CITY OF QUINCY, MASSACHUSETTS

LEAD SERVICE LINE REPLACEMENTS

ADDENDUM NO. 1

To be considered as part of the contract drawings and specifications for the Quincy Lead Service Line Replacements. Bidders are advised that this Addendum must be acknowledged in the appropriate space provided on the Form of General Bid.

SPECIFICATIONS

SECTION 00300 – FORM OF GENERAL BID

1. DELETE SECTION 00300 in its entirety and REPLACE with the SECTION 00300 attached.

SECTION 00500 – AGREEMENT

1. Page 00500-1, DELETE paragraph 3.1 and REPLACE with the following paragraph:

   “3.1 The contract completion date shall be September 30, 2017. The Contractor shall commence work on the date indicated in the Notice to Proceed. No site work shall be allowed between Thanksgiving and March 15, without permission, in writing, from the City.”

SECTION 00890 – PERMITS

1. Insert the attached “DCR Construction / Access Permit” (21 pages) immediately after page 00890-2.

SECTION 01014 – Scope and Sequence of Work

1. Page 01014-1, ADD paragraph 1.01 D:

   “D. It is the design intent that all of the water services included in this contract shall be replaced with trenchless construction methods. If it is in the opinion of the Contractor that trenchless service replacement is not feasible for a particular address, the Engineer shall be notified immediately. Once approval is received, in writing, from the Engineer, the Contractor may replace the service via open trench methods.”

2. Page 01014-1, ADD paragraph 1.01 E:

   “E. The City will hold an informational meeting with residents participating in the program. A representative from the Contractor is expected to attend this meeting.”
3. Page 01014-3, DELETE paragraph 3.02A and REPLACE with the following paragraph:

“A. The Contractor shall conduct all construction activity relating to water service replacements between 7:00 a.m. and 5:00 p.m., Monday through Saturday, unless otherwise specified or required by permit. No construction work shall be allowed on Sundays or Holidays without written authorization from the Owner. No claim for additional payment shall be permitted if the Contractor is authorized to work on Sundays, or Holidays.”

4. Page 01014-5, DELETE paragraph 3.04E and REPLACE with the following paragraph:

“E. The Contractor shall make at least four (4) additional attempts to request that water customers call the Contractor for an appointment. The attempts shall be in the form of an additional letter with certified mail return receipt and electronic verification that the letter was delivered, two (2) phone calls (one phone call during normal business hours and one phone call at night, between the hours of 5:00 PM and 8:00 PM), and one attempt at door-to-door canvassing. The Contractor is to document ALL of its attempts to complete the service replacements. All appointments for service replacements and all call-backs are the Contractor’s responsibility and no claim for additional payment shall be allowed.”

SECTION 01270 – MEASUREMENT AND PAYMENT

1. DELETE SECTION 01270 in its entirety and REPLACE with the SECTION 01270 attached.

SECTION 02515 – SERVICE CONNECTIONS

1. DELETE SECTION 02515 in its entirety and REPLACE with the SECTION 02515 attached.

SECTION 02745 – PAVING

1. DELETE SECTION 02745 in its entirety and REPLACE with the SECTION 02745 attached.

SECTION 15408 – PLUMBING

1. Page 15408-1, DELETE paragraph 1.01B and REPLACE with the following paragraph:

“B. Unless otherwise stated, the Contractor will be responsible for pulling the existing water meter, reinstalling the water meter, and reattaching the radio module or MIU to the meter register, if required during water service replacement work. If the affected water meter cannot be properly read by the City’s meter reading system, the Contractor shall be responsible for troubleshooting the meter and radio module at no cost to the Owner.”
CONTRACT DRAWINGS

1. DELETE Sheet D-1 and replace it with the attached Sheet D-1, STANDARD DETAILS.
2. DELETE Sheet D-2 and replace it with the attached Sheet D-2, CONSTRUCTION ZONE SAFETY PLAN.

QUESTIONS AND ANSWERS

1. QUESTION: Will the City allow a blanket trench permit and road opening permit for the whole job? Will the City waive the fee or fees associated with these permits?
   
   ANSWER: The City will issue a blanket trench permit and a blanket road opening permit for the project. All fees associated with the trench permits and road opening permits will be waived.

2. QUESTION: Will the City require CORI, SORI, and background checks?
   
   ANSWER: Yes. Contractor personnel and identification requirements are described in Section 01014, SCOPE AND SEQUENCE OF WORK.

3. QUESTION: Most of the addresses on the list will involve work on private property and inside homes. Many of these homes will have finished basements. How much of the interior private property will need to restored?
   
   ANSWER: Private property shall be returned to preconstruction conditions after water service installation is complete. As stated in Section 01014, SCOPE AND SEQUENCE OF WORK, the Contractor and Owner shall visit each home to assess and document the existing conditions of the interior of the property. The Owner will work with the Contractor to help coordinate private property restoration.

4. QUESTION: Will there be any work in roads under MassDOT jurisdiction?
   
   ANSWER: No work will be performed in MassDOT roadways. Work will be performed in roadways under DCR jurisdiction and in close proximity to MWRA water and waste water lines and within buffer zones to wetlands. See Section 00890, Permits for more information.

5. QUESTION: Will the City allow multiple crews?
   
   ANSWER: Yes, the City will allow up to eight (8) crews to be working in the city at one time. All construction shall be coordinated between the Owner and the Engineer as the Engineer will need to track quantities for pay items. The Contractor will not be allowed to install 130 services and then return to restore private property. The repair and restoration of private property shall occur in conjunction with service installations.

6. QUESTION: Will the City provide a staging area?
   
   ANSWER: No.
7. QUESTION: Will the City allow equipment to be left in the street overnight?

ANSWER: Yes, depending on the street. Overnight parking of equipment will be allowed only on streets approved by the Owner. Equipment will not be allowed overnight on major throughways and DCR roadways.

8. QUESTION: Who will be responsible for pulling the water meter prior to replacing the water service and reinstalling the water meter and MIU wiring after the water service installation is complete? If the City is responsible, will the City provide a dedicated crew to perform this work?

ANSWER: See the revised Specification Sections 02515 and 15408 attached to this addendum for water meter removal and reinstallation requirements.

9. QUESTION: Replacing the water service could create leaks in the existing older plumbing. Who will be responsible for fixing these leaks? How will the Contractor be compensated for this work? Will licensed plumber be required to repair these leaks?

ANSWER: As per paragraph 3.04 of the attached revised Specification Section 02515, the Contractor shall be responsible for repairing all leaks that occur after the water service replacement at no cost to the Owner. A licensed plumber will be required for all work occurring downstream of the water meter.

10. QUESTION: Can the addresses listed as the City’s LCR sample sites be replaced prior to the September 1, 2017 date listed in the specifications?

ANSWER: The City currently needs to perform LCR sampling two times per year, with the last sampling period occurring by September 12, 2017. The City will look into the feasibility of replacing these water services prior to September 1, 2017.

11. QUESTION: Will Contractors be allowed to pull water services?

ANSWER: Yes. Pulling water services as a replacement method was the basis of design for the project.

12. QUESTION: Will the plumber need to be paid at prevailing wage rates?

ANSWER: Yes.

13. QUESTION: Will separate plumbing permits need to be pulled for each address?

ANSWER: Separate plumbing permits will need to be pulled for each address that requires work on the downstream side of the water meter.

14. QUESTION: Can the contractor connect the new 1" copper line to the meter themselves or does a plumber need to do the connection?

ANSWER: The Contractor can connect the new 1" copper line to the meter.

15. QUESTION: Is the plumber only needed when there is an issue beyond the meter?
ANSWER: Yes.

16. QUESTION: The item 10b interior restoration does not specify how the contractor gets compensated for the material to repair the interior of the house. How does the contractor get compensated for the material? (lumber, drywall, tile, center, etc.)

ANSWER: As stated in Specification Section 01270, the unit price for item 10b Interior Repair and Restoration of Private Property shall include all labor and materials required to return the building interior and foundation to preconstruction conditions.

17. QUESTION: Have the residents/homeowners of the addresses on the list in Appendix B agreed to participating in the program?

ANSWER: Prior to participating in the program, all homeowners/residents will need to sign a Right of Entry (ROE) form. As of the pre-bid meeting, the City had obtained 120 signed ROEs and will be reaching out to the remaining addresses. The City has also continued to review its records to potentially include additional addresses on the service replacement list.

18. QUESTION: What happens if the Contractor gives 24-hours’ notice to the customer but no one is home when he arrives to replace the water service?

ANSWER: The Contractor will be required to schedule appointments with all homeowner’s prior to replacing the water service and is also required to survey the interior of the home prior to replacing the water service. Appointment scheduling, customer notification requirements, and information tracking expectations for this project are outlined in Section 01014, Scope and Sequence of Work. The City will work the Contractor so that he can work at addresses clusters in similar geographic areas.

19. QUESTION: In section 02515-4, 3.01 J, it appears that services are intended to be pulled. If pulling the services cannot be achieved, how will the contractor be compensated for the time lost waiting for direction from the engineer? Also, how will the contractor be compensated for the additional work it takes to open cut a service instead of pulling it? Could you please clarify?

ANSWER: The Contractor shall be compensated through the bid items for all water services installed via either trenchless or open cut method and for all completed work.

20. QUESTION: The bid form includes 7,200 LF of 1" copper, and only 800 LF of trench pavement. Is this correct? 63 of the services include work in the roadway and Pavement is not included in the 1" copper tubing item.

ANSWER: The quantities are correct. See the answer for Question #11 for additional information regarding the basis for bid quantities.
21. QUESTION: Can you also clarify under which item the interior/meter related brass parts are paid?

ANSWER: As stated in Section 01270, these items are included for payment under Item 2a.

ATTACHMENTS

- Section 00300 – Form of General Bid 15 Pages
- Section 00890 – DCR Construction / Access Permit 21 Pages
- Section 01270 – Measurement and Payment 10 Pages
- Section 02515 – Service Connections 6 Pages
- Section 02745 – Paving 8 Pages
- Sheet D-1 – Standard Details 1 Page
- Sheet D-2 – Construction Zone Safety Plan 1 Page
- Pre-Bid Meeting Sign In Sheet 1 Page

END OF ADDENDUM NO. 1
Proposal of ________________________________ (hereinafter called "Bidder")*

( ) a corporation, organized and existing under the laws of the State of ____________

( ) a partnership

( ) a joint venture

( ) a limited liability company

( ) an individual doing business as _________________________

*Insert corporation, partnership, joint venture, LLC or individual as applicable.

To the ___________________________ (hereinafter called "Owner").

Gentlemen:

The undersigned Bidder, in compliance with your invitation for bids for construction of the Lead Service Line Replacements, having examined the plans and specifications with related documents and the site of the proposed work, and being familiar with all of the conditions surrounding the construction of the proposed project including the availability of materials and labor, hereby proposes to furnish all superintendence, labor, services, materials, equipment, plant, machinery, apparatus, appliances, tools, supplies, bailing, shoring, removal, and all other things necessary to construct the project in accordance with the contract documents, as prepared by Weston & Sampson Engineers, Inc., within the time set forth below, and at the prices stated below. These prices are to cover all expenses incurred in performing the work required under the contract documents, of which this bid is a part.

The Bidder hereby agrees that if selected as the Contractor it will commence work under this contract on or before a date to be fixed in the written “Notice to Proceed” given by the Owner to the Contractor and to fully complete the project by September 30, 2017. The Bidder further agrees to pay as liquidated damages the sum of $1,000.00 for each consecutive calendar
day thereafter during which the work has not been fully completed, as provided in the “Liquidated Damages” provisions of Section 00800 SUPPLEMENTARY CONDITIONS.

Bidder acknowledges receipt of the following addenda:

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The Bidder agrees to perform the work described in the specifications and shown on the plans for the following lump sum or unit prices:

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Estimated Quantity*</th>
<th>Brief Description Unit or Lump Sum Price Bid in Both Words and Figures</th>
<th>Total in Figures</th>
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<tr>
<td>1</td>
<td>General:</td>
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<td>1a</td>
<td>Lump Sum</td>
<td>Mobilization &amp; Demobilization (not to exceed 5% total of items 2-11), lump sum</td>
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<td>2</td>
<td>Service Connections:</td>
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<td>2a</td>
<td>7,200 l.f.</td>
<td>1-inch copper piping, per linear foot</td>
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<td>2b</td>
<td>20 units</td>
<td>1-inch corporation stops, per unit</td>
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*Quantity assumed for comparison of bids.
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<th>Total in Figures</th>
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<td>80 units</td>
<td>1-inch curb stops, per unit</td>
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<td>Curb box, per unit</td>
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<td><strong>Service Material Exploration Excavation:</strong></td>
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<td>3a</td>
<td>50 Excavations</td>
<td>Service material exploration excavation, per excavation</td>
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<td><strong>Test Pits:</strong></td>
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<td>4a</td>
<td>50 cu. yd.</td>
<td>Test pits, per cubic yard</td>
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<th>Bid in Both Words and Figures</th>
<th>Total in Figures</th>
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<td>Sewer and Drain Reconstruction:</td>
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<td>5</td>
<td>Sewer and drain reconstruction within water trench limits, per reconstruction</td>
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<td>6</td>
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<td>Rock Excavation and Disposal:</td>
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<td>6a</td>
<td>100 cu. yd.</td>
<td>Rock excavation and disposal, per cubic yard</td>
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<td>50 cu. yd.</td>
<td>Unsuitable material above normal grade, per cubic yard</td>
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<td>7b</td>
<td>25 cu. yd.</td>
<td>Unsuitable material below normal grade, per cubic yard</td>
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<th>Total in Figures</th>
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<td>7c</td>
<td>25 cu. yd.</td>
<td>Additional earthwork below normal grade, per cubic yard</td>
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<td>8</td>
<td>50 cu. yd.</td>
<td>Controlled Density Fill, per cubic yard</td>
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<td>800 l.f.</td>
<td>Trench Pavement, per linear foot</td>
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<td>10</td>
<td>100 Locations</td>
<td>Exterior repair and restoration of private property, per location</td>
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*Quantity assumed for comparison of bids.  
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<td>On-Call Licensed Plumber:</td>
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<td>11a</td>
<td>300 hours</td>
<td>On-call licensed plumber, per hour</td>
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<td>1,500 hours</td>
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TOTAL OF BID

The proposed contract price for all Items 1 through 12 inclusive is:

__________________________________________________________________________ Dollars

and __________________________________ Cents ($ _____________________________).

All entries shall be made clearly in ink or typewritten. Amounts are to be shown in both words and figures. In case of discrepancy between the prices written in words and those written in figures, the amount shown in words shall govern. In the event there is a discrepancy between the unit prices and the total sum of all of the items (the proposed contract price), the unit prices shall govern.

*Quantity assumed for comparison of bids.
The above unit prices shall include all labor, materials, bailing, shoring, removal, overhead, profit, insurance, etc., to cover the finished work of the several kinds called for.

The Bidder understands that all bids for this project are subject to the applicable bidding laws of the Commonwealth of Massachusetts, including General Laws Chapter 30, Section 39M, as amended.

The contract will be awarded to the lowest eligible and responsible bidder.

The Bidder understands that the Owner reserves the right to reject any or all bids and to waive any informalities in the bidding.

The Bidder agrees that this bid shall be good and may not be withdrawn for a period of 60 days, Saturdays, Sundays and legal holidays excluded, after the opening of bids.

Within 10 days of receipt of the written notice of acceptance of this bid, the Bidder will execute the formal agreement attached in Section 00500 AGREEMENT.

Bid security is attached in the sum of five percent (5%) of the total bid in accordance with the conditions of Section 00200 INSTRUCTIONS TO BIDDERS. The bid security may become the property of the Owner in the event the contract and bond are not executed within the time set forth above.

The selected Contractor shall furnish a performance bond and a payment bond in an amount at least equal to one hundred percent (100%) of the contract prices in accordance with Section 00540 PERFORMANCE BOND, Section 00542 PAYMENT BOND, and as stipulated in paragraph 5.01 of Section 00700 GENERAL CONDITIONS of these specifications.

Pay estimate forms and record keeping of pay item quantities shall be as discussed in Section 01270, MEASUREMENT AND PAYMENT.

*Quantity assumed for comparison of bids.
BID FORM

The Bidder hereby certifies that he is able to furnish labor that can work in harmony with all other elements of labor employed or to be employed on the work and that he will comply fully with all laws and regulations applicable to awards made in the Commonwealth of Massachusetts.

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

Interest of Officers and Employees of the City of Quincy or Members of the City Council or Other Public Officials: No officer, member or employee of the City of Quincy or its designees or agents, and no member of its governing body, and no other public official of the governing body of the locality or localities in which the project is situated or being carried out, who exercises any functions or responsibilities in the review or approval or the undertaking or carrying out of this project, shall participate in any decisions relating to this Contract, which affects his personal interest or the interest of any corporation, partnership, or association in which he is directly or indirectly interested or have any personal or pecuniary interest, direct or indirect, in this contract or the proceeds thereof.

The undersigned, as Bidder, declares that he has carefully examined the proposed form and has fully informed and satisfied himself as to the existing conditions, the character and requirements of the proposed work, the difficulties attendant upon its execution; and the accuracy of all estimated quantities stated in this bid and that he has carefully read and examined the form of contract, the standard specifications and plans therein referred to, and he proposes and agrees, if this proposal is accepted, that he will contract with the Party of the First Part to provide all necessary labor, equipment, tools, apparatus and other means of construction and to do all the work and furnish all the materials specified in the contract in the manner and time therein prescribed and according to the requirements of the City of Quincy as therein set forth and that he will take the payment therefore, the prices stated in the Bid.

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

*Quantity assumed for comparison of bids.

00300-8
The undersigned, as Bidder, understands that the quantities of work tabulated in this bid or indicated on the drawings or in the specifications or other contract documents are only approximate and are subject to increase or decrease, as deemed necessary by the Engineer.

The undersigned, as Bidder, agrees that for extra work, if any, performed in accordance with the terms and provisions of the annexed form of Agreement, he will accept compensation as stipulated therein as full payment for such extra work.

If this proposal shall be accepted and the Bidder shall fail to contract as aforesaid and to give a Bond in the sum to be determined as aforesaid with surety satisfactory to the City of Quincy within ten (10) days from the date of receipt of the Notice of Award from the City of Quincy, according to the address herewith given, the City of Quincy may, at its option, determine that the bidder has abandoned the contract, and thereupon this proposal and acceptance thereof shall be null and void, and the certified check or bid submitted covering this proposal shall become the property of the City of Quincy, otherwise said certified check or bid bond shall be returned to the Bidder.

This bid must bear the written signature of the Bidder, or an authorized agent of the bidder. If the bidder is a corporation or a partnership, the bid must be signed by a duly authorized officer of such corporation or partnership, and the title of such an officer must be stated.

The Bidder offers the following information as evidence or qualifications to perform the work as bid in accordance with the requirements of the plans and specifications.
**BID FORM**

**RELEVANT PREVIOUS EXPERIENCE**

The Bidder shall list below the relevant prior work experience on similar projects, and give references that will enable the City to evaluate his qualifications to perform the work under this Contract. The length of the relevant experience must be at least 5 years on projects of comparable size and complexity. The evaluation shall be based on prior experience, work performance and level of key personnel skills, and business standing (add additional page if necessary).

I. **PROJECTS**

<table>
<thead>
<tr>
<th>Completion Date</th>
<th>Project Name</th>
<th>Contract Amount</th>
<th>Design Reference Engineer</th>
<th>Reference Name</th>
<th>Phone No.</th>
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</thead>
<tbody>
<tr>
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<td>f.</td>
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</tr>
</tbody>
</table>

II. **KEY PERSONNEL:**

Key personnel to be employed on the job, in the event of contract award. Attach brief education and experience where applicable.

1.                                                          
2.                                                          
3.                                                          
4.                                                          

00300-10
BID FORM

STATEMENT OF BIDDER'S QUALIFICATIONS

All questions must be answered and the date given must be clear and comprehensive. This statement must be notarized. If necessary, questions may be answered on separate attached sheet. The bidder may submit any additional information, if desired.

1. Name of Bidder:

2. Permanent main office address:
   a. Treasury Number (Employer's Identification No.):

3. When organized?

4. If a corporation, where incorporated?

5. How many years have you been engaged in the contracting business under your present firm or trade name?
   a. Names and home addresses of principal officers and their social security numbers: (attach separate sheet).

6. Contracts on hand: (Schedule these, showing gross amount of each contract and the approximate anticipated dates of completion. Name and address of client and name of person supervising for client.) (Attach separate sheet)

7. General character of work performed by your company?

8. Have you ever failed to complete any work awarded to your? If so, where and why?

9. Have your ever defaulted on a contract? If so, where and why?

10. List the more important contracts recently completed by you stating approximate cost of each, and the month and year completed. (Give names and addresses of client and name of person supervising for client). (See attached form.)

11. List your major equipment available for this contract. (Use separate sheet)

12. Experience in construction work similar in importance to this project. (See form)

13. Background and experience of the principle members of your organization, including the officers.
14. Credit available: $______________________.

15. Give bank reference, including bank name, address, telephone and contact name.

16. Will you, upon request, fill out a detailed financial statement and furnish any other information that may be required?

17. The undersigned hereby authorizes and requests any person, firm, or corporation to furnish any information requested by the City of Quincy in verification of the recitals comprising this Statement of Bidder's Qualifications.

Dated this _________ day of ____________________, 20____.

Name of Bidder: ____________________________________________

By: ________________________________________________________

Title: ______________________________________________________

State of _________________

County of _________________

_______________________________________________________ being duly sworn,

deposed and says that he is ________________________________

(ofice)

______________________________

(Name of Organization)

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

SUBSCRIBED AND SWORN TO, before me the ______ day of ________________, 20____

______________________________________________________

(Notary Public) Seal

My commission expires: ________________________________
City of Quincy
Purchasing Department
1305 Hancock Street, Quincy, MA 02169

Signature Authorization

At a duly authorized meeting of the Board of Directors of the

(NAME OF CORPORATION)

held on __________ at which all the Directors were present or

(DATE)

waived notice, it was VOTED, that:

(NAME)                      (OFFICER)

of this company, be and he/she hereby is authorized to execute Contracts and
Bonds in the name and behalf of said Company, and affix its Corporate Seal
thereunto; and such execution of any Contract or obligation in this Company’s
name on its behalf by such

(OFFICER)

under seal of the Company, shall be valid and binding upon this Company. It
was further voted that the City of Quincy may rely on such authorization for
future Contracts until notified to the contrary.

A true copy,

ATTEST: _______________________________ (CLERK’S SIGNATURE)

PLACE OF BUSINESS: ____________________________

DATE OF THIS CONTRACT: _______________________

I hereby certify that I am the Clerk of the:

________________________ (COMPANY)            ___________________________ (NAME)

that_________________________ is

the duly elected __________________________ of said Company, and

(TITLE)

that the above VOTE has not been amended or rescinded and remains in full
force and effect as of the date of this Contract.

________________________ (CLERK’S SIGNATURE)

CORPORATE SEAL

REV. 11/88

00300-13
CERTIFICATE OF ACKNOWLEDGEMENT OF CONTRACTOR FOR BID

State of ________________________________  Date: ________________________, 20_____  
County of ________________________________

On this ______ day of ________________________________, 20______,
before me personally appeared ________________________________,
who being duly sworn, did depose and say as follows:

__________________________________________, that said firm consists of
(Company Name)

__________________________________________, (name of principals in firm and position)

__________________________________________

that he executed the foregoing instrument on behalf of said firm for the uses and purposes stated herein. If a corporation, the seal affixed to the foregoing instrument is such corporate seal and it was so affixed by order of the Board of Directors of said corporation, and that by like order, he signed thereto his name and official designation.

__________________________________________  (Notary Public)  (Seal)

My commissioner expires: ________________________________
SIGNATURE PAGE

DATED: ________________________________________________

BY: ________________________________________________

(Signature and Title of Person Authorized to Sign Bid)

_______________________________________________

(Name of General Bidder)

_______________________________________________

(Business Address)

_______________________________________________

(Social Security Number - Federal Tax ID No.)

Telephone Number: (_________)

(SEAL: IF BID IS BY A CORPORATION)

ATTEST: ________________________________________________

The proposed surety company on the bond to be given as follows:

_______________________________________________

(Contact Name)

_______________________________________________

(Name of Surety)

_______________________________________________

(Address of Home Office)

_______________________________________________

(Massachusetts Address, if different)

_______________________________________________

(Business Telephone)
COMMONWEALTH OF MASSACHUSETTS

Department of Conservation
and Recreation
251 Causeway Street, Suite 600
Boston, MA 02114-2119
Leo Roy, Commissioner

DCR Construction / Access Permit

Boston

January 20, 2017

A Permit is hereby issued to:

City of Quincy
55 Sea Street
Quincy, MA 02169
ATTN: Daniel Raymond
T. (617) 376-1959
E. draymond@quinncityma.gov

ISSUED IN ACCORDANCE WITH M.G.L. C.132A§7 AND C.92§33 & ALL OTHER POWERS ENABLING

EMERGENCY CONTACT:
Same as above

Permit #: 25731

DCR Contact:
Robert Lowell, Chief Engineer
251 Causeway St., Suite 700
Boston, MA 02114

Weston & Sampson
100 Foxborough Blvd.
Foxborough, MA 02035
(508) 698-3034

The following purpose: To enter upon DCR property at 94/282/860/1022/1068/1156 Furnace Brook Parkway and 1429 Quincy Shore Drive in Quincy for the purpose of replacing lead water pipe services as requested by the City of Quincy (as described in the Special Conditions).

WHEREAS: the Commonwealth of Massachusetts is the owner and/or has control of the premises subject to this permit as described in the Special Conditions (hereinafter collectively known as the Premises); in Quincy, Massachusetts;

WHEREAS: the Permittee requests temporary access to the Premises in order to perform construction work as described in the Special Conditions (hereinafter the Project);

WHEREAS: the Permittee’s activities will include approved activities, as described in the Special Conditions, that work will occur during approved hours only; and

WHEREAS: The granting of this Permit shall in no way interfere with the rights of the DCR to exercise its rights in or over the Premises.

NOW, THEREFORE, WITNESSETH, in accordance with Massachusetts General Laws chapter 92, §§33, 37, and chapter 132A §7; and rules and regulations promulgated thereunder (including Code of Massachusetts Regulations titles 304 and 350), DCR Standard Construction Specifications and Engineering Policy Memorandum and all other powers enabling, the DCR hereby grants to the Permittee and/or its contractors, agents, representatives, or employees the right to perform work on the Premises as described in the Special Conditions subject to the following terms and conditions.

IMPORTANT: SUBSEQUENT TO FULL EXECUTION OF THIS CONSTRUCTION / ACCESS PERMIT BY BOTH PARTIES, THE PERMITTEE MAY ONLY COMMENCE WORK WITH 72 HOURS VERBAL NOTICE TO DCR (617) 626-1444

This permit is issued and accepted upon by the Permittee subject to the terms and conditions herein and defined supra: conducting work under this permit shall constitute acceptance of all terms and conditions herein; shall conform to all provisions of law applicable to the exercise of the rights, the performance of work under the permit and the rules and regulations of the Department of Conservation and Recreation; shall do the work subject to the approval of the PERMIT SECTION of the Department of Conservation and Recreation as to the time, manner, location and all other conditions; that the permit may be revoked at any time by the said PERMIT SECTION; that the violation of any specification or requirement in this permit shall cause or constitute an immediate revocation thereof; shall protect and maintain all trees, drainage and other structures; shall restore the surface of the ground to a condition satisfactory to the PERMIT SECTION and maintain it in such condition against damage caused by the above-mentioned work. The Permittee and its successors and assigns, to the extent allowed by law, SHALL INDEMNIFY AND HOLD HARMLESS the DCR and its successors and assigns from all damages and/or claims arising from acts or omissions of the Permittee on the premises or of anyone acting by or through the Permittee. The Permittee’s obligation under this paragraph shall include reimbursement for or restoration of all damages to the DCR’s property. During the process of the work the Permittee shall place and maintain proper barriers at all times, and from the beginning of twilight through the whole of every night sufficient lights to protect the public from injury or damage.
PERMIT DETAILS

LOCATION DETAILS:
94/282/860/1022/1068/1156 Furnace Brook Parkway
1429 Quincy Shore Drive, Quincy

DESCRIPTION OF WORK:
Lead Water Pipe Service Replacements

DCR PARKLAND AND/OR ROADWAY IMPACT SUMMARY
Trench Excavation [4-ft. wide] at six (6) locations on Furnace Brook Parkway and one (1) location on Quincy Shore Drive
Traffic Impacts

SPECIAL CONDITIONS / REQUIREMENTS:
(Modifications to sections of the General Conditions are listed below)

A. CONDITION OF PREMISES
   Any damaged/disturbed DCR property shall be repaired/returned to its previous or better condition.

B. PERMIT TERM
   Effective Dates: Starts: April 1, 2017 Expires: June 30, 2017

C. ADMINISTRATION FEE, RESTORATION, CONSIDERATION and MITIGATION
   In addition to the Administration Fee in the amount of: $50.00 and required restoration work, the permittee shall compensate DCR for the disruption of DCR Property by payment of an, an Excavation Fee in the amount of: $1,368.00, a Truck Access to Restricted Parkway Fee in the amount of: $800.00 and a DPS Trench Notification Fee in the amount of: $20.00.

D. REQUIREMENTS
   Deep trenches (5-ft. or more) shall be sheeted and braced in conformity with the rules and regulations for the prevention of accidents in construction operations pursuant to MGL. Ch. 149, Sect. 129A.
   Permittee shall be responsible for maintaining street lighting/electrical conduits in the vicinities of 94/282/860/1022/1068/1156 Furnace Brook Parkway and 1429 Quincy Shore Drive.
   Prior to the commencement of the project, the Field Operation Team Leader shall be contacted and informed of the project activities and schedule:
      Chris Spillane
      (617) 413-4156

   Work shall be coordinated with the DCR paving schedule on Furnace Brook Parkway. Contact DCR Parkways Engineer, Gerard Moore (617) 626-1371.
E. INSPECTIONS, ACCESS AND PERMITS

A DCR Access Permit, pursuant to 350 CMR 4.01 Traffic Regulations and Rules for Driving, shall be obtained for any commercial vehicle accessing Furnace Brook Parkway or Quincy Shore Drive. An Access Permit carries a fee of $100 per day per vehicle, as required under 801 CMR 4.02.

F. PUBLIC SAFETY

State trooper details shall be used at all times to ensure public safety.

Bicycle and pedestrian access shall be maintained at all times. Where there is a detour, ADA/AAB compliant temporary ramps shall be used.

Work area shall be secured to protect and keep out the public.

G. RESTORATION OF PREMISES

Reset or replaced curbing shall require 2000-psi cement concrete (both front and back) with a 6-in. x 6-in. profile. Top of cement concrete shall be 1-3/4-in. lower than the finished roadway elevation.

Permittee shall replace sidewalk with six-inch (6") thick cement concrete (4,000 psi, 3/4" aggregate) including 6” x 6” welded-wire 7 gage sheet mesh placed at mid-depth.

The limits of the sidewalk repair shall include the entire work area and extend to the nearest sidewalk control joint. Sawcuts shall be made along those joints and only full, complete concrete sidewalk panels shall be removed. All demolished concrete walkway shall be removed from and legally disposed of off of DCR property.

H. TRAFFIC MANAGEMENT


All work done on DCR roadways must conform to the 2009 U.S. Department of Transportation, Federal Highway Administration’s ‘MUTCD’ Guidelines, state laws and regulations, and the April 28th 2009 Governors Executive Order 511.

State trooper details shall be used at all times to ensure public safety.

I. ENVIRONMENTAL IMPACTS AND REPORTING

Permittee shall be required to have a certified arborist on-site for work locations within close proximity to trees.

Contact DCR Arborist, Jeff Enochs (508) 942-3872 for review and/or prior to any or branch trimming.

Air Excavation Tools shall be used under dripline of trees on DCR property to ensure root protection.

Construction vehicles shall not be permitted to park on the grass strip adjacent to the roadway.

J. OPERATING SCHEDULE

Effective Hours: 9:00AM – 3:00PM Monday through Friday

Z. NOTICE

Permittee shall be responsible to notify abutters prior to commencing work.

DCR shall be notified at the commencement and conclusion of this project.
SIGNATORIES

DEPARTMENT OF CONSERVATION AND RECREATION

__________________________
Sean Casey, Construction Access Permits Director

For

Leo Roy, Commissioner
Department of Conservation and Recreation
251 Causeway Street, Suite 900
Boston, Massachusetts 02114

DATE: ______________________

The Parties herein have read the above terms and conditions and hereby agree and approve same. The individual(s) signing below warrant and represent that they are authorized to sign on behalf of and bind the Permittee.

City of Quincy

__________________________
Deirdre Ho 11
Signature

Print Name

__________________________
Compliance Manager
Title

DATE: 1/26/17
DCR CONTACTS:

1. DCR Construction Permits Director
   Sean Casey (617) 626-1444
2. DCR Chief Engineer
   Robert Lowell (617) 626-1340
3. DCR Boston Region Engineer
   Mark MacLean (617) 626-4923
4. DCR Boston Region Manager
   Rick Woodward (413) 441-5129
5. DCR Arborist
   Jeff Enochs (508) 942-3872
6. DCR Traffic Engineer
   Val Soroka (617) 626-4942
7. DCR Parkways Engineer
   Gerard Moore (617) 626-1371
8. Notifications to:
   State Police Detail Sergeant
   David Gallagher (617) 740-7575
   DCR Operations Control Center
   (617) 946-3150
TYPICAL ROADWAY TRENCH REPAIR:
Hot-Mix Asphalt permanent pavement patch shall consist of the following minimum measurements: 4" base course, 2" binder course, 1-1/2" top course. Pavement replacement thickness must match the existing pavement thickness or conform to whichever pavement depth is deeper.

FIGURE 1

NOTES: MINIMUM CUTBACK OF 12" ON EACH SIDE OF TRENCH WHEN INSTALLING THE PERMANENT PAVEMENT PATCH (SAW CUT)

ALL HOT-MIX ASPHALT SURFACES AND EXISTING VERTICAL PAVEMENT EDGES SHALL BE TACK-COATED PRIOR TO PLACING NEW HOT-MIX ASPHALT

*PAVEMENT THICKNESSES LISTED BELOW ARE MINIMUMS. (FINAL PATCH THICKNESS SHALL MATCH EXISTING OR EQUAL 7-1/2", WHICHEVER IS GREATER)

TYPICAL PARKWAY TRENCH REPAIR
HOT-MIX ASPHALT TRENCH REPAIR USING "MassDOT- TYPE 2-E" C.D. FILL

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<th>SIZE</th>
<th>FGM NO.</th>
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<th>REV</th>
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SCALE NTS
Exhibit 1

COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF CONSERVATION AND RECREATION
PERMIT SECTION
PAYMENT TRANSMITTAL FORM

PERMIT NUMBER: 25731

DATE: January 20, 2017

SHORT DESCRIPTION: City of Quincy - 1022 Furnace Brook Pkwy
Lead Water Service Replacement

ISSUED TO: Quincy Public Works

ADDRESS: 55 Sea St.

CITY: Quincy STATE: MA ZIP CODE: 02169

CONTACT PERSON: Daniel Raymondi TEL: (617) 376-1959

<table>
<thead>
<tr>
<th>PERMIT DATE</th>
<th>DESCRIPTION</th>
<th>UNIT</th>
<th>PRICE</th>
<th>AMOUNT DUE</th>
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<tr>
<td>January 20, 2017</td>
<td>Administrative Fee</td>
<td>1</td>
<td>$50.00</td>
<td>$50.00</td>
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<tr>
<td>Parkway/Roadway Excavation Fee</td>
<td>60 sf</td>
<td>$8.00 per sq ft</td>
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<tr>
<td>Sidewalk &amp; Parkland Excavation Fee</td>
<td>148 sf</td>
<td>$6.00 per sq ft</td>
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<td>DPS Trench Filing Fee</td>
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<td>$20.00</td>
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<tr>
<td>Vehicles on Restricted Parkway: 1 Truck</td>
<td>8 days</td>
<td>$100.00 per day</td>
<td>$800.00</td>
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</table>

*TOTAL AMOUNT DUE: $2,238.00

FOR FINANCE USE ONLY

RECEIVED BY

CHECK NUMBER

AMOUNT REC'D

NOTICE TO PERMIT APPLICANT

PLEASE MAKE CHECK OR MONEY ORDER PAYABLE TO THE COMMONWEALTH OF MASSACHUSETTS and SUBMIT/BRING THIS FORM WITH YOUR PAYMENT TO: The Department of Conservation and Recreation (DCR)
Construction Access Permits
251 Causeway Street, 7th FLOOR, BOSTON, MA 02114

PAYMENTS MUST BE RECEIVED WITHIN 30 DAYS. PERMITS WILL NOT BE ISSUED WITHOUT PROOF OF PAYMENT. IF PAYMENTS ARE NOT RECEIVED WITHIN 30 DAYS, THE DCR MAY RESCIND THE PERMIT. TO INSURE CREDIT, PLEASE WRITE PERMIT NUMBER ON YOUR CHECK OR MONEY ORDER.

Permit #: 25731

FOR QUESTIONS ON PAYMENTS, PLEASE CALL (617) 626-1444. THANK YOU.

* PER CODE OF MASSACHUSETTS REGULATIONS TITLE 350: CHAPTER 14.08.

Page 7 of 21
GENERAL CONDITIONS

A. CONDITION OF PREMISES

1. The Permittee acknowledges that it has made an inspection of the Premises and that the Premises are in a satisfactory condition, suitable for the purposes of this Permit in the Premises' existing condition and that it has not relied upon representations or statements of the DCR, its officers, employees or agents with respect to these conditions. The Permittee expressly agrees that the DCR has no obligation to make any alterations, repairs, additions, or improvements to the Premises. The Permittee acknowledges and agrees for itself and its contractors, subcontractors, officers, servants, agents, employees, representatives and invitees that it accepts the Permitted Area in 'as is', 'where is' and 'with all defects' condition; that DCR is under no obligation to make any repairs, renovations or alterations to the Permitted Area; that DCR has made no representations or warranties regarding the adequacy, operability, safety or fitness of the Permitted Area for any particular purpose or use; and that DCR has made no representations that the Permitted Area complies with applicable laws, ordinances, rules and regulations of government authorities. The Permittee further acknowledges and agrees that any entry and activities upon the Permitted Area by the Permittee and its contractors, subcontractors, officers, servants, agents, employees, representatives and invitees shall be at the sole risk and sole expense of the Permittee.

2. At the Permittee’s expense DCR property shall be restored/ returned to its original or better condition, in accordance with standards and specifications of the DCR and this permit.

3. Upon the expiration, termination, or revocation of this Permit, the Permittee shall promptly vacate and surrender the Permitted Area and remove all of its personal property from the Permitted Area. Any property not so removed shall, at the option of DCR and at the sole expense of the Permittee, either become the property of DCR or be removed by DCR and disposed of without any liability in DCR for such removal and disposition.

B. PERMIT TERM

1. The term for the use authorized herein is specified in the Special Conditions, subject to review of the Permittee’s performance and compliance with all terms and conditions of this Permit.

2. All obligations required of the Permittee under the terms of this Permit shall expressly survive the given termination/expiration date until such obligations are completed to the satisfaction of the DCR, unless the DCR has exercised its option to terminate the agreement.

3. If the Permittee is found to be noncompliant with any term and or requirement of this Permit, and does not remedy or cure the noncompliance matter promptly or within a time frame set by DCR, the DCR may immediately revoke this Permit.

C. ADMINISTRATION FEE, RESTORATION, CONSIDERATION & MITIGATION [in accordance with 801 CMR 4.02]

1. The Permittee shall pay the Commonwealth a fifty dollar administration/application fee.

2. In addition to the administration fee (C.1. above), and required work. The permittee will compensate DCR for the disruption to the DCR properties including parkway, boulevard, road and/or recreational facilities by doing mitigation and or the payment of Parkway/Roadway Excavation Fee, Sidewalk and Parkland modification fees.

3. See the Special Conditions of this permit for the details of the compensation to DCR for the disruption to the DCR parkway and/or recreational facilities which may include fees or mitigation or a combination of both.

4. If mitigation is allowed as an alternate for the fees, the cost of the mitigation must equal or exceed the Parkway Excavation Fee, Sidewalk and Parkland modification fees; should the mitigation work not exceed the fee amount the difference shall be paid to DCR.

SEE THE SPECIAL CONDITIONS AND THE PAYMENT TRANSMITTAL INVOICE FOR DETAILS ON FEES, PAYMENT SCHEDULE AND MITIGATION APPROVED FOR THIS PERMIT.

5. Payments, shall be in the form of a money order, cashier’s check or certified bank check payable to the Commonwealth of Massachusetts (exclusively), accompanied by a DCR “Payment Transmittal Form,” Exhibit 1 attached to this permit. Indicate your Permit Number on your check, all correspondence and on the mailing envelope; mail to the following address:

Department of Conservation and Recreation
Construction Access Permits
Permit No: _______
251 Causeway Street, Suite 700
Boston, Massachusetts 02114
D. REQUIREMENTS

1. The Permittee shall keep a copy of this Permit at the Premises (on site and visible) and shall be solely responsible for maintenance, care, repair or replacement of all work, improvements or installations related to the permitted work placed or situated on the Premises at all times.

2. The Permittee shall be solely responsible for all expenses arising under this Permit.

3. The Permittee will not use any DCR utilities or resources without express permission from DCR. If the Permittee and/or its representative or contractor uses any DCR utilities any expenses associated with that use is the responsibility of the Permittee.

4. The Permittee shall conform to all provisions of state, federal and local laws, rules and regulations applicable to the exercise of the rights and the performance of work under the Permit. Such provisions include, but are not limited to, all health, environmental, noise and sanitary standards and conditions required by Commonwealth of Massachusetts statutes; rules and regulations, including DCR regulations, local bylaws, engineering standards and administrative and executive orders.
   a. Prior to the commencement of any work involving excavation or disturbance of any soils and or vegetation under this Construction / Access Permit:
      i. Dig Safe must be notified for field mark-out of utilities (1-888-DIG-SAFE).
      ii. The Permittee will comply with M.G.L. Chapter 254 requiring approval by the Massachusetts Historical Commission.
   b. The Permittee shall adhere to all OSHA Standards for Safety during the construction period.
   c. The Permittee will comply with local noise regulations, exercising care to subject neighborhood abutters to the least amount of noise and vibration pollution during working and non-work hours.

5. All correspondence with the DCR regarding permitted activities should indicate the DCR Construction Permit Number associated with this permit.

6. If the work herein authorized is for a driveway entrance, this Permit is granted and accepted on the condition that if the ownership of the land to which the driveway is appurtenant shall at any time become united with that of any adjoining lot fronting on the roadway and also having an entrance on said roadway, then the DCR may revoke the right to maintain any or all of such entrances and grant a single entrance in place thereof. The entrance hereby granted shall be used only for the Premises shown on the Plan.

7. Within thirty (30) days, after completion of the project or a date specified herein, by the DCR in the Special Conditions, the Permittee shall submit a paper copy and an electronic copy of as-built plan(s) for the Project as it relates to DCR property. Each sheet shall be stamped, signed and dated. This information shall be sent to Construction Access Permits, Department of Conservation & Recreation, 251 Causeway Street, Suite 700, Boston, Massachusetts 02114. In addition to the standard title box the permittee will list/add the DCR Construction Permit Number associated with this permit.

8. Within thirty (30) days, after completion of the project or a date specified by DCR in the Special Conditions, the Permittee shall submit two (2) copies of all final environmental reports generated for the Permittee’s Project related to DCR property if applicable. One (1) copy each of the information will be sent (see Notices and Contacts) to the attention of the Environmental Section Head and the Regional Director.

9. The Permittee shall keep the Premises in a clean and orderly manner at all times.

10. The Permittee shall be solely responsible for ice and snow removal during the winter months and street sweepings during the spring, summer and fall on all DCR property associated with this permit and/or impacted by the permit, per DCR protocol (inclusive of all area where public access is possible, as well as but not limited to all roadways, sidewalks and walking paths), inclusive of any and all associated costs and labor. This responsibility shall remain in place until the work area(s) are closed and all obstacles that would interfere with DCR’s regular maintenance are removed, leaving the area unencumbered.

E. INSPECTIONS, ACCESS AND PERMITS

1. The Permittee shall arrange for inspections by local health officials, utilities engineers, building inspectors and others as may be required.

2. The Permittee shall take prompt action to correct any condition that is found not compliant with any federal, state, or local regulation, code or statute.
3. The Permittee agrees at its own expense, to file for; obtain and comply with all applicable federal, state and local permits, licenses and approvals necessary for the work to be performed which is the subject of this Permit. Failure to obtain any required permits, licenses and or approvals, prior to the commencement of work, or failure to maintain such legal obligations in full effect throughout the term of this Permit shall be cause for revocation of this Permit by the DCR.

4. The DCR shall be provided full and unrestricted access to and upon the Premises at all times during the Term of this Permit to inspect the Premises and to review the operations and inspect the Permittee’s equipment.

5. The permittee shall maintain adequate abutter access at all times.

F. PUBLIC SAFETY

1. The Permittee will hire as many safety and/or law enforcement details, as needed to ensure the general public (including but not exclusive of pedestrian, cyclists, and vehicular traffic) safety at all times during all permitted activities on and near the Premises. Advanced notice of starting work shall be provided to the appropriate authority.

   a. For vehicle traffic management and public safety, in and/or on DCR property excluding parkways, boulevards, skating rinks, and or water sheds, the Permittee shall contact and hire as many Environmental Police Officers, as needed to ensure the safety of park users at all times.

   b. For vehicle traffic management and public safety, in and/or on DCR Parkways, Boulevards, skating rinks, and or state water sheds the Permittee shall hire as many Massachusetts State Trooper details as necessary to ensure the public safety at all times during all activities on and/or near the Premises.

   c. For work inside DCR Parks excluding motor vehicle traffic management on Chapter 90 Roadways (parkways and public ways), the Permittee may hire Park Rangers, to ensure the wellbeing of the public in low use situations, within the confines of the park (i.e. playing fields, bike-paths, parking lots, gardens etc.).

   d. For projects impacting both DCR property and municipal roadways, for safety and/or traffic management on the municipal roadways the Permittee may hire as many local safety and/or law enforcement details, or certified flagmen as needed to ensure public safety.

2. The Permittee shall barricade excavations with safety fencing and reflectorized drums with “Type A” flashers to guide personnel and eliminate free access to the work area on, in, or near the Premises. All flashers and “steady-burn” lights on drums must be in good working order. From dusk through dawn, the Permittee shall place sufficient working lights to protect the public from injury or damage.

3. Signage indicating the name of the Permittee, and including contact names and telephone numbers shall be on the premises (permitted work site) in plain view or erected during the duration of the Project.

   a. Additional signage may be required by DCR; See Notice paragraph 2 and the Special Conditions.

G. RESTORATION OF PREMISES

1. See SPECIAL CONDITIONS for additional information specific to this permit.

2. At the Permittee’s sole expense, DCR property shall be restored/returned to its original or better condition, or otherwise improved in accordance with this permit, and in accordance with standards and specifications of the DCR. The Permittee is responsible for repairing, replacing and restoring any and all damage to the DCR real or personal property, its infrastructure improvements and appurtenances, or any other property of third-parties, caused or necessitated by the Permittee by operation of this Permit, regardless of whether such damage occurs within or without the layout of the Premises itself.

   a. Any/all DCR utilities (storm drainage, electrical services, plumbing, sprinklers, sanitary services, dam and flood control structures, traffic signals and/or street lighting) worked on, damaged or altered (installation, change, relocation, modification, or adjustment) shall be replaced by the Permittee at their expense, unless specifically addressed in this permit.

   b. Temporary service for the impacted utility shall be provided by the Permittee. The Permittee must provide adequate and safe services.

   c. Temporary operating expenses for the impacted utility starting at the time of the disruption and/or installation, through DCR acceptance shall be the responsibility of the Permittee.

   d. All utilities/equipment shall be replaced or reinstalled to working order by the Permittee at their expense unless specifically addressed in this permit or its attachments.
c. The appropriate DCR section chief, engineer and/or designee shall with assessment review and consultation, determine if the part(s)/fixture(s) may be reused and/or replaced. If the part(s)/fixture(s) need to be replaced, DCR shall supply the specifications.

f. All DCR utilities worked on by the Permittee shall be reviewed and/or inspected by DCR prior to acceptance.

3. Abandonment of existing underground utilities, pipes, chambers, etc.; The Permittee, its agents, contractor or representative shall take all appropriate measures to properly close, fill and cap all underground structure(s) to guard against future sinkholes and eliminate the possibility of future collapse of these abandoned structures. Pipe abandonment under DCR owned or controlled property shall be managed as follows:

a. Located under DCR roadways: All pipes, underground utilities, chambers etc. that are under the roadway must be completely filled with grout or high slump 500 psi concrete and abandoned in place.

b. Not located under DCR roadways: All pipes, underground utilities, chambers etc. that are 18-in. in diameter or greater must be completely filled with grout or high slump 500 psi concrete and abandoned in place. (Specification §.02650, ¶ 3.01 D.3.)

c. All pipes that are less than 18-in. in diameter shall be securely plugged with brick, mortar, concrete and/or masonry plugs in both ends at least 12-in. thick and abandoned in place.

4. Any and all parkways, boulevards, roadways, parking areas and/or driveways repairs including trench patches that remain in place for one year or longer will be reviewed by the Permittee and the DCR annually, until such time as the road is permanently repaved from curb to curb. Should the patch fail or prove to be inadequate, the Permittee will be responsible for removal and restoration of the failing area.

5. All opening(s) shall be covered by steel plates when not in use. The Permittee shall not use steel plates that are vulnerable to flexing, or lateral movement due to vehicular traffic. Where any gaps exist between the plate and the roadway surface, "cold-patch" asphalt mix shall be used to fill those voids.

6. In non-trench areas of roadways or sidewalks requiring repairs, the subgrade material shall be Massachusetts Department of Transportation – Highway Division (hereinafter MassDOT -HD) "Type C" Gravel (2" maximum aggregate size) and it shall be mechanically compacted in six-inch (6") lifts.

7. Pavement trimming: Only saw cutting (without overcuts) shall be allowed as a means of creating the final, permanent edge between existing and new hot-mix asphalt or cement concrete on any roadway or sidewalk. All accidental overcuts shall be filled with bituminous joint sealer. The standard "cutback" for all permanent pavement patches shall be twenty-four inches (24") beyond the original pavement cuts made to perform the work allowed by this permit. If curbing does not allow for twenty-four inches (24"), then the face of the curbing will serve as the edge of the permanent pavement patch.

8. Controlled-density fill (hereinafter the CDF) shall be used for backfilling trenches made in roadway or sidewalk pavement. The CDF shall conform to MassDOT -“Type 2E,” “Flowable and Excavatable.” (If the Permittee needs to use backfill materials with higher strength characteristics than MassDOT -“Type 2E” CDF, then the Permittee can request a waiver from the DCR to substitute that higher strength backfill.)

   a. The Permittee shall place the CDF so as to allow enough room for a depth of pavement replacement that matches existing pavement thickness
   
   b. The Permittee is responsible for allowing sufficient curing time for the CDF prior to installing pavement material. The Permittee shall exercise extra caution in areas of high water table.

9. If the Permittee cannot use MassDOT -“Type 2E” CDF, trenches and other excavations shall be back-filled with DCR-approved gravel. The use of previously excavated material as backfill is acceptable, providing that the previously excavated material is suitable for sub-base with no stones larger than 3” in diameter, and is free of all clays and organic matter. However, immediately below any sidewalk or roadway surface, there must be a minimum of twelve inches (12") of clean gravel borrow (MassDOT #M1.03.0 – Type “C” two-inch [2"] maximum stone size) for the sub-base.

10. All sub-base shall be mechanically compacted in six-inch (6") lifts to ninety-five percent (95%) compaction, as tested by nuclear compaction equipment, and verified by the DCR on site.

11. The permanent pavement patch of hot-mix asphalt for roadway sections shall consist of the following minimum measurements: four inch (4") base, two inch (2") binder, one and one-half inch (1-1/2") of "State Top" (one-half-inch (1/2") stone size) top course. Pavement replacement thickness must match the existing pavement thickness, or conform to Figure #1 “TYPICAL ROADWAY TRENCH REPAIR” whichever pavement depth is deeper.
12. All mixes shall conform to MassDOT “Type I” mixes: Base, Binder, “State Top” [with one-half inch (1/2") stone size] for roadway use & “Dense Top” [with three-eighths inch (3/8") stone size] for sidewalk use. The permanent hot-mix asphalt patch shall extend over the original trench cut, and act as a “bridge” twenty-four inches (24"). All hot-mix asphalt surfaces (vertical and horizontal) shall be coated with emulsion tack coat immediately prior to placing any new hot-mix asphalt layer.

13. The Permittee shall be responsible for the adequacy and performance of the trench pavement patch (roadway and/or sidewalk) and restoration of all affected curbing in the work zone. DCR reserves the right to have the trench patches repaired or replaced completely and curbing reset at the expense of the applicant as a result of incomplete or inadequate work by the Permittee.

14. All pavement markings removed and/or damaged during the course of construction must be replaced with markings matching the configuration, color, width and type (thermoplastic, paint, etc.) of the markings removed.

15. Any sidewalk replacement shall conform to the most recent Americans with Disabilities Act (hereinafter the ADA) or Architectural Access Board (hereinafter the AAB) handicapped accessibility standards, whichever is more stringent.

16. Any fine-grading of subgrade soils required before sidewalk installation shall be accomplished with MassDOT M1.03.0 “Type C” Gravel Borrow (two-inch (2") maximum stone size).

17. Any sidewalk damaged must be replaced with a material matching the existing sidewalk surface (hot-mix asphalt or cement concrete), and the replacement shall conform with the following:
   a. The limits of the sidewalk repair shall include the entire work area and extend to the nearest sidewalk control joint. Sawcuts shall be made along those joints and only full, complete concrete sidewalk panels shall be removed. All demolished concrete walkways shall be removed from the DCR property and legally disposed of off-site.
   b. All cement concrete sidewalk shall contain welded wire mesh. Welded wire mesh for cement concrete walks must meet ASTM Specification A185 and be 6 gauge wire with six-inch by six-inch (6” x 6") squares. Only sheet mesh shall be permitted (no rolls). The mesh must be installed at mid-depth in the slab and rest on reinforcement “chairs” or cement concrete bricks spaced at 36” maximum in every direction to keep the mesh from deforming during cement concrete placement.

18. For all edgestone/curbing being reset or replaced, on both the front and back of the curbing/edgestone, 2,000 p.s.i. cement concrete (with a six-inch by six-inch (6” x 6") profile) shall be installed for the entire length of the curbing/edgestone being reset or replaced, and the top surface of both the front and back sections of this cement concrete shall be one and three-quarter inches (1 3/4") lower than the finished roadway elevation.

19. Detectable warning panels are required for any pedestrian ramp. The detectable warning panels for cement concrete pedestrian ramps shall be “brick-colored” and “safety yellow” for hot-mix asphalt pedestrian ramps. Exceptions to this are possible with the prior approval of DCR’s Chief Engineer, if, for example, the Permittee is trying to match the color of existing nearby pedestrian ramp warning panels. This work must be MUTCD, ADA and AAB compliant.
   a. Detectable warning panels can be precast concrete, cast-in-place concrete or other suitable material permanently applied to the ramp.

II. TRAFFIC MANAGEMENT

1. Traffic Management, including both Vehicle and Pedestrian management; the Permittee must provide safe passage to the public including but not limited to motorists, cyclists, pedestrians, workers, and others affected by the Permittee activities and are the sole responsibility of the Permittee.

2. The Permittee assumes full liability and responsibility for Traffic Management, and shall plan for traffic control on a case by case basis to adjust for the varying conditions among work locations in cooperation with the detail officer.

3. All work done on DCR roadways must conform to the 2009 U.S. Department of Transportation, Federal Highway Administration’s Manual on Uniform Travel Control Devices Guidelines (‘MUTCD’) and the April 28th 2009 Governors Executive Order 511. Including recently updated Federal Regulations (the FHWA’s Rule on Work Zone Safety and Mobility) emphasize the importance of providing safe work areas for motorists, workers, and others affected by the maintenance/ utility/ construction activities; whenever the need is indicated the permittee should expand or improve traffic controls.

4. For additional and permit specific Traffic Management requirements see the Special Conditions.
5. Without limiting any of Permittee's obligations under this or any other Section of this Permit, the Permittee is responsible for proper Traffic Management, including the planning and installation of temporary traffic controls in maintenance, utility, or construction work areas, including, but not limited to, responsibility for ensuring that the pedestrian and vehicular safety is properly and safely performed according to all applicable federal, state, and local laws, regulations and governmental requirements.

6. The Permittee shall submit a site specific Traffic and Pedestrian Management Plan (hereinafter the TMP) for DCR's review, comment, and subsequent approval.

7. The site specific TRAFFIC MANAGEMENT PLANS DCR approved will be strictly adhered to during field operations. (see the Special Conditions, Item H for Approved Plan)
   a. At the discretion of the DCR Chief Engineer or his designee, all TMPs must be prepared and stamped by a Massachusetts Licensed Engineer, specializing in traffic management.
   b. The Permittee will notify and coordinate with the District Manager, the facility supervisor and / or the Regional Engineer regarding the TMP, as listed in the Special Conditions and/or Notices and Contacts Section of this Permit.
   c. Any subsequent changes to the approved plan (See the Special Conditions, item H) by any party other than DCR must be resubmitted to DCR and are subject to DCR's review and subsequent approval before any construction activities may commence.
   d. The TMP will be followed and precautions will be taken to protect the public, the environment and any cultural resource in the area.

8. If the work associated with this Permit potentially impacts other parties, the contractor/permittee is responsible for notification, and cooperative coordination with all parties, (including but not exclusive of DCR, contractors and representatives, Federal, State and local entities; police fire and ambulance, public transportation and utilities) working in the permitted locations. The coordination is to assure such that all disruptions of vehicular and/or pedestrian traffic is minimized.
   a. If this is not done to the satisfaction of DCR this permit will be revoked by a DCR representative during field operations and all associated work will stop until the deficiencies are resolved to the satisfaction of DCR traffic and/or permit engineers.

9. In order to reduce the effects on the public who use the DCR’s recreational areas, parks, campgrounds, parkways, boulevards and/or roadways, the Permittee will minimize construction work during peak use periods.

10. Pedestrian and vehicular traffic flow and safety shall be maintained at all times. Detours shall conform to the 2009 U.S. Department of Transportation, Federal Highway Administration’s Manual on Uniform Travel Control Devices Guidelines ("MUTCD").

11. The Permittee will leave sidewalk areas clear and open to permit unimpeded pedestrian traffic passage at all times during construction. A minimum of three feet (3') clearance will be maintained to permit public access to alternate passage by the affected portion of the Premises.

12. All deliveries shall be made in such a manner as to have the least negative impact on the visiting public, the Premises and the environment.

I. ENVIRONMENTAL IMPACTS AND REPORTING

1. Prior to any construction work for a project in or adjacent to an environmentally sensitive resource area(s), the Permittee will contact appropriate Federal, State, and local agencies and or authorities, obtain any licenses, permits and or Certificates necessary and will comply with all applicable laws, rules and regulations. The Permittee will supply copies of all applicable documentation to DCR when applying for this permit, and or as they are granted, including but not limited to:
   a. Executive Office of Energy and Environmental Affairs, Offices of Massachusetts Environmental Policy Act and Coastal Zone Management
   b. The Massachusetts Department of Fish and Game regarding wildlife and/or plant impacts.
   c. MassGIS data on any Priority Habitat of Rare Species.
   d. The Massachusetts Department of Environmental Protection’s Wetland, Waterways, and Water Management Sections
      i. During all construction phases the Permittee will minimize any potential impacts to flora, fauna and natural resources and habitats on, in, or near the Premises; including the preparation and execution
of a management plan for resource protection, erosion and sedimentation control, to minimize the potential impacts to environmentally sensitive resources.

ii. Special care will be used when permitted work area borders wetlands or waterways resource area(s), including but not limited to installation and maintenance of staked “salt hay” straw bales and silt fences to prevent sediment erosion and siltation from entering resource areas, and protect adjacent resources in accordance with the management plan. Erosion control measures will be in place prior to the start of any earthwork. The Permittee is responsible for inspecting all control measures twice weekly and after every rainfall event, and will maintain the erosion controls such that they operate properly. All erosion control measures will be maintained throughout the construction season until slopes have been stabilized and will be removed upon completion of the project, or stabilization of the area, whichever is last. All silt collected shall be removed and properly managed before the fences and straw bales are removed.

2. This permit in NO way should be construed as approval of any other applicable permits, notices or findings issued by Federal, State, and local agencies and/or authorities including but not limited to the Massachusetts Department of Fish and Game, and the Department of Environmental Protection.

3. The Permittee shall protect and maintain drainage and other structures against damage.
   a. Any drainage structures damaged or altered will be replaced by the Permittee at their expense. All catch basins should be deep-sump unless utilities or site conditions interfere with the installation, as determined by DCR storm water engineer(s).
   b. Absolutely no bitumen, asphalt, concrete or brick debris shall be dumped into drainage structures during the construction period. All storm water structures within the limits of work shall be cleaned prior to the conclusion of the project. This work shall include removing any accumulated dirt, refuse and other debris from each structure, including the gutter mouth of curb inlets. All removed materials shall be properly handled and transported to an approved disposal facility. The Permittee shall incur all clean-up costs.
   c. For NPDES MS4 requirements, the following activities shall continue throughout the construction period:
      i. Street Sweeping
      ii. Catch Basin Cleaning
   d. If applicable, construction projects shall provide the DCR Storm Water Manager, Robert Lowell with a copy of the Storm Water Pollution Prevention Plan for the site.
   e. If applicable, construction projects shall provide the DCR Storm Water Manager, Robert Lowell with a copy of site dewatering permits.

4. The Permittee shall protect and maintain all existing trees against damage.
   a. If applicable, air excavation tools shall be used on DCR property to ensure tree root protection within the drip line. (ref: Special Conditions)
   b. If applicable, a Certified Arborist shall be required on-site during excavations that are located within the drip line. (ref: Special Conditions)

5. Should the permitted work area be located adjacent to an environmentally sensitive area (i.e. wetlands, protected habitat, waterway, and/or coastal shoreline), the Permittee shall notify the DCR Arborist, Jeff Enochs at (508) 942-3872 and/or DCR Ecologist, Nancy Putnam at (617) 626-1394 (see Notices and Contacts) a minimum of seventy-two (72) hours prior to any tree or shrub removal.
   a. Should the Permittee disturb any vegetation, the disturbed areas will, upon DCR’s approval, be filled, groomed, and planted with native vegetation to blend in with the natural landscape at or before 95% project completion.
   b. The Permittee will monitor the areas of replaced vegetation to make sure that they are established. If the vegetation dies, the Permittee will consult with DCR Arborist (see Notices and Contacts) to work out replacement details.

6. The Permittee will minimize the impact on trees and shrubs on, in and near the Premises.
   a. The Permittee will remove and replace trees and shrubs only if absolutely necessary to the integrity of the construction and only if such removal is approved by DCR Arborist prior to start of construction.
   b. Any tree removed, damaged and or distressed by the proximity of the construction allowed by this permit will be replaced and warranted for two (2) years at the permittee’s cost.
c. A second notice will be made to the DCR Arborist (see Notices and Contacts) a minimum of 72 hours before any tree is removed.
   i. If the removal of a tree is approved, the Permittee is responsible for disposal/elimination of all associated vegetation materials, above and below ground including but not exclusive of leaves, branches, trunk, and the stump, and restoration of the area.
d. In locations where tree removal/loss are unavoidable, the specific field placement of replacement vegetation will be at a location(s) as directed by DCR; planting locations may include areas outside the permit premises.
e. The Permittee will replace all trees removed for construction, the replacement will be based on caliper inch removed and/or cash equivalent. DCR Arborist and/or designee will have the choice of species, size and location;
   i. One caliper inch (1") for every caliper inch of lost/removed trees in suburban areas, as deemed practical by DCR.
   ii. Two caliper inches (2") for every caliper inch of lost/removed trees in urban areas, as deemed practical by DCR.
   iii. Any deficiency to the total required replacement caliper inch(es) shall be paid as restitution to the Conservation Trust and Urban Parks Trust Fund. (See the Special Conditions for details).
f. All replacement trees shall be tagged at the approved nursery by the DCR Arborist, before being shipped to the work site.
g. All replacement trees shall be planted by an approved Landscape Contractor, supervised by a Certified Arborist and by standard arboricultural practices. They will be planted within the planting season during which the work is completed. If this cannot be done, planting shall be done in the next planting season. Planting seasons are April 1 through June 15 and September 15 through October 31.

J. OPERATING SCHEDULE

1. DCR roadways shall not be occupied between the hours of 6:30 a.m. and 9:30 a.m. and the hours of 3:30 p.m. and 6:30 p.m. Monday through Friday, or as otherwise described in the Special Conditions. This provision includes time for the placements of traffic equipment to set up the Traffic Management Plan.

2. The Permittee shall shut down all work at 12:00 p.m. (noon) on the eve of major holidays, which include Memorial Day, Independence Day, Labor Day, Thanksgiving, Christmas and New Year’s Day or as otherwise described in the Special Conditions.

3. During periods of closing due to inclement weather or any other cause not within the control of the DCR, all other obligations of the Permittee shall not be waived. The DCR shall not be responsible for any costs incurred or revenue lost due to closing or re-opening of facilities or roadways under the provisions of this section.

4. Should a Special Event occur on the premises during the active duration of this permit, the Permittee will minimize any impacts on the park patrons. Any permitted work on DCR properties associated with the special event location, will cease and or shutdown at 10:00 p.m. prior to the start of the special event permit, and shall only resume after the area impacted by the special event has been cleared, cleaned and maintained.

K. TAXPAYER IDENTIFICATION NUMBER

1. Upon request by DCR, the Permittee shall remit to the DCR a Department of Revenue Certification of Good Standing; complete and remit a Taxpayer Identification Number and/or a Certification (Massachusetts Substitute W-9 Form) prior to the execution of this Permit. (as noted in the Special Conditions)

L. RISK OF OPERATION AND INDEMNIFICATION

1. The Permittee shall assume all risk in connection with any and all activities engaged in on the Premises, and shall be solely responsible and answerable in damages and any other remedies for all accidents or injuries to all persons or property caused by the Permittee and/or its contractors, agents, representatives, employees, licensees, guests and invitees.

2. The Permittee shall be responsible for the security of the Premises and the protection of the assets and property of the DCR. The Commonwealth shall not be responsible for property of the Permittee, its contractors, agents, representatives, employees, licensees, guests and invitees.
3. The Permittee shall agree to defend, hold harmless, and indemnify the Commonwealth of Massachusetts, the DCR, and its agents, officers and employees from any claims regardless of fault, arising out of any violation of any law, ordinance or regulation affecting the activities authorized herein by this Permit, from any claims for personal injury or death or damage to personal property, of whatever kind or nature, arising from the Permittee’s activities on the Premises, including claims arising from the intentional, reckless or negligent acts or omissions of the Permittee, its contractors, agents, representatives, employees, Permittee’s, licensees, guests and invitees, as authorized under this Permit and claims arising from the Permittee’s failure to provide adequate security on the Premises.

4. The Permittee shall not make any claims against the Commonwealth or the DCR for any injury, loss, or damage to persons, including bodily injury or death, or damage to property or costs or liabilities arising out of or in connection with this Permit, the obligations thereunder and the Permitted Uses, such as without limitation response actions engaged in or required under law or this Permit, including any acts or omissions of the Permittee, its contractors, agents, representatives, employees, licensees, guests and invitees, except for claims arising solely from the reckless conduct of the DCR.

5. The Permittee shall waive any and all claims for compensation for any and all loss or damage sustained by reason of any interference by any public agency or official in the operation of this Permit.

6. The risk of loss resulting from any natural weather phenomena or occurrences remains with the Permittee.
   a. Compensation due to the DCR shall not be reduced or abated in any manner due to natural weather phenomena or other occurrences.

M. INSURANCE

1. The Permittee, its employees, contractors or agents shall hold the appropriate valid license(s) as required by law to perform the construction work associated with this Permit for the duration of the Permit.

2. The Permittee and or their contractor shall carry insurance in the types and amounts as described in this section of the Permit at its own expense.

3. The Permittee shall maintain said policies for the full Term of this Construction permit. Failure to maintain insurance coverage shall be deemed a material breach of the Permittee’s duties under this Construction permit.

4. If the Permittee’s insurance provisions, terms, and coverage, are amended, changed, suspended, expired or cancelled in any fashion, the Permittee shall, to the extent practicable, provide DCR with at least 30 days advance notice thereof.

5. The Permittee shall furnish Certificates of Insurance issued by an insurer or insurers qualified to do business in the Commonwealth. Said Certificates of Insurance must be provided for review and approval to the address listed below prior to execution of the Permit.

Department of Conservation and Recreation
Construction Access Permits
Permit No: 
251 Causeway Street, Suite 700
Boston, Massachusetts 02114

6. Failure to furnish said Certificates of Insurance and/or policies shall be deemed a material breach of the Permittee’s duties under this Permit but in no way shall release Permittee of its obligations herein.

7. The Commonwealth of Massachusetts, including its DCR, shall be named as an additional insured on all policies specified herein, except that in regard to section M.12 the Commonwealth shall be named as an additional insured only on the contractors pollution liability portion of the professional/contractors pollution liability policies per policy endorsements.

8. General Liability: The Permittee shall carry General Liability Insurance in the minimum amount of $1,000,000 per occurrence, $2,000,000 in the aggregate.

9. Public/Products Liability Insurance. The Permittee shall carry public liability insurance as to third persons, and products liability insurance against claims based upon the services provided, in the minimum amount of One Million Dollars ($1,000,000) in the event of death or injury to one individual, and a minimum of Two Million Dollars ($2,000,000) in the event of death or injury to more than one individual, or such other amounts of liability insurance coverage the DCR shall reasonably require from time to time.
10. **Fire and Casualty Insurance.** The Permittee and/or their contractor shall carry fire and casualty liability insurance in a minimum amount equal to the fair market value of the structure(s) located upon the Premises, if required by DCR.

11. **Professional/Environmental Impairment Liability Insurance:** Unless specifically excluded in writing in the Special Conditions of this Permit, the Permittee shall carry, or shall cause its contractor to carry, Environmental Impairment Liability Insurance, and shall cause its consultants to carry Professional Liability Insurance, that includes coverage for environmental contamination, bodily injury and/or property damage arising out of acts, errors and omissions of Permittee or its contractors, employees or agents in the performance of the Permitted Uses or any other activities or failures to act at or with respect to the Premises in the amount of one million dollars ($1,000,000) for each claim and three million dollars ($3,000,000) in the aggregate. Coverage includes claims based upon or arising out of underground storage tanks. Notwithstanding any contrary provisions section, said Professional Liability and Environmental Impairment Liability Insurance may be written on a "claims made" basis provided that the insurance coverage is maintained during the full term of this Permit and for at least three (3) years after the expiration of the Term.

12. **Automobile Bodily Injury and Property Damage Liability Insurance** in an amount not less than the compulsory coverage required in Massachusetts. Such insurance shall extend to owned, non-owned and hired automobiles used in the performance of the activities under this License. The limits of liability of such insurance shall be not less than one million dollars ($1,000,000) combined single limit.

13. If the Permittee’s and/or their contractor’s insurance provisions, terms, coverage, etc. are amended, changed, suspended, expired or cancelled in any fashion, the Permittee must notify the DCR verbally immediately and shall notify the DCR in writing within five (5) business days.

**N. HAZARDS ~ PHYSICAL, ENVIRONMENTAL AND CHEMICAL**

1. The Permittee shall periodically inspect all areas used by the public in and around the Premises for the presence of unsafe or hazardous conditions and shall promptly remedy such conditions when found and shall promptly report the conditions to the DCR. The Permittee shall develop an accident reporting system and shall ensure that all employees understand and comply with said system. The Permittee shall make and preserve records of all accidents, emergencies and administration of medical aid on the Premises.

2. The Permittee shall immediately verbally notify DCR of any injuries, property damage or related incidents that occur on the Premises and shall provide written notice to the DCR Regional Engineer within five (5) calendar days of said incident. The written notice shall provide a detailed account of the incident, including, but not limited to, the nature of the incident, the names of any individuals involved and the names of any and all witnesses, all phone numbers, addresses, and contact information of affected individuals and witnesses, and the names of any agencies (federal, state, and/or local) that responded to the incident.

3. If the Permittee is notified by any regulatory agency having authority over the Premises that the Premises operations are in violation of an applicable rule, regulation or statute, the Permittee shall take immediate action to cure said violation. If the Permittee fails to take prompt remedial measures, the DCR may suspend the operations on any part or all of the Premises.

4. The Permittee shall not release, discharge or similarly dispose of hazardous substances, chemicals or materials.

5. Without limiting any of Permittee’s obligations under this or any other Section of this Permit, Permittee agrees that it shall not cause any hazardous materials to be used, (with the exception of oil and other petroleum products contained within and necessary for the equipment utilized during the Permitted Uses), generated, stored or disposed of on, under or about, or transported to, from or through the Premises, except for soil, groundwater or other material originating on the Premises and removed from the Premises by Permittee as required for the Permitted Uses (e.g., drill cuttings and soil samples, and excavated soil). Permittee assumes full liability and responsibility for such soil, groundwater or other material removed from and not replaced on the Premises including, but not limited to, responsibility for ensuring that the handling, treatment, transport, storage and/or disposal of these materials is properly and safely performed according to all applicable federal, state, and local laws, regulations and governmental requirements.

6. If Permittee’s use of the Premises results in the need for a further response action under applicable environmental laws (other than the c. 21E response actions being undertaken as described in the Scope of Work), the Permittee shall give immediate telephone notice to DCR by calling the Environmental Section Head, Robert Lowell at (617) 626-1340. Without limiting any other provision of this Permit, completion of any such response action shall be the sole responsibility of the Permittee, shall be performed in accordance with
applicable environmental laws at Permittee's sole expense, and shall not be performed without the prior approval of DCR unless an emergency situation exists and approval cannot be obtained. DCR reserves the right to supervise Permittee's contractor(s) implementing any such response action, and all submittals required to be made to any regulatory agency must be reviewed and approved by DCR.

7. For the purposes of this Permit, "hazardous materials" shall include, but not be limited to, substances defined as "hazardous substances", "toxic substances", "hazardous wastes", "hazardous materials", "oil" or "asbestos" in any federal or state statute concerning hazardous substances, wastes or materials now or hereafter enacted, including all regulations adopted or published hereunder.

8. Pesticide applications may be allowed with written permission by DCR. If allowed, only those materials approved and registered by the U.S. Environmental Protection Agency for the specific purpose planned shall be considered for use on the Premises. Label instructions shall be strictly followed in the preparation and application of pesticides and other hazardous substances and disposal of excess materials and containers. Any and all applicators shall be duly licensed by the Commonwealth and the U.S. Environmental Protection Agency. Use of said materials must have prior authorization from DCR.

9. The Permittee assumes all risk associated with any environmental condition within the subject property and shall be solely responsible for all costs associated with evaluating, assessing and remediating, in accordance with all applicable laws, any environmental contamination (1) discovered during the Permittee's work or activities under this permit to the extent such evaluation, assessment or remediation is required for Permittee's work, or (2) resulting from Permittee's work or activities under this permit. Permittee shall notify DCR of any such assessment and remediation activities for review and approval of proposed activities; except for emergency containment. The Permittee is hereby held solely responsible for obtaining and maintaining any and all environmental compliance permits required by local, state and federal laws and regulations when regular or emergency work is proposed within, or in close proximity to, any wetland area.

10. In the event the Permittee learns of any release of oil or hazardous material or any other emergency within or from the Permitted Area, in addition to providing any regulatory notice required by any local, state or federal law or regulation, the Permittee shall provide notice of any such release or other emergency to DCR as soon as practicable thereafter, but not more than three (3) hours following any such release or emergency. Notice shall be given orally by telephone to the DCR Operations Control Center at (617) 946-3150. In the case of a release or other environmental emergency, notice must also be given in writing within twelve (12) hours, deposited in the United States mail, certified, return receipt requested, postage prepaid to:

Department of Conservation and Recreation
21 Causeway St., Suite 700
Boston, MA 02114
ATTN: Robert Lowell

11. In the event that the Permittee may impact contaminated soil and/or groundwater through permitted activities, the result may require site characterization under the supervision of a Licensed Site Professional (LSP). In this instance, the Permittee shall cease work and obtain from the Massachusetts Department of Environmental Protection (MassDEP) a written approval of a Response Abatement Measure (RAM) Plan (per 310 CMR 40) for the Permitted Uses to continue. The Permittee and its LSP shall oversee work in the Permitted Area to ensure that:

a. Worker health and safety is protected.

b. Soil generated and to be removed, if any, is properly disposed of in accordance with M.G.L. c. 21E / Massachusetts Contingency Plan and other applicable state and federal law

c. The RAM is properly implemented and completed. Disposal, if any, of such soil shall be done under the supervision of an LSP and certified by the LSP to MassDEP.

O. LAND MARKERS AND MONUMENTS

1. The Permittee shall take reasonable precautions to protect all public land survey monuments, public land boundary markers and private property corners.

2. In the event that any such markers or monuments are disturbed or destroyed, the Permittee shall take appropriate action to reestablish them in accordance with specifications of the town or county surveyor, or the DCR.
P. TERMINATION

1. The nature of this Permit is a revocable license. As such, the DCR may terminate, with or without cause, upon written or oral notice to the Permittee, at which time all work associated with the permit will immediately end. If applicable, thereafter, the Permittee may cure or remedy such matter within no more than twenty-four (24) hours. If the Permittee does not satisfactorily remedy or cure said matter, this Permit will be deemed terminated. If this Permit is revoked or terminated, Permittee shall not be relieved of liability to DCR or the Commonwealth for arrears in any fees or for any other injury, cost, liability or damage sustained or for any response action required or identified as needed as result of a Permittee’s entry and/or use of the Premises, whether occurring before or after such termination.

2. All obligations required of the Permittee under the terms of this Permit shall expressively survive the given termination/expiration date until such obligations are completed to the satisfaction of the DCR.

Q. NON-DISCRIMINATION

1. The Permittee acknowledges that there shall be no discrimination against any employee who is employed in the work covered by this Permit, or against any applicant for such employment, based on race, color, religion, sex, sexual orientation, age, national origin, veterans’ status, or physical or mental handicap.

2. The Permittee shall comply with all applicable federal and state statutes, and rules and regulations promulgated there-under prohibiting discrimination in employment.

R. STATUS OF PERMITTEE

1. The relationship of the Permittee to the Commonwealth of Massachusetts and the DCR is that of a Licensee. The Permittee covenants and agrees that it will conduct itself consistent with such status, that it will neither hold itself out as, nor claim to be, an officer or employee of the Commonwealth by reason hereof, and that it will not, by reason hereof, make any claim, demand or application to, or for any right or privilege applicable to an officer or employee of the Commonwealth of Massachusetts, including, but not limited to, Worker’s Compensation Coverage, unemployment insurance benefits, Social Security coverage or retirement membership or credit.

2. Nothing herein contained shall create or be construed as creating a co-partnership between the DCR and the Permittee or to constitute the Permittee as an agent of the DCR.

3. The Permittee acknowledges that this Permit does not confer any rights in real property to the Permittee. As a licensee, the Permittee may enter and use the Premises solely for those purposes contained in this Permit. Any use of the Premises by the Permittee that is inconsistent with the terms of this Permit shall be deemed a material breach of the Permittee’s rights and obligations under this Permit.

S. MERGER

1. All Attachments or Exhibits to this Permit are hereby incorporated by reference and become part of this Permit. Any failure to comply with the terms and conditions contained in any Attachment or Exhibit by either party constitutes a breach of this Permit. The Attachments and Exhibits are intended to be used to clarify the terms of this Permit. In the event there is an irreconcilable conflict between the terms of this Permit and those contained in an Attachment or Exhibit, the term contained in this Permit shall supersede.

2. Plans and documents, including, but not limited to, TMP, pedestrian and vehicle plans, and MUTCD specifications, which are submitted to and approved by the DCR, are hereby incorporated by reference and become part of this Permit.

T. WAIVER

1. No waiver during the term of this Permit, by either party, of any term, condition or covenant of this Permit shall be deemed a waiver at any time thereafter of the same provision or of any other provision contained herein, or of the strict and prompt performance thereof.

U. FORCE MAJEURE

1. Neither party shall be liable to perform its part of this Permit when such failure is due to fire, flood, war, riot, insurrection and/or other catastrophe beyond the control of the parties.

V. SEVERABILITY

1. If any provision of this Permit, or portion of such provision, is held invalid, the remainder of this Permit shall continue in full effect.
W. MODIFICATIONS OR AMENDMENTS

1. Modifications or amendments to this Permit shall be in writing and duly executed by both parties hereto to be effective.

X. ASSIGNMENT AND SUBLETTING

1. Except with the consent of the DCR, this Permit is not transferable.

2. The Permittee shall not assign, sublease, transfer or otherwise dispose of its management responsibilities or of any right, interest or use of the Premises covered by this Permit to anyone other than its contractor or parties specifically named in this permit, without the prior written consent of the DCR.

3. Any such disposition without the written consent of the DCR shall constitute a material breach of this Permit, which shall be cause for immediate termination of the Permit by the DCR.

4. The DCR shall not be obligated to recognize any right of any person or entity to any interest in this Permit or to any rights, equipment, structures, or property of the Permittee at the Premises. Any assignments of rights under this Permit are void.

5. The Permittee may not enter into any agreement with any entity or person, except employees of the Permittee, and/or its contractor or parties specifically named in this permit and/or their contractors, to exercise substantial management responsibilities for operation of the Premises without the prior non-electronic written consent of the DCR Commissioner or designee.

6. In the event of any unapproved or prohibited transfer or encumbrance by the Permittee, or in the event of any default of its obligations to persons or entities which are not a Party to the Permit, such person or entity shall not be deemed to have acquired operating rights, privileges, or title to the Premises or real or personal property of the DCR.

7. Any third-party beneficiaries have no enforceable rights under this Permit.

Y. ATTACHMENT

1. The Permittee is not authorized to permit and shall not permit any liens, mortgages or other security interests for any purpose to be attached to the Permitted Area in connection with the Permittee’s use of, occupancy of, and/or activities in, around or near the Permitted Area under this Permit, including without limitation any repairs, renovations, alterations, additions, betterments, fixtures and/or improvements to the Permitted Area. The Permittee shall, upon request of DCR, furnish such waivers of any liens, mortgages, and/or any other security interests, as DCR may require and in a form that is satisfactory to DCR. The Permittee shall, upon the request of DCR, furnish such surety bonds as DCR may request and require, as it relates to said waivers. In the event that any liens, mortgages, or other security interests are attached to the Permitted Area or any part thereof or improvement thereto, the Permittee shall forthwith cause such liens, mortgages, and/or security interests to be released of record without cost to DCR.

Z. NOTICE

1. For purposes of this Permit, the parties hereto shall, unless otherwise indicated below, be deemed duly notified of any information or issues arising from the operation of this Permit in accordance with the terms and provisions hereof only if written notices are provided by first class mail, overnight mail or hand delivered or fax delivery with confirmation to the parties noted in the Notices and Contacts section, (DCR Construction Permits Director; DCR Region Manager, and (DCR Chief Engineer) subject to change upon notice in writing to that effect;

2. If the permitted work site encompasses and or encroaches upon designated parking spaces and or parking areas, the permittee will install additional signage indicating the parking restriction.
   a. The “TEMPORARY PARKING RESTRICTIONS” signage must be installed at least 48 hours prior to the start of each portion of the permitted work. A copy of the parking restriction along with the date and time it was posted must be emailed to kathy.delucce@state.ma.us [617-626-1418] or Faxed to 1-617-626-1472. Should the permittee not post within the specified time, they will be responsible for any towing reimbursement that may occur.
   b. Should the parking spaces and/or parking areas be located in a residential neighborhood the permittee will provide written notice (mailed or posted) to area residents who may be impacted, at least 72 hours prior to use of the parking space. This notice may include leafleting all cars and mailboxes within 150 feet of the restricted parking area. A description of how you notified the neighbors plus a copy of the
parking restriction including the date and time it was posted must be emailed to kathy.delucca@state.ma.us or faxed to 1-617-626-1472.

3. Before any work is started, the Permittee will provide notice to parties indicated in the Special Conditions and the Notices and Contacts section.

4. The Permittee will supply a written work schedule prior to the commencement of work, and will update the schedule at the time of 50% and 80% completion to parties indicated in the Special Conditions and Notices and Contact section.

5. At least seventy-two (72) hours prior to removing any vegetation from the Premises, notice shall be provided to the DCR Landscape Architect (as specified in the Notices and Contacts section).
SECTION 01270
MEASUREMENT AND PAYMENT

PART 1 - DESCRIPTION

1.01 GENERAL:

A. The following subsections describe the measurement of and payment for the work to be done under the items listed in Section 00300, FORM OF GENERAL BID.

B. All work performed as described in these contract documents shall be paid for under one or more of the items listed in Section 00300, FORM OF GENERAL BID. All other activities required in connection with performance of the work, including all work required under Division 1, GENERAL REQUIREMENTS, whether described in the contract documents or mandated by applicable codes, permits and laws, will not be separately paid for unless specifically provided for in the FORM OF GENERAL BID, but will be considered incidental to performance of the overall project.

C. Each unit or lump sum price stated in the Section 00300, FORM OF GENERAL BID shall constitute full compensation as herein specified for each item of work completed in accordance with the Contract Documents.

D. The payment items listed herein and in Section 00300, FORM OF GENERAL BID are intended to provide full payment for the work specified in the Contract Documents. Any work called for or implied in the documents but not listed as a payment item shall be considered incidental to the overall project.

E. Unless otherwise noted, all earthwork shall be included under any item requiring excavation. Unless otherwise noted, each item specified shall be furnished and installed in accordance with the technical section whether a specific applicable payment item exists or not.

F. The prices for those items which involve excavation shall include compensation for disposal of surplus excavated material, and installation of all necessary sheeting and bracing.

G. In all items involving excavation, the price shall be based on doing the entire excavation in earth. Where rock is excavated, the price therefor shall be in addition to the cost of excavating the earth, and no deduction shall be made in the amount for earth excavation.

H. MWRA funding can only be utilized for full replacement of lead service piping and will not be used to pay for replacing only a portion of the lead service piping. The City’s Water Enterprise Fund will be utilized to pay for the payment items when portions of a lead water service remain. The Contractor shall be responsible for tracking the bid item quantities for when the full lead water service is replaced and when only a portion of the
lead water service is not replaced. One pay requisition shall be submitted with two bid quantity tracking spreadsheets for each funding source. Unless otherwise approved by the Engineer, the Contractor shall be responsible for replacing all existing lead water services.

PART 2 – PAYMENT ITEMS

2.01 MOBILIZATION & DEMOBILIZATION:

A. Payment of the lump sum in the Bid Form for Item 1a shall be full compensation for the general mobilization and demobilization necessary to make the contract operational and shall include, but is not limited to, all insurance, bonds, tools/equipment, preparing and submitting permit applications required of the contract, Dig Safe coordination, catch basin protection, compost filter tubes, traffic control signage, photo documentation, background checks, CORI, SORI, and drug and alcohol screening, appointment scheduling requirements, water service inspection inside of buildings prior to excavation, project management, closeout and cleanup of materials, and all other work items described within these specifications as required for the project and not included for payment in other items listed herein.

B. The Contractor shall submit for approval by the Owner prior to the first payment application a lump sum breakdown detailing proposed drawdown of the lump sum over the contract duration. The lump sum cost for Item 1a shall not exceed 5% of the total cost for Items 2 through 11.

C. For procurement purposes the Contractor can expect to need a minimum of two (2) siltation sacks and sixty (60) feet of compost filter tube per location requiring environmental protection measures. See attached list of locations requiring environmental protection measures in Appendix B.

2.02 SERVICE CONNECTIONS:

A. Unless otherwise noted, the price for all service connections shall constitute full compensation for earth excavation, sheeting, dewatering, existing service material investigation, bedding, furnishing, laying, jointing, testing pipe, backfilling, sidewalk replacement, curbing replacement and/or resetting, water service installation documentation and photographs, loaming and seeding on public and private property, and cleaning up.

B. Payment shall be made at the contract unit prices under the subdivisions of the item "Service Connections."

C. Service piping, including all types of copper tubing; brass and polypropylene pipe couplings; fittings; insulation; threaded brass fittings, adapters, nipples, bends, and reducers; new or reused meter couplings, setters, re-setters; and ball valves required to install the new water service complete, between the existing water main and the water meter in the house, as specified and detailed, shall be measured per linear foot.
completed.

D. Corporation stops, including saddles, fittings, and couplings if required, shall be measured per unit completed.

E. Curb stops, including couplings and fittings, if required, shall be measured per unit completed. If required, excavating an access pit to expose and close the corporation stop shall not be separately paid for but shall be incidental to the cost of the curb stop.

F. Curb boxes shall be measured per unit furnished and installed.

G. Connections to non-copper pipe and connections to existing water meters shall not be separately measured for payment but shall be considered incidental to the cost of the Service Connection items.

2.03 SERVICE MATERIAL EXPLORATION EXCAVATION:

A. Only service replacement that is aborted (upon approval from the engineer) because the existing service is found to consist entirely of copper, brass, and/or iron (not lined with lead) shall be measured per excavation and shall be paid under the item “Service Material Exploration Excavation.”

B. The unit price under this item shall constitute full compensation for all excavation, water service material investigation, backfill, in kind sidewalk replacement, in kind curbing replacement and/or resetting, surface restoration, loaming and seeding, or other work incidental to excavation, backfill, or restoration of the excavation.

C. The unit price under this item shall include a minimum 6-foot long excavation, measured perpendicular to the roadway, for exposure of the existing water service to enable the Engineer to determine the material of the water service on the private and non-private sides of the existing curb stop.

2.04 TEST PITS:

A. Test pits as ordered by the Engineer and not incidental to construction shall be measured per cubic yard excavated and backfilled under the Item “Test Pits.” This work shall be separate from the work required and paid for under “Service Material Exploration Excavation”

B. Test pits shall be paid at the contract unit price under the item “Test Pits.” The unit price under this item shall constitute full compensation for all excavation, backfill, pavement repair, in kind sidewalk replacement, in kind curbing replacement and/or resetting, surface restoration, loaming and seeding, or other work incidental to excavation, backfill, or restoration of test pits.
2.05 SEWER AND DRAIN RECONSTRUCTION:

A. Reconstruction of sewers and drains shall be measured per sewer or drain reconstructed and shall be paid at the contract unit price under the item "Sewer and Drain Reconstruction."

B. Only pipe which is not located for the Contractor in the field shall be considered for payment.

C. Pipes damaged by the Contractor which pass below the proposed pipeline or are outside the specified trench limits shall be repaired by the Contractor at no cost to the Owner.

2.06 ROCK EXCAVATION AND DISPOSAL:

A. Rock excavated and disposed of off-site by the Contractor shall be measured by the cubic yard, within the payment limits as defined in the water trench detail or as defined in Paragraph G below.

B. Payment for this item includes rock excavation and disposal; furnishing and installing gravel borrow in its place, and providing all required documentation.

C. Only boulders and concrete structures greater than one cubic yard shall be included for measurement and payment.

D. Where rock is encountered, it shall be uncovered but not excavated until the Engineer has made measurements, unless, in the opinion of the Engineer, satisfactory measurements can be made in some other manner.

E. The bidder shall include in the bid for items involving excavation, the cost of doing the entire excavation as earth. The price for the Item "Rock Excavation and Disposal" is intended to cover the difference between the cost of rock excavation and the cost of earth excavation.

F. The cost of pre-blast surveys, vibration air blast monitoring, blasting records and post-blast inspection shall be considered incidental to the cost of rock excavation and disposal and will not be separately paid.

G. When two or more pipes are installed parallel to one another and the trench payment limits overlap, rock excavation in the overlap section will only be paid once.

2.07 EARTHWORK:

A. Unless designated otherwise, earthwork shall not be separately measured for payment, but shall be considered incidental to construction of the project.
B. EXCAVATION AND BACKFILL OF UNSUITABLE MATERIAL ABOVE NORMAL GRADE:

1. If, in the opinion of the Engineer, the material at or above normal grade is unsuitable for use as backfill, it shall be removed and disposed of to such depths and widths within the limits of payment as ordered by the Engineer. Normal grade is defined as the elevation of the trench bottom, as shown on the drawings.

2. The quantity of earth excavation and backfill of unsuitable material above normal grade to be included for payment shall be the number of cubic yards of unsuitable material ordered to be removed and measured by the Engineer within the trench payment limit shown on the contract drawings, excluding quantities paid under other items.

3. Topsoil, paving materials, frozen material or ledge excavation above the normal grade of the trench excavation will not be considered for payment.

4. The unit price for this item shall constitute full compensation for excavation of unsuitable material above normal grade and disposal of unsuitable material, excluding materials noted above, and furnishing, installing and compacting approved backfill materials as specified in the Contract Documents.

5. The Contractor will not be reimbursed for excavation of unsuitable material above normal grade, which has not been ordered by the Engineer.

C. EXCAVATION AND BACKFILL OF UNSUITABLE MATERIAL BELOW NORMAL GRADE:

1. If, in the opinion of the Engineer, the material at or below normal grade is unsuitable for use as foundation, it shall be removed and disposed of to such depths and within the limits of payment. Normal grade is defined as the elevation of the proposed pipeline trench bottom, as indicated on the drawings.

2. The quantity of earth excavation and backfill below normal grade to be included for payment shall be the number of cubic yards of unsuitable material ordered to be removed and measured by the Engineer within the trench payment limit as indicated on the contract drawings.

3. The unit price for excavation and backfill of unsuitable material below normal grade shall constitute full compensation for excavation of unsuitable material below normal grade, disposal of unsuitable material, and furnishing, installing and compacting approved backfill materials as specified in Section 02300 of the Contract Documents.

4. The Contractor will not be reimbursed for excavation of unsuitable material below grade, which has not been ordered by Engineer. The Contractor shall backfill and compact any such over-excavated areas in accordance with the
D. ADDITIONAL EARTHWORK BELOW NORMAL GRADE:

Additional earthwork necessary to lower the pipeline below the grade indicated on the drawings, if ordered by the Engineer, shall be measured per cubic yard and paid at the contract unit price under the Item “Additional Earthwork Below Normal Grade.” Payment shall cover both earth excavation and backfill with excavated material. Payment for the removal, disposal, and replacement of unsuitable material shall be in accordance with Paragraphs B and C above.

2.08 CONTROLLED DENSITY FILL (CDF):

A. CDF shall be measured per cubic foot and shall be paid at the contract unit price under the item “Controlled Density Fill”

B. The unit price under this item shall constitute full compensation for purchase, transport, installation, plating and a 24-hour curing period before paving.

2.09 PAVEMENT REPLACEMENT:

A. Bituminous pavement shall be measured per linear foot, of pavement completed, and shall be paid at the contract unit prices under the subdivisions of the item "Pavement Replacement” as further described below.

B. Pavement disturbed by the Contractor's operations outside payment limit as defined in the water trench detail shall not be paid under these items, but shall be repaired to its original condition by the Contractor at no cost to the Owner.

C. Payment for Trench Pavement shall include furnishing, preparation, and installation of compacted gravel borrow sub base, binder course pavement, and tack coat, as specified in the drawings. Maintenance and repair of trench pavement shall not be separately measured for payment but shall be considered incidental to the cost of the trench pavement item.

D. Pavement measured per linear foot shall be measured based on a horizontal projection to grade of the centerline of the completed pipeline(s) trench.

E. Raising and adjusting castings and valve boxes shall not be measured separately for payment but shall be considered incidental to the project.

2.10 REPAIR AND RESTORATION OF PRIVATE PROPERTY:

A. Payment shall be made at the contract unit prices under the subdivisions of the item "Repair and Restoration of Private Property." Exterior repair and restoration of private property shall be measured per location. Interior repair and restoration of private property shall be measured per man hour spent working within the building interior.
B. The work of this section shall only include work approved by the Engineer and not included for payment in other items listed herein.

C. Exterior Private Property shall be defined as the area that exists starting from the back edge of the sidewalk to the existing house or building, or as defined by the Engineer. If no sidewalk exists, then exterior private property shall start six (6) feet back from the edge of road to the existing house or building, or as defined by the Engineer.

D. Exterior private property shall include the area outside of the building foundation footprint.

E. Interior private property shall be defined as the area inside the footprint of the building structure, including the building foundation.

F. The unit price for exterior repair and restoration of private property shall include full compensation for labor and materials required for planting restoration, repair or replacement of retaining walls and fencing, walkways, sidewalks, driveways, pavement, pavestone, decks, stoops, and other exterior items outside of the building foundation footprint. The work under this item shall only include repair and restoration work required as a result of open trench water service replacement work not included for payment under other payment items, and shall only occur upon approval by the Engineer in writing.

G. Loaming and seeding of private property shall not be included for payment under this item.

H. The unit price for interior repair and restoration of private property shall include full compensation for all labor and materials required to return the interior of the building structure and foundation to preconstruction conditions, such as excavation, backfill, repairs to porches, foundations, and interior walls, ceilings, and floors. The work under this item shall only include repair and restoration work required as a result of the water service replacement work not included for payment under other payment items, and shall only occur upon approval by the Engineer in writing.

I. Ten (10) percent of payment for the subdivisions of the item “Repair and Restoration of Private Property” shall be withheld until at least 30 days after the private property has been restored to preconstruction conditions and there is evidence of new growth or that the work has not begun to fail, as determined by the Engineer. The ten (10) percent withholding is in addition to the standard five (5) percent retainage withheld on all work.

J. Areas disturbed by the Contractor’s operations outside the payment limit shall not be paid for but shall be repaired/restored to original conditions by the Contractor at no additional cost to the Owner.
2.11 ON-CALL LICENSED PLUMBER

A. The work of this section shall be measured per hour worked per plumber, only for work approved by the Engineer, in writing, and when the plumbing work is not caused by Contractor’s negligence.

B. The unit price for an on-call licensed plumber shall constitute full compensation for all valves, fittings, piping, other materials, and labor required to tie in the building plumbing on the downstream side of the meter to the new water service and not included for payment in other items listed herein. The work of this section shall only include work required to install the replacement service and not for leak repair in plumbing downstream of the water meter.

C. Payment shall be made at the contract unit price of the item “On-Call Licensed Plumber.”

D. Ten (10) percent of payment for the subdivisions of the item “On-Call Licensed Plumber” shall be withheld until at least 30 days after the plumbing work has been completed and restored to preconstruction conditions and there is no evidence of work failure, as determined by the Engineer. The ten (10) percent withholding is in addition to the standard five (5) percent retainage withheld on all work.

2.12 TRAFFIC DETAIL OFFICERS:

A. The services of uniformed officers shall be measured per hour worked and paid at the contract unit prices under the subdivisions of the item "Traffic Detail Officers." The unit prices under this item include administration charges required by the police.

C. The set prices for Uniformed Officers are based on the prevailing hourly wage rates. Payment will be made based on invoices submitted by the traffic authority to the Contractor. The Contractor shall forward copies of these invoices to the Engineer and include the cost in his Application for Payment. The Contractor shall make actual payment to the traffic authority and the Contractor shall be reimbursed by the Owner through the payment estimate, only after the Contractor has submitted a copy of a cancelled check or other proof of payment to the traffic authority. If police wages change during the course of the Contract, the unit prices under this item will be changed accordingly.

2.13 SUPPORT OF EXCAVATION:

A. Unless otherwise indicated, the work of this section shall not be separately measured for payment, but shall be considered incidental to the project.

B. No payment shall be made under this item for trench boxes, sheeting or steel plates used at the Contractor's option in the course of the work.
2.14 SIDEWALK REPLACEMENT:
   A. Unless otherwise indicated, the work of this section shall not be measured separately for payment but shall be considered incidental to the project.

2.15 DUST CONTROL (CALCIUM CHLORIDE):
   A. The work of this section shall not be measured separately for payment, but shall be considered incidental to the project.

2.16 ENVIRONMENTAL PROTECTION:
   A. Unless otherwise indicated or identified in Item 1a – Mobilization & Demobilization, the work of this section shall not be separately measured for payment, but shall be considered incidental to the project.

2.17 REMOVE AND RESET GUARD RAILS
   A. The work of this section shall not be measured separately for payment, but shall be considered incidental to the project.

2.18 LOAMING AND SEEDING:
   A. Unless otherwise indicated, the work of this section shall not be separately measured for payment but shall be considered incidental to the project.

2.19 DEWATERING:
   A. Unless otherwise indicated, the work of this section shall not be separately measured for payment, but shall be considered incidental to the project.

2.20 SIGNAGE:
   A. Unless otherwise indicated, the work of this section shall not be separately measured for payment, but shall be considered incidental to the project.

2.21 CURBING REPLACEMENT:
   A. Unless otherwise indicated, the work of this section shall not be separately measured for payment, but shall be considered incidental to the project.

2.22 CONNECTIONS TO EXISTING MAINS:
   A. Unless otherwise indicated, the work of this section shall not be separately measured for payment, but shall be considered incidental to the project.
2.23 FIELD CONCRETE:
   A. Unless otherwise indicated, the work of this section shall not be separately measured for payment, but shall be considered incidental to the project.

2.24 PROTECTION AND RELOCATION OF EXISTING STRUCTURES AND UTILITIES:
   A. Unless otherwise indicated, protection or temporary removal and replacement of existing utilities and structures as described in Section 01110 shall not be separately measured for payment, but shall be considered incidental to the project.

2.25 PAVEMENT MARKINGS:
   A. Pavement markings shall not be separately measured for payment but shall be considered incidental to the project.

2.26 TRAFFIC SIGNAL LOOPING:
   A. Repair and/or replacement of traffic signal looping by authorized installers that was disturbed by the Contractor’s actions shall not be separately measured for payment but shall be considered incidental to the project.

2.27 PRICE ADJUSTMENTS MANDATED BY MGL CHAPTER 30, SECTION 38A
   A. Price adjustments for certain payment items shall be as described in Specification Section 01250 PRICE ADJUSTMENTS. Payment shall be made at the unit prices included in Section 00410 or, if no such items are contained in Section 00410, by change order.

END OF SECTION
PART 1 - GENERAL

1.01 WORK INCLUDED:

This section covers the furnishing and installation of new water service connections and the replacement of existing water service connections in the right-of-way and private property, as specified herein, and as required by the Engineer.

1.02 RELATED WORK:

A. Section 01014, SCOPE AND SEQUENCE OF WORK
B. Section 02300, EARTHWORK
C. Section 02745, PAVING
D. Section 02920, LOAMING AND SEEDING
E. Section 02930, TREES, SHRUBS, GROUNDCOVER AND LANDSCAPING
F. Section 15408, PLUMBING

1.03 REFERENCES:

A. The following standards form a part of this specification:

   American Society for Testing and Materials (ASTM)
   ASTM B88 Seamless Copper Water Tube
   ASTM B584 Copper Alloy Sand Castings for General Applications
   ASTM D2737 Polyethylene (PE) Plastic Tubing

   American Water Works Association (AWWA)
   AWWA C800 Water-Service Line Fittings
   AWWA C651 Disinfecting Water Mains
   AWWA C901 Polyethylene Pressure Pipe & Tubing, 1/2-inch through 3-inch for Water Service

   Federal Specifications (FS)
   FS WW-T-799C Tube, Copper, Seamless

05/02/2013 02515-1
1.04 SUBMITTALS: IN ACCORDANCE WITH REQUIREMENTS OF THE GENERAL SPECIFICATIONS, SUBMIT THE FOLLOWING:

Six sets of manufacturer's literature of the materials of this section for review.

PART 2 - PRODUCTS

2.01 SERVICE PIPING:

A. Piping for buried copper water services shall be continuous Type K annealed seamless copper water tubing conforming to ASTM B88 Standard Specification for Seamless Copper Water Tube or U.S. Federal Specification WW-T-799C for Tube, Copper, Seamless. Tubing shall be 1-inch diameter unless otherwise indicated.

B. All water piping in buildings shall be in accordance with Section 15408.

C. Brass couplings, if required, for existing non-lead pipe to new copper service pipe connections shall be made of brass as specified in AWWA C800 and have compression connections on the inlet and compression connections on the outlet. All brass components that come into contact with potable water shall be made from either CDA/UNS Brass Alloys C89520 or C89833 and shall not contain more than twenty five hundredths of one percent (0.25% or less) total lead content by weight. The lead leach limit of the coupling shall be 5 parts per billion (ppb). Couplings shall be NSF/ANSI 61 Annex F and Annex G and NSF/ANSI 372 certified by an ANSI accredited organization and shall be stamped or embossed with a mark or name indicating that the product is manufactured from a low-lead alloy, as specified above.

D. Couplings required for new copper service piping to existing lead service piping connections shall be “Universal Transition Connection” couplings as manufactured by Philmac Pty Ltd. or approved equal. Couplings shall be polypropylene compression fittings, approved for use with potable water, NSF 61 listed, and fit a range of pipes, including lead and copper, without disassembly or modification. Couplings shall be rated as “High Pressure” per AWWA C800 (long term rated for 200 psi at 73° F and 150 psi at 100° F per ISO 14236). Coupling bodies and spacers shall be made of polypropylene, compression nuts shall be acetal or polypropylene, and split ring shall be of acetal with stainless steel grippers. Joint seal activation shall be accomplished solely by actuation of the compression nut and the seals shall not interfere with pipe insertion. No lubrication of the pipe shall be required to use the couplings.

2.02 CORPORATION STOPS:

A. Corporations stops shall be made of brass as specified in AWWA C800. All brass components that come into contact with potable water shall be made from either CDA/UNS Brass Alloys C89520 or C89833 and shall not contain more than twenty five hundredths of one percent (0.25% or less) total lead content by weight. The lead leach limit of the corporation stops shall be 5 ppb. Corporation stops shall be NSF/ANSI 61 Annex F and Annex G and NSF/ANSI 372 certified by an ANSI accredited...
organization and shall be stamped or embossed with a mark or name indicating that the product is manufactured from a low-lead alloy, as specified above.

B. The inlet shall have AWWA taper thread (CC) connections and the outlet shall have compression connections.

C. Corporation stops shall be by Ford Meter Box Co., Inc., Wabash, IN; Red Hed Manufacturing Co., Lincoln, RI; Mueller Co., Decatur, IL; Cambridge Brass, Inc. Cambridge, ON; A.Y. McDonald, Dubuque, IA; or approved equal.

2.03 CURB STOPS:

A. Curb stops shall be of brass as specified in AWWA C800. All brass components that come into contact with potable water shall be made from either CDA/UNS Brass Alloys C89520 or C89833 and shall not contain more than twenty five hundredths of one percent (0.25% or less) total lead content by weight. The lead leach limit of the curb stops shall be 5 ppb. Curb stops shall be NSF/ANSI 61 Annex F and Annex G and NSF/ANSI 372 certified by an ANSI accredited organization and shall be stamped or embossed with a mark or name indicating that the product is manufactured from a low-lead alloy, as specified above.

B. Curb stops shall be ball style and the inlet and the outlet shall have compression connections.

C. Curb stops shall be Catalogue #B44-444-Q by Ford Meter Box Co., Inc., Wabash, IN; Mark II Oriseal Model #H-15219 (with drain) Mueller Co., Decatur, IL; Series 262 Cambridge Brass Inc., Cambridge, ON; A.Y. McDonald, Dubuque, IA; or approved equal.

2.04 CURB BOXES:

A. The cast iron box shall be the sliding Buffalo type with Arch pattern base. Minimum inside diameter of the upper section shall be 1-1/2-inch. Curb box lid shall have brass pentagonal nut.

PART 3 - EXECUTION

3.01 INSTALLATION:

A. After inspecting the water service material inside the home or building, the Contractor shall excavate at the curb stop, exposing a minimum of three (3) feet of the existing water service on each side of the curb stop, prior to commencing replacement of new service piping. Contractor shall determine the material of both the private portion and non-private portion of the water service to verify the need for replacement.

B. If the non-private portion of the water service is determined to be non-copper, the Contractor shall discontinue the existing water service by shutting down the corporation
stop and replacing the water service with new copper piping to the property line and installing a new curb stop and curb box.

C. If the private portion of the water service is determined to be lead or lead lined, the Contractor shall discontinue the service by shutting down the curb stop and replacing the water service with new copper piping from the curb stop to the meter in the house. A new curb box shall also be installed.

D. If the non-private portion is determined to be non-copper and the private portion of the service is determined to be lead or lead-lined, the Contractor shall install new copper pipe from the corporation stop to the meter in the house and a new curb stop and curb box as detailed.

E. The Contractor shall install a new corporation stop if the existing corporation stop cannot be reutilized and shall install a new curb stop and curb box if the existing curb stop cannot be reused when installing new copper pipe for the private portion of the water service.

F. If the service material is copper on the non-private side of the curb stop and anything other than lead or lead lined on the private side of the curb stop, the Contractor shall backfill the area around the curb stop, install a new curb box, and return the surface to pre-construction conditions.

G. The Contractor shall document all service material conditions as described in Section 01014.

H. When connecting a new copper service to the existing water meter in the house, the Contractor shall install a new ball valve, fittings, and couplings in accordance with Section 15408 and as shown in the standard construction details. If approved by the Engineer, existing meter setters can be reused.

I. The Owner will be responsible for pulling the water meter, reinstalling water meters, and reconnecting the meter reading radio module or MIU to the meter register.

J. Where services cannot be installed on private and non-private property by using traditional pulling methods, the Contractor shall immediately notify the Engineer. Once approved by the Engineer, the Contractor may begin to install the service via open-cut trench methods. Failure to notify the Engineer prior to excavating water services on private and non-private property may result in the Contractor being solely responsible for the cost of installing the water service and additional expenses incurred restoring private and non-private property to pre-construction conditions. Excavation on private property cannot occur without the homeowner or homeowner’s representative present.

K. The Contractor shall flush all renewed water services from inside of the house for a minimum of ten (10) minutes. Flushing from the exterior water spigot will not be acceptable.
L. The Contractor shall be responsible for removing all portions of lead or lead lined water service piping. No lead service piping shall remain as part of the water service, except as approved by the Engineer. If portions of the lead water service are not replaced, the Contractor shall be responsible for flushing the water service from inside of the house for a minimum of fifteen (15) minutes. **Flushing from the exterior water spigot will not be acceptable.**

M. Curb stops and boxes shall be set plumb, flush with the ground or paved surface, and centered with the box located directly over the stop. The box shall be set on a concrete block or flat stone. Earth fill shall be carefully tamped around the boxes to a distance of 4 feet on all sides of the box or to the undisturbed face of the trench, if less than 4 feet.

N. Curb stops shall be operational and accessible at all times during construction and warranty period. The Contractor shall verify the proper operation of all curb stops in the presence of the Engineer and/or Owner following completion of the project and prior to the acceptance of substantial completion.

O. All services shall be installed at 5 feet 0 inches of cover unless otherwise required by the Engineer. All interior piping shall be installed as detailed.

P. Service connections shall be tested and disinfected in accordance with AWWA standards.

Q. The Contractor shall completely finish a water service installation, including returning the building interior to pre-construction conditions, once he has started replacement operations. **No residence or building shall be left without water overnight or for a period longer than eight (8) hours.** Contractor shall be prepared to provide temporary water to any building, as necessary, if the water service renewal is delayed for any reason.

3.02 CARE AND PROTECTION OF PROPERTY:

A. All exterior and interior areas affected by the Contractor’s work shall be returned to pre-construction conditions. Building interior areas shall be returned to pre-construction conditions immediately after finishing the water service installation and prior to the Contractor mobilizing to the next water service installation address.

B. The Contractor shall be responsible for the preservation of all non-private and private property, and shall use every precaution necessary to prevent damage thereto. If any direct or indirect damage done to non-private or private property by or on account of any act, omission, neglect, or misconduct in the execution of the work on the part of the Contractor, such property shall be restored by the Contractor, at his expense, to a condition substantially similar in all material respects to that existing before the damage was done.

3.03 CLEAN UP:

A. During the course of the work, the Contractor shall keep the site of his operations in as
clean and neat a condition as possible at all times. The Contractor shall remove, haul away, and dispose of all residue resulting from the work, and at the conclusion of work at each location, shall make a thorough inspection of the work area to be sure that it is left clean and free of any debris resulting from the work.

3.04 GUARANTEE AND WARRANTY

A. All faulty installations within the warranty period shall be repaired by the Contractor at no additional cost to the Owner.

B. It will be presumed that any leaks or defects that occur upstream from the meter, if the meter is not removed during the service installation, or downstream of the meter, if the meter is removed during the service installation, and are visible from the meter, and reported by the customer to either the Contractor or the Owner within thirty (30) calendar days after completion of the service replacement, are the result of the replacement efforts, and the Contractor shall repair the damage at no additional cost. This presumption will not apply to leaks or other preexisting conditions noted by the Contractor during the replacement and reported to the Owner and the Engineer prior to the start of interior work. This provision does not limit the duration of the Contractor's liability in case of negligence or faulty service installation work.

3.05 DAMAGES

A. During the replacement program, some breakage(s) may occur to customer service lines. The Contractor shall have sufficient equipment and materials on-hand and shall be prepared to immediately repair any damage to customer service lines at no additional cost to the Owner.
SECTION 02745

PAVING

PART 1 - GENERAL

1.01 WORK INCLUDED:

The Contractor shall furnish all labor, materials and equipment and shall replace the pavements as herein specified.

1.02 RELATED WORK:

A. Section 00890, PERMITS

B. Section 02300, EARTHWORK

1.03 SYSTEM DESCRIPTION:

A. GENERAL

All trenches within roadways shall be paved with Trench Pavement as described below.

B. TYPE 1. TRENCH PAVEMENT

Areas shall be paved with trench pavement by the end of each week or as required by the Engineer. No trenches shall remain unpaved over the weekend. Trench pavement shall include a gravel sub-base, unless otherwise specified, and binder course pavement with thicknesses as shown on the contract drawings. All trench edges shall be saw cut and/or clean and square prior to placement of pavement. A bituminous tack coat shall be applied to all exposed surfaces prior to placement of pavement. Contractor shall be responsible for maintaining and repairing trench pavement during construction and the warranty period.

1.04 REFERENCES

The following standards form a part of these specifications and indicate the minimum standards required:

American Society for Testing and Materials (ASTM)

ASTM D1557 Test for Moisture-Density Relations of Soils and Soil-Aggregate Mixtures Using 10 Pound Rammer and 18-Inch Drop

Massachusetts Department of Transportation (MassDOT)

Standard Specifications for Highways and Bridges
| MassDOT 403 | Reclaimed Base Course |
| MassDOT 405 | Gravel Base Course |
| MassDOT 420 | Hot Mix Asphalt Base Course |
| MassDOT 460 | Hot Mix Asphalt Pavement |
| MassDOT 476 | Cement Concrete Pavement |
| MassDOT 860 | Reflectorized Pavement Markings |

Federal Specifications

SS-S-1401  Sealants, Joint, Non-Jet-Fuel-Resistant, Hot Applied, for Portland Cement and Asphalt Concrete Pavement

AASHTO Standard Specifications for Materials and Methods of Sampling and Testing

1.05  SUBMITTALS: IN ACCORDANCE WITH REQUIREMENTS OF GENERAL SPECIFICATIONS, SUBMIT THE FOLLOWING:

Six sets of complete job mix formula shall be submitted to the Engineer at least two weeks before any of the work of this section is to begin.

PART 2 - PRODUCTS

2.01  GRAVEL SUBBASE:

A. Gravel subbase shall consist of inert material that is hard durable stone and coarse sand, free from loam and clay, surface coatings and deleterious materials.

B. Gradation requirements for gravel subbase shall be as specified in Section 02300, EARTHWORK for Gravel Borrow.

2.02  HOT MIX ASPHALT PAVEMENT:

A. Pavements shall consist of hot mix asphalt.

B. Pavement mixtures shall be within the composition limits of base courses, binder courses, top courses and surface treatment, in accordance with MassDOT M3.11.03, with constituents that conform to Table A, below.
TABLE A

PERCENT BY MASS PASSING SIEVE DESIGNATION

<table>
<thead>
<tr>
<th>Standard Sieves (in.)</th>
<th>Reclaimed Subbase</th>
<th>Base Course</th>
<th>Binder Course</th>
<th>Top Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 in</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 in</td>
<td></td>
<td></td>
<td></td>
<td>100</td>
</tr>
<tr>
<td>1-1/2 in</td>
<td>70-100</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 in</td>
<td></td>
<td>57-87</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>3/4 in</td>
<td>50-85</td>
<td></td>
<td>80-100</td>
<td></td>
</tr>
<tr>
<td>5/8 in</td>
<td></td>
<td></td>
<td></td>
<td>100</td>
</tr>
<tr>
<td>½ in</td>
<td>40-65</td>
<td>55-75</td>
<td>95-100</td>
<td></td>
</tr>
<tr>
<td>3/8 in</td>
<td></td>
<td></td>
<td>80-100</td>
<td></td>
</tr>
<tr>
<td>No.4</td>
<td>30-60</td>
<td>20-45</td>
<td>28-50</td>
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<tr>
<td>No.8</td>
<td>15-33</td>
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<tr>
<td>Binder</td>
<td>4-5</td>
<td>4.5-5.5</td>
<td>5.6-7.0</td>
<td></td>
</tr>
</tbody>
</table>

Percentages shown for aggregate sizes are stated as proportional percentages of total aggregate for the mix.

Unless authorized by the Engineer, no Job-Mix Formula will be approved which specifies:

- More than 45% passing No. 8 for Top and Dense Binder Courses
- More than 38% passing No. 8 for Modified Top Course
- More than 55% passing No. 8 for Dense Mix
- Less than 4% passing No. 200 for Top Course.
- Less than 6% bitumen for Top Course.

C. The joint sealant shall be a hot poured rubberized emulsified asphalt sealant meeting the requirements of FS SS-S-1401.

D. The tack coat shall be an asphalt emulsion, RS-1 if required, conforming to MassDOT Section M3.03.0.

2.03 PAVEMENT MARKINGS:

A. Pavement markings shall conform to the requirements of MassDOT 860.
B. The mixture of the marking material shall be within the composition limits for reflectorized pavement markings as described in the MassDOT Specifications as follows:

1. Thermoplastic reflectorized pavement markings - M7.01.03/04.

B. Application of the glass beads to be used as reflector material on the striping shall conform to Sections 860.62 and M7.03.07 of the MassDOT Specifications.

PART 3 - EXECUTION

3.01 GENERAL:

Paving courses required for the project shall be as shown on the drawings and as specified herein. Pavement thicknesses specified are measured in compacted inches. If a pavement course thickness exceeds 2-1/2 compacted inches, the course shall be installed in multiple lifts with each lift not exceeding 2-1/2 compacted inches in thickness.

3.02 MASSACHUSETTS DEPARTMENT OF CONSERVATION AND RECREATION (DCR) ROADWAY TRENCH REPAIR:

Contractor shall construct and repair trenches in accordance with these specifications. Trench shall be backfilled as stipulated in the permit and in accordance with Section 02300.

3.03 GRAVEL SUBBASE:

A. The gravel subbase to be placed under pavement shall consist of 13.5-inches of gravel evenly spread and thoroughly compacted.

B. The gravel shall be spread in layers not more than 4-inches thick, compacted measure. All layers shall be compacted to not less than 95 percent of the maximum dry density of the material as determined by ASTM D1557 Method C at optimum moisture content.

3.04 BITUMINOUS PAVEMENT:

A. Where specified and required by the Engineer and after placement of the gravel subbase, the Contractor shall place bituminous pavement above the trench, between the edges of the existing pavement.

B. The bituminous paving mixture, equipment, methods of mixing and placing, and the precautions to be observed as to weather, condition of base, etc., shall be in accordance with MassDOT 460 and as specified.

C. Immediately prior to installing the pavement, the trimmed edges shall be made stable and unyielding, free of loose or broken pieces and all edges shall be thoroughly...
broomed clean. Contact surfaces of trench sides, curbings, manholes, catch basins, or other appurtenant structures in the pavement shall be painted thoroughly with a uniform coating of asphalt emulsion (tack coat), just before any mixture is placed against them.

D. The pavement shall be repaired as necessary to maintain the surface of the pavement throughout the warranty period. If required by the Engineer, the Contractor shall remove the pavement and install or regrade the subbase for re-installation of bituminous pavement.

3.05 PAVEMENT PLACEMENT:

A. Unless otherwise permitted by the Engineer for particular conditions, only machine methods of placing the pavement shall be used. The equipment for spreading and finishing shall be mechanical, self-powered pavers, capable of spreading and finishing the mixture true to line, grade, width and crown. The mixtures shall be placed and compacted only at such times as to permit proper inspection and checking by the Engineer.

B. After the paving mixtures have been properly spread, initial and intermediate compaction shall be obtained by the use of steel wheel rollers having a weight of not less than 240 pounds per inch width of tread.

C. Final rolling of the pavement shall be performed by a steel wheel roller weighing not less than 285 pounds per inch width of tread at a mix temperature and time sufficient to allow for final smoothing of the surface and thorough compaction.

D. Immediately after placement of pavement, all joints between the existing and new pavement shall be sealed with hot poured rubberized asphalt joint sealant.

E. When required by the Engineer, the Contractor shall furnish and install additional paving to provide satisfactory transition for driveways and walkways. The transition installation will be considered incidental to the trench pavement installation.

3.06 PAVEMENT MARKINGS:

A. The Contractor shall replace all pavement markings removed or covered-over in carrying out the work, and as required by the Engineer, no sooner than 48 hours after completion of trench pavement installation. The markings shall be 4-inches wide, white or yellow, single or double lines as required.

B. When required by the Engineer, the Contractor shall provide temporary markings at no additional cost to the Owner.

3.07 TRAFFIC SIGNAL LOOPING:

A. The Contractor shall replace all traffic signal looping removed or impacted in carrying out the work, and as required by the Engineer, no sooner than 48 hours after completion
of trench pavement installation. The looping shall match the existing looping in size, spacing, and installation location.

3.08 PAVEMENT REPAIR:

A. If required in the contract or if pavement becomes rough or uneven, permanent pavement patches and trenches shall be repaired and brought to grade utilizing "infrared" paving methods following completion of the construction.

B. The Contractor performing the work shall use care to avoid overheating the pavement being repaired.

C. Pavement repair shall extend a minimum of 6-inches beyond all edges of the pavement patch to assure adequate bonding at the pavement joints.

END OF SECTION
CONSTRUCTION ZONE SAFETY PLAN

NOTES:
1. FOR THE SAFETY OF CONSTRUCTION WORKERS, TRAFFIC AND THE PUBLIC, THE FOLLOWING SAFETY CONSIDERATIONS SHOULD BE COMPLIED WITH:
2. TRAFFIC WILL BE DIVERTED IN STAGES. WORK ZONES WILL BE MARKED BY TRAFFIC ORWATER MARKERS AND SIGNS.
3. CONTRACTORS WILL BE REQUIRED TO POST TRAFFIC SIGNS AND MARKERS AT EACH WORK ZONE TO INFORM THE PUBLIC OF THE WORK ZONE LOCATION.
4. WORK ZONES WILL BE CLOSED DURING THE DAY AND OPENED AT NIGHT.
5. WORK ZONES WILL BE CLOSED DURING THE DAY AND OPENED AT NIGHT.
6. WORK ZONES WILL BE CLOSED DURING THE DAY AND OPENED AT NIGHT.
7. WORK ZONES WILL BE CLOSED DURING THE DAY AND OPENED AT NIGHT.
8. WORK ZONES WILL BE CLOSED DURING THE DAY AND OPENED AT NIGHT.
9. WORK ZONES WILL BE CLOSED DURING THE DAY AND OPENED AT NIGHT.
10. WORK ZONES WILL BE CLOSED DURING THE DAY AND OPENED AT NIGHT.

NOTE: TWS = TRAFFIC WORKER SAFETY MDW = MARKER DEFINING WORK ZONE LES = LEAD SERVICE LINE REPLACEMENT PROGRAM
<table>
<thead>
<tr>
<th>NAME</th>
<th>COMPANY</th>
<th>PHONE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mark Vinkemund</td>
<td>Quincy Water</td>
<td>617-590-4164</td>
</tr>
<tr>
<td>John Foulsham</td>
<td>Foulsham Corp</td>
<td>617-780-6076</td>
</tr>
<tr>
<td>Larry Sullivan</td>
<td>R. Zeppa Corp</td>
<td>781-344-8822</td>
</tr>
<tr>
<td>Jack Tassinari</td>
<td>Tescom Corp</td>
<td>781-848-5585</td>
</tr>
<tr>
<td>Gary Garcia</td>
<td>P.G. Construction Inc.</td>
<td>617-593-5390</td>
</tr>
<tr>
<td>Mark Glynn</td>
<td>A. Vezzoni &amp; Sons</td>
<td>(617)750-5681</td>
</tr>
<tr>
<td>Dan Giannandrea</td>
<td>QDP-Engineering</td>
<td>(617)370-1838</td>
</tr>
<tr>
<td>Margarita Faherty</td>
<td>QDP-Water</td>
<td>617-370-1386</td>
</tr>
<tr>
<td>Paul Della Basta</td>
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</tr>
<tr>
<td>Denise Hall</td>
<td>GOQ</td>
<td>617-376-1525</td>
</tr>
<tr>
<td>John Tassinari</td>
<td>Tasson Corp</td>
<td>781-848-5585</td>
</tr>
<tr>
<td>Peter Hoyt</td>
<td>City of Quincy</td>
<td>617-913-1</td>
</tr>
<tr>
<td>Phil Anderson</td>
<td>CTA 617-387-2840</td>
<td>617-376-1912</td>
</tr>
<tr>
<td>Robert Kelle</td>
<td>AD Gallery LLC</td>
<td>617-454-3277</td>
</tr>
<tr>
<td>Mike Corner</td>
<td>WES</td>
<td>617-778-977-0110</td>
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