$0.00	\$71.52
	12/1/2026	\$44.60	\$9.90	\$9.25	\$9.21	\$0.00	\$72.96

Apprentice: LABORER (HEAVY & HIGHWAY)							
Effective Date: 6/1/2025							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	60.00	\$24.20	\$9.90	\$9.25	\$9.21	\$0.00	\$52.56
2	70.00	\$28.24	\$9.90	\$9.25	\$9.21	\$0.00	\$56.60
3	80.00	\$32.27	\$9.90	\$9.25	\$9.21	\$0.00	\$60.63
4	90.00	\$36.31	\$9.90	\$9.25	\$9.21	\$0.00	\$64.67

Apprentice: LABORER (HEAVY & HIGHWAY)							
Effective Date: 12/1/2025							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	60.00	\$25.03	\$9.90	\$9.25	\$9.21	\$0.00	\$53.39
2	70.00	\$29.20	\$9.90	\$9.25	\$9.21	\$0.00	\$57.56
3	80.00	\$33.38	\$9.90	\$9.25	\$9.21	\$0.00	\$61.74
4	90.00	\$37.55	\$9.90	\$9.25	\$9.21	\$0.00	\$65.91

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
LABORER: CARPENTER TENDER	6/1/2025	\$40.34	\$9.90	\$9.25	\$9.11	\$0.00	\$68.60
LABORERS	12/1/2025	\$41.72	\$9.90	\$9.25	\$9.11	\$0.00	\$69.98
LABORERS - ZONE 2	6/1/2026	\$43.16	\$9.90	\$9.25	\$9.11	\$0.00	\$71.42
	12/1/2026	\$44.60	\$9.90	\$9.25	\$9.11	\$0.00	\$72.86
	6/1/2027	\$46.05	\$9.90	\$9.25	\$9.11	\$0.00	\$74.31
	12/1/2027	\$47.50	\$9.90	\$9.25	\$9.11	\$0.00	\$75.76
	6/1/2028	\$49.00	\$9.90	\$9.25	\$9.11	\$0.00	\$77.26
	12/1/2028	\$50.50	\$9.90	\$9.25	\$9.11	\$0.00	\$78.76
For apprentice rates see "Apprentice- LABORER"							
LABORER: CEMENT FINISHER TENDER	6/1/2025	\$40.34	\$9.90	\$9.25	\$9.11	\$0.00	\$68.60
LABORERS	12/1/2025	\$41.72	\$9.90	\$9.25	\$9.11	\$0.00	\$69.98
LABORERS - ZONE 2	6/1/2026	\$43.16	\$9.90	\$9.25	\$9.11	\$0.00	\$71.42
	12/1/2026	\$44.60	\$9.90	\$9.25	\$9.11	\$0.00	\$72.86
	6/1/2027	\$46.05	\$9.90	\$9.25	\$9.11	\$0.00	\$74.31
	12/1/2027	\$47.50	\$9.90	\$9.25	\$9.11	\$0.00	\$75.76
	6/1/2028	\$49.00	\$9.90	\$9.25	\$9.11	\$0.00	\$77.26
	12/1/2028	\$50.50	\$9.90	\$9.25	\$9.11	\$0.00	\$78.76
For apprentice rates see "Apprentice- LABORER"							
LABORER: HAZARDOUS WASTE/ASBESTOS REMOVER	6/2/2025	\$40.43	\$9.90	\$9.25	\$9.17	\$0.00	\$68.75
LABORERS	12/1/2025	\$41.81	\$9.90	\$9.25	\$9.17	\$0.00	\$70.13
LABORERS - ZONE 2	6/1/2026	\$43.25	\$9.90	\$9.25	\$9.17	\$0.00	\$71.57
	12/7/2026	\$44.69	\$9.90	\$9.25	\$9.17	\$0.00	\$73.01
	6/7/2027	\$46.14	\$9.90	\$9.25	\$9.17	\$0.00	\$74.46
	12/6/2027	\$47.59	\$9.90	\$9.25	\$9.17	\$0.00	\$75.91
	6/5/2028	\$49.09	\$9.90	\$9.25	\$9.17	\$0.00	\$77.41
	12/4/2028	\$50.59	\$9.90	\$9.25	\$9.17	\$0.00	\$78.91
For apprentice rates see "Apprentice- LABORER"							
LABORER: MASON TENDER	6/1/2025	\$40.59	\$9.90	\$9.25	\$9.11	\$0.00	\$68.85
LABORERS	12/1/2025	\$41.97	\$9.90	\$9.25	\$9.11	\$0.00	\$70.23
LABORERS - ZONE 2	6/1/2026	\$43.41	\$9.90	\$9.25	\$9.11	\$0.00	\$71.67
	12/1/2026	\$44.85	\$9.90	\$9.25	\$9.11	\$0.00	\$73.11
	6/1/2027	\$46.30	\$9.90	\$9.25	\$9.11	\$0.00	\$74.56
	12/1/2027	\$47.75	\$9.90	\$9.25	\$9.11	\$0.00	\$76.01
	6/1/2028	\$49.25	\$9.90	\$9.25	\$9.11	\$0.00	\$77.51
	12/1/2028	\$50.75	\$9.90	\$9.25	\$9.11	\$0.00	\$79.01
For apprentice rates see "Apprentice- LABORER"							
LABORER: MASON TENDER (HEAVY & HIGHWAY)	6/1/2025	\$40.59	\$9.90	\$9.25	\$9.21	\$0.00	\$68.95
LABORERS	12/1/2025	\$41.97	\$9.90	\$9.25	\$9.21	\$0.00	\$70.33
LABORERS - ZONE 2 (HEAVY & HIGHWAY)	6/1/2026	\$43.41	\$9.90	\$9.25	\$9.21	\$0.00	\$71.77
	12/1/2026	\$44.85	\$9.90	\$9.25	\$9.21	\$0.00	\$73.21
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"							
LABORER: MULTI-TRADE TENDER	6/1/2025	\$40.34	\$9.90	\$9.25	\$9.11	\$0.00	\$68.60
LABORERS	12/1/2025	\$41.72	\$9.90	\$9.25	\$9.11	\$0.00	\$69.98
LABORERS - ZONE 2	6/1/2026	\$43.16	\$9.90	\$9.25	\$9.11	\$0.00	\$71.42
	12/1/2026	\$44.60	\$9.90	\$9.25	\$9.11	\$0.00	\$72.86

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
	6/1/2027	\$46.05	\$9.90	\$9.25	\$9.11	\$0.00	\$74.31
	12/1/2027	\$47.50	\$9.90	\$9.25	\$9.11	\$0.00	\$75.76
	6/1/2028	\$49.00	\$9.90	\$9.25	\$9.11	\$0.00	\$77.26
	12/1/2028	\$50.50	\$9.90	\$9.25	\$9.11	\$0.00	\$78.76

For apprentice rates see "Apprentice- LABORER"

LABORER: TREE REMOVER	6/1/2025	\$40.34	\$9.90	\$9.25	\$9.11	\$0.00	\$68.60
LABORERS	12/1/2025	\$41.72	\$9.90	\$9.25	\$9.11	\$0.00	\$69.98
LABORERS - ZONE 2	6/1/2026	\$43.16	\$9.90	\$9.25	\$9.11	\$0.00	\$71.42
	12/1/2026	\$44.60	\$9.90	\$9.25	\$9.11	\$0.00	\$72.86
	6/1/2027	\$46.05	\$9.90	\$9.25	\$9.11	\$0.00	\$74.31
	12/1/2027	\$47.50	\$9.90	\$9.25	\$9.11	\$0.00	\$75.76
	6/1/2028	\$49.00	\$9.90	\$9.25	\$9.11	\$0.00	\$77.26
	12/1/2028	\$50.50	\$9.90	\$9.25	\$9.11	\$0.00	\$78.76

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

LASER BEAM OPERATOR	6/1/2025	\$40.59	\$9.90	\$9.25	\$9.11	\$0.00	\$68.85
LABORERS	12/1/2025	\$41.97	\$9.90	\$9.25	\$9.11	\$0.00	\$70.23
LABORERS - ZONE 2	6/1/2026	\$43.41	\$9.90	\$9.25	\$9.11	\$0.00	\$71.67
	12/1/2026	\$44.85	\$9.90	\$9.25	\$9.11	\$0.00	\$73.11
	6/1/2027	\$46.30	\$9.90	\$9.25	\$9.11	\$0.00	\$74.56
	12/1/2027	\$47.75	\$9.90	\$9.25	\$9.11	\$0.00	\$76.01
	6/1/2028	\$49.25	\$9.90	\$9.25	\$9.11	\$0.00	\$77.51
	12/1/2028	\$50.75	\$9.90	\$9.25	\$9.11	\$0.00	\$79.01

For apprentice rates see "Apprentice- LABORER"

LASER BEAM OPERATOR (HEAVY & HIGHWAY)	6/1/2025	\$40.59	\$9.90	\$9.25	\$9.21	\$0.00	\$68.95
LABORERS	12/1/2025	\$41.97	\$9.90	\$9.25	\$9.21	\$0.00	\$70.33
LABORERS - ZONE 2 (HEAVY & HIGHWAY)	6/1/2026	\$43.41	\$9.90	\$9.25	\$9.21	\$0.00	\$71.77
	12/1/2026	\$44.85	\$9.90	\$9.25	\$9.21	\$0.00	\$73.21

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

MARBLE & TILE FINISHERS	2/1/2025	\$50.36	\$11.49	\$15.57	\$6.05	\$0.00	\$83.47
BRICKLAYERS LOCAL 3	8/1/2025	\$52.08	\$11.49	\$15.57	\$6.05	\$0.00	\$85.19
BRICKLAYERS LOCAL 3 - MARBLE & TILE	2/1/2026	\$53.16	\$11.49	\$15.57	\$6.05	\$0.00	\$86.27
	8/1/2026	\$54.92	\$11.49	\$15.57	\$6.05	\$0.00	\$88.03
	2/1/2027	\$56.04	\$11.49	\$15.57	\$6.05	\$0.00	\$89.15

Apprentice: MARBLE & TILE FINISHERS

Effective Date: 2/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$25.18	\$11.49	\$15.57	\$6.05	\$0.00	\$58.29
2	60.00	\$30.22	\$11.49	\$15.57	\$6.05	\$0.00	\$63.33
3	70.00	\$35.25	\$11.49	\$15.57	\$6.05	\$0.00	\$68.36
4	80.00	\$40.29	\$11.49	\$15.57	\$6.05	\$0.00	\$73.40
5	90.00	\$45.32	\$11.49	\$15.57	\$6.05	\$0.00	\$78.43

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
Apprentice: MARBLE & TILE FINISHERS Effective Date: 8/1/2025							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$26.04	\$11.49	\$15.57	\$6.05	\$0.00	\$59.15
2	60.00	\$31.25	\$11.49	\$15.57	\$6.05	\$0.00	\$64.36
3	70.00	\$36.46	\$11.49	\$15.57	\$6.05	\$0.00	\$69.57
4	80.00	\$41.66	\$11.49	\$15.57	\$6.05	\$0.00	\$74.77
5	90.00	\$46.87	\$11.49	\$15.57	\$6.05	\$0.00	\$79.98
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MARBLE MASONS,TILELAYERS & TERRAZZO MECH	2/1/2025	\$65.82	\$11.49	\$15.57	\$7.99	\$0.00	\$100.87
BRICKLAYERS LOCAL 3	8/1/2025	\$67.97	\$11.49	\$15.57	\$7.99	\$0.00	\$103.02
BRICKLAYERS LOCAL 3 - MARBLE & TILE	2/1/2026	\$69.32	\$11.49	\$15.57	\$7.99	\$0.00	\$104.37
	8/1/2026	\$71.52	\$11.49	\$15.57	\$7.99	\$0.00	\$106.57
	2/1/2027	\$72.92	\$11.49	\$15.57	\$7.99	\$0.00	\$107.97
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Apprentice: MARBLE MASONS,TILELAYERS & TERRAZZO MECH Effective Date: 2/1/2025							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$32.91	\$11.49	\$15.57	\$7.99	\$0.00	\$67.96
2	60.00	\$39.49	\$11.49	\$15.57	\$7.99	\$0.00	\$74.54
3	70.00	\$46.07	\$11.49	\$15.57	\$7.99	\$0.00	\$81.12
4	80.00	\$52.66	\$11.49	\$15.57	\$7.99	\$0.00	\$87.71
5	90.00	\$59.24	\$11.49	\$15.57	\$7.99	\$0.00	\$94.29
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Apprentice: MARBLE MASONS,TILELAYERS & TERRAZZO MECH Effective Date: 8/1/2025							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$33.99	\$11.49	\$15.57	\$7.99	\$0.00	\$69.04
2	60.00	\$40.78	\$11.49	\$15.57	\$7.99	\$0.00	\$75.83
3	70.00	\$47.58	\$11.49	\$15.57	\$7.99	\$0.00	\$82.63
4	80.00	\$54.38	\$11.49	\$15.57	\$7.99	\$0.00	\$89.43
5	90.00	\$61.17	\$11.49	\$15.57	\$7.99	\$0.00	\$96.22
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MECH. SWEEPER OPERATOR (ON CONST. SITES)	6/1/2025	\$57.68	\$15.55	\$13.25	\$3.25	\$0.00	\$89.73
OPERATING ENGINEERS LOCAL 4	12/1/2025	\$59.12	\$15.55	\$13.25	\$3.25	\$0.00	\$91.17
OPERATING ENGINEERS LOCAL 4	6/1/2026	\$60.40	\$15.55	\$13.25	\$3.25	\$0.00	\$92.45
	12/1/2026	\$61.84	\$15.55	\$13.25	\$3.25	\$0.00	\$93.89
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
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MECHANICS MAINTENANCE	6/1/2025	\$57.68	\$15.55	\$13.25	\$3.25	\$0.00	\$89.73
OPERATING ENGINEERS LOCAL 4	12/1/2025	\$59.12	\$15.55	\$13.25	\$3.25	\$0.00	\$91.17
OPERATING ENGINEERS LOCAL 4	6/1/2026	\$60.40	\$15.55	\$13.25	\$3.25	\$0.00	\$92.45

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
	12/1/2026	\$61.84	\$15.55	\$13.25	\$3.25	\$0.00	\$93.89

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

MILLWRIGHT (Zone 3)	1/6/2025	\$43.48	\$10.08	\$11.47	\$9.75	\$0.00	\$74.78
MILLWRIGHTS LOCAL 1121	1/5/2026	\$45.76	\$10.08	\$11.47	\$9.75	\$0.00	\$77.06
MILLWRIGHTS LOCAL 1121 - Zone 3							

Apprentice: MILLWRIGHT (Zone 3)**Effective Date: 1/6/2025**

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	55.00	\$23.91	\$10.08	\$0.00	\$5.36	\$0.00	\$39.35
2	65.00	\$28.26	\$10.08	\$0.00	\$6.34	\$0.00	\$44.68
3	75.00	\$32.61	\$10.08	\$11.47	\$7.31	\$0.00	\$61.47
4	85.00	\$36.96	\$10.08	\$11.47	\$8.29	\$0.00	\$66.80

Apprentice: MILLWRIGHT (Zone 3)**Effective Date: 1/5/2026**

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	55.00	\$25.17	\$10.08	\$0.00	\$5.36	\$0.00	\$40.61
2	65.00	\$29.74	\$10.08	\$0.00	\$6.34	\$0.00	\$46.16
3	75.00	\$34.32	\$10.08	\$11.47	\$7.31	\$0.00	\$63.18
4	85.00	\$38.90	\$10.08	\$11.47	\$8.29	\$0.00	\$68.74

MORTAR MIXER	6/1/2025	\$40.59	\$9.90	\$9.25	\$9.11	\$0.00	\$68.85
LABORERS	12/1/2025	\$41.97	\$9.90	\$9.25	\$9.11	\$0.00	\$70.23
LABORERS - ZONE 2	6/1/2026	\$43.41	\$9.90	\$9.25	\$9.11	\$0.00	\$71.67
	12/1/2026	\$44.85	\$9.90	\$9.25	\$9.11	\$0.00	\$73.11
	6/1/2027	\$46.30	\$9.90	\$9.25	\$9.11	\$0.00	\$74.56
	12/1/2027	\$47.75	\$9.90	\$9.25	\$9.11	\$0.00	\$76.01
	6/1/2028	\$49.25	\$9.90	\$9.25	\$9.11	\$0.00	\$77.51
	12/1/2028	\$50.75	\$9.90	\$9.25	\$9.11	\$0.00	\$79.01

For apprentice rates see "Apprentice- LABORER"

OILER (OTHER THAN TRUCK CRANES, GRADALLS)	6/1/2025	\$25.97	\$15.30	\$13.15	\$3.25	\$0.00	\$57.67
OPERATING ENGINEERS LOCAL 4	12/1/2025	\$26.63	\$15.30	\$13.15	\$3.25	\$0.00	\$58.33
OPERATING ENGINEERS LOCAL 4	6/1/2026	\$27.22	\$15.30	\$13.15	\$3.25	\$0.00	\$58.92
	12/1/2026	\$27.89	\$15.30	\$13.15	\$3.25	\$0.00	\$59.59

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

OILER (TRUCK CRANES, GRADALLS)	6/1/2025	\$31.80	\$15.30	\$13.15	\$3.25	\$0.00	\$63.50
OPERATING ENGINEERS LOCAL 4	12/1/2025	\$32.60	\$15.30	\$13.15	\$3.25	\$0.00	\$64.30
OPERATING ENGINEERS LOCAL 4	6/1/2026	\$33.32	\$15.30	\$13.15	\$3.25	\$0.00	\$65.02
	12/1/2026	\$34.12	\$15.30	\$13.15	\$3.25	\$0.00	\$65.82

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

OTHER POWER DRIVEN EQUIPMENT - CLASS II	6/1/2025	\$57.68	\$15.55	\$13.25	\$3.25	\$0.00	\$89.73
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Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
OPERATING ENGINEERS LOCAL 4	12/1/2025	\$59.12	\$15.55	\$13.25	\$3.25	\$0.00	\$91.17
OPERATING ENGINEERS LOCAL 4	6/1/2026	\$60.40	\$15.55	\$13.25	\$3.25	\$0.00	\$92.45
	12/1/2026	\$61.84	\$15.55	\$13.25	\$3.25	\$0.00	\$93.89

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

PAINTER (BRIDGES/TANKS)	1/1/2025	\$58.46	\$9.95	\$11.85	\$12.10	\$0.00	\$92.36
PAINTERS LOCAL 35							
PAINTERS LOCAL 35 - ZONE 2							

Apprentice: PAINTER (BRIDGES/TANKS)**Effective Date: 1/1/2025**

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$29.23	\$9.95	\$0.00	\$0.00	\$0.00	\$39.18
2	55.00	\$32.15	\$9.95	\$0.00	\$6.66	\$0.00	\$48.76
3	60.00	\$35.08	\$9.95	\$0.00	\$7.26	\$0.00	\$52.29
4	65.00	\$38.00	\$9.95	\$0.00	\$7.87	\$0.00	\$55.82
5	70.00	\$40.92	\$9.95	\$11.85	\$8.47	\$0.00	\$71.19
6	75.00	\$43.85	\$9.95	\$11.85	\$9.08	\$0.00	\$74.73
7	80.00	\$46.77	\$9.95	\$11.85	\$9.68	\$0.00	\$78.25
8	90.00	\$52.61	\$9.95	\$11.85	\$10.89	\$0.00	\$85.30

PAINTER (SPRAY OR SANDBLAST, NEW) *	1/1/2025	\$49.36	\$9.95	\$11.85	\$12.10	\$0.00	\$83.26
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* If 30% or more of surfaces to be painted are new construction,
NEW paint rate shall be used.

PAINTERS LOCAL 35
PAINTERS LOCAL 35 - ZONE 2

Apprentice: PAINTER (SPRAY OR SANDBLAST, NEW) ***Effective Date: 1/1/2025**

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$24.68	\$9.95	\$0.00	\$0.00	\$0.00	\$34.63
2	55.00	\$27.15	\$9.95	\$0.00	\$6.66	\$0.00	\$43.76
3	60.00	\$29.62	\$9.95	\$0.00	\$7.26	\$0.00	\$46.83
4	65.00	\$32.08	\$9.95	\$0.00	\$7.87	\$0.00	\$49.90
5	70.00	\$34.55	\$9.95	\$11.85	\$8.47	\$0.00	\$64.82
6	75.00	\$37.02	\$9.95	\$11.85	\$9.08	\$0.00	\$67.90
7	80.00	\$39.49	\$9.95	\$11.85	\$9.68	\$0.00	\$70.97
8	90.00	\$44.42	\$9.95	\$11.85	\$10.89	\$0.00	\$77.11

PAINTER (SPRAY OR SANDBLAST, REPAINT)	1/1/2025	\$47.42	\$9.95	\$11.85	\$12.10	\$0.00	\$81.32
PAINTERS LOCAL 35							
PAINTERS LOCAL 35 - ZONE 2							

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
Apprentice: PAINTER (SPRAY OR SANDBLAST, REPAINT)							
Effective Date: 1/1/2025							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$23.71	\$9.95	\$0.00	\$0.00	\$0.00	\$33.66
2	55.00	\$26.08	\$9.95	\$0.00	\$6.66	\$0.00	\$42.69
3	60.00	\$28.45	\$9.95	\$0.00	\$7.26	\$0.00	\$45.66
4	65.00	\$30.82	\$9.95	\$0.00	\$7.87	\$0.00	\$48.64
5	70.00	\$33.19	\$9.95	\$11.85	\$8.47	\$0.00	\$63.46
6	75.00	\$35.57	\$9.95	\$11.85	\$9.08	\$0.00	\$66.45
7	80.00	\$37.94	\$9.95	\$11.85	\$9.68	\$0.00	\$69.42
8	90.00	\$42.68	\$9.95	\$11.85	\$10.89	\$0.00	\$75.37

PAINTER / TAPER (BRUSH, NEW) * 1/1/2025 \$47.96 \$9.95 \$11.85 \$12.10 \$0.00 \$81.86

* If 30% or more of surfaces to be painted are new construction,
NEW paint rate shall be used.

PAINTERS LOCAL 35

PAINTERS LOCAL 35 - ZONE 2

Apprentice: PAINTER / TAPER (BRUSH, NEW) *							
Effective Date: 1/1/2025							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$23.98	\$9.95	\$0.00	\$0.00	\$0.00	\$33.93
2	55.00	\$26.38	\$9.95	\$0.00	\$6.66	\$0.00	\$42.99
3	60.00	\$28.78	\$9.95	\$0.00	\$7.26	\$0.00	\$45.99
4	65.00	\$31.17	\$9.95	\$0.00	\$7.87	\$0.00	\$48.99
5	70.00	\$33.57	\$9.95	\$11.85	\$8.47	\$0.00	\$63.84
6	75.00	\$35.97	\$9.95	\$11.85	\$9.08	\$0.00	\$66.85
7	80.00	\$38.37	\$9.95	\$11.85	\$9.68	\$0.00	\$69.85
8	90.00	\$43.16	\$9.95	\$11.85	\$10.89	\$0.00	\$75.85

PAINTER / TAPER (BRUSH, REPAINT) 1/1/2025 \$46.02 \$9.95 \$11.85 \$12.10 \$0.00 \$79.92

PAINTERS LOCAL 35

PAINTERS LOCAL 35 - ZONE 2

Apprentice: PAINTER / TAPER (BRUSH, REPAINT)							
Effective Date: 1/1/2025							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$23.01	\$9.95	\$0.00	\$0.00	\$0.00	\$32.96
2	55.00	\$25.31	\$9.95	\$0.00	\$6.66	\$0.00	\$41.92
3	60.00	\$27.61	\$9.95	\$0.00	\$7.26	\$0.00	\$44.82
4	65.00	\$29.91	\$9.95	\$0.00	\$7.87	\$0.00	\$47.73
5	70.00	\$32.21	\$9.95	\$11.85	\$8.47	\$0.00	\$62.48
6	75.00	\$34.52	\$9.95	\$11.85	\$9.08	\$0.00	\$65.40

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
Apprentice: PAINTER / TAPER (BRUSH, REPAINT) Effective Date: 1/1/2025							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
7	80.00	\$36.82	\$9.95	\$11.85	\$9.68	\$0.00	\$68.30
8	90.00	\$41.42	\$9.95	\$11.85	\$10.89	\$0.00	\$74.11
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PAINTER TRAFFIC MARKINGS (HEAVY/HIGHWAY)	6/1/2025	\$40.34	\$9.90	\$9.25	\$9.21	\$0.00	\$68.70
LABORERS	12/1/2025	\$41.72	\$9.90	\$9.25	\$9.21	\$0.00	\$70.08
LABORERS - ZONE 2 (HEAVY & HIGHWAY)	6/1/2026	\$43.16	\$9.90	\$9.25	\$9.21	\$0.00	\$71.52
	12/1/2026	\$44.60	\$9.90	\$9.25	\$9.21	\$0.00	\$72.96
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)							
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PANEL & PICKUP TRUCKS DRIVER	6/1/2025	\$40.78	\$15.57	\$20.17	\$0.00	\$0.00	\$76.52
TEAMSTERS JOINT COUNCIL NO. 10	12/1/2025	\$40.78	\$15.57	\$21.78	\$0.00	\$0.00	\$78.13
TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	1/1/2026	\$40.78	\$16.17	\$21.78	\$0.00	\$0.00	\$78.73
	6/1/2026	\$41.78	\$16.17	\$21.78	\$0.00	\$0.00	\$79.73
	12/1/2026	\$41.78	\$16.17	\$23.52	\$0.00	\$0.00	\$81.47
	1/1/2027	\$41.78	\$16.77	\$23.52	\$0.00	\$0.00	\$82.07
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PIER AND DOCK CONSTRUCTOR (UNDERPINNING AND DECK)	8/1/2024	\$51.97	\$10.08	\$11.62	\$12.67	\$0.00	\$86.34
PILE DRIVER LOCAL 56							
PILE DRIVER LOCAL 56 (ZONE 2)							
For apprentice rates see "Apprentice- PILE DRIVER"							
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PILE DRIVER	8/1/2024	\$51.97	\$10.08	\$11.62	\$12.67	\$0.00	\$86.34
PILE DRIVER LOCAL 56							
PILE DRIVER LOCAL 56 (ZONE 2)							
Apprentice: PILE DRIVER Effective Date: 8/1/2024							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	45.00	\$23.39	\$10.08	\$0.00	\$2.53	\$0.00	\$36.00
2	55.00	\$28.58	\$10.08	\$0.00	\$5.07	\$0.00	\$43.73
3	70.00	\$36.38	\$10.08	\$11.62	\$7.60	\$0.00	\$65.68
4	80.00	\$41.58	\$10.08	\$11.62	\$10.14	\$0.00	\$73.42
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PIPELAYER	6/1/2025	\$40.59	\$9.90	\$9.25	\$9.11	\$0.00	\$68.85
LABORERS	12/1/2025	\$41.97	\$9.90	\$9.25	\$9.11	\$0.00	\$70.23
LABORERS - ZONE 2	6/1/2026	\$43.41	\$9.90	\$9.25	\$9.11	\$0.00	\$71.67
	12/1/2026	\$44.85	\$9.90	\$9.25	\$9.11	\$0.00	\$73.11
	6/1/2027	\$46.30	\$9.90	\$9.25	\$9.11	\$0.00	\$74.56
	12/1/2027	\$47.75	\$9.90	\$9.25	\$9.11	\$0.00	\$76.01
	6/1/2028	\$49.25	\$9.90	\$9.25	\$9.11	\$0.00	\$77.51
	12/1/2028	\$50.75	\$9.90	\$9.25	\$9.11	\$0.00	\$79.01
For apprentice rates see "Apprentice- LABORER"							

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
PIPELAYER (HEAVY & HIGHWAY)	6/1/2025	\$40.59	\$9.90	\$9.25	\$9.21	\$0.00	\$68.95
LABORERS	12/1/2025	\$41.97	\$9.90	\$9.25	\$9.21	\$0.00	\$70.33
LABORERS - ZONE 2 (HEAVY & HIGHWAY)	6/1/2026	\$43.41	\$9.90	\$9.25	\$9.21	\$0.00	\$71.77
	12/1/2026	\$44.85	\$9.90	\$9.25	\$9.21	\$0.00	\$73.21

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

PLUMBER & PIPEFITTER	3/1/2025	\$55.00	\$11.30	\$9.71	\$8.06	\$0.00	\$84.07
PLUMBERS LOCAL 4	9/1/2025	\$56.40	\$11.30	\$9.71	\$8.06	\$0.00	\$85.47
PLUMBERS LOCAL 4	3/1/2026	\$57.80	\$11.30	\$9.71	\$8.06	\$0.00	\$86.87

Apprentice: PLUMBER & PIPEFITTER

Effective Date: 3/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	40.00	\$22.00	\$11.30	\$0.00	\$0.00	\$0.00	\$33.30
2	50.00	\$27.50	\$11.30	\$0.00	\$0.00	\$0.00	\$38.80
3	60.00	\$33.00	\$11.30	\$0.00	\$0.00	\$0.00	\$44.30
4	70.00	\$38.50	\$11.30	\$0.00	\$8.06	\$0.00	\$57.86
5	80.00	\$44.00	\$11.30	\$0.00	\$8.06	\$0.00	\$63.36

Apprentice: PLUMBER & PIPEFITTER

Effective Date: 9/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	40.00	\$22.56	\$11.30	\$0.00	\$0.00	\$0.00	\$33.86
2	50.00	\$28.20	\$11.30	\$0.00	\$0.00	\$0.00	\$39.50
3	60.00	\$33.84	\$11.30	\$0.00	\$0.00	\$0.00	\$45.14
4	70.00	\$39.48	\$11.30	\$0.00	\$8.06	\$0.00	\$58.84
5	80.00	\$45.12	\$11.30	\$0.00	\$8.06	\$0.00	\$64.48

PNEUMATIC CONTROLS (TEMP.)	3/1/2025	\$55.00	\$11.30	\$9.71	\$8.06	\$0.00	\$84.07
PLUMBERS LOCAL 4	9/1/2025	\$56.40	\$11.30	\$9.71	\$8.06	\$0.00	\$85.47
PLUMBERS LOCAL 4	3/1/2026	\$57.80	\$11.30	\$9.71	\$8.06	\$0.00	\$86.87

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

PNEUMATIC DRILL/TOOL OPERATOR	6/1/2025	\$41.09	\$9.90	\$9.25	\$8.29	\$0.00	\$68.53
LABORERS	12/1/2025	\$42.47	\$9.90	\$9.25	\$8.29	\$0.00	\$69.91
LABORERS - ZONE 2	6/1/2026	\$43.91	\$9.90	\$9.25	\$8.29	\$0.00	\$71.35
	12/1/2026	\$45.35	\$9.90	\$9.25	\$8.29	\$0.00	\$72.79
	6/1/2027	\$46.80	\$9.90	\$9.25	\$8.29	\$0.00	\$74.24
	12/1/2027	\$48.25	\$9.90	\$9.25	\$8.29	\$0.00	\$75.69
	6/1/2028	\$49.75	\$9.90	\$9.25	\$8.29	\$0.00	\$77.19
	12/1/2028	\$51.25	\$9.90	\$9.25	\$8.29	\$0.00	\$78.69

For apprentice rates see "Apprentice- LABORER"

PNEUMATIC DRILL/TOOL OPERATOR (HEAVY & HIGHWAY)	6/1/2025	\$40.59	\$9.90	\$9.25	\$9.21	\$0.00	\$68.95
LABORERS	12/1/2025	\$41.97	\$9.90	\$9.25	\$9.21	\$0.00	\$70.33

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
LABORERS - ZONE 2 (HEAVY & HIGHWAY)	6/1/2026	\$43.41	\$9.90	\$9.25	\$9.21	\$0.00	\$71.77
	12/1/2026	\$44.85	\$9.90	\$9.25	\$9.21	\$0.00	\$73.21
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"							
POWDERMAN & BLASTER	6/1/2025	\$41.34	\$9.90	\$9.25	\$9.11	\$0.00	\$69.60
LABORERS	12/1/2025	\$42.72	\$9.90	\$9.25	\$9.11	\$0.00	\$70.98
LABORERS - ZONE 2	6/1/2026	\$44.16	\$9.90	\$9.25	\$9.11	\$0.00	\$72.42
	12/1/2026	\$45.60	\$9.90	\$9.25	\$9.11	\$0.00	\$73.86
	6/1/2027	\$47.05	\$9.90	\$9.25	\$9.11	\$0.00	\$75.31
	12/1/2027	\$48.50	\$9.90	\$9.25	\$9.11	\$0.00	\$76.76
	6/1/2028	\$50.00	\$9.90	\$9.25	\$9.11	\$0.00	\$78.26
	12/1/2028	\$51.50	\$9.90	\$9.25	\$9.11	\$0.00	\$79.76
For apprentice rates see "Apprentice- LABORER"							
POWDERMAN & BLASTER (HEAVY & HIGHWAY)	6/1/2025	\$41.34	\$9.65	\$9.25	\$9.21	\$0.00	\$69.45
LABORERS	12/1/2025	\$42.72	\$9.65	\$9.25	\$9.21	\$0.00	\$70.83
LABORERS - ZONE 2 (HEAVY & HIGHWAY)	6/1/2026	\$44.16	\$9.65	\$9.25	\$9.21	\$0.00	\$72.27
	12/1/2026	\$45.60	\$9.65	\$9.25	\$9.21	\$0.00	\$73.71
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"							
POWER SHOVEL/DERRICK/TRENCHING MACHINE	6/1/2025	\$58.33	\$15.55	\$13.25	\$3.25	\$0.00	\$90.38
OPERATING ENGINEERS LOCAL 4	12/1/2025	\$59.78	\$15.55	\$13.25	\$3.25	\$0.00	\$91.83
OPERATING ENGINEERS LOCAL 4	6/1/2026	\$61.08	\$15.55	\$13.25	\$3.25	\$0.00	\$93.13
	12/1/2026	\$62.53	\$15.55	\$13.25	\$3.25	\$0.00	\$94.58
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
PUMP OPERATOR (CONCRETE)	6/1/2025	\$57.68	\$15.55	\$13.25	\$3.25	\$0.00	\$89.73
OPERATING ENGINEERS LOCAL 4	12/1/2025	\$59.12	\$15.55	\$13.25	\$3.25	\$0.00	\$91.17
OPERATING ENGINEERS LOCAL 4	6/1/2026	\$60.40	\$15.55	\$13.25	\$3.25	\$0.00	\$92.45
	12/1/2026	\$61.84	\$15.55	\$13.25	\$3.25	\$0.00	\$93.89
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
PUMP OPERATOR (DEWATERING, OTHER)	6/1/2025	\$37.52	\$15.55	\$13.25	\$3.25	\$0.00	\$69.57
OPERATING ENGINEERS LOCAL 4	12/1/2025	\$38.47	\$15.55	\$13.25	\$3.25	\$0.00	\$70.52
OPERATING ENGINEERS LOCAL 4	6/1/2026	\$39.33	\$15.55	\$13.25	\$3.25	\$0.00	\$71.38
	12/1/2026	\$40.28	\$15.55	\$13.25	\$3.25	\$0.00	\$72.33
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
READY-MIX CONCRETE DRIVER	1/1/2025	\$27.60	\$11.26	\$6.15	\$0.00	\$0.00	\$45.01
TEAMSTERS 170							
TEAMSTERS 170 - Dauphinais (Bellingham)							
RECLAIMERS	6/1/2025	\$57.68	\$15.55	\$13.25	\$3.25	\$0.00	\$89.73
OPERATING ENGINEERS LOCAL 4	12/1/2025	\$59.12	\$15.55	\$13.25	\$3.25	\$0.00	\$91.17
OPERATING ENGINEERS LOCAL 4	6/1/2026	\$60.40	\$15.55	\$13.25	\$3.25	\$0.00	\$92.45
	12/1/2026	\$61.84	\$15.55	\$13.25	\$3.25	\$0.00	\$93.89
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
RIDE-ON MOTORIZED BUGGY OPERATOR	6/1/2025	\$40.59	\$9.90	\$9.25	\$9.11	\$0.00	\$68.85
LABORERS	12/1/2025	\$41.97	\$9.90	\$9.25	\$9.11	\$0.00	\$70.23
LABORERS - ZONE 2	6/1/2026	\$43.41	\$9.90	\$9.25	\$9.11	\$0.00	\$71.67

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
	12/1/2026	\$44.85	\$9.90	\$9.25	\$9.11	\$0.00	\$73.11
	6/1/2027	\$46.30	\$9.90	\$9.25	\$9.11	\$0.00	\$74.56
	12/1/2027	\$47.75	\$9.90	\$9.25	\$9.11	\$0.00	\$76.01
	6/1/2028	\$49.25	\$9.90	\$9.25	\$9.11	\$0.00	\$77.51
	12/1/2028	\$50.75	\$9.90	\$9.25	\$9.11	\$0.00	\$79.01

For apprentice rates see "Apprentice- LABORER"

ROLLER/SPREADER/MULCHING MACHINE	6/1/2025	\$57.68	\$15.55	\$13.25	\$3.25	\$0.00	\$89.73
OPERATING ENGINEERS LOCAL 4	12/1/2025	\$59.12	\$15.55	\$13.25	\$3.25	\$0.00	\$91.17
OPERATING ENGINEERS LOCAL 4	6/1/2026	\$60.40	\$15.55	\$13.25	\$3.25	\$0.00	\$92.45
	12/1/2026	\$61.84	\$15.55	\$13.25	\$3.25	\$0.00	\$93.89

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

ROOFER (Inc.Roofers Waterproofing &Roofers Damproofg)	2/1/2025	\$52.03	\$13.28	\$12.67	\$9.03	\$0.00	\$87.01
ROOFERS LOCAL 33	8/1/2025	\$53.53	\$13.28	\$12.67	\$9.03	\$0.00	\$88.51
ROOFERS LOCAL 33	2/1/2026	\$54.78	\$13.28	\$12.67	\$9.03	\$0.00	\$89.76

Apprentice: ROOFER (Inc.Roofers Waterproofing &Roofers Damproofg)**Effective Date: 2/1/2025**

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$26.02	\$13.28	\$6.52	\$9.03	\$0.00	\$54.85
2	60.00	\$31.22	\$13.28	\$12.67	\$9.03	\$0.00	\$66.20
3	65.00	\$33.82	\$13.28	\$12.67	\$9.03	\$0.00	\$68.80
4	75.00	\$39.02	\$13.28	\$12.67	\$9.03	\$0.00	\$74.00
5	85.00	\$44.23	\$13.28	\$12.67	\$9.03	\$0.00	\$79.21

Apprentice: ROOFER (Inc.Roofers Waterproofing &Roofers Damproofg)**Effective Date: 8/1/2025**

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$26.77	\$13.28	\$6.52	\$9.03	\$0.00	\$55.60
2	60.00	\$32.12	\$13.28	\$12.67	\$9.03	\$0.00	\$67.10
3	65.00	\$34.79	\$13.28	\$12.67	\$9.03	\$0.00	\$69.77
4	75.00	\$40.15	\$13.28	\$12.67	\$9.03	\$0.00	\$75.13
5	85.00	\$45.50	\$13.28	\$12.67	\$9.03	\$0.00	\$80.48

ROOFER SLATE / TILE / PRECAST CONCRETE	2/1/2025	\$52.28	\$13.28	\$12.67	\$9.03	\$0.00	\$87.26
ROOFERS LOCAL 33	8/1/2025	\$53.78	\$13.28	\$12.67	\$9.03	\$0.00	\$88.76
ROOFERS LOCAL 33	2/1/2026	\$55.03	\$13.28	\$12.67	\$9.03	\$0.00	\$90.01

For apprentice rates see "Apprentice- ROOFER"

SHEETMETAL WORKER	1/1/2025	\$42.23	\$12.20	\$10.79	\$7.95	\$2.13	\$75.30
SHEETMETAL WORKERS LOCAL 63							
SHEETMETAL WORKERS LOCAL 63							

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
Apprentice: SHEETMETAL WORKER Effective Date: 1/1/2025							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	45.00	\$19.00	\$5.49	\$4.86	\$0.00	\$0.85	\$30.20
2	50.00	\$21.12	\$6.10	\$5.40	\$0.00	\$0.94	\$33.56
3	55.00	\$23.23	\$6.71	\$9.71	\$0.00	\$1.15	\$40.80
4	60.00	\$25.34	\$7.32	\$9.71	\$0.00	\$1.23	\$43.60
5	65.00	\$27.45	\$7.93	\$9.71	\$0.00	\$1.31	\$46.40
6	70.00	\$29.56	\$8.54	\$9.71	\$0.00	\$1.39	\$49.20
7	75.00	\$31.67	\$9.15	\$9.71	\$0.00	\$1.47	\$52.00
8	80.00	\$33.78	\$9.76	\$9.71	\$7.95	\$1.78	\$62.98
9	85.00	\$35.90	\$10.37	\$9.71	\$7.95	\$1.86	\$65.79
10	90.00	\$38.01	\$10.98	\$9.71	\$7.95	\$1.94	\$68.59
SPECIALIZED EARTH MOVING EQUIP < 35 TONS	6/1/2025	\$41.24	\$15.57	\$20.17	\$0.00	\$0.00	\$76.98
TEAMSTERS JOINT COUNCIL NO. 10	12/1/2025	\$41.24	\$15.57	\$21.78	\$0.00	\$0.00	\$78.59
TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	1/1/2026	\$41.24	\$16.17	\$21.78	\$0.00	\$0.00	\$79.19
	6/1/2026	\$42.24	\$16.17	\$21.78	\$0.00	\$0.00	\$80.19
	12/1/2026	\$42.24	\$16.17	\$23.52	\$0.00	\$0.00	\$81.93
	1/1/2027	\$42.24	\$16.77	\$23.52	\$0.00	\$0.00	\$82.53
SPECIALIZED EARTH MOVING EQUIP > 35 TONS	6/1/2025	\$41.53	\$15.57	\$20.17	\$0.00	\$0.00	\$77.27
TEAMSTERS JOINT COUNCIL NO. 10	12/1/2025	\$41.53	\$15.57	\$21.78	\$0.00	\$0.00	\$78.88
TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	1/1/2026	\$41.53	\$16.17	\$21.78	\$0.00	\$0.00	\$79.48
	6/1/2026	\$42.53	\$16.17	\$21.78	\$0.00	\$0.00	\$80.48
	12/1/2026	\$42.53	\$16.17	\$23.52	\$0.00	\$0.00	\$82.22
	1/1/2027	\$42.53	\$16.77	\$23.52	\$0.00	\$0.00	\$82.82
SPRINKLER FITTER	4/1/2023	\$47.43	\$11.45	\$7.20	\$9.41	\$0.00	\$75.49
SPRINKLER FITTERS LOCAL 669							
SPRINKLER FITTERS LOCAL 669							

Apprentice: SPRINKLER FITTER Effective Date: 4/1/2023							
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	45.00	\$21.34	\$8.22	\$0.00	\$0.00	\$0.00	\$29.56
2	50.00	\$23.72	\$8.22	\$0.00	\$0.00	\$0.00	\$31.94
3	55.00	\$26.09	\$11.45	\$7.20	\$0.00	\$0.00	\$44.74
4	60.00	\$28.46	\$11.45	\$7.20	\$1.15	\$0.00	\$48.26
5	65.00	\$30.83	\$11.45	\$7.20	\$1.15	\$0.00	\$50.63
6	70.00	\$33.20	\$11.45	\$7.20	\$1.40	\$0.00	\$53.25
7	75.00	\$35.57	\$11.45	\$7.20	\$1.40	\$0.00	\$55.62
8	80.00	\$37.94	\$11.45	\$7.20	\$1.40	\$0.00	\$57.99
9	85.00	\$40.32	\$11.45	\$7.20	\$1.40	\$0.00	\$60.37
10	90.00	\$42.69	\$11.45	\$7.20	\$1.40	\$0.00	\$62.74

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
STEAM BOILER OPERATOR	6/1/2025	\$57.68	\$15.55	\$13.25	\$3.25	\$0.00	\$89.73
OPERATING ENGINEERS LOCAL 4	12/1/2025	\$59.12	\$15.55	\$13.25	\$3.25	\$0.00	\$91.17
OPERATING ENGINEERS LOCAL 4	6/1/2026	\$60.40	\$15.55	\$13.25	\$3.25	\$0.00	\$92.45
	12/1/2026	\$61.84	\$15.55	\$13.25	\$3.25	\$0.00	\$93.89

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

TAMPERS, SELF-PROPELLED OR TRACTOR DRAWN	6/1/2025	\$57.68	\$15.55	\$13.25	\$3.25	\$0.00	\$89.73
OPERATING ENGINEERS LOCAL 4	12/1/2025	\$59.12	\$15.55	\$13.25	\$3.25	\$0.00	\$91.17
OPERATING ENGINEERS LOCAL 4	6/1/2026	\$60.40	\$15.55	\$13.25	\$3.25	\$0.00	\$92.45
	12/1/2026	\$61.84	\$15.55	\$13.25	\$3.25	\$0.00	\$93.89

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

TERRAZZO FINISHERS	2/1/2025	\$64.74	\$11.49	\$15.57	\$8.02	\$0.00	\$99.82
BRICKLAYERS LOCAL 3	8/1/2025	\$66.89	\$11.49	\$15.57	\$8.02	\$0.00	\$101.97
BRICKLAYERS LOCAL 3 - MARBLE & TILE	2/1/2026	\$68.24	\$11.49	\$15.57	\$8.02	\$0.00	\$103.32
	8/1/2026	\$70.44	\$11.49	\$15.57	\$8.02	\$0.00	\$105.52
	2/1/2027	\$71.84	\$11.49	\$15.57	\$8.02	\$0.00	\$106.92

Apprentice: TERRAZZO FINISHERS**Effective Date: 2/1/2025**

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$32.37	\$11.49	\$15.57	\$8.02	\$0.00	\$67.45
2	60.00	\$38.84	\$11.49	\$15.57	\$8.02	\$0.00	\$73.92
3	70.00	\$45.32	\$11.49	\$15.57	\$8.02	\$0.00	\$80.40
4	80.00	\$51.79	\$11.49	\$15.57	\$8.02	\$0.00	\$86.87
5	90.00	\$58.27	\$11.49	\$15.57	\$8.02	\$0.00	\$93.35

Apprentice: TERRAZZO FINISHERS**Effective Date: 8/1/2025**

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$33.45	\$11.49	\$15.57	\$8.02	\$0.00	\$68.53
2	60.00	\$40.13	\$11.49	\$15.57	\$8.02	\$0.00	\$75.21
3	70.00	\$46.82	\$11.49	\$15.57	\$8.02	\$0.00	\$81.90
4	80.00	\$53.51	\$11.49	\$15.57	\$8.02	\$0.00	\$88.59
5	90.00	\$60.20	\$11.49	\$15.57	\$8.02	\$0.00	\$95.28

TEST BORING DRILLER	6/1/2025	\$51.70	\$9.90	\$9.25	\$9.80	\$0.00	\$80.65
LABORERS	12/1/2025	\$53.20	\$9.90	\$9.25	\$9.80	\$0.00	\$82.15
LABORERS - FOUNDATION AND MARINE	6/1/2026	\$54.75	\$9.90	\$9.25	\$9.80	\$0.00	\$83.70
	12/1/2026	\$56.25	\$9.90	\$9.25	\$9.80	\$0.00	\$85.20

For apprentice rates see "Apprentice- LABORER"

TEST BORING DRILLER HELPER	6/1/2025	\$47.82	\$9.90	\$9.25	\$9.80	\$0.00	\$76.77
LABORERS	12/1/2025	\$49.32	\$9.90	\$9.25	\$9.80	\$0.00	\$78.27
LABORERS - FOUNDATION AND MARINE	6/1/2026	\$50.87	\$9.90	\$9.25	\$9.80	\$0.00	\$79.82

Proposal No. 608778-130744

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
	12/1/2026	\$52.37	\$9.90	\$9.25	\$9.80	\$0.00	\$81.32
For apprentice rates see "Apprentice- LABORER"							
TEST BORING LABORER	6/1/2025	\$47.70	\$9.90	\$9.25	\$9.80	\$0.00	\$76.65
LABORERS	12/1/2025	\$49.20	\$9.90	\$9.25	\$9.80	\$0.00	\$78.15
LABORERS - FOUNDATION AND MARINE	6/1/2026	\$50.75	\$9.90	\$9.25	\$9.80	\$0.00	\$79.70
	12/1/2026	\$52.25	\$9.90	\$9.25	\$9.80	\$0.00	\$81.20
For apprentice rates see "Apprentice- LABORER"							
TRACTORS/PORTABLE STEAM GENERATORS	6/1/2025	\$57.68	\$15.55	\$13.25	\$3.25	\$0.00	\$89.73
OPERATING ENGINEERS LOCAL 4	12/1/2025	\$59.12	\$15.55	\$13.25	\$3.25	\$0.00	\$91.17
OPERATING ENGINEERS LOCAL 4	6/1/2026	\$60.40	\$15.55	\$13.25	\$3.25	\$0.00	\$92.45
	12/1/2026	\$61.84	\$15.55	\$13.25	\$3.25	\$0.00	\$93.89
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
TRAILERS FOR EARTH MOVING EQUIPMENT	6/1/2025	\$41.82	\$15.57	\$20.17	\$0.00	\$0.00	\$77.56
TEAMSTERS JOINT COUNCIL NO. 10	12/1/2025	\$41.82	\$15.57	\$21.78	\$0.00	\$0.00	\$79.17
TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	1/1/2026	\$41.82	\$16.17	\$21.78	\$0.00	\$0.00	\$79.77
	6/1/2026	\$42.82	\$16.17	\$21.78	\$0.00	\$0.00	\$80.77
	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	6/1/2025	\$59.93	\$9.90	\$9.25	\$10.25	\$0.00	\$89.33
LABORERS	12/1/2025	\$61.43	\$9.90	\$9.25	\$10.25	\$0.00	\$90.83
LABORERS (COMPRESSED AIR)	6/1/2026	\$62.98	\$9.90	\$9.25	\$10.25	\$0.00	\$92.38
	12/1/2026	\$64.48	\$9.90	\$9.25	\$10.25	\$0.00	\$93.88
For apprentice rates see "Apprentice- LABORER"							
TUNNEL WORK - COMPRESSED AIR (HAZ. WASTE)	6/1/2025	\$61.93	\$9.90	\$9.25	\$10.25	\$0.00	\$91.33
LABORERS	12/1/2025	\$63.43	\$9.90	\$9.25	\$10.25	\$0.00	\$92.83
LABORERS (COMPRESSED AIR)	6/1/2026	\$64.98	\$9.90	\$9.25	\$10.25	\$0.00	\$94.38
	12/1/2026	\$66.48	\$9.90	\$9.25	\$10.25	\$0.00	\$95.88
For apprentice rates see "Apprentice- LABORER"							
TUNNEL WORK - FREE AIR	6/1/2025	\$52.00	\$9.90	\$9.25	\$10.25	\$0.00	\$81.40
LABORERS	12/1/2025	\$53.50	\$9.90	\$9.25	\$10.25	\$0.00	\$82.90
LABORERS (FREE AIR TUNNEL)	6/1/2026	\$55.05	\$9.90	\$9.25	\$10.25	\$0.00	\$84.45
	12/1/2026	\$56.55	\$9.90	\$9.25	\$10.25	\$0.00	\$85.95
For apprentice rates see "Apprentice- LABORER"							
TUNNEL WORK - FREE AIR (HAZ. WASTE)	6/1/2025	\$54.00	\$9.90	\$9.25	\$10.25	\$0.00	\$83.40
LABORERS	12/1/2025	\$55.50	\$9.90	\$9.25	\$10.25	\$0.00	\$84.90
LABORERS (FREE AIR TUNNEL)	6/1/2026	\$57.05	\$9.90	\$9.25	\$10.25	\$0.00	\$86.45
	12/1/2026	\$58.55	\$9.90	\$9.25	\$10.25	\$0.00	\$87.95
For apprentice rates see "Apprentice- LABORER"							
VAC-HAUL	6/1/2025	\$41.24	\$15.57	\$20.17	\$0.00	\$0.00	\$76.98
TEAMSTERS JOINT COUNCIL NO. 10	12/1/2025	\$41.24	\$15.57	\$21.78	\$0.00	\$0.00	\$78.59
TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	1/1/2026	\$41.24	\$16.17	\$21.78	\$0.00	\$0.00	\$79.19
	6/1/2026	\$42.24	\$16.17	\$21.78	\$0.00	\$0.00	\$80.19

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
	12/1/2026	\$42.24	\$16.17	\$23.52	\$0.00	\$0.00	\$81.93
	1/1/2027	\$42.24	\$16.77	\$23.52	\$0.00	\$0.00	\$82.53
VOICE-DATA-VIDEO TECHNICIAN	9/1/2024	\$35.29	\$13.99	\$13.69	\$3.88	\$0.00	\$66.85
ELECTRICIANS LOCAL 96	9/7/2025	\$36.12	\$14.98	\$13.94	\$3.97	\$0.00	\$69.01
ELECTRICIANS LOCAL 96	9/6/2026	\$37.04	\$15.96	\$14.20	\$4.07	\$0.00	\$71.27

Apprentice: VOICE-DATA-VIDEO TECHNICIAN**Effective Date: 9/1/2024**

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$17.65	\$13.99	\$0.53	\$3.88	\$0.00	\$36.05
2	55.00	\$19.41	\$13.99	\$0.58	\$3.88	\$0.00	\$37.86
3	60.00	\$21.17	\$13.99	\$13.27	\$3.88	\$0.00	\$52.31
4	65.00	\$22.94	\$13.99	\$13.32	\$3.88	\$0.00	\$54.13
5	70.00	\$24.70	\$13.99	\$13.37	\$3.88	\$0.00	\$55.94
6	75.00	\$26.47	\$13.99	\$13.42	\$3.88	\$0.00	\$57.76
7	80.00	\$28.23	\$13.99	\$13.48	\$3.88	\$0.00	\$59.58
8	85.00	\$30.00	\$13.99	\$13.53	\$3.88	\$0.00	\$61.40

Apprentice: VOICE-DATA-VIDEO TECHNICIAN**Effective Date: 9/7/2025**

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$18.06	\$14.98	\$0.54	\$3.97	\$0.00	\$37.55
2	55.00	\$19.87	\$14.98	\$0.60	\$3.97	\$0.00	\$39.42
3	60.00	\$21.67	\$14.98	\$13.51	\$3.97	\$0.00	\$54.13
4	65.00	\$23.48	\$14.98	\$13.56	\$3.97	\$0.00	\$55.99
5	70.00	\$25.28	\$14.98	\$13.62	\$3.97	\$0.00	\$57.85
6	75.00	\$27.09	\$14.98	\$13.67	\$3.97	\$0.00	\$59.71
7	80.00	\$28.90	\$14.98	\$13.73	\$3.97	\$0.00	\$61.58
8	85.00	\$30.70	\$14.98	\$13.78	\$3.97	\$0.00	\$63.43

WAGON DRILL OPERATOR	6/1/2025	\$42.00	\$9.65	\$9.00	\$8.70	\$0.00	\$69.35
LABORERS	12/1/2025	\$43.38	\$9.65	\$9.00	\$8.70	\$0.00	\$70.73
LABORERS - ZONE 2	6/1/2026	\$44.82	\$9.65	\$9.00	\$8.70	\$0.00	\$72.17
	12/1/2026	\$46.26	\$9.65	\$9.00	\$8.70	\$0.00	\$73.61
	6/1/2027	\$47.71	\$9.65	\$9.00	\$8.70	\$0.00	\$75.06
	12/1/2027	\$49.16	\$9.65	\$9.00	\$8.70	\$0.00	\$76.51
	6/1/2028	\$50.66	\$9.65	\$9.00	\$8.70	\$0.00	\$78.01
	12/1/2028	\$52.16	\$9.65	\$9.00	\$8.70	\$0.00	\$79.51

For apprentice rates see "Apprentice- LABORER"

WAGON DRILL OPERATOR (HEAVY & HIGHWAY)	6/1/2025	\$40.59	\$9.90	\$9.25	\$9.21	\$0.00	\$68.95
LABORERS	12/1/2025	\$41.97	\$9.90	\$9.25	\$9.21	\$0.00	\$70.33
LABORERS - ZONE 2 (HEAVY & HIGHWAY)	6/1/2026	\$43.41	\$9.90	\$9.25	\$9.21	\$0.00	\$71.77
	12/1/2026	\$44.85	\$9.90	\$9.25	\$9.21	\$0.00	\$73.21

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)							
WASTE WATER PUMP OPERATOR	6/1/2025	\$58.33	\$15.55	\$13.25	\$3.25	\$0.00	\$90.38
OPERATING ENGINEERS LOCAL 4	12/1/2025	\$59.78	\$15.55	\$13.25	\$3.25	\$0.00	\$91.83
OPERATING ENGINEERS LOCAL 4	6/1/2026	\$61.08	\$15.55	\$13.25	\$3.25	\$0.00	\$93.13
	12/1/2026	\$62.53	\$15.55	\$13.25	\$3.25	\$0.00	\$94.58
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
WATER METER INSTALLER	3/1/2025	\$55.00	\$11.30	\$9.71	\$8.06	\$0.00	\$84.07
PLUMBERS LOCAL 4	9/1/2025	\$56.40	\$11.30	\$9.71	\$8.06	\$0.00	\$85.47
PLUMBERS LOCAL 4	3/1/2026	\$57.80	\$11.30	\$9.71	\$8.06	\$0.00	\$86.87
For apprentice rates see "Apprentice- PLUMBER/PIPEFITTER" or "PLUMBER/GASFITTER"							

Outside Electrical

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
CABLE TECHNICIAN (Power Zone) OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104 OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104 For apprentice rates see "Apprentice- LINEMAN"	8/30/2020	\$29.67	\$9.25	\$0.89	\$1.00	\$0.00	\$40.81
CABLEMAN (Underground Ducts & Cables) OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104 OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104 For apprentice rates see "Apprentice- LINEMAN"	8/30/2020	\$42.03	\$9.25	\$1.26	\$9.01	\$0.00	\$61.55
DRIVER / GROUNDMAN CDL OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104 OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104 For apprentice rates see "Apprentice- LINEMAN"	8/30/2020	\$34.62	\$9.25	\$1.04	\$9.03	\$0.00	\$53.94
DRIVER / GROUNDMAN -Inexperienced (<2000 Hrs) OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104 OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104 For apprentice rates see "Apprentice- LINEMAN"	8/30/2020	\$27.20	\$9.25	\$0.82	\$1.00	\$0.00	\$38.27
EQUIPMENT OPERATOR (Class A CDL) OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104 OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104 For apprentice rates see "Apprentice- LINEMAN"	8/30/2020	\$42.03	\$9.25	\$1.26	\$13.09	\$0.00	\$65.63
EQUIPMENT OPERATOR (Class B CDL) OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104 OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104 For apprentice rates see "Apprentice- LINEMAN"	8/30/2020	\$37.09	\$9.25	\$1.11	\$9.76	\$0.00	\$57.21
GROUNDMAN OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104 OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104 For apprentice rates see "Apprentice- LINEMAN"	8/30/2020	\$27.20	\$9.25	\$0.82	\$1.00	\$0.00	\$38.27
GROUNDMAN -Inexperienced (<2000 Hrs.) OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104 OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104 For apprentice rates see "Apprentice- LINEMAN"	8/30/2020	\$22.25	\$9.25	\$0.82	\$1.00	\$0.00	\$33.32
JOURNEYMAN LINEMAN OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104 OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104	8/30/2020	\$49.45	\$9.25	\$1.48	\$16.00	\$0.00	\$76.18

Apprentice: JOURNEYMAN LINEMAN**Effective Date: 8/30/2020**

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	60.00	\$29.67	\$9.25	\$0.89	\$2.50	\$0.00	\$42.31
2	65.00	\$32.14	\$9.25	\$0.96	\$2.50	\$0.00	\$44.85
3	70.00	\$34.62	\$9.25	\$1.04	\$2.50	\$0.00	\$47.41
4	75.00	\$37.09	\$9.25	\$1.11	\$4.00	\$0.00	\$51.45

Outside Electrical

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
Apprentice: JOURNEYMAN LINEMAN Effective Date: 8/30/2020							
		Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
5	80.00	\$39.56	\$9.25	\$1.19	\$4.00	\$0.00	\$54.00
6	85.00	\$42.03	\$9.25	\$1.26	\$4.00	\$0.00	\$56.54
7	90.00	\$44.51	\$9.25	\$1.34	\$6.00	\$0.00	\$61.10
<hr/>							
TELEDATA CABLE SPLICER OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104 OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104	2/4/2019	\$30.73	\$4.70	\$0.92	\$2.25	\$0.00	\$38.60
<hr/>							
TELEDATA LINEMAN/EQUIPMENT OPERATOR OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104 OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104	2/4/2019	\$28.93	\$4.70	\$0.89	\$2.25	\$0.00	\$36.77
<hr/>							
TELEDATA WIREMAN/INSTALLER/TECHNICIAN OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104 OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104	2/4/2019	\$28.93	\$4.70	\$0.89	\$2.25	\$0.00	\$36.77

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 AreasSTATE:Goals (percent)

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

4.8

MA Hampden, MA Hampshire

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

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"General Decision Number: MA20250025 03/21/2025

Superseded General Decision Number: MA20240025

State: Massachusetts

Construction Type: Highway

County: Worcester County in Massachusetts.

HIGHWAY CONSTRUCTION PROJECTS

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(1).

If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022:	Executive Order 14026 generally applies to the contract. The contractor must pay all covered workers at least \$17.75 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2025.
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If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022:	Executive Order 13658 generally applies to the contract. The contractor must pay all covered workers at least \$13.30 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2025.
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The applicable Executive Order minimum wage rate will be

adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at <http://www.dol.gov/whd/govcontracts>.

Modification Number	Publication Date
0	01/03/2025
1	03/21/2025

* CARP0336-004 03/01/2025

	Rates	Fringes
CARPENTER (Includes Form Work)...	\$ 49.10	31.20

* ELEC0103-007 03/01/2025

	Rates	Fringes
ELECTRICIAN.....	\$ 64.26	36.99

ENGI0004-030 12/01/2024

	Rates	Fringes
POWER EQUIPMENT OPERATOR		
Group 1.....	\$ 57.03	33.20
Group 2.....	\$ 56.40	33.20

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

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

Group 1: Backhoe/Excavator/Trackhoe; Bobcat/Skid Steer/Skid Loader; Broom/Sweeper; Gradall; Loader; Paver (Asphalt, Aggregate, and Concrete); Post Driver (Guardrail/Fences)
Group 2: Bulldozer; Grader/Blade; Roller

ENGI0004-031 12/01/2024

Rates Fringes

POWER EQUIPMENT OPERATOR:

(Milling Machine).....\$ 57.03 33.20

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

IRON0007-028 03/16/2024

Rates Fringes

IRONWORKER, STRUCTURAL.....\$ 54.38 36.48

IRON0007-029 03/16/2024

Rates Fringes

IRONWORKER, ORNAMENTAL.....\$ 54.68 36.48

LABO0039-003 06/01/2018

Rates Fringes

LABORER

Asphalt, Includes Raker,
Shoveler, Spreader and
Distributor.....\$ 33.50 22.92
Common or General.....\$ 33.25 22.92
Guardrail Installation.....\$ 33.50 22.92

PAIN0035-023 07/01/2024

Rates Fringes

PAINTER (Steel).....\$ 56.76 36.00

SUMA2014-015 01/11/2017

Rates Fringes

CEMENT MASON/CONCRETE FINISHER...\$ 56.70 21.08

IRONWORKER, REINFORCING.....\$ 56.48 20.62

LABORER: Concrete Saw (Hand

Held/Walk Behind).....\$ 41.78	18.37
LABORER: Landscape.....\$ 40.39	17.68
OPERATOR: Crane.....\$ 52.14	21.08
OPERATOR: Forklift.....\$ 64.67	0.00
OPERATOR: Mechanic.....\$ 48.14	17.02
OPERATOR: Piledriver.....\$ 44.46	16.94
PAINTER: Spray (Linestriping)....\$ 48.00	0.00
PILEDRIVERMAN.....\$ 45.65	23.33
TRAFFIC CONTROL: Flagger.....\$ 23.00	20.44
TRAFFIC CONTROL: Laborer-Cones/ Barricades/Barrels - Setter/Mover/Sweeper.....\$ 44.49	12.41
TRUCK DRIVER: Concrete Truck....\$ 33.69	15.79
TRUCK DRIVER: Dump Truck.....\$ 30.38	7.20
TRUCK DRIVER: Flatbed Truck.....\$ 48.53	0.00

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>.

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"

DOCUMENT A00801

SPECIAL PROVISIONS**SOUTHBRIDGE****Federal Aid Project No. STP/CMQ/HSI-0033(042)X
Intersection Improvements at Central Street, Foster Street, Hook Street
and Hamilton 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 *2025 Standard Specifications for Highways and Bridges*, the *Supplemental Specifications* contained in this book, the *Construction Standard Details* in effect as of June, 2025, the *1990 Standard Drawings for Signs and Supports*, the *2015 Overhead Signal Structure and Foundation Standard Drawings*, the *2009 Manual on Uniform Traffic Control Devices (MUTCD) with Revisions 1, 2, and 3* and the *November 2022 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 proposed project will consist of full depth roadway reconstruction and resurfacing, new sidewalk construction, the re-alignment of Hook Street and Larochelle Way, the construction of a roundabout at the intersection of Hamilton Street and Larochelle Way, improvements along Larochelle Way, Hook Street, Central Street, Foster Street, and associated intersection as well as enhanced bicycle and pedestrian accommodations. Other work will include traffic signal upgrades, installation of a new closed drainage system, water line replacement, utility adjustments, improved roadway signage, raised intersection, landscaping, and pavement delineation/stripping for vehicles, bicyclists and pedestrians traveling through the project area.

The approximate project limits along Hamilton Street are from 78-feet east of Main Street to 160-feet north of Larochelle Way.

The approximate project limits along Central Street are from 78-feet east of Main Street to Foster Street.

The approximate project limits along Foster Street are from 60-feet east of Main Street to Central Street.

The approximate project limits along Larochelle Way are from Hamilton Street to Foster Street.

The approximate project limits along Hook Street are from Larochelle way to Central Street.

The project length is approximately 2,520 linear feet (0.48 miles).

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

The insurance requirements set forth in this subsection are in addition to the requirements of the Standard Specifications and supersede all other requirements.

Paragraphs 1 and 2

The Massachusetts Department of Transportation and applicable railroads shall be named as additional insureds.

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 massdotSpecifications@dot.state.ma.us The MassDOT proposal number and municipality is to be placed in the subject line.

WORK SCHEDULE

The Contractor shall work standard work hours from 7:00 AM to 3:30 PM, Monday thru Friday, unless otherwise approved by the Engineer.

No work that will disrupt travel on the existing roadways (lane closures, lane shifts, trenching, etc.) shall be done from 6:00 AM to 9:00 AM and from 3:30 PM to 7:00 PM except for where otherwise stated within the contract documents.

There will be detours for the construction of this project, see Detour Plans on sheets 51 and 52.

WORK DONE BY OTHERS

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

MATERIAL REMOVED AND STACKED

The Contractor shall carefully remove, transport and stack all material that, in the opinion of the Engineer, is salvageable. The material shall be stacked at the Town of Southbridge Department of Public Works at 185 Guelphwood Road, Southbridge, MA. The Contractor shall coordinate with the DPW to schedule drop-off time and location.

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.

HOLIDAY WORK RESTRICTIONS (Continued)**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.

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.

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.

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.

BUILD AMERICA BUY AMERICA PREFERENCE (Continued)

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.

NOTE: The requirements for manufactured products indicated in paragraph (2) above are not in effect for this contract.

NOTICE TO OWNERS OF UTILITIES
(Supplementing Subsection 7.13)

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

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

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

The following website lists the names and addresses of the utilities that 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 3

Select the Town (Southbridge), and then locate the utility

Town officials are shown at website <http://www.mass.gov>

Under the “Your Government” tab select “Cities and Towns”, then select the Cities and Towns websites and alphabetically select the required Town.

NOTICE TO OWNERS OF UTILITIES (Continued)

The following is the name and addresses of the agency which may be affected and must be notified. Completeness is not guaranteed by the Department. The Contractor shall assure that all affected agencies are notified.

TOWN OF SOUTHBRIDGE

Town of Southbridge
Department of Public Works
185 Guelphwood Road
Southbridge, MA 01550

Vernon Jackson
Interim Director – Public Works
Phone: (508) 764-5403
Email: vjackson@southbridgemass.org

Town of Southbridge
Police Department
1 Mechanic Street
Southbridge, MA 01550

Shane Woodson
Chief of Police
Phone: (508) 764-5420

Town of Southbridge
Fire Department
24 Elm Street
Southbridge, MA 01550

Joseph Hulyk
Fire Chief
Phone: (508) 764-5430

WATER

Town of Southbridge
Water Department
185 Guelphwood Road
Southbridge, MA 01550

Steve Gregoire
Water Manager
Phone: (508) 764-3207 ext. 4
Email: sgregoire@southbridgemass.org

SEWER

Town of Southbridge
Wastewater Department
185 Guelphwood Road
Southbridge, MA 01550

Paul Krasnecky
Wastewater Manager
Phone: (508) 764-4927
Email: pkrasnecky@southbridgemass.org

ELECTRIC

National Grid Electric
55 Bearfoot Rd
Northborough, MA 01532
manuel.munoz@nationalgrid.com

Manny Munoz
Phone: (401) 895-9726
Email:

TELEPHONE

Verizon
385 Myles Standish Blvd.
Taunton, MA 02780

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

NOTICE TO OWNERS OF UTILITIES (Continued)

GAS

National Grid Gas
40 Sylvan Road
Waltham, MA 02451

Melissa Owens
Phone: (781) 907-2845
Email: Melissa.Owens@nationalgrid.com

Tennessee Gas Pipeline Company
8 Anngina Drive
Enfield, CT 06082
Email: KMEncroachmentsNorth@kindermorgan.com

David Wood
Phone: (860) 763-6005

CABLE / COMMUNICATIONS

Charter Communications
301 Barber Avenue
Worcester, MA 01606 Email:
john.yurkevicius@charter.com

John Yurkevicius
Phone: (774) 243-9786

NATIONAL GRID EMERGENCY TELEPHONE NUMBERS

GAS:

Emergency: 1-800-233-5325
New Service: 1- 877-696-4743
Customer Support: 1-800-732-3400

ELECTRIC:

Outage/ Emergency: 1-800-465-1212
New Service: 1-800-375-7405
Customer Support: 1-800-322-3223

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.

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.

By December 31, 2025, 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.

2026 FIFA WORLD CUP – BOSTON, MASSACHUSETTS

The 2026 FIFA World Cup will be held at Gillette Stadium in Foxborough and related events will be held throughout the region. Matches and Fan Fest activities are scheduled from June 11, 2026 through July 19, 2026. MassDOT will impose work restrictions as necessary to minimize traffic impacts during FIFA events when the Contractor's operations could impact vehicular traffic, particularly on interstate highways and major arterials throughout the region and local roads near the event site. No additional compensation will be allowed for work restrictions except as determined under Subsection 8.10

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.

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 0.5Million 18-kip (80-kn) ESALs.

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.

NOTIFICATION OF FUNDING SOURCES FOR WORK TO BE PAID BY OTHERS

This contract contains work that shall be paid by the *City and/ or Town of Southbridge or by another entity (public/ or private)**. The said *City and/ or Town or entity* shall be responsible for construction costs associated with a Non-Participating Agreement with MassDOT.

DRAINAGE

All existing pipes to be abandoned shall be plugged with brick masonry not less than 8 inches in thickness in conformance with the Standard Specifications, Section 201.62.

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

Crushed Stone – Item 156. required for installing structures shall be considered incidental to the installation of all proposed drainage structures, including but not limited to, catch basins, drainage manholes and special catch basins.

WORK IN THE IMMEDIATE VICINITY OF CERTAIN UNDERGROUND STRUCTURES AND UTILITY POLES

For overhead connections, the Electric Company servicing the area will make the connection from the top of the riser on the utility pole to the power source. The Contractor shall supply all labor, materials and equipment to install the service connection, complete in place and in accordance with the Electric Company procedures, from the controller to and including the riser with enough wire coiled above the riser to permit the Electric Company servicing the area to make the final connection.

For underground connections, the Electric Company servicing the area will perform the actual wiring of the service connections from its power source to the sweep at the local controllers, but all steel sweeps, ducts, entrance holes into manholes, patching and all other necessary labor, materials and equipment required to install the electric service, complete in place, shall be furnished by the Contractor.

The Contractor shall pay the Electric Company servicing the area for their services rendered for the connection of overhead and underground service connections.

Before starting work at existing manholes, the Contractor shall test for gas and blow out the manholes.

The Contractor shall perform test pits as indicated on the plans and as directed by the Engineer, prior to start of the installation of utilities.

ENVIRONMENTAL PERMITTING

A Negative Determination has been obtained from the Southbridge Conservation Commission under the Wetlands Protection Act. If field conditions and/or Contractor-proposed erection, demolition, storage, or other procedures not originally allowed by existing environmental permits require work to occur in or otherwise impact water or wetland resource areas, the Contractor is advised that no associated work can occur until all required environmental permits have been either amended or obtained allowing such work. The Contractor must notify the District 3 Highway Director and Resident 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 with the District 3 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 modify or obtain the environmental permits.

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. This project has been consulted with the USFWS through the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), and Federal Transit Administration (FTA) Programmatic Biological Opinion/Conference Opinion for Transportation Projects in the Range of the Indiana bat, northern long-eared bat, and tricolored bat, dated December 13, 2024. and generated a May Affect, Not Likely to Adversely Affect (NLAA) determination (see **Document A00870 USFWS NLAA**). 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 AMM

- 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.

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.

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.

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.

SECTION 722 CONSTRUCTION SCHEDULING DESCRIPTION

722.20 General

The Contractor's approach to prosecution of the Work shall be disclosed to the Department by submission of a Critical Path Method (CPM) schedule and a cost/resource loaded Construction Schedule as defined by the schedule type set forth below. These requirements are in addition to any requirements imposed in other sections.

This section establishes the requirement for scheduling submissions. There are four schedule types identified as types A, B, C and D.

All schedules shall be prepared and submitted in accordance with this specification and the instructions contained in the Construction Schedule Toolkit located on the MassDOT-Highway Division website at <https://www.mass.gov/info-details/massdot-highway-contractors-schedule-toolkit>.

Type A –

- Schedule Planning Session
- Baseline CPM Schedule
- Monthly Update CPM Schedule
- Short-term Construction Schedule
- Contract Schedule Update Meeting
- Cost-loaded & Resource Loaded CPM
- Resources Graphic Reporting
- Cash Flow Projections from the CPM
- Cash Flow Charts
- Monthly Projected Spending Report (PSR)
- Contractor-furnished CPM software and computer

Type B –

- Schedule Planning Session
- Baseline CPM Schedule
- Monthly Update CPM Schedule
- Short-term Construction Schedule
- Contract Schedule Update Meeting
- Cost-loaded & Resource Loaded CPM
- Monthly Projected Spending Report (PSR)
- Contractor-furnished CPM software and computer

Type C –

- Schedule Planning Session
- Baseline CPM Schedule
- Monthly Update CPM Schedule
- Short-term Construction Schedule
- Contract Schedule Update Meeting
- Monthly Projected Spending Report (PSR)
- Contractor-furnished CPM software and computer

SECTION 722 (Continued)**Type D -**

- Bar chart schedule updated monthly or at the request of the Engineer
- Short-term Construction Schedule
- Monthly Projected Spending Report (PSR)

EQUIPMENT, PERSONNEL**722.40 General****A. Software Requirements**

The Contractor shall use Primavera P6 computer scheduling software.

In addition to the requirements of Section 740 – Engineer’s Field Office and Equipment, the Contractor shall provide to the Department one (1) copy of the scheduling software, one (1) software license and one (1) computer capable of running the scheduling software for the duration of the Contract. This computer and software shall be installed in the Engineer’s Field Office. The computer and software shall be maintained and serviced at no additional cost to the Department.

B. Scheduler Requirements

The Scheduler shall be approved by the Engineer.

For Type A, B and C Schedules the name of the Contractor’s Project Scheduler together with his/her qualifications shall be submitted to the Department for approval by the Engineer within seven (7) Calendar Days after NTP. The Project Scheduler shall have a minimum of five (5) years of project CPM scheduling experience, three (3) years of which shall be on projects of similar scope and value as the project for which the Project Scheduler is being proposed. References shall be provided from past projects that can attest to the capabilities of the Project Scheduler.

SCHEDULING METHODS**722.60 General****A. Schedule Planning Session**

The Contractor shall conduct a schedule planning session prior to submission of the Baseline Schedule. This session will be attended by the Department and its consultants. During this session, the Contractor shall present its planned approach to the project including, but not limited to:

1. the Work to be performed by the Contractor and its subcontractors;
2. the planned construction sequence and phasing; planned crew sizes;
3. summary of equipment types, sizes, and numbers to be used for each work activity;
4. all early work related to third party utilities;
5. identification of the most critical submittals and projected submission timelines;
6. estimated durations of major work activities;
7. the anticipated Critical Path of the project and a summary of the activities on that Critical Path;
8. a summary of the most difficult schedule challenges the Contractor is anticipating and how it plans to manage and control those challenges;

SECTION 722 (Continued)

9. a summary of the anticipated quarterly cash flow over the life of the project.

This will be an interactive session and the Contractor shall answer all questions that the Department and its consultants may have. The Contractor shall provide a written summary of the information presented and discussed during the session to the Engineer. The Contractor's Baseline Schedule and accompanying Schedule Narrative shall incorporate the information discussed at this Schedule Planning Session.

B. Schedule Reviews by the Department**1. Baseline Schedule Reviews**

The Engineer will respond to the Baseline Schedule Submission within thirty (30) Calendar Days of receipt providing comments, questions and/or disposition that either accepts the schedule or requires revision and resubmittal. Rejected Baseline Schedules shall be resubmitted within fifteen (15) Calendar Days after receipt of the Engineer's comments.

2. Contract Progress Schedule / Monthly Update Reviews / Recovery Schedules

The Engineer will respond to each submittal within twenty-one (21) Calendar Days. Rejected schedules shall be resubmitted by the Contractor within five (5) Calendar Days after receipt of the Engineer's comments.

The Engineer's review comments shall not be construed as direction to change the Contractor's means and methods. The review and acceptance of the CPM schedule does not relieve the Contractor of the responsibility for accomplishing the work within the contract required completion dates. Omissions and errors in the accepted CPM schedule shall not excuse performance less than that required by the Contract.

722.61 Schedule Content and Preparation Requirements

All schedules shall be prepared and submitted in accordance with the instructions contained in the Construction Schedule Toolkit located on the MassDOT-Highway Division website at:

<https://www.mass.gov/info-details/massdot-highway-contractors-schedule-toolkit>

and the following:

A. LOGIC

The schedules shall divide the Work into activities with appropriate logic ties to show:

1. conformance with the requirements of this Section and Division I, Subsection 8.02 - Schedule of Operations
2. the Contractor's overall approach to the planning, scheduling, and execution of the Work
3. conformance with any additional sequences of Work required by the Contract Documents, including, but not limited to, Subsection 8.03 - Prosecution of Work and Subsection 8.06 – Limitations of Operations.

SECTION 722 (Continued)**B. ACTIVITIES**

The schedule shall clearly define the progression of the Work from the Notice to Proceed (NTP) to Contractor Field Completion (CFC) by using separate activities, or including attributes within appropriate activities, to address each of the following:

1. Notice to Proceed
2. Work Breakdown Structure
3. The Critical Path is clearly defined and organized.
4. Float shall be clearly identified.
5. Detailed activities to satisfy permit requirements.
6. Subcontractor approvals at fifteen (15) Calendar Days from submittal to response
7. The preparation and submission of shop drawings, procedures, and other required submittals, with a planned duration that is to be demonstrated to the Engineer as reasonable.
8. The review and return of shop drawings, procedures, and other required submittals, approved or with comments, the duration of which shall be thirty (30) Calendar Days, unless otherwise specified or as approved by the Engineer.
9. Procurement of fabricated materials and equipment with long lead times, including time for review and approval of submittals required before procuring and fabricating.
10. Each component of the Work defined by specific activities.
11. Right-of-Way (ROW) takings that have been identified in the Contract.
12. Early Utility Relocation (by others) that has been identified in the Contract.
13. Interfaces with adjacent work, utility companies, other public agencies, sensitive abutters, and/or any other third-party work affecting the Contract.
14. Utility work to be performed in accordance with the Project Utility Coordination (PUC) Form as provided in Section 8.14 - Utilities Coordination, Documentation and Monitoring Responsibilities
15. Access Restraints – restrictions on access to areas of the Work that are defined by the Department in the bid package, in Subsection 8.06 – Limitations of Operations or elsewhere in the Contract
16. Limitations of Work – time of year restrictions and any other limitations identified in the contract
17. Traffic work zone set-up and removal, night work and phasing
18. Material Certifications
19. Milestones listed in Subsection 8.03 - Prosecution of Work or elsewhere in the Contract Documents
20. For Type A and B Contracts only: All items to be paid for, including all Unit Price and Lump Sum pay items, shall be identified by activity. This shall include all non-construction activities such as engineering work; purchase of permanent materials and equipment, purchase of structural steel stock, equipment procurement, equipment delivery to the site or storage location and the representative amount of overhead/indirect costs that was included in the Contractor's Bid Prices.

SECTION 722 (Continued)

21. Contractor's request for validation of FBU (ready to open to traffic)
22. Full Beneficial Use (FBU) Contract Milestone per the following requirements:
The majority of contract Work has been completed and the asset(s) has been opened for full multi-modal transportation use, except for limited contract work items that do not materially impair or hinder the intended public use of the transportation facility. All anticipated lane takings have been completed, except for minor, short term work items and as defined in Subsection 8.03 - Prosecution of Work
23. The Department's confirmation of completed work to allow for FBU.
24. Contractor's request for validation of Substantial Completion
25. Department generated punch list of twenty-one (21) Calendar Days
26. Substantial Completion Contract Milestone as defined in the standard specifications.
27. Punch list Completion Period of at least thirty (30) Calendar Days per the requirements of Subsections 5.11 - Final Acceptance, 7.15 - Claims Against Contractors for Payment of Labor, Materials and Other Purposes
28. Contractor confirmation that all punchlist work and documentation has been completed.
29. Physical Completion of the Work Contract Milestone per the requirements of Subsections 5.11 - Final Acceptance and 8.03 - Prosecution of Work
30. Documentation Completion per the requirements of Subsections 5.11 - Final Acceptance and 8.03 - Prosecution of Work
31. Contractor Field Completion Contract Milestone (which can also be considered the completion date) per the following requirements: All physical contract Work is complete including punchlist. The Contractor has fully de-mobilized from field operations and as defined in Subsection 5.11

C. EARLY AND LATE DATES

Early Dates shall be based on proceeding with the Work or a designated part of the Work exactly on the date when the corresponding Contract Time commences. Late Dates shall be based on completing the Work or a designated part of the Work exactly on the corresponding Contract Time, even if the Contractor anticipates early completion.

D. DURATIONS

Activity durations shall be in Work Days. Planned Original Durations shall be established with consideration of resources and production rates that correspond to the Contractor's Bid Price. Within all of the Department-required schedules, the Contractor shall plan the Work using durations for all physical construction activities of no less than one (1) Work Day and no greater than fourteen (14) Work Days, unless approved by the Engineer as part of the Baseline Schedule Review.

SECTION 722 (Continued)

Should there be an activity with a duration that is determined by the Engineer to be unreasonable, the Contractor will be asked to provide a basis of the duration using bid documents, historic production rates for similar work, or other form of validation that is acceptable to the Engineer. Should the Contractor and the Engineer be unable to agree on reasonable activity durations, the Engineer will, at a minimum, note the disagreement in the Baseline Schedule Review along with a duration the Engineer considers reasonable and the basis for that duration. A schedule that contains a substantial number of activities with durations that are deemed unreasonable by the Engineer will not be accepted.

E. MATERIALS ON HAND

The Contractor shall identify in the Baseline Schedule all items of permanent materials (Materials On Hand) for which the Contractor intends to request payment prior to the incorporation of such items into the Work.

F. ACTIVITY DESCRIPTIONS

The Contractor shall use activity descriptions in all schedules that clearly describe the work to be performed using a combination of words, structure numbers, station numbers, bid item numbers, work breakdown structure (WBS) and/or elevations in a concise and compact label.

G. ACTIVITY IDENTIFICATION NUMBERS

The Contractor shall use the activity identification numbering system specified in the MassDOT Highway Division Contractor Construction Schedule Toolkit.

H. ACTIVITY CODES

The Contractor shall use the activity codes specified in the MassDOT Highway Division Contractor Construction Schedule Toolkit.

I. CALENDARS

Different calendars may be created and assigned to all activities or to individual activities. Calendars define the available hours of work in each Calendar Day, holidays and general or project-specific non-Work Days such as Fish Migration Periods, time-of-year (TOY) restrictions and/or area roadway restrictions. All calendars shall extend two years beyond the current project completion date.

Project Special Provisions identify specific calendar restrictions some examples of special calendars include, but are not limited to:

- Winter Shutdown Period, specific work is required by separate special provision to be performed during the winter. See Special Provision 8.03 (if applicable)
- Peak traffic hours on heavily traveled roadways. This shall be from 6:30 am to 9:30 am and from 3:30 pm to 7:00 pm, unless specified differently elsewhere in the Contract.
- Special requirements by sensitive abutters, railroads, utilities and/or other state agencies as defined in the Contract.
- Planting seasons for trees, shrubs and grasses and wetlands mitigation work.

SECTION 722 (Continued)

- Cape Cod and the Islands Summer Roadway Work Restrictions: A general restriction against highway and bridge construction is enforced between Memorial Day and Labor Day, unless otherwise directed by the Engineer. Cape Ann Summer Roadway Work Restrictions: While there are no general restrictions for Cape Ann as there are for Cape Cod and the Islands, project-specific restrictions may be enforced.
- Turtle and/or Fish Migration Periods and/or other in-water work restrictions: Refer to the Project Special Provisions for specific restrictions.
- Working over Waterways Restricted Periods.
- Night-time paving and striping operations, traffic, and temperature restrictions.
- Utility Restrictions shall be as specified within the Contract.

J. FLOAT

For the calculation of float in the CPM schedule, the setting for *Retained Logic* is required for all schedule submissions, starting with the Baseline Schedule Submission. Should the Contractor have a reason to propose that an alternative calculation setting such as *Progress Override* be used, the Contractor shall obtain the Engineer's approval prior to modifying to this setting.

K. COST AND RESOURCE LOADING (Types A and B only)

For all Type A and B Schedules, the Contractor shall provide a cost and resource-loaded schedule with an accurate allocation of the costs and resources necessary to complete the Work. The costs and resources shall be assigned to all schedule activities in order to enable the Contractor to efficiently execute the Contract requirements and the Engineer to validate the original plan, monitor progress, provide cash flow projections, and analyze delays.

1. Each schedule activity shall have an assigned cost that accurately represents the value of the Work. Each schedule activity shall have its resources assigned to it by craft and the anticipated hours to accomplish the work. Each schedule activity's equipment resources shall be assigned to it by equipment type and hours operated. Front-loading or other unbalancing of the cost distribution will not be permitted.
2. The sum of the cost of all schedule activities shall be equal to the Contractor's Bid Price.
3. Indicating the labor hours per individual, per day, by craft and equipment hours/day will be acceptable.
4. The Engineer reserves the right to use the cost-loading as a means to resolve changes, disputes, time entitlement evaluations, increases or decreases in the scope of Work, unit price renegotiations and/or claims.
5. For all Type A and B Schedules, all subnets, fragnets, Proposal Schedules, and Recovery Schedules shall be cost and resource-loaded to help to quickly validate and monitor the duration of the Work to be performed.
6. For Type A Schedules, cost-loading of the schedule will also be used for cash flow projection purposes.
7. The cost-loading of each activity shall indicate the portion of the cost for that activity that is applicable to a specific bid item (cost account.) The total cost for each cost account must equal the bid item price.

SECTION 722 (Continued)**L. NOT TO BE USED IN THE CONTRACTOR'S CPM SCHEDULE**

1. Milestones or constraint dates not specified in the Contract.
2. Scheduled work not required for the accomplishment of a Contract Milestone
3. Use of activity durations, logic ties and/or sequences deemed unreasonable by the Engineer.
4. Delayed starts of follow-on trades.
5. Float suppression techniques.
6. Leads such as leads, lags, SS, SF, & FF relationships without the expressed permission of the Department.

722.62 Submittal Requirements

All schedules shall be prepared and submitted in accordance with the requirements listed below.

Each monthly Contract Progress Schedule submittal shall be uniquely identified.

Each Submission shall, at a minimum, include the following:

- a. Narrative
- b. Schedule submittals shall be signed by the Scheduler
- c. Schedule Printout - All Activities
- d. Schedule Printout - Critical Path Layout
- e. Schedule Printout - Remaining Work
- f. Schedule Printout - Top 3 Float Path
- g. Work Breakdown Structure (WBS) Summary
- h. Project Spending Report (PSR) in Portable Document Format (.PDF)
- i. Project Spending Report (PSR) in Microsoft Excel spreadsheet (.XLS)
- j. Oracle Primavera P6 Schedule File (.XER)

All digital file submittals will be labeled with the following information.

- Contract Number
- Project Number
- Project locations (i.e., town(s))
- Brief description
- Submittal description (i.e., UP07)
- Data Date (MM-DD-YY)
- File Description (i.e., Critical Path)

Example: C110464 (P606309) - Orange Route 2 over 202 – UP23 (07-15-22) - Critical Path

A. Narratives

A written narrative shall be submitted with every schedule submittal. The narrative shall:

1. itemize and describe the flow of work for all activities on the Critical Path in a format that includes any changes made to the schedule since the previous Contract Progress Schedule / Monthly Update or the Baseline Schedule, whichever is most recent.
2. provide a description of any specification requirements that are not being followed. Identify those that are improvements and those that are not considered to be meeting the requirements.

SECTION 722 (Continued)

3. provide all references to any Notice of Delay that has been issued, within the time period of the Contract Progress Schedule Update, by letter to the Engineer. Note that any Notice of Delay that is not issued by letter will not be recognized by the Engineer. See Subsection 722.64.A – Notice of Delay.
4. provide a description of each third-party utility's planned vs. actual progress and note any that are trending late or are late per the durations and commitments as provided in the PUC Form; provide a description of the five (5) most important responses needed from the Department and the need date for the responses in order to maintain the current Schedule of Record.
5. provide a description of all critical issues that are not within the control of the Contractor or the Department (third party) and any impact they had or may have on the Critical Path.
6. provide a description of any possible considerations to improve the probability of completing the project early or on time.
7. compare Early and Late Dates for activities on the Critical Path and describe reasons for changes in the top three (3) most critical paths.
8. describe the Contractor's plan, approach, methodologies, and resources to be employed for completing the various operations and elements of the Work for the top three (3) most critical paths. For update schedules, describe and propose changes to those plans and verify that a Proposal Schedule is not required.
9. describe, in general, the need for shifts that are not 5 days/week, 8 hours/day, the holidays that are inserted into each calendar and a tabulation of each calendar that has been used in the schedule.
10. describe any out-of-sequence logic and provide an explanation of why each out-of-sequence activity does not require a correction, if one has not been provided, and an adequate demonstration that these changes represent the basis of how these activities will be built, including considerations for resources, dependencies, and previously approved production rates.
11. identify any possible duration increases resulting from actual or anticipated unit price item quantity overruns as compared to the baseline duration, with a corresponding suggestion to mitigate any possible delays to the Critical Path. If the delay is anticipated to impact the Critical Path, refer to Subsections 4.06 – Increased or Decreased Contract Quantities and 8.10 – Determination and Extension of Contract Time for Completion and submit a letter to the Engineer notifying of a potential delay.
12. include a schedule log consisting of the name of the schedule, the data date and the date submitted.
13. include and describe any notifications, communications and coordination meetings with third-parties such as utility companies that occurred from the last update including personnel names, job titles and contact information, date of meeting(s)/correspondence(s), topics discussed, and reasons the third party provided for deviations from the PUC form.

SECTION 722 (Continued)**B. CPM Bar Charts**

One (1) timescaled bar chart containing all activities shall be prepared and submitted using a scale that yields readable plots and that meets the requirements of Subsection 722.61 – Schedule Content and Preparation Requirements. Activities shall be linked by logic ties and shown on their Early Dates. Critical Paths shall be highlighted, and Total Float shall be shown for all activities.

A second timescaled bar chart shall also be prepared containing only the Critical Path or, if the Critical Path is not the longest path, the Longest Path using a scale that yields readable plots and that meets the requirements of Subsection 722.61 – Schedule Content and Preparation Requirements. Activities shall be linked by logic ties and shown on their Early Dates. Total Float shall be shown for all activities.

C. Detailed Activity Schedule Comparisons

A Detailed Activity Schedule Comparison (DASC) is a simple reporting tool in the format of a graphical report that will provide Resident Engineers with immediate, timely and up-to-date information. The DASC consists of an updated bar chart that overlays the current time period's bar chart onto the previous time period's bar chart for an easily read comparison of progress during the present and previous reporting periods.

D. Activity Cost Report and Monthly Cash Flow Projections (Type A only)

With each Contractor Quantity Estimate (CQE), the Contractor shall submit an Activity Cost Report and Cash Flow Projection that includes all activities grouped by Contract Bid Item.

The Activity Cost Report shall be generated from the Schedule of Record and shall be the basis of the Monthly Cash Flow Projection. Within each contract Bid Item, activities shall be sequenced by ascending activity identification number and shall show:

1. activity ID and description,
2. forecast start and finish dates for each activity and,
3. when submitted as a revised schedule, actual start, and finish dates for each completed activity.
4. any variance to the estimated contract quantity shall be shown.

E. Resource Graphs (Type A only)

Monthly and cumulative resource graphs for the remaining Contract period using the Early Dates and Late Dates in the Contract Progress Schedule shall be included as part of each schedule submittal.

SECTION 722 (Continued)**F. Projected Spending Reports**

A Projected Spending Report (PSR) shall be prepared and submitted monthly. The PSR shall indicate the monthly spending (cash flow) projection for each month from NTP to Contractor Field Completion (CFC). Each month's actual spending shall be calculated using all CQEs paid during that month. The Projected Spending Report (PSR) shall be depicted in a tabular format and provided in both an .XLS and .PDF.

722.63. Progress Schedule Requirements**A. Baseline Schedule**

The Baseline Schedule shall be due thirty (30) Calendar Days after Notice to Proceed (NTP). The Baseline Schedule shall only reflect the Work awarded to the Contractor and shall not include any additional work involving Extra Work Orders or any other type of alleged delay. The Baseline Schedule shall be prepared and submitted in accordance with Subsections 722.61 - Schedule Content and Preparation Requirements and 722.62 - Submittal Requirements. Once the Baseline Schedule has been accepted by the Engineer, with or without comments, it shall represent the as-planned schedule for the Work and become the Contract Progress Schedule of Record until such time as the schedule is updated or revised under Subsections 722.63.C - Contract Progress Schedules / Monthly Updates, 722.64.C - Recovery Schedules and 722.64.D - Proposal Schedules.

The Cost and Resource-Loading information (Types A and B only) shall be provided by the Contractor within forty-five (45) Calendar Days after NTP.

The Engineer's review comments on the Baseline Schedule and the Contractor's responses to them will be maintained for the duration of the Contract and will be used by the Engineer to monitor the Contractor's work progress by comparing it to the Contract Progress Schedule / Monthly Update.

B. Interim Progress-Only Schedule Submissions

The first monthly update of the Contract Progress Schedule/Monthly Update is due within seventy (70) Calendar Days after Notice to Proceed (NTP.) The Baseline Schedule review period ends at sixty (60) Calendar Days after NTP, see Subsection 722.60.B - Schedule Reviews by the Department. If the Baseline Schedule has not been accepted within sixty (60) Calendar Days after NTP, an Interim Progress-Only Schedule shall be due within seventy (70) Calendar Days after NTP. The purpose of the Interim Progress-Only Schedule is to document the actual progress of all activities, including non-construction activities, from NTP until the Baseline Schedule is accepted.

SECTION 722 (Continued)**C. Contract Progress Schedules / Monthly Updates**

The first Contract Progress Schedule shall be submitted by the Contractor no later than seventy (70) Calendar Days after NTP. The data date for this first Progress Schedule shall be two months (approximately sixty (60) Calendar Days) after NTP. Subsequent Progress Schedules shall be submitted monthly.

Each Contract Progress Schedule shall reflect progress up to the data date. Updated progress shall be limited to asbuilt sequencing and asbuilt dates for completed and inprogress activities. Asbuilt data shall include actual start dates, remaining Work Days and actual finish dates for each activity, but shall not change any activity descriptions, the Original Durations, or the Original Resources (as planned at the time of bid), without the acceptance of the Engineer. If any activities have been completed out-of-sequence, the Contractor shall propose new logic ties for affected in-progress and future activities that accurately reflect the previously approved sequencing. Alternatively, the Contractor may submit to the Engineer for approval an explanation of why an out-of-sequence activity does not require a correction and an adequate demonstration that the changes accurately represent how the activities will be built, including considerations for resources, dependencies, and previously approved production rates. Once approved by the Engineer, the Contractor may incorporate the changes in the next Contract Progress Schedule/Monthly Update with the affected activities clearly identified and explained in the Schedule Narrative.

No revisions to logic ties, sequence, description, or duration of future activities; or planned resource costs shall be made without prior approval by the Engineer.

Any proposed logic changes for in-progress or future activities shall be submitted to the Engineer for approval before being incorporated into a Contract Progress Schedule. The logic changes must be submitted using a Proposal Schedule or a schedule fragnet submission. Once approved by the Engineer, the Contractor may incorporate the logic in the next Contract Progress Schedule/Monthly Update with the affected activities clearly identified and explained in the Schedule Narrative.

For any proposed changes to the original sequence, description or duration of future activities, the Contractor shall submit to the Engineer for approval an explanation of how the proposed description or duration change reflects how the activity will be progressed, including considerations for resources and previously approved production rates. Any description or duration change that does not accurately reflect how the activity will be progressed will not be approved by the Engineer. Once approved by the Engineer, the Contractor may incorporate the changes in the next Contract Progress Schedule/Monthly Update with the affected activities clearly identified and explained in the Schedule Narrative.

Contract Progress Schedules that extend performance beyond the Contract Time or beyond any Contract Milestone shall not be approved by the Engineer. The Contractor shall submit a Recovery Schedule, or a Time Entitlement Analysis, if any Contract Progress Schedule/Monthly Update indicates a failure to meet the Contract Dates.

SECTION 722 (Continued)**D. Short-Term Construction Schedule**

The Contractor shall provide a Short-Term Construction Schedule that details daily work activities, including any multiple shift work that the Contractor intends to conduct, in a spreadsheet format. The daily activities shall directly correspond to the Contract Progress Schedule activities, with a matching reference to the activity identification number in the Contract Progress Schedule and may be at a greater level of detail. The Short-Term Construction Schedule shall be submitted every two weeks. It shall display all work for a thirty-five (35) Calendar Day period consisting of completed work for the two (2) week period prior and all planned work for the following three (3) week period. The initial submission shall be provided no later than thirty (30) Calendar Days after NTP or as required by the Engineer.

The Contractor shall be prepared to discuss the Short-Term Construction Schedule, in detail, with the Engineer in order to coordinate field inspection staff requirements, the schedule of work affecting abutters and any corresponding work with affected utilities. Short-Term Construction Schedules shall be prepared and submitted in accordance with Subsections 722.61 - Schedule Content and Preparation Requirements and 722.62 - Submittal Requirements.

722.64 Impacted Schedule Requirements**A. Notice of Delay**

The Contractor shall notify the Engineer in writing, with copies to the District and State Construction Engineers, within fifteen (15) of the start of any delays to the Critical Path that are caused by actions or inactions that were not within the control of the Contractor. Delay notifications that are not provided in a letter to the Engineer, such as a delay notification in the schedule narrative, will not be recognized as contractual notice in the determination of any Time Extension related to the impacts to the work associated with this specific alleged delay. Should such a delay continue for more than one (1) week, the Contractor shall note it in the Schedule Narrative until the delay is no longer impacting the Critical Path for the completion of the Contract Milestones. The Engineer will evaluate the alleged delay and its impact and will respond to the Contractor within ten (10) Calendar Days after receipt of a notice of delay.

B. Time Entitlement Analysis

A Time Entitlement Analysis (TEA) shall consist of a descriptive narrative, prepared in accordance with Subsection 722.62.A - Narratives, and an as-built CPM schedule, which may be in the form of a schedule fragnet that has been developed from the project's Contract Progress Schedule of Record, and illustrates the impact of a delay to the Critical Path, Contract Milestones and/or Contract Completion Date as required in Subsection 8.10 - Determination and Extension of Contract Time for Completion. TEAs shall also be used to determine the schedule impact of proposed Extra Work Orders (EWO) as also required in Subsection 8.10.

TEAs shall be prepared and submitted in accordance with the requirements of Subsections 722.61 - Schedule Content and Preparation Requirements and 722.62 - Submittal Requirements and shall be based on the Contract Progress Schedule of Record applicable at the start of the delay or impact from an EWO. A TEA fragnet must start with a specific new activity describing the work contained in either a Notice of Delay previously submitted to the Department per Subsection 722.64.A - Notice of Delay or an EWO.

SECTION 722 (Continued)

TEAs shall be submitted:

1. as part of any Extra Work Order that may impact Contract Time,
2. with a request for a Time Extension,
3. within fifteen (15) Calendar Days after a request for a TEA by the Engineer for any other reason.

A TEA shall be submitted to the Engineer before any Time Extension is granted to the Contractor. Time Extensions will not be granted unless the TEA accurately reflects an evaluation of all past delays and the actual events that occurred that impacted the Critical Path. The TEA must also demonstrate a plan for the efficient completion of all of the remaining work through an optimized CPM Schedule. The analysis shall include all delays, including Contractor-caused delays, and shall be subdivided into timeframes and causes of delays.

TEAs shall incorporate any proposed activities, logic ties, resource considerations, and activity costs required to demonstrate the schedule impacts most efficiently in addition to detailing all impacts to existing activities, logic ties, the Critical Path, Contract Milestones, and the Contract Completion Date. In addition, TEAs shall accurately reflect any changes made to activities, logic ties, restraints, and activity costs, necessitated by an Extra Work Order or other schedule impact, for the completion of the remaining work. The Contractor shall provide TEAs that demonstrate that all delays have been mitigated to the fullest extent possible without requiring an Equitable Adjustment to the original bid basis.

All TEAs shall clearly indicate any overtime hours, additional shifts and the resources that are proposed to be incorporated in the schedule. The Engineer shall have final discretion over the use of overtime hours and additional shifts. The Engineer shall have the right to require that overtime hours and/or additional shifts be used to minimize the duration of Time Extensions if it is determined to be in the best interest of the Department to do so.

When accepted, the changes included in a TEA shall be incorporated into the next Contract Progress Schedule per the requirements of Subsection 722.63.C - Contract Progress Schedules / Monthly Updates. During the review of any TEA, all Contract Progress Schedules shall continue to be submitted as required.

The Engineer may request that the Contractor prepare a Proposal Schedule or a Recovery Schedule to further mitigate any delays that are shown in the accepted TEA or Contract Progress Schedule.

C. Recovery Schedules

The Contractor shall promptly report to the Engineer all schedule delays during the prosecution of the Work. Contract Progress Schedules that predict performance extended beyond the Contract Time or beyond any Contract Milestone shall not be approved as the schedule of record. This requirement is critical to the Department's ability to make informed decisions regarding Contract Time and costs.

The Contractor shall submit a Recovery Schedule within fifteen (15) Calendar Days of a Contract Progress Schedule submission that shows failure to meet the Contract Dates unless a recovery schedule is waived by the Department. Waiving the recovery schedule does not relieve the contractor of the responsibility for the delay. The Department may revoke the waiver of a Recovery Schedule, at which time a Recovery Schedule shall be submitted within fifteen (15) Calendar Days of the Contractor being notified.

Changes represented in accepted Recovery Schedules shall be incorporated into the next
Contract Progress Schedule.

SECTION 722 (Continued)**D. Proposal Schedules**

A Proposal Schedule is an alternative schedule used to evaluate proposed changes to the Contract scope or significant alternatives to previously approved approaches to complete the Work, which may include changes to activity durations, logic, and sequence. For Types A and B Schedules, the Proposal Schedule shall be cost and resource loaded.

A Proposal Schedule may be requested by the Department at any time or may be offered by the Contractor. The Engineer may request that the Contractor prepare a Proposal Schedule to further mitigate any delays that are shown in an accepted TEA or Contract Progress Schedule.

The Contractor shall submit the Proposal Schedule within thirty (30) Calendar Days of a request from the Department.

The Proposal Schedule shall not be considered a Schedule of Record until the logic, durations, narrative, and basis of the Proposal Schedule have been accepted by the Engineer. If the Proposal Schedule took the form of a fragnet, it must be incorporated into the Contract Progress Schedule of Record showing the current progress of all other activities and the impacts/results of the changes made by the Proposal Schedule before the Proposal Schedule is accepted by the Department.

Proposal Schedules shall clearly indicate any proposed acceleration including overtime hours, additional shifts, and the resources that are proposed to be incorporated in the schedule. The Engineer shall have final discretion over the use of overtime hours and additional shifts. Proposal Schedules that contain a cost element shall be submitted with a separate Cost Proposal.

Changes represented in the accepted Proposal Schedules shall be incorporated into the next Contract Progress Schedule. During the review of any Proposal Schedule, all Contract Progress Schedules shall continue to be required every month.

E. Disputes

All schedules shall be submitted, reviewed, dispositioned, and accepted in the timely manner specified herein so as to provide the greatest possible benefit to the execution of this Contract.

The Contractor may dispute a decision by the Engineer by filing a claim notice within seven (7) days after the Contractor's request for additional time has been denied or if the Contractor does not accept the number of days granted in a time extension. The Contractor's claim notice shall include a revised time entitlement analysis that sufficiently explains the basis of the time-related claim. Failure to submit the required time entitlement analysis with the claim notice shall result in denial of the Contractor's claim. A determination on the Contractor's claim shall be in accordance with Subsection 7.16 Claims of Contractor for Compensation. Pending resolution of any dispute, the last schedule accepted by the Engineer will remain the Contract Schedule of Record.

SECTION 722 (Continued)**722.65 Schedule Type D Requirements**

This section is to detail the requirements for Type D Schedules and is separate from the requirements listed above. These schedules are intended for a project in which a more formal schedule would not be practical.

Schedules for Type D projects shall be submitted for each work assignment. The Schedule Type D shall be submitted electronically in .XLS and .PDF format and meet the following requirements.

The schedule requirements for work assignments that are anticipated to last three weeks or less shall conform to the requirements for Short-term Construction Schedules below.

Work assignments that are anticipated to last longer than three weeks shall submit a bar chart baseline and provided update schedules upon request of the engineer as required under Bar Chart Schedule below in addition to meeting the Short-term Construction schedule requirements.

A. Bar Chart Schedule

A Bar Chart that shall include the following:

- Work Assignment start date.
- Activities to identify.
 - Major work operations broken down to be no longer than 14 days.
 - Procurement of fabricated materials and equipment with long lead times, including time for review and approval of submittals required before procuring and fabricating.
 - The preparation and submission of shop drawings, procedures, and other required submittals, with a planned duration that is to be demonstrated to the Engineer as reasonable.
 - The review and return of shop drawings, procedures, and other required submittals, approved or with comments, the duration of which shall be shown as thirty (30) Calendar Days,
 - Detailed activities to satisfy permit requirements.
 - Subcontractor approvals at fifteen (15) Calendar Days from submittal to response
 - Project Close out activities including a 21-calendar day creation of a punchlist activity and 30 calendar day minimum completion of punchlist activity.
- Interfaces with adjacent work, utility companies, other public agencies, sensitive abutters, and/or any other third-party work affecting the Contract.
- Access Restraints – restrictions on access to areas of the Work
- Traffic work zone set-up and removal, night work and phasing
- Contract Milestones including Full beneficial Use, Substantial Completion and Contractor Field Completion

The Bar Char Schedule shall be provided at the beginning of the project and updated with each work order created for the project.

SECTION 722 (Continued)**B. Short-Term Construction Schedule**

The Contractor shall provide a Short-Term Construction Schedule that details daily work activities, including any multiple shift work that the Contractor intends to conduct, in a spreadsheet format. The daily activities shall directly correspond to the Contract Progress Schedule activities, with a matching reference to the activity identification number in the Contract Progress Schedule and may be at a greater level of detail. See schedule toolkit for suggested format.

The Short-Term Construction Schedule shall be submitted every two weeks. It shall display all work for a thirty-five (35) Calendar Day period consisting of completed work on the assignment for the two week period prior and all planned work for the following three week period. The initial submission shall be provided no later than thirty (30) Calendar Days after NTP or as required by the Engineer.

The Contractor shall be prepared to discuss the Short-Term Construction Schedule, in detail, with the Engineer in order to coordinate field inspection staff requirements, the schedule of work affecting abutters and any corresponding work with affected utilities.

C. Project Spending Report (PSR)

A Projected Spending Report (PSR) shall be prepared and submitted monthly. The PSR shall be for all active work assignments, broken down by work assignment. The PSR shall indicate the monthly spending (cash flow) projection for each month from NTP to Contractor Field Completion (CFC). Each month's actual spending shall be calculated using all CQEs paid during that month. The Projected Spending Report (PSR) shall be depicted in a tabular format and provided in both an .XLS and .PDF

SECTION 722 (Continued)**COMPENSATION****722.80 Method of Measurement****Schedule of Operations (Type A, B and C)**

The project bid documents specify the fixed-price amounts to be paid to the Contractor for the Project Schedule requirements contained herein. Each bidder shall include this fixed price bid item amounts in their bid. Failure to do so may be grounds for the rejection of the bid.

This fixed price amount is for payment purposes only and is separate from what the Department considers to be the Contractor's General Condition costs. If the Contractor deems it necessary to include additional costs to provide all of the requirements of this section, these additional costs shall be included in the Contractor's overall bid price.

All required schedule-related work, including, but not limited to computers, computer software, the planning and coordination with utilities, training, schedule preparation and schedule submittals will be paid for under the fixed price amount.

Twenty percent (20%) of this pay item will be paid upon the Engineer's acceptance of the Contractor's Baseline Schedule, prepared and submitted in accordance with Subsection 722.63.A.

The remaining eighty percent (80%) of this pay item will be paid in equal monthly installments distributed across the Contract Duration from Notice to Proceed (NTP) to Contractor Field Completion (CFC), less the 2 months required for the submittal and review of the Baseline Schedule in accordance with the following formula:

$$\text{Monthly Payment} = \frac{\text{Remaining Fixed Price amount (80\% of the Item Cost.)}}{\text{Contract Duration in whole months} - 2 \text{ months}}$$

The Schedule of Operations pay item will be adjusted to pay for only the actual quantity of schedules that have been submitted in accordance with this section.

Should there be a Time Extension granted to the Contractor, the Engineer may provide an Equitable Adjustment for additional Contract Progress Schedule Updates at intervals directed by the Engineer. The monthly payment will be the basis for this Equitable Adjustment.

Schedule of Operations (Type D)

For projects assigned with Type D schedule requirements, all scheduling work shall be considered incidental to the project with no separate payment under this section.

SECTION 722 (Continued)**722.81 Basis of Payment**

The timely and accurate submission of the Baseline Schedule is critical to the Contract and the Department's ability to make informed decisions. Only payments under Item 740 - Engineer's Field Office and Item 748 - Mobilization will be made until the Baseline Schedule is accepted by the Engineer.

All required schedule-related work, including, but not limited to computers, computer software, the planning and coordination with utilities, training, schedule preparation and schedule submittals (including monthly progress schedules, short-term schedules, project spending reports, TEAs, recovery schedules or impacted schedules) shall be included in this work.

No payment for any other pay item will be processed beyond seventy-five (75) Calendar Days from Notice to Proceed (NTP) until the Baseline Schedule is accepted by the Engineer. Until the Engineer's acceptance of the Baseline Schedule, the combined total of all payments made to the Contractor will be limited to an amount no greater than the total price for Item 748 - Mobilization or 3% of the contract price, whichever is less.

All Contract Progress Schedule Updates submitted later than ten (10) Calendar Days after the CQE (Contract Quantity Estimate) completion date, or greater than forty (40) Calendar Days from the Data Date of the previous submission, will be deemed to be no longer useful and will not qualify for payment. The late submission of Impacted schedules, including TEAs, recovery schedules and proposal schedules will result in the forfeiture of the monthly payment for the month in which they were due and subsequent months until the submission is made. Late submission of missed submittals will not result in recovery of the previously forfeited portion of the Schedule of Operations Fixed Price Payment Item.

Failure to submit schedules as and when required may result in the forfeiture of that portion of the Schedule of Operations Fixed Price Payment and/or the withholding of the full or partial CQE payments by the Engineer.

Failure to submit schedules that are acceptable to the Engineer may result in the forfeiture of that portion of the Schedule of Operations Fixed Price Payment and/or the withholding of the full or partial CQE payments by the Engineer.

The Schedule of Operations pay item will be adjusted to pay for only the actual quantity of schedules that have been submitted in accordance with this section.

The Contractor's failure or refusal to comply with the requirements of this Section shall be reasonable evidence that the Contractor is not prosecuting the Work with due diligence and may result in the Engineer withholding of full or partial payments of all work performed.

722.82 Payment Items

722.1	SCHEDULE OF OPERATIONS (TYPE A) - FIXED PRICE \$ _____	LUMP SUM
722.2	SCHEDULE OF OPERATIONS (TYPE B) - FIXED PRICE \$ _____	LUMP SUM
722.3	SCHEDULE OF OPERATIONS (TYPE C) - FIXED PRICE \$ _____	LUMP SUM

ITEM 129.5**TRACK EXCAVATION****FOOT**

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

The work shall include the excavation, cutting, removal and disposal of all existing railroad tracks encountered in the areas of the proposed work and shall include the removal of the rails, grade crossing panels, ties, hardware, ballast, foundations and other appurtenances. The method of excavation shall be approved by the Engineer prior to commencing with the work.

All other track materials shall become the property of the Contractor and shall be legally disposed of off the Contract site.

Method of Measurement

Item 129.5 will be measured for payment by the foot of single track removed and disposed. The measurement will be along the centerline between the 2 rails that form the single track. A single track is defined as a pair of rails, ties, and all connection hardware and other appurtenances.

Basis of Payment

Item 129.5 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.

Disposal of wooden ties shall be under item 184.1 Disposal of Treated Wood Products.

ITEM 153. **CONTROLLED DENSITY FILL - EXCAVATABLE** **CUBIC YARDS**

The work under this item shall conform to the relevant provision of Subsection 150 of the Standard Specification and the following:

Controlled Density Fill (CDF) – Excavatable – shall be furnished and placed in trench/utility areas crossing roadway where compaction cannot be obtained by conventional compacting methods, as shown on the plans or as required by the Engineer.

CDF shall conform to the provisions of M4.08.0 for Type 1E Very Flowable (Excavatable) or Type 2E Flowable (Excavatable).

This Item shall only be used at locations required by the Engineer.

METHOD OF MEASUREMENT

Item 153. will be measured for payment by the Cubic Yard of controlled density fill -excavatable placed, complete in place.

BASIS OF PAYMENT

Item 153. will be paid for at the Contract unit price per Cubic Yard, which price shall include all labor, materials, equipment, and all 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.

ITEM 180.03 (Continued)

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).

ITEM 181.11	DISPOSAL OF UNREGULATED SOIL	TON
ITEM 181.12	DISPOSAL OF REGULATED SOIL - IN-STATE FACILITY	TON
ITEM 181.13	DISPOSAL OF REGULATED SOIL - OUT-OF-STATE FACILITY	TON
ITEM 181.14	DISPOSAL OF HAZARDOUS WASTE	TON

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.

ITEMS 181.11 through 181.14 (Continued)

Each Characterization Report will include the laboratory analytical report and Chain of Custody Record for the samples included in the Report.

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.

ITEMS 181.11 through 181.14 (Continued)

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.

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 184.1**DISPOSAL OF TREATED WOOD PRODUCTS****TON**

(Rev 08/09/2016)

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.

<u>ITEM 201.</u>	<u>CATCH BASIN</u>	<u>EACH</u>
<u>ITEM 201.2</u>	<u>DOUBLE CATCH BASIN</u>	<u>EACH</u>
<u>ITEM 201.3</u>	<u>SPECIAL CATCH BASIN</u>	<u>EACH</u>
<u>ITEM 202.</u>	<u>MANHOLE</u>	<u>EACH</u>
<u>ITEM 203.</u>	<u>SPECIAL MANHOLE</u>	<u>EACH</u>

The work under these items shall conform to the relevant provisions of Subsections 201 and 220 of the Standard Specifications, the plans and the following:

All proposed catch basins shall be constructed with a minimum 4-foot sump. Eccentric cones may be required to install proposed catch basins and avoid existing trees, utilities, or other objects. Items 201.2, 201.3 and 203. will be constructed per the details included within the project plans. Items 201. and 202. are to be constructed per MassDOT's standard details.

METHOD OF MEASUREMENT

Items 201., 201.2, 201.3, 202. and 203. will be measured for payment by the each respective drainage structure installed, complete in place. Deep sump catch basins and double catch basins shall be measured as one unit each regardless of depth. Drain manholes and Special manholes shall be measured as one unit each regardless of depth.

BASIS OF PAYMENT

Items 201. Catch Basin, 201.2 Double Catch Basin, 201.3 Special Catch Basin, 202. Manhole and Item 203. Special Manhole will be paid for at the respective Contract unit price per each, which price shall include all labor, materials, equipment, excavation, backfilling and all incidental costs required to complete the work.

ITEM 220.8**SANITARY STRUCTURE REMODELED****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 the remodeling of existing sewer manholes as shown on the plans to meet the proposed grades.

The existing castings shall be removed and discarded. Discarding of existing castings shall be paid for under Item 223.2. New frame and covers shall be installed and paid for under Item 222.3.

Debris, excess mortar or other material resulting from the work shall be removed from the manhole.

Method of Measurement and Basis of Payment

Item 220.8 will be measured and paid per Subsections 220.8 and 220.81 respectively.

<u>ITEM 222.3</u>	<u>FRAME AND GRATE (OR COVER)</u>	<u>EACH</u>
	<u>MUNICIPAL STANDARD</u>	
<u>ITEM 222.31</u>	<u>FRAME AND GRATE – DOUBLE</u>	<u>EACH</u>
<u>ITEM 223.1</u>	<u>FRAME AND GRATE (OR COVER)</u>	<u>EACH</u>
	<u>REMOVED AND STACKED</u>	

The work under these items shall conform to the relevant provisions of Subsections 201 and 220 of the Standard Specifications and the following:

Existing frames and grates or covers from existing structures shown on the drawings to be abandoned or removed, or changed in type, shall be removed and discarded. New frames, grates and covers shall be furnished and installed for new structures and change in type structures.

All frame and grates shall be bicycle friendly.

All drainage castings shall be qualified products for use on MassDOT Highway Division construction contracts and furnished by a manufacturer on MassDOT's pre-approved materials list.

Municipal standard frames and covers shall have an HS20 loading rating and shall conform to AASHTO M306 and ASTM A48 "Standard Specification for Gray Iron Castings". The frames shall have a clear opening of 24 inches and be a minimum of 8 inches in height. The grates shall have a 2 inch by 2 inch slot openings and shall be bicycle friendly.

The surface of the covers shall have a diamond pattern. For drain manholes, the words "DRAIN" shall be cast. .

Three flange frames shall be provided at catch basin curb inlet locations.

Frame and Grate Double shall be constructed to the dimensions shown on the plans, shall be bicycle friendly, and have 2 inch by 2 inch slot openings.

The Contractor shall carefully remove, transport and stack all frame and grates or covers that, in the opinion of the Engineer, is salvageable. The material shall be stacked at the Town of Southbridge Department of Public Works at 185 Guelphwood Road, Southbridge, MA. The Contractor shall coordinate with the DPW to schedule drop-off time and location.

All frame and grates and covers not suitable for re-use shall be disposed of under Item 223.2

ITEMS 222.3, 223.31 and 223.1 (Continued)**METHOD OF MEASUREMENT**

Items 222.3, 223.31 will be measured for payment by the Each Frame and Grate (Or Cover) Municipal Standard, Frame and Grate – Double furnished and delivered to the site. Item 223.1 will be measured for payment by the Each Frame and Grate (or Cover) Removed and Stacked. Frame and grate or frame and cover shall be considered as a single unit.

BASIS OF PAYMENT

Items 222.3, 222.31, and Item 223.1 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.

<u>ITEM 303.06</u>	<u>6 INCH DUCTILE IRON WATER PIPE (MECHANICAL JOINT)</u>	<u>FOOT</u>
<u>ITEM 303.08</u>	<u>8 INCH DUCTILE IRON WATER PIPE (MECHANICAL JOINT)</u>	<u>FOOT</u>
<u>ITEM 303.12</u>	<u>12 INCH DUCTILE IRON WATER PIPE (MECHANICAL JOINT)</u>	<u>FOOT</u>
<u>ITEM 309.</u>	<u>DUCTILE IRON FITTINGS FOR WATER PIPE</u>	<u>POUND</u>
<u>ITEM 347.2</u>	<u>2 INCH COPPER TUBING TYPE K</u>	<u>FOOT</u>
<u>ITEM 350.06</u>	<u>6 INCH GATE AND GATE BOX</u>	<u>EACH</u>
<u>ITEM 350.08</u>	<u>8 INCH GATE AND GATE BOX</u>	<u>EACH</u>
<u>ITEM 350.12</u>	<u>12 INCH GATE AND GATE BOX</u>	<u>EACH</u>
<u>ITEM 358.</u>	<u>GATE BOX ADJUSTED</u>	<u>EACH</u>
<u>ITEM 363.2</u>	<u>2 INCH CORPORATION COCK</u>	<u>EACH</u>
<u>ITEM 375.12</u>	<u>12 INCH INSERTION VALVE AND BOX</u>	<u>EACH</u>
<u>ITEM 376.1</u>	<u>HYDRANT - EXCLUDING COST OF HYDRANT</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 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:

All materials used in the construction of the proposed water main and services shall meet the requirements in the Department of Public Works Southbridge Water Department Standard Specifications, dated February 26, 2009, document A00809.

Approval of Materials

The Contractor shall submit the names of the material suppliers, shop drawings and certificates of compliance to the Engineer for approval prior to ordering any materials.

ITEMS 303.06 through 384. (Continued)**Pipe and Fittings Installation**

The Contractor shall make all necessary arrangements with the Town of Southbridge Water and Fire Departments for the necessary shutdowns of service. Additional quantities of Items 350.06 – 6 Inch Gate Valve, 350.06 – 6 Inch Gate Valve and 350.12 - 12 Inch Gate Valve have been provided if valves are not functioning properly and need to be replaced. An additional quantity of Item 375.12 Insertion Valve and Box has been provided in the event that the configuration of existing valves cannot adequately shut off water to perform proposed waterline installation. Installation of insertion valves shall require coordination with and approval of the Town Engineer.

The Town of Southbridge Water Department may establish the time of shutdown to be within the normal daily low demand period.

Care shall be taken in loading, transporting, and unloading to prevent injury to the pipes, fittings or coatings. Pipe and fittings shall not be dropped. All pipe or fittings shall be examined before laying and no piece shall be installed which is found to be defective. Any damage to the pipe coatings shall be repaired as directed by the Engineer. Any pipe found to be defective, before or after laying, shall be satisfactorily removed and replaced with sound pipe at no additional cost to the Owner.

All pipe and fittings shall be installed in conformance with AWWA Standard Specifications C600, except as otherwise provided herein. All pipe and fittings shall be sound and clean before laying and shall be laid on a shaped bedding providing uniform, firm support over the entire length of each section barrel. BLOCKING WILL NOT BE PERMITTED. The select bedding material shall be placed and tamped along the sides of the pipe to complete the bedding.

Pipe shall be laid with good alignment and at a uniform 5-foot depth to top of pipe below proposed grade except where extra depth is required to clear other utilities and to connect to existing pipes, valves or fittings. Joint deflection shall not exceed that recommended by the manufacturer. Additional fittings shall be furnished and installed as required to cross existing utilities. Solid sleeves shall be used only where approved by the Engineer.

When pipe laying is stopped for any length of time, including short periods, the open ends of the pipe and fittings shall be closed with a watertight plug or cap as approved by the Engineer. Necessary pipe cutting shall be accomplished by power saw and shall leave a smooth cut at right angles to the axis of the pipe. Cut ends of pipe to be used with a push-on bell shall be beveled to conform to the manufactured spigot end. Cement lining shall be undamaged.

Mechanical joints shall be installed in accordance with the "Notes of Method of Installation" of ANSI A21.11 and the instructions of the manufacturer. The Contractor shall thoroughly clean the joint surfaces and rubber gasket with soapy water before tightening the bolts. Bolts shall be tightened to the specified torques.

Extension wrenches or pipe over handle or ordinary ratchet wrench shall not be used to secure greater leverage.

ITEMS 303.06 through 384. (Continued)**Testing/Approval**

All new water mains and services shall be pressure tested to 200 PSI for 5 minutes followed by 150 PSI for 2 hours. The system shall be tested as a whole (i.e. mains and services together) unless otherwise approved by the Southbridge Water Department and Department of Public Works.

Water/Sewer Separation

When a water pipe crosses above or below a sewer pipe, the following procedures shall be utilized. The Contractor shall comply with these following procedures:

Whenever possible, water mains shall be laid at a minimum at least 10 feet, horizontally, from any existing sewer. Should local conditions prevent a lateral separation of 10 feet, a water main may be laid closer than 10 feet to a sewer if:

- a. It is laid in a separate trench, or if;
- b. It is laid in the same trench with the sewer located at one side on a bench of undisturbed earth, and if;
- c. In either case, the elevations of the top (crown) of the sewer is at least 18 inches below the bottom (invert) of the water main.

Whenever water mains must cross under sewers, the water main shall be laid at such an elevation that the bottom of the water main is at least 18 inches above the top of the sewer. When the elevation of the sewer cannot be varied to meet the above requirements, the water main shall be relocated to provide this separation or reconstructed with mechanical-joint pipe for a distance of 10 feet on each side of the sewer. One full length of water main should be centered over the sewer so that both joints will be as far from the sewer as possible.

When it is impossible to obtain horizontal and/or vertical separation as stipulated above, both the water main and sewer shall be constructed of mechanical-joint cement lined ductile iron pipe or other equivalent based on water tightness and structural soundness. Both pipes shall be pressure tested by an approved method to assure water tightness or both pipes shall be encased in concrete.

Gate Boxes

Gate boxes shall be two-section, cast iron, heavy pattern adjustable type, with cast iron cover. The upper sections shall have a bottom flange of sufficient bearing area to prevent settling. The bottom section shall enclose the valve stuffing box and operating nut. Boxes shall be of lengths adapted to 5-foot pipe cover or more and have a minimum of 6 inches of overlap in the most extended position. Covers shall have the word "WATER" cast in the top and shall be held in place with bronze bolts.

ITEMS 303.06 through 384. (Continued)**Couplings**

Couplings shall be used to (1) repair split pipe or replace sections of damaged pipe; (2) install or cut-in hydrants or valves into a water main; (3) couple different pipe types; and (4) correct misaligned pipe ends. Couplings shall have a pressure rating of 250 psi or greater. Materials shall be manufactured in accordance with the following:

- (1) Center and end rings: ASTM-A536
- (2) Gaskets: ASTM D2000
- (3) Bolts & Hex Nuts: AWWA C111

Couplings shall be epoxy-coated.

Plugs and Caps

Plugs and/or caps shall be installed in locations shown on the Drawings or designated by the Engineer. The wetted surfaces of all plugs, caps and blank flanges shall be cement-lined and asphalt seal coated as specified for ductile iron pipe hereinbefore.

Furnish and maintain on the site, temporary water-tight plugs in the various sizes required for the water mains to be installed.

Service Piping

Service piping shall be plastic. The service piping shall conform to the above- referenced standards for polyethylene with a pressure rating of 200 psi and a diameter of 1-inch. Plastic Tube sizes shall be used to allow the use of compression fittings without special adapters.

Curb Stop

The curb stop shall be as noted in the Town of Southbridge Water Regulations. Curb stops shall be (CTS) thread, open right with stop.

Hydrant Installation

Hydrants shall be set at the locations shown on the drawings, or as directed by the Engineer, and bedded on a firm foundation. A drainage pit 2 feet 6 inches in diameter shall be back-filled with crushed stone in conformance to M2.01.1 and satisfactorily compacted. Additional stone shall be brought up and around 6 inches over the drain ports. 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.

Thrust Restraints

Thrust restraints shall be installed at all tees, bends, plugs, caps, tapping sleeves and other locations as directed by the Engineer in accordance with the dimensions and details shown on the plans.

Concrete shall have a minimum strength Class of 3,000 psi.

ITEMS 303.06 through 384. (Continued)

Whenever water pipes can be placed against undisturbed earth, concrete thrust blocks may be installed. The back of thrust blocks shall be placed against undisturbed earth and the sides shall be formed. Felt roofing paper shall be placed to protect pipe joints. Concrete shall not be placed over bolts or nuts, or in a manner which prevents the removal of joints.

Whenever water pipes are installed within fill sections, the Contractor shall use mechanical restrained joint pipe and wedge-type mechanical joint restraints rated for 350 psi.

Tapping Sleeves and Valves

When connections to existing water mains are required, a tapping sleeve and valve shall be used. The tapping sleeve and valve shall be of adequate size and pressure to ensure the continued flow of water through the existing main throughout construction. A gate valve and box will be installed with the tapping sleeve. The gate valve shall conform to requirements listed above.

Tapping Sleeve and valve shall meet the standards in the Town of Southbridge Water Department Specifications.

Removal of Existing Pipes

All existing water pipes shown on the plans to be removed shall be properly disposed of by the Contractor away from the site. The work will include the backfill of the areas where the pipe is removed with acceptable material as directed by the Engineer.

METHOD OF MEASUREMENT

Items 303.06, 303.08 and 303.12 will be measured for payment by the Foot of respective ductile iron water pipe (mechanical joint) installed complete in place along the axis of the pipe without deduction for the space occupied by valves, excluding however, the length occupied by new fittings per foot.

Items 350.06, 350.08, 350.12, 358. 363.2, 375.12, 381. and 384. will be measured for payment respectively by the Each installed complete in place.

Item 309. will be measured for payment by the pound and the quantity shall be the weight stated on the invoice of the supplier or the manufacturer's rated weight as listed in the catalog whichever is the lesser.

Item 347.2 will measure for payment by the foot of 2 inch copper tubing type K installed complete in place.

Item 376.1 will be measured for payment by the Each Hydrant – excluding cost of hydrant, installed complete in place.

Item 376.3 will be measured for payment by the Each hydrant removed and stacked.

ITEMS 303.06 through 384. (Continued)**BASIS OF PAYMENT**

Items 303.06, 303.08, and 303.12 will be paid for at the respective contract unit price per foot, which price shall include all labor, material, equipment and incidental costs required to complete the work.

Item 309. will be paid for at the contract unit price per pound, which price shall include all labor, material, equipment and incidental costs required to complete the work.

Item 347.2 will be paid for at the contract unit price per foot, which price shall include all labor, material, equipment and incidental costs required to complete the work.

Items 350.06, 350.08 and 350.12 will be paid for at the respective contract unit price per each, which price shall include all labor, material, equipment and incidental costs required to complete the work.

Item 358. will be paid for at the contract unit price per each, which price shall include all labor, material, equipment and incidental costs required to complete the work.

Items 363.2, 381. and 384. will be paid for at the respective contract unit prices per each, which price shall include all labor, material, equipment and incidental costs required to complete the work.

Item 375.12 will be paid for at the contract unit price per each, which price shall include all labor, material, equipment and incidental costs required to complete the work.

Items 376.1 and 376.3 will be paid for at the respective Contract unit price per each, which price shall include all labor, material, transportation, equipment and incidental costs required to complete the work.

No separate payment will be made for excavation, concrete for thrust blocks, gravel borrow, pipe bedding and backfill, insulation, but all costs in connection therewith shall be included in the unit prices bid for the respective items.

Hot mix asphalt for patching will be paid for under Item 451.

No separate payment will be made for the removal, transporting and stacking or disposal of the existing materials including, but not limited to, existing pipe, valves and fittings, but all costs in connection therewith shall be included in the unit prices bid for the respective items.

ITEM 507.05 **GRANITE CURB TYPE T-100 – STRAIGHT** **FOOT****ITEM 507.15** **GRANITE CURB TYPE T-100 - CURVED** **FOOT**

The work under these items shall conform to the relevant provisions of Subsection 501 of the Standard Specifications and the following:

The work shall include the furnishing and installing of Modified granite curbing and shall be constructed as shown in the plans. Any designated cement concrete that is acceptable to the engineer under Section M4 of the Standard Specifications shall be used for the footing and shall be placed on three sides of the curbing.

Modified granite curbing shall be supplied in consistent lengths of approximately 6 feet. No pieces shorter than four feet shall be allowed. Where radius of curb is 100 feet or less, the curb shall be cut to the required curvature. The beveled edge of the traversable granite curb should be clean cut at an angle as detailed. Surface wind marks or jagged edges will not be allowed.

METHOD OF MEASUREMENT

Items 507.05 and 507.15 will be measured for payment by the Foot of respective granite curb installed, complete in place.

Measurements will be taken along the front arris of the curb and edging, except that where the edging is set on a curve having a radius of 10 feet or less, the measurement will be made along the edging at the lowest exposed level after completion of shoulder or pavement.

BASIS OF PAYMENT

Items 507.05 and 507.15 will be paid for at the respective Contract unit prices per Foot, which price shall include all labor, materials, equipment, concrete, drilled dowel holes, dowel installation, longitudinal #4 epoxy coated ribbed J-bars, epoxy bonding agent, transition lengths, and all incidental costs required to complete the work.

ITEM 690. **STONE MASONRY WALL REMOVED AND** **CUBIC YARD**
 REBUILT IN CEMENT MORTAR

GENERAL

The work under this item shall conform to the relevant provisions of Subsection 690. of the Standard Specifications and the following:

Concrete for the coping shall be meet the requirements of Subsection 901: Cement Concrete. The dimensions of the concrete coping including the height, width, and depth shall match the existing concrete coping.

Where shown on the plans, the stone masonry walls removed and rebuilt shall include provisions for a 72" chain link fence installed on top of the wall. The required provisions include but are not limited to the installation of a galvanized pipe sleeve, bituminous paint and caulking.

METHOD OF MEASUREMENT

Item 690. will be measured for payment by the CUBIC YARD of stone masonry wall removed and rebuilt in cement mortar with a concrete cap, complete in place

BASIS OF PAYMENT

Item 690. will be paid for at the Contract Unit price per cubic yard which price shall include all labor, equipment, materials and all incidental costs required to complete the work. The concrete coping shall be measured and paid for under this item.

The 72" chain link fence shall be paid for under Item 645.172. The 72 inch chain link fence end post shall be paid for under Item 652.072.

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

ITEM 697.1 (Continued)**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 701.24 STAMPED CEMENT CONCRETE PAVEMENT SQUARE YARD

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

Stamped cement concrete pavements shall consist of integrally colored (i.e., incorporated through-out the mix) and dry-shake colored stamped cement concrete complete in place as shown on the plans.

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

A 4 foot by 4 foot cured “mock up” of each type of colored concrete pavement shall be constructed for review and approval by the Engineer in consultation with the Town of Southbridge.

Materials

Concrete mix design shall meet the requirements of Section 701 of the Standard Specifications, ASTM C94, and the following:

Cement: ASTM C150, type 1, Portland cement gray color.

Minimum Cement Content: 5 sacks per cubic yard of concrete.

Slump of concrete shall be consistent throughout Project at 4-inches or less. At no time shall slump exceed 5-inches.

Do not add calcium chloride to mix as it causes mottling and surface discoloration.

Supplemental admixtures shall not be used unless approved by manufacturer of color admixture.

Add air entraining agent to concrete work in amounts of 4-7 percent of total concrete volume, or as otherwise recommended by testing lab.

Add coloring admixture in quantities recommended by admixture manufacturer to achieve selected color. Add colored admixture to the mix according to manufacturer’s written instructions in premeasured bags, not by weight of cement content.

Coloring agents for the colored and stamped concrete shall all be supplied by the same manufacturer as part of an integrated system.

ITEMS 701.24 (continued)

COLOR ADMIXTURES for integrally colored concrete shall be a colored, water-reducing, admixture containing no calcium chloride with coloring agents that are lime proof and UV resistant. Colored admixture shall conform to the requirements of ACI 303.1, ASTM C979, ASTM C494, and AASHTO M194.

COLOR HARDENERS shall be a heavy-duty grade, UV-stable, dry-shake material for intensely coloring and hardening concrete flatwork. Color hardener shall be a blend of mineral oxide pigments, cement, graded silica aggregates and aluminum oxide, with conditioning agents to improve workability.

RELEASE AGENT: shall be a dry blend of chemical powders and color pigments designed as part of the coloring and patterning system to provide the clean release of the texturing tools from the concrete surface.

CURING COMPOUNDS for Colored Concrete: Curing and sealing compound shall be a ready to use water-based membrane curing compound and sealer designed to increase impact strength of the colored concrete and to repel stains. Curing compound shall comply with ASTM C309, and the slip-resistance requirements of ASTM D-2047, be suitable for exterior use and of same manufacturer as colored admixture, for use with integrally colored concrete.

CONCRETE COLORING SYSTEM COLORS: Color Admixture and Color Hardener for 'Stamped Concrete Pavement– Cobble Pattern' shall be a Deep Gray color or other medium to dark color as selected by the Engineer in consultation with the Town, from the manufacturer's standard color range.

Powder Antiquing Release Agent for each type of stamped concrete: Colors shall be as selected by Engineer from approved manufacturer's standard colors.

Joint Sealant colors shall match the colored concrete surface.

STAMP/IMPRINTING PATTERNS: Stamp pattern for 'STAMPED CEMENT CONCRETE PAVEMENT' shall be a Used Brick pattern as indicated on the Drawings, or other brick-like pattern as selected by Engineer in consultation with the Town of Southbridge from the approved manufacturer's standard brick patterns. Pattern templates shall be provided for linear accent strip treatment for borders of the stamped concrete, and for running bond pattern for the field of the large paved areas, all as indicated on the detail plans on the drawings.

REINFORCING shall be as indicated on the Drawings and in accordance with the Standard Specifications.

Installation

Subgrade preparation and formwork shall be installed to the lines, grades, and depths indicated on the Drawings and in accordance with Section 701.

ITEMS 701.24 (continued)

Place integrally colored concrete mix according to the Standard Specifications and the requirements of ACI 301, 302, and 304. Minimize handling to prevent segregation. Do not add water to the mix in the field.

After consolidating and screeding, float concrete to the gradients indicated.

Apply dry-shake color hardener prior to the application of the imprinting pattern. Apply at rate recommended by manufacturer, in two or more shakes, in accordance with manufacturer's instructions. Float after each shake, and trowel only after the final color hardener shake.

While concrete is still in a plastic state, apply release agent to the troweled surface, and then the surface shall be uniformly stamped/imprinted, applying the pattern as indicated on the drawings and according to the tool manufacturer's instructions. Provide a uniform pattern and uniform depth of stamping. Touch-up pattern and finish edges with hand tools as necessary.

Immediately after finishing concrete, apply curing and sealing compound for integrally colored concrete according to manufacturer's instructions using manufacturer's recommended application techniques. Apply curing and sealing compound at consistent time for each pour to maintain close color consistency. Curing compound shall be same color as the colored concrete and supplied by same manufacturer of the colored admixture.

Precautions shall be taken in hot weather to prevent plastic cracking resulting from excessively rapid drying at surface as described in CIP 5 *Plastic Shrinkage Cracking* published by the National Ready Mixed Concrete Association. Do not cover concrete with plastic sheeting.

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

METHOD OF MEASUREMENT

Item 701.24 will be measured for payment by the square yard surface stamped concrete pavement installed, complete in place.

BASIS OF PAYMENT

Item 701.24 will be paid at the Contract unit price per square yard, which price shall include all labor, materials, equipment, submittal and all incidental costs required to complete the work.

No separate payment will be made for the "mock up", joint sealer or backer rods, but all costs in connection therewith shall be included in the unit price bid.

ITEM 706.7**TEXTURIZED PAVEMENT****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 installation of six foot wide Texturized Pavement at all proposed crosswalk locations in accordance with the following:

Preparation Of Asphalt Surface

The section of pavement to be replaced shall be sawcut in neat lines six feet apart in the direction of the proposed crosswalk. The final surface pavement shall then be milled to an approximate depth of 0.75 inches. The Contractor shall immediately remove all residual material resulting from this work. All excavated material shall be disposed of by the Contractor offsite.

Installation Of Texturized Synthetic Pavement

The Contractor shall be responsible for the preparation, placement and patterning of Texturized Pavement. This synthetic paving material shall be composed of a hot-applied, resin-based compound formulated with a color stable pigment throughout that can be surface textured to simulate a brick pattern. Said pattern shall be oriented such that the continuous lines of the brick pattern shall be perpendicular to the parallel edges of the proposed crosswalk. The Contractor will be required to overlay in previously prepared recessed pavement surfaces as described above, and as required and approved by the Engineer.

The Contractor must be a manufacturer authorized applicator, experienced with this specialized system, satisfactory to the Engineer. Contractor shall furnish shop drawings, from manufacturer, to confirm design intent. A manufacturer representative shall be present at all times during the placement and curing of the textured synthetic pavement materials.

Using manufacturer prescribed methods and equipment, the Contractor shall adequately heat and uniformly mix the synthetic material(s) together. The contractor shall provide samples of all applicable colors, from the available pigments supplied by the manufacturer, to the Engineer/Town of Southbridge for approval prior to installation. **The color shall be a brick red.** Maximum heating temperature of the completed formulation is 440 degrees Fahrenheit.

The Contractor shall then apply the heated, mixed synthetic material to the surface of the hardened, structurally sound, asphalt pavement. The synthetic material shall be spread and leveled to the desired build thickness of 0.75 inches, using manufacturer's specialized ironing tools, heated sufficiently to smooth the surface to a state of readiness for texturing. No material shall be applied when precipitation is present. No underlayment of any type shall be placed between the prepared surface to receive the overlay and Texturized Pavement Material. The Texturized Pavement shall be applied directly to the prepared surface to ensure a good bond.

Texturing will begin immediately after leveling has occurred, while the material is still hot enough to allow the mold selected, to adequately penetrate the surface and create the desired pattern or form.

ITEM 706.7 (Continued)

Once the finished surface has cooled completely and has hardened to the manufacturer's specification to support vehicular and pedestrian traffic, the application area may be opened to vehicular and/or pedestrian traffic. Any residual material resulting from this work shall be removed and disposed of in a proper manner offsite. The completed work area shall be left in a neat and clean condition, satisfactory to the Engineer.

The products used in this surfacing system shall meet the material specifications outlined below and conform to the minimum following physical and performance properties: hot-applied resin-based compound developed specifically for use on asphalt or cement concrete, with superior adhesion, flexibility and abrasion resistance characteristics, as well as color stability, chemical resistance and scrub ability.

The Contractor, during the operation of work, to save from harm and injury, any structure, public or private, situated above or below the surface and lying within the scope of the project. If during the execution of the work, the Contractor, through willfulness or carelessness, permits or causes any damage, the cost of satisfactory repair or replacement shall be the financial responsibility of the Contractor.

Synthetic Pavement Material:

The material to be utilized in the Texturized Pavement shall conform to the following physical properties:

Average Temp. Range:	-5 - 110 degrees F
Wheel Tracking @ 113 F:	less than 1 mm/ hr
Wheel Tracking @ 140 F:	N/A
Density:	2.12
Cone Flow Test (5 hours @ 194 F):	15% maximum
Plane Test (5 hours @ 194 F):	5% maximum
Indent @ 194 F:	25 dmm maximum
Indent @ 122 F:	N/A
Ash Content:	90% maximum
Skid Resistance Value (ASTM E303):	82.6 BPN
Flash Point (ASTM D92-05a):	540 degrees F
Impact Resistance (ASTM D256-06):	13.39 in. lbs.
Durometer Hardness (ASTM D2240-05):	60
Specific Gravity/Density (ASTM D790-03):	2.15
Softening Point (ASTM D36-00):	295 degrees F
Water Absorption (ASTM D570-05):	<0.001%

The color and surface pattern shall be a red colored brick pattern. A 3 foot by 3 foot cured "mock up" shall be constructed for review and approval by the Engineer and Town officials

ITEM 706.7 (Continued)**Equipment Required:**

The Contractor shall possess and be familiar with the specialized machinery necessary to perform the procedures as outlined and contained within this technical specification package, including, but not limited to, appropriate trucks, compressors, miscellaneous asphalt equipment, dispensers, applicators, cutters and/or specialized tools etc.

METHOD OF MEASUREMENT

Item 706.7 will be measured for payment by the Square Yard of surface texturized pavement, complete in place.

BASIS OF PAYMENT

Item 706.7 will be paid for at the Contract unit price per Square Yard, which price shall include all labor, materials, equipment, sawcutting, submittal, milling of the asphalt pavement, existing pavement removal, “mock-up”, shop drawings, attendance of manufacturer’s representative during construction, and all incidental costs required to complete the work.

ITEM 707.1**PARK BENCH****EACH**

The work under this item shall conform to the relevant provisions of Subsection 700 of the Standard Specifications and the following. The work under this item shall include the installation of park benches furnished by the Town.

Benches shall be set at the locations shown on the drawings and as directed by the Engineer. Prior to final installation, the bench locations should be approved by the Town. Benches shall be installed on a concrete foundation per the manufacturer's requirements.

The concrete foundation shall be cast-in-place Class D, 4000psi-3/4"-610 lb concrete as specified in the relevant provisions of Section M4 of the Standard Specifications. The foundation shall be 33"(D)x78"(W)x6"(T) or as recommended by the manufacturer.

METHOD OF MEASUREMENT

Item 707.1 will be measured for payment by the Each Park Bench installed, complete in place.

BASIS OF PAYMENT

Item 707.1 will be paid for at the Contract unit price per each, which price shall include all labor, materials, concrete foundations, and equipment and all incidental costs required to complete the work.

ITEM 714.**MONUMENT REMOVED AND RESET****EACH**

The work under this item shall conform to the relevant provisions of Subsection 700 of the Standard Specifications and the following:

The work under this item shall include the removal, resetting and restoration of the existing Hiker Monument at Station 103+75RT.

The work shall include the careful removal and resetting of the monument at Dresser Park, adjacent to 150 Main Street. The monument will be reset on a new concrete foundation to be constructed by the Town. Prior to any work commencing, the Contractor shall contact and coordinate with the Town of Southbridge Historical Commission.

Qualified Conservation Firms

The Contractor shall engage the services of one of the following qualified conservation firms to undertake the work under this item.

Daedalus, Inc.

Contact: Josh Craine

205-3 Arlington Street

Watertown, MA 02472

617-926-7590

www.daedalusart.com

Schiff Architectural Details

Contact: Jeff Schiff

120 Eastern Avenue

Chelsea, MA 02150

617-887-0202

www.schiffarchitecturaldetail.com

Skylight Studios, Inc.

Contact: Robert Shure

105 Salem Street

Woburn, MA 01801

781-933-3822

services@skylightstudios.com

Inspection and Photography

The Contractor and Engineer shall jointly inspect the monument in its existing locations prior to any work being undertaken. The Contractor shall provide color digital photographs of the monument (all sides) electronically to the Engineer showing the monument in its existing condition and location prior to beginning any work under this item.

ITEM 714. (Continued)

Cleaning: All surfaces of both street signs shall be abrasive blast cleaned to SSPC SP 10 requirements. The abrasive used for blasting shall consist of a fine sand, baking soda, or similar material. The conservation firm may submit alternate methods of surface preparation for approval by the Engineer. Special attention shall be given to the cleaning process to ensure that raised elements and defined edges of the monument are not eroded or rounded-over by the abrasive cleaning process. The conservator shall select the least abrasive media and air pressure for the cleaning to prevent damage to the monument.

Resetting: The Contractor shall have full responsibility for transporting and resetting the monument on the new foundation at Dresser Park. Any miscellaneous hardware required for resetting shall be considered incidental and included in this item.

METHOD OF MEASUREMENT

Item 714 will be measured for payment as a single unit per Each.

BASIS OF PAYMENT

Item 714. will be paid as a single unit per Each, which shall include full compensation for all labor, equipment, or materials to complete the work as required by the Engineer, except the new concrete foundation to be constructed by the town..

ITEM 718.01**FLAG POLE REMOVED AND STACK****EACH**

The work under this item shall conform to the relevant provisions of Subsection 700 of the Standard Specifications and the following:

The work under this item shall include the removal and stacking of the existing flag pole currently located in the island at the intersection of Hook Street and Hamilton Street. The existing foundation shall be removed to a minimum of six-inches below the proposed finished ground elevation.

The work shall include the careful removal and transport of the flag pole to the Southbridge DPW yard at 185 Guelphwood Road, Southbridge, MA.

METHOD OF MEASUREMENT

Item 718.01 will be measured for payment per each removed and stacked..

BASIS OF PAYMENT

Item 718.01 will be paid for at the Contract unit price per each, which price shall include all labor, materials, equipment, transportation and incidental costs necessary to complete the work as required by the Engineer.

ITEM 740. ENGINEERS 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 systems 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 | - 600 x 600 dpi capability |
| - LCD touch panel display | - 30 pages per minute print speed (color), |
| - 50 page reversing automatic document feeder | - 4 Paper Trays Standard (RADF) (not including the bypass tray) |
| - Reduction/enlargement capability | - Automatic duplexing |
| - Ability to copy and print 11" x 17" paper size | - Finisher with staple functions |
| - email and network pc connectivity | - Standard Ethernet. Print Controller |
| - Microsoft and Apple compatibility | - Scan documents to PDF, PC and USB |
| - ability to overwrite latent images on hard drive | - 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.

Compensation for this work will be made at the contract unit price per month which price includes full compensation for all services and equipment, and incidentals necessary to provide equipment, maintenance, insurance as specified and as directed by the Engineer.

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 767.9**JUTE MESH****SQUARE YARD**

The work under this item shall conform to the relevant provisions of Section 700 of the Standard Specifications and the following.

The work under this item shall consist of furnishing and installing jute mesh fabric to prevent soil erosion. Jute mesh shall be placed over all areas of exposed soil in locations shown on the plans or as required by the Engineer.

MATERIALS

Jute netting or similar material shall be new, unused, undyed, and unbleached 100% biodegradable yarn (no polypropylene) and of uniform plain weave. The materials should weigh approximately 1.0 (+/- 5%) pounds per linear yard (assuming a 4-foot width).

Shall meet the following minimum requirements:

Open Area:	70-75%
Mesh Size:	approximately 1/2 inch with an open area of 60-65%.
Roll Weight:	approximately 1.0 (+/- 5%) pounds per linear yard
Warp Ends:	78 per linear yard
Weft Ends:	41 per linear yard
Recommended flow:	6 fps (1.8 m/s)
Functional Longevity:	6-9 months

Anchoring devices shall be 11-gauge steel staples 6-inch minimum length. In loose soils the length of the staples shall be 9-inches.

For areas that will be routinely mowed anchoring devices shall consist of minimum 8" wooden stakes. Longer stakes shall be used where loose soils or other conditions obligate, as required by the Engineer.

CONSTRUCTION METHODS

Area shall be seeded prior to installation of jute netting.

Installation shall be such as to ensure continuous contact with soil without folds or wrinkles. Jute netting shall be laid such that upslope fabric is placed over lower slope fabric by a minimum of 3 feet. Adjoining rolls shall be overlapped a minimum 6 inches. The netting shall extend beyond at least 1 foot beyond the edge of the seeded area.

The Contractor shall bury the ends of the jute netting 6-8 inches in anchor trenches at top and bottom of slopes.

ITEM 767.9 (Continued)

Jute netting shall be anchored in place with vertically driven metal staples. The staples shall be driven in until their tops are flush with the soil. Staples shall be placed at 12-inch intervals along the top of a slope and in staggered courses along the face of the slope to achieve a minimum of 3 staples per square yard, or at manufacturer's recommendations for the given site conditions.

Contractor shall reseed all trenched and otherwise disturbed areas with specified seed mix. The Contractor shall maintain the jute netting and make satisfactory repairs of any areas damaged until acceptance of seed establishment.

METHOD OF MEASUREMENT

Jute Mesh will be measured by the number of Square Yards complete in place, including anchoring, as measured across the surface of grade and does not include buried or overlapped portions. The quantity measured for payment shall not exceed that shown on the plans or as directed by the Engineer.

Mesh that becomes loose or that is not otherwise functioning to stabilize soil shall be repaired and new or additional jute matting installed as required at the Contractor's expense. Soil erosion shall be repaired, and area shall be raked and reseeded with the original specified mix as required by the Engineer at the Contractors expense.

BASIS OF PAYMENT

Item 767.9 will be paid for at the contract unit price per Square Yard, which price shall include all labor, materials, equipment, trenching, placing, and stapling of jute fabric, reseeding of trenched and disturbed areas, and all incidental costs required to complete the work.

<u>ITEM 775.140</u>	<u>LINDEN – AMERICAN 2-2.5 INCH CALIPER</u>	<u>EACH</u>
<u>ITEM 776.543</u>	<u>MAPLE – RED – OCTOBER GLORY 2-2.5 INCH CALIPER</u>	<u>EACH</u>
<u>ITEM 777.137</u>	<u>OAK – PIN 1-1.5 INCH CALIPER</u>	<u>EACH</u>
<u>ITEM 778.161</u>	<u>BIRCH – RIVER HERITAGE 6-8 FOOT CLUMP</u>	<u>EACH</u>
<u>ITEM 781.263</u>	<u>HAWTHORN – WINTER KING 1.5-2 INCH CALIPER</u>	<u>EACH</u>
<u>ITEM 783.465</u>	<u>TUPELO 1.5-2 INCH CALIPER</u>	<u>EACH</u>
<u>ITEM 786.100</u>	<u>JUNIPER – BAR HARBOR 1.5-2 FEET SPREAD</u>	<u>EACH</u>
<u>ITEM 786.700</u>	<u>CHOKEBERRY – IROQUOIS BEAUTY 1.5-2 FEET</u>	<u>EACH</u>
<u>ITEM 794.329</u>	<u>SUMAC SHRUB – FRAGRANT-GRO-LOW 1.5-2 FEET</u>	<u>EACH</u>
<u>ITEM 794.803</u>	<u>SWEETFERN #1</u>	<u>EACH</u>
<u>ITEM 796.455</u>	<u>SWITCH GRASS 1 GALLON</u>	<u>EACH</u>
<u>ITEM 796.500</u>	<u>PURPLE LOVE GRASS 1 GALLON</u>	<u>EACH</u>
<u>ITEM 796.770</u>	<u>BUTTERFLY MILKWEED 1 GALLON</u>	<u>EACH</u>
<u>ITEM 796.775</u>	<u>GRAY GOLDENROD 1 GALLON</u>	<u>EACH</u>
<u>ITEM 796.923</u>	<u>GOLDSTURM BLACK-EYED SUSAN 1 GALLON</u>	<u>EACH</u>

The work under these items will conform the relevant provisions of Subsection 771 of the Standard Specifications and the following:

LINDEN – AMERICAN and MAPLE – RED – OCTOBER GLORY shall have a minimum branching height of 8-feet above finished grade. Such trees may be selected at the nursery with branching lower than 8' height only if pruning lower branches will not be detrimental to the structure of the tree.

Per plan detail, for plantings in formerly paved or sidewalk areas the contractor shall strip and remove all existing concrete and asphalt prior to tilling. Concrete/asphalt shall not be mixed with the subbase, and the subbase shall be ripped a minimum of 4" using teeth of excavator prior to the placement of the soil. Contractor shall place a minimum of 12" of planting soil mix and 3" of aged pine bark mulch.

Compacted materials that cannot be loosened, or are unsuitable for planting areas, shall be removed to a maximum depth of 6-inches (tamped down) below the root ball and replaced with loam.

ITEMS 775.140, through 796.923 (Continued)

Planting shall be overseen by the Landscape Architect of Record. Please see the contact list for the Landscape Architect of Record.

Method of Measurement

Items 775.140-796.923 shall be measured as described in Subsection 771.80.

Basis of Payment

Items 775.140-796.923 shall be as paid for as described in Subsection 771.81.

All planting Items will be paid for at the Contract unit price per each, which price shall include all labor, materials, equipment, and incidental costs necessary to complete the work. Additional loam required in areas of decompaction, as described above, will be paid for under Item 751. Loam For Roadsides.

There will be no additional compensation for preparation of planting beds in former paved areas including removal of asphalt or pavement and all costs in connection therewith shall be included in the Contract unit price bid.

ITEM 811.22**ELECTRIC HANDHOLE – SD2.022****EACH**

The work under this Item shall conform to the relevant provisions of Subsection 801 of the MassDOT Standard Specifications and the following:

The work shall include the furnishing and installation of handholes, frames, and covers for the traffic signal system in accordance with the plans and as required by the Engineer.

Electric handholes and pull boxes have “TRAFFIC” embossed on the cover per MassDOT standards.

METHOD OF MEASUREMENT

Items 811.22 will be measured for payment by the Each hand hole installed, complete in place.

BASIS OF PAYMENT

Items 811.22 will be paid for at the Contract unit price per Each, which price shall include all labor, material, equipment, excavation, back filling, gravel borrow, grounding, and incidental costs required to complete the work.

ITEM 813.811**SERVICE CONNECTION (OVERHEAD)
(TRAFFIC CONTROL SIGNAL LOCATION 1)****LUMP SUM**

The work under this item shall conform to the relevant portions of Subsection 813 of the Standard Specifications and the following:

The work shall include the installing the electric service connection from the utility company point of service to the traffic signal constructed under Item 815.1.

The Contractor shall be responsible for the preparation, submission and coordination of the work orders with the applicable utility for the new overhead service connection.

The Contractor shall notify the applicable utility and the Engineer at least 30 days in advance of required traffic control signal service connection.

CONSTRUCTION METHODS

The service connection shown on the plans is approximate only. The Contractor shall determine exact location from the servicing utility and arrange to complete the service connection. The Contractor shall provide the invoice from the utility company to the Engineer so that MassDOT can pay the cost directly.

Service connection shall conform to all utility company policies and practices.

Reference is made to MassDOT Detail 813.10 dated April 27, 2012, located at the end of this Item, for additional requirements relative to the service connection.

The service shall include, but is not limited to, the conduit sweep from underground conduit, galvanized riser, weather and wire seals, any necessary straps and clamps, and cable from the source to the terminal within the traffic signal cabinet.

BASIS OF PAYMENT

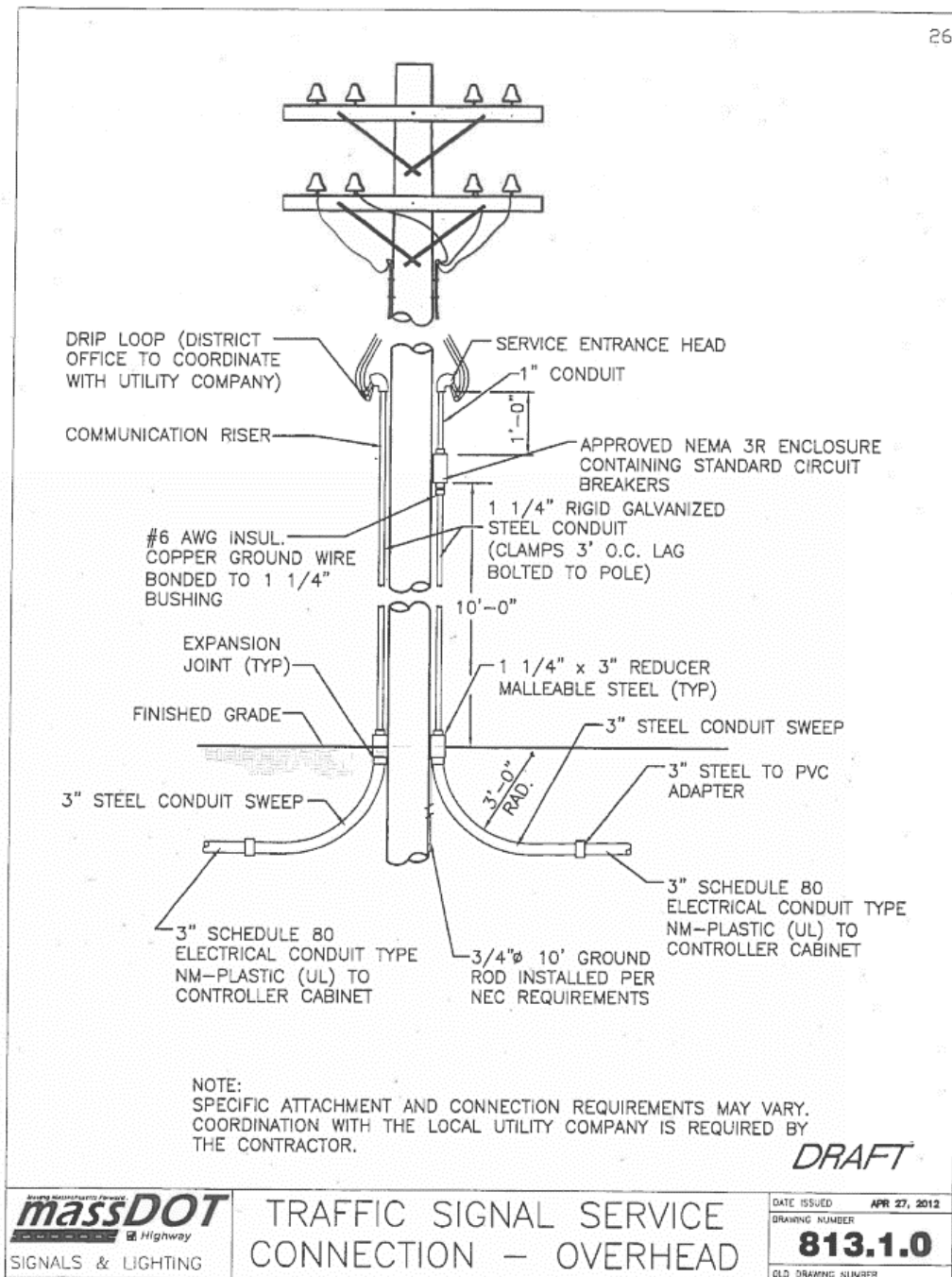
Item 813.811 will be paid for at the Contract lump sum price, which price shall include all labor, material, tools, equipment, and all incidental costs to complete the work.

Conduit from the traffic signal cabinet to the to the base of the utility pole will be paid for separately under Item 804.3, 3 Inch Electrical Conduit Type NM Plastic (UL).

The coordination and preparation of the all the work orders for completion of new overhead service to the traffic signal shall be considered incidental to this item. No separate compensation shall be provided for the coordination and preparation of work order.

ITEM 813.811 (Continued)

MassDOT will pay the invoice for the work order and associated fees from the utility company for installation of the service connection from point of service to the traffic signal.



ITEM 815.1**TRAFFIC CONTROL SIGNAL**
LOCATION NO. 1**LUMP SUM**

The work under this Item shall conform to the relevant provisions of Subsection 800 of the Standard Specifications and the following:

The work shall include the furnishing and installation of part or all of the following work: local traffic signal controller, cabinet, foundation, and concrete pad; mast arm poles with anchor bolts and foundations; signal posts and foundations; signal heads; backplates; pedestrian signals with countdown timers; single-point video-based vehicle and bicycle detection system; APS pedestrian push buttons; emergency preemption; all cable and wiring; ground rods, equipment grounding and bonding; and all other equipment, materials and incidental costs necessary to provide complete, fully operational traffic control signal system as specific herein and as shown on the plans. The location is as follows:

- Central Street at Larochelle Way

List of the major traffic signal subitems required at this location is included on the plans.

Shop Drawings

Within 30 days following Notice to proceed, the Contractor shall submit shop drawings for signal supports, a list of equipment, and manufacturer's equipment specifications to the Engineer in accordance with the relevant provisions of Section 815.20.

No work shall be commenced by the Contractor until approval of the shop drawings and manufacturer's data has been received in writing from the Engineer. Approval of these drawings will be general in character and shall not relieve the Contractor from the responsibility of, or the necessity of, furnishing materials and workmanship conforming to the plans and specifications.

The Contractor shall deliver to the Engineer a certificate of compliance with the manufacturer for all materials purchased from the manufacturer.

Service Connection

See Item 813.811 regarding the service connection.

Signal Turn-on

Prior to initial turn-on of the new signals, equipment, signal displays, vehicle detection as shown on the plans and called for in these special provisions, shall be installed and operable. Applicable signs and pavement makings shall also be in place when the new signals are operational.

ITEM 815.1 (Continued)**MAINTENANCE OF TRAFFIC SIGNALS**

It shall be the responsibility of the Contractor to provide all labor, equipment and material required for the total maintenance and repair of all proposed traffic signal equipment, including damage by automobile accidents until final completion and acceptance of the project, unless otherwise specified under Subsection 7.17 "Traffic Accommodation: of the Standard Specifications as amended, in which case Subsection 7.17 will govern. These provisions will apply to the signalized locations included as part of this construction Contract from the date of written notice given to the Engineer that the Contractor will work on or adjacent to an existing signal until the date when the Department accepts the completed project. This written notice must be given before the Contractor may proceed with any work on a specified traffic signal location. For the purpose of these Special Provisions, the phrase "Traffic Signal Control Equipment" is intended to include, but is not limited to, controllers, signal housings, supporting structures, cabinet accessories and panels, wires, conduit and all other ancillary electrical equipment used for traffic control.

The cost of the maintenance of signals shall be included under this item.

FINE TUNING, ADJUSTMENT, AND TESTING PERIOD

After the Contractor has finished installing the controller and all other associated signal equipment and after the Contractor has set the signal equipment to operate as specified in the Contract documents, the fine tuning, adjusting and testing period shall begin. The Contractor shall advise the Engineer, in writing, of the date of the beginning of the fine tuning and testing period. This period shall not start until the work at the intersection is complete. During this period, the Contractor, under the direction of the Engineer, shall make necessary adjustments and tests to insure safe and efficient operation of the equipment. This period shall not last for more than 30 days and the Contract completion date has taken this testing period into consideration. No request for final acceptance will be considered until successful completion of the testing period.

The Contractor shall notify the Engineer in writing of the starting date of the fine tuning period prior to the starting date.

FINAL INSPECTION AND ACCEPTANCE

Upon successful completion of the 30 day testing period wherein the traffic signals has operated for 30 days without failure, the Contractor shall notify the Department. The Engineer will make a final inspection of the installation in the presence of the Department and the Contractor. An inspection check will be made to ensure that all equipment, materials, installations and operations are in accordance with the construction contract, plans and specifications. Items to be checked will include, but not be limited to, traffic signal systems operation, cabinet equipment, documents (wiring diagrams, as-built plans, instruction manuals, parts list, warranties, grounding resistivity test report, etc.), signs, and pavement markings, and street hardware (posts, bases, housings, brackets, etc.).

ITEM 815.1 (Continued)

The Engineer will notify the Contractor in writing of any items in which the inspection reveals that the work is incomplete, defective, or does not otherwise meet the project specifications. The Contractor shall perform the corrective actions necessary to achieve final acceptance by the Department. These corrective actions shall be done by and at the expense of the contractor and within 15 days of the date of the inspection report, unless otherwise approved in writing by the Department.

GUARANTEE AFTER FINAL ACCEPTANCE

The Contractor shall diagnose (troubleshoot) the system and replace any part of the traffic signal systems 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 the Department, the Contractor shall turn over all guarantees and warranties to the Department.

Testing of Grounding System

The Contractor shall perform testing of the equipment grounding system in the presence of the Design Engineer in accordance with MassDOT Standard Specifications

Flashing Operation

Changes from automatic flashing to stop-and-go operation and from stop-and-go to automatic flashing operation shall occur as set forth in the MUTCD.

Traffic Signal Equipment

The traffic signal controller unit (CU), malfunction management unit (MMU), cabinet power supply, bus interface units (BIU), 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 2-2003 (R2008) v02.06 and Amendment 4-2012, Traffic Controller Assemblies with National Transportation Communications for ITS Protocol (NTCIP) Requirements.

ITEM 815.1 (Continued)**Traffic Signal Controller**

The controller shall be shelf-mounted, solid state, menu driven, keyboard unit conforming to the ATC 5201 v06.25 Advanced Transportation Controller (ATC) Standard. The controller shall be supplied with an internal real-time clock/calendar capable of daily, weekly, and yearly events time programming. The controller shall be designed and supplied to provide the number of phases and sequencing as shown on the plans without any auxiliary equipment. The controller shall be supplied as follows:

- Contain ATC API operational software conforming to ATC 5401 Standard v02.
- Be configured to operate in an ATCC 5301 v02 cabinet platform.
- Be supplied with the appropriate version of the Linux operating system, Board Support Package (BSP) and internal processing levels necessary to support connected vehicle (CV) as well as local and system operations.
 - The Linux processor shall have a speed of 400 MHz or greater
- Shall be supplied with:
 - 128 MB of DRAM or greater
 - 256MB of Flash Memory or greater
- Shall be fully compliant with NTCIP 1201 and 1202 standards.
- Include a minimum of 3 High Speed USB 2.0 ports.
- Include a minimum of 5 10/100BaseT, RJ45 Ethernet connector ports.
- Shall be equipped with a color graphic display with a resolution of 800 x 400.
- The display shall have a graphics support of HTML5 (Hypertext Markup Language version 5).
 - The graphic display shall incorporate a touch panel to allow the for direct access without the need to use a keypad interface.
- Shall be supplied with 2 SDLC ports, at a minimum.
 - The SDLC ports shall be fully functional and operate simultaneously with all other ports.
 - The SDLC ports shall support the following baud rates:
 - SDLC Port 1
 - Asynchronous Rates (bps) 1200 / 2400 / 4800 / 9600 / 19.2k / 38.4k / 57.6k / 115.2k / 230.4k
 - SDLC Port 2 (SIU)
 - Synchronous Rates (bps) 153.6k / 614.4k
- All data communication connectors shall be supplied and installed with an outer boot molded cover designed specifically for the connector to ensure physical protection for the connector wire terminations. There shall be no exposed wires visible between the connector and the cable insulated jacket.

ITEM 815.1 (Continued)

- Shall contain real-time context sensitive HELP screens.
- Shall include a time-of-day, day-of-week, week-of-year scheduler.
- Shall include dedicated phase detection inputs, pedestrian detection inputs, and system detection inputs.
- Shall be supplied with the ability to provide 12 unique preemption/priority inputs.
- Shall contain the ability to alter the controller unit's internal database using a built-in front panel keyboard, using a computer connected to the controller unit with a USB cable or an Ethernet cable, and remotely using a central management system application. In addition, a remote access system shall be provided using Telnet and/or HTTPS.
- Shall include an internal database which stores all configurable parameters, including but not limited to phase timings, phase sequencing, overlaps, coordination parameters, preemption and priority parameters, time base parameters, communications parameters, detection parameters, flashing operation parameters, and security parameters.
- Shall include detector failure algorithms that initiates user defined actions when user defined criteria are met.
- Shall be supplied with the ability to generate user defined alarms and alerts.
- As a minimum, the controller shall be supplied and installed to comply with the following requirements. No additional hardware, software items and/or subscription fees/costs shall be needed/allowed to satisfy the requirements as defined in these specifications:
- Shall be supplied with programming documentation fully defining the coding (compiler and C libraries) used to create the ATC controller applications residing in the unit.
- Shall be supplied with the source code used to produce and support the Linux kernel environment (Board Support Package).
 - Shall be supplied with a manufactures Software Development tool Kit (SDK) for supplied firmware version to allow for future system modifications/expansions.
 - Shall be designed to operate in the following environmental conditions:
 - -40°C to 74°C operating temperature range
 - -40°C to 85°C storage temperature range
 - 10% to 95% relative humidity (non-condensing)
 - 89 VAC to 135 VAC, 60 Hz
- Meet the functional requirements of the NEMA TS-2, 2016 Standard, including all amendments.
- Shall have connectors for all external input/output functions that are rigidly defined by the ATC, NTCIP and applicable national standards.
- Based on application, connectors for external input/output functions shall be identical in quantity, size, type, configuration, and pinout for all manufacturer's units used in the project.
- Shall be supplied with all necessary hardware and software elements needed to fully support Connected Autonomous Vehicle (CAV) operations utilizing dual mode DSRC/5G communications.
- Shall be supplied with all necessary ATC hardware, software elements and instruction procedures needed to facilitate the extraction and processing of the SPM data.
- Support Flashing Yellow Arrow (FYA) and Flashing Red Arrow (FRA) operation with the ability to provide a minimum of 6 flashing pairs.

ITEM 815.1 (Continued)

- Contain the ability to alter the controller unit's internal database using a built-in front panel keyboard, using a computer connected to the controller unit with a USB cable or an Ethernet cable, and remotely using the central management system application.
- Be supplied and installed with the ability to collect, store, and report various measures of effectiveness (MOE's).
- Shall collect and process all 255 high resolution enumerations as defined in the report entitled "Indiana Traffic Signal Hi Resolution Data Enumerations", dated 2019. This data will be processed in the controller and available via download from the controller USB Ethernet port or, if available, via system communications. At a minimum, the controller shall be set up to provide the following performance reports:
 - Approach delay
 - Preemption events
 - Transit Priority Events
 - Split Monitor
 - Approach Volumes
 - Purdue Coordination Diagrams
 - Arrivals on Red
 - Arrivals on Green
 - Phase Termination
 - Pedestrian Delay
- Be able to backup and restore controller programming data to a USB memory device connected to the front of the controller. No additional software shall be required to perform this function.
- Be able to upgrade the controller firmware via USB memory device connected to the front of the controller. No additional software shall be required to perform this function.
- Controller unit supplied and installed as part of this project shall be provided, for future use, with Transit Signal Priority (TSP) operation without the need for additional software, hardware, data key device or any recurring licensing fees. The TSP algorithm shall be fully programmable to extend a phase or reduce a vehicle phase depending on user defined settings. This function shall be available for operation during both coordinated and free operation.
 - TSP shall support a minimum of six priority routines.
 - The TSP program shall be capable of extending the priority phase green time and truncating the non-priority phase(s) green when a priority call is received by the ATC unit.
 - TSP operation shall not cause the ATC unit to skip any phases that have active vehicle/pedestrian demand.
 - Emergency vehicle preemption (EVP) shall override TSP operation.
 - The TSP program shall have the ability to delay and/or extend priority calls.
 - The TSP program shall have the ability to support user defined time periods between servicing valid priority calls.
 - All TSP events shall be logged (time/date stamped) in the ATC unit.
 - The TSP algorithm shall allow for non-TSP phases to be conditionally truncated based on the absence of a concurrent pedestrian service of the non-TSP phase.
 - It shall be possible to user define in the traffic controller a minimum time between responses to priority calls.

ITEM 815.1 (Continued)

- TSP Coordinated Operation (Future Use) – Under coordinated operation, the controller shall modify existing signal operation to accommodate a priority call. This may include modification to per phase termination points established under normal coordinated control. During a priority event, per phase coordination modes shall remain in effect. Priority and non-priority phase duration shall be user programmable per coordination pattern.
- TSP Non-Coordinated (Free operation) (Future Use) – Upon receipt of a valid priority call, the controller shall either extend the priority phase or reduce the non-priority(s). These settings for the adjusted green times shall be user defined, on a per phase basis, and adjustable on a time-of-day basis.

Malfunction Management Units

The malfunction management units (MMU) shall comply with Section 4 of the NEMA TS 2 standard, as defined by amendment 4-2012. The MMU shall be supplied as a NEMA MMU designation “MMU2” as defined in table 4-1 of the NEMA standards. The MMU supplied shall be configured to operate as a Type 16 unit (8 vehicle, 4 pedestrian, 4 overlap). The MMU shall be supplied with an Ethernet port and shall support Ethernet communications.

The Type 16 MMU configuration shall operate in a NEMA TS 2 Type 1 cabinet, a NEMA TS 2 Type 2 cabinet, or a NEMA TS 1 cabinet without loss of functionality.

Detector Rack Assemblies

The detector rack assemblies shall conform to Paragraph 5.3.4 of the NEMA TS 2 Standard. The detector rack assembly shall be supplied in a Type 2 configuration as defined in Table 5-9 of the NEMA TS 2 Standard.

Single-Point Vehicle Detection

The Contractor shall provide and install a Single-Point Video Detection (SPVD) System as shown on the plans and these special provisions. The SPVD system shall include a single ultra wide angle lens camera, video processor unit, detection algorithms, all cables, connections, mounting hardware, application software, and accessories required by the manufacturer for proper operation of the system, including but not limited to surge protection devices.

The SPVD system shall detect and monitor vehicles on approach roadways utilizing advanced, omni-directional, vehicle tracking algorithms along with three-dimensional vehicle modeling to supply accurate and consistent stop line detection.

The SPVD system shall include all necessary software and hardware to allow the end user to program, setup, and/or modify detection zones within the video camera image.

The Contractor shall also supply any necessary cables, interface devices and software for monitoring video detection via laptop computers.

ITEM 815.1 (Continued)

The camera shall be mounted at the intersection, as shown on the plan or as directed by the Engineer

At a minimum, the SPVD shall be listed on MassDOT's Qualified Products List and meet the following requirements:

Camera

- Power: 48 VDC, single burial grade CAT 5e cable
- Operating Temp: -35C to +60C
- Humidity: Up to 100%
- Dimensions: 10" diameter x 9"
- Weight: less than 11 lbs.
- The camera shall include an ultra-wide-angle lens.
- The camera shall include a heater to prevent the formation of ice and condensation.
- The camera, when properly installed and configured, shall be able to concurrently observe at least 5 lanes of traffic per approach.
- The camera shall be able to concurrently observe more than one approach.

Video Processor Unit

- Power: 120-240 VAC, requiring 150 watts or less.
- Operating Temp: -34C to +74C
- Humidity: Up to 95% non-condensing
- Dimensions: 12.25" wide x 11.25" depth x 5" high
- Weight: 12 lbs.
- Enclosure: Rack mount in traffic cabinet
- The video processor unit shall save configurations and zone plans locally to maintain operation with or without monitoring equipment connected.
- The video processor unit shall be designed to function dependably in the adverse environment found in the typical roadside traffic cabinet.
- The video processor unit shall include at least 24 detector outputs.
- The video processor unit shall include an SDLC connection for TS2 type controllers
- The video processor unit shall include a USB on the front surface for simple data collection on non-networked systems.
- The video processor unit shall include both LAN and WAN RJ-45 interface ports on the front surface of the unit.

ITEM 815.1 (Continued)Application Software

- The application software shall support the creation and modification of at least twenty-four (24) polygonal detection zones within the graphical user interface.
- The application software will show images of the detection zones superimposed on the video image of traffic.
- The application software shall support the assignment of a detector output(s) to each zone. These assignments can be modified at any time through the software.
- The application software shall support direction of travel assignment within detection zones. The vehicle detection zone shall not activate for objects traveling any direction other than the one specified for detection. Cross-street and wrong way traffic shall not cause detection.
- The application software shall change the color of the zone within the graphical user interface as vehicles enter or exit a detection zone, changing its occupancy status. This will be required for real-time or historical monitoring, and may be turned on or off by the user at any time.
- The application software shall provide visual indication of the light state for each zone within the graphical user interface.
- The application software shall feature the ability to digitally pan, tilt, and zoom within the camera's field of view without movement of the camera.
- The application software shall maintain a database of current and historical traffic data, and allow for the user to run reports against this data to include traffic counts, turn movements, speed, and classification at a minimum, for future use.
- The application software shall feature the ability to mask objects that occlude the camera field of view and/or disrupt the camera automatic gain and exposure control.
- The application software shall feature an optional reporting interface offering point and click reporting for turning movement counts and vehicle classification.

The Contractor shall provide software that enables a technician to test all features and functions of the SPVD system, and to perform all set-up procedures. This software shall be delivered on a CD so that it can be installed on other laptops.

The SPVD system shall be installed in accordance with the manufacturer's recommended procedure for installation.

The SPVD system shall be installed by factory certified installers and as recommended by the manufacturer and documented in installation materials provided by the manufacturer. Proof of the factory certification shall be provided. Installation includes connecting the SPVD to the traffic signal controller and power supply in the associated controller cabinet assembly.

When the setup is complete and the SPVD system is ready for operation, the values of all parameters that were set during the process shall be delivered to the Engineer in printed and computer-readable form. All equipment, such as software, laptop computer, tools and cables, needed for setup work shall be provided by the Contractor.

ITEM 815.1 (Continued)

The Contractor shall be responsible for the proper programming of the SPVD, orientation of the SPVD, and all other work necessary to provide a complete vehicle detection system. The Contractor may be required to field adjust the location of the SPVD system in the presence of the Engineer to properly detect approaching vehicles.

Warranty: The supplier shall provide a three-year warranty on the SPVD system following installation and warranty registration. The camera shall include an additional warranty to require no aiming or focusing for a period of five years. During the warranty period, technical support shall be available from the supplier via telephone within 4 hours of the time a call is made by a user, and this support shall be available from factory-certified personnel or factory-certified installers. During the warranty period, updates to SPVD software shall be available from the supplier without charge.

The cabinet documentation (box prints) shall show all wiring between the SPVD system and the controller cabinet.

Cabinet Power Supply

Separate power supply shall be supplied and installed in the proposed TS 2 cabinet. As a minimum, the power supply shall meet all requirements of Paragraph 5.3.5 of the NEMA TS 2 Standard. The unit shall be AC line powered and provide regulated DC power, unregulated AC power, a line frequency reference for the load switches and other auxiliary cabinet equipment as required.

The power supply shall be either shelf mounted or installed as part of the detector rack assembly.

The unit shall contain four LED indicators on the front panel to indicate the four outputs;

1. + 12 VDC +/- 1 VDC @ 2.0 amps,
2. + 24 VDC +/- 2 VDC @ 2.0 amps,
3. 12 VAC @ 250 milliamps, and
4. 60 Hz line frequency reference.

A test point terminal shall also be located on the unit front panel for + 24VDC and logic ground testing.

Surge Suppression

The Contractor shall supply and install surge suppression in the traffic controller cabinet in accordance with the manufacturer's recommendations. At a minimum surge suppression shall be provided for all vehicle detection, power service, and emergency preemption terminations.

ITEM 815.1 (Continued)**Load Switches**

Load switches shall comply with Subsection 6.2 of the NEMA TS 2 standard. All load switches shall utilize optically isolated encapsulated modular solid state relays. Discrete components on circuit boards are not acceptable.

Load switch indicator lights shall be LED-type and wired on the input side of the device.

Flasher

Flashers shall comply with Subsection 6.3 of the NEMA TS 2 standard and be equipped with two output indicator lights which will show flashing power out to the cabinet assembly.

Flash Transfer Relays

Flash transfer relays shall comply with Subsection 6.4 of the NEMA TS 2 standard.

The field electrical loading for flash operation shall be wired through the transfer relays such that the load on the 2-circuit flasher is as balanced as possible within the limitations of the signal phasing.

Traffic Controller Cabinet

The controller cabinet shall conform to the NEMA TS 2 Standards, Section 7. Cabinet size shall be as indicated on the plans and as shown below.

Item Number	NEMA TS 2 Cabinet Size	Nominal Cabinet Size (HxWxD)*	Configuration Type Table 5-2	Load Switch Positions	Flash Transfer Relays	BIUs Required	Detector Rack Type Table 5-9	MMU (Channels)
815.1	6	52x44x24	3	12	6	3	1	16 Channel

* Approximate cabinet dimensions are provided in inches.

The cabinets shall be equipped with two (2) fans for forced air cooling.

The cabinets shall be made of aluminum.

The cabinets shall contain a pull-out drawer, 19 inch wide with sufficient strength to hold a laptop computer. The top of the drawer shall be covered with a non-conductive, non-skid material and hinged such that a storage space is available to store cabinet documentation or small parts. The pull-out shelf shall be located to be useable as a place to operate a laptop computer without blocking the controller display. The back of the main door shall contain a resealable, heavy-duty opaque plastic envelope with two grommets that provide mounting to two integrated hooks. The heavy-duty plastic envelope will be used to store cabinet wiring diagrams and operations manuals that cannot be accommodated in the pull-out storage drawer.

ITEM 815.1 (Continued)

Where applicable, the cabinet shall be installed with the door opening positioned in order to allow general observation of the flow of traffic and the inside of the cabinets at the same time.

Where applicable, the cabinet shall be installed with the door opening positioned in order to allow general observation of the flow of traffic and the inside of the cabinet at the same time.

Controller cabinet foundation shall not obstruct a sidewalk or crosswalk so that passage by physically-challenged persons is impaired.

Cabinet Door Sticker

The Contractor shall supply and install a laminated door sticker on the proposed cabinets. This sticker shall be permanently affixed to the upper left hand side of the interior main cabinet door. The sticker shall contain, at a minimum, the following:

Vehicle detection information including detector channel assignment, phase assigned, approach and termination points.

- Per approach preemption information including channel, approach/direction and termination points.
- Field termination chart showing per approach/per phase numbering of all signal circuits.
- Signal phasing and signal plan with intersection geometry and signal head designations.

GFI Duplex Outlets

The Contractor shall supply and install a second separate GFI protected duplex outlet in the proposed controller cabinet, and mounted on the side wall of the cabinet for servicing other devices.

Interface/ Extension Video BIU Modules

The Interface/ Extension Video Bus Interface Units (IEVBIU) module shall be compatible with NEMA TS2 detector card racks and shall meet the following requirements:

- Shall support 64 detector outputs.
- Shall select TS-2 detector IEVBIUs to emulate and operate up to 4 IEVBIUs simultaneously.
- Shall provide SDLC interface for video processing cards.
- Shall be NEMA TS-2 compliant with full BIU functionality and can be used as a standard BIU replacement in a TS-2 cabinet detector rack.
- Allow for multiple detection zones to be assigned to the same vehicle detector.

ITEM 815.1 (Continued)**Bus Interface Units**

The Bus Interface Units (BIU) shall comply with Section 8 of the NEMA TS 2 Standard. The BIU shall be fully interchangeable with any other manufacturer's unit and interchangeable in a NEMA TS 2 Type 1 cabinet assembly.

At a minimum the BIUs shall perform the interface function between port 1 at the controller unit, the malfunction management unit (MMU), and the loop detector rack assembly and the terminal facilities.

The cabinet shall be supplied with the appropriate number of BIUs required to provide an operating traffic control signal according to the plans and these specifications.

As a minimum, two LED indicators shall be provided on the BIU front panel. One indicator shall serve a dual use; as a power on indication and as a diagnostic indicator for proper operation of the device. The second indicator shall serve as a transmit indicator illuminating each time data is transmitted.

Spare Equipment

The Contractor shall provide the following spare signal equipment in the proposed traffic signal controller cabinet:

- A full complement of load switches to accommodate each available position of the back panel.
- A full complement of flash transfer relays to accommodate each available position of the back panel.
- Two (2) Bus Interface Units.
- One (1) Video Bus Interface Unit
- A 25-foot RS-232 cable for communication function with a laptop computer.

Emergency Preemption

The emergency vehicle preemption system be installed in the same cabinet as the controller and shall meet the approval of the Town of Southbridge. **Note: As part of the shop drawing submission the Contractor shall provide written approval of the preemption system from the Town.**

The emergency vehicle preemption control system shall consist of a data-encoded phase selector to be installed within the traffic control cabinet. This unit will serve to validate, identify, classify, and record the signal from the optical detectors located on support structures at the intersection. Upon receiving a valid signal from the detector, the phase selector shall generate a preempt call to the controller initiating a preemption operation as shown on the plans.

ITEM 815.1 (Continued)

The optical detector shall be single input, single output unit used to control one approach. All traffic signal installations shall be supplied with a minimum of two optical detectors unless otherwise noted in the major items list.

The phase selector shall be a rack-mounted plug-in four channel dual priority device. The phase selector shall plug into an empty slot in the detector rack. Programming the phase selector shall be via a PC-based computer utilizing unit specific software. One copy of software, on a CD, shall be supplied and licensed to the Town of Southbridge. A hard copy of final programming data shall be left in the control cabinet. A complete set of interface cables for phase selector to laptop connection shall be supplied in the cabinet.

The Contractor shall install a confirmation strobe at the traffic signal location as shown on the plans. The confirmation strobe shall serve to validate to the driver of the emergency vehicle that the traffic signal has recognized the preemption call and will initiate the proper preemption sequence. The confirmation strobe shall be a white lens. The make and model of the confirmation strobe shall meet the approval of the Town of Southbridge.

The Contractor shall be responsible for the proper programming of the phase selector, orientation of the optical detectors, and all other work necessary to provide a complete and operating emergency vehicle preemption system. The Contractor may be required to field adjust the location of the optical detectors in the presence of the Engineer to properly detect preemption calls from approaching vehicles.

Traffic Signal Mast Arms and Poles with Foundations

Mast arm poles shall be fabricated and constructed in conformance with the December 2015 MassDOT *Overhead Signal Structure & Foundation Standard Drawings* (110 mph Speed Wind Zone) and as stated below.

Acceptance of mast arm poles will be contingent upon review and approval of shop drawings submitted by the Contractor. Longhand design calculations shall be submitted by the Contractor with the shop drawings for all Type 2 mast arm poles.

The Contractor shall provide a set of calculations, stamped by a Structural Engineer registered in the Commonwealth of Massachusetts, along with plans and specifications for review by the Project Engineer.

For painting requirements refer to the section titled "Equipment Finish and Color".

ITEM 815.1 (Continued)

All mast arm pole foundations shall be cored pier foundations and constructed in conformance with 2015 *MassDOT Overhead Signal Structure & Foundation Standard Drawings* and priced per Table 1 provided below.

Table 1 –

Boring No.	Arm Length	Station	Offset	Soil Type	Foundation Diameter	Foundation Depth	Vertical Bars
B-1	25'	303+98.5	25.5' LT	Dry Sand (Dense)	3'-6"	7'-6"***	18-#8
B-2	25'	304+27	45' RT	Dry Sand (Dense)	3'-6"	7'-6"	18-#8
B-3	30'	304+86	33.5' LT	Wet Sand (Dense)	3'-6"	9'-0"	18-#8
B-4	25'	304+93	26' RT	Wet Sand (Dense)	3'-6"	9'-0"	18-#8

** Boring B-1 encountered ledge at 7'-6". It is assumed Contractor can bore 6 inches to achieve full-depth of foundation. If ledge is encountered above 7'-6" depth it is considered incidental to the cost of the signal.

If additional ledge or unsuitable soil is encountered (i.e. on which does not apply to the design tables shown in MassDOT's standard drawings), an alternative design shall be provided by the Design Engineer. If utilities or other underground obstructions are encountered, the Contractor shall backfill

the area to its original condition until an alternate design has been provided by the Design Engineer and approved by MassDOT.

No separate payment will be made for work considered incidental to the excavation, including but not limited to, mast arm foundations, dewatering, etc. but all costs in connection therewith shall be included in the contract lump sum bid prices.

Foundations shall not obstruct a sidewalk or crosswalk so that passage by physically-challenged persons is not impaired

Sign Mounting

Proposed signs on mast arm poles and mast arm shafts shall be bolt mounted through the sign face. Hanging or swinging sign mountings are not allowed. Sign mounts shall be for the same design wind load required for the signal installation.

ITEM 815.1 (Continued)**Posts and Bases**

Signal posts and bases shall be aluminum shafts with aluminum octagonal bases.

Signal base foundations shall not obstruct a sidewalk or crosswalk so that passage by physically challenged persons is impaired.

Signal Housing Brackets

All signal housing brackets must be installed to manufacturer's specifications and must be properly torqued. The brackets shall utilize galvanized cables, hardware, and all miscellaneous materials necessary to fix mount the signal heads to the mast arms. Banded clamps and stainless steel clamps shall not be used. Any bracket that does not meet MassDOT approval will not be accepted. No separate payment will be made to correct the bracket.

Signal Heads

Signal heads mounted on mast arms shall be rigidly attached to the mast arms. Signal heads attached on mast arms shall be mounted in such a way that the bottoms of all signal heads are at the same height. All traffic signal lenses shall be 12 inches in diameter. All signal heads shall be equipped with ball and/or arrow light emitting diode (LED) modules. Five (5) inch non-louvered backplates and tunnel visors shall be provided on all signal heads.

All backplates shall include 3-inch wide, yellow reflective micro-prismatic retroreflective sheeting conforming to ASTM D4956 Type VIII of better on the outside edge of the backplates. Signal heads and visors shall be painted black.

Red, Yellow, And Green LED Vehicle Signal Module

All signal and pedestrian displays shall be equipped with LED signal modules. All red, amber, green, and pedestrian signal housings with the exception of optically programmed and fiber optic housings and shall conform to the following where applicable:

- ITE's Vehicle Traffic Control Signal Heads – Light Emitting Diode (LED) Arrow Traffic Signal Supplement, Dated July 1, 2007
- ITE's Vehicle Traffic Control Signal Heads – Light Emitting Diode (LED) Circular Signal Supplement, Dated June 27, 2005.
- ITE's Pedestrian and Countdown Signal Modules Compliant to PTCSI - Part 2 Light Emitting Diode (LED), Dated, February 2011
- On the MassDOT Traffic Signal Approved Equipment List

For an LED module to be installed on this project, the LED module shall have approval from the MassDOT Traffic Control Products Approved Equipment Committee and be included on the Traffic Control Products List prior to the date of this contract.

ITEM 815.1 (Continued)

To prevent the LED module warranty from being voided, the connecting leads on the module shall not be cut. The original LED module leads shall be connected to the signal head terminal block as continuous wire without splices.

The LED signal module will be replaced or repaired by the manufacturer if it exhibits one of the following:

- A failure due to workmanship or material defects within the first 60 months of field operation.
- A greater than 40 percent light output degradation or a fall below the minimum intensity levels (as defined by the latest ITE performance specifications) within the first 36 months of field operation

Pedestrian Heads

Pedestrian heads shall be 16 inch pedestrian signals with countdown timer, and shall be an illuminated L.E.D. type displaying the graphical symbols of a walking person and/or upraised hand. The countdown module display shall only begin at the start of the flashing “DON’T WALK” and shall exhibit the number of seconds remaining throughout the flashing “DON’T WALK” interval, and blank out during the steady “DON’T WALK” interval. The countdown module shall be automatically set by the intersection controller based upon the “DON’T WALK” signal intervals only. The countdown module shall continuously monitor the intersection controller for any changes to the pedestrian phase timing, and reprogram itself automatically.

The pedestrian signal housings shall be made of aluminum with cap visors. Pedestrians heads, visors (outside), and mounting brackets shall be painted black.

Accessible Pedestrian Signal Pushbuttons

The Contractor shall furnish and install Accessible Pedestrian Signal (APS) pushbuttons. These APS pushbuttons shall provide information in non-visual formats (such as audible tones, speech messages, and/or vibrating surfaces). The APS pushbuttons shall be compliant with the 2009 MUTCD. At a minimum the APS pushbuttons shall be provide with the following features:

- Pushbutton locator tone
- A visible and audible indicator that the button press has occurred
- A vibro-tactile arrow
- A percussive tone for the “WALKING PERSON” indication

The APS pushbuttons shall provide visually disabled pedestrians with a locator tone that will allow them to find the pushbutton to activate the walk signal. Once the pushbutton call has been placed, the signal will provide both an audible and tactile response during the related “WALK” portion of the cycle. A sunlight visible LED latches “ON” to confirm the button has been pushed. The audible response shall be a percussive tone.

ITEM 815.1 (Continued)

Housing and Pushbutton Unit – Shall meet the following minimum requirements:

- Constructed of cast aluminum with a powder coated finish.
- Highly vandal resistant and pressure activated with essentially no moving parts.
- Pushbutton must be able to withstand an impact from a baseball bat or hammer.
- Operating temperature range -34 degrees Celsius to 65 degrees Celsius.
- Operating voltage range 12 to 36 VDC.
- Button cap must be made of solid 316 stainless steel.
- Pushbutton must activate with 5 lbs of force or less.
- Unit must have an LED display to give indication that of pushbutton being pushed.
- Pushbutton must fully operate immediately after being completely immersed in water for 5 minutes (electrical terminals isolated from water).
- Pushbutton must not allow ice to form such that it would impede function of pushbutton or pushbutton cap.
- All switch electronics must be sealed within the housing.
- All sounds shall emanate from the back of the of the APS pushbutton unit via a weatherproof speaker that is protected by a vandal resistant screen.

Tactile Arrows and Locator Tones – Shall meet the following minimum requirements:

APS pushbuttons shall incorporate a locator tone at the pushbutton the locator tone, measured at 3 feet from the APS pushbutton, shall be 2dB minimum and 5dB maximum above ambient noise level in standard operation and shall be responsive to ambient noise level changes.

- Locator tone shall consist of multiple frequencies with a dominant component of 880Hz. The duration of the locator tone shall be 0.15s and shall repeat at intervals of 0.15s. The locator tone shall be active during the pedestrian clearance and DON'T WALK intervals.
- APS pushbuttons shall be a minimum of 2 inches across in diameter and shall contract visually with their housing and mounting.
- APS pushbuttons shall include a vibro-tactile arrow aligned parallel to the crosswalk direction. The arrow shall be raised 0.03 inches minimum and shall be 1.5 inches minimum in length. The arrow head shall be open at 45 degrees to the shaft and shall be 33 percent of the length of the shaft. Stroke width shall be 10 percent minimum and 15 percent maximum of arrow length. The arrow shall contrast with the background.
- The arrow shall vibrate during the “WALK” portion of the cycle and ending at the beginning of the pedestrian clearance interval.

Audible Walk Indication – The audible walk indication shall be a percussion tone. The walk tone indication shall start at the beginning of the “WALK” portion and ending at the beginning of the pedestrian clearance interval. Note: The walk tone indications shall only be heard when the APS pushbutton is pressed by a pedestrian. The percussion tone shall repeat at eight to ten ticks per second.

ITEM 815.1 (Continued)

Mounting Requirements - A mounting height of 42 inches above the finish sidewalk grade shall be used for APS pedestrian pushbuttons.

The Contractor is hereby notified that they are ultimately responsible for constructing all pedestrian push button elements (clear ground space, forward and side arm reaches) in strict compliance with the current AAB rules, regulations and standards.

The Contractor shall use extension brackets to mount pedestrian pushbuttons located on mast arm assemblies to obtain the minimum forward reach or side reach, if approved or directed by the Engineer.

All construction elements in this project associated with pedestrian push buttons are controlled by 521CMR – Rules and Regulations of the Architectural Access Board.

The Contractor shall establish clear ground space at all pedestrian push button locations, and shall set arm reach lengths according to the AAB rules.

The project has been designed to conform to all AAB rules, and the Engineer is not aware of any required variances for the work presented on the design plans. The Contractor shall notify the Engineer of any project element related to the pedestrian push buttons that will not comply with 521 CMR prior to constructing said pedestrian push button elements.

Installation - The APS pushbuttons shall be installed by Contractor and as recommended by the manufacturer and documented in installation materials provided by the manufacturer. The Contractor shall be responsible for the proper programming of the APS pushbuttons, orientation of the pushbuttons, and all other work necessary to provide a complete and operational APS pushbutton system. The Contractor may be required to adjust volume levels as requested by the Engineer. When the setup is complete and the APS pushbuttons are ready for operation, the values of all parameters that were set during the process shall be delivered to the Engineer in printed and computer-readable form.

The configuration unit shall be capable of setting all volumes and features of the APS pushbuttons. The configuration unit shall be capable of setting/updating a single APS pushbutton or all (Global updating) APS pushbuttons on the intersection for most functions. The configuration unit shall have the ability to save 4 user defined and 3 factory pre-set program configurations.

Warranty - Each APS pushbutton shall be warranted free from defects in material and workmanship for a period of at least 2 years from the date of installation by the Contractor and acceptance from MassDOT.

During the warranty period, technical support shall be available from the supplier to the Town via telephone within 4 hours of the time a call is made by a user, and this support shall be available from factory-certified personnel without charge.

ITEM 815.1 (Continued)**Software**

All local controller, malfunction management unit, and camera software shall be supplied with the latest available revision. Any software upgrades released by the manufacturer shall be supplied at no charge to the Owner for a period of five years after acceptance of the traffic signal installations.

Data Base Programming

Each programmable local hardware component (i.e., controller, malfunction management unit, preemption unit) shall be initially programmed by the Contractor based on information contained on the plans. Three sets of hard copy programming per device shall be supplied by the Contractor.

Equipment Finish and Color

All proposed traffic signal equipment including but not limited to signal posts, bases, pedestrian heads, signal heads, visors (outside), doors, mast arms, controller cabinets (exterior); pushbutton saddles, service meter socket boxes, optical preemption detectors, hardware, and rigid mounting brackets for signals and signs shall be colored. The front of the signal housings shall be **FLAT BLACK**. Controller cabinet interior shall be painted **WHITE**. The Contractor shall submit to the Engineer and the Town for approval, paint chips and sample finishes on steel and aluminum of the intended color prior to any work being done under this heading.

Signal heads, doors, visors, mounting brackets, and hardware supplied direct from the manufacturer in the color stipulated above may be acceptable provided it meets or exceeds the finish process for the material indicated below.

Steel Equipment*Galvanizing*

All bolts, screws, nuts, rods and washers shall be galvanized in accordance with AASHTO M232 and the Standard Specifications. The hardened machine screws may be electroplate galvanized. Stainless steel studs, bolts, screws, nuts, straps and washers shall not be galvanized. Galvanized hardware need not be painted; however, the ends of bolts, nuts, and washers shall be painted in the field according to

section "Touch-up and Repairs." Immediately prior to galvanizing, the steel shall be immersed in a bath of zinc ammonium chloride. The dry kettle galvanizing process shall be used.

ITEM 815.1 (Continued)

All steel components, other than above, shall be galvanized after fabrication in accordance with AASHTO M111. The galvanizing bath shall contain nickel (0.05% to 0.09% by weight).

Galvanized members requiring shop assembly shall be welded and drilled prior to galvanizing.

Coating Over Galvanized Steel

Prior to painting, the applicator shall ensure that all components are smooth and without sharp protrusions that would present an injury hazard to pedestrians.

Also, the fabricator shall ensure that all welds shall be cleaned thoroughly in accordance with good practice and according to AWD D1.5 and ASTM A123-89a and shall have a suitable surface to accept the galvanizing.

In preparation for the two coat painting system, the surface shall be blast cleaned in accordance with the requirements of SSPC SP7 "Brush-Off Blast Cleaning" or other method producing equivalent results and uniform profile, to achieve a 1.0 to 1.5 mils anchor profile as indicated by a Keane Tator profile comparator or similar device. The creation of the anchor profile shall be performed prior to the formation of "white rust" on the galvanized surface.

Following blast cleaning, the zinc coating thickness shall be measured to verify that the coating thickness is in accordance with AASHTO M111.

A two-coat painting system shall be applied by the Galvanizer in his own facility within twelve hours of galvanizing the steel components.

The prime coat material shall be a polyamide epoxy applied to minimum dry film thickness of 2.0 to 4.0 mils (0.002-0.004 in.) and force cured as given below for the finish coat.

The finish coat material shall be a two component, catalyzed aliphatic urethane applied by airless spray to a minimum dry film thickness of 4.0 mils.

The color shall be **FLAT BLACK**. The fabricator shall submit to the Engineer for approval, paint chips of the intended color prior to any work being done under this heading.

ITEM 815.1 (Continued)

All finish coat material shall be applied under conditions within the following tolerances:

Air Temperature 50°F min., 90°F max.

Surface Temperature 50°F min., 100°F max.

Surface temperature must be at least 5°F above the dew point.

The finish coat shall be cured in a booth capable of maintaining 150°F for 2-4 hours.

Touch-up and Repairs

Should any damage occur to the galvanized coating during shipping or handling at the job site, the Contractor shall repair and touch-up any damaged areas to the satisfaction of the Engineer and the following:

Touch-up of galvanizing before the finish coat is applied shall be accomplished by applying galvanizing repair paint. The dry film thickness of the applied repair paint shall not be less than 4.0 mils.

Applications shall be in accordance with the manufacturer's instruction.

Field touch-up procedures shall conform to the recommendations of the Galvanizer. Touch-up of the finish coat shall be by applying a coating of a two-part urethane, as supplied by the Galvanizer, to achieve a dry film thickness of at least 4.0 mils. Prior to the application of the paint, remove all damaged coatings down to a solidly adhered coating and apply galvanizing repair paint as primer.

Allow the primer to dry for at least 4 hours prior to top coating.

The Contractor shall also use the touch-up paint material and procedures to paint the galvanized hardware used in field erection that has not been finish coated previously.

ITEM 815.1 (Continued)**Aluminum Equipment**

All aluminum equipment called for shall have a powder coat finish **BLACK** in color. The coating shall be a polyester-TGIC (triglycidyl isocyanurate) resin system conforming to the following:

Quality	Test	Limits
Abrasion	Taber abraser CS-10, 1000 gram load, 1000 cycle, ASTM D4060	100 mg. Maximum weight loss
Adhesion	ASTM D .59 Initial 1000 hours	5A 5A
Gloss	ASTM D 523 60° - 600 hours 60° - 1000 hours	82% retention 90% retention (washed)
Hardness	ASTM D 3363	2H – No Gouge
Impact	ASTM D 2794 Direct	Pass 80 inch-lb.
Salt Spray Resistance	ASTM B 177 ASTM D 1654 1000 hours unscribed 400 hours scribed	Table 2-10 Table 1-10
Weather Resistant	ASTM G 23, 1000 hours, 18 min. waterspray, 102 min. light	No film failure
Color	FLAT BLACK	
Identify	Infrared fingerprint	Match
Flexibility	180° bend; ½” dia, mandrel within 10 seconds	No breaks, flaking or cracks. Tested with a Q-panel with 2 mils or less of coating
Humidity	ASTM D 2247, 1000 hours	No blister or film failure
Thickness		4 mils +/- 1 mils
Mar Resistance		Good

A Certificate of Compliance of the powder coating system is required for the Engineer's approval.

ITEM 815.1 (Continued)**Basis of Payment**

Item 815.1 will be paid for at the Contract lump sum price, which price shall include all labor, material, equipment shop drawings and incidental costs required to complete the work.

No separate payment will be made for work considered incidental to the excavation, including but not limited to, mast arm foundations, dewatering, etc., but all costs in connection therewith shall be included in the price bid.

Three inch conduit will be paid for separately under Item 804.3, 3 Inch Electrical Conduit Type NM Plastic (UL).

Handholes will be paid for separately under Item 811.22, Electric Handhole - SD2.022.

Pull Boxes will be paid for separately under Item 811.31, Pull Box 12 x 12 Inch – SD2.031.

Service Connection for Item 815.1 will be paid for separately under Item 813.811.

ITEM 823.701 HIGHWAY LIGHTING POLE AND LUMINAIRE REMOVED EACH
AND RESET ON NEW FOUNDATION

The work under this item shall conform to the relevant provisions of Subsection 800 of the Standard Specifications and consists of removing and resetting existing light poles onto new light standard foundations and the removal and disposal of the existing foundations.

The existing pole and luminaire shall be removed from the foundation and stored by the contractor until it can be reinstalled in the proposed location. The existing foundations shall be excavated below the finished ground elevation, while ensuring all electrical connections have been disconnected, with the existing conduit being abandoned. The holes resulting from the excavation and removal of the supports shall be backfilled with compacted gravel and the surface material shall be replaced in kind. The proposed foundation shall meet the manufacturer requirements of the existing light pole.

METHOD OF MEASUREMENT

Item 823.701 will be measured for payment by the each highway lighting pole and luminaire removed and reset on the new foundation, complete in place.

BASIS OF PAYMENT

Item 823.701 will be paid at the Contract unit price per Each, which price will include full compensation for furnishing all labor, tools, materials, equipment and incidentals, and for performing all work involved in disconnecting and relocating the existing pole, installing new foundation and removing the existing foundation, as well as excavation and backfill of the light support foundation and restoration area.

ITEM 828.099**OVERHEAD RAILROAD CROSSING SIGNAL
REMOVED****EACH**

The work under this item shall conform to the relevant provisions of Subsection 800 of the Standard Specifications and consists of removing, dismantling, and disposing off the project site, the existing overhead railroad crossing signal supports and foundations, designated to be removed and discarded.

The existing overhead railroad crossing signal supports and foundations shall be excavated below the finished ground elevation. Contractor is responsible for ensuring all electrical connections to the existing signals have been disconnected and shall abandon any existing conduit in place connected to the signal. The holes resulting from the excavation and removal of the supports shall be backfilled with compacted gravel and the surface material shall be replaced in kind.

METHOD OF MEASUREMENT

Item 828.099 will be measured for payment by Each as complete units, including the railroad crossing signal support and foundation.

BASIS OF PAYMENT

Item 828.099 will be paid at the Contract unit price per Each, which price will include full compensation for furnishing all labor, tools, materials, equipment and incidentals, and for performing all work involved in disconnecting and removing the overhead railroad crossing signal, supports, foundations, as well as excavation and backfill of the sign support foundation and area restoration.

All materials removed and discarded under this Item shall become the property of the Contractor, who shall be responsible for their proper disposal away from the project site with no additional compensation.

ITEM 852.11
ITEM 852.12**TEMPORARY PEDESTRIAN BARRICADE**
TEMPORARY PEDESTRIAN CURB RAMP**FOOT**
EACH**Description**

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

Materials

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

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

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

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

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

Construction Methods

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

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

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

ITEMS 852.11 & 852.12 (Continued)

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

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

COMPENSATION

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

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

ITEM 853.8**TEMPORARY ILLUMINATION FOR WORK ZONE****DAY**

The work under this Item shall conform to the relevant provisions of Section 850 of the Standard Specification and the following:

The work under this Item shall include the deployment and maintaining in proper operating condition a LED balloon diffuser lighting system. These portable light towers shall be used throughout the project area for temporary work zone lighting. The use of unshielded high wattage flood lights shall not be permitted.

These towers shall be used, relocated and adjusted to meet the criteria in Section 850 of the Standard Specifications and the following:

The Contractor shall illuminate the following work zone areas:

- Change in direction (i.e., work zone entrances and exits, crossovers, etc.)
- Tapered areas
- Actual area where the construction is being performed

Light measurement shall be based on the illuminance method and the lighting levels shall be based on the classification of construction activity that is taking place. At no time shall the light level be below 5 fc and the uniformity shall not exceed 6:1. Task Classifications and recommended illumination levels is shown in Table 1.

TABLE 1 TASK CLASSIFICATIONS AND ILLUMINATION LEVELS

Task Classifications	Illumination Level	Average Minimum Maintained Illuminance
All work operations areas, setup of lane or road closures, lane closure tapers, and flagging stations, such as: Excavation (all types), Embankment Fill and Compaction, Reworking Shoulders, Asphalt Pavement Rolling, Subgrade, Stabilization and Construction, Base Course Rolling, Sweeping, Cleaning and Landscaping.	Level I	5 foot-candles
Areas on or around construction equipment; asphalt paving, milling, and concrete placement and/or removal, such as, Milling, Removal of Pavement, Asphalt Paving and Resurfacing, Concrete Pavement, Waterproofing and Sealing, Sidewalk Construction, Base Course Grading and Shaping, Surface Treatment, Bridge Decks, Drainage Structures and Drainage Piping, Other Concrete Structures, Barrier Wall and Traffic Separators, Guardrails and Fencing, Striping and Pavement Markings, Repair of Concrete Pavement, Highway Signs, Hole Filling and Repair of Guardrails and Fencing.	Level II	10 foot-candles
Pavement or structural crack/ pothole filling; joint repair, pavement patching and/or repairs, installation of signal/electrical/mechanical equipment, such as, Traffic Signals, Highway Lighting Systems and Crack Filling	Level III	20 foot-candles

ITEM 853.8 (Continued)

A detailed work zone lighting plan shall be submitted to MassDOT for approval before any work has commenced. Said plan shall include photometrics that detail the light levels that are to be provided. Photometrics shall include the following: calculated illuminance, uniformity, and glare avoidance verification throughout the work zone as well as the active travel lanes. The lighting plan shall be submitted with all supporting calculations, catalog cut sheets and supporting documentation.

Any potential glare from the lighting system should be considered from each direction and on all approaching roadways and opposing lanes of traffic. Glare from the illumination system should be minimized as much as possible for both workers and motorists in adjacent active travel lanes. If necessary, the Contractor shall provide supplemental hardware, such as, visors, louvers, shields, glare screen and barrier to reduce glare in adjacent active travel lanes.

The plan shall show the layout for each work area including the number, location, spacing of all fixed and/or mobile structures, description of illumination equipment that is proposed to be used on this project, and mounting details for mobile lights attached to construction equipment. Plan shall be designed by a professional engineer that is registered and licensed by the Commonwealth of Massachusetts and shall be submitted to the Engineer for approval prior to any nighttime work operations within the State Highway Right of Way.

The Contractor shall allow MassDOT up to 30 calendar days for review and comment.

METHOD OF MEASUREMENT AND BASIS OF PAYMENT

Item 853.8 will be measured and paid for at the contract unit price per DAY. The cost shall include all labor, materials, equipment, tools and all incidentals required for the design and installation of the work zone lighting system. This shall include, but not be limited to lighting plan preparation, wiring connections, equipment relocations, and include all material and labor incidental for a complete, functional and operational work zone illumination system.

The price of this item shall include the material and labor necessary to install any supplemental hardware required to reduce glare on all adjacent active travel lanes.

The per day price shall be full compensation for all "Temporary Illumination for Work Zone" regardless of the number of concurrent work areas, amount of equipment concurrently in use or the durations of or changes of the work shifts per day.

Installation and modifying the existing set-up shall be incidental to Item 853.8.

ITEM 854.6**TEMPORARY PORTABLE RUMBLE STRIP****DAY**

Work under this item consists of furnishing, deploying, maintaining in proper operating conditions, and removing temporary portable rumble strips (TPRS) for temporary lane closures of 24 hours or less.

MATERIALS

The TPRS shall be 10' to 11' wide, measured perpendicular to the path of travel, 12" to 16" long, measured parallel to the path of travel, and 0.5" to 0.75" tall. All edges shall be beveled. The surfaces shall be grooved to limit potential hydroplaning.

The TPRS shall lay flat on the road surface without the use of nails, anchors, or adhesives, and shall be flexible so as to conform to the surface profile.

The TPRS shall be able to withstand vehicle weights of up to 80,000 lbs. and operate in temperatures between 0° to 120° F.

The manufacturer shall certify the TPRS to be safe for use on roads with speed limits of at least 70 mph.

TPRS that appear damaged or functioning in an unsafe manner may be order removed by the Engineer and replaced at no additional cost.

CONSTRUCTION METHODS

The TPRS shall be installed per the plans or at the discretion of the Engineer.

The Contractor shall conform to the manufacturer's specifications for installation and the following:

- A. The road surface shall be cleared of all gravel, sand, and debris.
- B. If RoadQuake 2™ model is used, the modular pieces shall be assembled into 11-foot strips per the manufacturer's instructions in advance of deployment. The interconnected segments shall form a smooth and flat, continuous section.
- C. A Truck-Mounted Attenuator, conforming to Section 850, shall be used as shadow vehicle protection during the deployment and removal of TPRS on any roadway with speeds of 45 mph or greater.
- D. TPRS shall be deployed in conjunction with all other temporary traffic control devices. MA-W28-1 (Rumble Strips Ahead) sign(s) shall be installed per the Temporary Traffic Control Plan.
- E. TPRS deployment:
 - 1. TPRS shall be placed perpendicular to the direction of travel, centered in the lane.
 - 2. Three (3) individual strips are required for a single array.
 - 3. Refer to the Temporary Traffic Control Plan for the location of the array respective to the lane closure.

ITEMS 854.6 (Continued)

4. The spacing of the individual strips within the array shall conform to the following table:

Speed Limit	Distance Between Rumble Strips (measured center-to-center)
>55 mph	20 feet
40 mph to 55 mph	15 feet
<40 mph	10 feet

5. The TPRS shall be placed without the use of nails, adhesives, or other methods of affixing them to the road surface.
- F. All TPRS shall be maintained in proper condition, alignment, spacing, and location throughout the duration of the lane closure, at no additional cost.
- G. The TPRS shall be removed prior to the removal of the traffic control devices used to close the travel lane.
- H. TPRS shall not be used during snow events.

METHOD OF MEASUREMENT

An array of three (3) temporary portable rumble strips is considered one (1) unit and will be measured by the day. Each period of up to 24 hours during which this unit is in use will be measured as one day regardless of the number of times the array is deployed, repositioned, or removed.

BASIS OF PAYMENT

Temporary Portable Rumble Strips will be paid for at the contract unit price per day, which shall include full compensation for furnishing, deploying, repositioning, and removing the array of three (3) individual strips as directed by the Engineer.

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

The work under this Item shall conform the relevant provisions of Subsection 850 of the MassDOT Standard Specifications and the following:

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

MATERIALS

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

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

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

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

CONSTRUCTION METHODS

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

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

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

ITEM 859.1 (Continued)**METHOD OF MEASUREMENT**

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

BASIS OF PAYMENT

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

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

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

All pavement markings supplied under this item shall conform to the applicable MassDOT's standards for 6 Inch ReflectORIZED White Line (Painted).

The work under this item shall consist of providing, installing, and maintaining the 4 inch wide markings in private parking lots, as shown on the plans or as requested by the Engineer .

METHOD OF MEASUREMENT

Item 860.104 will be measured for payment by the foot, complete in place.

BASIS OF PAYMENT

Item 860.104 will be paid for at the Contract unit price per foot, which price shall include all labor, material, equipment and incidental costs required to complete the work.

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

<u>ITEM 864.03</u>	<u>PAVEMENT LEGENDS REFLECTORIZED</u> <u>PREFORMED THERMOPLASTIC RAISED CROSSWALK MARKING</u>	<u>EACH</u>
<u>ITEM 864.031</u>	<u>PAVEMENT LEGENDS REFLECTORIZED</u> <u>PREFORMED THERMOPLASTIC BIKE LANE RIDER</u>	<u>EACH</u>
<u>ITEM 864.032</u>	<u>PAVEMENT LEGENDS REFLECTORIZED</u> <u>PREFORMED THERMOPLASTIC BIKE LANE ARROW</u>	<u>EACH</u>
<u>ITEM 864.033</u>	<u>PAVEMENT LEGENDS REFLECTORIZED</u> <u>PREFORMED THERMOPLASTIC BIKE RIDER AT STOP LINE</u>	<u>EACH</u>
<u>ITEM 864.035</u>	<u>PAVEMENT LEGENDS REFLECTORIZED</u> <u>PREFORMED THERMOPLASTIC YIELD TRIANGLE</u>	<u>EACH</u>
<u>ITEM 864.036</u>	<u>PAVEMENT LEGENDS REFLECTORIZED</u> <u>PREFORMED THERMOPLASTIC ACCESSIBLE PARKING</u>	<u>EACH</u>

The work under these Items shall conform to the 2009 Manual of Uniform Traffic Control Devices (MUTCD) and the following:

The work shall consist of preparing pavement surfaces, along with furnishing and installing retroreflective preformed thermoplastic legends and symbols associated with roundabouts, raised crosswalk, bicycle pavement markings, and accessibility (Parking Space) pavement markings at locations shown on the plans or as requested by the Engineer, and in accordance with this special provision.

The Contractor shall provide all labor and material (i.e. propane fueled torch with pressure regulator and hose, tape measure, utility knife, putty knife, hammer, chisel, chalk sticks and snap lines, sealer, adequate supply of propane) and all other equipment, materials and incidental costs necessary to complete the installation of the preformed thermoplastic markings.

Shop Drawings

Within 30 days following execution of the Contract, the Contractor shall submit shop drawings for the performed thermoplastic material, and the manufacturer's materials specifications to the Engineer in accordance with the relevant provisions of MassDOT Standards Section 815.20.

No work shall be commenced by the Contractor until approval of the shop drawings and manufacturer's data has been received in writing from the Engineer. Approval of these drawings will be general in character and shall not relieve the Contractor from the responsibility of, or the necessity of, furnishing materials and workmanship conforming to the plans and specifications.

The Contractor shall deliver to the Engineer a certificate of compliance with the manufacturer for all materials purchased from the manufacturer

ITEMS 864.030 through 864.036 (Continued)**Materials**

All preformed markings shall be selected from the following suppliers or approved equivalent:

- PreMARK Bike Marking, with ViziGrip, as manufactured by Flint Trading, Inc., 115 Todd Court, Thomasville, NC 27360.
- Ingevity (formerly Ozark Materials, LLC) 591 Glendale Avenue, Greenville, AL 36037
- SWARCO Industries, LLC, 270 Rutherford Lane, TN 38402 Columbia, USA

The preformed markings shall have a thickness of 90 mils.

The surface of the markings shall upon application provide a minimum skid resistance value of 45 BPN when tested according to ASTM:E 303.

The legends and symbols, along with the manufacturer's item numbers, are as follows:

Legends & Symbols	Manufacturer's Item No.		
	PreMark	Rae Paint	Ozark*
Bike Loop Detector	89230577LHS	4061	OZ-BP1006-090
Bicycle Rider Left	PM602006L	3573	OZ-BP1013-090
Bike Lane Straight Arrow	PM602005	3525	OZ-BP1025-090
Accessibility (Parking Space) Symbol	89230230HS	3810	OZ-HC1001-090
Yield Triangles	8231002	3543	OZ-YH1004-090
Raised Crosswalk Marking	8230126HS	4278	OZ-YH1006-90

***Ozark has been acquired by Ingevity. Part numbers may be different**

Application

In advance of the preformed marking installations, the Contractor shall mark, on site, the preformed markings with any changes required by field conditions such as manholes. The marking layouts shall be inspected and approved by the Engineer before the markings are installed.

The Contractor shall provide certification, to the Engineer, from the manufacturer documenting the Contractor's qualifications to install the preformed markings in a manner acceptable to the manufacturer and documented in installation materials provided by the manufacturer.

Prior to installation the pavement shall dry and free of dirt, debris, deicing agents, chemicals, and significant oily substances.

The Contractor shall be responsible for controlling and minimizing airborne dust and similar debris generated by surface preparation and cleanup to prevent a hazard to motor vehicle operation, pedestrians, or nuisance to adjacent property.

ITEMS 864.030 through 864.036 (Continued)**Observations**

The preformed markings shall be subject to a 180 day observation period under normal traffic conditions. The observation period shall begin with the satisfactory completion and acceptance of the work by the Engineer and MassDOT.

The preformed markings shall show no signs of failure such as: blistering, excessive cracking, chipping, discoloration, poor adhesion to the pavement, loss of reflectivity or vehicle damage. MassDOT reserves the right to check the color and retroreflectivity any time prior to the end of the observation period.

The Contractor, at no additional cost to MassDOT or City, shall replace any preformed markings that do not perform satisfactorily under the 180 day observation period.

Warranty

The Manufacturer shall warrant the preformed markings against material defects for a period of one year from the date of the acceptance letter of the project by MassDOT.

Method of Measurement and Basis of Payment

The work under Items 864.030, 864.031, 864.032, 864.033, 864.035, and 864.036 will be measured and paid for at the Contract unit price per EACH, which price shall include all labor, material, equipment and incidental costs required to complete the work.

ITEM 866.124**24 INCH REFLECTORIZED WHITE LINE
(THERMOPLASTIC)****FOOT**

The work under this item shall conform to the relevant provisions of Subsection 860 of the Standard Specifications and the following:

All pavement markings supplied under this item shall conform to the applicable MassDOT's standards for 6 Inch Reflectorized White Line (Thermoplastic).

The work shall consist of the furnishing and application of 24-inch pavement markings for non-texturized crosswalks as shown on the plans.

Method of Measurement and Basis of Payment

The work under Item 866.124 will be measured and paid for at the Contract unit price per FOOT, which price shall include all labor, materials, equipment and incidental costs required to complete the work.

ITEM 867.208**8 INCH REFLECTORIZED
YELLOW LINE (THERMOPLASTIC)****FOOT**

The work under this item shall conform to the relevant provisions of Subsection 860 of the Standard Specifications and the following:

The work shall consist of grooving a slot in the pavement surface and the furnishing and installation of wet reflective thermoplastic pavement markings.

MATERIALS

Wet reflective thermoplastic pavement markings shall consists of a liquid binder, first drop beads or elements to provide dry and wet retroreflectivity, and second drop glass beads to improve the durability of the pavement marking, reduce track-free times, and provide supplementary dry retroreflectivity.

The Contractor shall use one of the following binders or approved equivalents:

1. Ennis-Flint Hydrocarbon Thermoplastic;
2. Integrated Traffic Systems iTherm® Hydrocarbon;
3. Ozark Materials Hydrocarbon Thermoplastic; or
4. SWARCO Hydrocarbon Thermoplastic.

The Contractor shall use one of the following first drop beads or elements, or approved equivalents:

1. 3M™ All Weather Series 90S Elements;
2. Ennis-Flint HP300 Glass Beads;
3. Potters VISIMAX® Glass Bead System; or
4. SWARCO MEGALUX-BEADS®.

Second drop beads shall be manufactured from glass of a composition that is highly resistant to traffic wear and to the effects of weathering. If coating is required to meet the performance requirements, the second drop beads shall be coated to ensure satisfactory embedment and adhesion. Second drop beads retained on a No. 40 U.S. Standard Mesh Sieve shall have a minimum crush strength of 30 lbs. when tested in accordance with ASTM D1213.

Second drop beads shall have a minimum refractive index of 1.51 when tested in accordance with AASHTO M247.

Second drop beads passing the No. 30 sieve shall have a minimum of 75 percent true spheres when tested in accordance with ASTM D1155. All second drop beads retained on the No. 20 and No. 30 sieves shall have a minimum of 80 percent true spheres as determined by ASTM D1155. Second drop beads shall meet the following gradation requirements when tested in accordance with ASTM D1214:

ITEM 867.208 (Continued)

U.S. Standard Sieve No.	Percent Retained
20	3-10
30	15-35
50	45-75
70	0-10
Pan	0-5

CONSTRUCTION METHODSInstallation of Groove

Prior to cutting out the grooves for all recessed lines, the Contractor shall use a chalk line or other suitable method to layout the proposed pavement markings on the surface course so that the Engineer can inspect the locations. Once the Engineer has inspected and approved the proposed striping layout, the grooves for the proposed pavement markings may be cut. No pavement grooving shall be done without the prior approval of the Engineer.

Groove position shall be a minimum of 4 inches from the edge of the pavement marking to any longitudinal pavement joints. The groove shall not be installed on bridge joints, on drainage structures, or in other areas identified by the Engineer. The groove shall not be installed continuously for intermittent pavement markings, but only where markings are to be applied.

The use of gang stacked diamond cutting blades to grind a smooth square slot is required for producing all grooves. The spacers between blade cuts shall be such that there will be less than a 10 mil rise in the finished groove between the blades. The acceptability of the surface texture will be determined by the Engineer.

The diamond grinder shall have an articulating head so that the slots are installed correctly on grades and super elevated sections.

Grooves that are ground deeper or wider than the specified allowable limits shall be repaired per the direction of the Engineer at no additional cost. Grooves that are ground too shallow, too narrow, or with unacceptable rises between blade cuts shall be reground to the correct size, depth, and surface finish at no additional cost. Slots ground out of alignment shall be patched using an approved method and materials.

Grooves shall be 1 inch \pm ¼ inch wider than the pavement marking material. Groove depth shall be 150 mils \pm 5 mils, unless otherwise approved by the Engineer. Depth shall be consistent across the full width of the groove. Depth plates shall be provided by the Contractor to the Engineer to assure that desired groove depth is achieved.

ITEM 867.208 (Continued)

Grooves shall be clean, dry and free of laitance, oil, dirt, grease, paint or other foreign contaminants. Shrouds and a vacuum apparatus shall be included as part of the grinder to remove larger pieces of pavement that are ground out. If water is used to clean the groove or the grooving process takes place during rainfall, a minimum of 24 hours of dry time is required prior to the placement of pavement markings.

After the depth, width, length, and surface condition has been approved by the Engineer, an air lance shall be used to remove fine particles from the groove. Air compressors shall initially be blown out away from the application area to prevent compressor condensation build-up from entering the groove. The Contractor shall prevent traffic from traversing the grooves and re-clean grooves, as necessary, prior to application of pavement markings at no additional cost to the Department.

All grooves must be given final approval by the Engineer prior to the placement of pavement markings.

Installation of Wet Reflective Thermoplastic

Installation of wet reflective thermoplastic pavement markings shall conform to the Manufacturer's specifications and the following:

Application rate for binder and all beads and elements shall consider final pavement surface composition and smoothness in advance of application to ensure proper wet film thickness and embedment of all beads and elements. The Contractor shall provide the Engineer with documentation from the Manufacturer with all recommended application rates in advance of any pavement marking installation.

The minimum uniform wet thickness for the thermoplastic binder shall be 90 mils \pm 5 mils. The line thickness shall be met across at least the middle $\frac{2}{3}$ of the pavement marking width. Depth plates shall be provided by the Contractor to the Engineer to assure that desired thickness is achieved.

The finished white color shall be free from tint, with good opacity and visibility under both daylight and artificial light. The finished yellow color shall be defined by Federal Test Standard 595 - Color Chip Number 13538, using Federal Test Standard 141 (Method 4252). The finished lines shall be uniform in color and have clean, well-defined edges.

First and second drop beads and/or elements shall be applied in a manner that does not induce rolling or bouncing, to ensure that exposed portions of beads are free of binder material. Beads and elements should be embedded in the binder to a depth of approximately 50% of their diameter.

Drop rate for first drop bead or element shall be per the Manufacturer's specifications.

Drop rate for second drop glass bead shall be 6.4-10.2 lbs. per gallon.

Newly installed pavement markings shall be protected from tracking during the setting period per Subsection 860.63.

ITEM 867.208 (Continued)

Once the installed pavement markings have been open for traffic for a minimum of 48 hours, the Contractor shall perform retroreflectance readings per the measurement and sampling procedures contained in ASTM D7585 (Standard Practice for Evaluating Retroreflective Pavement Markings Using Portable Hand-Operated Instruments) using the Referee Evaluation Protocol found in section 6.4. The following tests shall be performed during the measurement and sampling process:

1. ASTM E1710 (*Standard Test Method for Measurement of Retroreflective Pavement Marking Materials with CEN-Prescribed Geometry Using a Portable Retroreflectometer*); and
2. ASTM E2177 (*Standard Test Method for Measuring the Coefficient of Retroreflected Luminance (R_L) of Pavement Markings in a Standard Condition of Wetness*).

The average initial retroreflectance readings shall exceed the following minimum values:

	*White Markings	*Yellow Markings
ASTM E1710 (Dry)	475 mcd/lux/m ²	375 mcd/lux/m ²
ASTM E2177 (Wet Recovery)	375 mcd/lux/m ²	300 mcd/lux/m ²

*Observation Angle = 1.05°, Entrance Angle = 88.8°

Pavement markings with measured average initial retroreflectance readings that do not meet the specified minimum values using the procedures outlined in subsection 6.4.5 of ASTM D7585 shall be removed by a method approved by the Engineer and reapplied at no additional cost.

Pavement Marking Asset Management

Upon completion of the pavement marking installation, the following data shall be tabulated by the Contractor:

1. Retroreflectance readings, including date(s), time(s), and location(s) where readings took place;
2. Liquid binder type(s) and application rate;
3. Reflective element type and drop rate;
4. Date of groove installation;
5. Lot, batch number, or any other material identifiers and manufacturing information;
6. Date and time of final liquid marking installation;
7. Highway location (including direction) of installation;
8. Air and pavement temperature during application;
9. Measured material application thickness, depth of groove; and
10. Any other pertinent information that may assist MassDOT with Quality Control.

ITEM 867.208 (Continued)

Results for all readings shall be provided within 10 business days of testing to the Engineer, with a second copy sent to:

State Traffic Engineer
Attention: Pavement Marking Installation & Testing
10 Park Plaza, Room 7210
Boston, MA 02116

The cost to prepare and submit this data shall be considered incidental to the cost of the items.

METHOD OF MEASUREMENT

Wet reflective recessed thermoplastic pavement markings will be measured per FOOT, complete in place, as specified under Section 860.80.

BASIS OF PAYMENT

Wet reflective recessed thermoplastic pavement markings will be paid at the respective contract unit price per FOOT. The contract prices shall include all material, labor, and equipment required or incidental to the satisfactory completion of the work.

ITEM 874.2**TRAFFIC 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 Contractor shall carefully remove and reset at new locations all existing signs, attachment hardware and sign support posts not included under other sign items as shown on the drawings and as requested by the Engineer.

Work shall also include excavation of existing foundations to a depth of at least 6 inches below grade, the supplying and placing of compacted gravel, and the restoration to original condition of any natural features disturbed in any way or manner by the operation. Signs, attachment hardware and sign support posts shall be satisfactorily stored and protected until reset in the proposed work.

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

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

METHOD OF MEASUREMENT

Item 874.2 will be measured for payment by the Each traffic sign removed and reset, complete in place.

BASIS OF PAYMENT

Item 874.2 will be paid for at the Contract unit price per EACH, which price will include all labor, material, equipment, excavation, removal and disposal of the existing foundation, backfilling, area restoration, and incidental costs required to complete the work.

New posts if required by Engineer, will be paid under item 847.1

ITEM 874.4**TRAFFIC SIGN REMOVED AND STACKED****EACH**

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

The work shall include the careful removal, transporting and stacking of traffic signs, attached hardware and supports from locations shown on the plans and as required by the Engineer, is salvageable.

Work shall also include excavation of existing foundations to a depth of at least 6 inches below grade, the supplying and placing of compacted gravel, and the restoration to original condition of any natural features disturbed in any way or manner by the operation.

The Contractor shall accept and hold entirely responsibility for the removal, handling and stacking at a location determined by the owner. Any signs and posts damaged or lost either directly or indirectly as a result of the Contractor's operations shall be replaced by the Contractor at no additional cost to the Owner.

The Contractor shall coordinate the removal of signs and posts with the City/Engineer prior to and at the completion of the above work. The Contractor shall coordinate with the City to schedule drop-off time. The existing signs shall be stacked at DPW. Existing signs shall remain in place until proposed new signs are in place.

METHOD OF MEASUREMENT AND BASIS OF PAYMENT

Item 874.4 will be measured for payment by Each, traffic sign unit removed and stacked.

Item 874.4 will be paid for at the Contract unit price per Each, which price shall include all labor, materials, equipment, transportation, gravel backfill, area restoration, and all incidental costs required to complete the work.

ITEM 885.1**BILLBOARD REMOVED AND DISCARDED****EACH**

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

The work shall include the careful removal of the existing billboards as specified in the plans, including the support and attachment hardware.

The contractor shall accept and hold entirely responsibility for the removal, handling, and storage at a location suitable to the Owner. Any items damaged or lost either directly or indirectly as a result of the Contractor's operations shall be replaced by the Contractor at no additional cost to the Owner. The Contractor shall coordinate the removal of the billboard with the Department by notifying the Department prior to and at the completion of the above work.

The existing billboard foundation shall be removed to 12" below the existing ground and backfilled and compacted to match the existing or proposed surface grading of the area.

METHOD OF MEASUREMENT AND BASIS OF PAYMENT

Item 885.1 will be measured for payment by Each billboard removed and discarded.

Item 885.1 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.

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DETAIL SHEETS

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THE COMMONWEALTH OF MASSACHUSETTS
 MASSACHUSETTS DEPARTMENT OF TRANSPORTATION
 TEN PARK PLAZA - BOSTON, MA

—Preliminary Estimate of Quantities — Detail Sheet—

TOWN:	<u>Southbridge</u>	YEAR:	<u>2024</u>
STA.:	<u>99+70.00 to 106+05.00</u>	ROAD:	<u>Hamilton Street</u>
	<u>200+00.00 to 205+04.55</u>		<u>Hook Street</u>
	<u>300+00.00 to 306+49.37</u>		<u>Larochelle Way</u>
	<u>496+75.00 to 507+50.00</u>		<u>Central Street</u>
	<u>396+30 to 404+58.36 and</u>		<u>Foster Street</u>
	<u>598+88.28 to 602+79.24</u>		
	<u>404+58.36 to 405+50.00</u>		<u>North Street</u>
		CLASS:	<u>Urban Minor Arterial</u>
Type of Project:	<u>Transportation Improvement Project</u>	DATE:	<u>11/22/2024</u>

Unclassified Excavation	<u>8000 CY</u>	Gravel for Sidewalks	<u>1700 CY</u>
Class "A" Trench	<u>75 CY</u>	Gravel for Driveway	<u>1500 CY</u>
Class "B" Trench Excav	<u>550 CY</u>	Sand Borrow	<u>1200 CY</u>
Class "B" Rock Excav	<u>1960 CY</u>	Gravel Borrow – Type C	<u>2100 CY</u>
Ordinary Borrow	<u>200 CY</u>	Embankment +15%	<u>101.4 CY</u>

PROPOSED FU PROPOSED FULL DEPTH PAVEMENT

AREA = 8498.8 SY

SURFACE:	1.75" SUPERPAVE SURFACE COURSE 9.5 (SSC-9.5)
INTERMEDIATE:	2.25" SUPERPAVE INTERMEDIATE COURSE 12.5 (SIC-12.5)
BASE:	4.50" HOT MIX ASPHALT (HMA) BASE COURSE – 37.5 (SBC-37.5)
SUBBASE:	4" DENSE GRADE CRUSHED STONE OVER 8" GRAVEL BORROW (TYPE b) 8" GRAVEL BORROW OR EXISTING GRAVEL TO REMAIN COMPACTED

PROPOSED PAVEMENT MILL & OVERLAY AT LIMITS OF WORK

AREA = 316.9 SY

SURFACE:	1.75" SUPERPAVE SURFACE COURSE 9.5 (SSC-9.5) OVER
MILLING:	1.75" PAVEMENT FINE MILLING

PROPOSED HOT MIX ASPHALT DRIVEWAY**AREA = 4956.2 SY**SURFACE: 1 ½" SUPERPAVE SURFACE COURSE 9.5(SSC-9.5)
OVER

INTERMEDIATE: 2" SUPERPAVE INTERMEDIATE COURSE 12.5 (SIC-12.5)

SUBBASE: 8" GRAVEL BORROW (TYPE b)

PROPOSED CEMENT CONCRETE SIDEWALK**AREA = 2360SY****PROPOSED CEMENT CONCRETE PEDESTRIAN CURB RAMP****AREA = 525 SY**SURFACE: 4" CEMENT CONCRETE
AIR ENTRAINED 4000 PSI, 3/4", 610

SUBBASE: 8" GRAVEL BORROW (TYPE b)

PROPOSED CEMENT CONCRETE SIDEWALK AT DRIVEWAYS**AREA = 930SY**SURFACE: 6" CEMENT CONCRETE
AIR ENTRAINED 4000 PSI, 3/4", 610

SUBBASE: 8" GRAVEL BORROW (TYPE b)

PROPOSED STAMPED CEMENT CONCRETE PAVEMENT**AREA = 480SY**SURFACE: 8" CEMENT CONCRETE AIR ENTRAINED 4000 PSI,
3/4", 610 (REINFORCED)

SUBBASE: 8" GRAVEL BORROW (TYPE b)

Plan No.'s _____
Profile No.'s _____
Calculation Book No.'s _____Estimated by _____
Reviewed by _____
Submitted by _____

ITEM 103. TREE REMOVED – DIAMETER UNDER 24 INCHES

Included for tree removal at the following locations and as directed by the Engineer.

Station	Offset		Size	Type
301+10	8.0'	RT	14"	Deciduous
301+20	16.0'	RT	14"	Deciduous
301+45	21.0'	RT	14"	Deciduous
302+25	28.0'	RT	12"	Deciduous
302+70	30.0'	LT	8"	Deciduous
302+75	21.0'	LT	8"	Deciduous
303+30	27.0'	RT	8"	Deciduous
303+60	27.0'	RT	8"	Deciduous
303+75	27.0'	RT	8"	Deciduous
303+95	27.0'	RT	8"	Deciduous
304+05	27.0'	RT	8"	Deciduous
304+25	27.0'	RT	8"	Deciduous
304+24	28.0'	LT	8"	Deciduous

ITEM 129.5 TRACK EXCAVATION

Station			to	Station		
203+47.82	103.8	RT		202+36.25	26.2	LT
203+50.47	100.3	RT		202+40.39	27.9	LT

Station			to	Station		
303+44.77	92.9	LT		303+96.40	61.3	LT
303+84.53	73.9	LT		303+47.53	97.1	LT

Station			to	Station		
402+01.28	21.1	RT		402+22.66	28.8	LT
402+16.92	31.5	RT		403+48.91	104.7	LT
402+32.80	43.8	LT		402+66.17	21.9	RT
403+64.19	112.0	LT		402+18.57	37.1	RT

Included for the excavation of footings for stone masonry retaining walls.

ITEM 141. CLASS A TRENCH EXCAVATION**Foster Street**

Station

403+65
403+77
403+88

ITEM 201.**CATCH BASIN**

<u>Structure No.</u>	<u>Station</u>	<u>Offset</u>	
2	104+76.5	13.5'	RT
4	303+52.0	26.0'	RT
5	303+48.4	15.0'	LT
9	201+62.9	11.0'	RT
13	504+67.0	15.0'	LT
14	505+06.4	15.0'	RT
15	504+03.9	15.0'	RT
17	503+75.4	15.2'	LT
24	203+60.3	13.0'	LT
41	403+55.0	13.6'	LT
47	203+44.9	9.5'	RT
49	202+37.6	11.0'	LT
52	104+83.6	13.6'	LT
59	506+04.4	14.5'	LT
60	506+04.4	15.0'	RT
63	502.54.0	15.6'	LT
64	102+15.0	15.9'	LT
69	306+06.4	15.3'	RT
77	305+58.8	12.0'	LT
79	102+23.7	15.4'	RT
80	104+07.5	22.8'	LT

ITEM 201.2 **DOUBLE CATCH BASIN**

Structure No.	Station	Offset
23	103+40	39 RT
22	300+51	17.1 LT
29	302+29	15.1 RT
35	202+26	15.1 RT
75	302+67	15.2 RT
61	502+50	17.3 LT

ITEM 201.3 **SPECIAL CATCH BASIN**

Structure No.	Station	Offset
45	602+10	6.2 RT

ITEM 202. **MANHOLE**

Structure No.	Station	Offset
20	306+16	27 LT
25	300+48	1 LT
28	302+29	0
46	602+20	22 RT
51	403+41	10 RT
62	502+62	9 LT
65	102+23	6 LT
66	103+95	0
68	506+08	5 RT
74	302+67	0
78	306+08	6 LT
LT82	203+29	7 LT

ITEM 203. **SPECIAL MANHOLE**

Structure No.	Station	Offset
30	503+82	7.2 LT

ITEM 204. **GUTTER INLET**

<u>Structure No.</u>	<u>Station</u>	<u>Offset</u>	
10	202+36	11.0	RT
44	402+36	14.0	RT
56	204+43	7.0	RT

ITEM 220. **DRAINAGE STRUCTURE ADJUSTED**

<u>Station</u>	<u>Offset</u>		<u>Type</u>
105+65	678.6	RT	CB
201+05	23.7	LT	CB
201+71	08.9'	LT	DMH
202+25	24.5'	RT	CB
202+31	08.0'	RT	DMH
203+50	58.3'	RT	DMH
303+38	33.5	RT	CB
404+32	13.1	RT	CB
404+32	10.7'	RT	DMH
505+42	15.2'	LT	DMH
505+42	16.5'	RT	DMH
507+13	12.2'	LT	CB
507+73	15.2'	LT	CB
601+04	07.5'	RT	CB

ITEM 220.3 **DRAINAGE STRUCTURE CHANGE IN TYPE**

<u>Structure No.</u>	<u>Station</u>	<u>Offset</u>	
1	104+69	22	RT
12	203+50	14.7	LT
26	303+40	22.5	RT
31	104+62	9	RT

ITEM 220.5 **DRAINAGE STRUCTURE REMODELED**

<u>Station</u>	<u>Offset</u>	<u>Type</u>
505+41	16 RT	DMH 37
		DMH
402+10	RT	39&40
202+27.9	14.6 RT	EX CB

ITEM 220.7 **SANITARY STRUCTURE ADJUSTED**

Participating Item included as part of Sewer Work.

<u>Station</u>	<u>Offset</u>
203+05	0.9 LT
500+98	-4.91 LT
505+67	-0.38 LT
403+92	1.4 RT
601+67	7.1 RT
404+50	LT

ITEM 220.8 **SANITARY STRUCTURE REMODELED**

<u>Station</u>	<u>Offset</u>
104+38	13.6 LT
*Remodel twice due to profile change	
300+40	23.2 RT
201+60	17.4 LT
503+39	-2.5 LT
506+63	6.65 RT
404+53	10.4 LT
404+67	5.5 LT

ITEM 227.3 **REMOVAL OF DRAINAGE STRUCTURE SEDIMENT**

For removal and disposal of sediments for existing drainage structures being adjusted, change-in-type, and as directed.

<u>Station</u>	<u>Offset</u>	
303+38	33.5	RT
201+05	23.7	LT
105+65	678.6	RT
404+32	13.1	RT
601+04	07.5'	RT
202+25	24.5'	RT
507+13	12.2'	LT
507+73	15.2'	LT
202+31	08.0'	RT
201+71	08.9'	LT
505+42	15.2'	LT
505+42	16.5'	RT
404+32	10.7'	RT
402+21	10.2'	RT
203+50	58.3'	RT

ITEM 238.10 **10 INCH DUCTILE IRON PIPE**

<u>Structure</u>		<u>Structure</u>
<u>No.</u>		<u>No.</u>
44	to	43

ITEM 238.12 **12 INCH DUCTILE IRON PIPE**

Structure No.	to	Structure No.
52		1
41		20
15		30
2		31
49		32
10		34
56		36
13		36
35		34
36		37
42		43
45		46
20		51
63		62

ITEM 241.12 **12 INCH REINFORCED CONCRETE PIPE CLASS III**

Structure No.	to	Structure No.
47		12
24		12
5		26
4		26
1		31
61		62
31		66
65		66
59		68
60		68
75		74
77		78
69		78

ITEM 241.15 **15 INCH REINFORCED CONCRETE PIPE CLASS III**

Structure No.	to	Structure No.
30		54

ITEM 243.12 **12 INCH REINFORCED CONCRETE PIPE CLASS IV**

Structure No.	Structure No.
78	20
22	25
23	25
29	28
17	30
62	30
64	65
79	65
80	66

ITEM 243.15 **15 INCH REINFORCED CONCRETE PIPE CLASS IV**

Structure No.	to	Structure No.
66		25
25		28

ITEM 244.12 **12 INCH REINFORCED CONCRETE PIPE CLASS V**

Structure No.	to	Structure No.
14		37

ITEM 244.24 **24 INCH REINFORCED CONCRETE PIPE CLASS V**

Structure No.	Structure No.
28	74
74	26

ITEM 303.06 6 INCH DUCTILE IRON WATER PIPE (MECHANICAL JOINT)

Participating and non-participating Item to be installed.

**PARTICIPATING
HAMILTON STREET**

Station	Station
104+43	104+43

LAROCHELLE WAY

Station	Station
300+43	300+72

CENTRAL STREET

Station	Station
503+87	503+87
506+31	506+31

FOSTER NORTH STREET

Station	Station
401+27	401+27
405+26	405+26
405+30	405+30

HOOK STREET

Station	Station
202+26	202+26

**NON-PARTICIPATING
HAMILTON STREET**

Station		Station
101+45	to	101+45

CENTRAL STREET

Station	Station
496+81	496+81
500+85	500+87

ITEM 303.08 **8 INCH DUCTILE IRON WATER PIPE (MECHANICAL JOINT)**

FOSTER NORTH STREET

<u>Station</u>	<u>Station</u>
396+31	403+05
398+68	398+68
399+75	399+75

ITEM 303.12 **12 INCH DUCTILE IRON WATER PIPE (MECHANICAL JOINT)**

Participating and non-participating Item to be installed.

PARTICIPATING
HAMILTON STREET

Station		Station
101+92	to	101+94
101+94	to	103+40
103+40	to	105+21
103+40	to	103+61/300+00

LAROCHELLE WAY

Station	Station
300+00	300+70/200+00

HOOK ST

Station	Station
200+30	200+87
200+87	205+04

NON-PARTICIPATING
HAMILTON STREET

Station		Station
99+70	to	101+92

ITEM 303.12 (Continued)**NON-PARTICIPATING****CENTRAL ST**

Station	Station
496+75	506+48
506+48	506+59
506+59	506+84
506+84	506+95

FOSTER STREET

Station	Station
600+01	601+80

FOSTER NORTH STREET

Station	Station
404+52	405+50

ITEM 309.**DUCTILE IRON FITTINGS FOR WATER PIPE**

Participating and non-participating Item to be installed.

PARTICIPATING**HAMILTON STREET**

Station	12 Inch Fittings
101+92	45 Degree Bend
103+12	12" x 12" x 12" WYE
104+40	12" x 6" x 12" TEE
105+03	45 Degree Bend
105+20	45 Degree Bend

HOOK STREET

Station	12 Inch Fittings
200+86	11.25 Degree Bend
201+52	22.5 Degree Bend
202+18	22.5 Degree Bend
202+26	12" x 6" x 12" TEE
203+23	22.5 Degree Bend
203+52	11.25 Degree Bend

ITEM 309, (Continued)**NON-PARTICIPATING
HAMILTON STREET**

Station	12 Inch Fittings
99+80	45 Degree Bend
101+45	12" x 6" x 12" TEE

CENTRAL STREET

Station	12 Inch Fittings
496+80	12" x 6" x 12" TEE
496+94	45 Degree Bend
500+85	12" x 6" x 12" TEE
500+85	45 Degree Bend
503+83	12" x 6" x 12" TEE
505+71	12"- 4 Way Cross
506+20	12" x 6" x 12" TEE
506+49	22.5 Degree Bend
506+58	22.5 Degree Bend
506+84	45 Degree Bend

NORTH FOSTER STREET

Station	8 Inch Fittings
396+34	22.5 Degree Bend
396+66	22.5 Degree Bend
401+27	8" x 6" x 8" TEE
401+54	11.25 Degree Bend
404+51	8" x 12" x 12" TEE

Station	12 Inch Fittings
405+30	12" x 6" x 12" TEE
405+47	45 Degree Bend
600+81	22.5 Degree Bend
601+56	45 Degree Bend

ITEM 347.2 **2 INCH COPPER TUBING TYPE K**

Participating and non-participating Item to be installed. Assume houses adjacent to waterline relocations require service connection. Stations are approximate, connection locations will be determined during construction.

PARTICIPATING	
HAMILTON STREET	
	Station
	102+05
	102+40
	102+54
	102+97
LAROCHELLE	
	Station
	300+48
HOOK ST	
	Station
	201+79
	203+03
	204+72
	204+75
NON-PARTICIPATING	
HAMILTON STREET	
	Station
	100+17
	100+33
	100+62
	100+94
	101+54
	101+99

ITEM 347.2(Continued)

NON-PARTICIPATING	
CENTRAL ST	
	Station
	497+40
	497+75
	498+68
	499+78
	499+83
	500+39
	500+46
	500+73
	501+14
	501+17
	501+24
	501+58
	501+72
	502+71
	504+63
	504+88
	506+70
FOSTER NORTH	
	Station
	397+56
	397+61
	398+68
	398+83
	399+36
	399+72
	399+83
	400+55
	401+23
	401+51
	402+92
	404+30
	405+30
FOSTER	
	Station
	600+40

ITEM 350.06 **6 INCH GATE AND GATE BOX**

Participating and non-participating Item to be installed.

**PARTICIPATING
HAMILTON STREET**

Station
104+43

HOOKE STREET

Station
300+73

CENTRAL STREET

Station
500+85
503+83
506+20

FOSTER NORTH

Station
405+27

**NON-PARTICIPATING
HAMILTON STREET**

Station
101+45

CENTRAL STREET

Station
496+80

FOSTER NORTH

Station
401+26

ITEM 350.08 **8 INCH GATE AND GATE BOX**

Non-participating Item to be installed.

NORTH FOSTER STREET

Station		
398+65	-7.2	LT
398+69	-12.1	LT
398+74	-6.7	LT
399+69	-3.3	LT
399+72	-9.8	LT
399+74	-3.2	LT
399+79	-3.0	LT
404+47	-1.4	LT

ITEM 350.12 **12 INCH GATE AND GATE BOX**

Participating and non-participating Item to be installed.

PARTICIPATING
HAMILTON STREET

Station		
103+36	1.3	RT
103+44	4.8	RT
103+44	0.29	RT

NON-PARTICIPATING
CENTRAL STREET

Station		
503+81	8.0	RT
503+89	8.1	RT
505+66	9.2	RT
505+71	5.5	RT
505+72	12.8	RT
505+76	9.2	RT

NORTH / FOSTER STREET

Station		
404+48	-12.6	LT
404+48	-17.6	LT

ITEM 363.2 **2 INCH CORPORATION COCK**

Participating and non-participating Item to be installed. Assume houses adjacent to waterline relocations require service connection. Connection locations will be determined during construction.

**PARTICIPATING
HAMILTON STREET**

Station
102+05
102+40
102+54
102+97

LAROCHELLE

Station
300+48

**HOOK
ST**

Station
201+79
203+03
204+72
204+75

**NON-PARTICIPATING
HAMILTON STREET**

Station
100+17
100+33
100+62
100+94
101+54
101+99

ITEM 363.2 (Continued)**NON-
PARTICIPATING
CENTRAL ST**

Station

497+40

497+75

498+68

499+78

499+83

500+39

500+46

500+73

501+14

501+17

501+24

501+58

501+72

502+71

504+63

504+88

506+70

FOSTER NORTH

Station

397+56

397+61

398+68

398+83

399+36

399+72

399+83

FOSTER NORTH (CONT.)

400+55

401+23

401+51

402+92

404+30

405+30

FOSTER

Station

600+40

ITEM 376.1 **HYDRANT – EXCLUDING COST OF HYDRANT**

Participating and non-participating Item to be installed.

PARTICIPATING
HAMILTON
STREET

Station	
104+47	29LT

HOOK STREET

Station	
202+28	14LT

CENTRAL STREET

Station	
503+83	23RT
506+21	28LT

NON-
PARTICIPATING
HAMILTON
STREET

Station	
101+45	19LT

CENTRAL STREET

Station	
500+86	19RT

NORTH FOSTER STREET

Station	
401+27	12RT
405+30	12RT

ITEM 376.3**HYDRANT – REMOVED AND STACKED**HAMILTON
STREET

Station

101+39 17LT

104+48 29LT

HOOK STREET

Station

202+80 10LT

CENTRAL STREET

Station

503+97 18RT

506+35 16LT

FOSTER STREET

Station

401+21 12RT

ITEM 381.**SERVICE BOX**

Participating and non-participating Item to be installed. Assume houses adjacent to waterline relocations require service connection. Connection locations will be determined during construction.

PARTICIPATING

HAMILTON STREET

Station

101+99 -21.3 LT

102+07 17.9 RT

102+39 -19.5 LT

102+53 20.0 RT

102+94 23.7 RT

103+83 70.2 RT

HOOK ST

Station

201+80 -16.2 LT

203+04 -14.5 LT

204+72 -17.4 LT

204+71 17.5 RT

ITEM 381. (Continued)**NON-PARTICIPATING
HAMILTON STREET**

Station		
100+19	21.0	RT
100+33	-21.0	LT
100+63	18.5	RT
100+78	-18.9	LT
100+94	20.8	RT
101+54	17.8	RT
104+72	16.5	RT

CENTRAL ST

Station		
497+40	-20.4	LT
497+75	14.1	RT
498+67	14.7	RT
499+75	-23.4	LT
499+84	12.3	RT
500+40	17.5	RT
500+46	-23.1	LT
500+75	-22.3	LT
501+16	17.5	LT
501+17	16.2	LT
501+23	17.9	RT
501+57	17.9	RT
501+73	13.5	RT
502+70	17.9	RT
504+64	20.4	RT
504+88	22.0	RT
506+70	30.0	RT

FOSTER NORTH

Station		
397+57	20.2	RT
397+61	-11.1	LT
398+82	11.8	RT
399+35	9.9	RT
399+83	11.4	RT
400+55	14.3	RT
401+23	13.4	LT
401+50	13.5	RT
402+93	19.9	RT

FOSTER

Station		
600+37	20.5	RT

ITEM 384. **CURB STOP**

Participating and non-participating Item to be installed. Assume houses adjacent to waterline relocations require service connection. Connection locations will be determined during construction.

PARTICIPATING
HAMILTON STREET

Station		
101+99	-21.3	LT
102+07	17.9	RT
102+39	-19.5	LT
102+53	20.0	RT
102+94	23.7	RT
103+83	70.2	RT

HOOK ST

Station		
201+80	-16.2	LT
203+04	-14.5	LT
204+72	-17.4	LT
204+71	17.5	RT

NON-PARTICIPATING
HAMILTON
STREET

Station		
100+19	21.0	RT
100+33	-21.0	LT
100+63	18.5	RT
100+78	-18.9	LT
100+94	20.8	RT
101+54	17.8	RT
104+72	16.5	RT

CENTRAL ST

Station		
497+40	-20.4	LT
497+75	14.1	RT
498+67	14.7	RT
499+75	-23.4	LT

ITEM 384. (Continued)

CENTRAL ST (CONT.)

499+84	12.3	RT
500+40	17.5	RT
500+46	-23.1	LT
500+75	-22.3	LT
501+16	17.5	LT
501+17	16.2	LT
501+23	17.9	RT
501+57	17.9	RT
501+73	13.5	RT
502+70	17.9	RT
504+64	20.4	RT
504+88	22.0	RT
506+70	30.0	RT

FOSTER NORTH

Station		
397+57	20.2	RT
397+61	-11.1	LT
398+82	11.8	RT
399+35	9.9	RT
399+83	11.4	RT
400+55	14.3	RT
401+23	13.4	LT
401+50	13.5	RT
402+93	19.9	RT
404+29	17.6	LT

FOSTER

Station		
600+37	20.5	RT

ITEM 645.172 **72 INCH CHAIN LINK FENCE (PIPE TOP RAIL) VINYL COATED**
(LINE POST OPTION)

Foster Street

<u>Station</u>		<u>Station</u>	
403+65	to	404+10	LT

ITEM 652.072 **72 INCH CHAIN LINK FENCE END POST**

Foster Street

<u>Station</u>		<u>Offset</u>	
403+65		14'	LT

ITEM 669. **FENCE REMOVED & STACKED**

Hook Street

Station		Station
200+15	to	200+79
		LT

Larochelle Way

Station		Station
304+91	to	306+31
		LT

ITEM 690. **STONE MASONRY WALL REMOVED AND REBUILT
IN CEMENT MORTAR**

Foster Street

Station		Station
403+65	to	403+88
		LT

ITEM 707.1 **PARK BENCH**

MAIN STREET

Station
503+80
503+85
503+90
503+95

ITEM 714. **MONUMENT REMOVED AND RESET**

Total count of one on Hamilton Street at station 103+70(±).

ITEM 718.01 **FLAG POLE REMOVED AND STACK**

Total count of one on Hamilton Street at station 103+78(±).

ITEM 823.70 **HIGHWAY LIGHTING POLE AND LUMINAIRE REMOVED AND RESET**

LAROCHELLE WAY

Station	Offset
302+07.32	26.324 RT
302+63.20	21.21 LT

ITEM 823.701**HIGHWAY LIGHTING POLE AND LUMINAIRE
REMOVED AND RESET ON NEW FOUNDATION**

HAMILTON STREET

<u>Station</u>	<u>Offset</u>	
102+12.64	18.066	RT

LAROCHELLE WAY

<u>Station</u>	<u>Offset</u>	
302+07.32	26.324	RT

HOOK ST AT LAROCHELLE WAY

<u>Station</u>	<u>Offset</u>	
200+55.21	20.691	RT

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DOCUMENT A00808

PROJECT UTILITY COORDINATION FORM

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CONTACTS AND GENERAL UTILITY INFORMATION

Revision
Date:

1/3/2023
PRINTED

[illegible]

Unless otherwise noted by Contract, 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-Construction, Baseline, Subnets, and Updated/Monthly Schedules) as specified in subsection 8.02. Note: The durations included below do not include these lead-times. See Additional Important Basis notes for Contractor - on last PUC Form page.

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 Town of Gardner. 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

Has any of the Utility work been identified to work concurrently

Yes

No

1/3/2023
PRINTED



DESCRIPTION - Utility Relocation Phases, Tasks and Activities

RESPONSIBLE PARTY	DESCRIPTION	Estimated Duration (Work Days) by Utilities (Lead time not included)				Access Restraint & Limitations of Operations Notes	
		Utility working with no other Utilities in vicinity	Utility working with other Utilities on site	Contractor Off-Site	Contractor Concurrent	Potential Access Restraint (Yes/No)	Reason/Note (optional)
C = Contractor U = Utility Co.	Enabling/ work by the Contractor - Prior to overhead utility relocations, Contractor shall perform any necessary clearing & grubbing, tree removal & tree trimming (contractor to coordinate this with the overhead utilities). Schedule utility walkthrough after preconstruction meeting. Existing overhead streetlights are owned by the City of Gardner and will be relocated by the contractor, therefore the contractor will need to coordinate this during the overhead utility relocations (this includes coordinating both the de-energizing as well as the re-energizing of the lights with National Grid Electric). Coordinate R&R of flood light on UP 6 (NGRID responsibility to move). Once contractor receives their Notice To Proceed (NTP), the contractor shall immediately initiate work orders with National Grid Electric for the proposed service connections to the school zone flasher assemblies. See note #9 below regarding Verizon Riser on UP 9 1/2 at STA 7+75.4RT.						
UTILITY OPERATIONS - Aerial							
Task 1	National Grid						
U	NGRID TO REPLACE 9 POLES - 1 PUSH BRACE - 3 ANCHORS ALONG ELM STREET	13	X		X	No	
U	REPLACE APPROX. 3,231 FEET 1 PHASE / SINGLE PHASE PRIMARY ALONG ELM STREET	8	X		X	No	
U	REPLACE APPROX. 3,231 FEET SECONDARY AND EQUIPMENT ALONG ALONG ELM STREET	8	X		X	No	
U	REPLACE EQUIPMENT & SERVICES	3	X		X	No	
U	TREE TRIMMING (SPOT TRIMMING, IF NEEDED, BEYOND CLEARING DONE BY DOT'S CONTRACTOR)	3	X		X	No	
	Sub-Total	35					
Task 2	Crown Castle						
U	Transfer overhead cables	4	X		X	No	
	Sub-Total	4					
Task 3	Comcast						
U	Survey new pole locations and gather all necessary information	5	X		X	No	
U	Activation of new plant	10	X		X	No	
U	Design	15	X		X	No	
U	Construction of aerial plant as needed and cold splice	10	X		X	No	
U	Wreck out of old strand & cable	5	X		X	No	
	Sub-Total	45					
Task 4	Verizon (See Note #9)						
U	Verizon Line Place New Guywires / Stencil Poles	1	X		X	No	
U	Verizon Line Place New CU Cable Stubs for Existing Cable Transfer Slack	1	X		X	No	
U	Verizon Splice Join New Cable / Test	3	X		X	No	
U	Verizon Line Transfer / Relocate all Cable(s) and Associated Equipment to New Poles	5	X		X	No	
U	Verizon Contract Work-UG Conduit Relocate	2	X		X	No	
U	Verizon Splice Trimout CU Cables to be Removed	2	X		X	No	
U	Verizon Line Remove Copper Cables	1	X		X	No	
U	Verizon Line Remove Aerial Copper Service Wires	2	X		X	No	
U	Verizon Line Remove Old Guywires / Anchor	1	X		X	No	
U	Verizon Line Remove Old Remaining Poles	6	X		X	No	
	Sub-Total	24					

IMPORTANT BASIS NOTES - FOR CONTRACTOR

- Unless otherwise specified in the MassDOT Construction Contract, or unless specifically noted within this PUC form, the Utility durations shown herein are to be planned (within the CTD and by the Contractor) as unimpeded access to the Utility company to perform Utility relocations.
- "Concurrent Utilities" operations noted herein, are to signify those Utility Company operations that can be worked concurrently - 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, snow, ice). Gas line work however, typically has 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.
- 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.

	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	
			Utility working with no other Utilities in vicinity	Utility working with other Utilities on site	No Contractor physical construction operations on-site (while Utility is working)	Contractor Off-Site	Contractor Concurrent	Potential Access Restraint (Yes/No)	Should an AR be considered for the Contractor?	Reason/Note (optional)
8	C = Contractor U = Utility Co.	* 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 this 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.								
9	UP @ STA 7+75±RT (Verizon #9 and NGRID #9 1/2) on Elm St will require the extension of one conduit that provides an underground cable riser which must remain in service. Verizon Contract Work will perform this work and is included.									

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SOUTHBRIDGE WATER DEPARTMENT STANDARD SPECIFICATIONS

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TOWN OF SOUTHBRIDGE

DEPARTMENT OF PUBLIC WORKS

SOUTHBRIDGE WATER DEPARTMENT

STANDARD SPECIFICATIONS



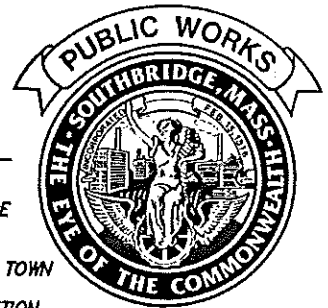
SYSTEM OPERATED BY:



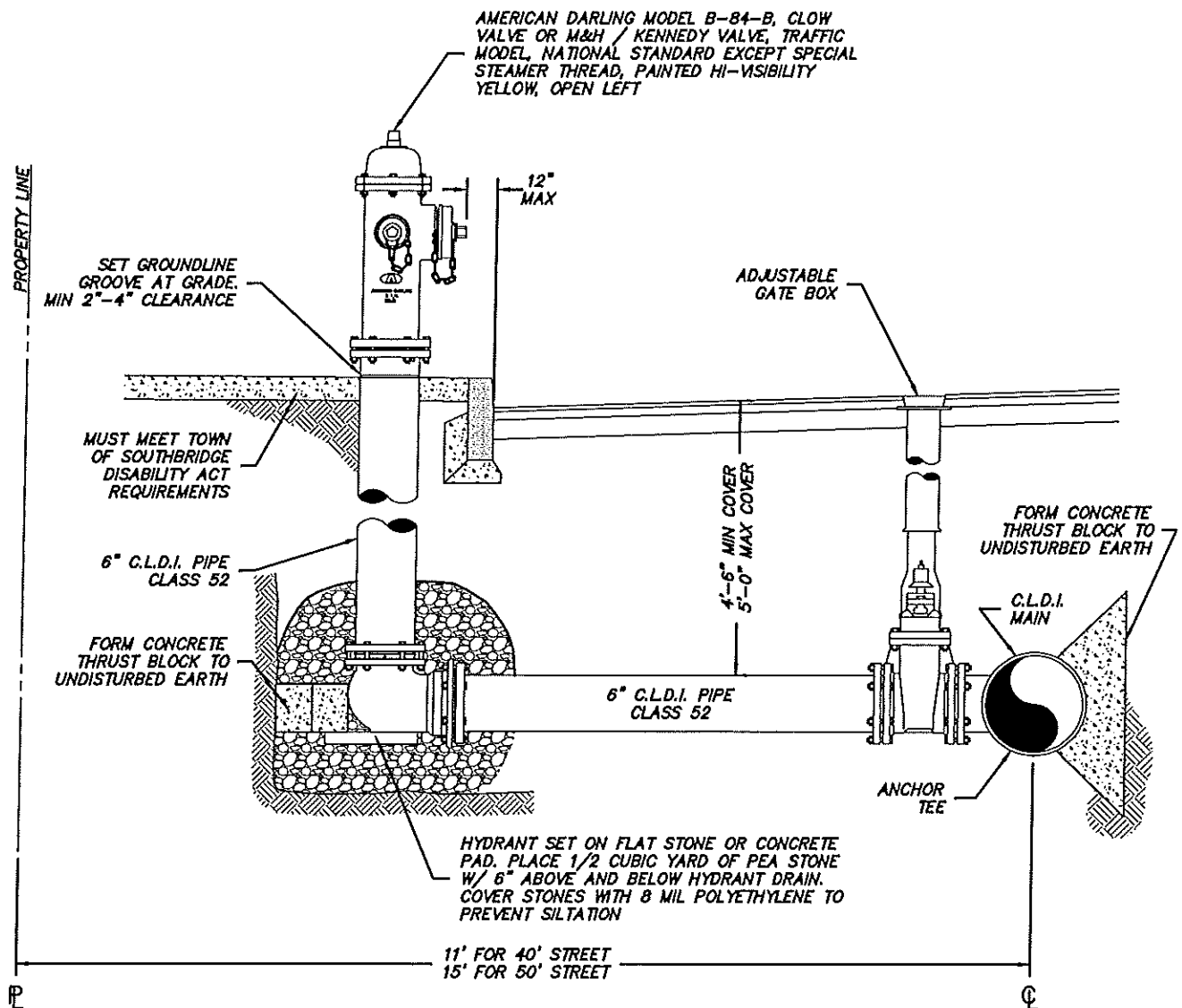
A SUBSIDIARY OF RH WHITE COMPANIES, INC.

SOUTHBRIDGE DEPARTMENT OF PUBLIC WORKS
SOUTHBRIDGE, MASSACHUSETTS 01550
DPW TEL: (508) 764-5403
SWD TEL: (508) 764-3207

Revised: 04/10/2006 – T. Cutler
Revised: 2/26/2009 – McClure Engineering, LLC



DATE:	10/27/2008	SOUTHBRIDGE WATER DEPARTMENT 185 Guelphwood Road Southbridge, MA 01550 DPW Tel: (508) 784-5403 SWD Tel: (508) 764-3207	TYPICAL TRENCH DETAIL	PROJ. NO.	278-701
DRAWN BY:	EJM			DWG.	Trench Detail
APPROVED BY:	SDGE D.P.W.			SWD 1	
SCALE:					
HORIZ:	N.T.S.				
VERT:					
REVISED:					



GENERAL NOTES:

- 1) NO WATER PIPE DEPTH OF COVER SHALL EXCEED 5 FEET FROM FINISHED GRADE
- 2) CONTRACTOR RESPONSIBLE FOR CONTACTING DIG SAFE PRIOR TO EXCAVATION
- 3) TRENCH SHALL NOT BE BACKFILLED UNTIL CONNECTION HAS BEEN INSPECTED AND APPROVED BY THE SOUTHBRIDGE WATER DEPARTMENT (SWD)
- 4) ALL COMPACTION SHALL BE BY MECHANICAL MEANS AT NO GREATER THAN 12 INCH LIFTS
- 5) WATER SHALL BE TURNED ON BY THE SWD ONLY AFTER APPROVAL
- 6) ONLY CONTRACTORS APPROVED BY THE SWD SHALL MAKE CONNECTION
- 7) THE SOUTHBRIDGE WATER DEPARTMENT RESERVES THE RIGHT TO MODIFY STANDARDS AT THEIR DISCRETION



DATE:	10/27/2008
DRAWN BY:	EJM
APPROVED BY:	SBDGE D.P.W.
SCALE:	
HORZ:	N.T.S.
VERT:	
REVISED:	

SOUTHBRIDGE WATER DEPARTMENT

185 Guelphwood Road
Southbridge, MA 01550

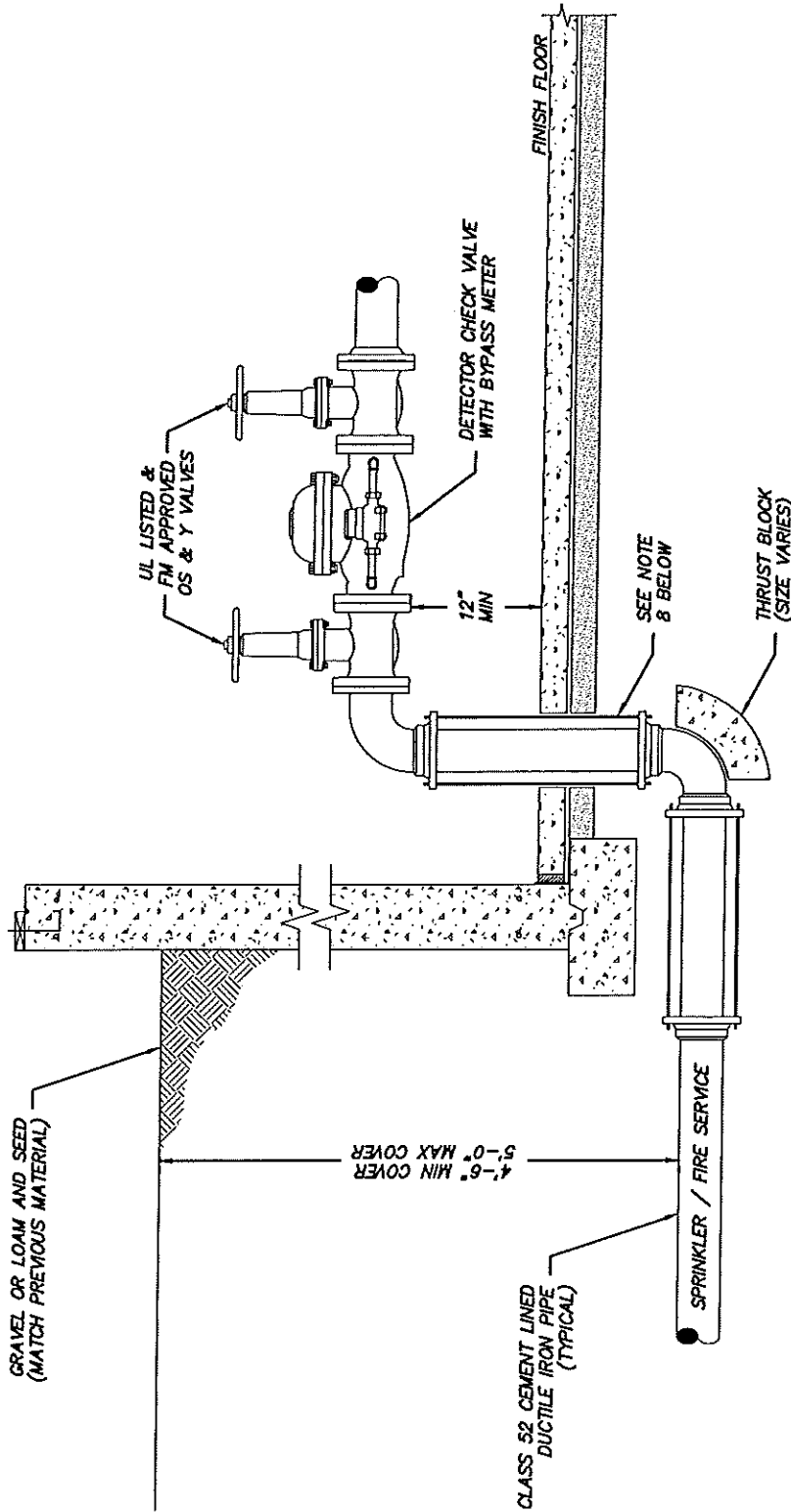
DPW Tel: (508) 764-5403
SWD Tel: (508) 764-3207

TYPICAL HYDRANT DETAIL

PROJ. NO. 278-701
DWG. Hydrant Detail

SWD

2



GENERAL NOTES:

- 1) NO WATER PIPE DEPTH SHALL EXCEED 5 FEET FROM FINISHED GRADE
- 2) CONTRACTOR RESPONSIBLE FOR CONTACTING DIG SAFE PRIOR TO EXCAVATION
- 3) SERVICE SHALL BE LAID PERPENDICULAR TO THE WATER MAIN UNTIL PROPERTY LINE
- 4) ALL FIRE AND DOMESTIC SERVICE LINES MUST BE SEPARATE
- 5) TRENCH SHALL NOT BE BACKFILLED UNTIL SERVICE HAS BEEN INSPECTED AND APPROVED BY THE SOUTHBIDGE WATER DEPARTMENT (SMD)
- 6) ALL COMPACTON SHALL BE BY MECHANICAL MEANS AT NO GREATER THAN 12 INCH LIFTS
- 7) METERS MAY BE PURCHASED AT THE SMD OR MUST BE COMPATIBLE WITH SMD CURRENT METER
- 8) RESTRAINT AND RETAINER GLANDS AS REQUIRED BY SMD ON PIPING CHANGING DIRECTION
- 9) SERVICE SHALL BE FLUSHED BEFORE ACTIVATING TO AVOID METER CLOGGING
- 10) MUST MEET 310 CMR 22.22 CROSS CONNECTION DISTRIBUTION SYSTEM PROTECTION REGULATIONS
- 11) WATER SHALL BE TURNED ON BY THE SMD ONLY AFTER APPROVAL
- 12) PRESSURE TEST SERVICE AT 200 PSI FOR 5 MINUTES FOLLOWED BY 150 PSI FOR 2 HOURS
- 13) THE SOUTHBIDGE WATER DEPARTMENT RESERVES THE RIGHT TO MODIFY STANDARDS AT THEIR DISCRETION

DATE:	10/27/2008
DRAWN BY:	EBM
APPROVED BY:	SBD/ED.P.W.
SCALE:	
HORIZ.:	N.T.S.
VERT.:	
REVISED:	

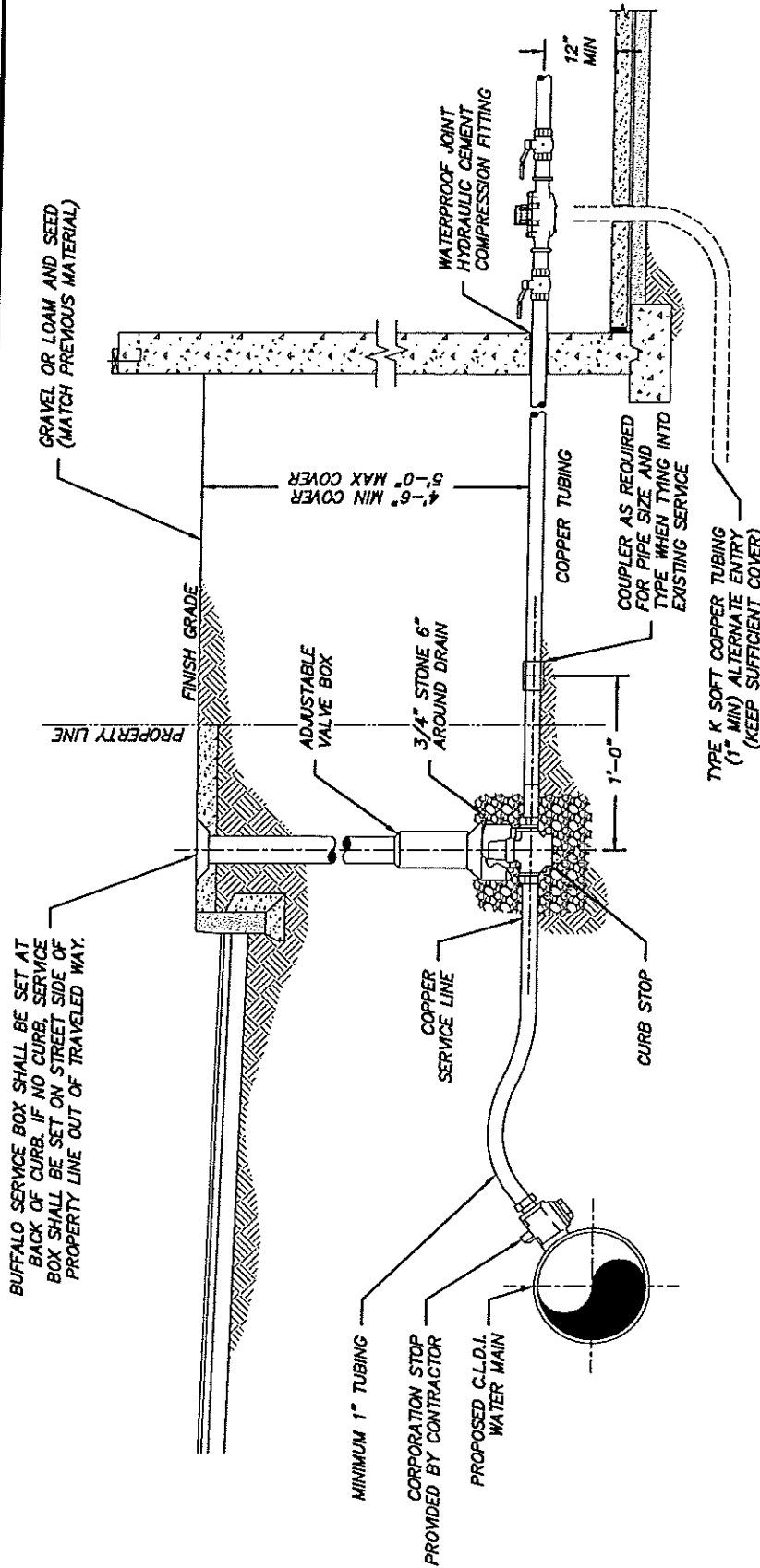
**SOUTHBIDGE WATER
DEPARTMENT**

185 Guelphwood Road
Southbridge, MA 01550
DPW Tel: (508) 764-5403
SWD Tel: (508) 764-3207

TYPICAL SPRINKLER SERVICE DETAIL

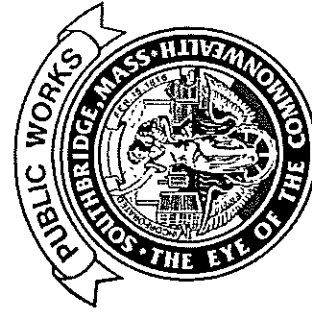
PROJ. NO. 278-701
DWG. Sprinkler Service

SWD
3



GENERAL NOTES:

- 1) NO WATER PIPE DEPTH SHALL EXCEED 5 FEET FROM FINISHED GRADE
- 2) CONTRACTOR RESPONSIBLE FOR CONTACTING DIG SAFE PRIOR TO EXCAVATION
- 3) TRENCH SHALL NOT BE BACKFILLED UNTIL SERVICE HAS BEEN INSPECTED AND APPROVED BY THE SOUTHBIDGE WATER DEPARTMENT (SWD)
- 4) WATER SHALL BE TURNED ON BY THE SWD ONLY AFTER APPROVAL
- 5) ONLY CONTRACTORS APPROVED BY THE SWD SHALL MAKE TAP
- 6) WATER SERVICE LINES AND METER SHALL BE SIZED BY THE SWD
- 7) ALL COMPACTON SHALL BE BY MECHANICAL MEANS AT NO GREATER THAN 12 INCH LIFTS
- 8) NEW AND REMOVED SERVICES SHALL HAVE REMOTE READERS
- 9) SERVICE SHALL BE FLUSHED BEFORE ACTIVATING TO AVOID METER CLOGGING
- 10) THERE SHALL BE A HORIZONTAL SEPARATION OF 10 FEET FROM ANY OTHER UTILITY LINE
- 11) EXISTING CORPORATION SHALL BE CLEANED WHEN A SERVICE IS RENEWED
- 12) SERVICE SHALL BE LAID PERPENDICULAR TO THE WATER MAIN UNTIL PROPERTY LINE
- 13) THE SOUTHBIDGE WATER DEPARTMENT RESERVES THE RIGHT TO MODIFY STANDARDS AT THEIR DISCRETION



DATE:	10/27/2008
DRAWN BY:	EJM
APPROVED BY:	SBD/D.P.W.
SCALE:	
HORIZ. N.T.S.	
VERT. N.T.S.	
REVISED:	

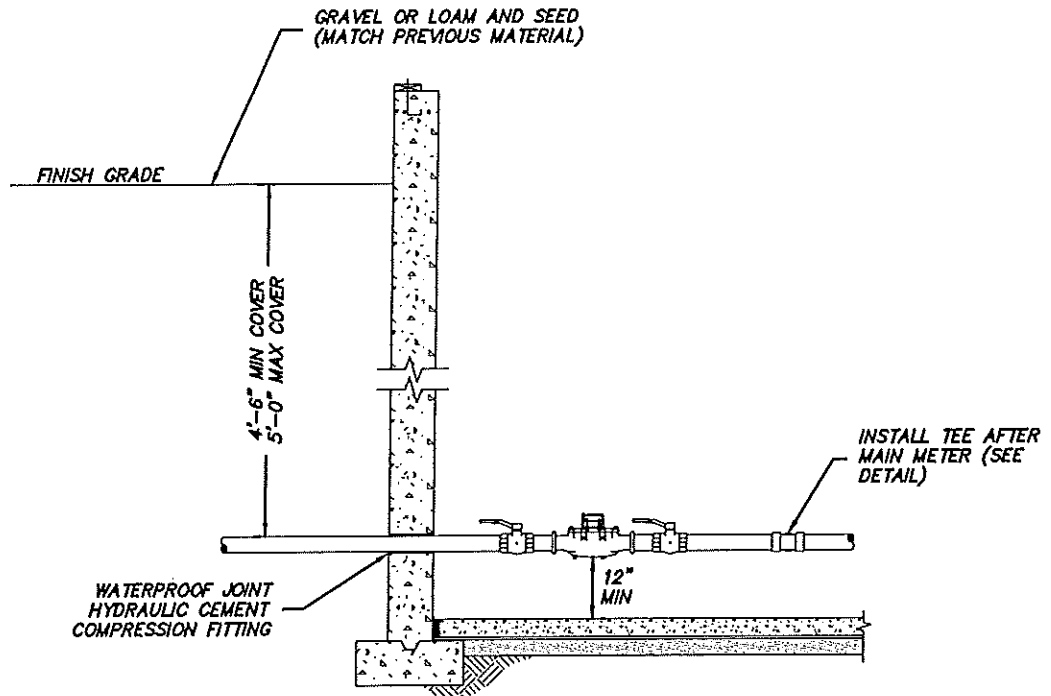
**SOUTHBIDGE WATER
DEPARTMENT**

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Southbridge, MA 01550
DPW Tel: (508) 764-5403
SWD Tel: (508) 764-3207

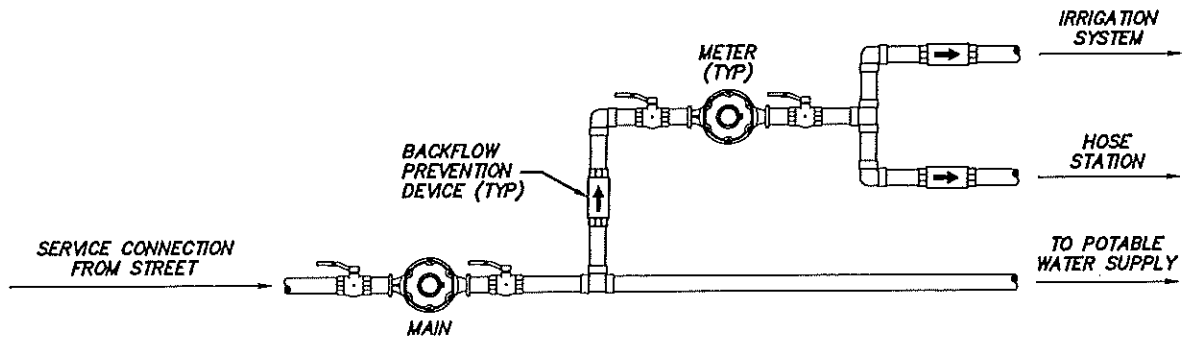
**TYPICAL DOMESTIC SERVICE
CONNECTION UNDER TWO INCHES**

PROJ. NO. 278-021
DWG. DOM SERV C2

SWD
4



ELEVATION VIEW
NOT TO SCALE



PLAN VIEW
NOT TO SCALE

GENERAL NOTES:

- 1) WATER SHALL BE TURNED ON BY THE SWD ONLY AFTER APPROVAL
- 2) WATER SERVICE LINES AND METER SHALL BE SIZED BY THE SWD
- 3) NEW AND RENEWED SERVICES SHALL HAVE REMOTE READERS
- 4) SERVICE SHALL BE FLUSHED BEFORE ACTIVATING TO AVOID METER CLOGGING
- 5) ALL BACKFLOW PREVENTION DEVICES MUST BE APPROVED FOR USE IN MASSACHUSETTS
- 6) IRRIGATION SYSTEM MUST HAVE APPROPRIATE DEVICE.
EX: ALL PVBS MUST BE A MINIMUM OF 12" ABOVE THE HIGHEST SPRINKLER HEAD
- 7) HOSE STATIONS MUST HAVE BACKFLOW PREVENTION DEVICES INSTALLED
EX: HOSE BIBB VACUUM BREAKERS OR BUILT IN ANTI-SIPHON MODEL(S).
- 8) THE SOUTHBRIDGE WATER DEPARTMENT RESERVES THE RIGHT TO MODIFY STANDARDS AT THEIR DISCRETION



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SCALE:	
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**SOUTHBRIDGE WATER
DEPARTMENT**

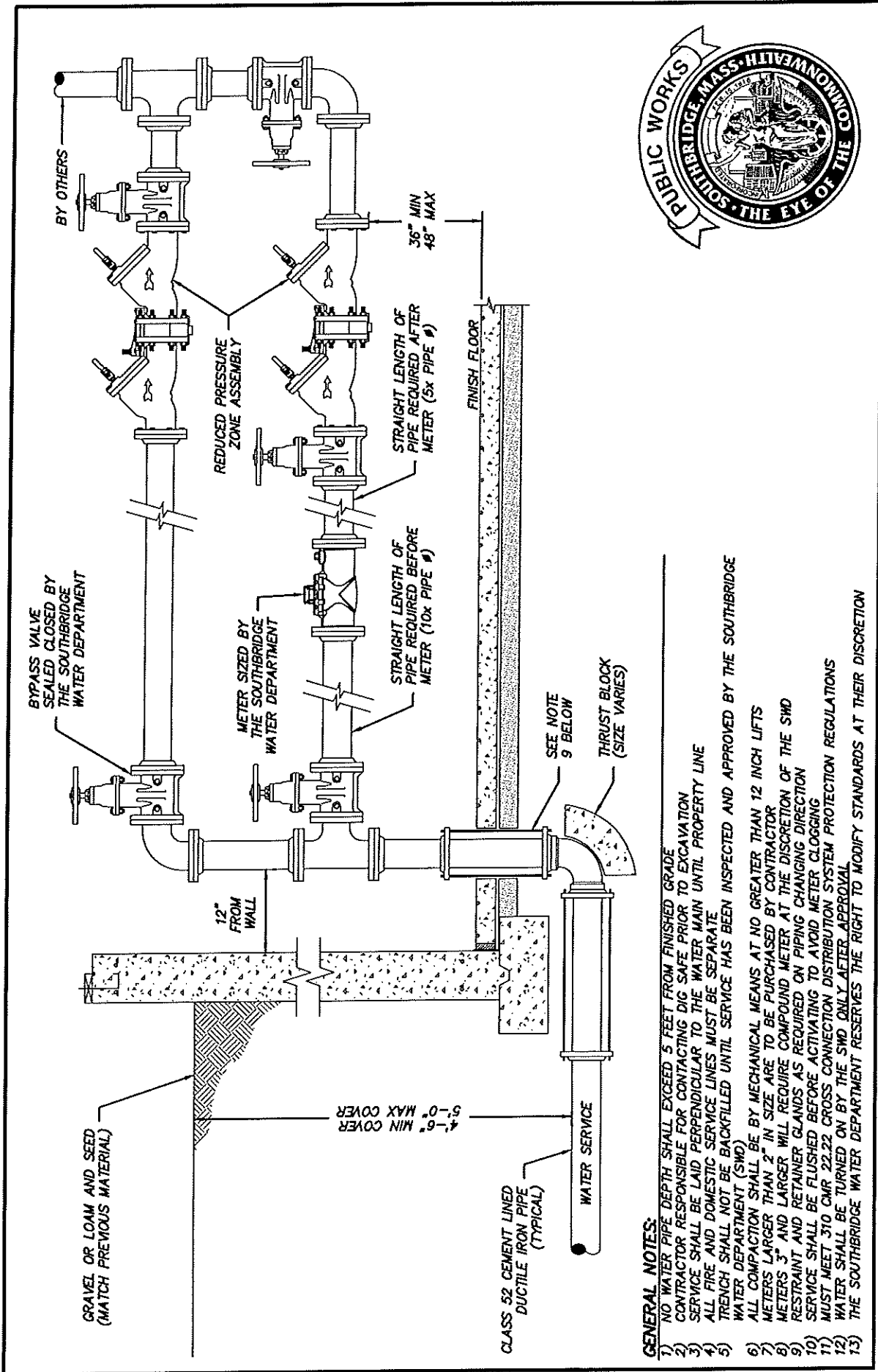
185 Guelphwood Road
Southbridge, MA 01550

DPW Tel: (508) 764-5403
SWD Tel: (508) 764-3207

**TYPICAL SEWER
EXCEPTION METER DETAIL**

PROJ. NO. 278-701
DWG. Sewer Exc. Meter

SWD
5



- GENERAL NOTES:**
- 1) NO WATER PIPE DEPTH SHALL EXCEED 5 FEET FROM FINISHED GRADE
 - 2) CONTRACTOR RESPONSIBLE FOR CONTACTING DIG SAFE PRIOR TO EXCAVATION
 - 3) SERVICE SHALL BE LAID PERPENDICULAR TO THE WATER MAIN UNTIL PROPERTY LINE
 - 4) ALL FIRE AND DOMESTIC SERVICE LINES MUST BE SEPARATE
 - 5) TRENCH SHALL NOT BE BACKFILLED UNTIL SERVICE HAS BEEN INSPECTED AND APPROVED BY THE SOUTHBIDGE WATER DEPARTMENT (SWD)
 - 6) ALL COMPACTION SHALL BE BY MECHANICAL MEANS AT NO GREATER THAN 12 INCH LIFTS
 - 7) METERS LARGER THAN 2" IN SIZE ARE TO BE PURCHASED BY CONTRACTOR
 - 8) METERS 3" AND LARGER WILL REQUIRE COMPOUND METER AT THE DISCRETION OF THE SWD
 - 9) RESTRAINT AND RETAINER GLANDS AS REQUIRED ON PIPING CHANGING DIRECTION
 - 10) SERVICE SHALL BE FLUSHED BEFORE ACTIVATING TO AVOID METER CLOGGING
 - 11) MUST MEET 310 CMR 22.22 CROSS CONNECTION DISTRIBUTION SYSTEM PROTECTION REGULATIONS
 - 12) WATER SHALL BE TURNED ON BY THE SWD ONLY AFTER APPROVAL
 - 13) THE SOUTHBIDGE WATER DEPARTMENT RESERVES THE RIGHT TO MODIFY STANDARDS AT THEIR DISCRETION

PROJ. NO. 278-701
DWG. Dom Serv 52"

SWD

6

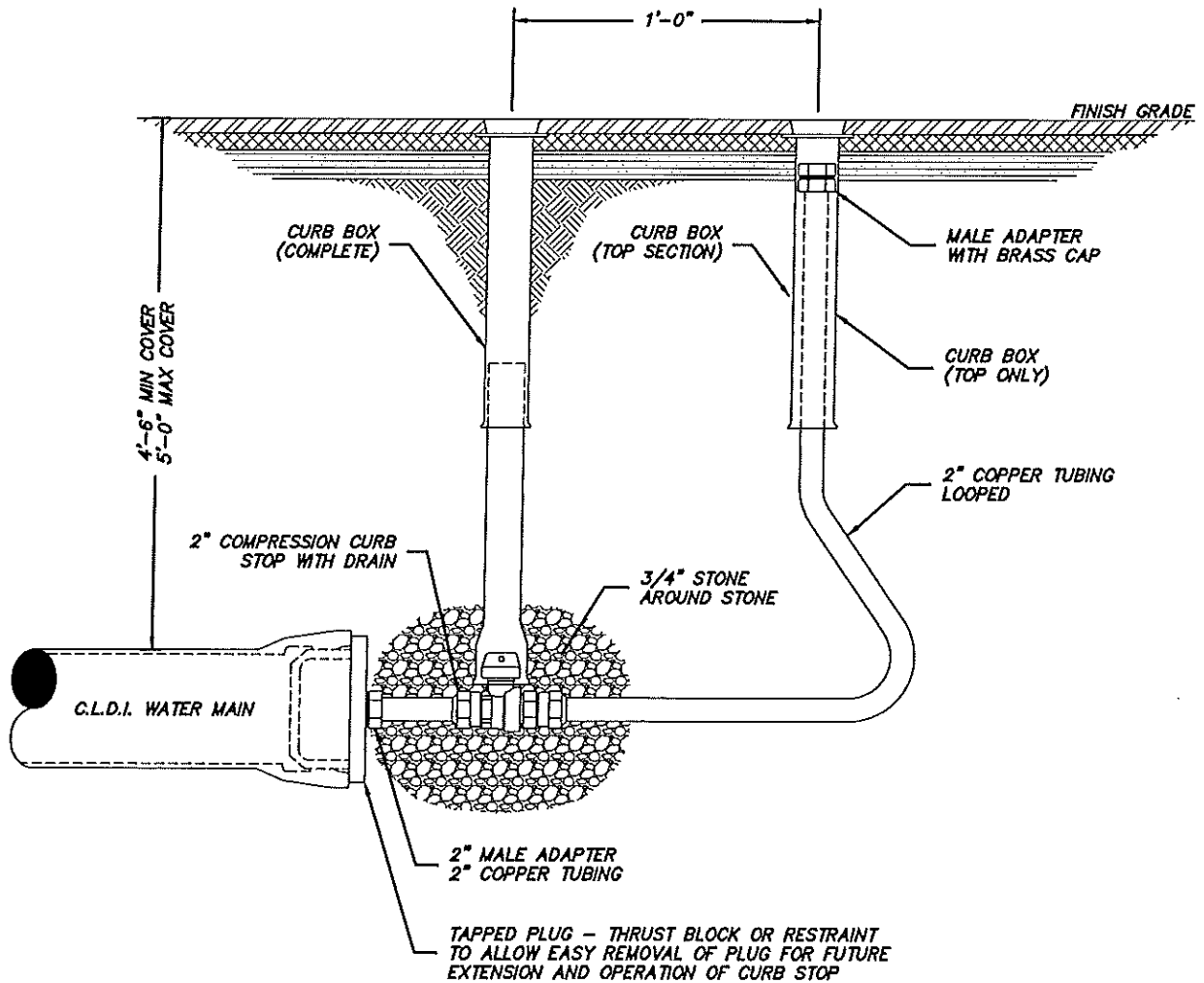
**TYPICAL DOMESTIC SERVICE
CONNECTION TWO INCHES AND LARGER
METERS WITH BYPASS**

**SOUTHBIDGE WATER
DEPARTMENT**

185 Guelphwood Road
Southbridge, MA 01550

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SWD Tel: (508) 764-3207

DATE	10/27/2008
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APPROVED BY:	SDGE D.E.W.
SCALE:	
HORIZ:	N.T.S.
VERT:	
REVISED:	



GENERAL NOTES:

- 1) NO WATER PIPE DEPTH SHALL EXCEED 5 FEET FROM FINISHED GRADE
- 2) CONTRACTOR RESPONSIBLE FOR CONTACTING DIG SAFE PRIOR TO EXCAVATION
- 3) TRENCH SHALL NOT BE BACKFILLED UNTIL CONNECTION HAS BEEN INSPECTED AND APPROVED BY THE SOUTHBRIDGE WATER DEPARTMENT (SWD)
- 4) ALL COMPACTION SHALL BE BY MECHANICAL MEANS AT NO GREATER THAN 12 INCH LIFTS
- 5) THE SOUTHBRIDGE WATER DEPARTMENT RESERVES THE RIGHT TO MODIFY STANDARDS AT THEIR DISCRETION



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APPROVED BY:	SBDC D.P.W.
SCALE:	
HORZ:	N.T.S.
VERT:	
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**SOUTHBRIDGE WATER
DEPARTMENT**

185 Guelphwood Road
Southbridge, MA 01550

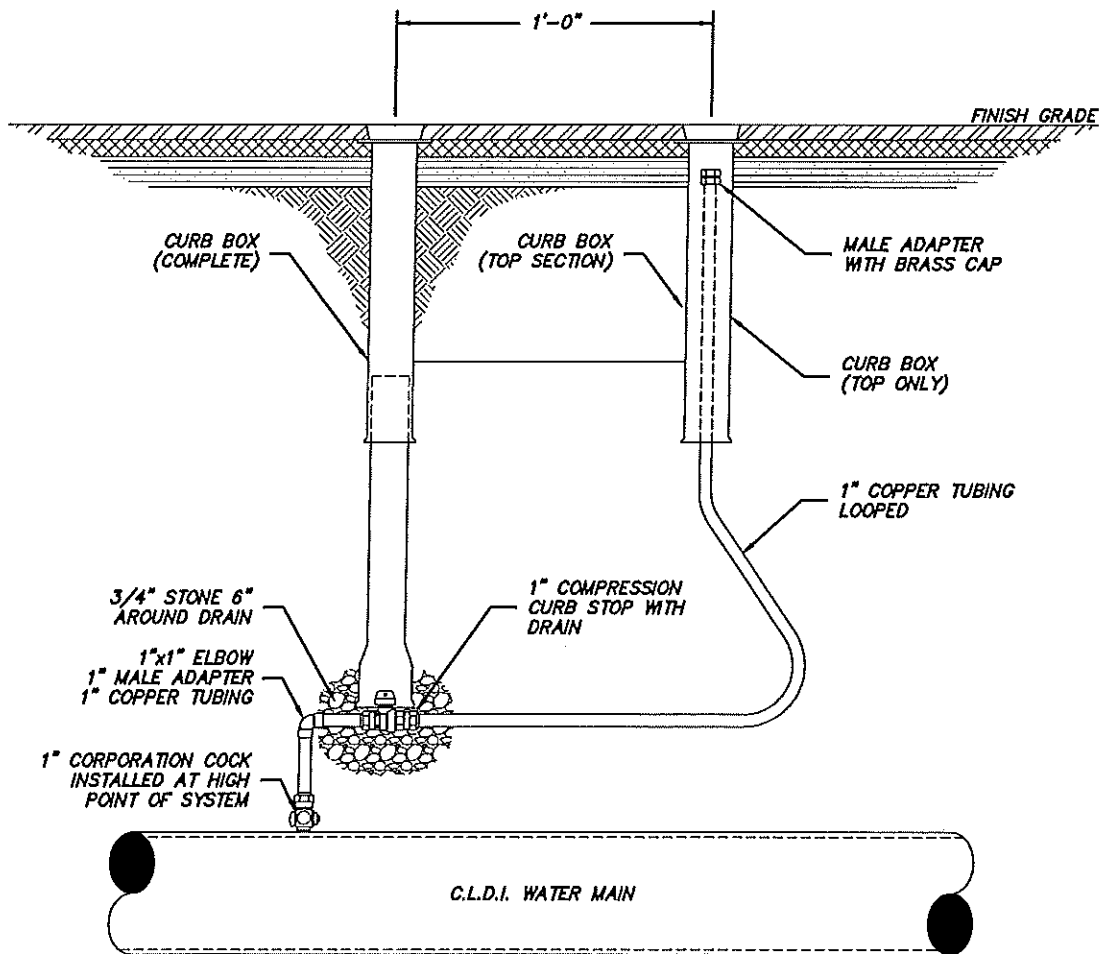
DPW Tel: (508) 764-5403
SWD Tel: (508) 764-3207

TYPICAL BLOWOFF DETAIL

PROJ. NO.	278-701
DWG.	Blowoff Detail

SWD

7



GENERAL NOTES:

- 1) NO WATER PIPE DEPTH SHALL EXCEED 5 FEET FROM FINISHED GRADE
- 2) CONTRACTOR RESPONSIBLE FOR CONTACTING DIG SAFE PRIOR TO EXCAVATION
- 3) TRENCH SHALL NOT BE BACKFILLED UNTIL CONNECTION HAS BEEN INSPECTED AND APPROVED BY THE SOUTHBIDGE WATER DEPARTMENT (SWD)
- 4) ALL COMPACTION SHALL BE BY MECHANICAL MEANS AT NO GREATER THAN 12 INCH LIFTS
- 5) THE SOUTHBIDGE WATER DEPARTMENT RESERVES THE RIGHT TO MODIFY STANDARDS AT THEIR DISCRETION



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SCALE:	
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VERT:	
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**SOUTHBIDGE WATER
DEPARTMENT**

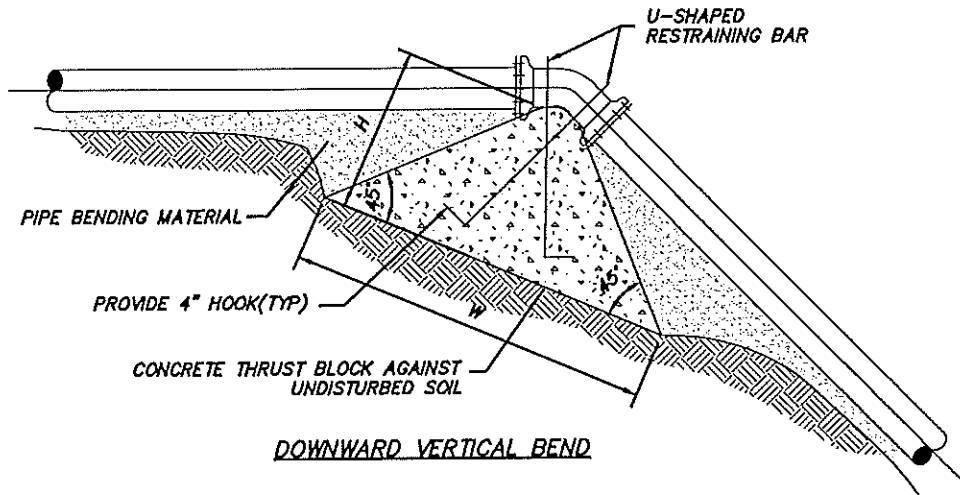
185 Guelphwood Road
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DPW Tel: (508) 764-5403
SWD Tel: (508) 764-3207

TYPICAL AIR OUTLET DETAIL

PROJ. NO. 278-701
DWG. Air Outlet Detail

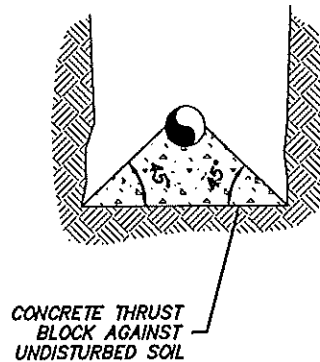
**SWD
8**



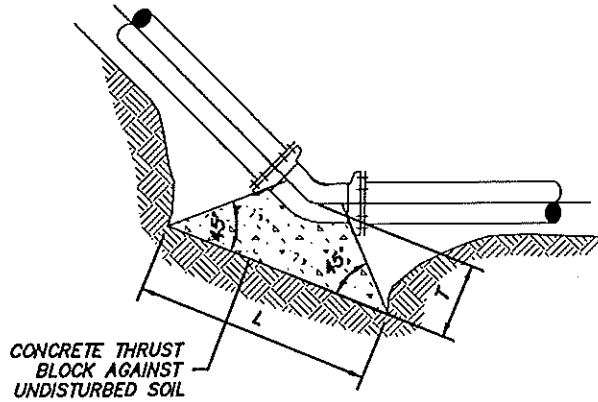
DOWNWARD 45° VERTICAL BENDS						
D	VOLUME (C.F.)	BEARING AREA (S.F.)	"H"	"W"	"L" *	RE-BAR SIZE
<8"	55	1.0	2.5'	5.0'	5.0'	#4
12"	120	2.0'	3.5'	7.0'	5.0'	#6
12"	205	3.0'	5.5'	11.0'	5.0'	#6

UPWARD 45° VERTICAL BENDS				
D	BEARING AREA (S.F.)	"T"	"W"	"L"
<8"	3.0	1.0'	1.5'	2.5'
12"	6.5	1.0'	2.0'	3.5'
16"	11.0	1.5'	3.0'	4.0'

* "L" IS ASSUMED TO BE THE WIDTH OF THE TRENCH



SECTION



UPWARD VERTICAL BEND

GENERAL NOTES:

- 1) DIMENSIONS SHOWN CALCULATED PER 120 PSI INTERNAL PIPE PRESSURE FOR SOIL BEARING LOADS OF 3,000 PSF.
- 2) CONSTRUCT CONCRETE THRUST BLOCKS OF CONCRETE POURED AGAINST UNDISTURBED SOIL.
- 3) DIMENSIONS L, W, & H MAY BE ADJUSTED TO MEET FIELD CONDITIONS PROVIDED THE BEARING AREA REMAINS UNCHANGED.
- 4) RESTRAINING BARS SHALL BE ASTM A615 GRADE 60 REINFORCED STEEL.
- 5) COAT THE PORTION OF THE RESTRAINING BARS EXPOSED TO SOIL WITH TWO COATS OF BITUMASTIC MATERIAL.
- 6) PLACE POLYETHYLENE SHEETING OVER MJ FITTINGS TO PREVENTS DIRECT CONTACT BETWEEN CONCRETE AND THE FITTING.
- 7) THE SOUTHBRIDGE WATER DEPARTMENT RESERVES THE RIGHT TO MODIFY STANDARDS AT THEIR DISCRETION



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SCALE:	
HORZ:	N.T.S.
VERT:	
REVISED:	

SOUTHBRIDGE WATER DEPARTMENT

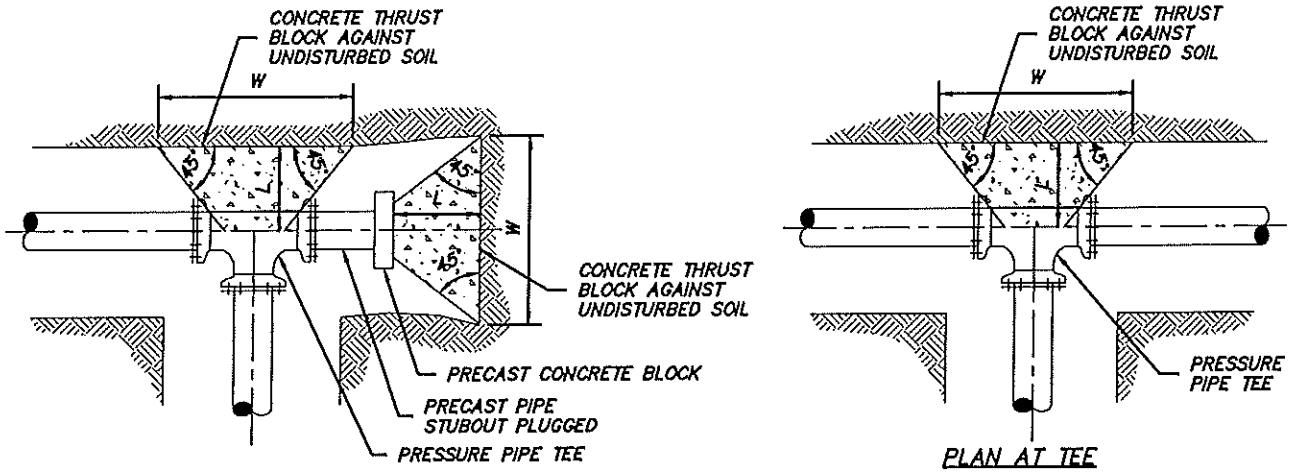
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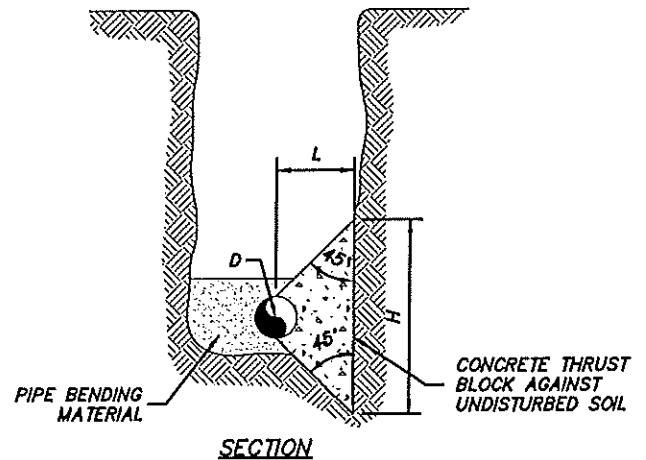
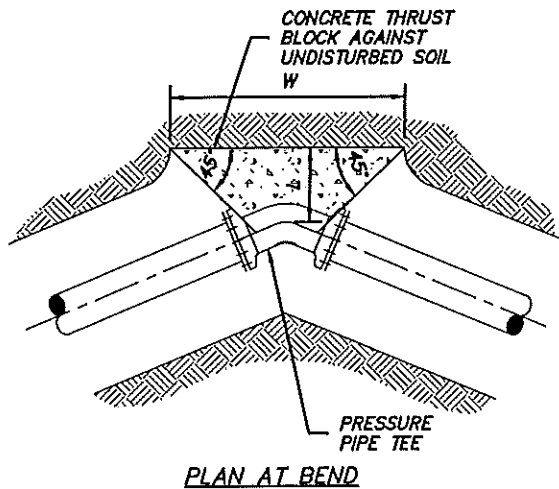
CONCRETE THRUST BLOCKS FOR VERTICAL BENDS

PROJ. NO. 278-701
DWG. Vert. Thrust Block

SWD
9

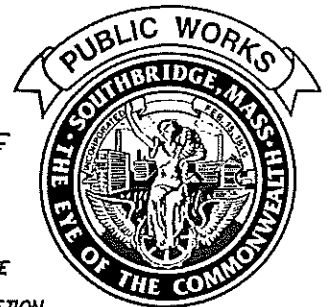


CONCRETE THRUST BLOCK																
22 1/2° BEND				45° BEND				90° BEND				TEE / CAP				
D	BEARING AREA (S.F.)	"L"	"H"	"W"	BEARING AREA (S.F.)	"L"	"H"	"W"	BEARING AREA (S.F.)	"L"	"H"	"W"	BEARING AREA (S.F.)	"L"	"H"	"W"
<8"	1.5	0.5'	1.0'	1.5'	3.0	1.0'	1.5'	2.5'	5.5	1.0'	2.0'	3.0'	3.9	1.0'	2.0'	2.5'
12"	3.5	1.0'	1.5'	2.5'	6.5	1.0'	2.0'	3.5'	12.0	1.5'	3.0'	4.5'	8.5	1.5'	2.5'	4.0'
16"	6.0	1.0'	2.0'	3.0'	11.0	1.5'	3.0'	4.0'	20.5	2.0'	4.0'	5.5'	14.5	2.0'	3.5'	5.0'



GENERAL NOTES:

- 1) DIMENSIONS SHOWN CALCULATED PER 120 PSI INTERNAL PIPE PRESSURE FOR SOIL BEARING LOADS OF 3,000 PSF.
- 2) CONSTRUCT CONCRETE THRUST BLOCKS OF CONCRETE POURED AGAINST UNDISTURBED SOIL.
- 3) DIMENSIONS L, W, & H MAY BE ADJUSTED TO MEET FIELD CONDITIONS PROVIDED THE BEARING AREA REMAINS UNCHANGED.
- 4) THE HEIGHT OF THE BLOCK (H) SHALL BE LESS THAN OR EQUAL TO HALF THE TRENCH DEPTH.
- 5) PLACE POLYETHYLENE SHEETING OVER MJ FITTINGS TO PREVENTS DIRECT CONTACT BETWEEN CONCRETE AND THE FITTING.
- 6) THE SOUTHBRIDGE WATER DEPARTMENT RESERVES THE RIGHT TO MODIFY STANDARDS AT THEIR DISCRETION



DATE:	10/27/2008
DRAWN BY:	EJM
APPROVED BY:	SBDGE D.P.W.
SCALE:	
HORZ:	N.T.S.
VERT:	
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SOUTHBRIDGE WATER DEPARTMENT

185 Guelphwood Road
Southbridge, MA 01550

DPW Tel: (508) 764-5403
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CONCRETE THRUST BLOCKS FOR HORIZONTAL BENDS AND TEES

PROJ. NO. 278-701
DWG. Hor. Thrust Block

SWD
10

**Town of Southbridge, MA
Department of Public Works
Southbridge Water Department**

Standard Specifications

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NOTES:

- All installations shall follow manufacturer's recommended procedures unless otherwise noted or directed by Southbridge Water Department personnel.
- All materials, products and coating that contact drinking water shall be certified to meet NSF/ANSI Standard 61 – *latest revision*, Drinking Water System Components – Health Effects.
- All references made to the American Water Works Association (AWWA) or American Society for Testing Materials (ASTM) standards must meet the latest revision applicability.
- All water system materials furnished for installation by contractor shall be provided with clear manufacturer's markings and labeling indicating that the product furnished meets the materials standards requirements. All products shall be new, not previously used, and of current manufacture and supplied to the jobsite in unopened packaging. In addition to the labeling and packaging requirements, and upon the request of the Southbridge Water Department all pipe, pipe fittings, valves, pipe appurtenances, and service materials shall be provided with a written manufacturer's statement indicating conformance with the specified materials and manufacturing requirements.

Southbridge Water Department Abbreviations and Terms

Whenever in these Standard Specifications the following abbreviations and terms are used, the intent and meaning shall be interpreted as follows:

Abbreviations:

AWWA	American Water Works Association
ASTM	American Society for Testing Materials
NSF	National Sanitation Foundation
SWD	Southbridge Water Department

Terms:

Backflow: The flow of water or other liquids, mixtures, gases, or substances into the distributing pipes of a potable water supply, from any source other than intended source.

Backflow Prevention Device: A device accepted and approved by Southbridge Water Department as meeting an applicable specification stated or cited in this Specification or as suitable for the proposed use and as approved and accepted by the Massachusetts Department of Environmental Protection.

Consumer: Any person, firm, or corporation using or receiving water from the public water system.

Contractor: The person, firm, or corporation entering into contract with the owner, developer, or the Town of Southbridge for the performance of work required under said contract and the Town of Southbridge's ordinances, rules, regulations, and specifications.

Service Line: All pipe, fittings, and appurtenances of the licensee for conveying water from Distribution Mains to the consumer.

Tap: Physical connection to a Distribution Main which, together with appropriate license, effects water service to individual consumers.

Water Main or Distribution Main: A 16-inch or smaller diameter pipe along public streets or appropriate rights-of-way used for distributing water to individual consumers.

Southbridge Water Department Standard Material Specifications

Corporation Stops:

Corporation stops shall conform to AWWA C800.

Corporation stops shall consist of a ball type valve and shall be of straight-through/full port design. Inlet threads shall be AWWA standard threads. Outlet ends and coupling nuts shall be compression for connection with Type K copper.

Corporation stops shall be manufactured by A.Y. McDonald, Cambridge Brass, Ford Meter Box Co., Mueller Co., or approved equal.

Curb Stops:

Curb stops shall conform to AWWA C800.

Curb stops shall consist of a ball valve drain and waste stop and shall be of straight-through/full port design. The curb stop shall be furnished with compression connections at both ends.

Curb stops shall be manufactured by A.Y. McDonald, Cambridge Brass, Ford Meter Box Co., Mueller Co., or approved equal.

Ductile Iron Fittings (Including bends, reducers, off-sets, tees and sleeves):

Materials shall be ASTM A536 latest, minimum grade of 70-50-05, in accordance with AWWA C110 for fittings larger than 24" and C153 (latest revision) for fittings 3" – 24".

Fittings shall be cement lined AWWA C104 or fusion bonded epoxy coated with a 5 mil nominal thickness per AWWA C550 and C116.

Interior seal coated AWWA C104 with minimum of 4 mils dry film thickness.

Exterior bituminous coated, 4 mils minimum dry film thickness or fusion bonded epoxy coated with a 5 mil nominal thickness per AWWA C550 and C116.

Sleeves shall not be cement lined, but shall be bituminous coated inside to 4 mils dry film thickness. All sleeves shall be long body type.

Mechanical joint with accessories furnished: D.I. glands, gaskets, Cor-Ten T-bolts and nuts.

Pressure Ratings:

- a) Class 350 pressure rating in accordance with AWWA C153 - 3" – 24" sizes.
- b) Class 250 pressure rating in accordance with AWWA C110 - 24" – 48" sizes.

The "compact design" fittings must provide adequate space for the MJ joint and accessories to be installed without special tools (i.e. Lowell wrench can be used).

Ductile Iron Pipe:

Ductile iron pipe for water mains shall meet the requirements of AWWA Standard C151 and shall be cement lined and seal coated to meet AWWA Standard C104.

The exterior of the pipe shall be bituminous coated in accordance with AWWA Standard C151 (latest revision).

The minimum thickness Class of pipe shall be Class 52. Pipe shall be furnished in nominal 18 or 20 foot lengths.

Pipe joints for ductile iron pipe shall be "push-on" unless the additional pipe deflection allowed by mechanical joints is necessary or other considerations dictate the use of mechanical joints. The joints for ductile iron pipe shall conform to AWWA Standard C111.

Mechanical Joint Restraints:

Devices shall be of the wedge-action lug-type mechanical joint (MJ) Retainer Glands or the split, full-circle grip-ring type with High Strength Alloy (HSLA) threaded thrust rods and nuts and stainless steel clamping bolts and nuts. For use only with 4" – 16" Ductile Iron (DI) pipe. Restraint devices shall have a working pressure rating that equals or exceeds the pressure of the pipe, fittings, or valves on which they are used.

Mechanical Joint Restraints shall be manufactured by EBAA Iron Sales, Inc, Ford/Uni-Flange, Romac Industries, Inc., Star Pipe Products or approved equal.

Copper Tubing:

All copper water service tubing shall conform with AWWA Standards C800 and with ASTM B88, and shall be Type K soft temper seamless tubing for 1, ½, 2 inch.

Hydrants:

Fire hydrants shall conform to the requirements of AWWA C502 for Dry Barrel Fire Hydrants.

Fire hydrants shall be:

American Darling Model B-84-B, Traffic Model, Notional Standard Thread Except Special Streamer Thread (4 27/32" 6 thread), Open Left Painted Hi-Visibility Yellow.

M&H / Kennedy Valve Company Model 129, National Standard Thread Except Special Steamer Thread (4 27/32" 6 thread), Open Left Painted Hi-Visibility Yellow.

Clow Valve Company Medallion Hydrant, National Standard Thread Except Special Steamer Thread (4 27/32" 6 thread), Open Left Painted Hi-Visibility Yellow.

Valves:

All valves shall meet or exceed the standard of AWWA C500, C504, and C509 and its latest revisions. Unless otherwise provided, all valves 2" – 12" shall be resilient seat gate valves in accordance with AWWA Standard C509.

Each valve shall be fitted with a standard 2-inch square operating nut and shall open clockwise. Valves other than resilient seat and butterfly shall be double disc. Each valve shall have mechanical joint ends complete with accessories. If ductile iron mechanical joint glands are furnished, the vendor shall be sure properly sized mechanical joint bolts are furnished to prevent "Bottoming Out" and leaving excessive thread exposed.

All resilient seat and butterfly valves shall be epoxy coated to cover all interior surfaces coming in contact with water. The epoxy coating shall be NSF-approved for contact with water for human consumption.

Butterfly valves shall have operators, which are capable of withstanding an overload input torque of 450 ft. lbs at full open or closed position.

Pressure reducing valves shall feature pressure reducing pilotry with pressure control ranges for correct valve operation where installed. Pilot material shall be bronze body only, brass and stainless steel rim. Tubing shall be copper. All pressure reducing valves shall be epoxy coated to cover all interior surfaces coming in contact with water. The epoxy coating shall be NSF-approved for contact with water for human consumption. Valves shall be ductile iron, globe body, minimum 150-pound flanged ends and bronze trim. Must be pre-approved by the Southbridge Water Department.

All valves shall be tested by the manufacturer for a working pressure of 200 PSI and a body pressure of 400 PSI to meet or exceed AWWA standards.

Pressure class rating shall be the same as the water pipe on which the valve is being installed.

All valves shall be manufactured by American Darling Valve Company, CLA-VAL, Watts Water Technologies, Inc. or approved equal.

Valve Boxes:

Valves box shall be 5 ¼" shaft Buffalo style, two piece slip type, adjustable cast iron valve boxes of the two piece type, consisting of top section with cover and bottom section. Base shall be proper type and size for the valve with which it is used. The word "water" shall be cast or embossed on the valve box cover in letters not less than 1 inch high. Roadway boxes shall be of the two (2) piece slip type. Screw type boxes will not be accepted.

Valve box shall be manufactured by Mueller Co., Bingham & Taylor, or approved equal.

Stainless Steel Repair Clamps:

The sleeve shall be of full circle design, either one piece or two piece. The body shall be 18-8 stainless steel shell.

The gasket shall be full length and diameter of the body size, form a multiple O-ring, or grid, sealing barrier for the entire length and circumference, and shall be virgin SBR rubber ASTM D2000 AA 415.

Repair clamps shall be stainless steel single bolt row with an outside diameter range sufficient to repair either cast iron, ductile iron or asbestos cement in a given size.

Tapping Sleeves:

Tapping sleeves shall be all stainless steel body and flange with a full circumferential gasket, or ductile iron body, mechanical joint designed to accommodate a minimum operating pressure of 150 psi and a test pressure of 300 psi. Stainless steel tapping sleeves shall be Ford Model FAST, Mueller Model H304 or Romac Model SST or approved equal. Sleeves shall be for use with gray cast iron or ductile iron pipe and shall be rated for 250 PSI working pressure and conforming to AWWA Standard C110 and ductile iron fittings rated for 350 PSI working pressure conforming to AWWA Standard C110. All accessories shall be provided with corrosion resistant steel bolts and nuts.

Typical Water Service / Meter Installation:

The following is a list of materials typically used at 5/8" meter installations. Other fittings may be required but each site will dictate the need.

- 1 – 1" Male Iron Pipe x Compression Coupling
- 1 – 1" Female Iron Pipe Ball Valve with Drain and Waste Stop
- 1 – 1" x 1/2" Brass Bushing
- 1 – 3/4" x 1/2" Brass Bushing
- 1 – 3/4" Female Iron Pipe Ball Valve with Drain and Waste Stop

The Southbridge Water Department will supply the meter and meter tailpieces to complete installation. Please refer to the Southbridge Water Department Standard Specifications drawing SWD-4 for an illustrated view of the installation.

****Please remember, sweat fittings are not allowed until after the outlet valve****

All tie-ins including residential to be performed by contractors approved by the Department of Public Works and/or Southbridge Water Department. Final as-builts will be required including all tie-ins to all valves and curb-stops. Requires minimum of 48 hours notice for inspection.

If you should have any questions or comments, please do not hesitate to contact the Southbridge Water Department at 508-764-3207.

Appendix

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: SOUTHBRIDGEProject File Number: 608778Contract Number: 130744Project Description: Intersection Improvements at Central Street, Foster Street, Hook Street and Hamilton 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 A00850

MASSACHUSETTS WETLANDS PROTECTION ACT

Request for Determination

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Request for Determination of Applicability

Intersection Improvements at Central Street, Foster Street, Hook Street and Hamilton Street

Southbridge, Massachusetts

PREPARED FOR

Town of Southbridge
185 Guelphwood Road
Southbridge, MA 01550
508.764.5403

PREPARED BY



101 Walnut Street
PO Box 9151
Watertown, MA 02471
617.924.1770

APRIL 2024

April 17, 2024

Ref: 11672.02

Southbridge Conservation Commission
c/o Ken Comia, Interim Town Planner & Conservation Agent
Southborough Town House
41 Elm Street
Southbridge, MA 01550
ATTN: Maureen Doyle and Natasha Nowick, Co-Chairs

Re: **Request for Determination of Applicability: Intersection Improvements at Central Street, Foster Street, Hook Street and Hamilton Street Southbridge, Massachusetts**

Dear Chairpersons Doyle, Nowick and Commission Members:

On behalf of the Town of Southbridge (the Applicant) VHB, Inc. respectfully submits the attached Request for Determination of Applicability (RDA) for the proposed roadway improvements (the Project) at the intersection of Central Street, Foster Street, Hook Street and Hamilton Street, in Southbridge, Massachusetts. Proposed work associated with the Project includes the rehabilitation of existing pavement, new traffic signal equipment at Central and LaRochelle, a roundabout at Hamilton and Hook Street, a new roadway extending LaRochelle Way to Foster Street, and the realignment of the Foster Street and Central Street intersection. The Project also seeks to improve pedestrian and bicycle accommodations, improve accessibility, construct a portion of rail trail, and improve general safety along the corridor and at the intersections. This RDA is filed under the Massachusetts Wetlands Protection Act (WPA).

Portions of the Project are located within the 200-foot Riverfront Area (RFA) associated with the Quinebaug River. No temporary or permanent impacts to any Bank or Land Under Waterbodies and Waterways (LUWW), are proposed. Work in RFA will take place in degraded areas associated with existing roadways and adjacent sidewalks. During construction, erosion and sedimentation controls will be installed to protect adjacent resources. No temporary or permanent alteration to wetland resource areas is proposed. Work will result in a reduction in impervious surface within the Riverfront Area.

On behalf of the Applicant, we respectfully request that the Commission find this work minor in nature and issue a Negative Determination of Applicability for the Project. Please advertise this matter for public hearing at the Commission's next scheduled meeting. Should you have any questions concerning this submittal, or require additional information, please contact me at 617.607.1019.

Sincerely,

A handwritten signature in black ink, appearing to read "Daniel M. Cannata". The signature is written in a cursive, flowing style.

Dan Cannata
Environmental Scientist

Attachment: Request for Determination of Applicability: Intersection Improvements at Central
Street, Foster Street, Hook Street and Hamilton Street Southbridge, Massachusetts

CC: DEP Central Regional Office
Town of Southbridge



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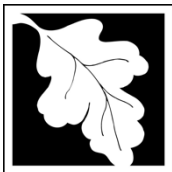
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Attachment B Project Plans



Request for Determination of Applicability Forms

› WPA Form 1



Massachusetts Department of Environmental Protection

Bureau of Resource Protection - Wetlands

Southbridge

City/Town

WPA Form 1- Request for Determination of Applicability

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

A. General Information

Important:

When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.



1. Applicant:

Town of Southbridge

Name

E-Mail Address

185 Guelphwood Road

Mailing Address

Southbridge

MA

01550

City/Town

State

Zip Code

508-764-5403

Phone Number

Fax Number (if applicable)

2. Representative (if any):

VHB Inc.

Firm

Daniel Cannata

dcannata@vhb.com

Contact Name

E-Mail Address

101 Walnut Street

Mailing Address

Watertown

MA

02471

City/Town

State

Zip Code

1-617-607-1019

Phone Number

Fax Number (if applicable)

B. Determinations

1. I request the Southbridge make the following determination(s). Check any that apply:
Conservation Commission

- ☐ a. whether the **area** depicted on plan(s) and/or map(s) referenced below is an area subject to jurisdiction of the Wetlands Protection Act.
- ☐ b. whether the **boundaries** of resource area(s) depicted on plan(s) and/or map(s) referenced below are accurately delineated.
- ☒ c. whether the **work** depicted on plan(s) referenced below is subject to the Wetlands Protection Act.
- ☐ d. whether the area and/or work depicted on plan(s) referenced below is subject to the jurisdiction of any **municipal wetlands ordinance** or **bylaw** of:

Name of Municipality

- ☐ e. whether the following **scope of alternatives** is adequate for work in the Riverfront Area as depicted on referenced plan(s).


Massachusetts Department of Environmental Protection

Bureau of Resource Protection - Wetlands

Southbridge

City/Town

WPA Form 1- Request for Determination of Applicability

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

C. Project Description

1. a. Project Location (use maps and plans to identify the location of the area subject to this request):

 Roadway layout of Central Street, Foster
 Street, Hook Street and

N/A

Assessors Map/Plat Number

Southbridge

City/Town

N/A

Parcel/Lot Number

- b. Area Description (use additional paper, if necessary):

See Attached Narrative

- c. Plan and/or Map Reference(s):

 SOUTHBRIDGE
 INTERSECTION IMPROVEMENTS- SHEET 11

2/6/2023

Date

Title

Date

Title

Date

2. a. Work Description (use additional paper and/or provide plan(s) of work, if necessary):

See Attached Narrative



Massachusetts Department of Environmental Protection

Bureau of Resource Protection - Wetlands

Southbridge
City/Town

WPA Form 1- Request for Determination of Applicability

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

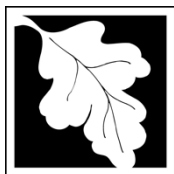
C. Project Description (cont.)

b. Identify provisions of the Wetlands Protection Act or regulations which may exempt the applicant from having to file a Notice of Intent for all or part of the described work (use additional paper, if necessary).

3. a. If this application is a Request for Determination of Scope of Alternatives for work in the Riverfront Area, indicate the one classification below that best describes the project.

- ☐ Single family house on a lot recorded on or before 8/1/96
- ☐ Single family house on a lot recorded after 8/1/96
- ☐ Expansion of an existing structure on a lot recorded after 8/1/96
- ☐ Project, other than a single-family house or public project, where the applicant owned the lot before 8/7/96
- ☐ New agriculture or aquaculture project
- ☐ Public project where funds were appropriated prior to 8/7/96
- ☐ Project on a lot shown on an approved, definitive subdivision plan where there is a recorded deed restriction limiting total alteration of the Riverfront Area for the entire subdivision
- ☐ Residential subdivision; institutional, industrial, or commercial project
- ☐ Municipal project
- ☐ District, county, state, or federal government project
- ☐ Project required to evaluate off-site alternatives in more than one municipality in an Environmental Impact Report under MEPA or in an alternatives analysis pursuant to an application for a 404 permit from the U.S. Army Corps of Engineers or 401 Water Quality Certification from the Department of Environmental Protection.

b. Provide evidence (e.g., record of date subdivision lot was recorded) supporting the classification above (use additional paper and/or attach appropriate documents, if necessary.)



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

Southbridge
City/Town

WPA Form 1- Request for Determination of Applicability

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

D. Signatures and Submittal Requirements

I hereby certify under the penalties of perjury that the foregoing Request for Determination of Applicability and accompanying plans, documents, and supporting data are true and complete to the best of my knowledge.

I further certify that the property owner, if different from the applicant, and the appropriate DEP Regional Office were sent a complete copy of this Request (including all appropriate documentation) simultaneously with the submittal of this Request to the Conservation Commission.

Failure by the applicant to send copies in a timely manner may result in dismissal of the Request for Determination of Applicability.

Name and address of the property owner:

Town of Southbridge

Name

185 Guelphwood Road

Mailing Address

Southbridge

City/Town

MA

State

01550

Zip Code

Signatures:

I also understand that notification of this Request will be placed in a local newspaper at my expense in accordance with Section 10.05(3)(b)(1) of the Wetlands Protection Act regulations.

Signature of Applicant

Date

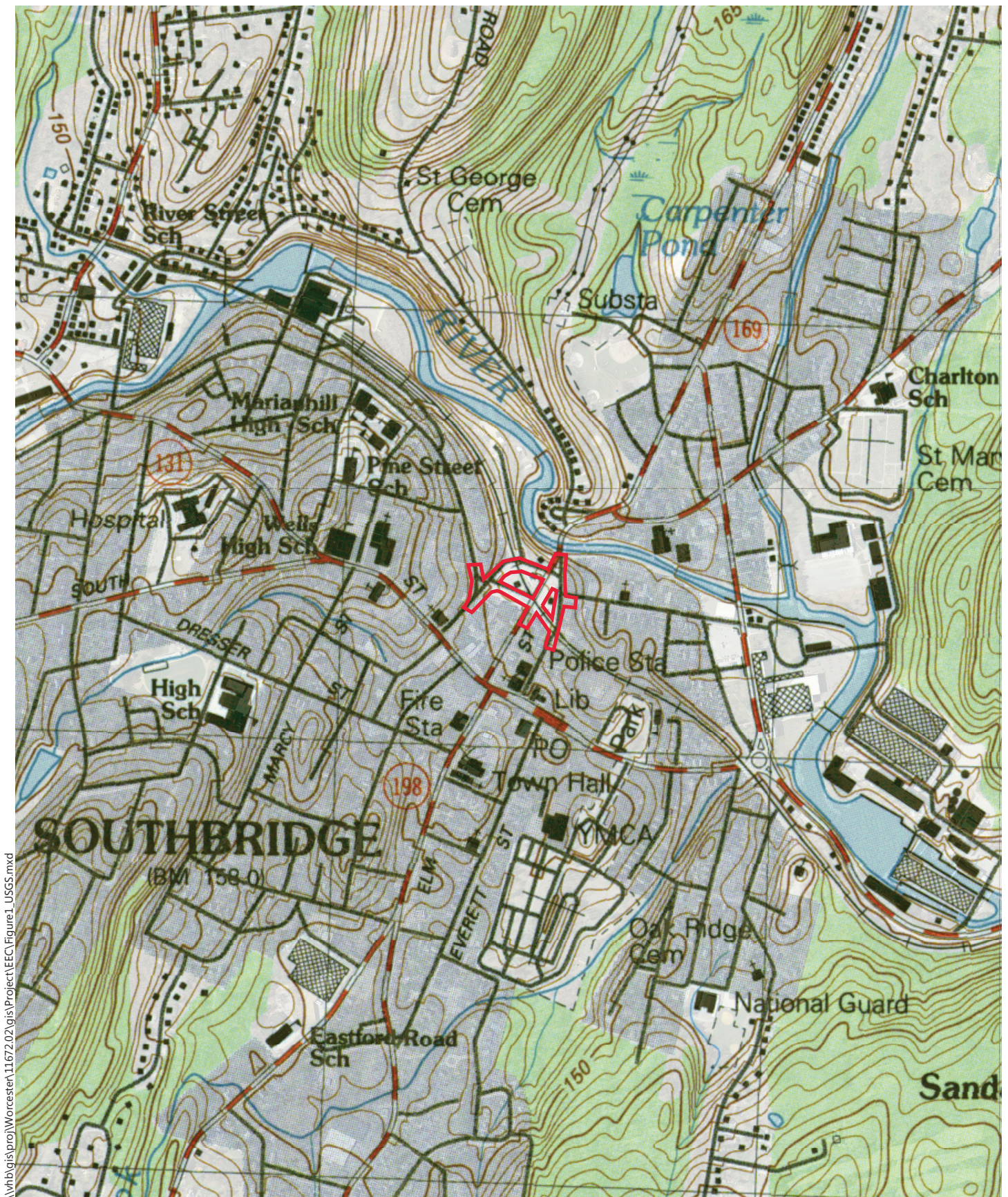
Signature of Representative (if any)

Date



Request for Determination of Applicability Figures

- › Figure 1 – Site Location Map
- › Figure 2 – Aerial Map
- › Figure 3 – NHESP Map
- › Figure 4 – FEMA FIRM Map



0 500 1000 2000 Feet

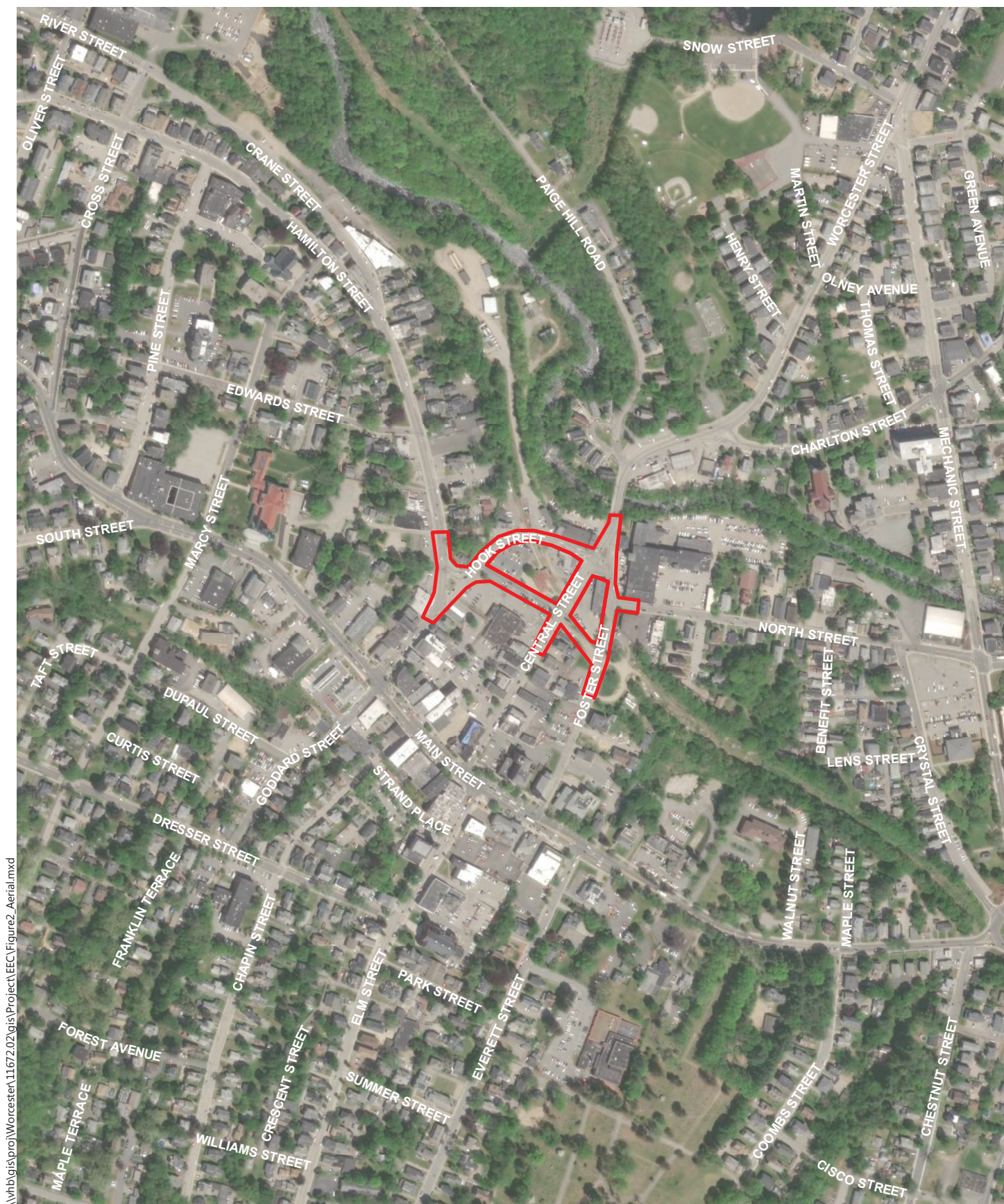
**Southbridge Downtown
Intersection Improvements**

Southbridge, Massachusetts

Figure 1 - USGS Locus

Legend

■ Project Location



\\vhb\gis\pro\Worcester\11672.02\gis\Project\EEC\Figure2_Aerial.mxd



**Southbridge Downtown
Intersection Improvements**

Southbridge, Massachusetts

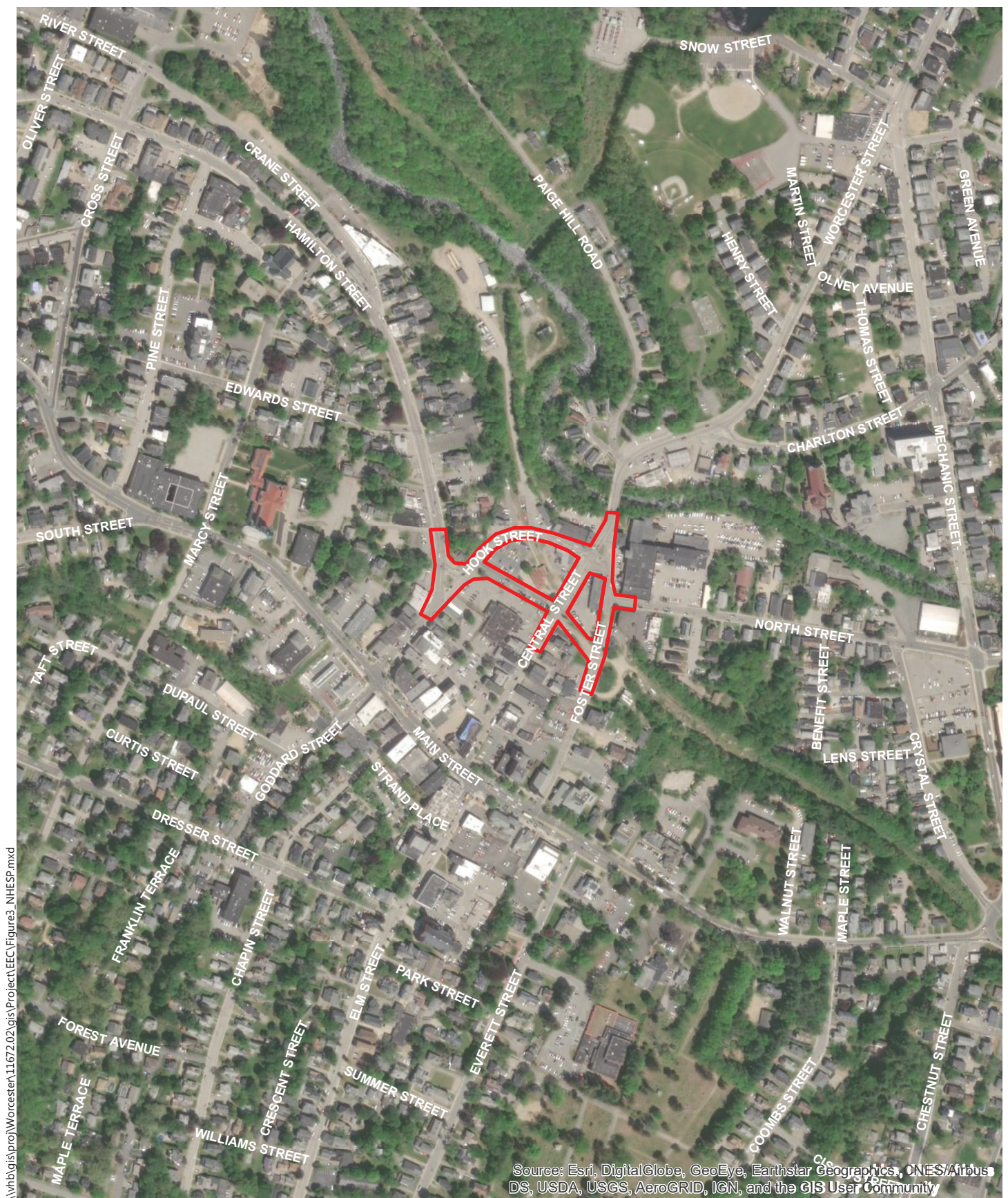
Legend



Project Location

Figure 2 - Aerial Locus

Source: USGS, MassGIS, VHB



\\vhb\gis\proj\Worcester\11672.02\gis\Project\EEC\Figure3_NHESP.mxd



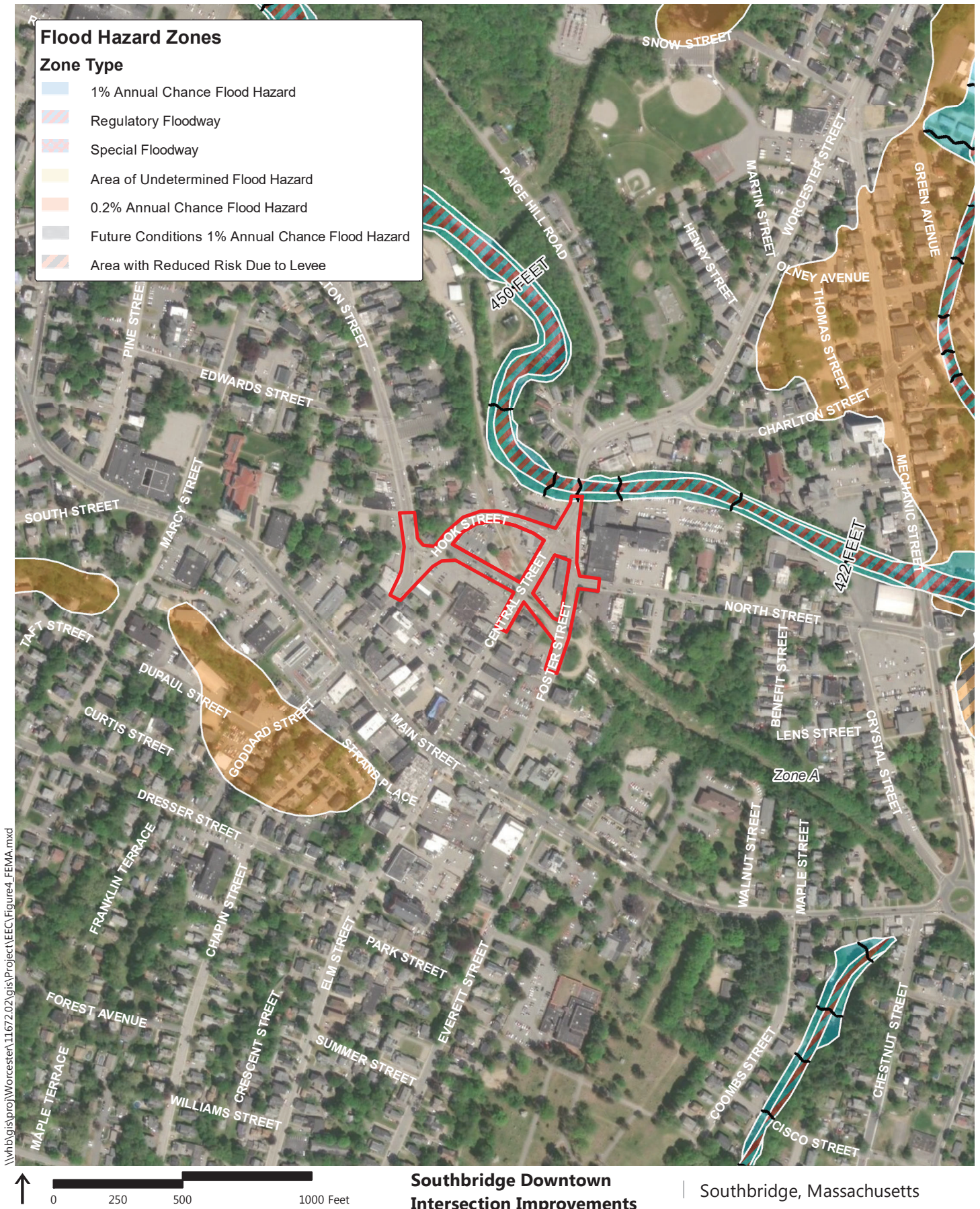
**Southbridge Downtown
Intersection Improvements**

Southbridge, Massachusetts

Legend

- Project Location
- NHESP Estimated Habitats of Rare Wildlife - None Present
- NHESP Priority Habitats of Rare Species - None Present

Figure 3 - NHESP Locus





Attachment A

Request for Determination of Applicability Narrative

- › Introduction
- › Site Description
- › Work Description
- › Mitigation Measures
- › Regulatory Compliance
- › Summary

Attachment A - Request for Determination of Applicability Narrative

This Request for Determination of Applicability (RDA) is filed pursuant to the Massachusetts Wetlands Protection Act (MGL Chapter 131, Section 40) and its implementing regulations (310 CMR 10.00).

Introduction

The Town of Southbridge (the Applicant) is proposing roadway improvements (the Project) along Hook Street, Hamilton Street, Central Street, LaRochelle Way, and Foster Street in Southbridge, Massachusetts (the Project Limits). Proposed work associated with the Project includes the rehabilitation of existing pavement, new traffic signal equipment at Central and LaRochelle, a roundabout at Hamilton and Hook Street, a new roadway extending LaRochelle Way to Foster Street, and the realignment of the Foster Street and Central Street intersection. The Project also seeks to improve pedestrian and bicycle accommodations, improve accessibility, construct a portion of rail trail, and improve general safety along the corridor and at the intersections.

Portions of the Project are located within the 200-foot Riverfront Area (RFA) associated with the Quinebaug River. No temporary or permanent impacts to any Bank or Land Under Waterbodies and Waterways (LUWW), are proposed. Work in RFA will take place in previously developed and degraded areas associated with existing roadways and adjacent sidewalks.

Wetland resource areas will be protected from impacts during construction through the implementation of an erosion and sedimentation control program. This program includes provisions to minimize areas of disturbance through phasing and sequencing, limit erosion through stabilization, and prevent sediment from leaving the site by installing structural controls. Runoff generated from the project will be collected and treated in accordance with design guidelines¹ developed by Department of Environmental Protection (DEP) and standards contained in the WPA Regulations.

Site Description

The Project limits consist of the existing developed roadway layouts of Central Street, Hook Street, Hamilton Street and LaRochelle Way. Areas surrounding the intersection

¹ DEP, 2008. *Massachusetts Stormwater Handbook*.

consist of an urbanized central business district with a mix of commercial and residential development. Traffic analysis performed by VHB demonstrates that with any potential development projects in the area and continued normal traffic growth in the area there is a need for traffic flow modification and geometric improvements. In order to better accommodate existing and future traffic volumes through the study intersections and provide efficient traffic operation, roadway improvements, including the addition of geometric modifications, will be necessary.

According to the latest data from the Massachusetts Natural Heritage and Endangered Species Program (NHESP)², the Project is not located within any Priority or Estimated Habitat of Rare Species or Wildlife or in the vicinity of any certified/non-certified vernal pools (Figure 3). According to the latest Flood Insurance Rate Map (FIRM) panel 25027C0933E (effective date of July 4, 2011)³ (Figure 4) a 100-year floodplain regulated as Bordering Land Subject to Flooding (BLSF) extends from the Quinebaug River but does not extend into the limits of work. The Project limits are not within an Outstanding Resource Water⁴ that contributes to public water supply or within an Area of Critical Environmental Concern (ACEC).

According to the regional Natural Resources Conservation Service (NRCS) soil survey, soils mapped within the Project Limits consist primarily of Udorthents with areas of Paxton-Urban Land Complex.⁵

Wetland resource areas on/near the site are described below.

Wetland Resource Areas

Wetlands in the vicinity of the Project Limits were delineated on June 14, 2018 and verified in July 2022 by environmental scientists with Vanasse Hangen Brustlin, Inc. in accordance with methods developed by the DEP⁶ and the U.S. Army Corps of Engineers⁷. The following sections of this narrative describe the wetlands and identify resource areas that are regulated under the WPA Regulations (310 CMR 10.00).

Delineated resource areas are summarized in the table below and are described in more detail in the following sections of this attachment.

2 NHESP, 2021. *Massachusetts Natural Heritage Atlas, 15th Edition*.

3 Federal Emergency Management Agency, 2013. *Flood Insurance Rate Map, Town of Granville, Massachusetts, Hampden County*. Community Panel Number 25013C0355E.

4 DEP, 1993. *Designated Outstanding Resource Waters of Massachusetts*.

5 USDA Natural Resources Conservation Service, 2021. *Websoil Survey- Soil Survey of Worcester County, Massachusetts*.

6 DEP, 1995. *Delineating Bordering Vegetated Wetlands Under the Massachusetts Wetlands Protection Act*.

7 USACE, 2012. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region, Version 2.0*.

Table 1 Wetland Resource Areas

	Flag Numbers	Type	Resource Areas
Quinebaug River	BF1-100 to BF1-119	Perennial Waterway	Bank, LUWW, RFA

Source: VHB, 2018.

Quinebaug River

The Quinebaug River is a perennial stream north of the Project limits that flows roughly west to east under the bridge that carries Central Street over the river. The river lies roughly 20 to 30 feet below the surrounding land. The river is approximately 25 to 35 feet wide and generally one to two feet deep, with a cobble/boulder substrate and a moderate grade creating a riffle/pool structure. The river is developed on both sides and is bounded by residences to the north and businesses and associated parking to the south. The banks of the river are vegetated and very steep, with ledge outcroppings in several locations. Vegetation along the banks mainly consists of invasive and opportunistic species. Typical species include Norway maple (*Acer platanoides*), Oriental bittersweet (*Celastrus orbiculatus*), Tartarian honeysuckle (*Lonicera tartarica*), poison ivy (*Toxicodendron radicans*), multiflora rose (*Rosa multiflora*), Japanese barberry (*Berberis thunbergii*), box elder (*Acer negundo*), American elm (*Ulmus americana*), silver maple (*Acer saccharinum*), southern catalpa (*Catalpa bignonioides*), black willow (*Salix nigra*), weeping willow (*Salix babylonica*), black cherry (*Prunus serotina*), royal fern (*Osmunda regalis*), silky dogwood (*Cornus amomum*), northern red oak (*Quercus rubra*), and glossy buckthorn (*Frangula alnus*). Due to the steepness of the banks, the limit of Bank and the Mean Annual High Water (MAHW) of the river are coincidental and were delineated with a single set of flags BF1-100 to BF1-119.

A 100-foot buffer zone extends from the limit of Bank, and a 200-foot Riverfront Area extends from the limit of MAHW.

Riverfront Area

The 200-foot Riverfront Area extends into the Project limits along Central Street and Hook Street. The Riverfront Area in the Project limits is predominantly disturbed from its natural state and consists of paved surfaces within the existing roadways and sidewalks as well as a mix of commercial and industrial development. One small traffic island is located within the Central Street and Foster Street layout and is characterized by mowed and maintained lawn with a small historical monument.

Buffer Zone

The WPA regulations (310 CMR 10.02(2)(b)) establish a 100-foot buffer zone from the limits of Bank associated with the Quinebaug River described above. The buffer zone encroaches into a small portion of the Project limits along Central Street.

Work Description

The Project proposes a series of Geometric and Traffic Control Improvements at the Project intersection including:

- Converting Hook Street to "entrance-only" at its intersection with Central Street.
- Realigning LaRochelle Way to provide for through traffic between Hamilton Street, Central Street and Foster Street. This realignment would include construction of an extension from Central Street to Foster Street.
- Installing an exclusive left-turn lane on the eastbound approach of LaRochelle Way at Central Street.
- Provide sidewalks on both sides of LaRochelle Way from Hamilton Street to Foster Street.
- Provide a bike path from Foster Street to Central Street adjacent to LaRochelle Way.
- Construction of a new modified roundabout at the intersection of Hook Street and Hamilton Street.
- Realign and construct a stop-controlled T-intersection between Hook Street and LaRochelle Way.
- Mill and Overlay of pavement along Hook Street and North Street, provide full depth pavement replacement on all other streets;
- Construction of multi-use path following retired railroad tracks from Hook Street to Central Street with textured crossings;
- At LaRochelle Way, realign Hook Street southbound to eliminate "mid-block" and create a simple "T" intersection;
- Provide sidewalks along both sides of Hook Street;
- Partial closure of Foster Street with textured pedestrian access;
- Construction of LaRochelle Way Extension connecting Central Street with Foster Street and redistribution of traffic from the intersection of North Street at Foster Street
- Constructing a new traffic signal new traffic signal including mast arm mounted signal heads, traffic controller and cabinet assembly and pedestrian accommodations and;
- Provide signalized pedestrian crossing features in the Project limits.

The work will result in an overall reduction of impervious surface by approximately 34,756 square feet (0.79 acres). Work in wetland resource areas and the 100-foot buffer zone is described below. This work fully complies with all applicable performance standards as demonstrated in the Regulatory Compliance section of this Narrative.

Table 2 Work in Wetland Resource Areas

Resource Area	Total Work in Resource Area	Full Depth Reconstruction and sidewalk repair	New Pervious Area (landscaping and loam and seed)	New Permanent Alteration
Riverfront Area	17,122 SF	15,588 S.F	1,534 SF	0 SF

Source: VHB, 2023.

Work in Riverfront Area

Work will be required in approximately 17,122 square feet of the previously developed and degraded RFA in the Project Limits. Work will consist of full depth pavement reconstruction, constructing concrete sidewalks, installing granite curbing, and installing ADA-compliant wheelchair ramps. Landscape improvements in the RFA consist of removing areas of pavement on Foster Street and replacing it with loam and seed while also planting three new trees near the Central Street intersection. The Project will not result in an increase in impervious surface within the Riverfront Area. The landscaping improvements will result in an increase in new pervious surface by 1,534 square feet, representing an improvement over existing conditions.

Work in Buffer Zone

No earth disturbing activities are proposed within the 100-foot Buffer Zone to Bank associated with the Quinebaug River. A new proposed closed drainage system will discharge to three existing drainage networks that outfall to the Quinebaug River.

Mitigation Measures

A suite of mitigation measures is proposed to prevent short- and long-term impacts to wetland resource areas. Mitigation measures proposed for this project are described below.

Erosion and Sediment Control

An erosion and sedimentation control program will be implemented to minimize temporary impacts to wetland resource areas during the construction phase of the project. The program incorporates Best Management Practices (BMPs) specified in guidelines developed by the DEP⁸ and the U.S. Environmental Protection Agency (EPA)⁹.

Proper implementation of the erosion and sedimentation control program will:

- › minimize exposed soil areas through sequencing and temporary stabilization;
- › place structures to manage stormwater runoff and erosion; and

8 DEP, 1997. *Massachusetts Erosion and Sediment Control Guidelines for Urban and Suburban Areas: A Guide for Planners, Designers, and Municipal Officials*.

9 EPA, 2007. *Interim Developing Your Stormwater Pollution Prevention Plan: A Guide for Construction Sites*. Office of Water. Report EPA 833-R-060-04.

- › establish a permanent vegetative cover or other forms of stabilization as soon as practicable.

The following sections describe the controls that will be used and practices that will be followed during construction. These practices comply with criteria contained in the NPDES General Permit for Discharges from Large and Small Construction Activities issued by the EPA.

Non-Structural Practices

Non-structural practices to be used during construction include temporary and permanent seeding and pavement sweeping. These practices will be initiated as soon as practicable in appropriate areas at the site.

Temporary and Permanent Seeding

If conditions allow, a temporary vegetative cover will be established on areas of exposed soils during construction. Upon completion of final grading, any areas not covered by pavement, other forms of stabilization, or other methods of landscaping will be seeded with a native seed mix (per MassDOT Specification #765.635). The mix will be applied at the rate suggested by its manufacturer.

Pavement Sweeping

Portions of the Project Limits (once paved or repaved) shall be swept as needed during construction. The sweeping program will remove sediment and other contaminants directly from paved surfaces before their release into stormwater runoff. Pavement sweeping has been demonstrated to be an effective initial treatment for reducing pollutant loading into stormwater¹⁰. A street sweeper shall be kept at the site or at a nearby location to facilitate this practice.

Structural Practices

Structural erosion and sedimentation controls to be used on the site include barriers and catch basin inlet protection described below.

Erosion Control Barriers

Prior to any ground disturbance, an approved erosion control barrier will be installed at the downgradient limit of work in accordance with standard MassDOT specifications (Item 767.121: Sediment Control Barrier). As construction progresses, additional barriers will be installed around the base of stockpiles and other erosion prone areas.

¹⁰ U.S. Environmental Protection Agency, 1979. *Demonstration of Nonpoint Pollution Abatement Through Improved Street Cleaning Practices*.

Catch Basin Inlet Protection

The inlets of existing and proposed catch basins will be protected from sediment inflow during the work period by surrounding them with a barrier of staked straw bales or by installing other barrier methods determined by the contractor.

Stormwater Management

Under the Stormwater Management Standards, the Project is considered a redevelopment project because it involves maintenance and improvement of an existing roadway, including widening less than a single lane, and correcting substandard intersections and drainage. A closed drainage system on Hamilton Street, Larochelle Way, Hook Street, Central Street, and Foster Street is proposed to improve stormwater drainage within the project limits. This closed drainage system will discharge to three existing drainage networks that outfall to the Quinebaug River.

Regulatory Compliance

As demonstrated below, work in wetland resource areas and the 100-foot buffer zone fully complies with applicable performance standards and can be allowed as a Limited Project under the WPA regulations.

Work in Riverfront Area

As discussed above, the Project will require unavoidable work within portions of the 200-foot RFA associated with the Quinebaug River. The Riverfront Area within the Project limits consists primarily of the existing roadway layout as well as adjacent pedestrian features and previous development. The work can be allowed as minor activity pursuant 310 CMR 10.02(2)(b)(2)p as a grandfathered or exempted activity for work in RFA as established at 10.58(6)(b). Proposed full depth roadway reconstruction is proposed within the Riverfront Area to the Quinebaug River; however all work will be contained within the existing right-of-way and no new alteration of the Riverfront area is proposed. The Project will result in an improvement to the RFA over existing conditions. Three native tree plantings are proposed within the existing traffic island between Foster Street and Central Street. The plantings will provide an improvement to wildlife habitat capacity and vegetation within the Riverfront Area. A new drainage system including hooded deep sump catch basins is proposed within the Project limits and will connect to existing stormwater outfalls to the Quinebaug River.

Temporary erosion and sedimentation controls will be installed adjacent to the Project limits to minimize secondary impacts to resource areas during construction. Additionally, no portion of the Project limits are located within Priority or Estimated Habitat of Rare Species or Wildlife.

Work in Buffer Zone

As identified in 310 CMR 10.53(1) of the WPA regulations, "the issuing authority should consider the characteristics of the buffer zone, such as the presence of steep slopes, that may increase the potential for adverse impacts on resource areas. Conditions may include limitations on the scope and location of work in the buffer zone as necessary to avoid alteration of resource areas. The issuing authority may require erosion and sedimentation controls during construction, a clear limit of work, and the preservation of natural vegetation adjacent to the resource area and/or other measures commensurate with the scope and location of the work within the buffer zone to protect the interests of the Act."

The Project has been designed to address these requirements. As identified in the Mitigation Measures section of this attachment, an erosion and sedimentation control program will be implemented to prevent adverse impacts during construction. Additionally, the work in buffer zone is limited to previously degraded and developed areas of the outer limits of the buffer zone.

Summary

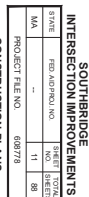
The Town of Southbridge is proposing roadway improvements at Hook Street, Hamilton Street, Central Street, LaRochelle Way, and Foster Street in Southbridge, Massachusetts. Proposed work associated with the Project includes the rehabilitation of existing pavement, new traffic signal equipment at Central and LaRochelle, a roundabout at Hamilton and Hook Street, a new roadway extending LaRochelle Way to Foster Street, and the realignment of the Foster Street and Central Street intersection and related pedestrian accommodation upgrades.

The Project has been designed to minimize impacts to wetland resources. Work within Riverfront Area will take place in previously developed and degraded areas and will not result in loss of wetland function of the adjacent resources. Erosion and sedimentation controls will be employed throughout construction to prevent any additional impacts to resource areas.

The Applicant respectfully requests that the Southbridge Conservation Commission find these measures adequately protective of the interests identified in the WPA, and issue a Negative Determination approving the work described in this RDA and shown on the accompanying plans.

Attachment B

Project Plan



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DOCUMENT A00851

MASSACHUSETTS WETLANDS PROTECTION ACT

Determination of Applicability

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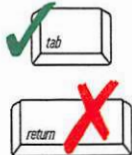
Massachusetts Department of Environmental Protection
Bureau of Water Resources - Wetlands

WPA Form 2 – Determination of Applicability

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Southbridge
Municipality

Important:
When filling out
forms on the
computer, use only
the tab key to move
your cursor - do not
use the return key.



A. General Information

From:

Southbridge Conservation Commission
Conservation Commission

To: Applicant

Town of Southbridge DPW
Name
185 Guelphwood Road
Mailing Address
Southbridge MA 01550
City/Town State Zip Code
508-764-5403
Phone Number

Email Address

Property Owner (if different from applicant):

Name
Mailing Address
City/Town State Zip Code
Phone Number

Email Address (if known)

1. Project Location:

Roadway layout of Central, Foster, Hook and
Hamilton Streets

Latitude (Decimal Degrees Format with 5 digits after
decimal e.g. XX.XXXXX)

N/A
Assessors Map/Plat Number

Southbridge
City/Town

Longitude (Decimal Degrees Format with 5 digits after
decimal e.g. -XX.XXXXX)

N/A
Parcel/Lot Number

[How to find Latitude
and Longitude](#)

[and how to convert to
decimal degrees](#)

2. Date Request Filed:

May 2024

B. Determination

Pursuant to the authority of M.G.L. c. 131, § 40, the Conservation Commission considered your Request for Determination of Applicability, with its supporting documentation, and made the following Determination.

Project Description (if applicable):

Roadway improvements at the intersection of Central Street, Foster Street, Hook Street and Hamilton Street - rehabilitation of existing pavement, new traffic signal equipment at Central and LaRochelle, a roundabout at Hamilton and Hook, a new roadway extending LaRochelle to Foster, and the realignment of the Foster and Central intersection. Improve pedestrian and bicycle accommodations, improve accessibility, construct a portion of rail trail, and improve general safety. No temporary or permanent alteration to wetland resource areas. Erosion controls to be installed.

Title and Date (or Revised Date if applicable) of Final Plans and Other Documents:

<u>Southbridge Intersection Improvements - Sheet 11</u>	<u>2/6/2023</u>
Title	Date
Title	Date
Title	Date



Massachusetts Department of Environmental Protection
Bureau of Water Resources - Wetlands

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Southbridge
Municipality

B. Determination (cont.)

The following Determination(s) is/are applicable to the proposed site and/or project relative to the Wetlands Protection Act and regulations:

Positive Determination

Note: No work within the jurisdiction of the Wetlands Protection Act may proceed until a final Order of Conditions (issued following submittal of a Notice of Intent or Abbreviated Notice of Intent) has been received from the issuing authority (i.e., Conservation Commission or the Department of Environmental Protection).

- ☐ 1. The area described on the referenced plan(s) is an area subject to jurisdiction under the Act. Removing, filling, dredging, or altering of the area requires the filing of a Notice of Intent.
- ☐ 2a. The boundary delineations of the following resource areas described on the referenced plan(s) are confirmed as accurate. Therefore, the resource area boundaries confirmed in this Determination are binding as to all decisions rendered pursuant to the Wetlands Protection Act and its regulations regarding such boundaries for as long as this Determination is valid.

- ☐ 2b. The boundaries of Wetlands Resource Area(s) and Buffer Zone(s) listed below are not confirmed by this Determination, regardless of whether such boundaries are contained on the plans attached to this Determination or to the Request for Determination.

- ☐ 3. The work described on referenced plan(s) and document(s) is within an area subject to jurisdiction under the Act and will remove, fill, dredge, or alter that area. Therefore, said work requires the filing of a Notice of Intent.
- ☐ 4. The work described on referenced plan(s) and document(s) is within the Buffer Zone and will alter an Area subject to jurisdiction under the Act. Therefore, said work requires the filing of a Notice of Intent
- ☐ 5. The area and/or work described on referenced plan(s) and document(s) is subject to review and approval by:

Name of Municipality

Pursuant to the following municipal wetland ordinance or bylaw:

Name

Ordinance or Bylaw Citation



Massachusetts Department of Environmental Protection
Bureau of Water Resources - Wetlands

WPA Form 2 – Determination of Applicability

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Southbridge
Municipality

B. Determination (cont.)

- ☐ 6. The following area and/or work, if any, is subject to a municipal ordinance or bylaw but not subject to the Massachusetts Wetlands Protection Act:

- ☐ 7. If a Notice of Intent is filed for the work in the Riverfront Area described on referenced plan(s) and document(s), which includes all or part of the work described in the Request, the applicant must consider the following alternatives. (Refer to the wetland regulations at 10.58(4)(c) 2. for more information about the scope of alternatives requirements):

- ☐ Alternatives limited to the lot on which the project is located.
- ☐ Alternatives limited to the lot on which the project is located, the subdivided lots, and any adjacent lots formerly or presently owned by the same owner.
- ☐ Alternatives limited to the original parcel on which the project is located, the subdivided parcels, any adjacent parcels, and any other land which can reasonably be obtained within the municipality.
- ☐ Alternatives extend to any sites which can reasonably be obtained within the appropriate region of the state.

Negative Determination

Note: No further action under the Wetlands Protection Act is required by the applicant. However, if the Department is requested to issue a Superseding Determination of Applicability, work may not proceed on this project unless the Department fails to act on such request within 35 days of the date the request is post-marked for certified mail or hand delivered to the Department. Work may then proceed at the owner's risk only upon notice to the Department and to the Conservation Commission. Requirements for requests for Superseding Determinations are listed at the end of this document.

- ☐ 1. The area described in the Request is not an area subject to jurisdiction under the Act or the Buffer Zone.
- ☐ 2. The work described in the Request is within an area subject to jurisdiction under the Act, but will not remove, fill, dredge, or alter that area. Therefore, said work does not require the filing of a Notice of Intent.
- ☒ 3. The work described in the Request is within the Buffer Zone, as defined in the regulations, but will not alter an Area subject to jurisdiction under the Act. Therefore, said work does not require the filing of a Notice of Intent, subject to the following conditions (if any).

Any spoils stockpiled overnight must be covered and wildlife, particularly turtle, nesting activity must be reported to the conservation agent immediately or to the Turtle Rescue League. This activity should be particularly watched for from mid-May to July 4th.

- ☐ 4. The work described in the Request is not within an Area subject to jurisdiction under the Act (including the Buffer Zone). Therefore, said work does not require the filing of a Notice of Intent, unless and until said work alters an Area subject to jurisdiction under the Act.

**Massachusetts Department of Environmental Protection**
Bureau of Water Resources - Wetlands**WPA Form 2 – Determination of Applicability**

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Southbridge
Municipality**B. Determination (cont.)**

- ☐ 5. The area described in the Request is subject to jurisdiction under the Act. Since the work described therein meets the requirements for the following exemption, as specified in the Act and the regulations, no Notice of Intent is required:

Exempt Activity (site applicable statutory/regulatory provisions)

- ☐ 6. The area and/or work described in the Request is not subject to additional review and approval by:

Name of Municipality

Pursuant to a municipal wetlands' ordinance or bylaw.

Name

Ordinance or Bylaw Citation

C. Authorization

This Determination is issued to the applicant and delivered as follows:

- ☐ By hand delivery on

- ☒ By certified mail, return receipt request on

Date

Date

6/25/24

7022 11670 0003 0042 1971
Certified Mail Number

A copy of this Determination has been sent on the same date, considered the date of issuance, to the appropriate DEP Regional Office and the property owner (if not the applicant) in the manner as follows:

DEP

- ☐ By [eDEP DOA Submittal Platform](#) (Attach this form and supporting documents)

- ☒ By USPS mail

- ☐ By hand delivery

Date

Date

6/25/24

Property Owner (if not applicant)

- ☐ By mail

- ☐ By hand delivery

Date

Date



Massachusetts Department of Environmental Protection

Bureau of Water Resources - Wetlands

WPA Form 2 – Determination of Applicability

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Southbridge
Municipality

C. Authorization (cont.)

This Determination is valid for **three years** from the date of issuance (except Determinations for Vegetation Management Plans which are valid for the duration of the Plan). This Determination does not relieve the applicant from complying with all other applicable federal, state, or local statutes, ordinances, bylaws, or regulations.

This Determination must be signed by a majority of the Conservation Commission. As noted above, a copy must be sent to the appropriate DEP Regional Office (see <https://www.mass.gov/service-details/massdep-regional-offices-by-community>) and the property owner (if different from the applicant) on the same date that the Applicant is issued this Determination.

Southbridge Conservation Commission
Issuing Authority

Signatures:

Signature

Signature

Signature

Signature

Signature

Signature

Signature

Printed Name

Printed Name

Printed Name

Printed Name

Printed Name

Printed Name

Printed Name

D. Appeals

The applicant, owner, any person aggrieved by this Determination, any owner of land abutting the land upon which the proposed work is to be done, or any ten residents of the city or town in which such land is located, are hereby notified of their right to request the appropriate Department of Environmental Protection Regional Office (see <https://www.mass.gov/service-details/massdep-regional-offices-by-community>) to issue a Superseding Determination of Applicability. The request must be made by certified mail or hand delivery to the Department, with the appropriate filing fee and Fee Transmittal Form (see Request for Departmental Action Fee Transmittal Form) as provided in 310 CMR 10.03(7) within ten business days from the date of issuance of this Determination. A copy of the request shall at the same time be sent by certified mail or hand delivery to the Conservation Commission and to the applicant if he/she is not the appellant. The request shall state clearly and concisely the objections to the Determination which is being appealed. To the extent that the Determination is based on a municipal ordinance or bylaw and not on the Massachusetts Wetlands Protection Act or regulations, the Department of Environmental Protection has no appellate jurisdiction.

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DOCUMENT A00870

**UNITED STATES DEPARTMENT OF INTERIOR
FISH AND WILDLIFE SERVICE (USFWS) NLAA
CONCURRENCE VERIFICATION 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:

05/13/2025 17:28:04 UTC

Project code: 2023-0038726

Project Name: 608778 - SOUTHBRIDGE- INTERSECTION IMPROVEMENTS AT CENTRAL ST FOSTER ST, HOOK ST AND HAMILTON ST

Subject: Not Likely to Adversely Affect Concurrence verification letter for the '608778 - SOUTHBRIDGE- INTERSECTION IMPROVEMENTS AT CENTRAL ST FOSTER ST, HOOK ST AND HAMILTON ST' project under the December 13, 2024, FHWA, FRA, FTA Programmatic Biological Opinion for Transportation Projects within the Range of the Indiana Bat, Northern Long-eared Bat, and Tricolored Bat.

To whom it may concern:

This letter records the determination of effects to federally listed (or proposed) bat species anticipated to result from the 608778 - SOUTHBRIDGE- INTERSECTION IMPROVEMENTS AT CENTRAL ST FOSTER ST, HOOK ST AND HAMILTON ST (the Project). This determination is based upon information you entered into the assisted determination key (Dkey) associated with the above referenced Programmatic Biological Opinion/Conference Opinion (PBO/PCO) in the U.S. Fish and Wildlife Service's (Service) Information for Planning and Consultation (IPaC) system on the date listed above to verify that the Project may rely on the concurrence provided in the PBO/PCO to satisfy requirements under section 7(a)(2) of the Endangered Species Act of 1973 (ESA) (16 USC 1536), as amended.

Ensuring Accurate Determinations When Using IPaC:

The Service developed the IPaC system and this Dkey in accordance with the ESA and based on the PBO/PCO. 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 the 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 determinations to remain valid. Carefully review this letter, your ESA requirements are NOT yet complete.

Determinations:

Based on the information you provided (Project Description shown below), you have determined that the Project is within the scope and adheres to the criteria of the PBO/PCO, including the adoption of applicable avoidance and minimization measures. Based on your IPaC submission and the PBO/PCO, the Project is consistent with 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 Endangered	NLAA

The 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 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 no effect or not likely to adversely affect (NLAA) determination from the key to confirm that the determination is still accurate.

The Service has 14 calendar days to notify the lead Federal action agency or designated non-federal representative if we determine that the Project does not meet the criteria for a NLAA determination under the PBO/PCO. **If the Service does not notify the lead Federal action agency or designated non-federal representative within that timeframe, you may proceed with the Project under the terms of the NLAA concurrence provided in the PBO/PCO.** This verification period allows Service Field Offices to apply local knowledge to implementation of the PBO, as we may identify a small subset of actions having impacts that were unanticipated. In such instances, Service Field Offices may request additional information that is necessary to verify inclusion of the proposed action under the PBO/PCO.

If the Project is modified, or new information reveals that it may affect the Indiana bat, northern long-eared bat, or tricolored bat in a manner or to an extent not considered in the PBO/PCO, further review to conclude the requirements of ESA section 7(a)(2) may be required.

For Proposed Actions that include bridge/culvert or structure removal, replacement, and/or maintenance activities:

If your initial bridge, culvert, or structure assessment failed to detect Indiana bat, northern long-eared bat, or tricolored bat use or occupancy, yet bats are later detected prior to, or during construction, promptly notify the local Service Field Office within 2 working days of the discovery. In addition, please document whether incidental take occurred, and if so, the type (i.e. kill or harm) and amount (i.e. number of individuals) and submit documentation to the local Service Field Office within 5 working days from the completion of the bridge, culvert, or structure construction (use Appendix E - Post Assessment Discovery of Bats at Bridge/Culvert or Structure Form in the [User's Guide](#)). In these instances, potential incidental take of Indiana bats, northern long-eared bats, or tricolored bats may be exempted provided that the take is reported to

the Service. In these instances, potential incidental take of Indiana bats, northern long-eared bats, or tricolored bats may be exempted provided that the take is reported to the Service.

If the Project may affect any other federally listed or proposed species and/or designated critical habitat, additional consultation between the lead Federal action agency and this Service Field Office is required for those species/designated critical habitat. If the Project has the potential to take bald or golden eagles, additional coordination with the Service under the Bald and Golden Eagle Protection Act may also be required. In either of these circumstances, please advise the lead Federal action agency to contact this Service Field Office

The following species may occur in your project area and **are not** covered by this determination:

- Monarch Butterfly *Danaus plexippus* Proposed Threatened

PROJECT DESCRIPTION

The following project name and description was collected in IPaC as part of the endangered species review process.

NAME

608778 - SOUTHBRIDGE- INTERSECTION IMPROVEMENTS AT CENTRAL ST
FOSTER ST, HOOK ST AND HAMILTON ST

DESCRIPTION

608778 - SOUTHBRIDGE- INTERSECTION IMPROVEMENTS AT CENTRAL STREET,
FOSTER STREET, HOOK STREET AND HAMILTON STREET

This project includes approximately 1,500-linear feet along Central Street, Hamilton Street, LaRochelle Way, Foster Street and Hook Street. The major improvements include intersection improvements at Hamilton Street/ Hook Street (mini roundabout), Central Street/ Hook Street/ Foster Street (closure of intersection), LaRochelle Way/ Central Street, and LaRochelle Way Extension/Foster Street. Roadway improvements include the addition of bicycle lanes, additional turn lanes at the proposed signalized intersection, converting a unsignalized intersection with a monument in the middle to mini roundabout, and making accommodations for a multi-use trail at the proposed traffic signal. The new traffic signal shall include the connection of a new roadway extension from Foster Street to Central Street directly across from LaRochelle Way. Reconstructed or new sidewalks are proposed throughout.

Monarch Butterfly: Proposed Threatened Species only. The project action will not have an intentional take on the species and therefore 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/@42.076737050000006,-72.03204160454601,14z>



DETERMINATION KEY RESULT

Based on your answers provided, this project(s) may affect, but is not likely to adversely affect the Indiana bat, northern long-eared bat or tricolored bat, therefore, consultation with the U.S. Fish and Wildlife Service pursuant to Section 7(a)(2) of the Endangered Species Act of 1973 (ESA) (87 Stat. 884, as amended 16 U.S.C. 1531 et seq.) is required. However, also based on your answers provided, this project may rely on the concurrence provided in the Programmatic Biological Opinion/Conference Opinion for Transportation Projects in the Range of the Indiana bat, northern long-eared bat, and tricolored bat, dated December 13, 2024.

QUALIFICATION INTERVIEW

1. Which Federal Agency is the lead federal agency the action?

A) Federal Highway Administration (FHWA)

2. Does the Action Area intersect the species list area of the Northern long-eared bat?

Automatically answered

Yes

3. Does the Action Area intersect the species list area of the tricolored Bat (TCB)?

Automatically answered

Yes

4. Does your project's activities include raising the road profile above the tree canopy in documented habitat for the Indiana bat, NLEB, or TCB?

Note: For the definition of documented habitat, refer to Appendix A: <https://www.fws.gov/media/users-guide-range-wide-programmatic-consultation-indiana-bat-and-northern-long-eared-bat>

No

5. Is your project located within a karst area?

No

6. Will the project include bridge, culvert, or structure removal, replacement, and/or alteration activities?

Note: For definitions of bridge, culvert, and structure, refer to Appendix A: <https://www.fws.gov/media/users-guide-range-wide-programmatic-consultation-indiana-bat-and-northern-long-eared-bat>.

No

7. Do your project's activities involve tree removal/trimming, temporary lighting, new/additional permanent lighting, ground disturbance, percussives that involves noise/vibration above existing background levels, vibrations, or slash pile burning?

Yes

8. Is there suitable summer habitat for the Indiana bat, NLEB, or TCB within the project action area?

Note: See the Service's summer survey guidance for current definitions of suitable habitat [<https://www.fws.gov/midwest/endangered/mammals/inba/inbasummersurveyguidance.html>].

Yes

9. Have P/A surveys for the Indiana bat, NLEB, or TCB been conducted within the suitable summer habitat located within your project action area? This refers to mist-netting or acoustic surveys, not bridge assessments.

Note: See the Service's survey guidance <https://www.fws.gov/midwest/endangered/mammals/inba/inbasummersurveyguidance.html>

No

10. Will the project involve the removal or trimming of trees within suitable habitat for the Indiana bat, NLEB, or TCB?

Yes

11. Will any tree removal or trimming occur during the bat pup season?

Note: For more information about bat pup seasons please visit https://www.fws.gov/sites/default/files/documents/2024-10/2024_usfws_rangewide_ibat-nleb_survey_guidelines.pdf

No

12. Will the removal or trimming of trees occur **within documented habitat** for the Indiana bat, NLEB, or TCB?

Note: For the definition of documented habitat, refer to Appendix A: <https://www.fws.gov/media/users-guide-range-wide-programmatic-consultation-indiana-bat-and-northern-long-eared-bat>

No

13. Will all tree removal or trimming occur within 100 feet of the road or rail surface?

Yes

14. Does your project include activities involving the temporary or permanent exclusion of Indiana bats, NLEBs, or TCBs from a bridge/culvert or structure?

Note: exclusion is conducted to deny bats' entry or reentry into a bridge/culvert or structure. To be effective and to avoid harming bats, it should be done according to established standards.

No

15. Does your project involve the use of temporary lighting within Indiana bat, NLEB, or TCB suitable habitat?

Note: For the definition of lighting, refer to Appendix A: <https://www.fws.gov/media/users-guide-range-wide-programmatic-consultation-indiana-bat-and-northern-long-eared-bat>

Yes

16. Will the use of temporary lighting be conducted during the Indiana bat, NLEB, or TCB active season?

Yes

17. Will temporary lighting be directed away from Indiana bat, NLEB, or TCB suitable habitat)?

Yes

18. Will the project substantially increase baseline light conditions via the use of permanent lighting (replacement or new/additional) in suitable habitat.

No

19. Will your project include percussive activities?

Note: Refer to Stressor #2 Noise/Vibration on page 109 of the PBO/PCO.

Yes

20. Are the percussive activities only related to tree removal/trimming or bridge/culvert structural work?

No

21. Will the percussive activities involve noise/vibration above existing background levels?

Note: For example, pile driving, rock drilling, hoe ramming, jackhammering, and blasting are examples of percussive activities that cause noise/vibration above existing background levels

Yes

22. Will percussive activities that involve noise/vibration above existing background levels be conducted during the **bat active season**?

Yes

23. Will the percussive activities that involve noise/vibration above existing background levels be conducted **greater than 100 feet** from the road or rail surface?

No

24. Will the project include **bridge** removal, replacement, and/or alteration activities?

No

25. Does the project include **culvert** removal, replacement, and/or alteration activities?

No

26. Does the project include **structure** removal, replacement, and/or alteration activities?

No

27. Will the project involve the removal or trimming of more than 20 acres of Indiana bat, NLEB, or TCB suitable habitat per 5-mile section of road/rail?

No

28. Will the removal or trimming of trees occur within 0.5 miles of a known Indiana bat, NLEB, or TCB hibernaculum?

No

29. Will the removal or trimming of these trees occur during the active season?

No

30. Will the removal or trimming of trees occur **beyond 100 feet** of the existing road/rail surfaces?

No

31. Does the Action Area intersect the species list area of the tricolored Bat (TCB)?

Automatically answered

Yes

32. Does the Action Area intersect the species list area of the northern long-eared bat (NLEB)?

Automatically answered

Yes

PROJECT QUESTIONNAIRE

1. Have you made a No Effect determinations for all other species included on the FWS IPaC generated species list?

Yes

2. Have you made a May Affect determination for any other species on the FWS IPaC generated list?

No

3. How many acres of trees are proposed for removal/trimming **outside of documented habitat** for the Indiana bat, NLEB, or TCB within 100 feet of the existing road/rail surfaces during the inactive season (NLAA)?

Note: If described as number of trees, multiply by 0.09 to convert to acreage and enter that number.

1.6

4. How many acres of trees are proposed for removal/trimming **outside of documented habitat** for the Indiana bat, NLEB, or TCB within 100 feet of the existing road/rail surfaces during the active season (**outside the pup season and not between Dec 15th-Feb 15th in Zone 1 of the NLEB and TCB YR active areas**) (LAA)?

Note: If described as number of trees, multiply by 0.09 to convert to acreage and enter that number.

5. How many acres of trees are proposed for removal/trimming **outside of documented habitat** for the Indiana bat, NLEB, or TCB within 100 feet of the existing road/rail surfaces during the pup season (**trees must be <9 in DBH, and not between Dec 15th-Feb 15th in Zone 1 of the NLEB and TCB YR active areas**) (LAA)?

Note: If described as number of trees, multiply by 0.09 to convert to acreage and enter that number.

6. How many acres of trees are proposed for removal/trimming **either outside or within documented habitat** for the Indiana bat, NLEB, or TCB between 100-300 feet of the existing road/rail surface during the inactive season (LAA)? Note: If described as number of trees, multiply by 0.09 to convert to acreage and enter that number.

7. How many acres of trees are proposed for removal/trimming **either outside or within documented habitat** for the Indiana bat, NLEB, or TCB between 100-300 feet of the existing road/rail surfaces during the active season (**outside the pup season, and not between Dec 15-Feb 15 in Zone 1 of the NLEB and TCB YR active areas**) (LAA)?

Note: If described as number of trees, multiply by 0.09 to convert to acreage and enter that number.

8. How many acres of trees are proposed for removal/trimming **either outside or within documented habitat** for the Indiana bat, NLEB, or TCB beyond 300 feet of the existing road/rail surfaces during the inactive season (LAA)?

Note: If described as number of trees, multiply by 0.09 to convert to acreage and enter that number.

9. How many acres of trees are proposed for removal/trimming **either outside or within documented habitat** for the Indiana bat, NLEB, or TCB beyond 300 feet of the existing road/rail surfaces during the active season (**outside the pup season, and not between Dec 15th-Feb 15th in Zone 1 of the NLEB and TCB YR active areas**) (LAA)?

Note: If described as number of trees, multiply by 0.09 to convert to acreage and enter that number.

AVOIDANCE AND MINIMIZATION MEASURES (AMMS)

This determination key result includes the commitment to implement the following Avoidance and Minimization Measures (AMMs):

GAMM1

Ensure all operators, employees, and contractors working in areas of Indiana bat, NLEB, or TCB suitable habitat are aware of all Transportation Agency environmental commitments, including all applicable AMMs.

LAMM1

Direct temporary lighting away from suitable habitat during the active season

TRTAMM1

Modify all phases/aspects of the project (e.g., temporary work areas, alignments) to the extent practicable to avoid tree removal/trimming in excess of what is required to implement the project safely.

TRTAMM2

Ensure tree removal/trimming 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 removal/trimming to ensure contractors stay within clearing limits

TRTAMM3

Ensure tree removal/trimming is limited to the inactive season, occurs within 100 ft of the road/rail surface, and is outside of documented habitat for the Indiana bat, NLEB, and TCB

DETERMINATION KEY DESCRIPTION: FHWA, FRA, FTA PROGRAMMATIC CONSULTATION FOR TRANSPORTATION PROJECTS AFFECTING IBAT, NLEB, OR TCB

This key was last updated in IPaC on April 29, 2025. Keys are subject to periodic revision.

This decision key is intended for projects/activities funded or authorized by the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), and/or Federal Transit Administration (FTA), which may require consultation with the U.S. Fish and Wildlife Service (Service) under Section 7 of the Endangered Species Act (ESA) and may affect the federally listed endangered Indiana bat (*Myotis sodalis*), northern long-eared bat (*Myotis septentrionalis*), and/or federally proposed endangered tricolored bat (*Perimyotis subflavus*).

This decision key should only be used to verify project applicability with the Service's Programmatic Biological Opinion/Conference Opinion for Transportation Projects in the Range of the Indiana bat, northern long-eared bat, and tricolored bat, dated December 13, 2024. The programmatic consultation limited transportation activities that may affect the covered bat species and addresses situations that are both likely and not likely to adversely affect the covered bat species. This decision key will assist in identifying the effect of a specific project/activity and the applicability of the programmatic consultation. The programmatic consultation is not intended to cover all types of transportation actions. Activities outside the scope of the programmatic consultation, or that may affect ESA-listed species other than the Indiana bat, northern long-eared bat, or tricolored bat, or their designated critical habitat, may require additional ESA Section 7 consultation.

IPAC USER CONTACT INFORMATION

Agency: Massachusetts Department of Transportation

Name: Emily Puglisi

Address: 10 Park Plaza

City: Boston

State: MA

Zip: 02116

Email: emily.a.puglisi@dot.state.ma.us

Phone: 6178964424

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-22-001
Date: 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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Number: P-22-002Date: 9/23/22

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

SOUTHBRIDGE

For: **Intersection Improvements at Central Street, Foster Street, Hook Street
and Hamilton Street**

COMMONWEALTH OF MASSACHUSETTS

LOCATION

The work referred to herein is in the Town of SOUTHBRIDGE in Worcester 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:

Central Street**Beginning – Station 496+75.00 +/-****Ending – Station 507+50.00****Foster Street****Beginning – Station 396+30.00 +/-****Ending – Station 404+58.36 +/-****Beginning – Station 598+88.28 +/-****Ending – Station 602+79.24 +/-****Hook Street****Beginning – Station 200+00 +/-****Ending – Station 205+4.55****Hamilton Street****Beginning – Station 99+75.00 +/-****Ending – Station 106+05.00****North Street****Beginning – Station 404+58.36 +/-****Ending – Station 405+50.00**

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 **1200 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 # 608778		Contract # 130744		
Location : SOUTHBRIDGE				
Description : Intersection Improvements at Central Street, Foster Street, Hook Street and Hamilton Street				
ITEM #	QUANTITY	ITEM WITH UNIT BID PRICE WRITTEN IN WORDS	UNIT PRICE	AMOUNT
101.	0.1	CLEARING AND GRUBBING AT _____ PER ACRE		
102.1	120	TREE TRIMMING AT _____ PER FOOT		
103.	16	TREE REMOVED - DIAMETER UNDER 24 INCHES AT _____ EACH		
105.	2	STUMP REMOVED AT _____ EACH		
120.1	8,000	UNCLASSIFIED EXCAVATION AT _____ PER CUBIC YARD		
129.5	1,000	TRACK EXCAVATION AT _____ PER FOOT		
141.	75	CLASS A TRENCH EXCAVATION AT _____ PER CUBIC YARD		
141.1	315	TEST PIT FOR EXPLORATION AT _____ PER CUBIC YARD		
142.	550	CLASS B TRENCH EXCAVATION AT _____ PER CUBIC YARD		

Project # 608778		Contract # 130744		
Location : SOUTHBRIDGE				
Description : Intersection Improvements at Central Street, Foster Street, Hook Street and Hamilton Street				
ITEM #	QUANTITY	ITEM WITH UNIT BID PRICE WRITTEN IN WORDS	UNIT PRICE	AMOUNT
144.	1,960	CLASS B ROCK EXCAVATION AT _____ PER CUBIC YARD		
146.	13	DRAINAGE STRUCTURE REMOVED AT _____ EACH		
150.	200	ORDINARY BORROW AT _____ PER CUBIC YARD		
151.	5,400	GRAVEL BORROW AT _____ PER CUBIC YARD		
151.01	2,100	GRAVEL BORROW - TYPE C AT _____ PER CUBIC YARD		
153.	180	CONTROLLED DENSITY FILL - EXCAVATABLE AT _____ PER CUBIC YARD		
154.	1,200	SAND BORROW AT _____ PER CUBIC YARD		
156.	50	CRUSHED STONE AT _____ PER TON		
170.	18,700	FINE GRADING AND COMPACTING - SUBGRADE AREA AT _____ PER SQUARE YARD		

Project # 608778		Contract # 130744		
Location : SOUTHBIDGE				
Description : Intersection Improvements at Central Street, Foster Street, Hook Street and Hamilton Street				
ITEM #	QUANTITY	ITEM WITH UNIT BID PRICE WRITTEN IN WORDS	UNIT PRICE	AMOUNT
180.01	1	ENVIRONMENTAL HEALTH AND SAFETY PROGRAM AT _____ LUMP SUM		
180.02	40	PERSONAL PROTECTION LEVEL C UPGRADE AT _____ PER HOUR		
180.03	80	LICENSED SITE PROFESSIONAL SERVICES AT _____ PER HOUR		
181.11	3,895	DISPOSAL OF UNREGULATED SOIL AT _____ PER TON		
181.12	1,625	DISPOSAL OF REGULATED SOIL - IN-STATE FACILITY AT _____ PER TON		
181.13	650	DISPOSAL OF REGULATED SOIL - OUT-OF-STATE FACILITY AT _____ PER TON		
181.14	325	DISPOSAL OF HAZARDOUS WASTE AT _____ PER TON		
184.1	73	DISPOSAL OF TREATED WOOD PRODUCTS AT _____ PER TON		
201.	21	CATCH BASIN AT _____ EACH		

Project # 608778		Contract # 130744		
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Description : Intersection Improvements at Central Street, Foster Street, Hook Street and Hamilton Street				
ITEM #	QUANTITY	ITEM WITH UNIT BID PRICE WRITTEN IN WORDS	UNIT PRICE	AMOUNT
201.2	6	DOUBLE CATCH BASIN AT _____ EACH		
201.3	1	SPECIAL CATCH BASIN AT _____ EACH		
202.	12	MANHOLE AT _____ EACH		
203.	1	SPECIAL MANHOLE AT _____ EACH		
204.	5	GUTTER INLET AT _____ EACH		
220.	70	DRAINAGE STRUCTURE ADJUSTED AT _____ EACH		
220.2	10	DRAINAGE STRUCTURE REBUILT AT _____ PER FOOT		
220.3	4	DRAINAGE STRUCTURE CHANGE IN TYPE AT _____ EACH		
220.5	4	DRAINAGE STRUCTURE REMODELED AT _____ EACH		

Project # 608778		Contract # 130744		
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Description : Intersection Improvements at Central Street, Foster Street, Hook Street and Hamilton Street				
ITEM #	QUANTITY	ITEM WITH UNIT BID PRICE WRITTEN IN WORDS	UNIT PRICE	AMOUNT
220.7	7	SANITARY STRUCTURE ADJUSTED AT _____ EACH		
220.8	8	SANITARY STRUCTURE REMODELED AT _____ EACH		
222.3	49	FRAME AND GRATE (OR COVER) MUNICIPAL STANDARD AT _____ EACH		
222.31	6	FRAME AND GRATE - DOUBLE AT _____ EACH		
223.1	9	FRAME AND GRATE (OR COVER) REMOVED AND STACKED AT _____ EACH		
223.2	13	FRAME AND GRATE (OR COVER) REMOVED AND DISCARDED AT _____ EACH		
224.12	28	12 INCH HOOD AT _____ EACH		
227.3	10	REMOVAL OF DRAINAGE STRUCTURE SEDIMENT AT _____ PER CUBIC YARD		
227.31	1,000	REMOVAL OF DRAINAGE PIPE SEDIMENT AT _____ PER FOOT		

Project # 608778		Contract # 130744		
Location : SOUTHBIDGE				
Description : Intersection Improvements at Central Street, Foster Street, Hook Street and Hamilton Street				
ITEM #	QUANTITY	ITEM WITH UNIT BID PRICE WRITTEN IN WORDS	UNIT PRICE	AMOUNT
238.10	10	10 INCH DUCTILE IRON PIPE AT _____ PER FOOT		
238.12	330	12 INCH DUCTILE IRON PIPE AT _____ PER FOOT		
241.12	450	12 INCH REINFORCED CONCRETE PIPE CLASS III AT _____ PER FOOT		
241.15	180	15 INCH REINFORCED CONCRETE PIPE CLASS III AT _____ PER FOOT		
243.12	300	12 INCH REINFORCED CONCRETE PIPE CLASS IV AT _____ PER FOOT		
243.15	230	15 INCH REINFORCED CONCRETE PIPE CLASS IV AT _____ PER FOOT		
244.12	50	12 INCH REINFORCED CONCRETE PIPE CLASS V AT _____ PER FOOT		
244.24	110	24 INCH REINFORCED CONCRETE PIPE CLASS V AT _____ PER FOOT		
303.06	175	6 INCH DUCTILE IRON WATER PIPE (MECHANICAL JOINT) AT _____ PER FOOT		

Project # 608778		Contract # 130744		
Location : SOUTHBRIDGE				
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ITEM #	QUANTITY	ITEM WITH UNIT BID PRICE WRITTEN IN WORDS	UNIT PRICE	AMOUNT
303.08	950	8 INCH DUCTILE IRON WATER PIPE (MECHANICAL JOINT) AT _____ PER FOOT		
303.12	2,620	12 INCH DUCTILE IRON WATER PIPE (MECHANICAL JOINT) AT _____ PER FOOT		
309.	9,500	DUCTILE IRON FITTINGS FOR WATER PIPE AT _____ PER POUND		
347.2	1,125	2 INCH COPPER TUBING TYPE K AT _____ PER FOOT		
350.06	9	6 INCH GATE AND GATE BOX AT _____ EACH		
350.08	8	8 INCH GATE AND GATE BOX AT _____ EACH		
350.12	11	12 INCH GATE AND GATE BOX AT _____ EACH		
358.	40	GATE BOX ADJUSTED AT _____ EACH		
363.2	46	2 INCH CORPORATION COCK AT _____ EACH		

Project # 608778		Contract # 130744		
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ITEM #	QUANTITY	ITEM WITH UNIT BID PRICE WRITTEN IN WORDS	UNIT PRICE	AMOUNT
375.12	4	12 INCH INSERTION VALVE AND BOX AT _____ EACH		
376.1	8	HYDRANT - EXCLUDING COST OF HYDRANT AT _____ EACH		
376.3	6	HYDRANT - REMOVED AND STACKED AT _____ EACH		
381.	45	SERVICE BOX AT _____ EACH		
384.	45	CURB STOP AT _____ EACH		
402.	1,000	DENSE GRADED CRUSHED STONE FOR SUB-BASE AT _____ PER CUBIC YARD		
415.2	350	PAVEMENT FINE MILLING AT _____ PER SQUARE YARD		
415.4	19	BRIDGE PAVEMENT MILLING AT _____ PER SQUARE YARD		
440.	26,000	CALCIUM CHLORIDE FOR ROADWAY DUST CONTROL AT _____ PER POUND		

Project # 608778		Contract # 130744		
Location : SOUTHBRIDGE				
Description : Intersection Improvements at Central Street, Foster Street, Hook Street and Hamilton Street				
ITEM #	QUANTITY	ITEM WITH UNIT BID PRICE WRITTEN IN WORDS	UNIT PRICE	AMOUNT
443.	20	WATER FOR ROADWAY DUST CONTROL AT _____ PER 1000 GALLONS		
450.22	920	SUPERPAVE SURFACE COURSE – 9.5 (SSC – 9.5) AT _____ PER TON		
450.31	1,150	SUPERPAVE INTERMEDIATE COURSE - 12.5 (SIC -12.5) AT _____ PER TON		
450.42	2,000	SUPERPAVE BASE COURSE - 37.5 (SBC - 37.5) AT _____ PER TON		
451.	1,150	HMA FOR PATCHING AT _____ PER TON		
452.	950	ASPHALT EMULSION FOR TACK COAT AT _____ PER GALLON		
453.	2,000	HMA JOINT ADHESIVE AT _____ PER FOOT		
472.	600	ASPHALT MIXTURES FOR TEMPORARY WORK AT _____ PER TON		
506.	2,800	GRANITE CURB TYPE VB - STRAIGHT AT _____ PER FOOT		

Project # 608778		Contract # 130744		
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ITEM #	QUANTITY	ITEM WITH UNIT BID PRICE WRITTEN IN WORDS	UNIT PRICE	AMOUNT
506.1	1,800	GRANITE CURB TYPE VB - CURVED AT _____ PER FOOT		
507.05	130	GRANITE CURB TYPE T-100 - STRAIGHT AT _____ PER FOOT		
507.15	360	GRANITE CURB TYPE T-100 - CURVED AT _____ PER FOOT		
509.	600	GRANITE TRANSITION CURB FOR PEDESTRIAN CURB RAMPS - STRAIGHT AT _____ PER FOOT		
509.1	300	GRANITE TRANSITION CURB FOR PEDESTRIAN CURB RAMPS - CURVED AT _____ PER FOOT		
514.	20	GRANITE CURB INLET - STRAIGHT AT _____ EACH		
516.	35	GRANITE CURB CORNER TYPE A AT _____ EACH		
580.	1,050	CURB REMOVED AND RESET AT _____ PER FOOT		
582.	2	CURB CORNER REMOVED AND RESET AT _____ EACH		

Project # 608778		Contract # 130744		
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ITEM #	QUANTITY	ITEM WITH UNIT BID PRICE WRITTEN IN WORDS	UNIT PRICE	AMOUNT
594.	220	CURB REMOVED AND DISCARDED AT _____ PER FOOT		
645.172	30	72 INCH CHAIN LINK FENCE (PIPE TOP RAIL) VINYL COATED (LINE POST OPTION) AT _____ PER FOOT		
652.072	1	72 INCH CHAIN LINK FENCE END POST AT _____ EACH		
669.	340	FENCE REMOVED AND STACKED AT _____ PER FOOT		
690.	15	STONE MASONRY WALL REMOVED AND REBUILT IN CEMENT MORTAR AT _____ PER CUBIC YARD		
697.1	41	SILT SACK AT _____ EACH		
701.	2,360	CEMENT CONCRETE SIDEWALK AT _____ PER SQUARE YARD		
701.1	930	CEMENT CONCRETE SIDEWALK AT DRIVEWAYS AT _____ PER SQUARE YARD		
701.2	525	CEMENT CONCRETE PEDESTRIAN CURB RAMP AT _____ PER SQUARE YARD		

Project # 608778		Contract # 130744		
Location : SOUTHBRIDGE				
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ITEM #	QUANTITY	ITEM WITH UNIT BID PRICE WRITTEN IN WORDS	UNIT PRICE	AMOUNT
701.24	480	STAMPED CEMENT CONCRETE PAVEMENT AT _____ PER SQUARE YARD		
702.	1,080	HOT MIX ASPHALT SIDEWALK OR DRIVEWAY AT _____ PER TON		
706.7	800	TEXTURIZED PAVEMENT AT _____ PER SQUARE YARD		
707.1	4	PARK BENCH AT _____ EACH		
714.	1	MONUMENT REMOVED AND RESET AT _____ EACH		
718.01	1	FLAGPOLE REMOVE AND STACK AT _____ EACH		
722.3	1	SCHEDULE OF OPERATIONS (TYPE C) - FIXED PRICE \$58500 AT Fifty Eight Thousand Five Hundred Dollars LUMP SUM	\$58,500.00	\$58,500.00
740.	40	ENGINEERS FIELD OFFICE AND EQUIPMENT (TYPE A) AT _____ PER MONTH		
748.	1	MOBILIZATION AT _____ LUMP SUM		

Project # 608778		Contract # 130744		
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ITEM #	QUANTITY	ITEM WITH UNIT BID PRICE WRITTEN IN WORDS	UNIT PRICE	AMOUNT
751.	490	LOAM BORROW AT _____ PER CUBIC YARD		
756.	1	NPDES STORMWATER POLLUTION PREVENTION PLAN AT _____ LUMP SUM		
765.	3,500	SEEDING AT _____ PER SQUARE YARD		
767.6	5	AGED PINE BARK MULCH AT _____ PER CUBIC YARD		
767.9	75	JUTE MESH AT _____ PER SQUARE YARD		
775.140	11	LINDEN - AMERICAN 2-2.5 INCH CALIPER AT _____ EACH		
776.543	8	MAPLE - RED - OCTOBER GLORY 2-2.5 INCH CALIPER AT _____ EACH		
777.137	7	OAK - PIN 1.5-2 INCH CALIPER AT _____ EACH		
778.161	2	BIRCH - RIVER HERITAGE 6-8 FOOT CLUMP AT _____ EACH		

Project # 608778		Contract # 130744		
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ITEM #	QUANTITY	ITEM WITH UNIT BID PRICE WRITTEN IN WORDS	UNIT PRICE	AMOUNT
781.263	3	HAWTHORN - WINTER KING 1.5-2 INCH CALIPER AT _____ EACH		
783.465	2	TUPELO 1.5-2 INCH CALIPER AT _____ EACH		
786.100	54	JUNIPER - BAR HARBOR 1.5-2 FEET SPREAD AT _____ EACH		
786.700	26	CHOKEBERRY-IROQUOIS BEAUTY 1.5-2 FEET AT _____ EACH		
794.329	104	SUMAC SHRUB - FRAGRANT-GRO-LOW 1.5-2 FEET AT _____ EACH		
794.803	24	SWEETFERN #1 AT _____ EACH		
796.455	56	SWITCH GRASS 1 GALLON AT _____ EACH		
796.500	81	PURPLE LOVEGRASS 1 GALLON AT _____ EACH		
796.770	57	BUTTERFLY MILKWEED 1 GALLON AT _____ EACH		

Project # 608778		Contract # 130744		
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ITEM #	QUANTITY	ITEM WITH UNIT BID PRICE WRITTEN IN WORDS	UNIT PRICE	AMOUNT
796.775	17	GRAY GOLDENROD 1 GALLON AT _____ EACH		
796.923	52	GOLDSTURM BLACK-EYED SUSAN 1 GALLON AT _____ EACH		
804.3	560	3 INCH ELECTRICAL CONDUIT TYPE NM - PLASTIC -(UL) AT _____ PER FOOT		
811.22	7	ELECTRIC HANDHOLE - SD2.022 AT _____ EACH		
811.31	2	PULL BOX 12 X 12 INCHES - SD2.031 AT _____ EACH		
813.811	1	SERVICE CONNECTION (OVERHEAD) (TRAFFIC CONTROL SIGNAL LOCATION 1) AT _____ LUMP SUM		
815.1	1	TRAFFIC CONTROL SIGNAL LOCATION NO. 1 AT _____ LUMP SUM		
823.70	2	HIGHWAY LIGHTING POLE AND LUMINAIRE REMOVED AND RESET AT _____ EACH		
823.701	3	HIGHWAY LIGHTING POLE AND LUMINAIRE REMOVED AND RESET ON NEW FOUNDATION AT _____ EACH		

Project # 608778		Contract # 130744		
Location : SOUTHBRIDGE				
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ITEM #	QUANTITY	ITEM WITH UNIT BID PRICE WRITTEN IN WORDS	UNIT PRICE	AMOUNT
828.099	6	OVERHEAD RAILROAD CROSSING SIGNAL REMOVED AT _____ EACH		
832.	425	WARNING-REGULATORY AND ROUTE MARKER - ALUMINUM PANEL (TYPE A) AT _____ PER SQUARE FOOT		
847.1	75	SIGN SUP (N/GUIDE)+RTE MKR W/1 BRKWAY POST ASSEMBLY - STEEL AT _____ EACH		
850.41	250	ROADWAY FLAGGER AT _____ PER HOUR		
852.	1,600	SAFETY SIGNING FOR TRAFFIC MANAGEMENT AT _____ PER SQUARE FOOT		
852.11	500	TEMPORARY PEDESTRIAN BARRIER AT _____ PER FOOT		
852.12	6	TEMPORARY PEDESTRIAN CURB RAMP AT _____ EACH		
853.1	10	PORTABLE BREAKAWAY BARRICADE TYPE III AT _____ EACH		
853.8	4	TEMPORARY ILLUMINATION FOR WORK ZONE AT _____ PER DAY		

Project # 608778		Contract # 130744		
Location : SOUTHBIDGE				
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ITEM #	QUANTITY	ITEM WITH UNIT BID PRICE WRITTEN IN WORDS	UNIT PRICE	AMOUNT
854.016	2,000	TEMPORARY PAVING MARKINGS - 6 INCH (PAINTED) AT _____ PER FOOT		
854.036	2,000	TEMPORARY PAVING MARKINGS - 6 INCH (TAPE) AT _____ PER FOOT		
854.1	2,100	PAVEMENT MARKING REMOVAL AT _____ PER SQUARE FOOT		
854.6	30	TEMPORARY PORTABLE RUMBLE STRIP AT _____ PER DAY		
856.	1,800	ARROW BOARD AT _____ PER DAY		
856.12	112	PORTABLE CHANGEABLE MESSAGE SIGN AT _____ PER DAY		
859.	258,000	REFLECTORIZED DRUM AT _____ PER DAY		
859.1	24	REFLECTORIZED DRUMS WITH SEQUENTIAL FLASHING WARNING LIGHTS AT _____ PER DAY		
860.104	2,000	4 INCH REFLECTORIZED WHITE LINE (PAINTED) AT _____ PER FOOT		

Project # 608778		Contract # 130744		
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ITEM #	QUANTITY	ITEM WITH UNIT BID PRICE WRITTEN IN WORDS	UNIT PRICE	AMOUNT
864.03	6	PAVEMENT LEGENDS REFLECTORIZED PREFORMED THERMOPLASTIC RAISED CROSSWALK MARKING AT _____ EACH		
864.031	6	PAVEMENT LEGENDS REFLECTORIZED PREFORMED THERMOPLASTIC BIKE LANE RIDER AT _____ EACH		
864.032	6	PAVEMENT LEGENDS REFLECTORIZED PREFORMED THERMOPLASTIC BIKE LANE ARROW AT _____ EACH		
864.033	6	PAVEMENT LEGENDS REFLECTORIZED PREFORMED THERMOPLASTIC BIKE RIDER AT STOP LINE AT _____ EACH		
864.035	16	PAVEMENT LEGENDS REFLECTORIZED PREFORMED YIELD TRIANGLE AT _____ EACH		
864.036	4	PAVEMENT LEGENDS REFLECTORIZED PREFORMED THERMOPLASTIC ACCESSIBLE PARKING AT _____ EACH		
864.04	200	PAVEMENT ARROWS AND LEGENDS REFLECTORIZED WHITE (THERMOPLASTIC) AT _____ PER SQUARE FOOT		
866.106	1,600	6 INCH REFLECTORIZED WHITE LINE (THERMOPLASTIC) AT _____ PER FOOT		
866.112	220	12 INCH REFLECTORIZED WHITE LINE (THERMOPLASTIC) AT _____ PER FOOT		

Project # 608778		Contract # 130744		
Location : SOUTHBRIDGE				
Description : Intersection Improvements at Central Street, Foster Street, Hook Street and Hamilton Street				
ITEM #	QUANTITY	ITEM WITH UNIT BID PRICE WRITTEN IN WORDS	UNIT PRICE	AMOUNT
866.124	950	24 INCH REFLECTORIZED WHITE LINE (THERMOPLASTIC) AT _____ PER FOOT		
867.106	4,000	6 INCH REFLECTORIZED YELLOW LINE (THERMOPLASTIC) AT _____ PER FOOT		
867.112	30	12 INCH REFLECTORIZED YELLOW LINE (THERMOPLASTIC) AT _____ PER FOOT		
867.208	80	8 INCH REFLECTORIZED YELLOW LINE (THERMOPLASTIC) AT _____ PER FOOT		
874.	28	STREET NAME SIGN AT _____ EACH		
874.2	5	TRAFFIC SIGN REMOVED AND RESET AT _____ EACH		
874.4	40	TRAFFIC SIGN REMOVED AND STACKED AT _____ EACH		
885.1	2	BILLBOARD REMOVED AND DISCARDED AT _____ EACH		
Total Qty: 397,504.1				

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