OFFICE OF THE PURCHASING AGENT

TOWN OF ARLINGTON
730 Massachusetts Avenue
Arlington, MA 02476

Telephone (781) 316-3003
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DATE: February 14, 2019

TO ALL BIDDERS

BID NO. 19-09

SUBJECT: 2" Waterline Renewal/Parmenter

ADDENDUM NO. 1

TO WHOM IT MAY CONCERN:

With reference to the bid request relative to the above subject, please note the following:

BID DEADLINE: FEBRUARY 20, 2019, 12:00 PM

ATTACHED REVISED SCOPE OF WORK, EXISTING WATER SERVICE TIE-CARD ON FILE, VIEW OF EXISTING CONDITIONS FROM STREET VIEW AND ADDITIONAL CONDITIONS.

ADDENDUM MUST BE ACKNOWLEDGED WITH QUOTE SUBMISSION.

All other terms, conditions and specifications remain unchanged.

Very truly yours,

Town of Arlington

Domenic R. Lanzillotti
Purchasing Officer

Revised Scope of Work:

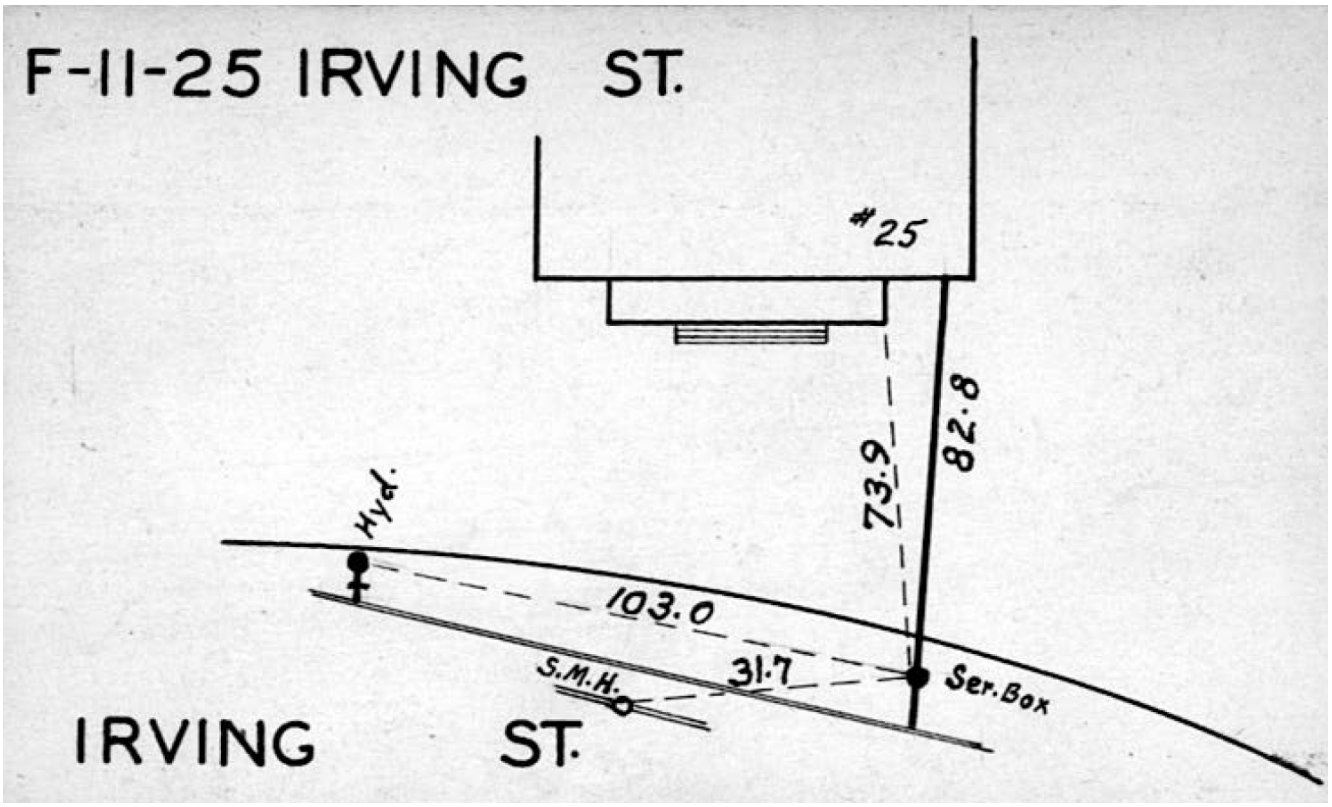
Project consists of the renewal of an existing two (2) inch galvanized iron/steel water service at the Parmenter School in the Town of Arlington, with a new 2" copper service. This work shall include the following:

- Removal of approximately 95-linear feet (LF) of existing 2" water service;
- Installation of approximately 95-LF of 2" copper pipe;
- Installation of a 2" curb stop in the roadway, with a roadway service box;
- Installation of a 2" ball valve at the water meter;
- Removal of the existing 6"x2" cast iron service tee, as well as removal of approximately 15-LF of existing 6" cast iron water main;
- Installation of a new 6"x2" ductile iron (DI) service tee and approximately 15-LF of DI water main/couplings/appurtenances (transition couplings, solid sleeves, pipe nipples, compression fittings, etc.);
- Installation of any additional fittings, couplings, or appurtenances necessary for completion of the water main and water service installations;
- Saw cutting of all finished surfaces to be trenched, including asphalt in the street and two concrete sidewalk/walkways crossing (one in the Town right of way and one on school property);
- Backfill of all trenches with clean gravel and sand as specified;
- Disposal of all unsuitable material (old pipe and fittings, dirt, rock, asphalt, concrete, debris, etc.);
- Restoration of all areas impacted by construction, including replacement of asphalt in the street, replacement of concrete sidewalks/walkways, and loam and seeding of landscaped areas;
- Site clean-up.

Lump sum price shall include all labor, materials, equipment, and permit fees to complete the work.

Existing Conditions:

Water Tie Card:



Street View of Work Area:

Specifications:

I. SPECIAL CONDITIONS

A. DISPOSAL OF EXCAVATED MATERIAL

It shall be the Contractor's responsibility to dispose of unsuitable material and any excavated material including pipe, gates, hydrants and fittings which are not required for use within the locus of the work, as determined by the Town, outside the locus of the work, in a Contractor furnished disposal area, and shall become the property of the Contractor.

B. CONTROL OF WATER SYSTEM

The Arlington Department of Public Works Water and Sewer Division shall maintain control of the use or operation of any and all gate valves, hydrants, etc., and shall be notified by the Contractor forty-eight (48) hours in advance of any use or operation of the above except in a case of an emergency; however, the Department of Public Works Water and Sewer Division shall be informed immediately upon said emergency use or operation.

C. CONTROL OF AND NOTICE TO ABUTTERS OF INTERUPTION OF WATER SERVICE

The Contractor shall give at least forty-eight (48) hour notice to the AFFECTED RESIDENTS of the need to withdraw a water main from service in order to facilitate the disconnection or connection of the new mains with existing mains. This notification shall be prepared by the Town of Arlington Engineering Division and be distributed by the Contractor at the direction of the Engineer.

II. SERVICE LINES

A. GENERAL

The work under this section shall be the replacement of an existing two (2) inch diameter service line with a new two (2) inch diameter copper service line, through both public and private property, from the Town water main up to and including the connection to the existing water meter in the building.

B. SERVICE RENEWAL

The existing water service shall be replaced from the Town main (including removal and replacement of existing tee connection) to the connection to the Town water meter within the building. The installation shall include installation of a new tee and associated ductile iron pipe/fittings, transition couplings, copper pipe, a curb stop (Open Right) to be located within the roadway with a roadway service box, and a ball valve to be placed within the building prior to the water meter.

Existing service pipe material is believed to be galvanized iron/steel throughout its extents.

C. MATERIALS

Materials for the two (2) inch service line shall be in accordance with the following:

1. Copper Tubing shall be soft, annealed, seamless tubing conforming to Federal Specifications WW-T799A, Type "K".

    a) To minimize joints, coiled tubing shall be used.
    b) Joints in copper tubing shall be made with three part compression couplings, flared tube fittings (ASA spec. B-16), or an approved equal. All fittings shall be electrically conductive.

2. Roadway service boxes:

    a) Two (2) inch curb stops shall be placed in the roadway and provided with a roadway service box.
    b) Box shall be cast iron, two-piece sliding type, with a top flange, a minimum inside diameter of 4 1/4 inches, coated with asphalt and shall be approved by the Town prior to installation.
    c) All roadway covers shall be cast clearly with the word “water”.
    d) The curb stop operating nut shall be centered in the valve tube and visible upon installation.
    e) Valve box manufacturer shall be ISO – 9002 certified.

3. Curb Stops:

a) Shall be cast iron bronze, conforming to the latest ASTM specification for Steam or Valve Bronze Castings, Serial Designation B62.

b) Shall be equal in size to the new copper pipe, which the stop is connected to.

c) Shall have full, round, smoothed, reamed waterway and shall operate freely as adjusted for testing.

d) Shall be a ball valve conforming to AWWA 800 with a one-piece tee head and shall open to the right.

e) Shall be rated at 250 psi or greater.

4. Ball Valve

a) Shall be lead free brass, conforming to AWWA standards.

b) Shall be equal in size to the new copper pipe, which the stop is connected to.

c) Shall have full, round, smoothed, reamed waterway and shall operate freely as adjusted for testing.

d) Shall be rated at 150 psi or greater.

D. CONSTRUCTION METHODS

1. General

A. The service connection shall be tested for strength and tightness before being backfilled; shall be tested under the normal pressure in the water mains to which it is connected, and any signs of leakage or evidence of failure shall be promptly repaired by the Contractor at her/his own expense. The Contractor shall furnish all apparatus, material, and labor for making the tests. The water required for testing shall be furnished by the Town, without charge to the Contractor, from the Town's existing water system.

B. The Contractor shall also be responsible for removing any sediment deposit that may accumulate and impede the full flow of water when restoring the water services.

C. The service line shall be disinfected and flushed prior to being placed into service per the direction of the Arlington Water and Sewer Division.

2. Service Lines

A. Shall have a minimum depth of cover of 5.5 feet, or as approved by the Town.

B. Shall be set in a 6” bed of sand surrounding the pipe on all sides. The remainder of the trench may be backfilled with clean gravel or approved material of equal drainage qualities.

3. Curb Stops

A. Shall be set in a 6” bed of sand on all sides. The remainder of the trench may be backfilled with clean gravel or approved material of equal draining qualities.

B. Shall be set with roadway box so that the curb stop operating nut shall be centered in the valve tube and visible upon installation

E. MEASUREMENT AND PAYMENT

No separate measurement and payment will be made for work required under this Section. All costs in connection therein shall be considered incidental to the lump sum cost proposed for the scope of work included on the Bid Form.

III. DUCTILE IRON PIPE AND FITTINGS

A. GENERAL

This section covers the removal and replacement of existing water pipe to the extents needed to replace the existing two (2) inch water service. Work will include removal of existing cast iron water main and tee, and replacement with new ductile iron water main, fittings, and couplings, as required to complete the work.

B. MATERIALS

1. Ductile Iron Pipe

Unless otherwise specified herein all water pipe shall be cement lined ductile iron designed in accordance with ANS21.50/AWWA C150-96 and manufactured in accordance with ANS A21.51/AWWA C151-96.

Unless otherwise indicated or specified, ductile iron pipe shall be special thickness Class 52 for diameters sixteen (16) inches or less.

Pipes shall be double cement-mortar lined in accordance with ANS A21.4/AWWA C104-95.

All pipe shall be push-on joint conforming to ANS A21.11/AWWA C111 latest version. Pipe shall be delivered in eighteen (18) foot lengths.

Push-on joints shall be provided with sufficient quantities of accessories conforming to ANS A21.11/AWWA C111.

2. Fittings

The Contractor shall furnish and install all the required fittings to complete the installation of the new water service. All fittings shall be ASTM A-536 ductile iron, cement lined mechanical joint. All fittings 3-inch through 48-inch in diameter shall meet or exceed the requirements of AWWA C-110.Compact fittings shall be ductile iron meeting or exceeding the requirements of AWWA C-153.

All fittings 4” to 24” shall be pressure rated at 350 PSI working pressure. Fittings shall conform to the weights, excluding accessories, and dimensions shown in the latest edition of the Handbook of Ductile Iron Pipe and come complete with all joint accessories as required. All accessories (gland, gaskets, T-bolts and nuts) shall be in accordance with AWWA C-111. All mechanical joint bolts (T-bolts) shall be Cor-Ten or equal.

3. Couplings

When connecting ductile iron pipe to cast iron pipe the contractor shall use sleeve couplings. When connecting ductile iron pipe to ductile iron pipe the contractor shall use solid sleeve mechanical joint fittings manufactured in accordance with these specifications.

Sleeve couplings and accessories shall be pressure rated for a minimum of 150 PSI. Couplings shall be ductile iron or steel. The couplings shall be provided with "Cor-Ten" bolts and nuts or approved equal.

After assembly, all surfaces of the bolts and nuts shall be thoroughly coated with two coats of an asphaltic coating. The interior and exterior of the coupling shall be epoxy-coated.

C. CONSTRUCTION METHODS

1. GENERAL

A. Care shall be taken in loading, transporting, and unloading to prevent injury to the pipes or coatings. Pipe or fittings shall not be dropped.

B. Pipes and fittings shall be subjected to a careful inspection by the Town before installation. All defective pipe and fittings shall be removed from the site at no cost to the Town. If any portion of the pipe is cracked or defective the entire length shall be removed.

C. All pipe and fittings shall be thoroughly cleaned before laying and shall be kept clean until used in the work. Each pipe shall be cleared of all excess tar, debris, dirt, etc., before laying.

D. Push-on joints shall be made up by first inserting the gasket into the groove of the bell and applying a thin film of non-toxic gasket lubricant uniformly over the inner surface. The chamfered end of the plain pipe shall be inserted into the gasket and forced past it until it seats against the bottom of the socket.

E. When cutting pipe is required, the cutting shall be done by machine leaving a smooth cut at right angles to the axis of the pipe. Cut ends of pipe shall be beveled to conform to the manufactured spigot end. Cement lining shall be undamaged.

F. Whenever encountered within the trench, existing water mains shall be removed. All existing water mains outside of the trench limits which are left in place and abandoned, shall be capped at all ends.

G. Ductile iron pipe and fittings shall be installed in accordance with the requirements of AWWA Standard Specification C600, except as otherwise

approved by the Town. A firm, even bearing throughout the length of the pipe shall be constructed by tamping selected material at the sides of the pipe up to the springline. **Blocking will not be permitted.**

H. Water pipe shall be laid with a minimum cover of five and one-half (5 1/2) feet or to the grade of the existing pipe unless otherwise directed by the Town.

I. When laying is not in progress, including lunchtime; the open ends of the pipe shall be closed by watertight plug or other approved means. The Contractor shall keep the trench free from water while the pipe is being installed.

J. Fittings, in addition to those shown on the plans, shall be provided, if required, in crossing utilities, which may be encountered.

K. All pipe and fittings that are removed shall be the property of the Contractor, and it shall be the Contractor's responsibility for disposal.

2. THRUST RESTRAINT

A. Fittings shall be restrained against hydraulic thrust through the use of "Megalug" or approved equal mechanical restraint in lieu of thrust blocks.

3. CHLORINATION AND DE-CHLORINATION OF THE PIPELINE

A. The water main and fittings shall be disinfected prior to being placed into service per the direction of the Arlington Water and Sewer Division.

B. All work shall be done in accordance with AWWA C-651. Connections at cuttings shall be swabbed with a 50-PPM solution of chlorine at locations when other methods are not applicable.

D. MEASUREMENT AND PAYMENT

No separate measurement and payment will be made for work required under this Section. All costs in connection therein shall be considered incidental to the lump sum cost proposed for the scope of work included on the Bid Form.

IV. BITUMINOUS CONCRETE PAVING AND CONCRETE WALKS

A. GENERAL

This section covers the restoration of roadways, sidewalks, and landscaped areas in whole or in part.

THE CONTRACTOR SHALL NOT LEAVE EXCAVATED AREAS UNPAVED OVER WEEKENDS AND/OR HOLIDAYS UNLESS THROUGH WRITTEN APPROVAL OF THE TOWN.

Except as otherwise specified herein, all work performed under this section shall conform to the Standard Specifications of the Massachusetts Highway Department, latest edition.

Cold patch may be used when hot mix is not available. This is only for the Contractor's convenience and is not considered temporary paving. Where the Contractor has used cold patch s/he will repave the area with acceptable temporary paving as soon as it is available. The Contractor will be required to maintain cold patched areas according to the specifications for temporary paving. There will not be payment for setting of cold patch.

All surface treatments shall be restored with like materials unless otherwise directed by the Town.

B. MATERIALS

1. Bituminous Concrete

   Bituminous concrete pavement placed in all streets shall conform to Commonwealth of Massachusetts's standards and specifications for M3.11.00 Class I, Bituminous Concrete.

2. Tack Coat

   Tack coat shall consist of emulsified asphalt, Grade RS-1, conforming to Section M.3.03.0 of the Commonwealth of Massachusetts Department of Public Works Standard Specifications for Highways and Bridges, latest edition.

3. Concrete Cement

   Concrete cement placed in all walk and driveways shall conform to Commonwealth of Massachusetts's standards and specifications for M4.02.00, Concrete Cement.

C. CONSTRUCTION METHODS

1. GENERAL

A. All pavement thickness referred to in these specifications are compacted thickness. The Contractor shall place sufficient bituminous concrete mix to insure the specified thickness of pavement occurs after compaction.

B. All frames, grates, covers, street boxes, manhole rings and other castings within the limits of the area to be paved shall be reset, if required, immediately prior to paving.

C. Prior to patching an area, the trimmed edges of existing pavement shall be stable and unyielding, free of loose or broken pieces, and all edges shall be thoroughly cleaned and coated with an asphalt tack coat.

D. All contact surfaces of curbing, existing pavement, castings and other structures shall be coated with an asphalt tack coat.

E. When the air temperature falls below fifty (50) degrees F, extra precautions shall be taken in drying the aggregates, controlling the temperatures of the materials and placing and compacting the mixtures.

F. No mixtures shall be placed when the air temperature is below forty (40) degrees F, nor when the material on which the mixtures are to be placed contains frost or has a surface temperature not suitable to the Inspector.

G. Each layer of bituminous concrete paving material shall be thoroughly compacted with a roller weighing a minimum of two hundred and eighty-five (285) pounds per inch of width.

H. Along curbing, structures, and all places not accessible to the roller, the mixture shall be thoroughly compacted by tampers. Such tampers shall not weigh less than twenty-five (25) pounds and shall have a tamping face of not more than fifty (50) square inches.

I. No vehicular traffic loads shall be permitted on the newly paved area until adequate stability has been attained and the material has cooled sufficiently to prevent distortion or loss of fines.

J. Any disturbed area, Public or Private, shall be restored with Loam and Seed to the Engineer's satisfaction. If substantial completion is completed in the Fall, loam and seed should be provided the following spring.

K. Any disturbed walk or driveway, Public or Private, shall be restored to the Engineer's satisfaction.

2. MAINTENANCE PERIOD OF ROADWAY SURFACE

The Contractor shall be responsible to maintain trenches and patching at her/his expense for a period of one year after the backfilling and patching of the trench and shall promptly refill and repair areas, which have settled or are otherwise unsatisfactory for pedestrian and vehicular traffic.

The Contractor shall be responsible and indemnify and hold the Town harmless for any damages sustained to persons or property as a result of any accident that may occur on account of the defective condition of the street or sidewalk surface.

Final payment or acceptance by the Town of the completed contract shall have no effect on the Contractor's obligation as indicated in the above paragraphs.

3. MEASUREMENT AND PAYMENT

No separate measurement and payment will be made for work required under this Section. All costs in connection therein shall be considered incidental to the lump sum cost proposed for the scope of work included on the Bid Form.

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V. EXCAVATION AND BACKFILL

A. GENERAL

1. The work under this section shall include all excavation specified herein, or ordered by the Town. Such excavation may be for the laying of pipes or appurtenances, the removal of pipes or appurtenances, the capping or plugging of pipes to be abandoned, test pits to locate existing utilities, or any other purpose for which excavation may be needed.

2. Wherever a percentage of compaction for backfill is indicated or specified, it shall be the percent of maximum density at optimum moisture as determined by Method D of ASTM Standard Methods of Test for Moisture - Density Relations of Soils Using 10-lb. rammer and 18-inch Drop, Designation D 1557-78.

B. EXCAVATION

1. Excavation shall consist of all earth excavation, including rock, within the limits specified herein, required to lay all pipes, services and appurtenances.

   A. Whenever an excavation is dug to a depth of five feet or more the trench shall be supported in accordance with the rules and regulations for the prevention of accidents in construction operations pursuant to Section 129A of Chapter 149 of the General laws and current OSHA regulations.

   B. The contractor shall furnish, place and maintain such trench boxes as may be necessary to support the sides of the excavation and prevent movement of earth which would cause injury, delay the work or endanger adjacent structures.

2. Normal depth of trench excavation shall be six inches (6") below the bottom of the pipe in earth.

3. Normal trench widths for trenches supported with approved trench boxes or hydraulic shoring systems shall be the sum of the outside diameter of the pipe plus 1 foot on either side of the pipe, the width of the wall shield (no greater than 8 inches), plus 1 foot of additional space to allow for installation of the trench box. The Contractor shall not be entitled to any additional compensation for trench excavation that exceeds the minimum allowable for trench excavation in trench boxes or shoring systems, whether the increase in width is due to Contractor means and methods, unstable subsurface materials, or for any other reason.

4. Normal width of trench excavation in unsheathed trenches shall be measured between vertical planes, which are a distance that is equal to the sum of the outside diameter of the pipe plus 2 feet. The Contractor shall not be entitled to any additional compensation for trench excavation that exceeds the minimum allowable for trench excavation in unsheathed trenches, whether the increase in

width is due to Contractor means and methods, unstable subsurface materials, or for any other reason.

5. Such trench width shall in no case be less than 3 feet except trenches for building services that shall be a minimum of 2 feet 6 inches wide.

C. CONSTRUCTION METHODS

1. Excavation shall be carried out to the lines and grades as set forth above as required to complete the work. All excavation beyond such limits is done at the Contractor's expense. Furnishing, placing and compacting suitable backfill material for such over-excavation shall also be at the Contractors' expense.

2. Prior to excavation of all trenches in paved areas, the Contractor shall cut through the existing pavement and base course in neat straight lines with a minimum amount of vibration. Pavement, except sidewalks or as allowed in writing by the Town, shall be cut using a mechanical saw or a machine mounted hydraulic or mechanical tool fitted with a rotary-type blade, and shall result in sound vertical edges, thus avoiding any damage to the pavement or base course outside of the trench limits. Should additional excavation be required in an area that was previously provided temporary paving by the Contractor, the Contractor shall be required to once again saw cut through the pavement in neat straight lines.

3. Whenever an excavation is dug to a depth of five feet or more as directed by the Town, the trench shall be supported in accordance with the rules and regulations for the prevention of accidents in construction operations pursuant to Section 129A of Chapter 149 of the General laws and current OSHA regulations.

4. All excavations shall be kept free of all water. Dewatering shall be completed through the Contractor’s own means and methods.

5. The following materials shall be considered earth excavation for purposes of measurement and payment:

   A. Street or sidewalk pavement of all kinds including bituminous concrete, concrete, brick or other materials.
   B. Obstructions visible in whole or in part before beginning work such as trees, hedges, stumps, roots and fences.
   C. Brick or other masonry of old foundations.
   D. Catch basins, manholes, pipes and similar existing structures not in use.
   E. Dry stone walls with stones less than one and one-half (1-1/2) cubic yards in volume.
   F. Sheeting, shoring or bracing of existing structures including piles, pile caps and cradles.
   G. Trench rock and boulders encountered above the existing water main and service.

6. All existing gas pipes, electric conduit, telephone conduit, cable TV conduit, telecommunications conduit, water, sewer or drain lines and any other structures, which are uncovered by the excavation, shall be carefully supported and

protected from injury by the Contractor. The Contractor shall restore any items damaged by him to their original condition, and they shall be kept in repair during contract operations. The restoration of existing utility lines shall be done as promptly as practical and shall not be left until the end of the construction.

7. As excavation operations approach known underground structures, the excavation around the structure should be performed by means of hand tools to safely expose the structure as a normal part of trench excavation. A minimum 5' buffer on either side of marked utilities shall be assumed.

8. Excavating equipment shall be operated with care to prevent damage to trees, overhead branches, overhead utilities and other structures. Wherever work will disturb existing trees, the Contractor will notify the Town's Tree Warden. The Town will be responsible for cutting any roots or branches of existing trees. Branches and roots shall not be cut without the written approval of the Town. All cutting shall be done neatly by approved methods without splitting or crushing.

9. Plantings and trees shall be adequately protected or removed and later re-established in their original position and condition. Where injury is such as to diminish their beauty or usefulness, they shall be replaced by items of kind and quality at least equal to that existing at the start of the work.

10. The Contractor shall not use any equipment whose movement will cut or otherwise injure paved surfaces.

11. Where material is found below the grade to which excavation is carried which is unsuitable for foundation in the opinion of the Town, the Contractor shall remove and dispose of such material to the required width and depth and replaced with thoroughly compacted screened gravel or gravel as directed by the Town.

12. The Contractor shall maintain the area of her/his activities to control dust by sweeping and/or sprinkling of the streets or as otherwise determined to be necessary by the Town.

13. As soon as practicable after the pipes have been laid, except as provided hereinafter, the backfilling shall be started around the pipes. Except where sand is required around the new water service pipe, all backfill material shall be newly bought gravel or approved processed gravel. This material shall be filled evenly on both sides of the pipe to the indicated grades and rammed with suitable tools so as to be compacted to at least 95 percent.

14. Backfill shall not include or be placed on frozen material.

15. The trench above a level one (1) foot over the top of the pipe shall be backfilled and compacted by mechanical tamping or rolling (maximum weight of roller one (1) ton within three (3) feet of pipe) in accordance with the nature of the material and as approved by the Engineer. Puddling may only be used when the material does not contain so much clay or loam as to delay or prevent satisfactory drainage.

16. Backfilling of the entire trench before the pipeline has successfully passed any specified tests required shall be at the Contractor's option and risk. The Contractor shall be responsible for removing and later replacing such backfill, at her/his own expense, should s/he be ordered to do so in order to locate and repair improperly placed pipe or to repair leakage or defective joints or pipe.

17. The material shall be deposited in layers of not more than eight (8) inches in depth before compaction. Each layer shall be tampered or rolled as required to obtain a thoroughly compacted mass. Care shall be taken that the material shall first be wet by sprinkling as directed or approved. However, no compaction shall be done when the material is too wet.

D. MEASUREMENT AND PAYMENT

No separate measurement and payment will be made for work required under this Section. All costs in connection therein shall be considered incidental to the lump sum cost proposed for the scope of work included on the Bid Form.

VI. GRAVEL

A. GENERAL

Gravel shall be used as backfill material in all excavations, except where sand is called for in the appropriate pipe specifications, or as ordered by the Town.

Weight slips may be requested by the Town to verify the source of the Gravel. Such slips shall bear the name of the supplier, date purchased and the weight of the gravel. Such slips shall not be used as a method of measuring the gravel for payment.

B. MATERIAL

Gravel shall consist of inert material that is hard, durable stone and coarse sand free from loam and clay surface coatings, be well graded and contain no stone having any dimension greater than three (3) inches.

Gravel shall conform to the following requirements:

Passing 3 inch sieve.....….....100%
Passing 1 1/2 inch sieve.....70-100%
Passing 3/4 inch sieve.....50 - 85%
Passing No. 4 sieve.....…...30 - 60%
Passing No. 200 sieve.....0 - 10%

New bank run or processed gravel is acceptable but must meet the above requirements and be processed by mechanical means. All processed gravel shall come from an approved stockpile. The equipment producing the processed gravel shall be of adequate size and with sufficient adjustments to produce the desired materials. The processed material shall be stockpiled in such a manner to minimize segregation of particle sizes.

C. CONSTRUCTION METHODS

Gravel refill shall be placed, spread and compacted as set forth in the Excavation and Backfill section of these specifications. Gravel shall not be placed on frozen ground.

Before pipe is placed, a gravel base shall be installed. The gravel base shall be a minimum of 6” deep or as directed by the Town.

D. MEASUREMENT AND PAYMENT

No separate measurement and payment will be made for work required under this Section. All costs in connection therein shall be considered incidental to the lump sum cost proposed for the scope of work included on the Bid Form.