City of Cambridge

Purchasing Department

Cynthia H. Griffin
Purchasing Agent

TO: ALL BIDDERS

FROM: CITY OF CAMBRIDGE

DATE: JUNE 8, 2011

RE: CHAPTER 90 CONTRACT 14 RECONSTRUCTION OF SEVEN LOCATIONS - FILE NO. 5462

Please note the attached Addendum No. 3.

All other particulars remain unchanged.

CYNTHIA H. GRIFFIN
PURCHASING AGENT

ADDENDUM NO. 3

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CITY OF CAMBRIDGE MASSACHUSETTS
CHAPTER 90 CONTRACT 14
ADDENDUM No 2
June 6, 2011

ADDENDUM No 3 Includes:

A. Furnish and installation of approximately 1375 linear feet of Class 52, CLDI 8" water main on Spring St. between Sixth and Third Street. New 8" WM will be located between the existing 6" WM and the near-side curb (i.e., north side of street). Work shall include installation of new gate valves and appurtenances, cutting, capping and abandoning in-place the existing Spring St. 6" WM between Sixth and Third Street **after** swapping over all existing services to the new 8" WM once pressure testing, chlorination and bacteria testing of new 8" WM as required per the CWD standards/specifications is completed. **SPECIFICATIONS AND PLANS ATTACHED**

B. Bid Alternate – Spring Street, Third Street to First Street

   This work includes bituminous concrete excavation by cold planer, pavement overlay, granite curbing, and curb ramp and sidewalk construction, curb extensions, tree planting, pavement markings, signage, and drainage improvements. See Contract drawings for a more detailed scope of work –**BID ALTERNATE TAB ATTACHED, PLANS INCLUDED ON PACKAGE**

C. REVISED BASE BID ATTACHED – Added items associated with water main work, made other minor adjustments.

D. QUESTIONS

CHAPTER 90 CONTRACT 14

SECTION 00300 – FORM FOR GENERAL BID – REVISED FORM ATTACHED

Added:

ADD ALTERNATE #1 Spring Street from First Street to Third Street

"E. The proposed contract price for ADD ALTERNATE #1 – Spring Street from First Street to Third Street is_____ DOLLARS ($_____)"

BID ALTERNATE FORM

SECTION 00310 – BID BOND – REVISED FORM ATTACHED

Revised:

"CONTRACT 90 CHAPTER 13" is replaced for CHAPTER 90 CONTRACT 14

SECTION 00312 – STATEMENT OF BIDDER'S QUALIFICATIONS AND QUALITY REQUIREMENTS – REVISED FORM ATTACHED

Added:

7. Bidder has a minimum of five (5) years experience constructing municipal water main YES NO

SECTION 00315 – PROJECT WORK FORCE CERTIFICATION – REVISED FORM ATTACHED

Revised:

"CHAPTER 90 CONCTRACT 13" is replaced for CHAPTER 90 CONTRACT 14

SECTION 00900 – THECNICAL SPECIFICATIONS

The Following Items are added:

ITEM 346.10	**1 INCH COPPER TUBING TYPE K**	**FOOT**
ITEM 346.15	**1 1/2 INCH COPPER TUBING TYPE K**	**FOOT**
ITEM 346.20	**2 INCH COPPER TUBING TYPE K**	**FOOT**
ITEM 363.10	**1 INCH CORPORATION STOP**	**EACH**
ITEM 363.15	**1 1/2 INCH CORPORATION STOP**	**EACH**
ITEM 363.20	**2 INCH CORPORATION STOP**	**EACH**

GENERAL

Work to be done under these items shall consist of:

A. Replacing existing water services by providing new water services from the water main to the property line and connecting to existing services, including corporation stops, curb stops and boxes, as directed by the Engineer, in coordination with the Cambridge Water Department.

B. Reconnecting existing water services not requiring replacement to the new water main, including cutting back or extending the service pipe, and providing corporation stops, as directed by the Engineer in coordination with the Cambridge Water Department.

MATERIALS

Service pipe: shall be type "K" copper tubing, American manufactured, 1-inch minimum. All service fittings shall be extra heavy brass, manufactured by either Mueller Water Distribution Products or Ford Meter Box Company, Inc. **All services greater than 1-inch shall have the valve box installed at the corporation at the main.**

Brass goods: furnished under this specification shall be new and unused. All fittings and valves shall be manufactured in accordance with AWWA C-800.

Any part of the brass fitting or valve in contact with potable water shall be fabricated from Sebiloy or Federalloy or other City of Cambridge approved no lead/ultra low lead material. Residual lead levels

shall not exceed a maximum of 0.25% by weight.

Components that do not contact potable water shall comply with the requirements of ASTM B 62 and ASTM B584 Copper Alloy Number C83600 or C84400 respectively.

Brass fittings and valves shall comply with the Safe Water Drinking Act, of the U.S. EPA. Service fittings and materials bid provided under these Items shall be certified as suitable for contact with drinking water by an accredited certification organization in accordance with ANSI/NSF Standard 61, Drinking Water Systems Components – Health Effects.

All brass fittings and valves shall have the manufacturers name or trademark integrally stamped or cast on it. Another marking identifying the "no lead " brass alloy, e.g., "EB2", NL or "FED" shall be cast or stamped on the fitting or valve.

If requested, an affidavit certifying compliance with these standards and specifications shall be signed and submitted by the manufacturing firm's Quality Assurance or Engineering Manager.

Corporations, Curb Stops And Saddles

A. Corporations for 1-inch installations shall be heavy pattern, easy turning and of a type equal to the Ford FB 1000-4 (no lead brass) series. The inlet shall be an AWWA (CC) thread. The outlet shall be for a compression joint Type-K copper. The 1-1/2 inch and 2-inch corporations shall be of a ball valve type which incorporates Teflon seats to assure self-centering of a Teflon coated bronze ball similar to a style typified by the Ford FAFB – 1000 (T-head) series or an approved equal by the CWD. The corporations shall be easy turning and non-binding. The inlet shall be an AWWA (CC) thread. The outlet shall be for a compression joint for Type-K copper. **ALL** corporations shall be subject to a sustained hydraulic pressure of 200 psi and tested in both the open and closed positions for leakage and ease of turning. All taps greater than 1 inch will require the use of a tapping saddle.

B. Curb stops for sizes 1-inch shall be a type equal to the Ford B44-444Q (no lead brass) series or approved equal. The curb stop shall have a quarter turn stop with check, solid tee head and no waste. No curb stops with plugged solid waste shall be accepted.

C. Service boxes shall be "Buffalo" style, American manufactured, of a telescopic type with a length from four (4) to five (5) feet. The cover shall be made of extra grade gray iron. The arch shall accommodate up to a 1-inch curb stop. The upper section shall be made of cast iron and be equal to a "Buffalo" style 94-E upper section. **Inside diameter to be a minimum of 2 1/4 -inches.**

D. Service saddles bodies shall be ductile iron, ASTM-A108 , with epoxy finish. Bales shall be carbon steel or stainless steel. Washers to be carbon steel, nuts to be semi finished galvanized hex steel. Gaskets to resist oil, acids, alkalies, and most (aliphatic) hydrocarbon fluids.

Fittings

A. Unless otherwise approved, only compression type fittings manufactured by Mueller Inc., or equal, shall be used.

B. Adapters required allowing connection to existing services shall be provided.

CONSTRUCTION METHODS

Services Being Replaced

A. After successful testing and chlorination, water services shall be installed as a "wet" tap as directed by the Engineer. Exact locations of services shall be located in the field by the Engineer. A service shall be provided to the property line of parcels of property along the water main route. All services shall be installed to a minimum depth of 4'-6" unless specifically shown or directed otherwise by the Engineer.

B. Connections to the existing services shall be thoroughly flushed prior to connecting. Contractor shall coordinate and assist Water Department personnel in removal of the household meter and filters and flushing the entire service line to prevent scale-debris from blocking fixtures and appliances.

C. The Contractor shall remove and legally of existing service pipe and fittings as part of the work of these items. Existing service pipe material may be lead, galvanized iron, cast or ductile iron, plastic, or copper.

Services Being Reconnected

A. All service lines fed from the water main being replaced shall be reconnected to the new water main unless otherwise directed by the Engineer. All services 2-inches and smaller shall be copper, and all services greater than 2-inches shall be ductile iron. **(See Ductile Iron pipe items for requirements for services over 2-inches).**

B. In locations where the existing service line is determined to be adequate by the Engineer, it shall be reconnected to the new water main using a new corporation stop. If copper pipe is found at the main, the Contractor may be required to excavate a test pit in the sidewalk area to determine if the service is copper throughout. If not, then the entire service shall be replaced (see above). All excavation to determine service pipe material shall be paid for under Item 141.11.

C. After successful testing and chlorination, water services shall be installed as a "wet" tap as directed by the Engineer. All service extensions shall be installed to a minimum depth of 4'-6" unless specifically shown or directed otherwise by the Engineer.

D. Connections to the existing services shall be thoroughly flushed prior to connecting. Contractor shall coordinate and assist Water Department personnel in flushing the entire service line to prevent scale-debris from blocking fixtures and appliances.

COMPENSATION

Method of Measurement:
The length of copper tubing to be paid for under these items shall be measured by the foot along the finished grade over the pipe from the corporation stop key to the point of interception of the existing service pipe. No deduction will be made for curb stops and couplings. Separate measurements will be made for each individual service.

The number of corporation stops to be paid for under these items shall be the actual number furnished and installed by the Contractor.

Basis of Payment:
Payment for copper tubing of various sizes will be based on the unit price bid for the appropriate item in the proposal. Under the per foot price for the each item, the Contractor shall furnish all labor, materials, tools, equipment, and incidentals required to complete the work, including excavation; backfill; furnish and install filter fabric as required; compaction; compaction testing; location of services; isolation of service line; coordination with the Cambridge Water Department and notification of affected customers; removal and disposal of existing water service pipe of any material; temporary excavation support furnished and installed complete, left in place, and cut off below grade; bedding; installation of new water service tubing; curb stops; adjustable curb boxes with covers; fittings; couplings; connections to the existing water service; disinfection; testing, flushing; and all incidental work required for the installation of copper service tubing not included for payment elsewhere.

Payment for corporation stops of various sizes will be based on the unit price bid for the appropriate item in the proposal. Under the per each price for the each item, the Contractor shall furnish all labor, materials, tools, equipment, and incidentals required to complete the work, including excavation; backfill; tapping the main and installing saddles; corporation stops; and whatever couplings may be required to connect the new corporation stop to the existing or new copper service.

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The Contractor is advised that brick and concrete pavements have been found to exist beneath the existing asphalt on Brookline Street. Test pit logs are included on the drawings. Excavation of existing hot mix asphalt, brick and concrete pavements as required for installation of water services is included under this item.

EXCLUSIONS:
The following are not included for payment herein but are included for payment elsewhere; saw cutting pavement; imported gravel sub-base; and restoration of pavement, curbing and sidewalks.

ITEM 303.06	**6-INCH DUCTILE IRON WATER PIPE (RES. JT)**	**FOOT**
ITEM 303.07	**4-INCH DUCTILE IRON WATER PIPE (RES. JT)**	**FOOT**
ITEM 303.08	**8-INCH DUCTILE IRON WATER PIPE (RES. JT)**	**FOOT**
ITEM 303.12	**12-INCH DUCTILE IRON WATER PIPE (RES. JT)**	**FOOT**
ITEM 309.00	**ADDITIONAL DUCTILE IRON FITTINGS**	**POUND**
ITEM 350.04	**4-INCH GATE AND GATE BOX**	**EACH**
ITEM 350.06	**6-INCH GATE AND GATE BOX**	**EACH**
ITEM 350.08	**8-INCH GATE AND GATE BOX**	**EACH**
ITEM 350.12	**12-INCH GATE AND GATE BOX**	**EACH**
ITEM 370.91	**16 X 12 INCH TAPPING SLEEVE, VALVE AND BOX**	**EACH**
ITEM 371.01	**12-INCH COUPLING**	**EACH**
ITEM 376.01	**REMOVE AND REPLACE HYDRANT**	**EACH**
ITEM 376.20	**REMOVE AND RESET HYDRANT**	**EACH**

GENERAL
Work to be done under these items shall consist of installing ductile iron water main, relocating hydrants and replacing existing non-standard hydrants with new hydrants as shown on the Drawings and as directed by the Engineer. All work under this Item shall conform to the applicable requirements of the Cambridge Water Department (CWD) portions of which are included herein. In addition, all relocations of hydrants must be approved by the Cambridge Fire Department prior any work on the relocation.

The Contractor shall not operate any hydrants, valves, curb stops, or corporations, nor shall they draw any water from the system, without specific approval of CWD. Only CWD personnel will operate hydrants, valves, corporations and curb stops unless otherwise directed by the CWD.

DESCRIPTION

The Contractor shall furnish all labor, materials, equipment and incidentals required to install new water main, move existing hydrants to new locations, and replace existing hydrants as shown on the Drawings and as directed by the Engineer.

The work associated with new main installation shall also include cutting and capping existing mains to be abandoned in place, as shown on the Drawings.

The work at relocated hydrants will include extending the existing lateral; or abandoning the existing hydrant lateral on the hydrant side of the existing gate valve, or on the sidewalk side of the new curbline, and providing a new lateral; and removing, and reconnecting the hydrant at the new location.

MATERIALS

Pipe: Pipe shall be Class 52 ductile iron cement lined and tar coated, lining shall be a minimum of one eighth (1/8") in thickness. All pipe shall be manufactured to meet AWWA standards. Push on pipe joints unless specified. Standard gaskets shall be supplied.
Approved manufactures are U.S pipe and Foundry Company, and Griffin Pipe Company. All others must be approved by CWD.

Pipe Joints: Pipe shall be restrained joint type for the entire length of the main or branch lateral. Method of restraint shall be either an interlocking type of mechanical joint type. Mechanical joint restraint shall be incorporated into the design of the follower gland. The restraining mechanism shall consist of individually actuated wedges that increase their resistance to pull-out as pressure of external forces increase. The device shall be capable of full mechanical joint deflection during assembly and the flexibility of the joint shall be maintained after burial. The joint restraint ring and its wedging components shall be made of grade 60A2-10 ductile iron conforming to ASTM A536-84. The wedges shall be ductile iron heat treated to a minimum hardness of 370 BHN. Dimensions of the gland shall be such that it can be used with the standardized mechanical joint bell conforming to ANSI/AWWA C111/A21.1 and ANSI/AWWA C153/A21.3 of the latest revision. Torque limiting twist off nuts shall be used to insure proper actuation of the restraining wedges. Joint shall have a rated work pressure of 350 psi. The joint restraint devices shall be listed by Underwriters Laboratories and be approved by Factory Mutual. The restraint shall be the Series 1100 MEGALUG restraint as produced by EBAA Iron, Inc., or approved equivalent product.

Pipe fittings: Shall be ductile iron, compact type for sizes 4"-12", cement lined, tar-coated, restrained mechanical joint, and rated for 350 psi working pressure. All nuts and bolts shall be of a type equal to ductile iron of KOR-10 steel T-bolts and nuts.

Couplings: Shall be Smith Blair, Style 441; Dresser, Style 153; Romac, Style 501; or approved equivalent product. Couplings shall be provided with plain, Grade 27, rubber gaskets and with black steel, track-head bolts and nuts.

Gate Valves: Shall be resilient seated and shall meet the requirements of AWWA C-509. Valves shall be rated for 200 psi minimum working pressure and shop tested at 300 psi. Valves shall be

iron body, bronze mounted, resilient seated, non-rising stem type fitted with "O"ring seals. The operating nut shall be 2-inches square. Bolts on the bonnet and stuffing box shall be stainless steel (A316). Valves shall have mechanical joint ends and shall be equal to ANSI/AWWA C11/A21.11. Valves shall open right (clockwise). Extensions shall be provided for all gate valves where depth exceeds 6 feet to the top of the operating nut.

Tapping Sleeves and Valves: Tapping sleeves shall be mechanical joint type and shall be Mueller H-615, American Darling 1004 or equal. Tapping valves shall meet the requirements of AWWA C500. The valves shall be flanged by mechanical joint outlets with non-rising stem and designed for vertical burial. Tapping valves shall be rated at 200 psi working pressure and shop tested at 300 psi. Bolts on bonnets and stuffing boxes shall be stainless steel (316 stainless steel), stuffing boxes shall be "O" ring type. The operating nut shall be 2-inches square. The valve shall be provided with oversized seat to permit use of full size cutters. Gaskets shall cover the entire flange surface. Valves shall be Mueller H-667 or equal. Valves shall open right. (clockwise). Multiple taps shall be three (3) feet from flange to flange. Pre-inspection is required for all taps.

Gate Boxes: See above under "Adjustment/Replacement of Gate Boxes".

Hydrants: Hydrants shall conform to the "Standard dry barrel hydrants" ANSI/AWWA C502-85. Hydrants shall be designed for 150 psi service and for installation in a 5 -ft. covered trench. They shall OPEN clockwise and must be marked with an arrow and the word OPEN to indicate the direction of turn of the stem to open the hydrant.

They shall have one steamer connection, 4- ½-inch and two 2-1/2 -inch hose nozzles all with National Standard threads (NST). Hydrant inlet opening on shoe shall have mechanical joints for accepting 6-inch ductile iron or cast iron pipe.

Hydrants shall have a compression type main valve, opening against and closing with water pressure. The main valve opening at the base of the hydrant shall have a minimum area of 39 square inches (5-inch minimum diameter circle).

Hydrants shall be capable of delivering a minimum of 600 GPM. with a maximum of Two (2) psi pressure drop through the hydrant with both 2-1/2 inch hose nozzles open.

Each hydrant shall have " traffic" type ground line construction (breakaway bolts not acceptable) and permit 360 degree movement of the upper barrel to allow for any alignment without shutting down service and/or removing flange bolts and nuts. Hydrant operating nut shall be 1-1/2 inch. Flat to point, pentagonal. Hydrants shall be hydrostatically tested as specified in AWWA C502.

The main valve assembly shall consist of a rubber composition valve with a bronze sub-seat and seat ring. The seal between the set ring and the seat shall consist of two (2) "o-rings" located in the machined groves above and below the drainage channel. There shall be at least two (2) exterior drain ports located one- hundred and eighty (180) degrees apart.

Hydrants shall be delivered without chains and be painted with two coats of weather resistant paint "silver "upper barrel". All iron work to be set below grade shall be painted with two coats of asphalt varnish specified in AWWA C502

Hydrant operating mechanism shall be housed in a compact seal plate assembly with an integral lubrication chamber. An "O-ring" seal shall be used on the hold down nut to prevent direct condensation or atmospheric contamination from entering the lubrication chamber. The hydrant operating mechanism shall be readily available for inspection without removing the seal plate from the barrel.

The design and construction of the hydrant operating mechanism located at the top of the hydrant shall be such that no pert of the operating threads will be in contact with the water in the standpipe when the hydrant is in service. "O-ring" seals shall be used to prevent water under pressure from entering the lubricating chamber

Hydrant steamer nozzle center line shall be a minimum of 16 inches from the bury line of the hydrant. The bottom of the operating nut shall be a minimum of 9 inches from the steamer nozzle center line. The overall height (bottom of the operating nut to the bury line) shall be a minimum of 29 inches.

Anchoring Tees: New hydrant tees, if required, shall be anchor type. The branch shall have a plain end with integral gland and rotating mechanical joint restraints (see above).

CONSTRUCTION METHODS

General Requirements

All construction shall conform to the relevant provisions of Section 300 of the Standard Specifications, the American Water Works Association standards, the detail drawings included in the Specifications, and the requirements of CWD.

See Items 120.10 and 142.00 for technical requirements related to excavation.

Minimum depth of bury shall be 5 feet for all water lines, unless approved by CWD.

Relocation of Hydrants / Removing and Replacing Hydrants

Work shall be closely coordinated with the Cambridge Water Department (CWD). The Cambridge Fire Department shall be notified prior to taking an existing hydrant out of service. CWD and Cambridge Fire Departments will have final approval of new hydrant locations.

Hydrants and new laterals shall have at least the same depth of cover as the existing lateral

(minimum 5 feet) and shall be bedded on a firm foundation. A drainage pipe 2-feet 6-inches in diameter shall be installed at the new hydrant location, filled with screened gravel and satisfactorily compacted. During backfilling, additional screened gravel shall be brought up around and 6-inches over the drain port prior to placement of backfill.

Each hydrant shall be set in true vertical alignment and shall be properly braced. The hydrant shall be tied to the pipe with suitable rods or clamps, galvanized, painted or otherwise rustproof treated. Concrete thrust blocks shall be placed between the back of the hydrant inlet and undisturbed soil at the end of the trench. Felt roofing paper shall be placed around the hydrant elbow before placing concrete. Care shall be taken to insure that concrete does not block the drain ports.

After installation of the hydrant, the Contractor shall backfill with gravel borrow up to an elevation equal to the subgrade of the proposed sidewalk or landscape area. Bituminous patching for temporary sidewalk, if required, shall be performed as specified under Item 460.50.

Where existing hydrant branch laterals are no longer to be used, the Engineer will direct the method of abandonment/removal. Abandonment/removal may include either of the following, depending on field conditions:

1) Gate valve shall be closed and box removed, and the branch shall be cut and plugged immediately adjacent to the hydrant side of the gate valve. Remaining lateral pipe on hydrant side of valve shall be completely removed and disposed of.

2) Gate and tee shall be cut and removed from water main, and replaced with spool piece. Remaining lateral pipe shall be completely removed and disposed of.

Pressure and Leakage Testing

Shall be performed on all new lines in accordance with AWWA C600 and CWD requirements. The pressure and leakage tests shall be as specified in ss 301.60.L of the Standard Specifications for Highways and Bridges, AWWA Standard C600-93, ss 4.11 and NFPA standard for underground sprinkler piping. In general, the water pipe shall be given a pressure and leakage test in sections of approved length. For these tests, the Contractor shall provide a method of determining the exact amount of water being pumped into the test section and a pressure gauge. The Contractor shall also furnish and install suitable temporary testing plugs or caps for the pipeline; all necessary pressure pumping, pipe connections and other similar equipment; and all labor required; all without additional compensation. Prices for the appropriate pipe items shall include compensation for testing. The test equipment 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 they shall be kept in use during all tests. The scheduling of pressure and leakage tests shall be approved by the CWD and shall be attended by a CWD representative. 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 the section fails to pass the pressure and leakage test, 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 his own expense.

A report containing calculations and documentation pertaining to the pressure and leakage testing shall be submitted to the CWD.

Disinfection and Flushing

Shall be performed by the Contractor on all new lines in accordance with AWWA C651 after pressure and leakage testing and necessary repairs are complete.

After a section of the main has been pressure tested and found acceptable, it shall be flushed thoroughly by the Contractor. Flushing the completed main is to be followed by sterilization in accordance with the AWWA Standards for Disinfecting Water Mains (ANSI/AWWA C651-92). Test results for chlorine residuals for times as specified in the method of disinfecting must be submitted to the CWD. If the initial treatment fails to produce the desired result, the chlorinating procedure must be repeated. Discharge of chlorinated water shall comply with all Federal, State and Local Standards. DPW must be contacted prior to flushing. De-chlorinating facilities shall be used as required.

COMPENSATION

General

Excavation and backfill to a depth up to 6-feet; pipe couplings, plugs; fittings specifically shown on the drawings, pressure and leakage testing, and disinfection will not be measured for payment, but shall be considered incidental to the appropriate pipe items.

The Contractor is advised that brick and concrete pavements have been found to exist beneath the existing asphalt on Brookline Street. Test pit logs are included on the drawings. Excavation of existing hot mix asphalt, brick and concrete pavements as required for the work of this section is included under these items.

Pavement or sidewalk restoration, if required, shall be as specified under Item 460.50 or the appropriate sidewalk item.

Trench excavation greater than a depth of 6 feet will be paid for under Item 142. Rock excavation will be paid for under Item 144. Bituminous pavement patching will be paid for under Item 460.50.

Payment for Items 303.06 and 303.12 will be at the contract unit price bid per foot and shall include full compensation for labor and materials to excavate to a maximum depth of 6 feet, install pipe as specified and indicated on the details, and backfill, and any other incidentals necessary for the satisfactory completion of the work as specified.

Payment for Items 350.06 and 350.12 will be at the contract unit price bid per each and shall include full compensation for labor and materials to excavate to a maximum depth of 6 feet, install gate and gate box, as specified and indicated on the details, and backfill, and any other incidentals necessary for the satisfactory completion of the work as specified.

Payment for Item 376.01 will be at the contract unit price bid per each and shall include full

compensation for labor and materials to excavate to a maximum depth of 6 feet, disconnect and properly dispose of the existing hydrant, furnish and install new hydrant, install screened gravel and concrete thrust blocks, and any other incidentals necessary for the satisfactory completion of the work as specified.

Payment for Item 376.20 will be at the contract unit price bid per each and shall include full compensation for labor and materials to excavate to a maximum depth of 6 feet, disconnect the hydrant from its existing location, reconnect the hydrant in its new location, install screened gravel and concrete thrust blocks, and any other incidentals necessary for the satisfactory completion of the work as specified. Abandonment/removal of existing branch laterals which are no longer required will be considered incidental to this item.

Additional Fittings

The quantity of additional fittings to be paid for shall be the number of pounds of standard fittings or compact fittings, including plugs, which are furnished and installed by order of the Engineer exclusive of those specifically shown on the Drawings or required to conform to the pipeline layout indicated on the drawings. The City will pay for the weights of the fittings minus accessories based upon the manufacturer certification, which is to be furnished by the Contractor.

The unit bid price for Item 309.00 shall include furnishing and installing by cutting of pipe if required, making and restraining joints and all incidental work thereto. Any fittings used for the Contractor's convenience shall be at his own expense. If a different fitting must be used in lieu of the fitting shown on the drawings, payment shall be made on the basis of the difference in weights.

SECTION 00900 – THECNICAL SPECIFICATIONS

The following Items are revised:

ITEM 706.7 BRICK PAVER – MODIFIED **LUM SUM**

The unit **"LUM SUM"** is replace by **SQUARE YARD**

SECTION 00900 – THECNICAL SPECIFICATIONS

The Following Items are added:

ITEM 856.12 PORTABLE CHANGEABLE MESSAGE SIGN EACH

GENERAL:

Work to be done under this item shall conform to the relevant provisions of Section 850 of Standard Specifications, in particular the Supplemental Specifications dated June 6, 2006, and the following:

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The work under this Item consists of furnishing, operating, relocating, and maintaining the Portable Changeable Message Sign (PCMS) during the life of this Contract, and subsequently furnishing the unit to the City in good working order.

MATERIALS:

The unit shall conform to the requirements of Subsection 850.54 of the Supplemental Specifications of June 2006, and the following:

The display shall be LED type only, with "ITE Amber" color.

The message board shall have a minimum height of 60 inches, and minimum width of 96 inches, and shall be visible from a minimum distance of 500 feet.

Power supply shall be battery with solar charging.

A radar detector and speed display is <u>not</u> required.

CONSTRUCTION METHODS:

At the completion of construction, the unit and trailer along with all original accessories; and operating, parts and maintenance manuals; shall be transported to the Cambridge Traffic Department. The unit shall be in good cosmetic and working order, and the Contractor shall warranty the unit for a period of one (1) year from the Contract close-out date. Final acceptance of this Item will not be made until after the City has completed it's own tests verifying the operating condition of the unit.

COMPENSATION:

Work under Item 856.12 will be measured as each. The price shall constitute full payment for furnishing, operating, and maintaining the unit during the Contract period. No additional payment will be made for repositioning the unit during the Contract period, regardless of number of movements required; nor for transporting the unit to the Cambridge Traffic Department storage facility following construction. The Lump Sum price shall also constitute full payment for labor, materials and incidentals necessary to ensure that the unit is in good cosmetic and working order at the time of delivery to the City; and to comply with warranty terms for one (1) year following turnover.

FORM FOR GENERAL BID

To the Awarding Authority:

A. The undersigned proposes to furnish all labor and materials required for

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CAMBRIDGE, MA

in accordance with the accompanying plans and specifications including all Labor and Materials, for the contract price specified below, subject to additions and deductions according to the terms of the specifications.

B. **BID SUBMISSION REQUIREMENTS**

Failure to submit documents requested may result in the determination that the bid is non-responsive unless the city deems such failure to be a minor informality.

THE BIDDER MUST PROVIDE REFERENCES INCLUDING TELEPHONE NUMBER AND CONTACT NAMES FROM AT LEAST THREE LOCATIONS WHERE THEY ARE CURRENTLY PROVIDING THE SAME SERVICES FOR A MUNICIPALITY OR OTHER GOVERNMENT ENTITY. REFERENCES WILL BE USED IN DETERMINING THE RESPONSIBILITY OF THE BIDDER. THE CITY RESERVES THE RIGHT TO USE ITSELF AS A REFERENCE

C. This bid includes addenda numbered _____

D. The proposed contract price for the BASE BID
is_____ DOLLARS
($_____)

E. The proposed contract price for ADD ALTERNATE #1 – Spring Street from First Street to Third Street
is_____ DOLLARS
($_____)

F. Basis of award will be on the prices bid for Base Bid or Base Bid plus Add Alternate #1 at the sole discretion of the City and as funds allow.

G. The subdivision of the proposed contract price is as follows: (All quantities are approximate)

Item 2 through 9 contain the minimum unit prices. The Contractor shall add to this value an adjustment to provide the final unit price bid for the respective item. The final unit price bid shall be the sum of the minimum unit price and the bidders inputted value. Insertion of 0 is allowable. In that case, the final unit cost will be the minimum unit cost.

H. The undersigned agrees if selected as General Contractor, within seven working days after presentation thereof by the City, the Contractor will:

1. execute a contract in accordance with the terms of this general bid;
2. furnish a performance bond and a labor and materials or payment bond;
   a. of a surety company qualified to do business under the laws of the Commonwealth and satisfactory to the City;
   b. in the sum of one hundred percent of the contract price;
   c. premiums for each are to be paid by the General Contractor.
3. provide an Insurance certificate specifying the City of Cambridge as **Additional Insured,** complying with the Insurance requirements set forth herein in the General Terms and Conditions of the contract, Article 8.

The City of Cambridge further requires that the General Contractor furnish the City with a copy of all insurance policies prior to or with the delivery of its signed Contract to the City.

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

J. Amounts are to be shown in both words and figures. In case of discrepancy, the amount shown in words will govern.

K. The bidder hereby certifies it shall comply with the minority workforce ratios and specific action contained in the Cambridge Employment Plan, the Supplemental Equal Employment Opportunity Program and the Americans with Disabilities Act. The contractor receiving the award of the contract shall be required to obtain from each of its subcontractors and submit to the contracting or administering agency prior to the performance of any work under said contract a certification by said subcontractor, regardless of tier, that it will comply with same.

L. The bidder agrees that this bid shall be good and may not be withdrawn for a period of 90 days after the scheduled closing time for receiving bids.

M. The bid security attached in the sum of _____ _____($_____) is to become the property of the Owner in the event the contract and bond are not executed within the time above set forth, as liquidated damages for the delay and additional expense to the Owner caused thereby.

N. The undersigned certifies that it possesses the skill, ability and integrity necessary for the faithful performance of the work; that he is able to furnish labor that can work in harmony with all other elements of labor employed or to be employed in the work; 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 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 certified payroll report for each employee; and who, where the provisions of section 8B of chapter 29 apply, shall have been determined to be qualified thereunder; and who obtains within 10 days of the notification of contract award the security by bond required under section 29 of chapter 149; provided that for the purposes of this section the term "security by bond" shall mean the bond of a surety company qualified to do business under the laws of the

commonwealth and satisfactory to the awarding authority.

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 "person" shall mean any natural person, joint venture, business, partnership, corporation, or other business or legal entity.

"I certify under the penalties of perjury that I have complied with all of the laws of the Commonwealth of Massachusetts relating to taxes, reporting of employees and contractors, and withholding and remitting child support".

The undersigned further certifies under penalty of perjury that the said undersigned is not presently debarred from doing public construction work in the Commonwealth under the provisions of section twenty-nine F of chapter twenty-nine, or any other applicable debarment provision of any other chapter of the General Laws or any rule or regulation promulgated thereunder.

Date_____

BY:_____
(Signature)

_____
(Name of General Bidder)

_____
(Title)

_____
(Business Address)

_____
(City and State)

CHAPTER 90 CONTRACT 14
BASE BID

ITEM NO.	APPROX. QUANTITY	ITEM WITH UNIT BID PRICE WRITTEN IN WORDS	UNIT PRICE		AMOUNT	
			Dollars	Cents	Dollars	Cents
102.50	89	Tree Protection and Maintenance, at _____ _____ Per Each				
102.51	89	Tree Trimming _____ _____ Per Each				
103.00	3	Tree Removed (Diameter Under 2 ft.), at _____ _____ Per Each				
104.00	3	Tree Removed (Diameter 2 ft. and Over), at _____ _____ Per Each				
105.00	3	Stump Removed _____ _____ Per Each				
120.10	3,233	Unclassified Excavation, at _____ _____ Per Cubic Yard				

Bidder's Name_____

CHAPTER 90 CONTRACT 14
BASE BID

ITEM NO.	APPROX. QUANTITY	ITEM WITH UNIT BID PRICE WRITTEN IN WORDS	UNIT PRICE		AMOUNT	
			Dollars	Cents	Dollars	Cents
125.10	1	Soil and Waste Management, at One Thousand and 00/100+ = Dollars ($1,000+) = $. Per Lump Sum				
125.20	158	Handling Asbestos Contaminated Soil / Fill, at Fifty and 00/100+ = Dollars ($50+) = $. Per Cubic Yard				
125.40	776	Reuse Excavated Material On-site as Backfill, at Five and 00/100+ = Dollars ($5+) = $. Per Cubic Yard				
126.10	153	Disposal of Soil - Background Soils (Class A-1), at Five and 00/100+ = Dollars ($5+) = $. Per Ton				
126.20	757	Disposal of Soil - Impacted <RCS-1 (Class A-2), at Ten and 00/100+ = Dollars ($10+) = $. Per Ton				

Bidder's Name_____

CHAPTER 90 CONTRACT 14
BASE BID

ITEM NO.	APPROX. QUANTITY	ITEM WITH UNIT BID PRICE WRITTEN IN WORDS	UNIT PRICE		AMOUNT	
			Dollars	Cents	Dollars	Cents
126.30	152	Disposal of Soil - Daily Cover Unlined Landfill (Class B-1), at Ten and 00/100+ = Dollars ($10+) = $. Per Ton				
126.40	152	Disposal of Soil - Daily Cover Lined Landfill (Class B-2), at Twenty and 00/100+ = Dollars ($20+) = $. Per Ton				
126.50	502	Disposal of Soil - Non-Hazardous Solid Waste (Class B-3, B-4, B-5 and B-6), at Twenty and 00/100+ = Dollars ($20+) = $. Per Ton				
126.90	152	Disposal RCRA Hazardous Waste (Class C-1 and C-2), at Eighty and 00/100+ = Dollars ($80+) = $. Per Ton				
126.99	152	Disposal of Asbestos Waste, at Thirty and 00/100+ = Dollars ($30+) = $. Per Ton				

Bidder's Name_____

CHAPTER 90 CONTRACT 14
BASE BID

ITEM NO.	APPROX. QUANTITY	ITEM WITH UNIT BID PRICE WRITTEN IN WORDS	UNIT PRICE		AMOUNT	
			Dollars	Cents	Dollars	Cents
129.02	15,907	Asphalt Pavement Excavation by Cold-Planer (0-3" Depth), at _____ _____ Per Square Yard				
129.04	750	Asphalt Pavement Excavation by Cold-Planer (3"-4" Depth), at _____ _____ Per Square Yard				
141.11	110	Test Pits, at _____ _____ Per Cubic Yard				
142.00	35	Class B Trench Excavation, at _____ _____ Per Cubic Yard				
144.00	35	Class B Rock Excavation, at _____ _____ Per Cubic Yard				
145.00	5	Drainage Structure Abandoned, at _____ _____ Each				

Bidder's Name_____

CHAPTER 90 CONTRACT 14
BASE BID

ITEM NO.	APPROX. QUANTITY	ITEM WITH UNIT BID PRICE WRITTEN IN WORDS	UNIT PRICE		AMOUNT	
			Dollars	Cents	Dollars	Cents
146.00	9	Drainage Structure Removed, at _____ _____ Each				
150.	110	Ordinary Borrow, at _____ _____ Per Cubic Yard				
150.1	30	Special Borrow, at _____ _____ Per Cubic Yard				
151.00	2,073	Gravel Borrow, at _____ _____ Per Cubic Yard				
153.00	35	Controlled Density Fill - Excavatable, at _____ _____ Per Cubic Yard				
156.20	100	Crushed Stone, at _____ _____ Per Cubic Yard				

Bidder's Name_____

CHAPTER 90 CONTRACT 14
BASE BID

ITEM NO.	APPROX. QUANTITY	ITEM WITH UNIT BID PRICE WRITTEN IN WORDS	UNIT PRICE		AMOUNT	
			Dollars	Cents	Dollars	Cents
170.00	2,100	Fine Grading and Compacting (Subgrade Areas), at _____ _____ Per Square Yard				
187.3	22	Removal and Disposal of Drainage Structure Sediments, at _____ _____ Per Cubic Yard				
187.31	40	Removal and Disposal of Drainage Pipe Sediments, at _____ _____ Per Foot				
201.00	2	Catch Basin Type 1 - 4 Foot Sump, at _____ _____ Per Each				
201.03	2	Catch Basin Type 5 - Direct Inlet, at _____ _____ Per Each				
201.05	26	Catch Basin Type 1 - 6 Foot Sump, at _____ _____ Per Each				

Bidder's Name_____

CHAPTER 90 CONTRACT 14
BASE BID

ITEM NO.	APPROX. QUANTITY	ITEM WITH UNIT BID PRICE WRITTEN IN WORDS	UNIT PRICE		AMOUNT	
			Dollars	Cents	Dollars	Cents
202.20	7	Drain Manhole - Type 1, at _____ _____ Per Each				
202.24	1	Drain Manhole Type 2 - 4-Foot Sump, at _____ _____ Per Each				
220.00	284	Sewer or Drainage Structure Adjusted at, _____ _____ Per Each				
220.20	1	Sewer or Drainage Structure Remodeled at, _____ _____ Per Each				
220.30	14	Drainage Structure Rebuilt at, _____ _____ Per Vertical Foot				
220.50	5	Drainage Structure Change in Type at, _____ _____ Per Each				

Bidder's Name_____

CHAPTER 90 CONTRACT 14
BASE BID

ITEM NO.	APPROX. QUANTITY	ITEM WITH UNIT BID PRICE WRITTEN IN WORDS	UNIT PRICE		AMOUNT	
			Dollars	Cents	Dollars	Cents
221.00	6	Frame and Cover, at _____ _____ Per Each				
222.00	22	Frame and Grate, at _____ _____ Per Each				
225.52	22	Catch Basin Trap, at _____ _____ Per Each				
234.12	685	12" PVC Drain Pipe, at _____ _____ Per Foot				
238.10	80	10 Inch Ductile Iron Pipe, at _____ _____ Per Foot				
241.12	60	12 Inch Reinforced Concrete Pipe, at _____ _____ Per Foot				
303.06	30	6-Inch Ductile Iron Water Pipe (Res. Jt.), at _____ _____ Per Foot				

Bidder's Name_____

CHAPTER 90 CONTRACT 14
BASE BID

ITEM NO.	APPROX. QUANTITY	ITEM WITH UNIT BID PRICE WRITTEN IN WORDS	UNIT PRICE		AMOUNT	
			Dollars	Cents	Dollars	Cents
303.07	225	4-Inch Ductile Iron Water Pipe (Res. Jt.), at _____ _____ Per Foot				
303.08	1790	8-Inch Ductile Iron Water Pipe (Res. Jt.), at _____ _____ Per Foot				
303.12	560	12-Inch Ductile Iron Water Pipe (Res. Jt.), at _____ _____ Per Foot				
346.10	2,100	1" Copper Tubing Type K, at _____ _____ Per Foot				
346.15	410	1-1/2" Copper Tubing Type K, at _____ _____ Per Foot				
347.10	500	Water Service Replaced (1"), at _____ _____ Per Foot				

Bidder's Name_____

CHAPTER 90 CONTRACT 14
BASE BID

ITEM NO.	APPROX. QUANTITY	ITEM WITH UNIT BID PRICE WRITTEN IN WORDS	UNIT PRICE		AMOUNT	
			Dollars	Cents	Dollars	Cents
347.15	50	Water Service Replaced (1 ½"), at _____ _____ Per Foot				
347.20	50	Water Service Replaced (2"), at _____ _____ Per Foot				
350.04	3	4-Inch Gate and Gate Box, at _____ _____ Per Each				
350.06	3	6-Inch Gate and Gate Box, at _____ _____ Per Each				
350.08	10	8-Inch Gate and Gate Box, at _____ _____ Per Each				
350.12	6	12-Inch Gate and Gate Box, at _____ _____ Per Each				

Bidder's Name_____

CHAPTER 90 CONTRACT 14
BASE BID

ITEM NO.	APPROX. QUANTITY	ITEM WITH UNIT BID PRICE WRITTEN IN WORDS	UNIT PRICE		AMOUNT	
			Dollars	Cents	Dollars	Cents
357.00	9	Water Gate Box Replaced in Roadway, at _____ _____ Per Each				
358.00	25	Water Gate Box Replaced in Sidewalk, at _____ _____ Per Each				
358.1	1	Gate Box Removed and Stacked, at _____ _____ Per Each				
358.15	5	Water Gate Box Adjusted with Adapter, at _____ _____ Per Each				
358.20	66	Water Gate Box Adjusted, at _____ _____ Per Each				
363.10	80	1 Inch Corporation Stop, at _____ _____ Per Each				

Bidder's Name_____

CHAPTER 90 CONTRACT 14
BASE BID

ITEM NO.	APPROX. QUANTITY	ITEM WITH UNIT BID PRICE WRITTEN IN WORDS	UNIT PRICE		AMOUNT	
			Dollars	Cents	Dollars	Cents
363.15	75	1 ½ Inch Corporation Stop, at _____ _____ Per Each				
363.20	2	2 Inch Corporation Stop, at _____ _____ Per Each				
371.01	6	12 Inch Coupling, at _____ _____ Per Each				
376.01	2	Remove and Replace Hydrant, at _____ _____ Per Each				
376.20	3	Remove and Reset Hydrant, at _____ _____ Per Each				
376.5	6	Hydrant - Adjusted, at _____ _____ Per Each				
381.3	51	Service Box Adjusted, at _____ _____ Per Each				

Bidder's Name_____

CHAPTER 90 CONTRACT 14
BASE BID

ITEM NO.	APPROX. QUANTITY	ITEM WITH UNIT BID PRICE WRITTEN IN WORDS	UNIT PRICE		AMOUNT	
			Dollars	Cents	Dollars	Cents
402.	180	Dense Graded Crushed Stone for Sub-Base, at _____ _____ Per Cubic Yard				
420.00	310	Hot Mix Asphalt Base Course, at _____ _____ Per Ton				
440.00	2,100	Calcium Chloride for Roadway Dust Control, at _____ _____ Per Pound				
443.00	7	Water for Roadway Dust Control, at _____ _____ Per Million Gallons				
460.00	1,635	Hot Mix Asphalt, at _____ _____ Per Ton				
460.10	50	Hot Mix Asphalt Dense Binder, at _____ _____ Per Ton				

Bidder's Name_____

CHAPTER 90 CONTRACT 14
BASE BID

ITEM NO.	APPROX. QUANTITY	ITEM WITH UNIT BID PRICE WRITTEN IN WORDS	UNIT PRICE		AMOUNT	
			Dollars	Cents	Dollars	Cents
460.30	70	Hot Mix Asphalt - Leveling Course, at _____ _____ Per Ton				
463.	15	Bitumen for Prime Coat, at _____ _____ Per Gallon				
464.00	1,297	Bitumen for Tack Coat, at _____ _____ Per Gallon				
464.60	5,670	Hot Applied Asphalt Crack Filler _____ _____ Per Foot				
472.00	76	Hot Mix Asphalt for Miscellaneous Work, at _____ _____ Per Ton				
472.5	40	Hot Mix Asphalt for Patching, at _____ _____ Per Ton				
482.30	2,670	Sawing Asphalt Pavement, at _____ _____ Per Foot				

Bidder's Name_____

CHAPTER 90 CONTRACT 14
BASE BID

ITEM NO.	APPROX. QUANTITY	ITEM WITH UNIT BID PRICE WRITTEN IN WORDS	UNIT PRICE		AMOUNT	
			Dollars	Cents	Dollars	Cents
504.00	3,750	Granite Curb Type VA4 - Straight, at _____ _____ Per Foot				
504.04	102	Granite Curb Type VA4 - Straight 4-Inches, at _____ _____ Per Foot				
504.10	765	Granite Curb Type VA4 - Curved, at _____ _____ Per Foot				
509.00	1,155	Granite Transition Curb for Wheelchair Ramps - Straight, at _____ _____ Per Foot				
509.10	625	Granite Transition Curb for Wheelchair Ramps - Curved, at _____ _____ Per Foot				
516.00	6	Granite Curb Corner - Type A, at _____ _____ Per Each				

Bidder's Name_____

CHAPTER 90 CONTRACT 14
BASE BID

ITEM NO.	APPROX. QUANTITY	ITEM WITH UNIT BID PRICE WRITTEN IN WORDS	UNIT PRICE		AMOUNT	
			Dollars	Cents	Dollars	Cents
580.00	1,720	Curb Removed and Reset, at _____ _____ Per Foot				
582.	2	Curb Corner Removed and Reset, at _____ _____ Per Each				
594.00	5,510	Curb Removed and Discarded, at _____ _____ Per Foot				
595.	14	Curb Inlet Removed and Discarded, at _____ _____ Per Each				
596.	13	Curb Corner Removed and Discarded, at _____ _____ Per Each				
655.00	50	Fence Removed and Reset, at _____ _____ Per Foot				
655.50	50	Wood Fence, at _____ _____ Per Foot				

Bidder's Name_____

CHAPTER 90 CONTRACT 14
BASE BID

ITEM NO.	APPROX. QUANTITY	ITEM WITH UNIT BID PRICE WRITTEN IN WORDS	UNIT PRICE		AMOUNT	
			Dollars	Cents	Dollars	Cents
655.60	50	Chain Link Fence, at _____ _____ Per Foot				
701.00	4,591	4" Cement Concrete Sidewalks, at _____ _____ Per Square Yard				
701.10	890	6" Cement Concrete Sidewalks (Driveways and Intersections), at _____ _____ Per Square Yard				
701.20	1,095	6" Cement Concrete Pedestrian Ramps, at _____ _____ Per Square Yard				
701.29	80	Cast-in-Place Detectable Tile, at _____ _____ Per Square Yard				
702.	160	Hot Mix Asphalt Walk Surface, at _____ _____ Per Ton				

Bidder's Name_____

CHAPTER 90 CONTRACT 14
BASE BID

ITEM NO.	APPROX. QUANTITY	ITEM WITH UNIT BID PRICE WRITTEN IN WORDS	UNIT PRICE		AMOUNT	
			Dollars	Cents	Dollars	Cents
705.20	38	Flagstone Walk Removed and Reset, at _____ _____ Per Square Yard				
705.30	20	Flagstone Walk, at _____ _____ Per Square Yard				
706.10	90	Cobblestone Walk Removed and Relaid on New Foundation, at _____ _____ Per Square Yard				
706.11	20	Brick Walk Removed and Relaid on New Foundation, at _____ _____ Per Square Yard				
706.14	710	Brick Walk on 4" Concrete base, at _____ _____ Per Square Yard				
706.16	90	Brick Walk on 6" HMA Base, at _____ _____ Per Square Yard				

Bidder's Name_____

CHAPTER 90 CONTRACT 14
BASE BID

ITEM NO.	APPROX. QUANTITY	ITEM WITH UNIT BID PRICE WRITTEN IN WORDS	UNIT PRICE		AMOUNT	
			Dollars	Cents	Dollars	Cents
706.60	80	Concrete Pavers on Hot-Mix Asphalt Surface, at _____ _____ Per Square Yard				
706.7	25	Brick Paver - Modified, at _____ _____ Per Square Yard				
707.91	2	Bicycle Post Removed and Reset, at _____ _____ Per Each				
707.93	11	Bicycle Rack - In Concrete Surface, at _____ _____ Per Each				
707.94	11	Bicycle Rack - In Brick Surface, at _____ _____ Per Each				
710.4	2	Bound - Plain Granite, at _____ _____ Per Each				

Bidder's Name_____

CHAPTER 90 CONTRACT 14
BASE BID

ITEM NO.	APPROX. QUANTITY	ITEM WITH UNIT BID PRICE WRITTEN IN WORDS	UNIT PRICE		AMOUNT	
			Dollars	Cents	Dollars	Cents
715.1	2	Mail Box Removed and Reset, at _____ _____ Per Each				
748.00	1	Mobilization, at _____ _____ Per Lump Sum				
751.00	160	Loam Borrow, at _____ _____ Per Cubic Yard				
765.00	400	Seeding, at _____ _____ Per Square Yard				
767.6	10	Aged Pine Bark Mulch, at _____ _____ Per Cubic Yard				
775.00	30	Tree Planting _____ _____ Per Each				
832.10	60	Warning-Regulatory and Route Marker - Alum. Panel (Type A), at _____ _____ Per Square Foot				

Bidder's Name_____

CHAPTER 90 CONTRACT 14
BASE BID

ITEM NO.	APPROX. QUANTITY	ITEM WITH UNIT BID PRICE WRITTEN IN WORDS	UNIT PRICE		AMOUNT	
			Dollars	Cents	Dollars	Cents
854.2	190	Pavement Marking Removal - Thermoplastic, at _____ _____ Per Square Foot				
856.12	4	Portable Changeable Message Sign, at _____ _____ Per Each				
864.01	210	Pavement Arrows and Legends - Reflective White Tape, at _____ _____ Per Square Foot				
866.02	100	Raised Pavement Marker One Way - Yellow, at _____ _____ Per Foot				
866.04	500	4" Reflectorized White Line - Thermo., at _____ _____ Per Foot				
866.06	600	6" Reflectorized White Line - Thermo., at _____ _____ Per Foot				

Bidder's Name_____

CHAPTER 90 CONTRACT 14
BASE BID

ITEM NO.	APPROX. QUANTITY	ITEM WITH UNIT BID PRICE WRITTEN IN WORDS	UNIT PRICE		AMOUNT	
			Dollars	Cents	Dollars	Cents
866.12	5,020	12" Reflectorized White Line - Thermo., at _____ _____ Per Foot				
866.24	1,100	24" Reflectorized White Line - Thermo., at _____ _____ Per Foot				
867.04	2,840	4" Reflectorized Yellow Line - Thermo., at _____ _____ Per Foot				
867.06	100	6" Reflectorized Yellow Line - Thermo., at _____ _____ Per Foot				
874.00	6	Street Name Sign, at _____ _____ Per Each				
874.1	46	Street Sign Removed and Reset, at _____ _____ Per Each				

Bidder's Name_____

CHAPTER 90 CONTRACT 14
BASE BID

ITEM NO.	APPROX. QUANTITY	ITEM WITH UNIT BID PRICE WRITTEN IN WORDS	UNIT PRICE		AMOUNT	
			Dollars	Cents	Dollars	Cents
874.2	85	Traffic Sign Removed and Reset, at _____ _____ Per Each				
874.3	2	Traffic Sign Removed and Stacked, at _____ _____ Per Each				
875.1	4	Parking Meter Removed and Reset, at _____ _____ Per Each				
874.99	3	Memorial Sign Removed and Reset, at _____ _____ Per Each				
877.00	170	Traffic Sign Post, at _____ _____ Per Each				
900.01	2	Bronze Valve Plate stored and reset ($7,500 if damaged) _____ _____ Per Each				

Bidder's Name_____

CHAPTER 90 CONTRACT 14
BASE BID

ITEM NO.	APPROX. QUANTITY	ITEM WITH UNIT BID PRICE WRITTEN IN WORDS	UNIT PRICE		AMOUNT	
			Dollars	Cents	Dollars	Cents
901.	10	4000 PSI, 1.5 IN., 565 Cement Concrete, at _____ _____ Per Cubic Yard				
903.	3	3000 PSI, 1.5 IN., 470 Cement Concrete, at _____ _____ Per Cubic Yard				
996.00	1	Tree Grate Removal _____ _____ Lump Sum				
997.00	1	Light Pole and Luminaire Removed and Reset _____ _____				
998.00	5	Erosion and Sediment Control Five thousand and 00/100+ = _____ Dollars (5,000+)= $ _____ Per Each Street				
999.00	1	Construction Staking, at _____ _____ Per Lump Sum				

Bidder's Name_____

CHAPTER 90 CONTRACT 14
BASE BID

Grand Total Amount of Base Bid:

_____ $_____
(Amount In Words) (Amount In Figures)

Bidder's Name_____

CHAPTER 90 CONTRACT 14
BID ALTERNATE – SPRING STREET (Third St. to First St.)

ITEM NO.	APPROX. QUANTITY	ITEM WITH UNIT BID PRICE WRITTEN IN WORDS	UNIT PRICE		AMOUNT	
			Dollars	Cents	Dollars	Cents
102.50	16	Tree Protection and Maintenance, at _____ _____ Per Each				
102.51	16	Tree Trimming _____ _____ Per Each				
120.10	560	Unclassified Excavation, at _____ _____ Per Cubic Yard				
129.02	3,260	Asphalt Pavement Excavation by Cold-Planer (0-3" Depth), at _____ _____ Per Square Yard				
141.11	20	Test Pits, at _____ _____ Per Cubic Yard				
142.00	5	Class B Trench Excavation, at _____ _____ Per Cubic Yard				

Bidder's Name_____

CHAPTER 90 CONTRACT 14
BID ALTERNATE – SPRING STREET (Third St. to First St.)

ITEM NO.	APPROX. QUANTITY	ITEM WITH UNIT BID PRICE WRITTEN IN WORDS	UNIT PRICE		AMOUNT	
			Dollars	Cents	Dollars	Cents
144.00	5	Class B Rock Excavation, at _____ _____ Per Cubic Yard				
150.	50	Ordinary Borrow, at _____ _____ Per Cubic Yard				
150.1	10	Special Borrow, at _____ _____ Per Cubic Yard				
151.00	400	Gravel Borrow, at _____ _____ Per Cubic Yard				
156.20	10	Crushed Stone, at _____ _____ Per Cubic Yard				
170.00	20	Fine Grading and Compacting (Subgrade Areas), at _____ _____ Per Square Yard				

Bidder's Name_____

CHAPTER 90 CONTRACT 14
BID ALTERNATE – SPRING STREET (Third St. to First St.)

ITEM NO.	APPROX. QUANTITY	ITEM WITH UNIT BID PRICE WRITTEN IN WORDS	UNIT PRICE		AMOUNT	
			Dollars	Cents	Dollars	Cents
187.3	4	Removal and Disposal of Drainage Structure Sediments, at _____ _____ Per Cubic Yard				
220.00	20	Sewer or Drainage Structure Adjusted at, _____ _____ Per Each				
238.10	10	10 Inch Ductile Iron Pipe, at _____ _____ Per Foot				
358.10	1	Gate Box Removed and Stacked, at _____ _____ Per Each				
358.20	1	8" Water Gate Box Adjusted, at _____ _____ Per Each				
460.00	370	Hot Mix Asphalt, at _____ _____ Per Ton				

Bidder's Name_____

CHAPTER 90 CONTRACT 14
BID ALTERNATE – SPRING STREET (Third St. to First St.)

ITEM NO.	APPROX. QUANTITY	ITEM WITH UNIT BID PRICE WRITTEN IN WORDS	UNIT PRICE		AMOUNT	
			Dollars	Cents	Dollars	Cents
464.00	230	Bitumen for Tack Coat, at _____ _____ Per Gallon				
464.60	1,000	Hot Applied Asphalt Crack Filler _____ _____ Per Foot				
472.00	10	Hot Mix Asphalt for Miscellaneous Work, at _____ _____ Per Ton				
472.5	10	Hot Mix Asphalt for Patching, at _____ _____ Per Ton				
482.30	350	Sawing Asphalt Pavement, at _____ _____ Per Foot				
504.00	300	Granite Curb Type VA4 - Straight, at _____ _____ Per Foot				
504.10	50	Granite Curb Type VA4 - Curved, at _____ _____ Per Foot				

Bidder's Name_____

CHAPTER 90 CONTRACT 14
BID ALTERNATE – SPRING STREET (Third St. to First St.)

ITEM NO.	APPROX. QUANTITY	ITEM WITH UNIT BID PRICE WRITTEN IN WORDS	UNIT PRICE		AMOUNT	
			Dollars	Cents	Dollars	Cents
509.00	160	Granite Transition Curb for Wheelchair Ramps - Straight, at _____ _____ Per Foot				
509.10	45	Granite Transition Curb for Wheelchair Ramps - Curved, at _____ _____ Per Foot				
580.00	140	Curb Removed and Reset, at _____ _____ Per Foot				
582.	2	Curb Corner Removed and Reset, at _____ _____ Per Each				
594.00	1,230	Curb Removed and Discarded, at _____ _____ Per Foot				
595.	1	Curb Inlet Removed and Discarded, at _____ _____ Per Each				

Bidder's Name_____

CHAPTER 90 CONTRACT 14
BID ALTERNATE – SPRING STREET (Third St. to First St.)

ITEM NO.	APPROX. QUANTITY	ITEM WITH UNIT BID PRICE WRITTEN IN WORDS	UNIT PRICE		AMOUNT	
			Dollars	Cents	Dollars	Cents
701.00	1,090	4" Cement Concrete Sidewalks, at _____ _____ Per Square Yard				
701.10	240	6" Cement Concrete Sidewalks (Driveways and Intersections), at _____ _____ Per Square Yard				
701.20	100	6" Cement Concrete Pedestrian Ramps, at _____ _____ Per Square Yard				
748.00	1	Mobilization, at _____ _____ Per Lump Sum				
775.00	10	Tree Planting _____ _____ Per Each				
832.10	20	Warning-Regulatory and Route Marker - Alum. Panel (Type A), at _____ _____ Per Square Foot				

Bidder's Name_____

CHAPTER 90 CONTRACT 14
BID ALTERNATE – SPRING STREET (Third St. to First St.)

ITEM NO.	APPROX. QUANTITY	ITEM WITH UNIT BID PRICE WRITTEN IN WORDS	UNIT PRICE		AMOUNT	
			Dollars	Cents	Dollars	Cents
847.1	29	Sign Sup (N/Guide) + Rte Mkr W/1 Brkway Post Assembly - Steel, at _____ _____ Per Each				
854.2	40	Pavement Marking Removal - Thermoplastic, at _____ _____ Per Square Foot				
856.12	2	Portable Changeable Message Sign, at _____ _____ Per Each				
866.12	750	12" Reflectorized White Line - Thermo., at _____ _____ Per Foot				
874.2	25	Traffic Sign Removed and Reset, at _____ _____ Per Each				
874.3	1	Traffic Sign Removed and Stacked, at _____ _____ Per Each				

Bidder's Name_____

CHAPTER 90 CONTRACT 14
BID ALTERNATE – SPRING STREET (Third St. to First St.)

ITEM NO.	APPROX. QUANTITY	ITEM WITH UNIT BID PRICE WRITTEN IN WORDS	UNIT PRICE		AMOUNT	
			Dollars	Cents	Dollars	Cents
875.1	4	Parking Meter Removed and Reset, at _____ _____ Per Each				
877	20	Traffic Sign Post, at _____ _____ Per Each				
998.00	1	Erosion and Sediment Control Five thousand and 00/100+ = _____ Dollars (5,000+)= $ _____ Per Each Street				
999.00	1	Construction Staking, at _____ _____ Per Lump Sum				

Grand Total Amount of Bid Alternate:

_____ $_____

(Amount In Words) (Amount In Figures)

Bidder's Name_____

CITY OF CAMBRIDGE, MASSACHUSETTS

BID BOND

We, the undersigned _____as Principal, and , as Surety, are hereby held and firmly bound unto the CITY OF CAMBRIDGE, a municipality in the County of Middlesex and 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.

The condition of the above obligation is such that the Principal has submitted to the City of Cambridge, Massachusetts, a certain Bid attached hereto and hereby made a part hereof for the Project describe as **CONTRACT 90 CHAPTER 14.**

If the Principal fails to perform his/her/its agreement to execute a contract and furnish a performance bond and a labor and materials or payment bond as stated in his/her/its bid in accordance with the applicable state statute or fails in all other respects to perform the agreement created by the acceptance of said bid, his/her/its bid deposit shall become and be the property of the City of Cambridge as liquidated damages.

If said Bid shall be rejected because of death, disability, bona fide clerical or mechanical error of a substantial nature, or other similar unforeseen circumstances affecting the Principal, his/her/its bid bond shall be returned to him/her/it.

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

IN WITNESS WHEREOF, the Principal and the Surety have set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereto affixed and have caused this bond to be signed by their proper officers on this _____ day of _____ 20___.

_____

SEAL PRINCIPAL

_____

SEAL SURETY

STATEMENT OF BIDDER'S QUALIFICATIONS

AND

QUALITY REQUIREMENTS

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.

THE BIDDER MAY UTILIZE SUBCONTRACTOR'S QUALIFICATIONS FOR RESPONDING TO QUALITY REQUIREMENTS. PLEASE RESPOND 'YES' IF SUING SUBCONTRACT TO MEET THE QAULITY REQUIREMENTS. HOWEVER, THE BIDDER IS SPECIFICALLY ADVISED THAT ANY PERSON, FIRM OR OTHER PARTY TO WHOM IT PROPOSES TO AWARD A SUBCONTRACT UNDER THE TERMS OF THIS CONTRACT MUST BE ACCEPTABLE TO THE OWNER AND TO THE COMMONWEALTH OF MASSACHUSETTS.

THE CITY OF CAMBRIDGE WILL REJECT ANY BID THAT DOES NOT MEET THE QUALITY REQUIREMENTS. A "NO" RESPONSE OR A FAILURE TO RESPOND TO ANY OF THE FOLLOWING QUALITY REQUIREMENTS WILL RESULT IN A REJECTION OF YOUR BID.

1. Bidder has worked under contract with the Commonwealth of Massachusetts or City of Cambridge within the past five (5) years to perform bituminous concrete excavation by cold-planing, full depth excavation and placement of roadway pavement meeting the 1988 MHD Standard Specifications.	YES	NO
2. Bidder has paving equipment with a spreader which is a minimum of ten (10) feet wide, two (2) mechanical and rubber tire rollers weighing a minimum of ten (10) tons each and back up equipment in the event of breakdown.	YES	NO
3. Bidder has an emulsion truck equipped with a tachometer pressure gauge, volume measuring devices and a thermometer for reading the temperature of tank contents.	YES	NO
4. Bidder has appropriate equipment and tools and competent personnel to perform the work of this contract and will submit employee qualifications if requested by the Office of the City Engineer.	YES	NO
5. Bidder has a minimum of three (3) years of Municipal experience in thermoplastic pavement markings work.	YES	NO
6. Bidder has performed sidewalk reconstruction and pedestrian ramps in conformance with the ADA Act.	YES	NO
7. Bidder has a minimum of five (5) years experience constructing municipal water main	YES	NO
8. Bidder can provide, upon request, proof of financial solvency.	YES	NO

Bidder's Name _____

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. The names, titles, residences of all persons and parties 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 are listed below.

Name Title Home Address

_____

_____

_____

_____

_____

_____

2. When organized.

_____

3. If a corporation, where incorporated.

_____

4. How many years have you been engaged in the **Reconstruction Streets and sidewalks and minor drainage work** business under your present firm or trade name?

_____

_____

5. What projects similar to this one is your organization currently performing? 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

Bidder's Name _____

6. What is the general nature of work normally performed by your company?

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

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

9. What project has your present organization completed of character similar to that proposed? 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

10. 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

(b) Rented

11. Background and experience of the principal member of your organization, including the officers.

12. Who will be the contractor's on site project manager ? State such person's qualifications. Also list names of employees who will be participating in this contract and their qualifications (years of experience, etc.).

13. Give below the name and address of one or more banks which have information that would enable them to advise regarding the financial ability of your company.

Name of Bank Address

_____

14. Indicate Name of all Subcontractors that will be working on this project.

_____

_____

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

_____

16. Name, Signature, and Title of officer preparing this proposal.

Name_____

Signature_____

Title_____

18. The undersigned hereby authorizes and requests any person, firm or corporation to furnish any information requested by the Cambridge Department of Public Works in verification of the recitals comprising this Statement of Bidder's Qualifications.

Dated at _____ this _____day of _____, 19____

_____

(Signature)

Tel. No._____

BY_____

Title_____

State of _____)

as:

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____

THIS FORM MUST BE SUBMITTED WITH YOUR BID

PROJECTED WORKFORCE CERTIFICATION

I,_____,
(General Contractor)
certify that the following is my projected workforce for this contract:

CHAPTER 90 CONTRACT 14

GENERAL CONTRACTOR	ESTIMATED # OF NEW HIRES

SUBTRADE	ESTIMATED # OF NEW HIRES

Signed under penalties of perjury. _____

Bidder's Name _____

CITY OF CAMBRIDGE

CHAPTER 90 CONTRACT 14

June 6, 2011

Questions:

- We need to get clarification for items 509.00 and 170.00 on the bid form. The quantity for item 509.00 is 1,3155 and for item 170.00 is 15,2400. What is the correct quantity?
- Please clarify ITEM # 170.00 fine grading and ITEM # 509 granite trans curb. The items are not define correctly in the book

Answer:

Correct Quantities

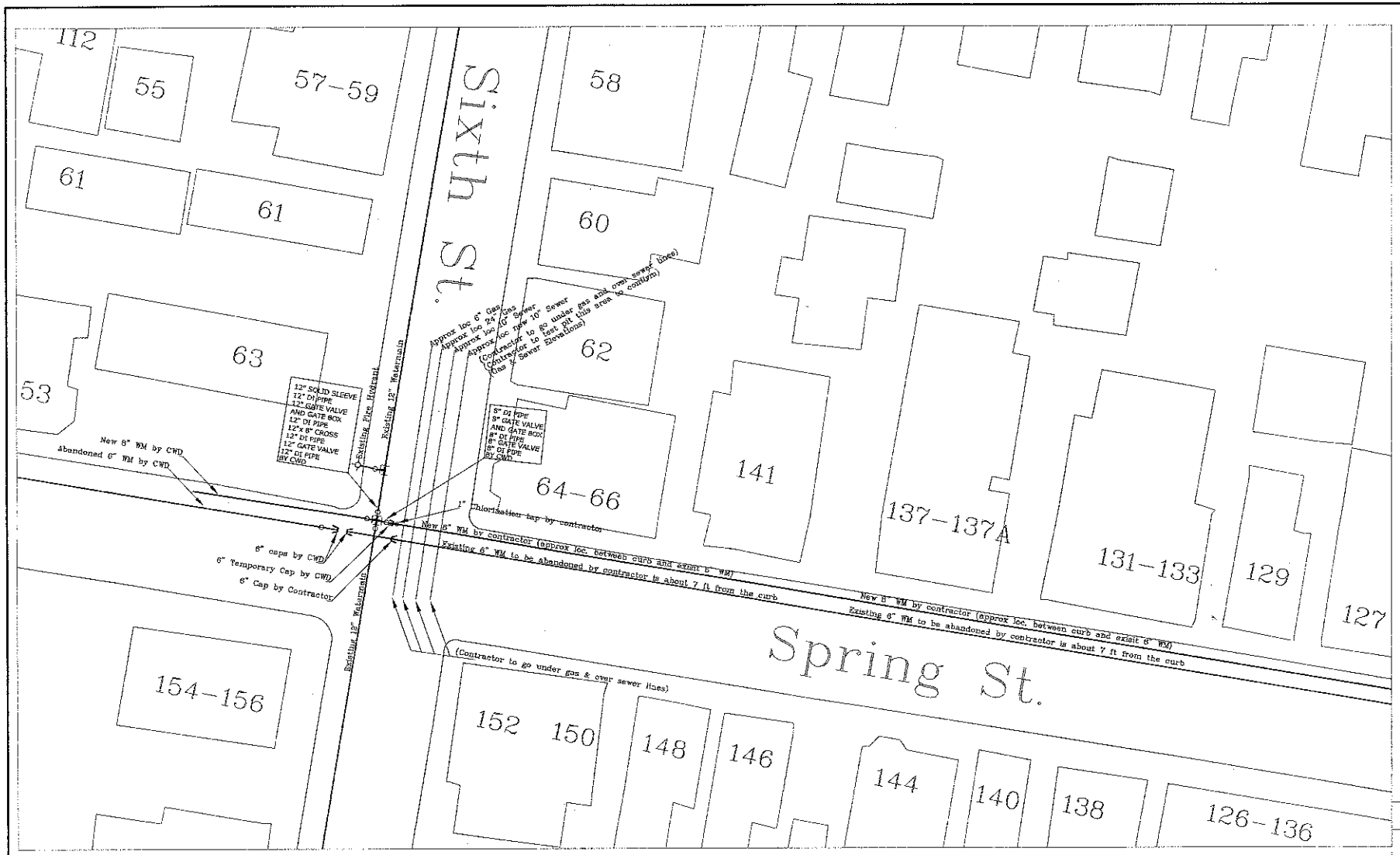
ITEM 170	**FINE GRADING AND COMPACTING (SUBGARDE AREAS)**	**QUATITY**	**2,100 SY**
ITEM 509	**GRANITE TRANSITIONCURB FOR WHEELCHAIR RAMPS-CURVED**	**QUATITY**	**1,155 FT**

Questions:

- We have another question regarding item 706.7. There are no specifications for this item. Will you be issuing them and if not what is the intent of this item.

Answer:

See Page 00900-062



THIS DRAWING IS ONLY INTENDED FOR WATER MAINS CONSTRUCTION AND IT SHOULD NOT BE USED FOR OTHER PURPOSES.

NO.	DATE	BY	CHK'D	REVISION
4				FOURTH SUBMITTAL
3				THIRD SUBMITTAL
2				SECOND SUBMITTAL
1				FIRST SUBMITTAL

DATE: SEPTEMBER 03

SCALE: AS NOTED

DESIGNED BY:

DRAWN BY: Jeremiah B. F.

CHECKED BY:

APPROVED BY:

CAMBRIDGE
WATER DEPARTMENT

FY- 11 8" NEW WATER MAINS

SITE PLAN
FOR ABOVE STREETS

FPL NO:

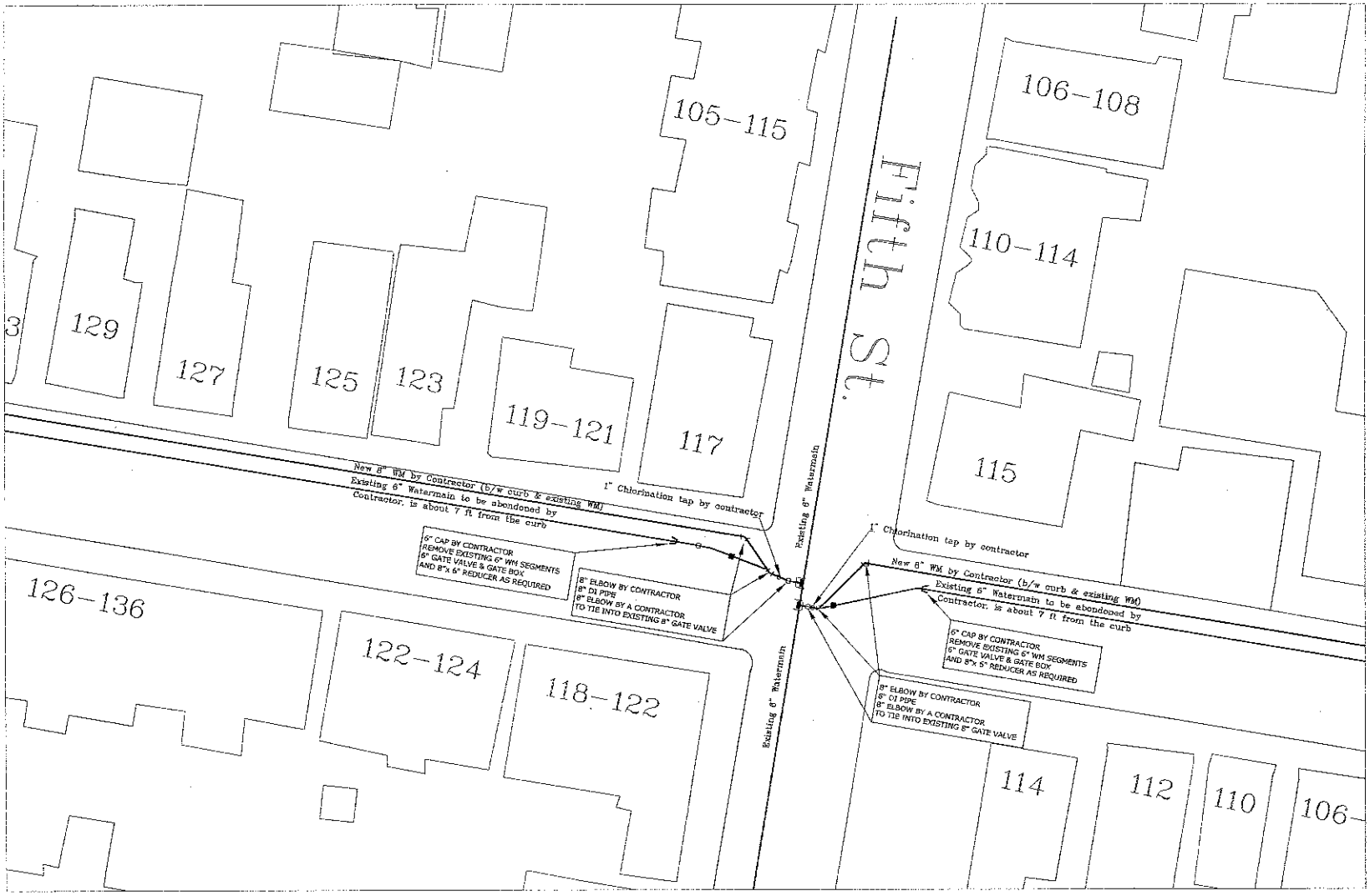
SITE BOARD NO: 6/2005 DEPARTMENT MAINS CIP

PREPARED BY:
MAINTENANCE ENGINEERING & DISTRIBUTION
CAMBRIDGE WATER DEPARTMENT

SHEET NO: 1

SHEET: 1

OF: 4



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NO.	DATE	BY	CHK'D	REVISION
4		IEL		FOURTH SUBMITTAL
3		IEL		THIRD SUBMITTAL
2		IEL		SECOND SUBMITTAL
1		IEL		FIRST SUBMITTAL

DATE: MAY 2011

SCALE: AS NOTED

DESIGNED BY:

DRAWN BY: Innocent E. K.

CHECKED BY:

APPROVED BY:

CAMBRIDGE
WATER DEPARTMENT

FY- 11 8" NEW WATER MAINS

SPRING ST FROM SIXTH TO THIRD

SITE PLAN
FOR ABOVE STREETS

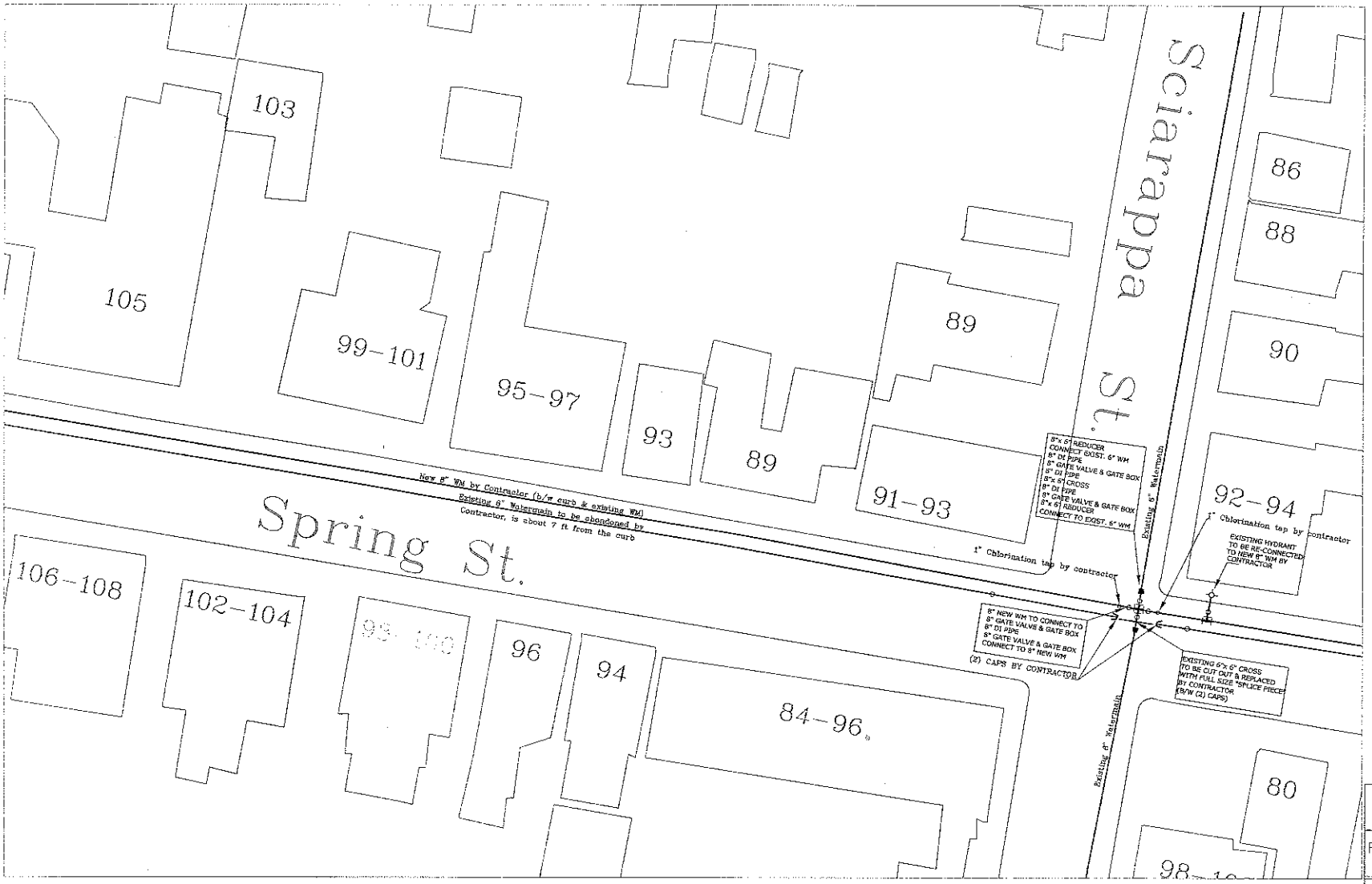
PIPE NO:

DETAIL RECORD NO: REFER DISTRIBUTION MAPS, GIS

PREPARED BY :
MAINTENANCE ENGINEERING & DISTRIBUTION
CAMBRIDGE WATER DEPARTMENT

SHEET NO. 2

SHEET: 2 OF: 4



THIS DRAWING IS ONLY INTENDED FOR WATER MAINS CONSTRUCTION AND IT SHOULD NOT BE USED FOR OTHER PURPOSES.

NO.	DATE	BY	CHK'D	REVISION
4		RA		FOURTH SUBMITTAL
3		RA		THIRD SUBMITTAL
2		RA		SECOND SUBMITTAL
1		RA		FIRST SUBMITTAL

DATE: MAY 2011

SCALE: AS NOTED

DESIGNED BY:
DRAWN BY: Emmanuel B. Y.
CHECKED BY:
APPROVED BY:

CAMBRIDGE
WATER DEPARTMENT

FY– 11 8" NEW WATER MAINS

SPRING ST FROM SIXTH TO THIRD

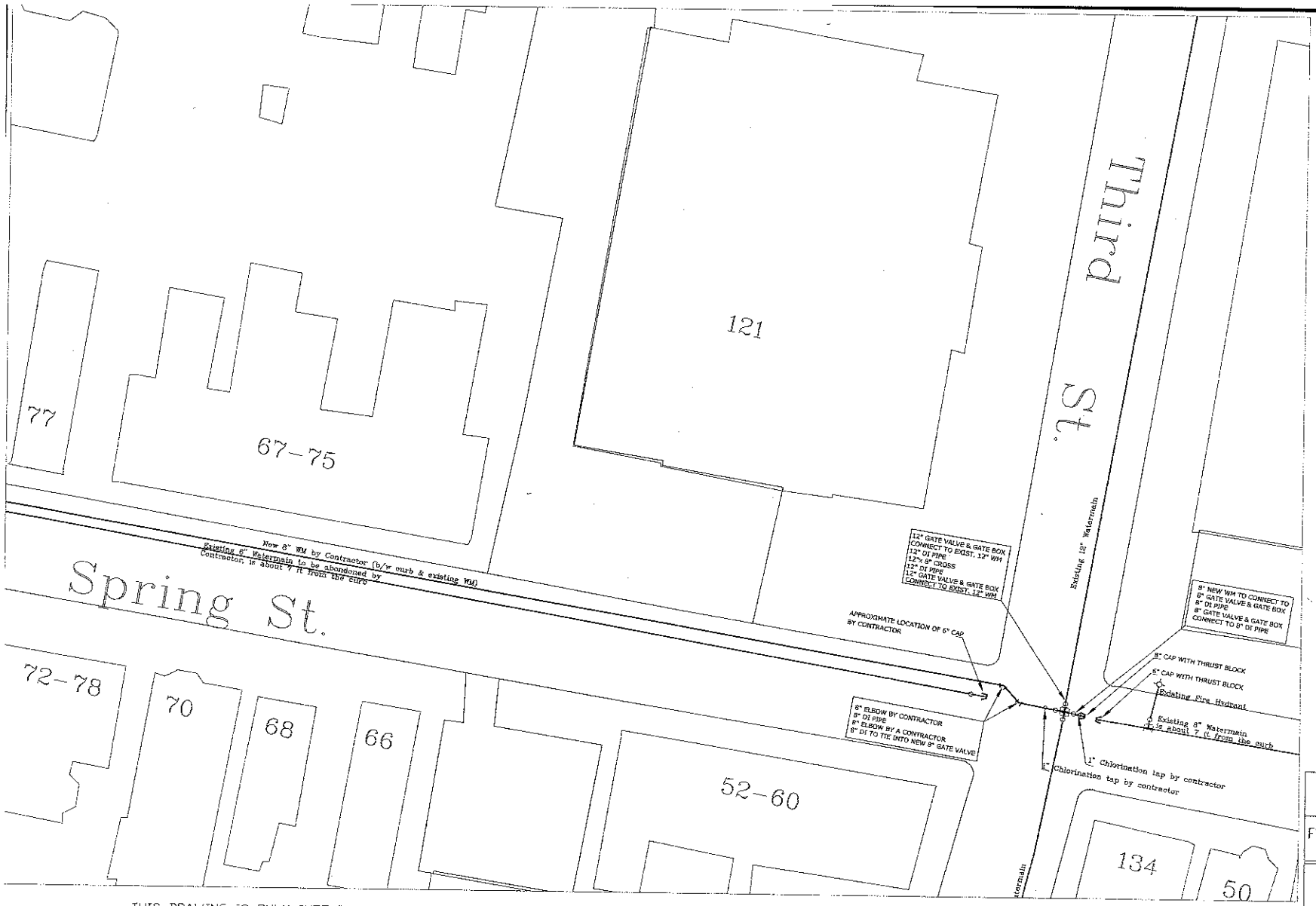
SITE PLAN
FOR ABOVE STREETS

PIPE NO:
DETAIL RECORD NO:REFER DISTRIBUTION MAPS, CIS

SHEET NO. 3

SHEET: 3
OF: 4

PREPARED BY:
MAINTENANCE ENGINEERING
AND DISTRIBUTION
CAMBRIDGE WATER DEPARTMENT



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NO.	DATE	BY	CHK'D	REVISION
4				FOURTH SUBMITTAL
3				THIRD SUBMITTAL
2				SECOND SUBMITTAL
1				FIRST SUBMITTAL

DATE: MAY 2011
SCALE: AS NOTED

DESIGNED BY:
DRAWN BY: Lawrence B. L.
CHECKED BY:
APPROVED BY:

CAMBRIDGE
WATER DEPARTMENT

FY- 11 8" NEW WATER MAINS

SPRING ST FROM SIXTH TO THIRD

SITE PLAN
FOR ABOVE STREETS

PIPE NO:
DETAIL RECORD NO:REFER DISTRIBUTION MAPS. GIS

SHEET NO. 4
SHEET: 4
OF: 4

PREPARED BY :
MAINTENANCE ENGINEERING
AND DISTRIBUTION
CAMBRIDGE WATER DEPARTMENT