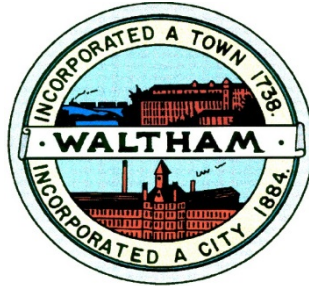


# The City of Waltham



**Invites  
Interested Parties  
To propose the best offer and or bid  
For the service or product herewith described:**

## **TRAPELO ROAD WATER SERVICE IMPROVEMENT**

**The bid opening will be held: 10:00AM Friday DECEMBER 14, 2018**

**Pre-bid Meeting and Site Visit: 10:00AM Wednesday DECEMBER 5, 2018**

*(Meet in the Auditorium of 119 School Street, Waltham)*

**Last Day for Written Questions: 12 noon Thursday December 6, 2018**

Via E-Mail Only to [Jpedulla@city.waltham.ma.us](mailto:Jpedulla@city.waltham.ma.us)

*Phone: 781-314-3244, Fax: 781-314-3245*

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CITY OF WALTHAM  
MASSACHUSETTS**

**INVITATION TO BID**

**TRAPELO ROAD WATER SERVICE IMPROVEMENT**

The City of Waltham, Massachusetts invites sealed bids from Contractors for the **TRAPELO ROAD WATER SERVICE IMPROVEMENT**

**PLANS, SPECIFICATIONS** and other Contract Documents may be obtained by visiting the City's Web Site at [www.city.waltham.ma.us/bids](http://www.city.waltham.ma.us/bids)

Copies of Addenda will be e- mailed to the registered Bidders without charge. Addenda will also be posted on the web site above

Sealed **GENERAL BIDS** for this project will be accepted from eligible bidders by Joseph Pedulla, CPO at the Purchasing Department, Waltham City Hall, 610 Main Street, Waltham, MA 02452 until **10 AM on Friday Decemeber 14, 2018** at which place and time they shall be publicly opened, read aloud and recorded for presentation to the Awarding Authority.

A **PRE-BID CONFERENCE AND SITE INSPECTION** will be held for all interested parties at **10.00 AM on Wednesday December 5, 2018** meet in the auditorium of 119 School Street Waltham, MA 02453. Attendance at this pre-bid conference is strongly recommended but not mandatory for parties submitting a bid. It will be the only opportunity to visit the site prior to the bid opening.

**LAST DAY FOR WRITTEN QUESTIONS is at 12 noon December 6, 2018.** Questions are to be sent via e-mail only to [Jpedulla@city.waltham.ma.us](mailto:Jpedulla@city.waltham.ma.us)

Each general bid shall be accompanied by a bid deposit in the form of a bid bond, certified check, or a treasurer's or cashier's check issued by a responsible bank or trust company, payable to the City of Waltham in the amount of five percent (5%) of the value of the bid

Bids shall be made on the basis of the Minimum Wage Rates as determined by the Commissioner of Labor and Industries, Pursuant to the Provisions of Chapter 149, Sections 26 to 27D inclusive of Massachusetts General Laws, a copy of which is found in the City's Web site at [www.city.waltham.ma.us/bids](http://www.city.waltham.ma.us/bids) .

Bidders' selection procedures and contract award shall be in conformity with the rules of Commonwealth of Massachusetts statute Chapter 30, §39M.

Performance and Labor and Materials payment bonds in the full amount of the contract price will be required from the successful bidder.

The Awarding Authority reserves the right to reject any or all general bids, if it be in the public interest to do so, and to reject any sub-bid on any sub-trade if it determines that such sub-bid does not

represent the sub-bid of a person competent to perform the work as specified or that less than three such sub-bids were received and that the prices are not reasonable for acceptance without further competition.

The successful bidder will be required to furnish a Certificate of Insurance, **naming the City of Waltham as an Additional Named Insured with a waiver of subrogation, for General Liability** in the amount of \$1,000,000 per occurrence and \$1,000,000 in the aggregate and Worker's Compensation Insurance as prescribed by law.

In accordance with the laws of the Commonwealth of Massachusetts the undersigned certifies that all employees to be employed at the worksite will have successfully completed a course in construction safety and health approved by OSHA that is at least 10 hours in duration at the time the employee begins work and shall furnish documentation of successful completion of said course with the first certified payroll report for each employee.

**CITY ORDINANCE. APPROVAL OF CONTRACTS BY MAYOR, SEC. 3-12 OF THE CITY ORDINANCES.**

All contract made by any department, board or commission where the amount involved is two thousand dollars (\$2,000) or more shall be in writing, and no such contract shall be deemed to have been made or executed until the approval of the Mayor is affixed thereto. Any construction contract shall, and all other contracts may, where the contract exceed five thousand dollars (\$5,000) be required to be accompanied by a bond with sureties satisfactory to the Mayor.

**The work in this contract, as all city contract work, is subject to the appropriation of funds by the awarding authority.**

CITY OF WALTHAM

Joseph Pedulla, CPO  
Purchasing Department  
City Hall, 610 Main Street  
Waltham, MA 02452

## **SECTION 00100 - INSTRUCTION TO BIDDERS**

### PART 1 - GENERAL

#### 1.01 SCHEDULE OF DATES

- A. Advertisement appears in Central Register, Plans and Specifications ready for Bidders at the Offices of the Waltham Purchasing Agent after 4:30 P.M. on February 15, 2017.
- B. **Pre-bid meeting: December 5, 2018 at 10.00 AM.** Meet in the Auditorium of 119 School Street, Waltham, MA 02453
- C. **Questions** and requests for interpretations may be submitted in writing via e-mail ONLY to [Jpedulla@city.waltham.ma.us](mailto:Jpedulla@city.waltham.ma.us) up to **12:00 noon December 6, 2018**
- D. Addenda will be issued with interpretations as determined by the Purchasing Department only via e-mail and posting on the web site.
- E. **General Bids Deadline: 10 A.M. on December 14, 2018,** to Joseph Pedulla, CPO Purchasing Department, City Hall, 610 Main Street, Waltham, MA 02452, when bids will be publicly open and read.

#### 1.02 BIDDING PROCEDURE

- A. Bids for the work are subject to the provisions of General Laws, Chapter 30, § 39M, as amended. Regulations governing the bidding procedures as set forth in the above mentioned amended General Laws must be followed.
- B. In the event of any inconsistencies between any of the provisions of these Contract Documents and of the cited statute, anything herein to the contrary notwithstanding, the provisions of the said statute shall control.
- C. No General Bid received by the Awarding Authority after the time respectively established herein for the opening of General Bids will be considered, regardless of the cause for the delay in the receipt of any such bid.

#### 1.03 WITHDRAWAL OF BIDS

- A. Bids may be withdrawn prior to the time respectively established for the opening of General Bids only on written request to the Awarding Authority.

#### 1.04 INTERPRETATION OF CONTRACT DOCUMENTS

- A. No oral interpretation will be made to any bidder. All questions or requests for interpretations must be made in writing to the Architect.

- B. Every interpretation made to a bidder will be in the form of an Addendum to the drawings and/or specifications, which will be made available to all persons to whom Contract Documents have been issued.
- C. Failure of the Awarding Authority to send or of any bidder to receive any such Addendum shall not relieve any bidder from obligation under his bid as submitted.
- D. All such Addenda shall become a part of the Contract Documents.

1.05 EXAMINATION OF SITE AND CONTRACT DOCUMENTS

- A. Each bidder may visit the site of the proposed work and fully acquaint himself with conditions as they exist, and may also thoroughly examine the Contract Documents. Failure of any bidder to visit the site and acquaint himself with the Contract Documents shall not relieve any bidder from any obligation with respect to his bid.
- B. By submitting a bid, the bidder agrees that the Contract Documents are adequate and that the required result for a full and complete installation can be produced. The successful bidder shall furnish any and all labor, materials, insurance, permits and all other items needed to produce the required result to the satisfaction of the Awarding Authority.

1.06 BID SECURITY

- A. The General Contractor's bid must be accompanied by bid security in the amount of five percent (5%) of the bid.
- B. At the option of the bidder, the security may be bid bond, certified, treasurer's or cashier's check issued by a responsible bank or trust company. No other type of bid security is acceptable.  
  
Bid Bonds shall be issued by a Surety Company qualified to do business under the laws of the Commonwealth of Massachusetts.
- C. Certified, Treasurer's or Cashier's check shall be made payable to the City of Waltham, Massachusetts.
- D. The bid security shall secure the execution of the Contract and the furnishing of a Performance and Payment Bond by the successful General Bidder for 50% of the contract value.
- E. Should any General Bidder to whom an award is made fail to enter into a contract therefore within five (5) days, Saturdays, Sundays and Legal Holidays, excluded, after notice of award has been mailed to him or fail within such time to furnish a Performance Bond and also a Labor and Materials or Payment Bond as required, the amount so received from such General Bidder through his Bid Bond, Certified, Treasurer's or Cashier's check as bid deposit shall become the property of the City of

**INSTRUCTION TO BIDDERS**

**00100 - 2**

Waltham, Massachusetts as liquidated damages; provided that the amount of the bid deposit, which becomes the property of the City of Waltham, Massachusetts, shall not in any event exceed the difference between his bid price and the bid price of the next lowest responsible and eligible bidder; and provided further that, in case of death, disability, bona fide clerical error or mechanical error of a substantial nature, or other unforeseen circumstances affecting the General Bidder, his deposit shall be returned to him.

1.07 BID FORM

- A. General Bids shall be submitted on the "FORM FOR GENERAL BID" enclosed. Erasures or other changes must be explained or noted over the signature of the bidder.
- B. Bid forms must be completely filled in. Bids which are incomplete, conditional, or obscure, or which contain additions not called for will be rejected.
- C. General Bidders shall submit one set of executed bid forms to the Awarding Authority.

1.08 SUBMISSION OF BIDS AND BID SECURITIES

- A. Each bid submitted by a General Contractor shall be enclosed in a sealed envelope that shall be placed with the bid security in an outer envelope. The outer envelope shall be sealed and clearly marked as follows:

(Firm Name): \_\_\_\_\_  
General Bid and Bid Security for:  
Trapelo Road Water Service Improvement

1.09 AWARD OF CONTRACT

- A. The Contract shall be awarded to the lowest responsible and eligible General Bidder on the basis of competitive bids in accordance with the procedure set forth in the provision of Chapter 30, §39M of the General Laws of the Commonwealth of Massachusetts.
- B. If the bidder selected as the General Contractor fails to perform his agreement to execute a contract in accordance with the terms of his General Bid, and furnish a Performance Bond and also a Labor and Materials or Payment Bond, as stated in his General Bid an award shall be made to the next lowest responsible and eligible bidder.
- C. The words "lowest responsible and eligible bidder" shall be the bidder whose name is the lowest of those bidders possessing the skill, ability and integrity necessary for the faithful performance of the work and who shall certify that he is able to furnish labor that can work in harmony with all other elements of labor employed, or to be employed, on the work. Essential information in regard to such qualifications shall be submitted in such form as the Awarding Authority may require.

- D. Action on the award will be taken within ninety (90) days, Saturdays, Sundays and Legal Holidays excluded after the opening of the bids.

1.10 SECURITY FOR FAITHFUL PERFORMANCE

- A. The successful bidder must deliver to the Awarding Authority simultaneously with his delivery of the executed contract, an executed Performance Bond, and also a Labor and materials or Payment Bond, each issued by a surety company qualified to do business under the laws of the Commonwealth and satisfactory to the Awarding Authority and each in the sum of One Hundred Percent (100%) of the Contract Price, as surety for the faithful performance of his contract, and for the payment of all persons performing labor or furnishing materials in connection therewith. Said bonds shall provide that, if the General Contractor fails or refuses to complete the Contract, the Surety Company will be obligated to do so.
- B. Premiums are to be paid by the General Contractor, and are to be included in the Contract Price.

1.11 EQUAL OPPORTUNITY

- A. The City of Waltham is an Equal Opportunity employer and will require compliance with the minority business enterprise plan (MBE) on file in the Purchasing Department

1.12 PRE-BID WALK-THRU

- A. A pre-bid conference will be held at the site on **December 5, 2018 at 10.00 AM. Meet IN THE AUDITORIUM OF 119 SCHOOL STREET.** Interested parties are encouraged to attend given that this will be the only time the site is available prior to the submission of bids.

1.13 LEFT BLANK INTENTIONALLY

1.14 CONTRACT DOCUMENTS

- A. The Awarding Authority shall make available the bid documents and addenda in the City Web site at [www.city.waltham.ma.us/bids](http://www.city.waltham.ma.us/bids). No plans will be mailed.

1.15 EQUALITY

- A. Except where otherwise specifically provided to the contrary, the words “or approved equal” are hereby inserted immediately following the name or description of each article, assembly, system, or any component part thereof in the Contract Documents. It is the Contractor’s responsibility to provide all the research and documentation that would prove a product or assembly is “equal”. Failure to provide research or documentation does not alleviate the Contractor’s responsibility to meet the schedule.



1.16 TAX FREE NUMBER

- A. The City of Waltham has a tax-free number.

1.17 SCHEDULE

- A. The Final Completion for the project is **180 calendar days** after the date of the Notice-to-Proceed.

1.18 INTENTIONALLY LEFT BLANK

1.19 WEEKLY JOB MEETINGS

- A. There will be a weekly job meeting at the site on the same agreed-upon day and time. Time will be provided to discuss and view the progress of the work and to answer questions. The Contractor's job Superintendent and Project Manager shall attend each meeting. The City reserves the right to have job meetings conducted in the location of its choosing.

1.20 PROJECT SUPERINTENDENT

- A. The Contractor shall provide the same person as Superintendent for the entire duration of the project. Failure to maintain the same person in this position shall result in a One Thousand Dollar (\$1,000.00) penalty per incident which shall cover the Architect's time to re-orient new personnel.

1.21 AWARD

- A. The Awarding Authority reserves the right to reject any or all bids if it be in the public interest to do so, and to act upon the bids and make its award in any lawful manner.

1.22 PREVAILING WAGE SCHEDULE

- A. Bids shall be made on the basis of the Prevailing Wage Schedule, as determined by the Commissioner of Labor and Industries, pursuant to the provision of the Massachusetts General Laws. The Prevailing wage Schedule for this project can be found in the City's web Site at [www.city.waltham.ma.us/bids](http://www.city.waltham.ma.us/bids)

1.23 CONFLICT OF INTEREST

- A. A bidder filing a proposal thereby certifies that the proposal is made in good faith, without fraud, collusion, or connection of any kind with any other bidder for the same work, and that the bidder is competing solely on its own behalf without connection with, or obligation to, any undisclosed person or firm.

**INSTRUCTION TO BIDDERS**

**00100 - 5**

1.24 PROCEED ORDERS

- A. No bidder is to proceed without a proceed order as set out in the contract.

1.25 INTENTIONALLY LEFT BLANK

1.26 COMPLIANCE WITH MASSACHUSETTS GENERAL LAWS

- A. Pursuant to Massachusetts General Laws, Chapter 62C, Section 49A, I certify under the penalty of perjury that I, to the best of my knowledge and belief have filed all state tax returns and paid all the state taxes required under law.

1.27 INTENTIONALLY LEFT BLANK

1.28 INSURANCE

- A. The contractor shall purchase and maintain, at his expense all insurance required by the Contract. Documents and all insurance required by the applicable laws of Massachusetts, including but not limited to, General Laws, Chapter 146, in connection with all hoisting equipment.

- B. The Contractor shall purchase and maintain such insurance as will protect him from claims under workmen's compensation acts and from claims for damages because of bodily injury, including death and all property damage including, without limitation, damage to buildings and adjoining the site of construction which might arise from and during operations under this contract, whether such operations be by himself or by any subcontractor or anyone directly or indirectly employed by either of them including:

- 1. Statutory Worker's Compensation and Employer's Liability

The contractor shall provide insurance for the payment of compensation and the furnishing of other benefits under Chapter 152 of the General Laws (so-called Worker's Compensation Act) to all persons to be employed under this contract and shall continue in force such insurance as aforesaid shall be deemed a material breach of this Contract and shall operate as an immediate termination thereof. The contractor shall, without limiting the generality of the foregoing, conform to the provisions of Section 34A of Chapter 149 of the General Laws, which Section is incorporated herein by reference and made a part of hereof.

- 2. Comprehensive General Liability Insurance

Minimum bodily injury limits of \$ 1,000,000 per person and \$ 1,000,000 per accident, and property damage limits of \$ 500,000 per accident and \$ 1,000,000 aggregate during any 12 month period, shall include the following:

- a. Public liability (bodily injury and property damage)
- b. X.C.U. (explosion, collapse, and underground utilities)
- c. Independent contractor's protective liability.
- d. Products and completed operations.
- e. Save harmless agreement for Owner and Architects set forth in ARTICLE 10.11 of the GENERAL CONDITIONS.

3. Comprehensive All Risk Motor Vehicle Liability Insurance

Minimum bodily injury limits of \$ 500,000 per person, \$ 1,000,000 per accident, and property damage limit of \$ 1,000,000 per accident.

4. All Risk Insurance

Covering all Contractors' equipment with a provision for Waiver of Subrogation against the Owner.

5. Excess Liability Insurance in Umbrella Form with combined Bodily Injury and Property Damage Limit of \$ 1,000,000.

6. **City of Waltham shall be a Named Additional Insured for General Liability only with a Waiver of Subrogation on the insurance policy for this project.**

1.29 SITE ACCESS

A. The General Contractor shall gain access to the site via routes approved by the Owner.

- 1. The General Contractor as part of the bid price will restore all roads, curbs, driveways, walks and grassed or landscaped areas damaged during construction.

1.30 INTENTIONALLY LEFT BLANK.

1.31 INTENTIONALLY LEFT BLANK

1.32 COMPLETE BID FORMS

A. Please Note: Each bidder must fill in all the blanks on all the bid forms, even if the information is "zero dollars" or "not applicable". Also, please acknowledge all Addenda issued by the Awarding Authority

2.00 FUNDS APPROPRIATION and LOAN AUTHORIZATION.

A **THE CONTRACT OBLIGATION ON BEHALF OF THE CITY IS SUBJECT TO PRIOR APPROPRIATION OF MONIES FROM THE GOVERNMENTAL BODY AND AUTHORIZATION BY THE MAYOR.**

3.0 CITY ORDINANCE. APPROVAL OF CONTRACTS BY MAYOR, SEC. 3-12 OF THE CITY ORDINANCES.

- A All contract made by any department, board or commission where the amount involved is two thousand dollars (\$2,000) or more shall be in writing, and no such contract shall be deemed to have been made or executed until the approval of the Mayor is affixed thereto. Any construction contract shall, and all other contracts may, where the contract exceed five thousand dollars (\$5,000) be required to be accompanied by a bond with sureties satisfactory to the Mayor

Signature of Individual or Corporate Name

By:

\_\_\_\_\_

(Signature of Corporate Officer if applicable)

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

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

END OF SECTION 00100

## SECTION 00200

### REQUIRED FORMS

#### PART 1 – GENERAL

1.1 The checklists below are included for the bidders' convenience and in no way waive or abridge the Owner's right to reject any or all bids.

#### 1.2 GENERAL BID

**IMPORTANT:** Bidders are cautioned that their Bid Response is required to include these forms:

##### A. SECTION 00300 – FORMS FOR GENERAL BID

1. A completed **Sealed** Bid Form/Proposal, also includes:
  - a. Acknowledgement of Addenda

##### B. SECTION 00310 – BID BOND

##### C. SECTION 00316 – STATEMENT OF BIDDER'S QUALIFICATIONS

##### D. SECTION 00321 – OSHA SAFETY TRAINING CERTIFICATION

##### E. Contractor's Affirmative Action Plan

##### F. Contractor's Equal Opportunity Statement

##### G. SECTION 00680 -Compliance

#### 1.3 CONTRACT AGREEMENT

**IMPORTANT:** The following forms must be submitted to the Owner before the Owner can enter into a formal Contract Agreement with the successful Bidder:

##### A. SECTION 00500 – CONTRACT

1. Include Certificates of Insurance

##### B. SECTION 00610 - PERFORMANCE BOND

##### C. SECTION 00620 - PAYMENT BOND

**\*\* END OF SECTION \*\***

## **SECTION 00220**

### **AMERICANS WITH DISABILITIES ACT**

Americans with Disabilities Act (42 U.S.C. 12131)  
Section 504 of the Rehabilitation Act of 1973

The Americans with Disabilities Act (the "Act") applies to all employers of fifteen or more employees. All contractors that are subject to the Act must comply with its provisions. In further compliance with the Act, all Contractors who enter into contracts with the City are prohibited from discrimination against the City's employees, regardless of the size of the Contractor.

The Act protects against discrimination on the basis of "disability", which is defined as a physical or mental impairment that substantially limits at least one "major life activity"; discrimination against a person having a history or record of such impairment; and discrimination against an individual regarded - even if inaccurately - as having such an impairment. The Act also expressly prohibits discrimination that is based on an individual's relationship or association with a disabled person.

The bidder shall not discriminate against any qualified employee or job applicant with a disability. A "qualified" employee or job applicant is an individual with a disability who satisfies the requisite skill, experience, education and other job-related requirements of the employment position such individual holds or desires, and who with or without reasonable accommodations, is able to perform the essential functions of the job.

By submitting its bid, the bidder certifies to the City that it understands and will comply with all applicable provisions of the Act, including compliance with applicable provisions of Section 504 of the Rehabilitation Act of 1973, if the bidder is receiving federal funds.

**\*\* END OF SECTION \*\***

# **BID PRICE SHEET**

**FORM 00300 FORM FOR GENERAL BID**

Thursday, November 08, 2018

**TRAPELO ROAD WATER SERVICE REPLACEMENT**

| Item No. | Approx. Quantity | Item with Unit Bid Price Written in Words   | Unit Price |       | Amount  |       |
|----------|------------------|---|------------|-------|---------|-------|
|          |                  |   | Dollars    | Cents | Dollars | Cents |
| 867.104  | 10300 ft         | 4 Inch Reflectorized Yellow Line (Thermoplastic), at <b>Per Foot</b><br>_____<br>_____  |            |       |         |       |
| 867.112  | 100 ft           | 12 Inch Reflectorized Yellow Line (Thermoplastic), at <b>Per Foot</b><br>_____<br>_____ |            |       |         |       |
| 874.2    | 34 each          | Traffic Signs Removed and Reset, at <b>Per Each</b><br>_____<br>_____                   |            |       |         |       |
| 141.1    | 20 cy            | Test pit for Exploration, at <b>Per Cubic Yard</b><br>_____<br>_____                    |            |       |         |       |
| 151      | 200 cy           | Gravel Borrow, at <b>Per Cubic Yard</b><br>_____<br>_____                               |            |       |         |       |
| 153      | 30 cy            | Controlled Density Fill, at <b>Per Cubic Yard</b><br>_____<br>_____                     |            |       |         |       |
| 182.2    | 300 ft           | Removal of Asbestos Cement Pipe, at <b>Per Foot</b><br>_____<br>_____                   |            |       |         |       |
| 250.04   | 300 ft           | 4-Inch Polyvinyl Chloride Sanitary Sewer Pipe, at <b>Per Foot</b><br>_____<br>_____     |            |       |         |       |
| 302.06   | 150 ft           | 6-Inch Ductile Iron Water Main, at <b>Per Foot</b><br>_____<br>_____                    |            |       |         |       |
| 309      | 500 lb           | Ductile Iron Fittings For Water Pipe, at <b>Per Pound</b><br>_____<br>_____             |            |       |         |       |



**TRAPELO ROAD WATER SERVICE REPLACEMENT**

| Item No. | Approx. Quantity | Item with Unit Bid Price Written in Words  | Unit Price   |       | Amount       |       |
|----------|------------------|--|--------------|-------|--------------|-------|
|          |                  |  | Dollars      | Cents | Dollars      | Cents |
| 347.1    | 1500 ft          | 1-Inch Copper Tubing Type K, at <b>Per Foot</b><br>_____<br>_____                            |              |       |              |       |
| 350.6    | 15 each          | 6-Inch Gate and Box, at <b>Per Each</b><br>_____<br>_____                                    |              |       |              |       |
| 363.1    | 8 each           | 1-Inch Corporation Cock, at <b>Per Each</b><br>_____<br>_____                                |              |       |              |       |
| 376      | 10 each          | Hydrant, at <b>Per Each</b><br>_____<br>_____  |              |       |              |       |
| 384      | 60 each          | Curb Stop, at <b>Per Each</b><br>_____<br>_____  |              |       |              |       |
| 472.1    | 1200 sy          | Hot Mix Asphalt For Temporary Patch (3"), at <b>Per Square Yard</b><br>_____<br>_____        |              |       |              |       |
| 472.2    | 1500 sy          | Hot Mix Asphalt For Permanent Patch (5"), at <b>Per Square Yard</b><br>_____<br>_____        |              |       |              |       |
| 99.001   | 1                | Lump Sum Police Detail,<br><u>Forty Five thousand dollars zero cents</u> <b>Per Lump Sum</b> | \$45,000.00  | 00    | \$ 45,000.00 | 00    |
|          |                  |  | <b>TOTAL</b> |       | \$           |       |

(ESTIMATED TOTAL CONTRACT PRICE in words) \_\_\_\_\_

**My company acknowledges receipt of addenda #** : \_\_\_\_\_.

**SECTION 00310**

**5% BID BOND**

KNOW ALL MEN BY THESE PRESENTS, that we, the undersigned \_\_\_\_\_  
\_\_\_\_\_, as Principal, and  
\_\_\_\_\_, as Surety, are hereby held and  
firmly bound unto the City of Waltham, Massachusetts, a municipality in the Commonwealth of  
Massachusetts in the penal sum of \_\_\_\_\_  
\_\_\_\_\_ Dollars (\$ \_\_\_\_\_), for the payment of which, well and truly to be made,  
we hereby jointly and severally bind ourselves, our heirs, executors, administrators, successors and  
assigns. Signed this \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_.

THE CONDITION OF THE ABOVE OBLIGATION is such that whereas the Principal has submitted to the City,  
a certain bid attached hereto and hereby made a part hereof to enter into a contract in writing for the  
“Sewer Manhole Rehabilitation - 2015 ”, for the City.

NOW THEREFORE,

- a. If said Bid shall be rejected, or
- b. If said Bid shall be accepted and the Principal shall execute and deliver a contract in the  
Form of Contract attached hereto (properly completed in accordance with said Bid) and  
shall furnish a bond for its faithful performance of said Contract, and for the payment of all  
persons performing labor or furnishing materials in connection therewith, and shall in all  
other respects perform the agreement created by the acceptance of said Bid, then this  
obligation shall be void, otherwise the same shall remain in force and effect; it being  
expressly understood and agreed that the liability of the Surety for any and all claims  
hereunder shall in no event exceed the penal amount of this obligation as herein stated.

The Surety, for value received, hereby stipulates and agrees that the obligations of said Surety and its  
bond shall in no way be impaired or affected by any extension of the time within which the Owner may  
accept such bid; and said Surety does hereby waive notice of any such extension.

IN WITNESS WHEREOF, the Principal and the Surety have hereunto set their hands and seals, and such of  
them as are corporations have caused their corporate seals to be hereto affixed and these presents to be  
signed by their proper officers, the day and year first set forth above.

SEAL

\_\_\_\_\_  
(Principal)

By \_\_\_\_\_

SEAL

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

Address \_\_\_\_\_

\_\_\_\_\_

Telephone No. \_\_\_\_\_

Fax No. \_\_\_\_\_

**SECTION 00316**

**STATEMENT OF BIDDER'S QUALIFICATIONS**

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

1. Name of Bidder

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2. Business Address

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3. The names, titles, residences and Social Security numbers of all persons and parties (including an Emergency Contact) interested in this Proposal as principals are as follows:

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

IMPORTANT: Be sure residences and Social Security Numbers are listed below.

| Name | Title | Home Address | Social Security # |
|------|-------|--------------|-------------------|
|------|-------|--------------|-------------------|

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4. The date the company was organized.

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5. If a corporation, where incorporated.

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6. How many years have you been engaged in the **rehabilitation of sewer manholes** under your present firm or trade name?

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

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

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

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

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

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

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

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

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

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

(a) Owned

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(b, c) Rented

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

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16. Provide five (5) similar, successfully completed projects within the past three (3) years, involving the rehabilitation of sewer manholes, the cleaning of existing pipelines and the CCTV inspecting of existing pipelines of similar size and scope of the Project.

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

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

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

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

Name of Bank / Contact Person

Address / Phone Number

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21. The apparent low bidder shall furnish a detailed financial statement and furnish any other information that may be required by the City of Waltham.

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

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

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

Name of Surety or Bonding Company / Contact Person

Address / Phone Number

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

Name of Owner or Company / Contact Person    Address / Phone Number

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

Name \_\_\_\_\_

Signature \_\_\_\_\_

Social Security  
Number \_\_\_\_\_ Title \_\_\_\_\_

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

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

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

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

By \_\_\_\_\_

Title \_\_\_\_\_

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

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

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

deposes and says that he is

\_\_\_\_\_ of

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

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

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

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

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

SECTION 00321

OSHA SAFETY TRAINING CERTIFICATION

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

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

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

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

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

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

**SECTION 00331**

PREVAILING WAGE SCHEDULE

Please visit the City Web Site at [www.city.waltham.ma.us/open-bids](http://www.city.waltham.ma.us/open-bids) for a copy of the schedules

# **CONTRACT FORMS**

**SECTION 00500**

**AGREEMENT**

**CITY OF WALTHAM**

**ARTICLE 1.** This agreement, made this \_\_\_\_\_ day of \_\_\_\_\_, 2017 by and between the CITY OF WALTHAM, party of the first part, hereinafter called the CITY, by its MAYOR, and

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hereinafter called the CONTRACTOR.

**ARTICLE 2.** Witnesseth, that the parties to this agreement, each in consideration of the agreement on the part of the others herein contained, do hereby agree, the CITY OF WALTHAM for itself, and said contractor for his heirs, executors, administrators and assigns as follows:

To furnish all equipment, machinery, tools and labor, to furnish and deliver all materials required to be furnished (except as otherwise specified) and deliver in and about the project and to do and perform all work in strict conformity with the provisions of this Contract and of the Notice to Bidders, bid, Project Manual, and Drawings hereto annexed. The said Notice to Bidders, bid, Project Manual, and Drawings are hereby made a part of this contract as fully and to the same effect as if the same had been set forth at length and incorporated in the contracts.

**ARTICLE 3.** In consideration of the foregoing premises the CITY agrees to pay and the CONTRACTOR agrees to receive as full compensation for everything furnished and done by the CONTRACTOR under this contract, including all work required by not included in the items herein mentioned, and also for all loss or damage arising out of the nature of the work aforesaid, or from the action of the elements, or from any unforeseen obstruction or difficulty encountered in the prosecution of the work, and for all expenses incurred by or in consequence of the suspension or discontinuance of the work specified, and for well and faithfully completing the work, and the whole thereof, as herein provided, such prices as are set forth in the accompanying bid.

This Agreement entered into as of the day and year first written above.

CITY OF WALTHAM, MASSACHUSETTS

**FOR THE CITY**

\_\_\_\_\_  
Jeannette A. McCarthy, MAYOR,  
City of Waltham  
Date: \_\_\_\_\_

\_\_\_\_\_  
Luke Stanton, Asst. City Solicitor  
Date: \_\_\_\_\_  
APPROVED AS TO FORM ONLY

\_\_\_\_\_  
Sandra Tomasello, Recreation Director  
Date: \_\_\_\_\_

\_\_\_\_\_  
Joseph Pedulla, Purchasing Agent  
Date: \_\_\_\_\_

\_\_\_\_\_  
Paul Centofanti, Auditor  
Date: \_\_\_\_\_

I CERTIFY THAT SUFFICIENT FUNDS  
ARE AVAILABLE FOR THIS CONTRACT

**FOR THE COMPANY**

\_\_\_\_\_  
CONTRACTOR (Signature),  
Date: \_\_\_\_\_

\_\_\_\_\_  
Company

\_\_\_\_\_  
Address



**SECTION 00550**

**NOTICE OF AWARD**

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

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

The Owner has considered the Proposal submitted by you for the above described Work on \_\_\_\_\_20\_\_\_\_ in response to its Advertisement for Bids and Instructions to Bidders.

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

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

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

You are required to return an acknowledged copy of this Notice of Award to the Owner.

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

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

By \_\_\_\_\_

Title \_\_\_\_\_

**ACCEPTANCE OF NOTICE**

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

Authorized Signature \_\_\_\_\_

Print name and Title \_\_\_\_\_

**SECTION 00560**

**NOTICE TO PROCEED**

To: \_\_\_\_\_  
(Contractor)

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

\_\_\_\_\_

Project: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

You are hereby notified to commence the Work in accordance with the Agreement dated \_\_\_\_\_, 20\_\_, on or before \_\_\_\_\_, 20\_\_, and you are to complete all work within **130 calendar days** from the written Notice to Proceed thereafter. The date of completion of all work is therefore, \_\_\_\_\_, 20\_\_.

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

By \_\_\_\_\_

Title \_\_\_\_\_

---

**ACCEPTANCE OF NOTICE**

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

Authorized Signature \_\_\_\_\_

Print Name and Title \_\_\_\_\_

**SECTION 00610**

**PERFORMANCE BOND**

We, the undersigned, \_\_\_\_\_,  
*(Name of Contractor)*

\_\_\_\_\_  
*(Address of Contractor)*

\_\_\_\_\_  
(Corporation, Partnership, or Individual), hereinafter called Principal,  
and \_\_\_\_\_,  
*(Name of Surety)*

\_\_\_\_\_  
*(Address of Surety)*

hereinafter called Surety, are held and firmly bound unto the CITY OF WALTHAM, hereinafter called Owner, in the penal sum of \_\_\_\_\_ Dollars (\$\_\_\_\_\_) in lawful money of the United States, for the payment of which sum well and truly to be made. We hereby jointly and severally bind ourselves, our heirs, executors, administrators, successors and assigns.

The condition of this obligation is such that the Principal entered into a certain contract with the Owner, dated the \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, a copy of which is attached hereto and made a part hereof, for the project known as "Sewer Manhole Rehabilitation - 2015", in the City of Waltham, Massachusetts, and the Principal and Surety bind themselves to the Owner for the performance of the contract.

Now, therefore, if the Principal shall well, truly and faithfully perform its duties, all the undertakings, covenants, terms, conditions, and agreements of said contract during the original term thereof, and any extensions thereof which may be granted by the Owner, with or without notice to the Surety and during the guaranty period set forth in the contract, and if it shall satisfy all claims and demands incurred under such contract, and shall fully indemnify and save harmless the Owner, its officers and agents from any and all costs and damages which it may suffer by a reason of failure to do so, and shall reimburse and repay the Owner all outlay and expense which the Owner may incur in making good any default, then this obligation shall be void; otherwise, this bond shall remain in full force and effect; provided, further, that the said Surety for value received hereby agrees that no change, extension of time, alteration or addition to the terms of the contract or to the work to be performed thereunder of the Specifications accompanying the same shall in any way affect its obligation on this Bond, and it does hereby waive notice of any such change, extension of time,

alteration or addition to the terms of the contract or to the work or to the specifications. Provided, further, that no final settlement between the Owner and the Contractor shall abridge the right of any beneficiary hereunder whose claim may be unsatisfied.

IN WITNESS WHEREOF, this instrument is executed on this \_\_\_\_ day of \_\_\_\_\_, 20\_\_.

CONTRACTOR AS PRINCIPAL

SURETY

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

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

Name and Title: \_\_\_\_\_

Name and Title: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

SEAL

SEAL

\_\_\_\_\_  
Address

\_\_\_\_\_

\_\_\_\_\_  
Telephone No.

\_\_\_\_\_  
Fax No.

**SECTION 00620**

**PAYMENT BOND**

We, the undersigned, \_\_\_\_\_,  
*(Name of Contractor)*

\_\_\_\_\_  
*(Address of Contractor)*

\_\_\_\_\_(Corporation, Partnership, or Individual), hereinafter called Principal,  
and \_\_\_\_\_,  
*(Name of Surety)*

\_\_\_\_\_  
*(Address of Surety)*

hereinafter called Surety, are held and firmly bound unto the CITY OF WALTHAM, hereinafter called Owner, in the penal sum of \_\_\_\_\_ Dollars (\$\_\_\_\_\_) in lawful money of the United States, for the payment of which sum well and truly to be made. We hereby jointly and severally bind ourselves, our heirs, executors, administrators, successors and assigns.

The condition of this obligation is such that the Principal entered into a certain contract with the Owner, dated the \_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_, a copy of which is attached hereto and made a part hereof, for the project known as "Sewer Manhole Rehabilitation - 2015", in the City of Waltham, Massachusetts.

Now, therefore, if the Principal shall promptly make payment to all persons, firms, subcontractors, and corporations furnishing materials for or performing labor in the prosecution of the work provided for in such contract, and any authorized extension or modification thereof, including all amounts due for all materials used in connection with the work, and all insurance premiums on said work, and for all labor performed in such work whether by subcontractor or otherwise, then this obligation shall be void; otherwise this bond is to remain in full force and effect. Provided, further, that the said Surety for value received hereby agrees that no change, extension of time, alteration or addition to the terms of the contract or to the work to be performed thereunder of the Specifications accompanying the same shall in any way affect its obligation on this Bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract or to the work or to the specifications.

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

IN WITNESS WHEREOF, this instrument is executed on this \_\_\_ day of \_\_\_\_\_, 20\_\_.

CONTRACTOR AS PRINCIPAL

SURETY

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

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

Name and Title: \_\_\_\_\_  
\_\_\_\_\_

Name and Title: \_\_\_\_\_  
\_\_\_\_\_

SEAL

SEAL

\_\_\_\_\_  
Address

\_\_\_\_\_  
Telephone No.

\_\_\_\_\_  
Fax No.

**SECTION 00680**

**COMPLIANCE FORMS**

**NON-COLLUSION FORM AND TAX COMPLIANCE FORM**

**CERTIFICATE OF NON-COLLUSION**

The undersigned certifies under penalties of perjury that this bid or proposal has been made and submitted in good faith and without collusion or fraud with any other person. As used in this certification, the word "person" shall mean any natural person, business, partnership, corporation, union, committee, club, or other organization, entity or group of individuals. The undersigned certifies that no representations made by any City officials, employees, entity, or group of individuals other than the Purchasing Agent of the City of Waltham was relied upon in the making of this bid

\_\_\_\_\_, \_\_\_\_\_  
(Signature of person signing bid or proposal)      Date

\_\_\_\_\_  
(Name of business)

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**TAX COMPLIANCE CERTIFICATION**

Pursuant to M.G.L. c. 62C, & 49A, I certify under the penalties of perjury that, to the best of my knowledge and belief, I am in compliance with all laws of the Commonwealth relating to taxes, reporting of employees and contractors, and withholding and remitting child support.

\_\_\_\_\_, \_\_\_\_\_  
Signature of person submitting bid or proposal      Date

\_\_\_\_\_  
Name of business

**NOTE**

Failure to submit any of the required documents, in this or in other sections, with your bid response package may cause the disqualification of your proposal.



**CERTIFICATE OF VOTE OF AUTHORIZATION**

Date:

I \_\_\_\_\_, Clerk of \_\_\_\_\_ hereby certify that at a meeting of the Board of Directors of said Corporation duly held on the \_\_\_\_\_ day of \_\_\_\_\_ at which time a quorum was present and voting throughout, the following vote was duly passed and is now in full force and effect:

VOTED: That \_\_\_\_\_ (*name*) is hereby authorized, directed and empowered for the name and on behalf of this Corporation to sign, seal with the corporate seal, execute, acknowledge and deliver all contracts and other obligations of this Corporation; the execution of any such contract to be valid and binding upon this Corporation for all purposes, and that this vote shall remain in full force and effect unless and until the same has been altered, amended or revoked by a subsequent vote of such directors and a certificate of such later vote attested by the Clerk of this Corporation.

I further certify that \_\_\_\_\_ is duly elected/appointed \_\_\_\_\_ of said corporation

SIGNED:

(Corporate Seal)

\_\_\_\_\_  
Clerk of the Corporation:

Print Name: \_\_\_\_\_

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COMMONWEALTH OF MASSACHUSETTS

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

Date:

Then personally appeared the above named and acknowledged the foregoing instrument to be their free act and deed before me, \_\_\_\_\_

Notary Public;

My Commission expires: \_\_\_\_\_

**CORPORATION IDENTIFICATION**

The bidder for the information of the Awarding Authority furnishes the following information.

If a Corporation:

Incorporated in what state \_\_\_\_\_  
President \_\_\_\_\_  
Treasurer \_\_\_\_\_  
Secretary \_\_\_\_\_  
Federal ID Number \_\_\_\_\_

If a foreign (out of State) Corporation – Are you registered to do business in Massachusetts?

Yes \_\_\_\_\_, No \_\_\_\_\_

If you are selected for this work you are required under M.G.L.ch. 30S, 39L to obtain from the Secretary of State, Foreign Corp. Section, State House, Boston, a certificate stating that you Corporation is registered, and furnish said certificate to the Awarding Authority prior to the award.

If a Partnership: (Name all partners)

Name of partner \_\_\_\_\_  
Residence \_\_\_\_\_  
Name of partner \_\_\_\_\_  
Residence \_\_\_\_\_

If an Individual:

Name \_\_\_\_\_  
Residence \_\_\_\_\_

If an Individual doing business under a firm's name:

Name of Firm \_\_\_\_\_  
Name of Individual \_\_\_\_\_  
Business Address \_\_\_\_\_  
Residence \_\_\_\_\_  
Date \_\_\_\_\_  
Name of Bidder \_\_\_\_\_  
By \_\_\_\_\_

Signature \_\_\_\_\_

Title \_\_\_\_\_

Business Address \_\_\_\_\_ (POST OFFICE BOX NUMBER NOT ACCEPTABLE)

City State Telephone Number Today's Date

**WEEKLY PAYROLL RECORDS REPORT & STATEMENT  
OF COMPLIANCE**

In accordance with Massachusetts General Law c. 149, §27B, a true and accurate record must be kept of all persons employed on the public works project for which the enclosed rates have been provided, A Payroll Form has been printed on the reverse of this page and includes all the information required to be kept by law. Every contractor or subcontractor is required to keep these records and preserve them for a period of three years from the date of completion of the contract. In addition, every contractor and subcontractor is required to submit, on a weekly basis, a copy of his or her weekly payroll records to the awarding authority. For every week in which an apprentice is employed, a photocopy of the apprentice's identification card must be attached to the payroll report. Once collected, the awarding authority is also required to preserve those reports for three years. In addition, each such contractor, subcontractor, or public body shall furnish to the awarding authority directly, within fifteen days after completion of its portion of the work, a statement, executed by the contractor, subcontractor or public body who supervises the payment of wages, in the following form:

**STATEMENT OF COMPLIANCE**

\_\_\_\_\_, 201\_\_

I \_\_\_\_\_,  
(Name of signatory party) \_\_\_\_\_ (Title)

I do hereby state that I pay or supervise the payment of the persons employed by  
\_\_\_\_\_ On the \_\_\_\_\_  
(Contractor, subcontractor or public body) (Building or project)

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

Signature \_\_\_\_\_, Title \_\_\_\_\_

Print \_\_\_\_\_, Date \_\_\_\_\_



**RIGHT TO KNOW LAW**

Any vendor who receives an order or orders resulting from this invitation agrees to submit a Material Safety Data Sheet (MSDS) for each toxic or hazardous substance or mixture containing such substance, pursuant to M.G.L. c. 111F, §§8,9 and 10 and the regulations contained in 441 CMR 21.06 when deliveries are made. The vendor agrees to deliver all containers properly labeled pursuant to M.G.L. c. 111F §7 and regulations contained in 441 CMR 21.05. Failure to furnish MSDS and/or labels on each container may result in civil or criminal penalties, including bid debarment and action to prevent the vendor from selling said substances, or mixtures containing said substances within the Commonwealth. All vendors furnishing substances or mixtures subject to Chapter 111F or M.G.L. are cautioned to obtain and read the laws, rules and regulations referenced above. Copies may be obtained from the State House Bookstore, Secretary of State, State House, Room 117, Boston, MA (617) 727-2834.

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Authorized Signature Indicating Compliance with the Right-to-know laws:

---

Signature

Date

---

Print Name

**NOTE**

Failure to submit any of the required documents, in this or in other sections, with your bid response package may cause the disqualification of your proposal.

**DEBARMENT CERTIFICATION**

In connection with this bid and all procurement transactions, by signature thereon, the respondent certifies that neither the company nor its principals are suspended, debarred, proposed for debarment, declared ineligible, or voluntarily excluded from the award of contracts, procurement or non procurement programs from the Commonwealth of Massachusetts, the US Federal Government and /or the City of Waltham. "Principals" means officers, directors, owners, partners and persons having primary interest, management or supervisory responsibilities with the business entity. Vendors shall provide immediate written notification to the Purchasing Agent of the City of Waltham at any time during the period of the contract of prior to the contract award if the vendor learns of any changed condition with regards to the debarment of the company or its officers. This certification is a material representation of fact upon which reliance will be placed when making the business award. If at any time it is determined that the vendor knowingly misrepresented this certification, in addition to other legal remedies available to the City of Waltham, the contract will be cancelled and the award revoked.

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Company Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_, State \_\_\_\_\_, Zip Code \_\_\_\_\_

Phone Number (\_\_\_\_) \_\_\_\_\_

E-Mail Address \_\_\_\_\_

Signed by Authorized Company Representative: \_\_\_\_\_

Print Name \_\_\_\_\_, Date \_\_\_\_\_

**10 HOURS OSHA TRAINING CONFIRMATION**

**Chapter 306 of the Acts of 2004**

**CONSTRUCTION PROJECTS**

**AN ACT RELATIVE TO THE HEALTH AND SAFETY ON PUBLIC**

The undersigned hereby certifies that all employees to be employed at a worksite for construction, reconstruction, alteration, remodeling, repair, installation, demolition, maintenance or repair of any public work or any public building estimated to cost more than \$10,000.00 have successfully completed a course in construction safety and health approved by the United States Occupational Safety and Health Administration that is at least 10 hours in duration at the time the employee begins work and who shall furnish documentation of successful completion of said course with the first payroll report for each employee and will comply with all laws and regulations applicable to awards of subcontracts subject to section 44F.

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

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

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

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

Print Name \_\_\_\_\_

Date \_\_\_\_\_

*See following Chapter 306 of the Acts of 2004*

**NOTE**

Failure to submit any of the required documents, in this or in other sections, with your bid response package will be cause for the disqualification of your company.

## Request for Taxpayer Identification Number and Certification

**Give Form to the  
 requester. Do not  
 send to the IRS.**

Fill Out This  
 Section

Print or type  
 See Specific Instructions on page 2.

|  |   |
|--|---|
| Name (as shown on your income tax return)  |   |
| Business name/disregarded entity name, if different from above   |   |
| Check appropriate box for federal tax classification:<br><input type="checkbox"/> Individual/sole proprietor <input type="checkbox"/> C Corporation <input type="checkbox"/> S Corporation <input type="checkbox"/> Partnership <input type="checkbox"/> Trust/estate<br><br><input type="checkbox"/> Limited liability company. Enter the tax classification (C=C corporation, S=S corporation, P=partnership) ▶ _____<br><br><input type="checkbox"/> Other (see instructions) ▶ _____ |   |
| <input type="checkbox"/> Exempt payee  |   |
| Address (number, street, and apt. or suite no.)  | <u>Requester's name and address (optional)</u><br>Chief Procurement Officer<br>Purchasing Department, City of Waltham<br>610 Main Street<br>Waltham, MA 02452 |
| City, state, and ZIP code  |   |
| List account number(s) here (optional)   |   |

### Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on the "Name" line to avoid backup withholding. For individuals, this is your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the Part I instructions on page 3. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN* on page 3.

**Note.** If the account is in more than one name, see the chart on page 4 for guidelines on whose number to enter.

|  |   |   |   |   |  |
|--|---|---|---|---|--|
| <b>Social security number</b>  |   |   |   |   |  |
| <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%; border: 1px solid black; height: 20px;"></td> <td style="width: 5%; text-align: center;">-</td> <td style="width: 25%; border: 1px solid black; height: 20px;"></td> <td style="width: 5%; text-align: center;">-</td> <td style="width: 40%; border: 1px solid black; height: 20px;"></td> </tr> </table> |   | - |   | - |  |
|  | - |   | - |   |  |
| <b>Employer identification number</b>  |   |   |   |   |  |
| <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%; border: 1px solid black; height: 20px;"></td> <td style="width: 5%; text-align: center;">-</td> <td style="width: 70%; border: 1px solid black; height: 20px;"></td> </tr> </table>  |   | - |   |   |  |
|  | - |   |   |   |  |

Fill out this sect.  
 either SS or FID

### Part II Certification

Under penalties of perjury, I certify that:

1. The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me), and
2. I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding, and
3. I am a U.S. citizen or other U.S. person (defined below).

**Certification instructions.** You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. See the instructions on page 4.

Sign & Date

|                  |                            |        |
|------------------|----------------------------|--------|
| <b>Sign Here</b> | Signature of U.S. person ▶ | Date ▶ |
|------------------|----------------------------|--------|

### General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

#### Purpose of Form

A person who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) to report, for example, income paid to you, real estate transactions, mortgage interest you paid, acquisition or abandonment of secured property, cancellation of debt, or contributions you made to an IRA.

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN to the person requesting it (the requester) and, when applicable, to:

1. Certify that the TIN you are giving is correct (or you are waiting for a number to be issued),
2. Certify that you are not subject to backup withholding, or
3. Claim exemption from backup withholding if you are a U.S. exempt payee. If applicable, you are also certifying that as a U.S. person, your allocable share of any partnership income from a U.S. trade or business is not subject to the withholding tax on foreign partners' share of effectively connected income.

**Note.** If a requester gives you a form other than Form W-9 to request your TIN, you must use the requester's form if it is substantially similar to this Form W-9.

**Definition of a U.S. person.** For federal tax purposes, you are considered a U.S. person if you are:

- An individual who is a U.S. citizen or U.S. resident alien,
- A partnership, corporation, company, or association created or organized in the United States or under the laws of the United States,
- An estate (other than a foreign estate), or
- A domestic trust (as defined in Regulations section 301.7701-7).

**Special rules for partnerships.** Partnerships that conduct a trade or business in the United States are generally required to pay a withholding tax on any foreign partners' share of income from such business. Further, in certain cases where a Form W-9 has not been received, a partnership is required to presume that a partner is a foreign person, and pay the withholding tax. Therefore, if you are a U.S. person that is a partner in a partnership conducting a trade or business in the United States, provide Form W-9 to the partnership to establish your U.S. status and avoid withholding on your share of partnership income.



## **CONDITIONS OF THE CONTRACT**

**SECTION 00700**

**STANDARD GENERAL CONDITIONS**

**1. INFORMATION**

All information shall come from the Office of the City Purchasing Agent. The Contractor shall inquire at this office for any information needed. Wherever the words “or equal as approved” are used, it is to be understood that the opinion of the City Purchasing Agent shall govern.

**2. SUITS**

The Contractor shall assume defense of and shall indemnify and hold the City and its agents harmless from all suits and claims against the City and its sub-contractors arising from the use of any invention, patent right labor or employment, or from any act of omission or neglect of the City, its agents, employees or any subcontractor in performing the work, under this contract.

**3. LAWS AND REGULATIONS**

The Contractor shall conform to all the applicable rules, regulations, laws and ordinances of the City of Waltham, the Commonwealth of Massachusetts, the United States of America and all agencies having jurisdiction over this contract.

**4. PROTECTION OF PROPERTY**

The Contractor shall take all proper precautions to protect the City’s property from damage and unnecessary inconvenience. Any City property damaged by the Contractor in carrying out the provisions of this contract shall be restored to its original condition, by and at the expense of the Contractor.

**5. PROTECTION OF PERSONS**

The Contractor shall take all proper precautions to protect persons from injury, unnecessary inconvenience, and shall be responsible for his failure to do so. The Contractor agrees to hold the City harmless from any and all liabilities of every nature and description, which may be suffered through bodily injury, including death, to any person, by reason of negligence of the Contractor, his agents or employees, or any subcontractor.

**6. INSURANCE**

A. **WORKMAN’S COMPENSATION:** The Contractor shall provide by insurance for the payment of compensation and furnishing of other benefits under Chapter 152 of the General Laws of the Commonwealth of Massachusetts to all persons to be employed under this contract, the premiums for which shall be paid by the Contractor.

B. **COMPREHENSIVE GENERAL LIABILITY**

|                  |                             |
|------------------|-----------------------------|
| Bodily Injury:   | \$1,000,000 Each Occurrence |
|                  | \$2,000,000 Aggregate       |
| Property Damage: | \$1,000,000 Each Occurrence |
|                  | \$2,000,000 Aggregate       |

C. **AUTOMOBILE (VEHICLE) LIABILITY**

|                 |                             |
|-----------------|-----------------------------|
| Bodily Injury   | \$2,000,000 Each Occurrence |
| Property Damage | \$1,000,000 Aggregate       |

D. **UMBRELLA POLICY**

|                   |             |
|-------------------|-------------|
| General liability | \$2,000,000 |
|-------------------|-------------|

Your bid response must include a Certificate of Insurance with the above limits as a minimum. In addition, the Certificate of Insurance must have the following text contained in the bottom left box of the Certificate: **“The City of Waltham is a Named Additional Insured for all Insurance”**. The Certificate of Insurance must be mailed directly to:

Office of the Purchasing Agent

Purchasing Department  
City of Waltham  
610 Main Street  
Waltham, MA 02452

**7. LABOR AND MATERIALS BOND**

The Contractor agrees to execute and deliver to the City, a Performance Bond and a Labor and Materials Bond equal to 50% of the contract value. This contract shall not be in force until said bond has been delivered and accepted by the City. Bond to be issued by a company licensed by the Commonwealth of Massachusetts.

A LETTER FROM A SURETY COMPANY CERTIFYING THAT THE CONTRACTOR IS QUALIFIED AND CAPABLE OF OBTAINING THE ABOVE BONDS MUST BE INCLUDED WITH HIS/HERS BID.

**8. PERSONNEL:**

The Contractor shall employ a competent supervisor and all properly licensed personnel necessary to perform the services required in this contract. The City Purchasing Agent shall have the right to require the Contractor to remove and/or replace any of the personnel for nonperformance or for unprofessional behavior. The City Purchasing Agent may require the Contractor to submit a weekly performance record of the areas and of the work performed, on forms approved by the City Purchasing Agent. The Contractor or his supervisor shall be available to inspect such work as required by the City Purchasing Agent.

**9. PREVAILING WAGES**

The Contractor is required to pay the prevailing wages as determined under the provisions of Chapter 149, Sections 26 and 27D of the Massachusetts General Laws, including the submission of weekly payrolls to the awarding authority. Copies of the Prevailing Wage Schedule is found on line at [www.city.waltham.ma.us/open-bids](http://www.city.waltham.ma.us/open-bids)

**10. MATERIALS**

The City or its Agent reserves the right to approve or reject any supplies, material or equipment used by the Contractor. The Contractor agrees to replace any supplies, material or equipment used by the Contractor. The Contractor agrees to replace any rejected supplies, materials or equipment, to the satisfaction of the City or its Agents.

**11. TERMINATION OF CONTRACT**

This contract may be terminated by the City upon deliverance to the Contractor of a five-day written notice of said termination.

**12. CONTRACT OBLIGATIONS**

Contract obligations on behalf of the City are subject to an annual appropriation to cover the contract obligation.

**13. BIDDER EXPERIENCE EVALUATION**

Each bidder shall submit with his bid, all the information relative to their experience and qualifications in performing the work required under this contract and shall have been in business for a minimum of five (5) years, in order for their bid to be considered.

**14. NOT-TO-EXCEED AMOUNT**

The bid amount proposed in your company's response is a "not-to- Exceed" amount unless the City makes changes, in writing, to the scope of work to be performed. The Change Order must be signed and approved by the City's Purchasing Agent, City Auditor, Law Department and the Mayor prior to the commencement of the change order work. No work is to begin until the proper approvals have

been obtained. A change order will be priced at the unit price. Failure to comply with this procedure will result in the cancellation of the contract and the non-payment of services provided

**16. FINANCIAL STATEMENTS.**

The City may require, within five (5) days after the bid opening, a complete and detailed Financial Statement prepared by a Certified Public Account, to determine a bidder's financial stability.

**17 BREACH OF CONTRACT/ NON PERFORMANCE**

If the Contractor shall provide services in a manner, which is not to the satisfaction of the City, the City may request that the Contractor refurnish services at no additional cost to the City until approved by the City. If the Contractor shall fail to provide services, which are satisfactory to the City, the City in the alternative may make any reasonable purchase or Contract to purchase services in substitution for those due from the Contractor. The City may deduct the cost of any substitute Contract for nonperformance of services together with incidental and consequential damages from the Contract price and shall withhold such damages from sums due or to become due to the Contractor. If the damages sustained by the City exceed sums due or to become due, the Contractor shall pay the difference to the City upon demand. The Contractor shall not be liable for any damages sustained by the City due to the Contractor's failure to furnish services under the terms of this Contract if such failure is in fact caused by the occurrence of a contingency the nonoccurrence of which was a basic assumption under which this Contract was made, including a state of war, embargoes, expropriation of labor strike or any unanticipated federal, state or municipal governmental regulation of order, provided that the Contractor has notified the City in writing of such cause within seven (7) days after its occurrence.

**18 RIGHT TO AUDIT**

The City of Waltham has the right to review and audit documents related to this contract. This right extends to any subcontractor, supplier or other entity used by the prime contractor to fulfill the obligations under this contract.

**19. CITY ORDINANCE. APPROVAL OF CONTRACTS BY MAYOR, SEC. 3-12 OF THE CITY ORDINANCES.**

All contract made by any department, board or commission where the amount involved is two thousand dollars (\$2,000) or more shall be in writing, and no such contract shall be deemed to have been made or executed until the approval of the Mayor is affixed thereto. Any construction contract shall, and all other contracts may, where the contract exceed five thousand dollars (\$5,000) be required to be accompanied by a bond with sureties satisfactory to the Mayor.

**20. BID OPENING INCLEMENT WEATHER**

If, at the time of the originally scheduled bid opening, City Hall is closed to inclement weather or another unforeseeable event, the bid opening will be extended until 2:00 PM on the next normal business day. Bids will be accepted until that date and time.

**21 FUNDS APPROPRIATION.**

THE CONTRACT OBLIGATION ON BEHALF OF THE CITY IS SUBJECT TO PRIOR APPROPRIATION OF MONIES FROM THE GOVERNMENTAL BODY AND AUTHORIZATION BY THE MAYOR.

**22 THE AWARDING AUTHORITY RESERVES THE RIGHT TO REJECT ANY OR ALL BIDS, OR ANY PART OF ANY BID, WHICH IN THE OPINION OF THE AWARDING AUTHORITY, IS IN THE BEST INTERESTS OF THE CITY OF WALTHAM.**

**END OF SECTION 00700**

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

**SECTION 00701**

**SUPPLEMENTARY GENERAL CONDITIONS**

**ARTICLE 1 – DEFINITIONS AND TERMINOLOGY**

*SC-1.01 Defined Terms* Delete Paragraph 1.01.A.44 in its entirety and insert the following language in its place:

45. Substantial Completion shall mean either that the Work required by the Contract has been completed except for Work having a Contract Price of less than one (1) percent of the then adjusted total Contract Price, or substantially all of the work has been completed and opened to Owner's use except for minor incomplete or unsatisfactory work items that do not materially impair the usefulness of the Work required by the Contract (Based on MGL C30, S39G). The terms "substantially complete" and "substantially completed" as applied to all or part of the Work refer to Substantial Completion thereof.

*SC-1.02 Terminology* Add the following new paragraphs immediately after Paragraph 1.02.B.1:

2. The words "As permitted", "As required", or words of like effect shall mean that the permission, or requirement of the Engineer is intended- the words "Approved", "Acceptable", "Satisfactory", or words of like import shall mean approved by, or acceptable to, or satisfactory to the Engineer- and the words "Necessary", "Suitable", or "Equal", or words of like import shall mean necessary, suitable, or equal in the opinion of the Engineer.

3. The words "Approval of the Owner" or "Approved by the Owner", "Approval of the Engineer" or "Approved by the Engineer", shall mean approval in writing.

*SC-1.02 Terminology* Add the following new paragraphs immediately after Paragraph 1.02.E.4:

5. "Furnish and Install" and "Provide" shall mean that items referred to shall be furnished and installed under this contract. The term "Furnish" shall mean that the items referred to shall be furnished, only, by the party to whom the term is directed. Similarly, the term "install" shall mean that the item referred to shall be installed, only, by the party to whom the term is directed.

*SC-1.02 Terminology* Add the following new paragraphs immediately after Paragraph 1.02.F:

G. The words "Schedule of Prices" shall mean the schedule of prices in the proposal.

H. The word "Owner" shall mean the City of Waltham, MA. The Owner is treated as if it were singular number and neuter gender and the Contractor and the Engineer are treated as if each were in the singular and masculine gender.

Any communication to the Owner shall be addressed to:

Michael Chiasson, Director  
City of Waltham Public Works Department

I. The word "State" shall mean the Commonwealth of Massachusetts.

J. The word "City" and/or "Town" shall mean the City of Waltham, MA.

*ARTICLE 2 PRELIMINARY MATTERS*

*SC-2.03 Commencement of Contract Times; Notice to Proceed* Amend the third sentence of Paragraph 2.03.A. by striking out the third sentence "In no event ..... is earlier." and substitute the following:

The Contractor shall commence the work not later than the time stipulated herein, after being notified to do so by the Owner, and shall continue it to completion with all practical dispatch and regularity so that it shall be completed no later than the time stipulated, as aforesaid, provided however, that, at its discretions, the Owner may in writing extend the time for the commencement and completion of the work.

*ARTICLE 3 CONTRACT DOCUMENTS: INTENT, AMENDING, REUSE*

*SC-3.02 Reference Standards* Add the following new paragraph immediately after Paragraph 3.02.A.2.:

3. Where references are made on the Drawings or in these Specifications to Standard Specifications, codes, etc., of the U.S. Government, State, or local authorities, or professional and industrial societies and associations, the applicable portions thereof shall govern as fully as if they were recited at length herein, and shall include all revisions thereto in effect at the time of opening of Bids.

*SC-3.03 Reporting and Resolving Discrepancies* Add the following new paragraphs immediately after Paragraph 3.03.B.1.:

2. If any of the Contract Documents or their application to any situation shall be to any extent be invalidated or contrary to law, the remainder of such documents and the application to other situations of any provision found invalid as to any given situation, shall not be affected thereby.

3. No substitutions or deviations in the work as defined by the Contract Documents will be made without specific written permission of the Engineer.

4. In the event of conflicts or discrepancies among the Contract Documents, the Documents shall be interpreted on the basis of the following priorities:

- |        |  |
|--------|--|
| First  | Agreement  |
| Second | Addenda, with later date having greater priority |
| Third  | Supplementary Conditions                         |
| Fourth | General Conditions                               |
| Fifth  | Drawings and Specifications                      |

5. In Drawings, large scale details shall govern smaller scale drawings. In case of conflicts between Drawings and Specifications, the Engineer may interpret the Documents so as to secure the most substantial and comprehensive performance of the work consistent with the intent of requirements of the Contract. Such work shall be performed by the Contractor without extra cost to the Owner.

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

*SC-4.02 Subsurface and Physical Conditions* Add the following new paragraphs immediately after Paragraph 4.02B:

C. Contractor is also required to visit the Site to become familiar with and satisfied as to the general, local, and Site conditions that may affect cost, progress, performance, and furnishing of the Work. This is to involve an alert, heads-up, eyes-open, reasonable examination of the area and the conditions under which the Work is to be performed (see GC-4.03.C.2.b).

*SC-4.03 Differing Subsurface or Physical Conditions* Add the following new paragraph immediately after Paragraph 4.03.C.3:

4. Any adjustment in compensation and/or any adjustment in contract time because of a change or changes resulting from one or more of the conditions described in the foregoing paragraph will be made in accordance with the provisions of the General Conditions.

*SC-4.03 Differing Subsurface or Physical Conditions* Add the following new paragraph immediately after Paragraph 4.03.C:

D. The following paragraph is hereby inserted in the contract in accordance with the provision of Section 39N of Chapter 30 of the Massachusetts General Laws.

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

*SC-4.05 Reference Points* Add the following new paragraphs immediately after Paragraph 4.05.A:



B. All levels or elevations shown on the drawings are referred to Mean Sea Level as established by the National Geodetic Vertical Datum of 1929.

C. The Contractor shall furnish and maintain lasers for lines and grades and such assistance and facilities, including labor and materials, for giving and taking measurements, ties and grades as the Engineer may require.

*SC-4.06 Hazardous Environmental Conditions at Site* Delete Paragraphs 4.06.A and 4.06.B in their entirety and insert the following:

A. No reports or drawings related to Hazardous Environmental Conditions are known to Owner or Engineer.

B. Not Used.

#### *ARTICLE 5 BONDS AND INSURANCE*

*SC-5.03 Certificates of Insurance* Add the following new paragraphs immediately after Paragraph 5.03.B:

C. Failure of Owner to demand such certificates or other evidence of full compliance with these insurance requirements or failure of Owner to identify a deficiency from evidence provided shall not be construed as a waiver of Contractor's obligation to maintain such insurance.

D. By requiring such insurance and insurance limits herein, Owner does not represent that coverage and limits will necessarily be adequate to protect Contractor, and such coverage and limits shall not be deemed as a limitation on Contractor's liability under the indemnities granted to Owner in the Contract Documents.

*SC-5.04 Contractor's Liability Insurance* Add the following new paragraphs immediately after Paragraph 5.04.B:

C. The Contractor shall take out and maintain during the life of the Contract the insurances as described in "Standard Insurance Provisions" (Contractor) in the Appendix.

1. The Contractor shall also take out and maintain, during the life of this Contract, "All Risk" Builder's Risk Insurance in a form acceptable to the Owner, upon the entire project in an amount not less than the full "completed value" of the project. The loss if any, is to be made payable to the Owner and/or to the Contractor as their interest may appear.

2. The Contractor shall take out and maintain, during the life of this Contract, Contractor's Protective Liability Insurance to protect himself against any liability which might attach to him as a result of an accident arising out of work performed by any Subcontractor.

3. The Contractor shall take out and maintain, during the life of this Contract, Owner's Protective Liability Insurance policy issued to the Owner and extended to include Fay, Spofford & Thorndike, Inc., in the amounts stated in the City of Waltham's Standard Insurance Provisions.

4. The Contractor shall carry contractual liability in the same amounts as for Commercial General Liability Insurance. This insurance shall cover the liability assumed by the Contractor under Paragraph 6.20, Indemnification, of the General Conditions.

5. The Contractor shall carry Completed Operations insurance in the same amounts as for Commercial General Liability Insurance. This insurance shall be maintained for the full guarantee period.

6. All Subcontractors shall also take out and maintain during the life of their Contracts Commercial General Liability Insurance and Automobile Liability Insurance. The limits of Liability Insurance shall be not less than \$2,000,000 per occurrence for Bodily Injury, Personal Injury and Property Damage Liability. Automobile Liability Insurance shall be as outlined in Paragraph 5.04.C.3

D. Failure to provide and continue in force such insurance as aforesaid shall be deemed a material breach of the Contract and shall operate as an immediate termination thereof.

E. All insurance required of the General Contractor shall be in form and written with companies acceptable to the Owner. Certified copies of the Contractor's Insurance policies shall be delivered to the Owner prior to commencement of work under the Contract by the General Contractor. Such policies shall show any special coverage provisions required and shall provide for at least 30 days prior written notice to the Owner, in case of cancellation or material change to any of the insurance coverages. The Owner is to be included as an Additional Named Insured as respects the operations of the Contractor.

#### *ARTICLE 6 CONTRACTOR'S RESPONSIBILITIES*

*SC-6.01 Supervision and Superintendence* Add the following new paragraphs immediately after Paragraph 6.01.A:

1. In the case of real apparent error, inconsistency or omission, no work shall proceed without authorization from the Engineer.

2. The Drawings are generally drawn to scale; however the figured dimensions or notes thereon shall govern. Before ordering any materials or doing any work, the Contractor and each Subcontractor shall verify all measurements, and shall be responsible for the correctness of same. No extra charge or compensation will be allowed on account of differences between actual measurements and the dimensions indicated on the Drawings, except as otherwise allowed by law. Any differences that may be found shall be reported in writing to the Engineer for consideration before proceeding with the work.

*SC-6.05 Substitutes and "Or-Equals"* Add the following new paragraph immediately after Paragraph 6.05.A.2.d:

e. Reference in the Specifications or on the Drawings to any product, material, equipment, or method of construction by name, make, catalog number, or other identifying symbol shall limit the selection of the items to those types so identified. Substitutions will not be permitted in any event, with one exception: i.e. should the Contractor know of a product or system which may effect a savings

to the Owner and at the same time is (1) of equal or better quality or is (2) more appropriate for use in the project than that specified.

*SC-6.06 Concerning Subcontractors, Suppliers and Others* Add the following new paragraphs immediately after Paragraph 6.06.G:

H. Each Subcontractor shall employ a competent trade foreman who shall be in attendance at the project site during the progress of his work. The trade foreman shall be satisfactory to the Engineer and Owner, and shall not be changed during the course of the subcontract work, except with the consent of the Engineer, unless the trade foreman proves to be unsatisfactory to the Subcontractor and ceases to be in his employ.

I. Owner or Engineer may furnish to any Subcontractor or Supplier, to the extent practicable, information about amounts paid to Contractor on account of Work performed for Contractor by a particular Subcontractor or Supplier.

*SC-6.10 Taxes* Add a new paragraph immediately after Paragraph 6.10.A:

B. Owner is exempt from payment of sales and compensating use taxes of the State and of cities and counties thereof on all materials to be incorporated into the Work.

1. Owner will furnish the required certificates of tax exemption to Contractor for use in the purchase of supplies and materials to be incorporated into the Work.

2. Owner's exemption does not apply to construction tools, machinery, equipment, or other property purchased by or leased by Contractor, or to supplies or materials not incorporated into the Work.

*SC-6.17 Shop Drawings and Samples* Add the following new paragraphs immediately after Paragraph 6.17.D.3.:

4. The Contractor shall furnish to the Engineer shop drawings, samples and/or descriptive data for all work:

a. Where specifically called for in the Specifications.

b. Where shop drawings, samples, and/or descriptive data are normally submitted for Engineer's approval prior to the actual fabrication or installation of the work.

c. Where specifically requested by the Engineer.

5. Submittals shall be clearly identified as to project name, Owner, Engineer, Contractor, Subcontractor or Supplier, Manufacturer or Fabricator, and the item's name and location. Shop Drawings shall clearly show all significant details of materials, fabrications, finish, and installation. Samples shall be of adequate size to permit proper evaluation and show full range of variation of color, texture, dimensions, and other characteristics that will appear in the finished work. Descriptive data shall be sufficient to provide full verbal, and pictorial description of physical, technical and performance characteristics, and complete installation instructions, adequacy of submittals shall be subject to the Engineers approval.

6. The Contractor, immediately after being awarded the Contract, shall meet with the Engineer to discuss the required Schedule of Submittals. Within ten days after the Effective Date of the Agreement (unless otherwise specified in the General Requirements), the Contractor shall prepare and submit for approval a Schedule of Submittals for the work. The Schedule of Submittals shall be related to the entire project, and shall contain the following:

- a. Shop Drawing Schedule (for Shop and setting drawings to be provided by Contractor)
- b. Sample Schedule (for samples to be provided by Contractor)
- c. Descriptive Data Schedule (for manufacturer's descriptive data, technical information, test reports, catalog cuts, etc., to be provided by Contractor).

7. The schedule shall list all of the submissions required of each trade; the item, description, type, quantity, and size (where applicable) of each submission; and the following dates as estimated.

- a. Required date of submission.
- b. Required date of approval.
- c. Estimated date of beginning fabrication or manufacture of product (where applicable).
- d. Required date of submission of product to testing laboratory.
- e. Required date of testing laboratory approval.
- f. Required date for delivery of product to site.
- g. Required date for beginning of installation of product.
- h. Required date for completion of installation (and in place testing).

NOTE: Submissions of such complexity as to require additional time for review and correction shall be identified as such on the schedules to assure proper attention and time allotment.

Each schedule shall allow adequate time for review by Engineer. The Owner or Engineer will not be responsible for work performed in shop or field prior to approval. The schedules shall be subject to change in accordance with the progress of work.

8. The following procedure for submission and approval of shop drawings shall be followed.

a. The Contractor shall receive shop drawings in form of sepia transparencies from the various Subcontractors and Suppliers. He shall date-stamp them, make any corrections necessary, and verify under signature that they have been checked for dimensions, fit, and conformance with Contract Documents. He shall forward, at his own expense, a set of sepia transparencies, and six (6) sets of blackline prints to the Engineer.

b. The Engineer will check shop drawings for compliance with the design concept of the project and for general compliance with information given in the Contract Documents. (Extra time must be allotted on shop drawing schedule to provide sufficient time for review, as well as extra time for the additional mailing and handling.)

c. He shall then return the marked up sepia transparency and one blackline print to the Contractor.

d. The Contractor shall resubmit shop drawings for approval if requested to do so. A third submission from the same manufacturer will not be accepted. Upon approval, he shall furnish at his own expense all printings of drawings for all trades as required to properly carry out the work.

e. The final corrected sepia print of each approved shop drawing will be obtained from the Subcontractor or Supplier and retained by the Contractor until the completion of the job.

f. Before final completion of the project, and as a condition precedent to final payment, the Contractor shall furnish to the Owner a set of mylar prints of all corrected shop drawings which have obtained final approval.

9. The following procedure for submission and approval of samples shall be followed:

a. The Contractor shall receive samples from the various Subcontractors and Suppliers. He shall verify under signature on a letter of transmittal that they have been checked for agreement with the Contract requirements. He shall then forward (at his own expense) the samples to the Engineer for approval, testing, etc. Samples will not be returned unless return is requested at the time of submission, and if returned, all packing and transportation costs will be paid by the Contractor.

b. Where it is impractical to submit a sample because of size or other reasons, the Contractor will, upon request of the Engineer or Owner, make provision for inspection of material at its point of origin.

c. The Engineer will review the samples for general appearance and arrangement and for general compliance with the information given in the Contract Documents. He will indicate which colors and finishes, or other variable factors within the ranges specified, will be required. The Engineer will, within a reasonable time after receipt of samples, notify the Contractor in writing of his acceptance or rejection of samples and basis for his decision. Rejected samples shall be replaced with acceptable materials, as approved by the Engineer.

d. The Contractor shall store one set of all approved samples in a secure place at the project site, where they shall remain until completion of the project.

10. The following procedure for submission and approval of descriptive data shall be followed:

a. The Contractor shall receive the descriptive data from the various Subcontractors and Suppliers. He shall verify under signature on a letter of transmittal that it has been checked for agreement with the Contract requirements, and shall forward the descriptive data (at his own expense) to the Engineer for approval.

b. The Engineer will review the descriptive data for general compliance with the information given in the Contract Documents. The Engineer will, within a reasonable time, notify the Contractor of his acceptance or rejection of the data, and the basis for his decision. Rejected data will be replaced with data on acceptable materials or systems as approved by the Engineer.

c. A copy of each piece of approved descriptive data shall be maintained at the project site until completion of the project.

11. It shall be the responsibility of the Contractor to submit shop drawings, samples, and descriptive data in accordance with the above schedules. Failure to do so will not justify a delay in time of completion of the work.

12. The Engineer's review of the above materials will be general in nature, and approval by Engineer shall not relieve the Contractor from responsibility for deviations from the Contract Documents, unless the Contractor has, in writing, called the Engineer's attention to such deviations at the time of submission and secured his written agreement to such deviations.

*SC-6.17 Shop Drawings and Samples* Add the following new paragraphs immediately after Paragraph 6.17.E:

F. Contractor shall furnish required submittals with sufficient information and accuracy in order to obtain required approval of an item with no more than three submittals. Engineer will record Engineer's time for reviewing subsequent submittals of Shop Drawings, samples or other items requiring approval and Contractor shall reimburse Owner for Engineer's charges for such time.

G. In the event that Contractor requests a substitution for a previously approved item, Contractor shall reimburse Owner for Engineer's charges for such time unless the need for such substitution is beyond the control of Contractor.

*SC-6.20 Indemnification:* Amend the first sentence of paragraph 6.20.A. to delete "to the fullest extent permitted" and insert "to the extent not prohibited".

*ARTICLE 7 OTHER WORK AT THE SITE*

HAVE NO SUPPLEMENTAL ADDITIONS OR CHANGES

*ARTICLE 8 OWNER'S RESPONSIBILITIES*

HAVE NO SUPPLEMENTAL ADDITIONS OR CHANGES

*ARTICLE 9 ENGINEER'S STATUS DURING CONSTRUCTION*

*SC-9.08 Decisions on Requirements of Contract Documents and Acceptability of Work* Add the following new paragraphs immediately after Paragraph 9.08.D.:

E. The Contractor shall at his own proper cost and expense provide and do everything necessary to prepare for and perform everything required under the conditions and requirements of the contract, and he hereby agrees that the Engineer shall in the first instance be the interpreter of the Contract Documents, and all the work contemplated and described therein shall be so done as to satisfy him that its intent is fulfilled. The Engineer shall promptly render impartial decision on all claims of either party against the other and on all other matters governed by this intent, including progress of the work, the quality and fitness of materials and workmanship, the suitability of methods, and costs and values. The determination and decision of the Engineer shall be final and binding on both parties, and shall be a condition precedent to the right of the Contractor to receive any money hereunder, except as to those areas of disputed work covered in Article 11 or Article 12.

F. In accordance with the provision of the Massachusetts General Laws, chapter 30, Section 39P, all decisions of the Engineer or interpretations of the Specifications, approval of equipment, material or any other approval, or progress of the work will be made no later than thirty days after the written submission for decision - but if such decision requires extended investigation and study, the Engineer will, within thirty days after the receipt of the submission, give the party making the submission written notice of the reasons why the decision cannot be made within the thirty day period and the date by which the decision will be made.

*ARTICLE 10 CHANGES IN THE WORK; CLAIMS*

HAVE NO SUPPLEMENTAL ADDITIONS OR CHANGES

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

*SC-11.02 Allowances* Delete paragraphs 11.02.A, 11.02.B, and 11.02.C in their entirety.

*ARTICLE 12 CHANGE OF CONTRACT PRICE; CHANGE OF CONTRACT TIMES*

*SC-12.04 through 12.07* Add the following new paragraphs immediately after Paragraph 12.03.:

12.04 The Contractor shall commence the work not later than the time stipulated herein, after being notified to do so by the Owner, and shall continue it to completion with all practical dispatch and regularity so that it shall be completed not later than the time stipulated, as aforesaid, provided however, that, at its discretions, the Owner may in writing extend the time for the commencement and completion of the work.

A. The Contractor shall prosecute the work in accordance with a progress schedule prepared by him in advance and approved by the Engineer.

12.05 The following subparagraphs (a) and (b) are hereby inserted in this contract in accordance with the provisions of the Massachusetts General Laws, Chapter 30, Section 39(o).

- (a) The Awarding Authority may order the General Contractor in writing to suspend, delay or interrupt all or any part of the work for such period of time as it may determine to be appropriate for the convenience of the Awarding Authority, provided however, that if there is a suspension, delay or interruption for fifteen days or more or due to a failure of the Awarding Authority to act within the time specified in this contract, the Awarding Authority shall make an adjustment in the contract price for any increase in the cost of performance of this contract but shall not include any profit to the General Contractor on such increase, and provided further, that the Awarding Authority shall not make any adjustment in the contract price under this provision for any suspension, delay, interruption or failure to act to the extent that such is due to any cause for which this contract provides for an equitable adjustment of the contract price under any other contract provisions.
- (b) The General Contractor must submit the amount of a claim under provision (a) to the Awarding Authority in writing as soon as practicable after the end of the suspension, delay, interruption or failure to act and, in any event, not later than the date of final payment under this contract and, except for costs due to a suspension order, the Awarding Authority shall not approve any costs in the claim incurred more than twenty days before the General Contractor notified the Awarding Authority in writing of the act or failure to act involved in the claim.

12.06 The following 2 paragraphs shall apply to the completion of contracts terminated prior to completion of the work.

A. The excess, if any, of debit over credit is to be made good to Owner by the Contractor (to the limit stated below) from any moneys that are then due the Contractor, or that may thereafter become due the Contractor under this contract, or the excess is to be made good by the surety to the Owner. The excess to be so made good is to be limited to the amount owed the Contractor by the Owner under the contract at the time the Contractor is notified to discontinue said work, plus the amount of the bond of the contract, and it is further agreed, that, in case the Engineer shall certify to the Owner that the Contractor cannot complete fully the aforesaid work within the stipulated time, the Owner may thereupon, in lieu of the



foregoing provisions, pay the Contractor for the parts already done, according to the provisions of the contract, and may treat parts remaining as if they had never been included in or contemplated by the contract.

B. And it is further agreed that in case the Engineer shall certify to the Owner that the Contractor cannot complete fully the aforesaid work within the stipulated time, the Owner, in lieu of any of the foregoing provisions, may call upon the surety company and the surety shall complete the performance of all requirements of the contract- and the Owner shall pay the Contractor for the work done by the surety company according to the payment provision of the contract. In case the completion of the work is not performed by the Contractor, the amount of any sums due the Owner for any delay in such completion shall be determined by the Engineer. No act, proceeding, or notice contemplated by this Article 12 on the part of the Owner, or the Engineer, and nothing herein contained shall operate as a waiver or release of any of the rights of the Owner under the contract against either the Contractor or the surety company.

12.07 It is mutually agreed that the timely completion of the work under this contract has a substantial financial value to the Owner, which value it is difficult or impossible to forecast or evaluate exactly. It is of considerable mutual advantage to the parties hereto that, even if not equal exactly to the real value of each day so lost in the completion of the work, the compensation therefor which the Contractor is to give to the Owner be a fixed sum and set in advance. In view of the foregoing and other considerations the parties hereby mutually agree in the place of said value as it may be truly and finally determined, to adopt arbitrarily for the purposes of this contract, the sum per day, which is stipulated in the Agreement as the sum which the Contractor shall give to the Owner as liquidated damages for each calendar day lost by the Contractor in the completion of the work of the contract, this sum to govern in all issues, and being adopted for the mutual use of the parties hereto and for no other use.

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

*SC-13.01 Notice of Defects* Add the following new paragraphs immediately after Paragraph 13.01.A.:

B. The Contractor guarantees that the work and services to be performed under the contract, and all workmanship, materials and equipment performed, furnished, used or installed in the construction of the same, shall be free from defects and flaws, and shall be performed and furnished in strict accordance with the Drawings, Specifications and other contract documents, that the strength of all parts of all manufactured equipment shall be adequate and as specified and that the performance test requirements of the Contractor shall be fulfilled. This guarantee shall be for a period of one year from and after the Date of Completion which date of completion shall be determined under the provisions of Article 14 hereof.

C. If at any time within the said period of guarantee any part of the work requires repairing, correction or replacement, the Owner may notify the Contractor in writing to make the required repairs, corrections, or replacements. If the Contractor neglects to commence making such repairs, corrections, or replacements to the satisfaction of the Owner within three (3) days from the date of receipt of such notice,

or having commenced fails to prosecute such work with diligence, the Owner may employ other persons to make the same, and all direct and indirect costs of making said repairs, corrections or replacements, including compensation for additional professional services, shall be paid by the Contractor.

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

*SC-14.02 Progress Payments* Add the following new paragraphs immediately after Paragraph 14.02.A.3.:

4. The Owner shall pay and the Contractor shall receive as full compensation for providing and doing everything required to prepare for and perform everything called for by this contract, and as full compensation also for all loss or damage arising out of the nature of the work under the contract, or from the action of the elements, or from fire, or from any unforeseen obstructions or difficulties which may be encountered in the prosecution of the said work; also for all risk of every description connected with said work; also for all expenses incurred by, or in consequence of, the suspension or discontinuance of said work as herein specified; and for well and faithfully completing said work in accordance with the contract, including all work incidental thereto; the prices stated in the Schedule of Prices, or the prices revised, if such are revised as provided for in Article 11 of the General Conditions.

5. It is understood and agreed that the lump sum prices, as opposed to the unit prices, listed in the Schedule of Prices submitted by the Contractor in his bid are for the information of the Owner and the guidance of the Engineer, and all references in the contract and Specifications relating to payment of the Contractor in accordance herewith are contingent upon the acceptance for each lump sum item price by the Owner as a fair value for such item at the time payment therefor is requisitioned. Nothing in this Article 14 shall be held to abrogate the obligation of the Owner to pay the Contractor the full contract price as determined by and in accordance with the contract documents and Massachusetts General Laws, Chapter 30, and 149, and more specifically Section 39K of said Chapter 30.

#### 6. Periodical Estimates

a. The Contractor shall, on or about the first of each month, issue a periodical estimate of the approximate amount of all materials furnished and work done during the preceding month, in accordance with the units of measurement and prices in the Schedule of Prices and for all change and extra work orders, including such portions of lump sums in the Schedule of Prices and also the value of materials furnished and delivered to the site of the work, as the Engineer deems proper. The Contractor shall furnish the Engineer satisfactory evidence that he has paid in full for all work, materials, equipment and labor included in each periodical estimate.

b. Periodical estimates shall be received by the Owner (Awarding Authority) on or before the first of each month at the office of the Engineer, Fay, Spofford & Thorndike, 5 Burlington Woods, Burlington, Massachusetts 01803.

c. The periodical estimates shall be in the form of AIA Documents G702 and G703, "Application and Certificate for Payment", latest edition, prepared by the American Institute of Engineers, Washington, DC. They shall be certified by the Engineer as to their conformity with the provisions of the contract, and shall be certified by the Contractor to the effect that all items, units, quantities, and prices of work and material in the estimate are approximately correct- that all work has been performed and

materials supplied in full accordance with the contract, that all just and lawful bills against the Contractor for labor, materials, and expendable equipment covered by the estimate have been paid in full and that the Contractor has no claims for damage, losses, or expense against the Owner for compensation in addition to that provided for payment in the periodical estimates, except such claims as the Contractor has filed with the Engineer and Owner in writing previous to his certifying the estimate.

d. Within fifteen days after receipt from the Contractor, at the place designated by the Awarding Authority in the foregoing paragraph, of a periodic estimate requesting payment of the amount due for the preceding month, the Awarding Authority will make a periodic payment to the Contractor for the work performed during the preceding month and for materials not incorporated in the work but delivered and suitably stored at the site (or at some location agreed upon in writing) to which the Contractor has title or to which a Subcontractor has title and has authorized the Contractor to transfer title to the Awarding Authority, less (1) a retention based on its estimate of the fair value of its claims against the Contractor and less (2) a retention for direct payment to Subcontractors based on demands for same in accordance with the provisions of Section 39F, and less (3) a retention not exceeding five percent of the approved amount of the periodic payment.

e. The Owner may retain temporarily or permanently, at any time after fifty (50) percent of the work covered by this contract has been completed, a smaller amount than five (5) percent of the total amount of the latest periodical estimate, and the Owner may cause the Contractor to be paid from time to time during the progress of the work such portion of the reserve as it deems prudent or desirable. In case such payments are made, the Owner may at any time cause further payments to be withheld until the full five (5) percent reserve is reestablished. Payment may be withheld at any time, if, in the judgement of the Engineer, the work is not proceeding in accordance with the contract. The consent of the surety company shall not be required for any act or proceeding on the part of the Owner contemplated by this Article 14.

f. The Contractor shall not be entitled to demand or receive payment for any portion of the aforesaid work on materials, except in the manner above set forth in this Article 14, until the Engineer shall have been satisfied that said work has been completed in all parts and requirements in accordance with the intent of the contract, and the Engineer shall have issued a "Certificate of Completion" to that effect and shall have designated therein the date of completion.

*SC-14.07 Final Payment* Add the following new paragraphs immediately after Paragraph 14.07.C.:

#### D. Final Estimate

1. After the date of completion, the Contractor shall issue and shall forthwith submit to the Owner a periodical estimate designated "Final Estimate" of all work done under the contract in which the approximate quantities of work done, as included in the periodical estimates, will be adjusted to the exact final quantities. The Contractor shall furnish the Engineer satisfactory evidence that he has paid in full for all work, materials, equipment, and labor included in the Final Estimate. The Final Estimate shall be certified by the Engineer as to its conformity with all provisions of the contract, and shall be certified by the Contractor to the effect that all just and lawful bills against the Contractor for labor, materials, and expendable equipment covered by the Final Estimate have been paid in full, that the total cost of the work and the amount due the Contractor for payment is full compensation for all work done under the terms of the contract in its original form, that the payment is full compensation for all other work done by the Contractor and

for all damages, losses, and expenses incurred by the Contractor for doing and furnishing everything relating to or arising out of the work, and that the Contractor waives all rights to claim or receive any further compensation in addition to that provided for in the Final Estimate except as otherwise allowed by law.

2. After receipt of a periodic estimate requesting final payment and within sixty-five days after (a) the Contractor fully completes the work or substantially completes the work so that the value of the work remaining to be done is, in the estimate of the Awarding Authority, less than one percent of the original contract price, or (b) the Contractor substantially completes the work and the Awarding Authority takes possession for occupancy, whichever occurs first, the Awarding Authority shall pay the Contractor the entire balance due on the contract less, (1) a retention based on its estimate of the fair value of its claims against the Contractor and of the cost of completing the incomplete and unsatisfactory items of work and less (2) a retention for direct payment to Subcontractors based on demands for same in accordance with provisions of Section 39F, or based on the record of payments by the Contractor to the Subcontractors under this contract if such record of payment indicates that the Contractor has not paid Subcontractors as provided in Section 39F. If the Awarding Authority fails to make payment as herein provided, there shall be added to each payment daily interest at the rate of three percentage points above the rediscount rate then charged by the Federal Reserve Bank of Boston commencing on the first day after said payment is due and continuing until the payment is delivered or mailed to the Contractor; provided that no interest shall be due, in any event, on the amount due, on a periodic estimate for final payment until fifteen days after receipt of such a periodic estimate from the Contractor, at the place designated by the Awarding Authority if such a place is so designated. The Contractor agrees to pay to each Subcontractor a portion of any such interest paid in accordance with the amount due each Subcontractor.

3, The Owner (Awarding Authority) may make changes in any periodic estimate submitted by the Contractor and the payment due on said periodic estimate shall be computed in accordance with the changes so made, but such changes or any requirement for a corrected periodic estimate shall not affect the due date for the periodic payment or the date for the commencement of interest charges on the amount of the periodic payment computed in accordance with changes made, as provided herein, provided, that the owner (Awarding Authority) may, within seven days after receipt, return for correction any periodic estimate which is not in the required form or which contain computations not arithmetically correct and, in that event, the date of receipt of such periodic estimate shall be the date of receipt of the corrected periodic estimate in proper form and with arithmetically correct computations. The date of receipt of a periodic estimate received on a Saturday shall be the first working day thereafter. The provisions of Section 39G shall not apply to any contract for the construction, reconstruction, alteration, remodeling, repair or demolition of any public building to which this section applies.

4. In the event any such contract has been substantially completed and the project has been opened to public use by order of the Owner or its duly authorized representative or agent, but final acceptance of the work is subject to delay because of minor uncompleted items which do not impair the usefulness of the project, a semi-final estimate shall also be prepared within a like period of sixty-five days after such contract has been substantially completed and placed in public use. Such semi-final estimate shall include an estimate of the value of all work performed in accordance with the terms of the contract, including the amount of retained percentage withheld by the contracting authority from previous periodic payments, but excluding (A) the same deductions and retainage as in the case of final estimates, as provided hereinbefore, (B) an estimate of the value of the work remaining to be performed and (C) any items or claims for extra work, or parts thereof, that may be in dispute- and payment for such excluded items or portions thereof may be deferred until such remaining work has been satisfactorily completed, or in the case

of disputed items or claims until such time as agreement has been reached thereon or such claim has been adjudicated.

5. The following subparagraphs (a) through (i) are hereby inserted in this contract in accordance with the provisions of Section 2 of Chapter 774 of the Acts of 1972, and in accordance with MGL Ch. 30, S. 39F.

- (a) Forthwith after the General Contractor receives payment on account of a periodic estimate, the General Contractor shall pay to each Subcontractor the amount paid for the labor performed and the material furnished by the Subcontractor, less any amount specified in any court proceedings barring such payment and also less any amount claimed due from the Subcontractor by the General Contractor.
- (b) Not later than the sixty-fifth day after each Subcontractor substantially completes his work in accordance with the Plans and Specifications, the entire balance due under the subcontract less amounts retained by the Awarding Authority as the estimated cost of completing the incomplete and unsatisfactory items of work, shall be due the Subcontractor and the Awarding Authority shall pay that amount to the General Contractor. The General Contractor shall forthwith pay to the Subcontractor the full amount received from the Awarding Authority less any amount specified in any court proceedings barring such payment and also less any amount claimed due from the Subcontractor by the General Contractor.
- (c) Each payment made by the Awarding Authority to the General Contractor pursuant to subparagraphs (a) and (b) of this paragraph for the labor performed and the materials furnished by a Subcontractor shall be made to the General Contractor for the account of that Subcontractor; and the Awarding Authority shall take reasonable steps to compel the General Contractor to make each such payment to each such Subcontractor. If the Awarding Authority has received a demand for direct payment from a Subcontractor for any amount which has already been included in a payment to the General Contractor or which is to be included in a payment to the General Contractor for payment to the Subcontractor as provided in subparagraphs (a) and (b), the Awarding Authority shall act upon the demand as provided in this section.
- (d) If, within seventy days after the Subcontractor has substantially completed the subcontract work, the Subcontractor has not received from the General Contractor the balance due under the subcontract including any amount due for extra labor and materials furnished to the General Contractor, less any amount retained by the Awarding Authority as the estimated cost of completing the incomplete and unsatisfactory items of work, the Subcontractor may demand direct payment of that balance from the Awarding Authority. The demand shall be by a sworn statement delivered to or sent by certified mail to the Awarding Authority, and a copy shall be delivered to or sent by certified mail to the General Contractor at the same time. The demand shall contain a detailed breakdown of the balance due under the subcontract and also a statement of the status of completion of the subcontract work. Any demand made after substantial completion of the subcontract work shall be valid even if delivered or mailed prior to the seventieth day after the Subcontractor has substantially completed the subcontract work. Within ten days after the Subcontractor

has delivered or so mailed the demand to the Awarding Authority and delivered or so mailed a copy to the General Contractor, the General Contractor may reply to the demand. The reply shall be by a sworn statement delivered to or sent by certified mail to the Awarding Authority and a copy shall be delivered to or sent by certified mail to the Subcontractor at the same time. The reply shall contain a detailed breakdown of the balance due under the subcontract including any amount due for extra labor and materials furnished to the General Contractor and of the amount due for each claim made by the General Contractor against the Subcontractor.

- (e) Within fifteen days after receipt of the demand by the Awarding Authority, but in no event prior to the seventieth day after substantial completion of the subcontract work, the Awarding Authority shall make direct payment to the Subcontractor of the balance due under the subcontract including any amount due for extra labor and materials furnished to the General Contractor, less any amount (i) retained by the Awarding Authority as the estimated cost of completing the incomplete or unsatisfactory items of work, (ii) specified in any court proceedings barring such payment, or (iii) disputed by the General Contractor in the sworn reply - provided, that the Awarding Authority shall not deduct from a direct payment any amount as provided in part (iii) if the reply is not sworn to, or for which the sworn reply does not contain the detailed breakdown required by subparagraph (d). The Awarding Authority shall make further direct payments to the Subcontractor forthwith after the removal of the basis for deductions from direct payments made as provided in parts (i) and (ii) of this subparagraph.
- (f) The Awarding Authority shall forthwith deposit the amount deducted from a direct payment as provided in part (iii) of subparagraph (e) in an interest-bearing joint account in the names of the General Contractor and the Subcontractor in a bank in Massachusetts selected by the Awarding Authority or agreed upon by the General Contractor and the Subcontractor and shall notify the General Contractor and the Subcontractor of the date of the deposit and the bank receiving the deposit. The bank shall pay the amount in the account, including accrued interest, as provided in an agreement between the General Contractor and the Subcontractor or as determined by decree of a court of competent jurisdiction.
- (g) All direct payments and all deductions from demands for direct payments deposited in an interest-bearing account or accounts in a bank pursuant to subparagraph (f) shall be made out of amount payable to the General Contractor at the time of receipt of a demand for direct payment from a subcontractor and out of amounts which later become payable to the General Contractor and in the order of receipt of such demands from Subcontractors. All direct payments shall discharge the obligation of the Awarding Authority to the General Contractor to the extent of such payment.
- (h) The Awarding Authority shall deduct from payment to a General Contractor amounts which, together with the deposits in interest-bearing accounts pursuant to subparagraph (f), are sufficient to satisfy all unpaid balances of demands for direct payment received from Subcontractors. All such amounts shall be earmarked for such direct payments, and the Subcontractors shall have a right in such deductions prior to any claims against such amounts by creditors of the General Contractor.

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

SC-14.10 Add the following new paragraphs immediately after Paragraph 14.09:

14.10 The payment of the final amount due under this contract, and payment for work done under change order as herein provided, for, shall release the Owner and every agent or employee of the Owner and the agents and employees of any such agent from any or all claims or liabilities on account of work performed under the contract of any alteration hereof.

*ARTICLE 15 SUSPENSION OF WORK AND TERMINATION*

HAVE NO SUPPLEMENTAL ADDITIONS OR CHANGES

*ARTICLE 16 DISPUTE RESOLUTION*

HAVE NO SUPPLEMENTAL ADDITIONS OR CHANGES

*ARTICLE 17 MISCELLANEOUS*

SC-17 *Miscellaneous* Add the following new paragraphs immediately after Paragraph 17.06:

17.07 Erection of Shanties

A. Shanties or other structures for housing or storage of materials, or for office, shall be built only if permission in writing is given by the Engineer, and will then be permitted only at such places as the Engineer shall approve, and the sanitary conditions on the grounds in or about such shanties or other structures shall at all times be maintained in a manner approved by the Engineer.

17.08 Preservation of Trees

A. Within the actual lines of the structures to be built, the trees must of necessity be removed and all such removal of trees, including stumps, shall be done by the Contractor. No trees shall be cut down or otherwise injured by the Contractor except by approval of the Engineer. Should it be necessary, in the work, such removal shall be done by the Contractor. The Contractor shall protect trees and shall furnish guards or other protection of trees if required by the Engineer. Trees which are removed without prior approval or seriously damaged shall be replaced.

#### 17.09 Fire Protection

A. The Contractor shall take all necessary precautions to prevent fires adjacent to the work and his buildings and he shall prevent the spread of fires to areas outside the limits of the work. He shall provide adequate facilities for extinguishing fires.

B. The Contractor shall limit the use of cutting torches and they shall be used only when absolutely necessary and by experienced operators. The Contractor shall have available at the point of cutting satisfactory equipment for extinguishing sparks and fire.

#### 17.10 Weather Conditions

A. No work shall be done when, in the opinion of the Engineer, the weather is unsuitable. No concrete, masonry, earth backfill, embankment, paving, or paint shall be placed during freezing weather or upon frozen material. If there is delay or interruption in the work due to weather conditions, the necessary precautions shall be taken to bond new work to old.

#### 17.11 Watertightness

A. All structures, pipes, and equipment which are to contain water shall be watertight under all operating conditions for which they are intended. The Contractor shall furnish at no cost to the Owner, all labor, materials and equipment and do all work required by the Engineer to make all such parts of the work watertight, or to replace them, if in the opinion of the Engineer any leakage is excessive. All such parts of the work filled with water for testing watertightness shall be left filled as ordered by the Engineer.

#### 17.12 Use of Portions Before Entire Completion of Work

A. The Owner and its duly authorized representatives may enter upon and use any portions of the work before final completion of the whole work to be done under this contract, without any claim by the Contractor for payment for said use, or delay duly caused by such use.

#### 17.13 Massachusetts Sales Tax Exemption

A. Chapter 757, Section 6, Legislative Acts of 1967, effective January 1, 1968, exempts the following sales and the gross receipts therefrom:

Sales of building materials and supplies to be used in the construction, reconstruction, alteration, remodeling or repair of any building, structure, public highway, bridge or other public works owned by or held in trust for the benefit of any governmental body or agency mentioned in paragraph (D) (D. sales to the United States, the Commonwealth or any



political subdivision thereof, or their respective agencies) and used exclusively for public purposes provided, however, that such governmental body or agency shall have first obtained a certificate from the commissioner stating that it is entitled to such exemption and the vendor keeps a record of the sales of each such separate sale, the name of the purchaser, the date of each such separate sale and the number of such certificate. In this paragraph the words "building materials and supplies" shall include all materials and supplies consumed, employed or expended in the construction, reconstruction, alteration, remodeling or repair of any building, structure, public highway, bridge or other such public work, as well as such materials and supplies physically incorporated therein. Said term shall also include rental charges for construction vehicles, equipment and machinery rented specifically for use on the site of any such tax exempt project or while being used exclusively for the transportation of materials for any such tax exempt project.

#### 17.14 Remedies

A. Except as may be otherwise provided in this contract, all claims, counterclaims, disputes and other matters in question between the Owner and the Contractor arising out of or relating to this agreement or the breach thereof will be decided by a court of competent jurisdiction within the State in which the Owner is located.

#### 17.15 Statutory Citations

A. In addition, the following additional statutes and regulations are hereby incorporated into these Supplementary Conditions by reference. The statutes listed in bold are included in their entirety on the following pages.

|                       |  |
|-----------------------|--|
| M.G.L. C.30 S.39F     | Payment to Subcontractor                     |
| M.G.L. C.30 S.39I     | Deviation from Plans and Specifications      |
| M.G.L. C. 30 S.39J    | No Arbitrary Decisions are Final             |
| M.G.L. C.30 S.39K     | Prompt Payment                               |
| M.G.L. C. 30 S.39L    | Construction Work by Foreign Corporations    |
| M.G.L. C. 30 S.39M(b) | Substitution of Equal Products               |
| M.G.L. C.30 S.39N     | Differing Site Conditions                    |
| M.G.L. C.30 S.39O     | Equitable Adjustments for Delays             |
| M.G.L. C. 30 S.39P    | Decision on Interpretation of Specifications |
| M.G.L. C. 30 S.39R    | Contractor's Records                         |
| M.G.L. C.149 S.34     | Limitations on Hours of Work                 |
| M.G.L. C.149 S.44J    | Advertising Invitations to Bid               |
| M.G.L. C. 82 S.40     | Excavations; Notices; Penalties              |

MGL C. 30 S.39F. (1) Every contract awarded pursuant to sections forty-four A to L, inclusive, of chapter one hundred and forty-nine shall contain the following subparagraphs (a) through (i) and every contract awarded pursuant to section thirty-nine M of chapter thirty shall contain the following subparagraphs (a) through (h) and in each case those subparagraphs shall be binding between the general contractor and each subcontractor.

(a) Forthwith after the general contractor receives payment on account of a periodic estimate, the general contractor shall pay to each subcontractor the amount paid for the labor performed and the materials

furnished by that subcontractor, less any amount specified in any court proceedings barring such payment and also less any amount claimed due from the subcontractor by the general contractor.

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

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

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

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

required by subparagraph (d). The awarding authority shall make further direct payments to the subcontractor forthwith after the removal of the basis for deductions from direct payments made as provided in parts (i) and (ii) of this subparagraph.

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

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

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

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

(2) Any assignment by a subcontractor of the rights under this section to a surety company furnishing a bond under the provisions of section twenty-nine of chapter one hundred forty-nine shall be invalid. The assignment and subrogation rights of the surety to amounts included in a demand for direct payment which are in the possession of the awarding authority or which are on deposit pursuant to subparagraph (f) of paragraph (1) shall be subordinate to the rights of all subcontractors who are entitled to be paid under this section and who have not been paid in full.

(3) "Subcontractor" as used in this section (i) for contracts awarded as provided in sections forty-four A to forty-four H, inclusive, of chapter one hundred forty-nine shall mean a person who files a sub-bid and receives a subcontract as a result of that filed sub-bid or who is approved by the awarding authority in writing as a person performing labor or both performing labor and furnishing materials pursuant to a contract with the general contractor, (ii) for contracts awarded as provided in paragraph (a) of section thirty-nine M of chapter thirty shall mean a person approved by the awarding authority in writing as a person

performing labor or both performing labor and furnishing materials pursuant to a contract with the general contractor, and (iii) for contracts with the commonwealth not awarded as provided in forty-four A to forty-four H, inclusive, of chapter one hundred forty-nine shall also mean a person contracting with the general contractor to supply materials used or employed in a public works project for a price in excess of five thousand dollars.

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

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

MGL C.30 S.39K. Every contract for the construction, reconstruction, alteration, remodeling, repair or demolition of any public building by the commonwealth, or by any county, city, town, district, board, commission or other public body, when the amount is more than five thousand dollars in the case of the commonwealth and more than two thousand dollars in the case of any county, city, town, district, board, commission or other public body, shall contain the following paragraph:— Within fifteen days (30 days in the case of the commonwealth, including local housing authorities) after receipt from the contractor, at the place designated by the awarding authority if such a place is so designated, of a periodic estimate requesting payment of the amount due for the preceding month, the awarding authority will make a periodic payment to the contractor for the work performed during the preceding month and for the materials not incorporated in the work but delivered and suitably stored at the site (or at some location agreed upon in writing) to which the contractor has title or to which a subcontractor has title and has authorized the contractor to transfer title to the awarding authority, upon certification by the contractor that he is the lawful owner and

that the materials are free from all encumbrances, but less (1) a retention based on its estimate of the fair value of its claims against the contractor and less (2) a retention for direct payments to subcontractors based on demands for same in accordance with the provisions of section thirty-nine F, and less (3) a retention not exceeding five per cent of the approved amount of the periodic payment. After the receipt of a periodic estimate requesting final payment and within sixty-five days after (a) the contractor fully completes the work or substantially completes the work so that the value of the work remaining to be done is, in the estimate of the awarding authority, less than one per cent of the original contract price, or (b) the contractor substantially completes the work and the awarding authority takes possession for occupancy, whichever occurs first, the awarding authority shall pay the contractor the entire balance due on the contract less (1) a retention based on its estimate of the fair value of its claims against the contractor and of the cost of completing the incomplete and unsatisfactory items of work and less (2) a retention for direct payments to subcontractors based on demands for same in accordance with the provisions of section thirty-nine F, or based on the record of payments by the contractor to the subcontractors under this contract if such record of payment indicates that the contractor has not paid subcontractors as provided in section thirty-nine F. If the awarding authority fails to make payment as herein provided, there shall be added to each such payment daily interest at the rate of three percentage points above the rediscount rate than charged by the Federal Reserve Bank of Boston commencing on the first day after said payment is due and continuing until the payment is delivered or mailed to the contractor; provided, that no interest shall be due, in any event, on the amount due on a periodic estimate for final payment until fifteen days (twenty-four days in the case of the commonwealth) after receipt of such a periodic estimate from the contractor, at the place designated by the awarding authority if such a place is so designated. The contractor agrees to pay to each subcontractor a portion of any such interest paid in accordance with the amount due each subcontractor.

The awarding authority may make changes in any periodic estimate submitted by the contractor and the payment due on said periodic estimate shall be computed in accordance with the changes so made, but such changes or any requirement for a corrected periodic estimate shall not affect the due date for the periodic payment or the date for the commencement of interest charges on the amount of the periodic payment computed in accordance with the changes made, as provided herein; provided, that the awarding authority may, within seven days after receipt, return to the contractor for correction, any periodic estimate which is not in the required form or which contains computations not arithmetically correct and, in that event, the date of receipt of such periodic estimate shall be the date of receipt of the corrected periodic estimate in proper form and with arithmetically correct computations. The date of receipt of a periodic estimate received on a Saturday shall be the first working day thereafter. The provisions of section thirty-nine G shall not apply to any contract for the construction, reconstruction, alteration, remodeling, repair or demolition of any public building to which this section applies.

All periodic estimates shall be submitted to the awarding authority, or to its designee as set forth in writing to the contractor, and the date of receipt by the awarding authority or its designee shall be marked on the estimate. All periodic estimates shall contain a separate item for each filed subtrade and each sub-subtrade listed in sub-bid form as required by specifications and a column listing the amount paid to each subcontractor and sub-subcontractor as of the date the periodic estimate is filed. The person making payment for the awarding authority shall add the daily interest provided for herein to each payment for each day beyond the due date based on the date of receipt marked on the estimate.

A certificate of the architect to the effect that the contractor has fully or substantially completed the work shall, subject to the provisions of section thirty-nine J, be conclusive for the purposes of this section.

Notwithstanding the provisions of this section, at any time after the value of the work remaining to be done is, in the estimation of the awarding authority, less than 1 per cent of the adjusted contract price, or the awarding authority has determined that the contractor has substantially completed the work and the awarding authority has taken possession for occupancy, the awarding authority may send to the general contractor by certified mail, return receipt requested, a complete and final list of all incomplete and unsatisfactory work items, including, for each item on the list, a good faith estimate of the fair and reasonable cost of completing such item. The general contractor shall then complete all such work items within 30 days of receipt of such list or before the contract completion date, whichever is later. If the general contractor fails to complete all incomplete and unsatisfactory work items within 45 days after receipt of such items furnished by the awarding authority or before the contract completion date, whichever is later, subsequent to an additional 14 days' written notice to the general contractor by certified mail, return receipt requested, the awarding authority may terminate the contract and complete the incomplete and unsatisfactory work items and charge the cost of same to the general contractor and such termination shall be without prejudice to any other rights or remedies the awarding authority may have under the contract. The awarding authority shall note any such termination in the evaluation form to be filed by the awarding authority pursuant to the provisions of section 44D of chapter 149.

MGL C.30 S.39N. Every contract subject to section forty-four A of chapter one hundred and forty-nine or subject to section thirty-nine M of chapter thirty shall contain the following paragraph in its entirety and an awarding authority may adopt reasonable rules or regulations in conformity with that paragraph concerning the filing, investigation and settlement of such claims:

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

MGL. C.30 S.39O. Every contract subject to the provisions of section thirty-nine M of this chapter or subject to section forty-four A of chapter one hundred forty-nine shall contain the following provisions (a) and (b) in their entirety and, in the event a suspension, delay, interruption or failure to act of the awarding authority increases the cost of performance to any subcontractor, that subcontractor shall have the same rights against the general contractor for payment for an increase in the cost of his performance as provisions (a) and (b) give the general contractor against the awarding authority, but nothing in provisions (a) and (b) shall in any way change, modify or alter any other rights which the general contractor or the subcontractor may have against each other.

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

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

#### 17.16 Price Adjustment Clause

1. Municipalities are required to include price adjustment clauses for diesel fuel, gasoline, liquid asphalt, Portland cement concrete, structural steel and reinforcing steel in the bid documents of all construction contracts funded by the Chapter 90 Program. For more information please refer to the Price Adjustment Requirements for Cities and Towns which can be viewed at:  
[http://www.mhd.state.ma.us/default.asp?pgid=ch90/text\\_letter\\_cities\\_towns&sid=about](http://www.mhd.state.ma.us/default.asp?pgid=ch90/text_letter_cities_towns&sid=about)

Current prices are posted monthly on the MassDOT website at:

<http://www.massdot.state.ma.us/highway/DoingBusinessWithUs/Construction/PriceAdjustments.aspx>

Due to the uncertainty of liquid asphalt, Portland cement, diesel fuel, gasoline, structural steel, and reinforcing steel prices, and in accordance with the requirements of Chapter 303 of the Acts of 2008, MassDOT Highway Division uses special provisions, available at the links below, on selected projects to make contract adjustments to account for the prices in effect at the time the work is performed.

- a) This contract contains a price adjustment for bituminous concrete mixtures. The base price for asphalt cement on this project is \$585.00 per ton of liquid asphalt (updated January 13, 2015).
- b) This contract contains price adjustments for diesel fuel and gasoline. The base price for diesel fuel on this project is \$2.534 per gallon and for gasoline \$2.081 per gallon (December 2014 Fuel prices).

- c) This contract contains a price adjustment for concrete. The base price for concrete on this project is \$123.78 per ton of Portland cement (last updated January 13, 2015).
- 2. The Price Adjustment will be paid only if the variance from the Base Price is 5% or more for a monthly period. The complete adjustment will be paid in all cases with no deduction of the 5% from either upward or downward adjustments.
- 3. No Price Adjustment will be allowed beyond the Completion Date of this Contract, unless there is a Department-approved extension of time.

**\*\* END OF SECTION 00701\*\***



## **TECHNICAL SPECIFICATIONS**

**TRAPELO RD WATER SERVICE REPLACEMENT  
CITY OF WALTHAM**

**SCOPE OF WORK**

The work to be done under this Contract consists of the replacement of approx. 50 water services with new 1" copper tubing, and curb stops, the replacement of approx. 10 4"-6" sanitary sewer laterals, replacement of hydrants and associated miscellaneous work on Trapelo Rd in Waltham.

Work under this Contract shall be paid for at the Contract unit bid prices, which shall constitute full compensation for all material, labor, equipment, etc., required to satisfactorily complete the work.

All work under this Contract shall be done in conformance with the Massachusetts Highway Department *Standard Specifications for Highways and Bridges* dated 1988, the *Supplemental Specifications* dated July 1, 2015, and the *Interim Supplemental Specifications*; the *2015 Construction Standard Details*, the *1990 Standard Drawings for Signs and Supports*; the *2009 Manual on Uniform Traffic Control Devices (MUTCD) with Massachusetts Amendments* and the *Standard Municipal Traffic Code*; the *1968 Standard Drawings for Traffic Signals and Highway Lighting*; the latest edition of *American Standard for Nursery Stock*; the latest edition of the American Water Works Association Standards, the Plans and these Special Provisions

**WORK SCHEDULE**

Work on this project is restricted by City Ordinance to a seven (7) hour day between the hours of 7:00 am and 5:00 pm. Work week is restricted to a five (5) day week Monday through Friday, with the Contractor and all subcontractors working on the same shift. No work shall be done on this Contract on Saturday's, Sunday's, or holidays without the prior written approval by the City. Weekly work schedules shall be delivered to the Engineer no later than noon on the Friday before the following work week.

No work shall be performed on the entire length of any street or roadway listed below during the hours of 7:00 am to 9:00 am and 4:00 pm to 6:00 pm. Also no construction vehicles shall be parked waiting to perform work during these hours. In case of emergency, exceptions to this rule can be made by the Consolidated Public Works Director or their designee. Any non-emergency work would be reviewed on a case-by-case basis and approval may be issued by the Consolidated Public Works Director or his/her designee. Street or roadways restricted are as follows: Bacon St., Bear Hill Rd., Beaver St., High St., Lexington St., Linden St., Main St., Maple St., Moody St., Newton St., Pine St., Prospect St., River St., Second Ave., Smith St., South St., Stow St., Totten Pond Rd., Trapelo Rd., Waverley Oaks Rd., Weston St., Winter St., and Wyman St.

**CHANGES IN SCOPE**

The City of Waltham reserves the right to increase or reduce the amount of this Contract. Any

## **TRAPELO RD WATER SERVICE REPLACEMENT**

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changes in scope may involve adding work on the streets listed above or on streets yet to be identified, or deleting all or some of the work on a specific street or portion of a street. Changes in scope may be ordered at any time up to project acceptance at the Contract unit bid prices.

### **DEFINITIONS**

Except for specific reference to Department Standards and Operations, the usage of the term Engineer shall mean the Waltham City Engineer or his/her duly authorized Agent.

### **RESPONSIBILITY FOR DAMAGE CLAIMS**

The Contractor shall indemnify, defend and save harmless the Municipality and all of its or their offices, agents and employees against all suits, claims or liability of every name and nature, for or on account of any injuries to persons or damage to property arising out of or in consequence of the acts of the Contractor in the performance of the work covered by the Contract or failure to comply with the terms and conditions of said Contract, whether by themselves or his/her employees or Subcontractors, but only in respect of such injuries or damages sustained during the performance and prior to the completion and acceptance of the work covered by the Contract.

The Contractor will be held responsible for any and all claims for damage to underground structures such as, but not restricted to, water or gas mains, pipes, conduits, manholes or catch basins, due to his/her operation or to the operations of any of his/her Subcontractors.

### **COOPERATION BY CONTRACTOR**

Attention is directed to the provisions relating to rights of public corporations and municipal departments to enter the site of the improvement and alter, replace, and/or install facilities at such times when the Contractor will be prosecuting other required work contiguous thereto.

### **INSPECTION OF WORK**

The Contractor is advised that the Waltham City Engineer will be provided with a schedule of operations and will at various times during the construction of the project be on-site to inspect procedures and give directions. For the purpose of observing work that affects their respective properties, inspectors for public agencies and utility companies shall be permitted access to the work, but all official orders and directives to the Contractor will be issued by the Waltham City Engineer or his/her duly authorized agent.

### **NOTICE TO OWNERS OF UTILITIES AND PUBLIC SERVICE DEPARTMENTS:**

Written notice shall be given by the Contractor to all public service corporations or officials owning or having charge of Public or Private Utilities and Departments of his/her intentions to commence operations affecting such utilities and Departments at least one (1) week in advance of the start of such operations and the Contractor shall at the same time file a copy of said

notice with the Engineer.

The names of the principal City Departments and Utilities which may be affected will be provided to the Contractor at the pre-construction meeting.

**The Contractor shall notify “Massachusetts DIG SAFE” and procure a DIG SAFE number 72 hours prior to disturbing existing ground in any way.  
DIG SAFE Call Center – PHONE - 811.**

**The City of Waltham is not a part of “DIG SAFE.” The Contractor must request Water, Sewer, and Drain utility markings from the City Water & Sewer Department at least 72 hours prior to disturbing existing ground in any way.**

Before the Contractor begins any work on operations which might result in damage to utility pipes or structures the Contractor shall verify the locations of existing overhead and subsurface utilities in the vicinity of the work with the listed Departments and Utility Companies and conduct his/her operations so as to avoid any damage to them.

#### **PROTECTION OF EXISTING UTILITIES AND STRUCTURES**

Excavation and backfill operations shall be carried out in a manner that will prevent cave-in of excavations or the undermining, damage or disturbing of existing utilities and structures or of new work.

Any excavations improperly backfilled, or where settlement occurs, shall be reopened to the depth required, then refilled with new materials and compacted, and the surface restored to the required grade and condition at no additional expense to the Owner.

Any damage due to excavation, backfilling or settlement of the backfill, or injury to persons or damage to property occurring as a result of such damage, shall be the responsibility of the Contractor. All costs to repair such damage, in a manner satisfactory to the Owner, shall be borne by the Contractor at no additional expense to the Owner.

Where existing subsurface utilities or other facilities adjacent to or crossing through the excavation require temporary support or protection, such temporary support or protection shall be satisfactorily provided by the Contractor at no additional expense to the Owner. All necessary measures shall be taken by the Contractor to prevent lateral movement or settlement of existing facilities or of work in progress.

The plans indicate the approximate location of existing overhead and subsurface utilities in the vicinity of the work and the bidders are advised to verify this information, as its accuracy and completeness are not guaranteed by the Owner or Engineer.

**PROTECTION OF UTILITIES AND PROPERTIES**

The Contractor's attention is directed to the location of underground utilities in the existing and proposed roadways.

The Contract Drawings indicate the approximate location in plan of existing overhead and subsurface utilities in the vicinity of the work. Whatever measures are necessary to protect these lines during the work shall be included in the Contract unit price for the various items involved.

In case of damage to utilities, the Contractor shall promptly notify the Owner and shall, if requested, furnish manpower under the Owner's direction in getting access to the utility. Pipes or other structures damaged by the operation of the Contractor may be repaired by the Owner, the municipality, or the utility company. The cost of such repairs shall be borne by the Contractor without compensation therefore.

The work to be done under this Contract may necessitate changes in the properties of utility companies or the municipality hereinbefore listed. Immediately after executing the Contract, the Contractor shall confer with the owners of all utilities in order that relocations of mains or services may be made at times consistent with operations of the Contract.

**PROVISIONS FOR TRAVEL AND PROSECUTION OF THE WORK**

Prior to commencement of work, the Contractor shall be responsible for obtaining all necessary construction permits. Permits will include, but are not necessarily limited to, a NPDES Notice of Intent from the Environmental Protection Agency (including the preparation of a Storm Water Pollution Prevention Plan) and a Street Opening / Trench Permit from the Consolidated Public Works.

Access shall be maintained for all abutters so that they may use the driveways and approaches adjacent to their properties. Pedestrian access to abutting property and access for emergency vehicles shall be provided at all times.

All construction equipment, material and debris shall be removed from the traveled way at the end of each working day and shall be stored in such manner as not to interfere with the flow of driveway traffic or pedestrians.

The Contractor shall coordinate his/her work with the work to be done by other Contractors on the site, public utilities or other agencies, and he/she shall so schedule his/her operations as to cause the least interruption to the normal flow of all traffic types. Reasonable facilities shall be provided by the Contractor for the safe and convenient passage of pedestrians and vehicles through and within the project area.

Particular care shall be taken to establish and maintain methods and procedures which will not create unnecessary or unusual hazards to public safety. The placement of necessary devices will be for daily work periods and shall be removed after the completion of work operations.

Signs having messages that are irrelevant to normal traffic conditions shall be removed or properly covered at the end of each work period. Signs are to be kept clean at all times and legends shall be distinctive and unmarred.

**TRAFFIC MANAGEMENT PLAN**

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The Contractor shall prepare and submit a traffic management plan to the Engineer for review and approval by the Engineer and the Waltham Police Department Traffic Safety Officer. The Traffic Management Plan shall be prepared for all streets in the Contract, unless specifically directed otherwise by the Engineer. The Traffic Management Plan shall contain information on proposed detour routes if requested, location and type of detour and warning signs, barricades and other safety and traffic control means and devices to ensure a safe, orderly flow of vehicular and pedestrian traffic.

All temporary and permanent signs, traffic control devices, and pavement markings shall conform to the latest relevant sections of the Manual on Uniform Traffic Control Devices (MUTCD), and the Massachusetts Standard Specifications for Highways and Bridges.

The Traffic Management plan shall be submitted for review at least fourteen (14) days prior to any work being performed on the project roadways. No work would be allowed until the Traffic Management Plan is approved by the City and implemented by the Contractor.

Temporary pavement markings and other traffic control devices shall be provided in accordance with the Contractor's Traffic Management Plan and as directed by the Engineer.

Temporary traffic control devices shall include the provision of variable message sign boards to supplement other traffic control measures as directed by the Engineer. The cost of preparing the traffic management plan and providing and maintaining temporary traffic control devices shall be borne by the Contractor.

**TRAFFIC POLICE DETAILS**

Payment shall be made at the stated allowance in the Bid Form. The Police Department will bill the Contractor directly and the Contractor shall pay the Police Department bills within a ten day working period for uniform police officers provided on the job site. The billing shall include a weekly statement outlining the days worked, hours worked, location of the work, and rate for all officers providing service during that billing period.

The Contractor will be paid by the Owner for bills paid to the Police Department. The Contractor shall submit paid bills from the Police Department, stamped and signed as paid, to the Engineer, with the Contractor's Application for Payment.

## **TRAPELO RD WATER SERVICE REPLACEMENT**

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Uniformed officers required for purposes other than public safety and / or control of traffic shall not be eligible for payment. Details billed to the Contractor due to cancellation of work will not be eligible for payment.

If uniformed policemen are required for traffic control, as determined by the Owner, the Contractor shall arrange for the police detail by contacting the Police Department at least 24 hours in advance of the time the detail will be required. The Contractor will be responsible for coordinating with the Police Department when details are required.

### **RAILROAD FLAGGING SERVICE**

If any of the work required to be done by the Contractor may obstruct the tracks of a railroad or in any way endanger the operation of its trains, and the services of a flagger or flaggers or other railroad employees are required by the Chief Engineer of the railroad company and personnel are assigned by that Chief Engineer for the protection of the property and traffic of the Railroad against hazards, the cost of all such flagging services will be paid by the Contractor to their employers, subject to the rules and regulations of the railroad company. The Contractor shall provide to the City proof of payment to the Railroad for the cost of the flaggers required. The City shall reimburse the Contractor for the flaggers under item 999.2 Railroad Flagging. The City shall not pay any administrative charges associated with the costs of flaggers charged by the railroad nor shall the Department pay charges for debit accounts if such accounts are required by the railroad.

### **METHOD OR SEQUENCE OF CONSTRUCTION**

The Contractor shall obtain approval for his/her proposed method and sequence of construction, including procedures for maintaining traffic, from the City Engineer or his/her duly authorized agent, prior to performing the work. The Contractor is responsible for filling out and submitting to the Engineer the one page checklist included at the end of this section prior to commencing a new segment or phase of work. The checklist describes the type of work to be done and identifies a series of notifications and preliminary steps that are to be addressed prior to commencing a new segment or phase of work.

### **OSHA REQUIREMENTS**

The work to be performed under this Contract by the General Contractor and any and all subcontractors is to be performed in compliance with the Occupational Safety and Health Act of 1970, including any and all amendments thereto.

### **PRECAUTIONS UNDER ELECTRIC LINES**

The bidders attention is directed to the AASHTO Guide on Occupational Safety on Highway Construction Projects, Subpart N, 1926.550, relating to construction equipment clearances at overhead electric lines, which states in part "... the minimum clearance between the lines and

any part of the crane or load must be at least 10 feet from lines rated 50 KV or below, and greater distances for high voltage ...".

For the protection of personnel and equipment, the Contractor should be aware of this regulation especially during paving operations using large semi-trailer vehicles.

**OVERLOADED TRUCKS**

Materials delivered to the project in motor vehicles or semi-trailer units that exceed the legal maximum gross weight allowed for the particular class as specified in section 19a of chapter 90 of the general laws of Massachusetts will not be accepted.

**PUBLIC SAFETY AND CONVENIENCE**

Trenches shall not be excavated in traveled ways until all materials and equipment required for such work are at the site and available for immediate use. When work is not in progress, trenches in areas subject to public travel shall be covered with steel plates capable of safely sustaining a 36.5-ton truckload with impact without additional compensation. The work in each trench shall be practically continuous, with the placing of pipe, backfilling, and paving of the roadway surfaces closely following each preceding operation. Payment for steel plates will be included under the unit bid price per linear foot for the respective pipe or conduit item, regardless of width of trench.

The Contractor shall take every measure necessary for the protection of personnel and property.

The Contractor shall at all times, until written acceptance of the physical work by the Owner, be responsible for the protection of the work and shall take all precautions for preventing injuries to persons or damage to property on or about the project.

**BARRICADES AND WARNING SIGNS**

All automotive equipment not protected by traffic cones or flares that is working on the project in areas open to traffic shall have one amber flashing or strobe warning light mounted on the cab roof or on the highest practical point of the machinery. These lights shall be in operation whenever the equipment is working or traveling in the project work area at a speed less than 25 M.P.H. Flashers must be visible to both oncoming and overtaking vehicular traffic and shall have a light source of 32 minimum candlepower and a flashing frequency of 50-60 times per minute.

All personnel who are working in areas open to traffic shall wear MHD approved safety vests.

All vehicles except passenger cars which are assigned to the project which operate at speeds of 25 MPH or less shall have an official SLOW MOVING VEHICLE emblem displayed in accordance with the provisions of Section 7 of Chapter 90 of the General Laws as amended by Chapter 684 of the Acts of 1970.



**STEEL PLATES IN CONSTRUCTION ZONES**

At the end of each working day where trenches in areas of public travel are covered with steel plates, each edge of such plates shall be either beveled or protected by a slope of 2-feet horizontally to 1-inch vertically. Temporary bituminous concrete patching material shall be used to construct the ramps. The cost of necessary patching materials and their maintenance and removal will be considered incidental to the item involved with no separate payment.

**DISPOSAL OF SURPLUS EXCAVATED MATERIALS**

All surplus excavated material not required or suitable for reuse on the project, or otherwise not wanted by the City, shall become the property of the Contractor and removed and disposed of outside and away from the limits of the project at no additional cost to the City in accordance with all local rules and the approval of local governmental authorities having jurisdiction over the disposal of such materials. Any excess material that the City decides to keep shall be transported to and stored at a location within City to be identified by the Engineer. Loading, transporting, and unloading shall be done by the Contractor without additional compensation.

Payment for this work shall be included in the unit price under the applicable item from which the material was obtained.

**PROMPT PAYMENT AND RELEASE OF RETAINAGE TO SUBCONTRACTORS**

The Contractor agrees to pay each subcontractor under this Contract for satisfactory performance of subcontract work not later than 10 business days from the receipt of each payment the Contractor receives from the City. Failure to comply with this requirement may result in the withholding of payment to the Contractor until such time as all payment due under this provision has been received by the subcontractor(s) and/or referral to the Prequalification Committee for action which may affect the Contractor's prequalification status.

**ARCHITECTURAL ACCESS BOARD TOLERANCES**

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

All construction elements in this project associated with sidewalks, walkways, wheelchair ramps and curb cuts are controlled by 521CMR - Rules and Regulations of the Architectural Access Board (AAB) and the Accessibility Guidelines for Pedestrian Facilities in the Public Right of Way (PROWAG)

The Rules and Regulations specify maximum slopes and minimum dimensions required for construction acceptance. There is no tolerance allowed for slopes greater than the maximum slope nor for dimensions less than the minimum dimensions.

Contractors shall establish grade elevations at all wheel chair ramp locations, and shall set

transition lengths according to the appropriate table in the Construction Standards (or to the details shown on the plans).

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

**DEBRIS IN DRAINAGE AND SEWER STRUCTURES**

The Contractor shall exercise care when conducting his/her operations so that the debris does not enter any structures. All structures and pipes shall be kept clean and operable. All costs of debris removals, damages due to back-ups, and cleaning by others due to operations of the Contractor shall be borne by the Contractor.

**PROCEDURES FOR SHOP DRAWING SUBMITTALS**

The following procedure shall be followed when making shop drawing submittals for this project:

1. The Contractor shall submit four (4) sets of drawings directly to the Engineer for preliminary review.
2. The Engineer will send a written reply, returning two (2) sets to the Contractor within seven (7) working days of receipt of the drawings.
3. If the Engineer's reply indicates rejection or advises corrections or additions to the drawings, steps 1 and 2 are repeated until the Engineer indicates that approval will be given.
4. The Contractor shall then submit four (4) sets of drawings to the Engineer for approval and distribution by the Engineer per the standard operating procedures of the Department.
5. The Contractor shall take care that every separate document in each set of every submittal shall carry the following identifying information:

Information Required

- a. Project No.
- b. Identifying Item Number from proposal, if applicable
- c. Locations where material is proposed to be used, if applicable
- d. Name of submitting Contractor
- e. Personal signature and title of an official of the Contractor authorized to make shop drawings submittals
- f. Date of signature or submittal

The Contractor shall not receive payment for nor will he/she be allowed to install any item or materials which require shop drawing approval unless and until he/she receives shop drawing approval for that item.

Within 15 days after receipt of an approved shop drawing for any item, the Contractor shall provide the Engineer written proof that he/she has ordered such approved materials required on the subject Contract and a written confirmation on such order and delivery schedule from the

manufacturer of the item. This delivery schedule shall be appropriate for timely completion of this project.

### **SAWCUTS**

Sawcuts shall be made in existing pavements to provide a neat, square edge at limits of excavation and to provide a clean joint where new pavement and sidewalks are to match existing. Sawcuts shall also be made where shown on the Contract Drawings, or otherwise directed by the Engineer. Sawcuts shall be made to the depth directed and shall be clean and even. All cuts shall be made using an approved power driven saw. All sawcuts shall be considered incidental and compensation will be included in the Contract bid prices for the related work items.

### **CONCRETE COLLARS**

Concrete collars, as per the standard construction details, shall be placed around drainage and sewer and telephone structures, water service boxes, and utility boxes that are located in pavement areas as directed by the Engineer. High early strength concrete shall be used if required by the Engineer. Concrete used for collars shall not be measured for payment. Compensation shall be included in the Contract bid price for the respective items.

### **ASPHALT JOINTS**

Tack coat and sand shall be applied to all joints composed of hot mix asphalt immediately after paving, or as required by the Engineer. Tack coat and sand, when applied to joints as described, shall be considered incidental and compensation shall be included in the Contract bid price for the respective hot mix asphalt items.

### **DEWATERING**

Where excavations become inundated with water, whether from groundwater or surface runoff, the Contractor shall be responsible for dewatering the excavation prior to installing structures and/or pipes and backfill. Dewatering activities shall be performed in accordance with the details shown on the plans. Locations of materials and methods used for dewatering shall be approved by the Engineer prior to use. Costs associated with dewatering activities shall be considered incidental to the overall project, and no additional compensation shall be made.

### **PROTECTION OF EXISTING TREES**

Trees and shrubs that are not designated on the plans, or by the Engineer, to be cut, removed, destroyed or trimmed shall be saved from harm and injury. The Contractor shall provide measures to prevent any harm and injury caused during construction operations.

### **DISTURBANCE OF EXISTING BOUNDS**

Where existing bounds are disturbed by the Contractor's activities, they shall be reset by a

## **TRAPELO RD WATER SERVICE REPLACEMENT**

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Registered Land Surveyor at the Contractor's expense. Where the existing bounds conflict with the proposed construction, removal and resetting of the bounds shall be paid for under Item 711 - Bound Removed and Reset.

A certification by the Registered Land Surveyor performing the work shall be made and submitted to the Engineer for all bounds reset.

### **MATERIALS TESTING**

All materials used in the construction of the project shall be subject to inspection, examination, or testing, by a certified materials testing laboratory as determined necessary by the Engineer.

### **RECORD DRAWINGS (AS-BUILT) DOCUMENTS**

At the conclusion of construction and prior to final payment the Contractor shall submit ties to all curb stops, bends, valves and other water appurtenances installed as well as invert elevations for all drainage or sewer structures installed or altered as part of the Work under this Contract. Copies of legible and detailed field notes or marked up design plans shall be provided to the Engineer.

**ITEM 141.1.**

**TEST FOR EXPLORATION**

**CUBIC YARD**

Excavate test pits, as shown on the plan or at the direction of the Engineer, to locate underground utilities or structures in advance of the construction. Backfill test pits immediately after their purpose has been satisfied and restore and maintain the surface in a manner satisfactory to the Engineer.

Payment for test pits will be based on the material removed which will be paid for at the Contract unit price per cubic yard. No additional compensation shall be made for the test pits not directed by the Engineer, or shown on the plan but is carried out at the discretion of the Contractor to benefit the installation.

The work to be performed under this Item shall conform to the relevant provisions of Section 140, amended or supplemented as follows:

The work to be performed under this Item consists of all work required to excavate test pits, as required, and as approved by the Engineer, to locate structures and utilities within the proposed work area. Also included is work required to backfill test pits with excavated material and compacting.

Work required to place and compact backfill to replace unsuitable material in test pits shall be paid for under Item 151, Gravel Borrow. Gravel borrow for pavement subbase will be paid under the same item.

Test pit for exploration shall be measured in accordance with Section 140 of the Standard Specifications.

Payment for test pit for excavation shall be at the contract unit price per cubic yard, which shall Be full compensation for all labor, material, tools and equipment necessary or incidental to complete the work including patching the test pit with Hot Mix Asphalt.

**ITEM 151.**

**GRAVEL BORROW**

**CUBIC YARD**

Refer to the Massachusetts Highway Department Standard Specifications for Highways and Bridges dated 1988, the Supplemental Specifications dated July 1, 2015, and the Interim Supplemental Specifications; the 2015 Construction Standard Details.

**ITEM 153.**

**CONTROLLED DENSITY FILL**

**CUBIC YARD**

The work to be performed under this Item shall conform to the relevant provisions of Section 150 and the following:

Excavatable Controlled Density Fill (CDF) shall be used as backfill material in trenches, abandoned structures or other locations if required by the Engineer. Materials shall meet the requirements specified in the following subsection of Division III, Materials: Controlled Density Fill, Type 2E M4.08.0.

Controlled Density Fill shall be placed in a manner such that no damage will occur to utility lines, pipes or structures. The material shall be placed so that no voids are left upon completion of the backfilling process.

Controlled Density Fill shall be measured in place by the cubic yard. Payment for Controlled Density Fill will be paid for at the Contract unit price per cubic yard. No additional compensation shall be made for material placed beyond the limits of excavation as shown in the plans or as determined by the Engineer.

**ITEM 182.2                      REMOVAL OF ASBESTOS CEMENT PIPE                      FEET**

This section specifies the requirements for handling and removal of asbestos containing material. The Contractor must perform all asbestos handling and removal work in accordance with these specifications and the following additional requirements.

U.S. Department of Labor, Occupational Safety and Health Administration, (OSHA) including but not limited to:

- 29 CFR 1910 Section 1001 and 29 CFR 1926 Section 58 Occupational exposure to Asbestos, Tremolite, Anthophyllite and Actinolite, Final Rule
- 29 CFR 1910 Section 134 Respiration Protection
- 29 CFR 1926 Construction Industry
- 29 CFR 1910 Section 2 Access to Employee Exposure and Medical Records
- 29 CFR 1910 Section 1200 Hazard Communication
- 29 CFR 1910 Section 145 Specifications for Accident Prevention Signs and Tags

U.S. Environmental Protection Agency, (EPA) including but not limited to:

- 40 CFR 762, CPTS 62044, FRL 2843-9, Federal Register Vol. 50 no.134, July 12, 1985 p.28530 - 28540 Asbestos Abatement Projects Rule
- 40 CFR 61 Subpart A Regulation for Asbestos
- 40 CFR 61 Subpart M (Revised Subpart B) National Emission Standard for Asbestos
- U.S. Department of Transportation 49 CFR 172 and 173

Massachusetts Department of Labor and Industries Regulations, (DLI) including but not limited to:

## TRAPELO RD WATER SERVICE REPLACEMENT

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### 453 CMR 6.00 Removal, Containment and Encapsulation of Asbestos

Massachusetts Department of Environmental Protection (DEP) including but not limited to (supplementing subsection 7.01):

310 CMR 7.00, Section 7.09 Odor and Dust, Section 7.10 Noise, Section 7.15 Air Pollution Control Regulations Massachusetts Department Of Transportation Highway Division Project No. 605353

### 310 CMR 18.00 and 19.00 Solid Waste Regulations

Massachusetts Division of Industrial Safety 45 CMR 10.00

Local Requirements including but not limited to those of Health Departments and Fire Departments.

Wherever there is a conflict or overlap of the above references, the most stringent provision shall apply.

All asbestos material shall be removed and properly disposed of by a Contractor or subcontractor with a current Massachusetts Abatement Contractors License issued by the Department of Labor and Industries. Work shall be supervised by a competent person as required by OSHA in 29 CFR 1926 to ensure regulatory compliance. This person must have completed a course at an EPA Training Center or equivalent course in asbestos abatement procedures, have had a minimum of four years on-the-job training and meet any additional requirements set forth in 29 CFR 1926 for a Competent Person. This person must also be certified by the Commonwealth as an Asbestos Abatement Supervisor and Asbestos Abatement Project Designer as required by 453 CMR 6.00.

Asbestos removal work shall be coordinated with all other work under the Contract and shall be completed prior to performing any activities which could disturb the asbestos material or produce airborne asbestos fibers.

Dust suppression in the form of light water sprays, foams, dust suppressants and calcium chloride will be implemented as required to control dusting during trenching and excavation. Alternatively, intrusive activities may be reduced or curtailed under high wind or heavy rain conditions, which in the opinion of the HASP may pose a safety hazard to the workers.

### NOTIFICATION AND PERMITS

The Contractor shall prepare a formal pre-notification form at least ten (10) days prior to the start of asbestos removal work. This form must be submitted to the appropriate Regional Office of the Massachusetts Department of Environmental Protection and to the U.S. Environmental Protection Agency Region I Air and Hazardous Material Division. A copy of the submitted forms must be provided to the Engineer and kept at the work site.

The Contractor shall also obtain and pay all other applicable asbestos waste transportation and disposal permits, licenses and fees.

**STANDARD OPERATING PROCEDURES**

The standard operating procedure shall ensure the following:

1. Proper site security including posting of warning signs and restricting access to prevent unauthorized entry into the work spaces.
2. Proper protective clothing and respiratory protection prior to entering the work spaces.
3. Safe work practices including provisions for communications; exclusion of eating, drinking, smoking, or use of procedures or equipment that would in any way reduce the effectiveness of respiratory protection or other engineering controls.
4. Proper exit practices from the work space through the showering and decontamination facilities.
5. Removing asbestos containing material in ways that minimize release of fibers.
6. Packing, labeling, loading, transporting and disposing of contaminated material in a way that minimizes or prevents exposure and contamination.
7. Emergency evacuation of personnel, for medical or safety (fire and smoke) so that exposure will be minimized.
8. Safety from accidents in the work space, especially from electrical shocks, slippery surfaces and entanglements in loose hoses and equipment.
9. Provisions for effective supervision and OSHA - specified personnel air monitoring for exposure during work.

**REQUIRED SUBMITTALS**

The Contractor shall submit to the Engineer the following listed items at least ten (10) calendar days prior to the start of asbestos work. No asbestos removal work activities shall commence until these items are reviewed by the Engineer, unless otherwise waived. Submittals shall be clearly labeled and in sufficient detail to enable the Engineer to form an opinion as to its conformity to the specifications.

1. Name, experience and DLI certification of proposed Supervisors and Foreman responsible for asbestos work.
2. Summary of workforce by disciplines and a notarized statement documenting that all proposed workers, by name, have received all required medical exams and have been properly trained and certified for asbestos removal work, respirator use and appropriate Massachusetts DLI, EPA and OSHA standards. Massachusetts
3. Notarized statement that workers are physically fit and able to wear and use the type of respiratory protection proposed for the project. Notarized certification signed by an officer of the abatement contracting firm that exposure measurements, medical



surveillance and worker training records are being kept in conformance with 29 CFR 1926.

4. Written plan of action and standard operating procedures to include: location and layout of decontamination areas; sequencing of asbestos work; detailed schedule of work activities by date and interface with other project activities which affect work performance; methods used to assure safety and security; worker protection and exposure monitoring; contingency and emergency evacuation procedures; detailed description of methods to be employed to control pollution; waste handling procedures.
5. Written respiratory protection program specifying level of protection intended for each operation required by the project and details of daily inspection and maintenance elements.
6. Copies of the U.S. EPA, State and local asbestos removal pre-notification forms. If applicable, lists and copies of all permits, licenses, or manifests which will be applied for and used.
7. Name, location and applicable approval certificates for primary and secondary landfill for disposal of asbestos-containing or asbestos contaminated waste. Name, address and licenses number(s) of hauler permitted to transport waste. (Submit copies of completed manifests upon disposal).

The Contractor must provide copies of daily inspection and record logs upon request of the Engineer, at any time during project. This information will include but is not limited to work area entry data, respirator inspections and maintenance, HEPA-exhaust inspections and maintenance and other work applicable activities or reports of accidents or unusual events.

Asbestos Cement Pipe removal shall be measured in linear feet. Payment for Asbestos Cement Pipe removal will be paid for at the Contract unit price per linear feet. No additional compensation shall be made for material removed beyond the limits excavation as shown in the plans or as determined by the Engineer.

**ITEM 250.04**

**4 INCH POLYVINYL CHLORIDE SANITARY SEWER PIPE**

**FOOT**

The work to be done under this Item shall conform to the relevant provisions of Sections 201, 230 and the following:

The Contractor shall furnish, lay, join and test all gravity sewer pipe and appurtenant materials and equipment as indicated on the drawings and as specified herein.

## 1.0 MATERIALS

### SANITARY SEWER PIPE

Gravity sanitary sewer pipe and fittings shall be SDR 35 (standard dimension ratio) Polyvinyl Chloride (PVC) gravity sewer pipe conforming to current ASTM standards. Joints shall be elastomeric gasket joints, providing a watertight seal, conforming to ASTM D3212 (Joints for Drain and Sewer Plastic Pipes Using Flexible Elastomeric Seals).

## 2.0 EXECUTION OF WORK

### 2.1 SEWER BYPASS

Prior to starting any sewer work, the Contractor shall submit to for approval a written sewer bypass plan indicating the proposed method of controlling and managing flows in the existing sewer during construction. Temporary service shut downs for individual residences shall only occur during normal working hours, with service restored at the end of each work day, and the work shall be scheduled so that temporary shut downs will not be required for more than one day per service.

### 2.2 LINES AND GRADES

A. Pipes shall be laid to the lines and grades shown on the drawings or as directed by the Engineer. The grade shown on the profile is that of the invert of the pipe. The work shall conform to this grade. A variation of one-eighth (1/8) inch or more from the true invert grade on gravity sewers laid on grades above one percent will be deemed sufficient reason to cause the work to be rejected. Work so rejected shall be corrected by the Contractor at his/her own expense.

B. The Contractor will establish the location of the pipe, manholes and other appurtenances, prior to construction for verification by the Engineer. The Engineer will establish bench marks along the route of the pipeline at convenient intervals for the use of the Contractor and for his/her own reference in checking the pipe and manhole inverts and other elevations throughout the project.

C. The grade and alignment of the pipe may be maintained, with the approval of the Engineer, by the use of laser beams if the Contractor can demonstrate that he/she possesses sufficient equipment and employs with sufficient experience, to utilize such method.

D. The Contractor shall furnish all labor, material, surveying equipment and tools to establish and maintain all lines and grades from basic control points furnished by the Engineer.

## 2.3 FOUNDATIONS

A. All pipes to be laid in open trench excavation shall be bedded and uniformly supported over their full length on foundations of the types specified and shown on the drawings. Flat-bottomed trenches shall be excavated and dewatered prior to preparing the specified bedding. All work shall be performed in a dry trench.

B. All pipe shall be supported on a stable soil foundation. The trench shall be excavated to a depth 6" minimum below the bottom of the pipe. Crushed stone bedding shall be furnished and placed in the trench for its full width to uniformly support the pipe at the required line and grade. Suitable recesses shall be provided in the bedding to permit adequate clearance for bells, couplings, or similar projections. The bedding shall extend upward around the pipe barrel to a height of 12" above the pipe. Bedding material shall be spread in 6 inch layers, and each layer shall be compacted with twenty pound hand tampers or pneumatic tampers until the required total depth of bedding has been built up.

C. Where unstable soil conditions are encountered, the pipe shall be supported on a special foundation. The foundation shall be installed where a suitable supporting soil or rock stratum occurs at a depth greater than 6" minimum. The trench shall be excavated to the depth necessary to reach the suitable supporting stratum. The trench bottom and walls shall be covered with a geotextile fabric. Crushed stone shall then be furnished as bedding and placed in the trench for its full width. The bedding shall be spread in 6 inch layers, and each layer shall be compacted with twenty pound hand or pneumatic tampers. The bedding shall carry vertically from the supporting stratum up to an elevation 12" minimum above the top of the pipe. The special foundation shall extend for a minimum of 5'-0" beyond poor subgrade conditions.

D. Where required by the Engineer, check dams within the trench shall be constructed with an impervious soil material to prevent migration of groundwater around the sewer pipe along the backfilled trench. Check dams shall extend the width of the trench to undisturbed earth for a length of 3 feet along the pipe line, and shall extend to the top of the crushed stone bedding material, one foot above the pipe.

E. Manhole structures shall be installed on a firm bedding of 12" crushed stone. Extra depth excavation for installation of the crushed stone and the crushed stone itself shall be included in the payment for the structure being installed.

## 2.4 INSPECTION OF PIPE BEFORE INSTALLATION

A. All pipes and fittings shall be carefully inspected in the field before placing the trench. Cracked, broken, warped, out-of-round or otherwise defective pipe, fittings as determined by the Contractor or Engineer, shall be pulled and not installed. Such rejected pipe shall be pulled and not installed. Such rejected pipe shall then be removed from the job site by the Contractor

at his/her own expense.

## 2.5 INSTALLATION OF PIPE AND FITTINGS

A. After the trench has been brought to the proper grade, as hereinbefore specified, the pipe shall be laid. Unless otherwise approved by the Engineer in writing, pipe laying shall be done only in the presence of the Engineer. The Contractor shall give ample notice of his/her schedule for pipe laying operations to the Engineer.

B. All pipe and fittings shall be carefully lowered into the trench with ropes, slings and proper equipment. Pipe cracked or otherwise damaged during or following installation shall be marked by the Contractor or Engineer and removed from the site as required.

C. Pipes shall be laid true to the grades shown on the drawings. Blocking will not be permitted except where the pipe is to be encased in concrete. Any pipe that has its grades or joints disturbed after laying shall be taken up and relayed. The interior and ends of all pipe shall be thoroughly cleaned during laying operations by means of plugs or other approved methods. Under no circumstances shall pipe be laid in water and no pipe shall be laid when trench conditions or the weather is unsuitable for such work except by permission of the Engineer.

D. Sanitary sewer cleanouts shall be installed at the property line to within 4-inches below the final grade and shall be capped with a cast iron ring and cover, fitted over the plugged PVC riser to provide protection from damage and allow future access for cleaning and inspection.

## 2.6 INSPECTION

A. Each section of installed sewer lines shall be visually inspected by the Engineer prior to final testing. The pipe shall be true to both line and grade, shall contain no broken pipe, shall show no leaks, shall show neither obstructions nor the projection of connecting pipes into the main pipe, and shall contain no debris or other deposits which will in any way reduce the full cross-section area of the pipe.

B. Any section of sewer pipe which does not comply with these inspection criteria, as determined by the Engineer, shall be promptly corrected, replaced or repaired by the Contractor at his/her own expense. Methods used for the correction shall be approved by the Engineer.

## 3.0 TESTING

## 4.0 MEASUREMENT AND PAYMENT

SANITARY SEWER PIPE

PVC sanitary sewer pipe will be measured in feet, from end of pipe to end of pipe installed including fittings, and paid for at the Contract unit bid price per foot. If 5" or 6" sewer services are encountered, payment will be made under the 4" item with no change in price. Payment shall include all necessary labor, materials, and equipment required to satisfactorily complete the work, including excavation, removal and disposal of existing pipes within the same trench, crushed stone bedding, geotextile fabric where required, trench check dams, the connection to existing or proposed sanitary sewer structures or pipes, fittings, backfill, and testing.

There will be no separate payment for pipe and fittings and castings required for sanitary sewer cleanouts required to be installed by the Contractor.

There will be no additional payment for cutting and plugging existing sanitary sewer lines as shown on the Contract Drawings.

Rock excavation when encountered in the trenching operation shall be paid for under Item 144.

|                           |  |                     |
|---------------------------|--|---------------------|
| <b><u>ITEM 302.06</u></b> | <b><u>6 INCH DUCTILE IRON WATER PIPE (RUBBER GASKET)</u></b> | <b><u>FOOT</u></b>  |
| <b><u>ITEM 309</u></b>    | <b><u>DUCTILE IRON FITTINGS FOR WATER PIPE</u></b>           | <b><u>POUND</u></b> |

Under these items, the Contractor shall furnish, lay, joint, test and disinfect all water pipe and fittings, as indicated on the Contract Drawings and in accordance with the relevant provisions of Section 140 and Section 300 of the Standard Specifications, the American Water Works Association Standards, and in accordance with the current practice and standards of the Waltham Water & Sewer Division.

The Contractor shall be responsible for notifying the Waltham Water & Sewer Division and the Engineer of service shutdown 48 hours prior to the actual shutdown. The shutdown of the water services will be performed only by personnel of the Waltham Water & Sewer Division. Valves, hydrants, corporations and curb stops will be operated by the Waltham Water & Sewer Division personnel only.

No water main or service supplying any home, place of business or fire hydrant shall be shut down for more than four hours unless an approved temporary means of supply is provided. Such temporary provisions will be considered as being for the convenience of the Contractor and as much will not be measured for direct payment.

The Contractor will be responsible to flyer affected areas prior to planned water service interruption 24 hours in advance. In the event of an emergency shutdown during and after normal hours of operation the Contractor shall contact Waltham Water & Sewer Division 781-314-3855 immediately to affect shutdown. During normal hours of operation Contractor will make every attempt to notify the abutters affected by the emergency water service interruption with sensitive receptors such as schools, day care providers, restaurants and businesses receiving priority status in notification.

Data relative to existing water mains, services, etc. shown on the plans has been compiled from plans and field information but such data is not guaranteed as to exact location or elevation.

### Lines and Grades

Piping shall be installed at the locations indicated on the Contract Drawings and as designated in these Specifications. Unless otherwise shown or stated, the minimum total finished cover over the top of the barrel of all installed pipe shall be 5 feet. Where pipe is installed at less than the required cover, the Contractor shall furnish and install insulation as directed by the Engineer.

All excavation necessary for the pipe installation shall be included in the cost of the pipe. The location of the pipe is to be marked with an identification tape buried 2 feet below finished grade. The tape shall be 6 inches in width by 0.004 inches in thickness and shall read "Caution - Water Line Buried Below".

### Pipe Foundations and Backfilling

All pipes, fittings and appurtenances to be laid in open trench excavations shall be bedded in and uniformly supported over its full length as shown on the Contract Drawings.

Backfill to an elevation 12 inches over the top of the pipe shall be a sand blanket placed in layers not to exceed 6 inches. The sand shall conform to Section M1.04.0 Type A for sand borrow. The sand blanket may be omitted, and suitable excess excavated material used for backfilling over the pipe, provided that no stone larger than 2 inches is in contact with the water pipe. The sand blanket shall be considered incidental to the water pipe items.

Unsuitable trench backfill material shall be replaced with suitable excess excavated material. Gravel borrow or another material approved by the Engineer shall be used for backfill if suitable excess material is not available.

### Inspection of Pipe Before Installation

All pipe, fittings and appurtenances shall be carefully inspected in the field by the Engineer before lowering into the trench. All pieces found to be defective as determined by the Engineer, shall be pulled out and not installed. Such rejected pipe shall be clearly tagged in such a manner as not to deface or damage it, and the pipe shall be removed from the job site.

### Installation of Pipe and Fittings

The Contractor shall maintain at least 10 feet horizontally from any existing or proposed sewer pipe. If this separation is not attainable, then the elevation of the crown of the sewer shall be at least 18 inches below the invert of the water line.

All pipe and fittings shall be carefully handled by equipment of sufficient capacity and proper design to avoid damage to the pipe and fittings. No defective pipe or fittings shall be laid or placed in the trench. Any piece discovered to be defective after having been laid shall be removed and replaced by a sound and satisfactory piece at the expense of the Contractor.

Each pipe and fitting shall be cleared of all debris, dirt, etc., before being laid and shall be kept clean until accepted in the complete work.

Pipe and fittings shall be laid accurately to the lines and grade indicated on the drawings or as required. Care shall be taken to ensure alignment both horizontally and vertically, and to give buried pipe a firm bearing along its entire length. Pipes shall not be laid in water, nor shall water be allowed to flow through them. The Contractor shall take all necessary precautions to prevent flotation of the pipe in the trench.

Backfilling of the pipe trench shall be done as specified under Section 300 of the Standard Specifications.

### Connection to Other Facilities

The water pipe shall be connected to existing or new structures and/or piping by the Contractor as shown on the Contract Drawings. Test pits shall be dug as directed by the Engineer to verify the size and the type of existing pipe where connections are to be made. The Contractor shall furnish and install all such fittings and appurtenances as are necessary to make the connections shown whether all such fittings are detailed or not. Couplings, where required, shall be of a type equal to HYMAX® by Krausz; Smith Blair, Style 441; Dresser, Style 253 or equal approved by the Water Superintendent. Couplings shall be provided with plain, Grade 27 rubber gaskets and with black, steel, track-head bolts and nuts.

All fittings relative to the water pipe shall be paid for under Item 309. All concrete for thrust blocks shall be considered incidental to the pipe and fitting items. The other means of restraint (method of restraining may either be of an interlocking type or mechanical joint with retainer and as specified by the Waltham Water & Sewer Division) shall be installed in addition to or in lieu of thrust blocks as directed by the Water Superintendent. Pipe anchors shall be used when and as directed.

#### Laying Pipe and Fittings

Gasket type joints shall be made up by first inserting the gasket into the groove of the bell and applying a thin film of special non-toxic gasket lubricant uniformly over the inner surface of the gasket which will be in contact with the spigot end of the pipe. The end of the plain pipe shall be chamfered to facilitate assembly. The end shall be inserted into the gasket and then forced passed it until it seats against the bottom of the socket. A metal feeler shall then be used to make certain the gasket is properly located.

A minimum of two brass wedges shall be installed per pipe joint and fitting to maintain conductivity and facilitate locating pipe in the future. Restrained type joints shall be used where straight pipe joints are deflected to bend pipe line on a curve. The method of restraining may either be of an interlocking type or mechanical joint with retainer gland as specified by the Waltham Water & Sewer Division.

Reaction or thrust blocks of concrete shall be constructed at all tees, plugs and bends, as directed or as detailed on the drawings. The blocks shall be poured against undisturbed original ground and shall be so placed that pipe joints will be accessible for any possible future repairs. Joints must be protected by felt roofing paper prior to placing concrete. Method of restraint may be either locking joint or mechanical restraint as approved by the Water Superintendent.

Hydrant connections are to be restrained for the full length of the pipe from the main to the hydrant.

#### Ductile Iron Pipe and Fittings

All material shall be new, conform to the current standards of the Waltham Water & Sewer Division and be approved by them.

All ductile iron pipe shall be designed in accordance with AWWA C150 and shall be manufactured in accordance with AWWA C151.

The ductile iron pipe shall be **Thickness Class 56** cement lined seal coated and conform to the ANSI A21.50, A21.51 Specification for Ductile Iron Pipe. Pipe joints and gaskets shall be of the push-on joint type in accordance with ANSI A21.11 and shall conform to AWWA C111.



Ductile iron fittings shall be Thickness Class 56, Pressure Class 350, cement lined, and shall meet the requirements of AWWA C153, ANSI A21.4 and A21.10. All fittings are required to be equipped with mechanical joints and retainer glands. Mechanical joint fittings in sizes 6 inches through 24 inches shall be ductile iron compact fittings.

Gaskets, glands, nuts, bolts and accessories shall conform to AWWA C111 or C153 as appropriate. Gaskets shall be of plain tipped rubber, suitable for exposure to the liquid within the pipe. Glands shall be ductile or cast iron. Bolts and nuts shall be high strength alloy.

Hydrant tees shall be anchor type and have line bells conforming to the requirements of the main pipe. The branch shall have a plain end with an integral gland and rotating mechanical joint gland to provide a restrained connection.

Pipe and fittings shall be furnished with approved joint restraining appurtenances as specified herein, or as indicated on the drawings, to keep the piping from pulling apart under pressure.

Flexible Couplings:

The Contractor shall use solid sleeve coupling fittings for joining pipe. With the approval of the Engineer, sleeve-type flexible couplings may be substituted.

All sleeve-type couplings and accessories shall be of a pressure rating at least equal to that of the pipeline in which they are to be installed.

Couplings shall be cast or ductile iron and shall be provided with gaskets of a composition suitable for exposure to the liquid within the pipe.

Joint Restraints:

Where indicated or necessary to prevent joints or sleeve couplings from pulling apart under pressure, anchoring and joint restraint methods shall be utilized. Methods shall be restrained joint systems. The number of joints to be restrained shall be as shown on the construction plans or provided by the Engineer.

Restrained joint system for standard mechanical joint or push on joint pipe shall be Megalug™ by EBAA Iron Sales Inc.; 1400 Series by Ford; StarGrip 3000 Series by Star Pipe Products; or approved equal. Methods that rely on the use of friction clamps and/or retainer glands with set screws alone are not acceptable.

Concrete thrust blocks may only be used for 6-inch, 8-inch, 10-inch, or 12-inch pipe where use of a joint restraint system is not feasible. Use of concrete thrust blocks shall be installed with the minimum bearing area (in square feet) against undisturbed material in accordance with the following:

## TRAPELO RD WATER SERVICE REPLACEMENT

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| Size of Main | 90° Bends, Tees, Caps and Plugs | 45° Bends and Wyes | 22½° Bends | 11¼° Bends |
|--------------|---------------------------------|--------------------|------------|------------|
| 6 & 8 in     | 5                               | 4                  | 2          | 2          |
| 10 & 12 in   | 12                              | 9                  | 5          | 2          |

Tie rods may only be used for 6-inch, 8-inch, 10-inch, or 12-inch pipe where use of a joint restraint system is not feasible. Bolts shall have adequate length to allow nuts on both sides of the gland. Tie bolts shall have the same diameter as the tie rods and be in accordance with the following:

| Pipe Size | Tie Rod |          |
|-----------|---------|----------|
|           | Number  | Diameter |
| 6         | 2       | ½"       |
| 8         | 2       | ¾"       |
| 10        | 2       | ¾"       |
| 12        | 4       | ¾"       |

### Lining Coating

The inside of ductile iron pipe and fittings shall be given a cement lining and bituminous seal coat in accordance with AWWA C104/ANSI A21.4. Cement lining shall be double the thickness that is specified in AWWA C104.

The outside of ductile iron pipe and fittings shall be coated with bituminous varnish as required by AWWA C104/ANSI A21.4.

Machined surfaces shall be cleaned and coated with a suitable rust preventive coating at the shop immediately after being machined.

### Handling and Cutting Pipe

The Contractor's attention is directed to the fact that the cement lining is comparatively brittle. Every care shall be taken in handling and laying pipe and fittings to avoid damaging the pipe or lining, scratching or marring machined surfaces, and abrasion of the pipe coating or lining.

Any fitting showing a crack and any fitting or pipe which has received a severe blow that may have caused an incipient fracture, even though no such fracture can be seen, shall be marked as rejected and removed at once from the work.

## TRAPELO RD WATER SERVICE REPLACEMENT

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If any pipe showing a distinct crack and in which it is believed there is no incipient fracture beyond the limits of the visible crack, the cracked portion, if so approved by the Engineer, may be cut off before the pipe is laid so that the pipe used is perfectly sound. The cut shall be made in the sound barrel at a point at least 12 inches from the visible limits of the crack. The cracked portion shall not be included as part of the measurement for payment under this section.

### Temporary Plugs:

At all times when pipe laying is not actually in progress, the open ends of pipe shall be closed by temporary watertight plugs or by other approved means. If water is in the trench when work is resumed, the plug shall not be removed until all danger of water entering the pipe has passed.

### Deflection of Pipe

In laying ductile iron pipe, the following deflections, based upon a 20 foot length of pipe, shall not be exceeded.

| <u>Nominal Size of Pipe (inch)</u> | <u>Gasket Type Jacket Deflection (inch)</u> |
|------------------------------------|---|
| 6 to 12                            | 12  |
| 16 to 24                           | 10  |

### Field Testing

The testing shall conform to AWWA Standard C600, and all equipment shall be approved by the Waltham Water & Sewer Division. The water pipe shall be given pressure and leakage tests in sections of approved length. For these tests, the Contractor shall furnish a water measuring device and a pressure gage. The Contractor shall also furnish and install suitable temporary testing plugs or caps for the pipeline; all necessary pressure pumping equipment, pipe connections, and other similar equipment; and all labor required; all without additional compensation. Compensation for testing shall be included in the unit price for pipe and fittings. The meter and gage shall be installed by the Contractor in such a manner that all water entering the section under test will be measured and the pressure in the section indicated, and equipment shall be kept in use during both tests.

The scheduling of pressure and leakage tests shall be as approved by the Engineer.

Unless it has already been done, the section of pipe to be tested shall be filled with water of approved quality, and all air shall be expelled from the pipe. If air release assemblies are not available at high points for releasing air, the Contractor shall make the necessary excavations and do the necessary backfilling and shall make the necessary taps at such points and install corporation stops. Corporation stops shall be capped with brass or bronze caps upon completion of the test and left in place.

The pressure and leakage tests shall be as specified in Section 301.60 L of the 1988 Standard Specifications for Highways and Bridges and the American Water Works Association Standard C600, Section 4.1. The test pressure shall be 200psi, the test duration shall be 2 hours.

The lengths of joint to be used in determining the allowable leakage shall be based on the nominal diameter of the pipe.

If the section shall fail to pass the pressure test, the leakage test, or both, the Contractor shall do everything necessary to locate, uncover, even to the extent of uncovering the entire section, and repair or replace the defective pipe, fitting, or joint, all at no additional cost to the owner and without extension of time for completion of the work.

A report containing calculations and documentation pertaining to the pressure and leakage testing shall be submitted to the Waltham Water & Sewer Division

If, in the judgment of the Engineer, it is impracticable to follow the foregoing procedure exactly for any reason, modification in the procedures shall be made as required or approved, but in any event the Contractor shall be responsible for the ultimate tightness of the line within the above leakage requirements.

The Owner, at its own expense, may test the water pipe independent of or in place of the Contractor's test. The Owner, or its agent, shall schedule such test so as to minimize any delay to the Contractor. The Contractor is notified that this test may cause delay in his/her work and he/she shall not receive reimbursement for costs incurred during a reasonable delay. Should any section of pipe fail, the Contractor shall have no claim for any expenses incurred during the delay required to schedule and complete a new test.

Insulation: Direct Buried Pipe

Insulation shall be cellular glass type. The insulation shall be a cellular glass product that is made specifically for thermal insulation of piping and is compatible with the piping material. Insulation shall be a minimum of 2 inches thick, unless otherwise shown on the drawings.

Insulation shall be composed of all glass sealed cells having no binders or fillers. The completed product shall be rigid and impermeable, with an ultimate compressive strength of at least 90 psi. The thermal conductivity of the cellular glass shall be no higher than 0.29 BTU-in.1hr e ft2 CII OF @ 75°F and 0.28 BTU-in.1hr iii ft2 CII OF @ 50°F.

The cellular glass insulation shall comply with all requirements of ASTM C552. The cellular glass shall be fabricated in half sections whenever possible.

Bands for securing the insulation to the pipe shall be 0.5 inches wide by 0.020 inches thick made of stainless steel.

The jacketing for the insulation shall be one of the following methods:

1. A 125 mil (3mm) thick, heat sealed high polymer asphaltic membrane with an integral glass scrim and integral 1 mil (.02mm) aluminum foil and a thin Mylar film on the surface, equal to Pittwrap Jacketing as manufactured by Pittsburgh Coming or equal.
2. Mastic - asphalt cutback mastic, equal to Pittcote 300 Finish, as manufactured by Pittsburgh Coming or equal.
3. Reinforcing fabric - an open mesh polyester fabric with a 6 x 5.5 mesh/inch configuration, equal to PC Fabric 79, as manufactured by Pittsburgh Coming or equal.

The insulation shall be "Foamglass" with jacketing as manufactured by Pittsburgh Coming Corporation, Pittsburgh, P A, or an approved equal. A minimum of 6" layer of fine sand shall surround the insulated pipe before rock free backfill is used in the trench.

The Foamglass and jacketing shall be installed per the manufacturer instructions included in the approved shop drawings.

Tees, valves, and bends shall be covered with form fitting factory made sections.

Cellular glass shall not be applied to the piping until the piping has been wiped clean and supported so that there is adequate space to apply the full thickness of insulation and the covering completely around the pipe. The Contractor must obtain the Engineer's approval before the installation begins.

Cellular glass insulation and jacketing shall be applied in accordance with the manufacturers installation procedures included in the approved shop drawings.

There shall be at least three 0.50-inch wide stainless steel bands secured around each joint and these bands shall be placed not over 9 inches on center on straight sections of pipe. Tees, valves, and bends shall be covered with form fitting factory made sections.

All testing of the piping system, such as hydrostatic, x-ray or other such testing, shall be accomplished prior to application of insulation.

#### Disinfection and Flushing

After a section of the main has been tested and found acceptable, it shall be flushed free of all heavily treated water by the Contractor. After completion of the flushing operation, the Contractor shall disinfect the water mains with a solution consisting of 50 ppm of chlorine in accordance with the AWWA C651 Specifications for Disinfecting Water Mains. The preferable point of chlorine application shall be at the source of the water for the section being sterilized. The chlorine solution shall be fed into the pipe through a corporation stop, using a hypo chlorinator. This work shall be done with the attendance of a representative of the Waltham Water & Sewer Division.

The water shall be tested bacteriologically for coliform group bacteria. A minimum of one (1) sample shall be taken per 3,000 linear feet. Testing must be done by a Massachusetts State Certified Laboratory and the results of all tests must be submitted to the Waltham Water & Sewer Division. The Contractor shall be solely responsible for all costs associated by the aforesaid test.

The contact period for the disinfection shall be at least 24 hours and a longer period will be required if tests of residual chlorine show it to be necessary for proper disinfection. All valves and hydrants shall be operated during treatment to insure their thorough contact with the disinfecting solution.

Following chlorination, the mains shall be flushed again to remove any evidence of contamination, as determined by the bacteriological analysis. The quality of water shall remain acceptable for at least two days after the flushing.

A report containing amounts of water flushed, amounts of chlorine used and chlorine residuals after the test period must be submitted to the Waltham Water & Sewer Division. If the initial treatment fails to produce the desired result, the chlorination procedure must be repeated.

For this work, the Contractor shall furnish all equipment, materials, and labor required. Water pipe shall be measured in feet, in place, along the axis of the pipe, excluding, however, the length occupied by new iron fittings and gate valves. Where two pipes join, measurement will be made to the intersection of the axis, excluding the length occupied by new ductile iron fittings.

New ductile iron fittings including socket clamps and tie rods shall be measured by the pound and the quantity to be paid for shall be the weight stated on the invoice of the supplier, or the manufacturer's rated weight as listed in the catalog, whichever is the least weight.

## TRAPELO RD WATER SERVICE REPLACEMENT

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Payment for ductile iron pipe shall be made at the Contract unit price per foot for water main of the size shown, which price shall be full compensation for the removal and disposal of existing water pipe (excluding Asbestos Cement) and appurtenances encountered during construction, cutting and plugging the existing water pipe, and furnishing all materials, preparation and installation, including all excavation, backfilling and compaction, pipe bedding, testing and disinfecting, brass caps and wedges, buried pipe identification tape, cement lining, and for all labor, equipment, tools and incidentals necessary to complete the item. Crushed stone used to replace unsuitable bottom material for water main bedding shall be paid for under Item 156.

Payment for new ductile iron fittings shall be made at the Contract unit price per pound of fitting installed and accepted, which price shall be full compensation for furnishing all materials, and for all labor, equipment, tools and incidentals necessary to complete the item, including all excavation, backfilling and compaction, pipe bedding and sand blanket, testing and disinfecting. Rock excavation when encountered in the trenching operation shall be paid for under Item 144.

The cost of the sand blanket over the water main shall be considered incidental to the cost of the ductile iron water pipe.

The cost of furnishing and installing concrete for thrust blocks shall be incidental to the pipe and fitting items

### **ITEM 347.1**

### **1 INCH COPPER TUBING TYPE K**

### **FOOT**

The Contractor shall install new water services and remove and dispose of existing water services as directed and in accordance with the relevant provisions of Section 140 and Section 300 of the Standard Specifications, amended and/or supplemented as follows:

Services shall be replaced with new 1 inch tubing up to the property line.

The depth of the service trench shall be at least 5 feet below the established finished grade and not more than 2.5 feet wide. All excavation, bedding and backfilling shall be included in the cost of the pipe.

Care shall be exercised to prevent dirt and other foreign matter from entering pipe and fittings. Corporation stops shall be left open (turned on) when the trench is backfilled.

The length of furnished and installed service pipe shall be measured beginning at the center of the corporation stop key. No deductions in length shall be made for curb stops or unions. to be paid for shall be measured by the foot, laid by the Contractor.

Payment shall be made at the Contract unit price per foot for furnishing and laying the service pipe complete in place and accepted by the Engineer. The prices shall include excavation, removing and disposing of existing services and unsuitable material from trenches, laying and connecting the new service, providing a three part union needed to connect the new service to the existing, fittings, goosenecks, bends, adapters, sand for bedding and backfill, and compactions.

Gravel borrow required to replace unsuitable backfill material as deemed by the Engineer shall be paid for under Item 151.

**ITEM 350.6**

**6 INCH GATE AND BOX**

**EACH**

Under these Items, the Contractor shall furnish and install new valves, valve boxes and appurtenant materials and equipment, all as indicated on the drawings and as herein specified. Valves shall be applicable for a design working pressure of 250 psi.

Valves shall be equipped with mechanical joint ends and mechanical joint restraints as specified for Items 309 unless otherwise specified by the Water Superintendent. All internal and external surfaces must be epoxy coated, and the seal between the stem and bonnet must be composed of a cartridge.

Valves shall be Resilient seat, wedge type gate valves shall be manufactured to meet all applicable requirements of AWWA C509 or AWWA C515. All valves shall be bubble-tight at 200 psi water working pressure, tested in both directions.

Valve bodies shall be of cast or ductile iron and shall have non-rising threaded bronze stems acting through a bronze stem nut. Opening nuts shall be 2 inches square and shall open right, clockwise. All buried valves shall have mechanical joint ends.

Valve wedges shall be of ductile iron with resilient seating surfaces permanently bonded to the wedges in strict accordance with ASTM D429 or attached to the face of the wedges with stainless steel screws. Each valve shall have a smooth, unobstructed water way free from sediment pockets.

Valves shall have low friction, torque-reduction thrust bearings. All O-rings and gaskets shall be removable without taking the valves out of service.

An NSF 61-approved epoxy coating, which is safe for potable water, shall be applied to exterior and interior valve surfaces.

Valves for horizontal applications shall have Delrin wedge covers, and be specifically designed for horizontal installation.



Resilient seat gate valves shall be as manufactured by Mueller Co., Decatur, IL; or approved equal.

Post indicating valve assemblies shall have a post and indicator as an integral part of the resilient seated gate valve assembly. The unit shall be provided with a detachable crank which OPENS the valve in a clockwise (RIGHT) direction. Shafts shall be Type 304 stainless steel. Post indicators and valves shall be UL listed, FM approved. Post indicators and valves shall be as manufactured by Mueller Co.; or approved equal."

Valve Boxes And Extensions:

Valve boxes shall be manufactured in North America. The minimum outside diameter of the boxes shall be 5¼ -inches and the lengths shall be as necessary to suit the ground elevation and the depth of each valve operator, regardless of the depth of cover.

When there is more than 6 feet of cover, valve operators shall have non-rising extension stems which raise the operating nut to a depth of approximately 4 feet below grade. The extension stem shall have a centering support ring at the upper end. The lower socket shall be tapped with a set screw into the valve nut to prevent the extension stem from lifting off the valve nut. Each valve shall be provided with a box which has a close fitting cover and is substantially dirt-tight. Covers shall provide minimum overlap of 6 inches. The top of the cover shall be flush with the top of the box rim. The word "WATER" shall be cast in the top of the cover.

Valve boxes shall be of cast iron and of the adjustable sliding, heavy pattern type. They shall be so designed and constructed as to prevent direct transmission of traffic loads to the pipe or valve. The upper or sliding section of the box shall be provided with a flange on the top of the section (not on the bottom) having sufficient bearing area to prevent undue settlement. The lower section of the box shall be designed to enclose the operating nut and stuffing box of the valve and to rest on the backfill. The boxes shall be adjustable through at least 6 inches vertically without reduction of lap between sections to less than 8 inches.

Valve boxes shall be set plumb, flush with the ground or paved surface, and centered directly over the operating nut of the valves. Earth fill shall be carefully tamped around the valve boxes to a distance of 4 feet on all sides of the boxes or to the undisturbed trench face, if less than 4 feet.

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

Payment for gates and gate boxes shall be made at the Contract unit price for each unit installed which price shall be full compensation for furnishing all material, including excavation and backfilling, valve box and cover, and for preparation and installation, removal of existing valves and pipes, labor, equipment, tools, and incidentals necessary to complete these items.

**ITEM 363.1**

**1 INCH CORPORATION COCK**

**EACH**

Under these items the Contractor shall furnish and install corporation cocks on all service lines as shown on the Plans and in accordance with the Relevant Provisions of Section 140 and Section 300 amended as follows.

Corporation cocks shall be of bronze, made from castings, the materials of which conform to ANSI/ASTM Standard Specification B61-76 or B62-76, latest issue.

Couplings shall be of bronze, made from castings, the material of which conforms to ANSI/ASTM Standard Specification B61-76 or B62-76, latest issue.

Each cock shall be individually tested under a hydrostatic head of 250 psi and a statement of the manufacturer shall be supplied to the Engineer prior to installation certifying that each stop supplied has been found to be watertight prior to leaving the factory.

Each corporation cock shall have a solid plug which freely operates and has a full, round, smooth, reamed waterway. Cocks shall have plugs hand ground into the body of the fittings. Cocks shall be opened by turning right, clockwise, and shall be marked on the fitting accordingly.

Corporation cocks shall be screwed firmly into the water mains. They shall be placed with the key upward and the inlet ends projecting at least 1/8 inch beyond the inside face of the main, unless otherwise permitted by the Engineer. All corporation cocks shall be easy turning, non-binding, open right and turned on before the trench is backfilled around them, so as to allow examination of connections for leaks.

All joints between cocks, fittings and service pipe shall be made watertight.

All corporation cocks for 1 inch service pipe shall be heavy pattern, solid plug, easy turning and meet the standards of the Water & Sewer Division. The inlet shall be an AWWA (CC) thread. The outlet shall be male iron pipe thread, one size larger than the inlet.

New services and services to be reconnected shall be joined to the water mains by means of a corporation stop inserted into a new tap in the main. The main, where service connections are necessary, shall be tapped by means of a tapping machine manufactured for that purpose and

furnished by the Contractor. The tap and drill of the tapping machine must be kept sharp. The taps generally shall be so located that the corporation stops, when inserted in a tap, will be at or above the horizontal diameter of the pipe and the service pipe must have a cover of at least 4 feet at all points. Any additional service pipe needed for the connection to the water mains shall be paid for under the appropriate service pipe item.

Payment shall be made at the contract unit price per each for furnishing and installing corporation cocks and such payment shall include connecting services to the new water mains; all drilling and tapping of the new mains; furnishing and installing new corporation stops, clamps, and couplings where required to connect the new services to the new corporation stops; all at locations directed on the Plans, or as required by the Engineer. Also included in these items is the abandoning of the existing corporation stops.

**ITEM 376**

**HYDRANT**

**EACH**

The Contractor shall furnish, install, and test fire hydrants and appurtenant materials and equipment all as indicated on the drawings and as herein specified.

Hydrants shall conform to the requirements of AWWAC502. The hydrant shall be of the anti-freeze and compression type. They shall be equipped with a 5-1/4-inch main valve and 6-inch mechanical joint inlet. Hydrants shall open right (clockwise). Valves shall open right (clockwise).

Hydrants shall have one 4-1/2-inch pumper and two 2-1/2-inch hose connections. Threads shall be NST. Hydrant operating and nozzle cap nuts shall be of pentagonal shape and measure one and one half inches from flat to point. The height of the nut shall not be less than one inch.

All internal operating parts including main valve, main valve seat, drain valve mechanism, operating rod, etc., shall be removable without excavating.

Main valve seats shall be made of brass or bronze, and shall screw into a seat ring or sub-seat, which shall also be made of brass or bronze. Hydrants shall be traffic models with frangible bolts or breakaway couplings. Details of hydrant design shall meet the requirements of the Owner.

For purposes of standardization, hydrants shall be dry barrel American-Darling model B-62.

Depth of earth cover over the main line shall be normally 5 feet. All hydrants shall meet the requirements of the Waltham Water & Sewer Division.

Pressure ratings must not be less than 350 psi. Hydrant connections are to be restrained for the full length of the pipe from the main to the hydrant. All hydrants shall be painted to conform to the Waltham Water & Sewer Division Standards.

Hydrants shall be set plumb. The hydrant connecting pipe shall have at least the same depth of cover as the distribution main. The hydrants shall be bedded on a firm foundation set upon a slab of stone or concrete not less than 4 inches thick and 15 inches square. The side of the hydrant opposite the pipe connection shall be firmly wedged against the vertical face of the trench with a concrete thrust block, which is considered incidental to the item, as indicated on the drawings. Not less than 4 cubic feet of crushed stone shall be placed around the base of each hydrant to 6 inches above the drain holes.

Broken stone shall be placed around the base of the hydrant at the location of the drain hole, and backfill around the hydrant shall be thoroughly compacted to the grade line in a satisfactory manner.

Hydrants shall have the interiors cleaned of all foreign matter before installation, and shall be inspected in both the open and closed positions.

The body of the hydrant shall be of sufficient length to allow the hydrant to be set at the proper elevation, as shown on the drawings or as directed by the Engineer. Extensions shall be furnished and installed at the Contractor's expense, when required for greater depths.

The length of the hydrant barrel shall be such that when installed with the proper depth of cover on the branch pipeline, the hydrant will be set with the normal ground line of the barrel within 3 inches of the actual finished ground surface.

In the work of removing hydrants which are to be replaced with new hydrants, the castings shall be exposed, care being taken that they are not damaged by excavating or other machinery. The joints shall then be opened and the casting carefully removed. Any materials damaged during this work due to the Contractor's negligence shall be replaced by the Contractor at no additional cost to the owner. The removed hydrant shall be delivered by the Contractor to the Waltham Water & Sewer Division. If the Owner decides not to keep the hydrants the removal and disposal of the units will become the responsibility of the Contractor at no additional cost to the Owner

Payment for this item will be at the Contract unit price per each, which price shall include full compensation for furnishing all labor, materials, tools, and equipment necessary and for furnishing, installing and/or setting hydrants as specified including testing, excavation, crushed stone, backfilling, disposal of surplus material, connection to existing, tie rods, connection couplings, restraining glands, megalugs and extension sections and all other work necessary for a complete hydrant.

**ITEM 384**

**CURB STOP**

**EACH**

The work to be done under this Item shall conform to the relevant provisions of Section 300 of

the Standard Specifications amended and supplemented as follows:

The Contractor shall furnish and install new curb stops as indicated on the Contract Drawings or as directed by the Engineer.

The existing curb stops shall be removed and disposed of by the Contractor. The new curb stops shall meet the requirements of the Waltham Water & Sewer Division. The curb stop shall have a quarter turn stop with check, solid tee head and no waste. Curb stops with plugged wastes will not be accepted. Curb stops shall open right (clockwise).

Payment for the above shall be at the contract unit price per each, which price shall include full compensation for furnishing all labor, materials, tools and equipment necessary to complete the work and for furnishing and installing curb stops. Also included under this item is the removal and disposal of existing curb stops.

If required by the Engineer, new service boxes shall be provided by the Water & Sewer Division.

The cost of resetting existing service boxes on new curb stops shall be considered incidental to the cost the curb stop.

|                          |  |                           |
|--------------------------|--|---------------------------|
| <b><u>ITEM 472.1</u></b> | <b><u>HOT MIX ASPHALT FOR TEMPORARY PATCH (3")</u></b> | <b><u>SQUARE YARD</u></b> |
| <b><u>ITEM 472.2</u></b> | <b><u>HOT MIX ASPHALT FOR PERMANENT PATCH (5")</u></b> | <b><u>SQUARE YARD</u></b> |

The work to be done under this Item shall conform to all the relevant provisions of Section 472 and the following:

Work under Item 472.1 - Hot Mix Asphalt For Temporary Patch (3") and Item 472.2 - 2 Hot Mix Asphalt For Permanent Patch (5") shall consist of making roadway pavement repair patches on City roads. The areas for patching shall be identified by the Engineer. Areas to be patched shall be saw cut and the pavement removed, a gravel base of 12" compacted depth shall be installed and compacted hot mix asphalt shall be installed to be flush with the top of the adjacent roadway surface.

For item 472.1, the bituminous concrete surface shall be laid in two courses to a depth after rolling of 3 inches. The binder course shall be 1.5 inches thick and parallel to the proposed grade of the finished surface. The top course shall be 1.5 inches in thickness after rolling and flush with the adjacent pavement surface.

For item 472.2, the bituminous concrete surface shall be laid in two courses to a depth after rolling of 5 inches. The binder course shall be 2.5 inches thick and parallel to the proposed grade of the finished surface. The top course shall be 2.5 inches in thickness after rolling and flush with the adjacent pavement surface.

In place of the 12" gravel base, excess reclaimed pavement borrow material may be used at no additional cost.

All areas that are to be patched as described above shall be marked out in the field and approved by the Engineer prior to excavation.

Payment for Item 472.1 and 472.2 shall be at the Contract unit price per square yard, complete in place, which price shall be full compensation for sawcutting, excavating, installation of the gravel base, compacting, grading, paving and all labor, equipment and materials necessary to complete the work.

**ITEM 867.104 and ITEM 867.112      PAVEMENT ARROWS AND LEGENDS      FOOT  
REFLECTORIZED THERMOPLASTIC**

**GENERAL:** The work to be done under these items shall conform to the relevant provisions of Section 860 of the 1988 MDPW Standard Specifications for Highways and Bridges, and the following:

**METHODS:** The layout of all necessary field controls by the CONTRACTOR of the several types of traffic line systems shall be approved by the OWNER. The width and spacing of stop lines and crosswalks shall be as indicated on the plans.

**MEASUREMENT:** Measurement for pavement arrows, legends, crosswalks, stop lines, chevrons and/or gore lines shall be for the actual square foot of area of material furnished and installed by the CONTRACTOR and accepted by the OWNER. Measurement for other thermoplastic lines shall be for the actual linear foot of material furnished and installed by the CONTRACTOR and accepted by the OWNER. All measurement shall be done in the field by the OWNER.

**PAYMENT:** Payment for arrows, legends, crosswalks, stop lines, chevrons and/or gore lines shall be for the actual square foot area as determined above at the contract unit prices set forth in the Bid. Payment for other thermoplastic markings shall be for the actual linear foot measurement as determined above at the contract unit prices for set forth in the Bid. Said price and payment shall be full compensation for furnishing and placing of all materials, all tools, labor, equipment and all else incidental to the completion of the work within these items. All work is subject to final approval and acceptance by the OWNER.

**Payment Items**

867.104 and 867.112 Pavement ReflectORIZED Thermoplastic

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

The work to be done this item shall conform to the relevant provisions of Sections 828 and 840 of the Standard Specifications and the following. Work to be done under this item shall include the dismantling, removal, transporting, and resetting of the existing signs at the location indicated on the plans on existing supports that are removed and reset or if necessary new supports. The work also includes the removal and disposal of the existing sign supports and foundations determined by the Engineer to be unusable.

The Contractor shall exercise particular care in the dismantling, removal, transporting and resetting of the existing signs designated to be reused. Any sign panel damaged through carelessness or lack of protection by the Contractor shall be replaced at the Contractor's expense. Payment for new supports, as required, for signs to be removed and reset shall be included under Item 847.1. The Contractor shall backfill with compacted gravel all holes resulting from the removal of the existing signs and their foundations and restore the area to match existing conditions of adjacent areas.

The existing signs shall not be removed and reset without approval by the Engineer.

**Method of Measurement.**

The work described above will be measured by the unit "each." No additional measurement or payment will be made for the temporary support or multiple relocation of signs during construction as required to maintain traffic control and operations until the final roadway configuration is complete.

**Basis of Payment**

Payment for removing and resetting signs will be at the respective contract unit price each and will be full compensation for dismantling, excavation and removal, loading, transporting and resetting of the signs as designated above, the removal and disposal of their supports, gravel backfill, and concrete foundations where required.

**ITEM 999.001**

**LUMP SUM POLICE DETAIL**

**LUMP SUM**

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

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

**ALLOWANCE FOR POLICE SERVICES**

An allowance of **Forty Five Thousand Dollars (\$45,000.00)** for the furnishing of police services has been included in all bids. This allowance is determined by multiplying the number of hours estimated as necessary by the prevailing hourly rate of wages established for such services. The Contractor shall submit certified copies of itemized bills of services rendered for review and approval by the Engineer. The allowance will be adjusted to the actual amount paid for authorized and approved police services as stipulated and shall include other payments due to any legal requirements of the State and Federal governments.

**PAYMENT**

The quantity to be paid for under this item shall be the actual amount paid by the Contractor to provide satisfactory police services as stipulated and required. Any overhead costs shall be

**TRAPELO RD WATER SERVICE REPLACEMENT**

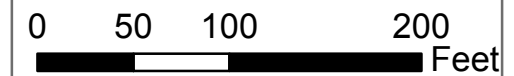
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considered to be included in the process bid for the other items of the Contract.

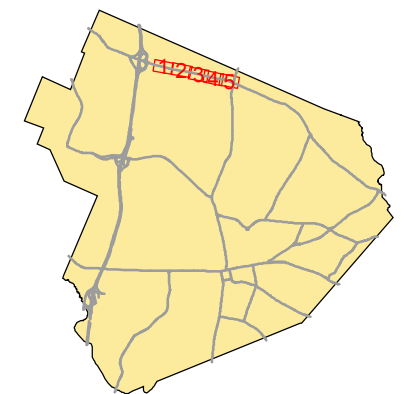


# MAPS

CITY OF WALTHAM  
 WATER AND SEWER  
 SERVICE REPLACEMENT  
 FEBRUARY 2018



1 inch = 100 feet  
 KEY PLAN



**Legend**

- |  |                       |                                 |         |
|--|-----------------------|---------------------------------|---------|
|  | Sewer Manhole         | <b>Water Pipe Diameter (in)</b> |         |
|  | Sewer Main            |                                 | Service |
|  | Replace Sewer Service |                                 | 6       |
|  | Replace Water Service |                                 | 8       |

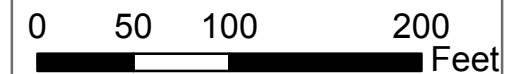
**Notes:**

Information shown if from the City of Waltham GIS and Water & Sewer Division Records, and is approximate.

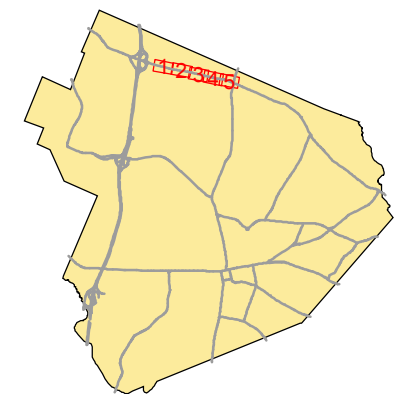
All water services noted to be replaced shall be relaid from the corporation to the property line. Curb stops shall be placed as close to the property line as feasible.

All sewer services shall be replaced from the sewer main to the property line. A cleanout shall be installed as close to the property line as feasible.

CITY OF WALTHAM  
 WATER AND SEWER  
 SERVICE REPLACEMENT  
 FEBRUARY 2018



1 inch = 100 feet  
 KEY PLAN



**Legend**

- |  |                       |                                 |
|--|-----------------------|---------------------------------|
|  | Sewer Manhole         | <b>Water Pipe Diameter (in)</b> |
|  | Sewer Main            |                                 |
|  | Replace Sewer Service |                                 |
|  | Replace Water Service |                                 |
|  |                       |                                 |
|  |                       |                                 |

**Notes:**

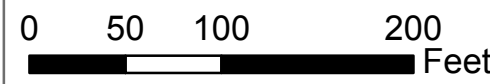
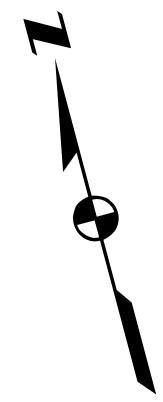
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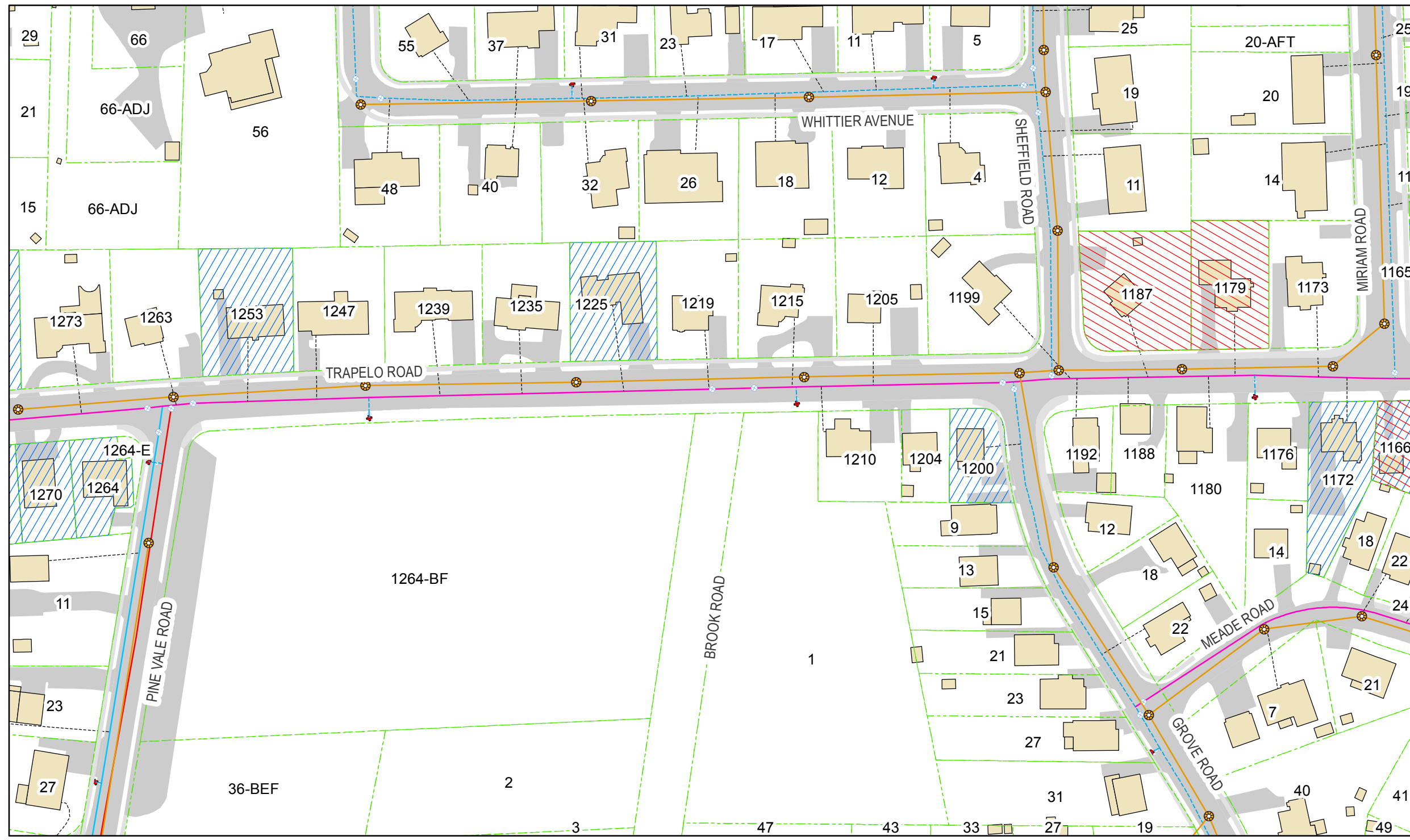
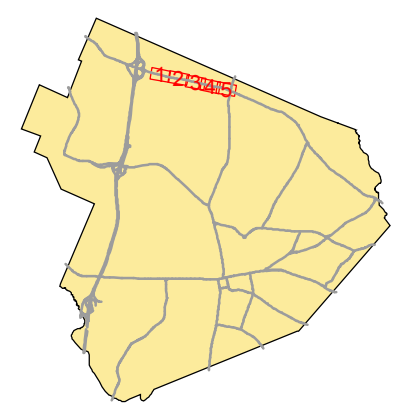
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CITY OF WALTHAM  
 WATER AND SEWER  
 SERVICE REPLACEMENT  
 FEBRUARY 2018



1 inch = 100 feet  
 KEY PLAN



**Legend**

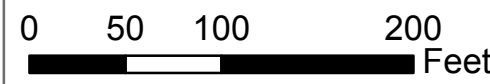
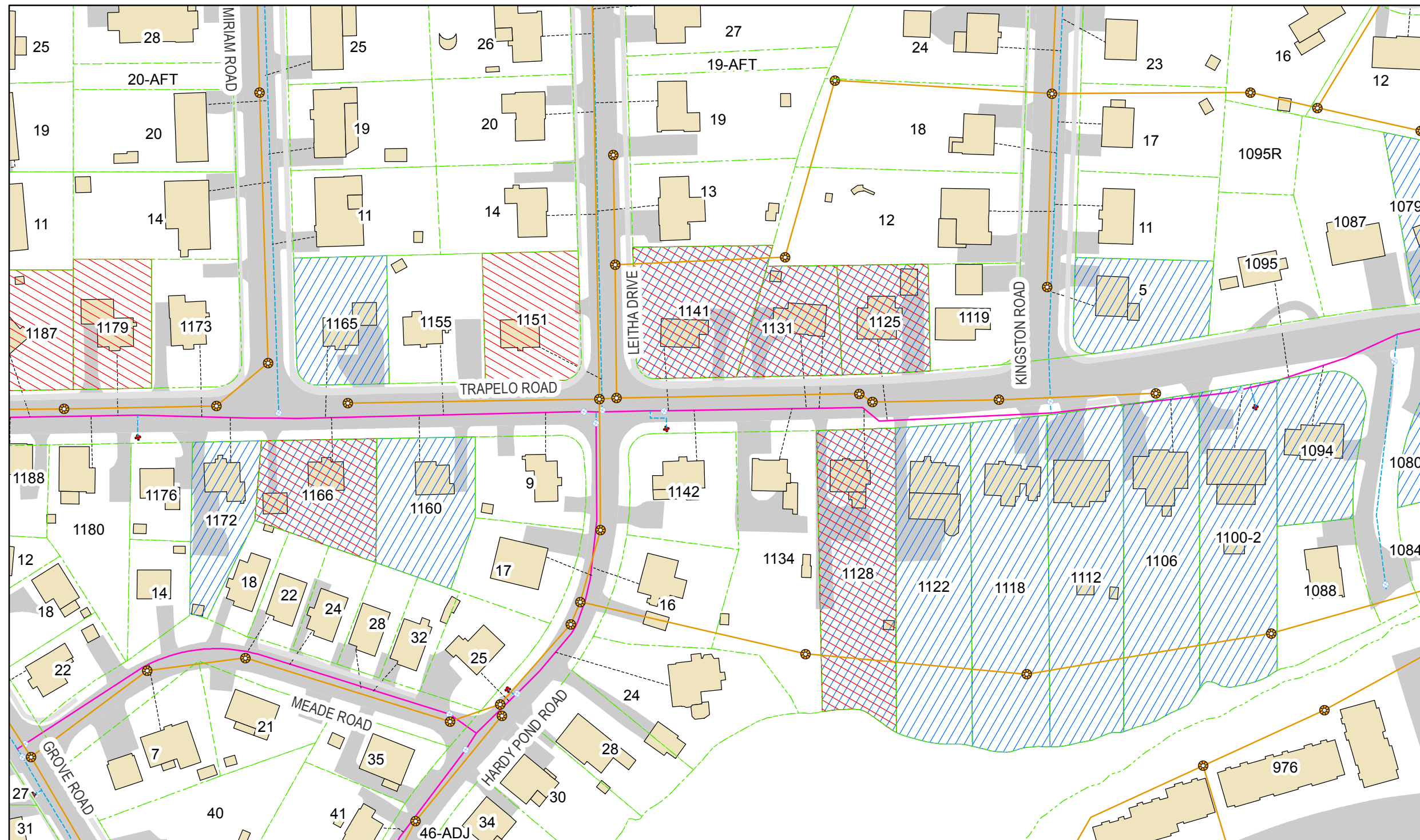
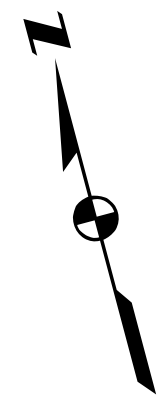
- |  |                       |                                 |         |
|--|-----------------------|---------------------------------|---------|
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|  | Sewer Main            |                                 | Service |
|  | Replace Sewer Service |                                 | 6       |
|  | Replace Water Service |                                 | 8       |
|  |                       |                                 | 10      |
|  |                       |                                 | 12      |

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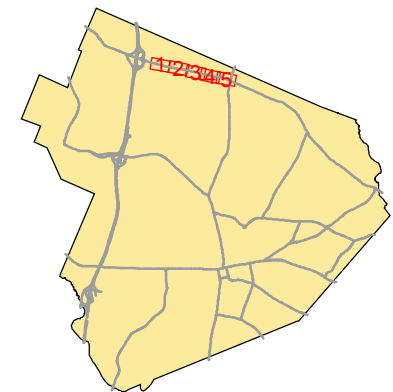
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1 inch = 100 feet  
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**Legend**

- Sewer Manhole
  - Sewer Main
  - Replace Sewer Service
  - Replace Water Service
- Water Pipe Diameter (in)**
- Service
  - 6
  - 8

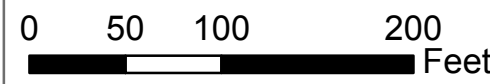
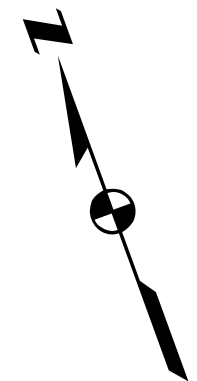
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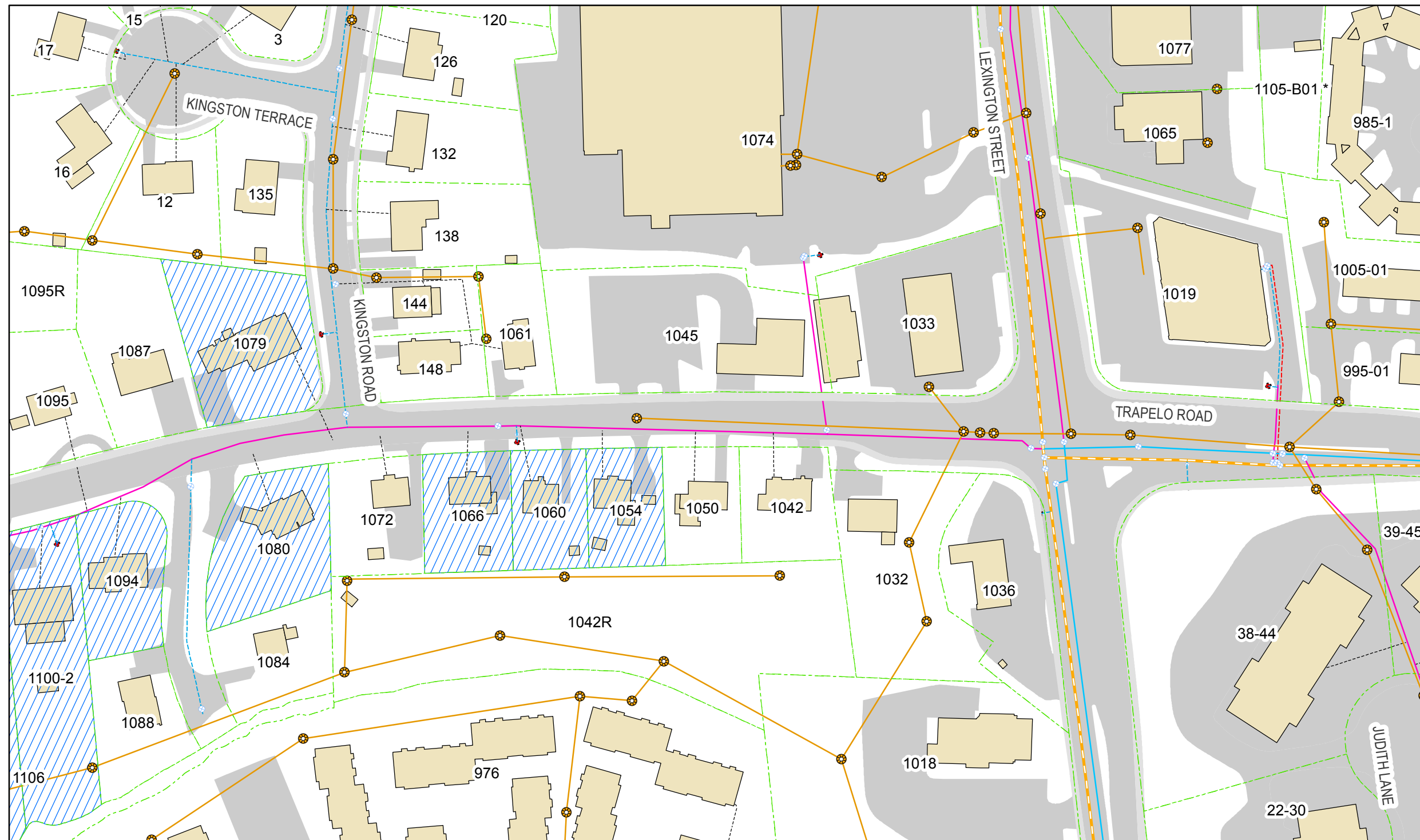
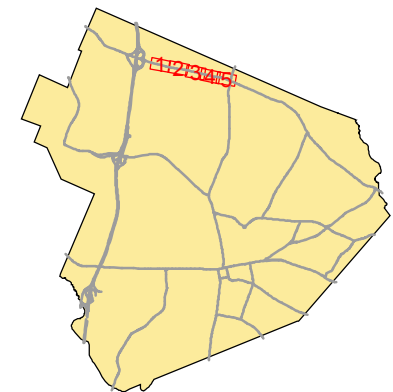
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CITY OF WALTHAM  
 WATER AND SEWER  
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1 inch = 100 feet  
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**Legend**

- Sewer Manhole
  - Sewer Main
  - Replace Water Service
- | Water Pipe Diameter (in) |         |
|--------------------------|---------|
|                          | Service |
|                          | 4       |
|                          | 6       |
|                          | 8       |
|                          | 10      |
|                          | 16      |

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